



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**THE TENTH MEETING OF THE
MIDANPIRG ATM/SAR/AIS SUB-GROUP
(ATM/SAR/AIS SG/10)**

**REPORT OF THE TENTH
ATM/SAR/AIS SUB-GROUP**

(Cairo, 03 – 06 November 2008)

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

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

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

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PART I: HISTORY OF THE MEETING

ATM/SAR/AIS SG/10
History of the Meeting

PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Tenth Meeting of the MIDANPIRG ATM/SAR/AIS Sub-Group (ATM/SAR/AIS SG/10) was held at the ICAO MID Regional Office in Cairo, Egypt from 03 to 06 November 2008.

2. OPENING

2.1 The Meeting was opened by Mr. Mohamed R. M. Khonji, ICAO Regional Director, Middle East Office. In his opening remarks, Mr. Khonji welcomed all delegates to Cairo and to the meeting. He expressed appreciation on the efforts taken by the States, Organizations and the delegates to participate in the meeting.

2.2 Mr. Khonji urged the participants to recall that, while the Secretariat will always facilitate the meetings with necessary working papers and documentation, it is important not to overlook the fact that the meetings organized by the MID Regional Office are for States and concerned international organizations. As such, the States and international organizations were expected to make contributions to the proceedings of the meeting in the form of working papers and such other material. He thanked those who had contributed with working/information papers and encouraged all the members of the Sub-Group to do the same.

2.3 Among others, Mr. Khonji highlighted that air operators are under significant operational pressure due to the high cost of fuel, and increasing concerns on the environmental impact of air transport operations. He indicated that ICAO is taking necessary efforts to address this situation and highlighted the role of the Sub-Group and the States in this regard. He invited the participants' attention to several developments in the fields of ATM and AIS which required decisive action by the Sub-Group.

2.4 Finally, Mr. Khonji reminded the delegates about their role in the meeting, as ATM, SAR and AIS experts. To this end, he urged the participants to work in the interest of the Region. Mr. Khonji wished the meeting fruitful deliberations.

3. ATTENDANCE

3.1 The meeting was attended by a total of thirty three (33) participants from nine (9) States (Afghanistan, Bahrain, Egypt, Iran, Jordan, Kuwait, Qatar, Saudi Arabia, Syria) and two (2) International Organizations (IATA and IFALPA). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Aon Abdullah Al-Garni, Head of ATM, General Authority of Civil Aviation (GACA), Saudi Arabia.

4.2 Mr. Seboeso Machobane, Regional Officer ATM/SAR and Mr. Mohamed Smaoui, Regional Officer AIS/MET were the Secretaries of the meeting.

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5. LANGUAGE

5.1 The discussions were conducted in the English language and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

- Agenda Item 1: Adoption of provisional agenda
- Agenda Item 2: Follow-up on MIDANPIRG/10 Conclusions and Decisions relevant to the ATM/SAR and AIS/MAP fields
- Agenda Item 3: Improvement of the MID ATS Route Network
- Agenda Item 4: RVSM operations and Monitoring activities in the MID Region
- Agenda Item 5: SSR Code Allocation Plan (CAP) for the MID Region
- Agenda Item 6: ATS Safety Management Systems
- Agenda Item 7: Contingency Plans
- Agenda Item 8: Search and Rescue (SAR) and Civil/Military Coordination
- Agenda Item 9: Performance Based Navigation (PBN)
- Agenda Item 10: AIS/MAP issues
- Agenda Item 11: Review of Air Navigation deficiencies in the ATM/SAR and AIS/MAP fields
- Agenda Item 12: MID Region strategy for the implementation of GPIs
- Agenda Item 13: Future Work Programme
- Agenda Item 14: Any other business.

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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

<i>DRAFT DECISION 10/1:</i>	<i>TERMS OF REFERENCE OF THE MID ATS ROUTE NETWORK TASK FORCE (ARN TF)</i>
<i>DRAFT CONCLUSION 10/2:</i>	<i>AMENDMENT AND EDITORIAL CHANGES TO THE REGIONAL ATS ROUTE NETWORK</i>
<i>DRAFT CONCLUSION 10/3:</i>	<i>MID ATS ROUTE CATALOGUE</i>
<i>DRAFT CONCLUSION 10/4:</i>	<i>CHARTING TOOLS TO SUPPORT ATS ROUTE DEVELOPMENT</i>
<i>DRAFT CONCLUSION 10/5:</i>	<i>AIR TRAFFIC FLOW MANAGEMENT SEMINAR (ATFM) SEMINAR</i>
<i>DRAFT CONCLUSION 10/6:</i>	<i>MEMBERSHIP OF THE MID RMA</i>
<i>DRAFT CONCLUSION 10/7:</i>	<i>PAYMENT OF ARREARS TO THE MID RMA</i>
<i>DRAFT CONCLUSION 10/8:</i>	<i>RADAR DATA RECORDING AND ANALYSIS SOFTWARE</i>
<i>DRAFT CONCLUSION 10/9:</i>	<i>ICAO PROVISIONS RELATED TO THE MANDATORY REPORTING OF DATA TO THE RMAs</i>
<i>DRAFT CONCLUSION 10/10:</i>	<i>SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION</i>
<i>DRAFT CONCLUSION 10/11:</i>	<i>MID RVSM SAFETY OBJECTIVES</i>
<i>DRAFT DECISION 10/12:</i>	<i>ESTABLISHMENT OF THE BAGHDAD FIR RVSM IMPLEMENTATION WORKING GROUP (BFRI WG)</i>
<i>DRAFT DECISION 10/13:</i>	<i>MID REGION SSR CODE ALLOCATION STUDY GROUP (SSRCASG)</i>

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<i>DRAFT CONCLUSION 10/14:</i>	<i>MEASURES TO ADDRESS NON-SYSTEM SSR CODE ASSIGNMENT PROBLEMS</i>
<i>DRAFT CONCLUSION 10/15:</i>	<i>ADOPTON OF THE ORIGINATING REGION CODE ASSIGNMENT METHOD (ORCAM) IN THE MID REGION</i>
<i>DRAFT CONCLUSION 10/16:</i>	<i>SSR CODES SHARING IN THE MID REGION</i>
<i>DRAFT CONCLUSION 10/17:</i>	<i>REDUCTION OF SSR CODE OCCUPANCY TIME</i>
<i>DRAFT CONCLUSION 10/18:</i>	<i>ATS SAFETY MANAGEMENT</i>
<i>DRAFT CONCLUSION 10/19:</i>	<i>DEVELOPMENT AND PROMULGATION OF CONTINGENCY PLANS</i>
<i>DRAFT CONCLUSION 10/20:</i>	<i>SEARCH AND RESCUE (SAR) AGREEMENTS</i>
<i>DRAFT CONCLUSION 10/21:</i>	<i>406 MHZ BEACONS</i>
<i>DRAFT DECISION 10/22:</i>	<i>SAR AD-HOC WORKING GROUP (SAR AWG)</i>
<i>DRAFT CONCLUSION 10/23:</i>	<i>CIVIL/MILITARY COORDINATION</i>
<i>DRAFT CONCLUSION 10/24:</i>	<i>COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS</i>
<i>DRAFT CONCLUSION 10/25:</i>	<i>UNCOORDINATED FLIGHTS OVER THE RED SEA AREA</i>
<i>DRAFT DECISION 10/26:</i>	<i>DISSOLUTION OF THE RVSM/PBN AND GNSS TASK FORCES AND ESTABLISHMENT OF THE PBN/GNSS TASK FORCE</i>
<i>DRAFT CONCLUSION 10/27 :</i>	<i>PBN IMPLEMENTATION SUPPORT</i>
<i>DRAFT CONCLUSION 10/28:</i>	<i>MID REGION PBN IMPLEMENTATION STRATEGY AND PLAN</i>
<i>DRAFT CONCLUSION 10/29:</i>	<i>PBN STATE IMPLEMENTATION PLAN</i>
<i>DRAFT CONCLUSION 10/30:</i>	<i>MID REGION PBN IMPLEMENTATION PERFORMANCE OBJECTIVES</i>
<i>DRAFT CONCLUSION 10/31:</i>	<i>USE OF THE PUBLIC INTERNET FOR THE ADVANCE PUBLICATION OF AERONAUTICAL INFORMATION</i>
<i>DRAFT CONCLUSION 10/32:</i>	<i>IMPROVEMENT OF THE ADHERENCE TO THE AIRAC SYSTEM</i>

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<i>DRAFT CONCLUSION 10/33:</i>	<i>ANNEX 15 PROVISIONS RELATED TO AIRAC</i>
<i>DRAFT CONCLUSION 10/34:</i>	<i>IMPLEMENTATION OF QMS WITHIN MID STATES' AISs</i>
<i>DRAFT CONCLUSION 10/35:</i>	<i>LICENSING OF THE AIS/MAP PERSONNEL</i>
<i>DRAFT CONCLUSION 10/36:</i>	<i>ELECTRONIC AIP (eAIP)</i>
<i>DRAFT CONCLUSION 10/37:</i>	<i>EXTENSION OF THE EAD TO THE EMAC STATES</i>
<i>DRAFT DECISION 10/38:</i>	<i>ESTABLISHMENT OF AN AIS AUTOMATION ACTION GROUP</i>
<i>DRAFT CONCLUSION 10/39:</i>	<i>SURVEY ON THE IMPLEMENTATION OF eTOD IN THE MID REGION</i>
<i>DRAFT CONCLUSION 10/40:</i>	<i>MID REGION eTOD IMPLEMENTATION STRATEGY</i>
<i>DRAFT CONCLUSION 10/41:</i>	<i>DRAFT FASID TABLE RELATED TO eTOD</i>
<i>DRAFT DECISION 10/42:</i>	<i>TERMS OF REFERENCE OF THE eTOD WORKING GROUP</i>
<i>DRAFT CONCLUSION 10/43:</i>	<i>PRE-REQUISITES FOR THE TRANSITION TO AIM</i>
<i>DRAFT DECISION 10/44:</i>	<i>PLANNING FOR THE TRANSITION FROM AIS TO AIM</i>
<i>DRAFT CONCLUSION 10/45:</i>	<i>HARMONIZATION OF THE PUBLICATION OF LATITUDE AND LONGITUDE COORDINATES</i>
<i>DRAFT DECISION 10/46:</i>	<i>TERMS OF REFERENCE OF THE AIS/MAP TASK FORCE</i>
<i>DRAFT CONCLUSION 10/47:</i>	<i>REGIONAL PERFORMANCE FRAMEWORK</i>
<i>DRAFT CONCLUSION 10/48:</i>	<i>NATIONAL PERFORMANCE FRAMEWORK</i>
<i>DRAFT DECISION 10/49:</i>	<i>REVISED TOR OF THE ATM/SAR/AIS SUB-GROUP</i>

PART II: REPORT ON AGENDA ITEMS

ATM/SAR/AIS SG/10
Report on Agenda Item 1

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF PROVISIONAL AGENDA

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

ATM/SAR/AIS SG/10
Report on Agenda Item 2

**REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/10 CONCLUSIONS AND DECISIONS
RELEVANT TO THE ATM/SAR AND AIS/MAP FIELDS**

2.1 The meeting recalled that based on a recommendation from the MMS/3 meeting held in Jeddah, 4-6 September 2006, MIDANPIRG/10 meeting agreed that each MIDANPIRG subsidiary body should review the MIDANPIRG Conclusions/Decisions related to its Terms of Reference (TOR) and decide whether to maintain, remove or replace such Conclusions/Decisions with more up-to-date ones.

2.2 The meeting recalled that the MSG/1 meeting held in Dubai, UAE, 1-3 July 2008 agreed that those MIDANPIRG/10 Conclusions/Decisions which were considered current by the appropriate MIDANPIRG subsidiary body should be presented to MIDANPIRG/11 for endorsement as a MIDANPIRG/11 Conclusions/Decisions (with new numbers i.e. Conclusion 11/XX). However, the meeting agreed that, in accordance with the ICAO Business plan and the requirements for performance monitoring, the MIDANPIRG Conclusions/Decisions and associated follow-up action plan should be formulated with clear tasks, specific deliverables and defined target dates. The meeting was also of view that those Conclusions/Decisions which are of general nature and whose status of implementation would be “Ongoing” for many years are more suitable for inclusion in the ANP, Handbooks, Manuals, Guidelines, etc, as appropriate.

2.3 Based on the above, the meeting noted the status of relevant MIDANPIRG/10 Conclusions and Decisions related to the ATM/SAR and AIS/MAP fields and the follow up actions taken by States, the secretariat and other parties concerned as at **Appendix 2A** to the Report on Agenda Item 2. The meeting agreed also to review these Conclusions and Decisions along with the outcome of the ATM/SAR/AIS SG/9 meeting and other subsidiary bodies under the appropriate Agenda Items, with a view to present a consolidated list of Draft Conclusions and Decisions to MIDANPIRG/11.

ATM/SAR/AIS SG/10
Appendix 2A to the Report on Agenda Item 2

FOLLOW-UP ACTION ON RELEVANT MIDANPIRG/10 AND CURRENT MID RMA BOARD CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/7: MID BASIC ANP AND FASID (DOC 9708)</p> <p>That, with a view to have the final version of the MID BASIC ANP and FASID (Doc 9708) published prior to 31 December 2007:</p> <p>a) the ICAO MID Regional Office, on behalf of MIDANPIRG, initiate all necessary Amendment Proposals to the MID Basic ANP and FASID, prior to 31 May 2007, in order to update the AIS, AOP, ATM, CNS and MET regional requirements and reflect the changes made to the FASID Tables; and</p> <p>b) ICAO allocate sufficient resources and higher priority for the publication of Doc 9708 in English and Arabic versions, incorporating all approved Amendments.</p>	<p>Process Amendments Proposals to the MID Basic ANP and FASID</p> <p>Finalize and publish the approved version of Doc 9708</p>	ICAO	<p>Amendment Proposal issued</p> <p>Amendment Proposal approved and incorporated in the final version of Doc 9708</p>	<p>Jun. 2007</p> <p>Dec. 2007</p>	<p>Completed</p> <p>TBD</p>
<p>CONC. 10/13: MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIS)</p> <p>That, the MID Region Strategy for the implementation of the Global Plan Initiatives (GPIS) be adopted as at Appendix 5.1C to the Report on Agenda Item 5.1.</p>	Implementation of Strategy	ICAO States MIDANPIRG Subsidiary bodies	Feedback from States National Plans Status of implementation of GPIS	Jun 2008	Ongoing

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/14: IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES</p> <p>That, in support of the evolution from a systems-based approach to a performance-based approach to planning and implementation of air navigation, the following projects are to be reflected in the MID Region implementation plan:</p> <ul style="list-style-type: none"> a) Improvement of the MID ATS route structure (FUA, dynamic and flexible ATS route management, improved Civil/Military coordination, etc); b) enhancement of MID States' TMA management; c) MID RMA operations continuity; d) support of the introduction and implementation of SMS in the MID States; e) development of MID States' contingency plans; f) improvement of the quality and efficiency of aeronautical information services provided by MID States; g) provision of eTOD by MID States; h) establishment of Initial FPL Processing System (IFPS) in the MID Region; i) implementation of ATN in the MID Region; j) improvement of communication infrastructure; k) implementation of GNSS; l) implementation of Certification of aerodromes and SMS at aerodromes in the MID Region; m) preparedness to accommodate NLAs at some existing/new aerodromes in the MID Region; n) support the establishment and implementation of Runway surface pavement maintenance programme in the MID Region; 	<p>Follow up progress on each project</p>	<p>ICAO States MIDANPIRG Subsidiary bodies AOP SG to follow implementation of action plans.</p>	<p>Feed back on each project</p> <p>For each AOP project indicated under bullets : I, N,O&P</p> <ul style="list-style-type: none"> a) Report status of implementation. b) Detailed Action plan for project implementation, c) Advise if ICAO assistance is needed 	<p>2nd half of 2009</p>	<p>Ongoing</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>o) enhancement of Runway incursion prevention programme; and</p> <p>p) enhancement of surface movement guidance and control systems (SMGCS) at MID Aerodromes.</p>					
<p>DEC. 10/24: MID ATS ROUTE NETWORK</p> <p>That,</p> <p>a) the Secretariat initiates action, in accordance with established procedures, for the amendment of the MID Basic ANP Table ATS 1 to reflect the changes at Appendix 5.3A to the Report on Agenda Item 5.3; and</p> <p>b) the list of Future ATS Route requirements at Appendix 5.3B to the Report on Agenda Item 5.3, be used within the framework of the ATM/SAR/AIS Sub Group for future improvements of the MID ATS route network.</p>	<p>Update the MID Basic ANP</p> <p>Radical review of the MID ATS route network</p>	<p>ICAO MID Office</p> <p></p>	<p>MID Basic ANP Amendment Proposal</p> <p>Revised/enhanced MID ATS route network</p>	<p>June 2007</p> <p>Dec 2007</p>	<p>Completed.</p>
<p>CONC. 10/ 25: CIVIL/MILITARY COORDINATION</p> <p>That, with a view to ensure effective/optimum civil/military co-ordination and joint use of airspace with a maximum degree of safety, regularity and efficiency of international civil air traffic, States which have not yet done so, are urged to:</p> <p>a) Implement Assembly Resolution A35-14 Appendix P and the provision of Annexes 2, 11 and 15 as well as LIM MID (COM/MET/RAC) RAN Meeting 1996, Recommendations 2/9, 2/10 and 2/13;</p> <p>b) give due consideration to the urgent establishment of civil/military coordination bodies for airspace management and air traffic control;</p> <p>c) arrange for Letters of Agreement (LOAs) to be signed between ATS authorities and Military authorities in order to establish coordination procedures for the exchange of information; and</p>	<p>Implement the Conclusion</p> <p>Conduct Seminar</p>	<p>States</p> <p>ICAO</p>	<p>State Letter</p> <p>Civil/Military coordination Seminar Input from States</p>	<p>Jul 2007</p> <p>Oct 2008</p> <p>TBD</p>	<p>SL AN 6/27 – 240 dated 15 July 2007.</p> <p>Seminar held May 2008</p> <p>Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>d) ensure that the Military authorities are:</p> <ul style="list-style-type: none"> i. fully involved in the airspace planning and management process; ii. aware of the new developments in civil aviation; and iii involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate. 					
<p>CONC. 10/26: COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS</p> <p>That, taking into consideration that the Convention on International Civil Aviation shall be applicable only to civil aircraft:</p> <ul style="list-style-type: none"> a) All parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable; b) State aircraft operating in airspace over high seas, should: <ul style="list-style-type: none"> i. adhere, to the extent practicable, to ICAO provisions; or ii. operate with “Due Regard” for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures. c) States report any incident relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.3C to the Report on Agenda Item 5.3. 	<p>Implement Conclusion Conduct seminar</p>	<p>States ICAO MID Regional Office IATA</p>	<p>State letter Civil/ Military coordination seminar Input from States</p>	<p>July 2007 Oct 2008 Ongoing</p>	<p>Completed input (ongoing) Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/27: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA</p> <p>That,</p> <p>a) the procedures at Appendix 5.3D to the Report on Agenda Item 5.3 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area;</p> <p>b) States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures;</p> <p>c) IATA continue its effort in ensuring that concerned operators are fully conversant with these procedures;</p> <p>d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users be informed of and comply with the agreed procedures; and</p> <p>States:</p> <p>i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and</p> <p>ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.3C to the Report on Agenda Item 5.3.</p>	<p>Implement Conclusion</p> <p>Conduct seminar</p>	<p>States</p> <p>ICAO MID Regional Office</p> <p>IATA</p>	<p>State letter</p> <p>Civil/ Military coordination seminar</p> <p>Input from States</p>	<p>July 2007</p> <p>Oct 2008</p> <p>TBD</p>	<p>Completed</p> <p>Completed</p> <p>Ongoing</p> <p>Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/28: INITIAL SET UP AND ADMINISTRATIVE MANAGEMENT OF THE MID RMA</p> <p>That,</p> <p>a) Bahrain pays for the initial set up of the MID RMA without waiting for MID States contributions and the cost is recovered through the agreed funding mechanism, in coordination with the ICAO Technical Cooperation Bureau; and</p> <p>b) Bahrain is responsible for the administrative management of the MID RMA.</p>	<p>Follow up with Bahrain and the MID RMA</p>	<p>MID RMA Board and ICAO</p>	<p>MID RMA Board meeting reports</p>	<p>Ongoing</p>	<p>Completed</p>
<p>DEC. 10/29: ESTABLISHMENT OF THE MID RMA BOARD</p> <p>That,</p> <p>a) a MID RMA Board is established with Terms of Reference (TOR) as at Appendix 5.3J to the report on agenda item 5.3; and</p> <p>b) the MID RMA Board is to be composed of a focal point nominated by each Member State.</p>	<p>Follow up the MID RMA Board activities and work programme</p>	<p>ICAO States</p>	<p>MID RMA Board meeting reports</p>	<p>Ongoing</p>	<p>Completed</p>
<p>CONC. 10/30: MEMBERSHIP OF THE MID RMA</p> <p>That,</p> <p>a) Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria and Yemen committed themselves to participate in the MID RMA project; and</p> <p>b) taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, UAE is:</p> <p>i. invited to join the MID RMA Project; and</p> <p>ii. is to be exempted from the payment of contributions for the first ten (10) years of operation of the MID RMA.</p>	<p>Follow up with UAE to join the MID RMA</p>	<p>MID RMA Board and ICAO</p>	<p>UAE joins the MID RMA</p>	<p>TBD</p>	<p>Completed UAE joined Officially the MID RMA and signed the MOA This Conclusion will be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/6</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/31: EUROCONTROL SUPPORT TO THE MID RMA</p> <p>That,</p> <p>a) the Eurocontrol support for the set up and operation of the MID RMA is appreciated; and</p> <p>b) the good cooperation between the MID RMA and Eurocontrol be continued</p>	<p>Continue the good cooperation with Eurocontrol</p>	<p>MID RMA and Eurocontrol</p>	<p>Good cooperation continued</p>	<p>Ongoing</p>	<p>Completed</p>
<p>CONC. 10/32: MID RMA PROJECT</p> <p>That,</p> <p>a) the MOA at Appendix 5.3G to the Report on Agenda Item 5.3 constitute the legal document related to the establishment, funding and management of the MID RMA; and</p> <p>b) the Custodian Agreement between ICAO, the MID RMA Board and Bahrain at Appendix 5.3H to the Report on Agenda Item 5.3, signed by the ICAO Secretary General, the Under Secretary for Civil Aviation Affairs of Bahrain and the MID RMA Board Chairman on behalf of the MID RMA participating States, represents the legal document which describes the support functions provided by ICAO in the MID RMA project.</p>	<p>Follow up the implementation of the clauses of the MOA and Custodian Agreement</p>	<p>MID RMA Board and ICAO</p>	<p>MID RMA Board meeting reports</p>	<p>Ongoing</p>	<p>Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/33: FUNDING MECHANISM OF THE MID RMA</p> <p>That,</p> <ul style="list-style-type: none"> a) the activities of the MID RMA be ensured through contributions from all MID RMA 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) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay 15% each of the yearly operating budget of the MID RMA; c) Jordan, Kuwait, Lebanon, Syria and Yemen pay 5% each of the yearly operating budget of the MID RMA; d) the budget estimate for the MID RMA operation for each year be prepared/approved by the MID RMA Board before 30 April; e) the MID RMA participating States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO; f) the MID RMA Board Chairman, in compliance with the Custodian Agreement and based on the agreed funding mechanism and the estimation of the yearly operating budget of the MID RMA, be delegated the authority to certify on behalf of the MID RMA Participating States the requests for advance payment to the MID RMA on 1 December of each year; g) the bills related to the MID RMA expenses be certified by the MID RMA Board chairman and reviewed by the MID RMA Board at each of its meetings; h) in case the contributions for one year exceed the yearly cost for the operation and management of the MID RMA, the difference be deducted from the contributions of the next year(s); and i) the MID RMA funding mechanism be revised by the MID RMA Board when necessary. 	<p>Follow up the implementation of the Funding mechanism</p>	<p>MID RMA Board and ICAO</p>	<p>Funding mechanism implemented</p>	<p>Ongoing</p>	<p>Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/34: MID RMA PROJECT ACTION PLAN/TIMELINES</p> <p>That,</p> <p>a) the MID RMA Project Action Plan/Timelines is updated by the MID RMA Board as at Appendix 5.3K to the Report on Agenda Item 5.3; and</p> <p>b) concerned parties take necessary measures to expedite the implementation of the required actions on a timely manner.</p>	<p>Follow up the implementation of the Action Plan</p>	<p>MID RMA Participating States</p> <p>MID RMA Board</p> <p>ICAO</p>	<p>Action Plan implemented in a timely manner</p>	<p>Ongoing</p>	<p>Completed</p>
<p>CONC. 10/35: REQUIREMENTS FOR PROVISION OF DATA TO THE MID RMA</p> <p>That, considering the Ongoing requirement for RVSM safety assessment in the MID Region:</p> <p>a) States not providing the required data to the MID RMA, in accordance with the requirements of safety monitoring agencies, be included in the MIDANPIRG List of air navigation deficiencies;</p> <p>b) the MID RMA ensure that the requests for provision of data are extended to MID States' RVSM Programme Managers and their Alternates in order to carry out the necessary internal coordination and speed up the process of collection of data; and</p> <p>c) States ensure that good communication and cooperation between the RVSM Programme Managers and the MID RMA Board Members is established and observed.</p>	<p>Follow up the implementation of the Conclusion</p>	<p>MID RMA States</p> <p>ICAO</p>	<p>Data provided to the MID RMA as required</p>	<p>Ongoing</p>	<p>Ongoing To be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/10</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/36: SPECIAL BAGHDAD FIR COORDINATION MEETING</p> <p>That, with a view to address coordination issues between Iraq and its adjacent States, a Special Baghdad FIR Coordination Meeting be organized under the aegis of ICAO with the attendance of Bahrain, Iraq, Iran, Jordan, Kuwait, Saudi Arabia, Syria, Turkey, IATA, IFALPA, FAA, the Combined Forces Air Component Commander (CFACC) and the MID RMA.</p>	<p>Conduct the meeting</p>	<p>ICAO Iraq and adjacent States</p>	<p>Report of the meeting</p>	<p>2nd Q 2008</p>	<p>Completed</p>
<p>CONC. 10/37: FLEXIBLE HANDLING OF TRAFFIC INTENDING TO USE THE RVSM AIRSPACE</p> <p>That, in accordance with the provisions of the ATC Manual for a Reduced Vertical Separation Minimum (RVSM) in the MID Region, and with a view to enhance the safety and efficiency of air navigation in the MID Region:</p> <p>a) States are urged to refrain from taking actions unilaterally to systematically penalize the flights intending to use the RVSM airspace when:</p> <ul style="list-style-type: none"> i) there's a doubt about the aircraft's RVSM approval status (missing of letter "W" from the FPL); or ii) the FPL was not received; and <p>b) States are invited to show more flexibility in dealing with this issue.</p>	<p>Follow-up with concerned States</p>	<p>States IATA</p>	<p>Reports from IATA Input from States</p>	<p>Dec.2007</p>	<p>Some progress noted (Saudi Arabia and UAE); No reports received from IATA.</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/38: MID RVSM OPERATIONS SAFETY ASSESSMENT</p> <p>That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives:</p> <ul style="list-style-type: none"> a) Safety Objective 1: that the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5×10^{-9} fatal accidents per flight hour; b) Safety Objective 2: that the overall vertical-collision risk – i.e. the overall risk of mid-air collision in the vertical dimension in MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour; c) Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and d) Safety Objective 4: propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will <u>not adversely affect the risk of en-route mid-air collision over the years.</u> 	<p>Follow up the implementation of the 4 safety objectives</p>	<p>MID RMA Eurocontrol MIDANPIRG</p>	<p>SMR 2007-2008</p>	<p>Sep 2008</p>	<p>Completed To be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/11</p>
<p>CONC. 10/39: STATUS OF MID RVSM SAFETY OBJECTIVES</p> <p>That, the RVSM operations within the airspace of the MID RMA Member States:</p> <ul style="list-style-type: none"> a) Met safety objectives #1, #3 and #4; and b) had not been possible to assess against safety objective #2. 	<p>Finalize the SMR 2006</p>	<p>MID RMA States ICAO</p>	<p>SMR 2006 finalized and sent to States</p>	<p>June 2007</p>	<p>Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/40: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION</p> <p>That, considering the Ongoing requirement for RVSM safety assessment in the MID Region:</p> <p>a) The MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);</p> <p>b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;</p> <p>c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:</p> <p>i) approval of operators and aircraft for RVSM operations (monthly);</p> <p>ii) altitude deviations of 300 ft or more (monthly);</p> <p>iii) ATC/ATC coordination failures (monthly); and</p> <p>iv) traffic data (as requested by the MID RMA);</p> <p>d) the MID RMA coordinate with Bahrain, Oman, Saudi Arabia, Syria and Yemen for the recording and analysis of radar data, as and when required.</p>	<p>Follow up the implementation of the Conclusion</p>	<p>MID RMA States ICAO</p>	<p>Data provided to the MID RMA as required</p>	<p>Ongoing</p>	<p>Ongoing To be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/10</p>
<p>CONC. 10/41: MID RVSM SAFETY MONITORING REPORT FOR 2007-2008</p> <p>That,</p> <p>a) the MID RVSM Safety Monitoring Report (SMR) for 2007-2008 be ready before 1 September 2008; and</p> <p>b) the FPL/traffic data for the month of November 2007 be used for the development of the SMR 2007-2008.</p>	<p>Provide requested data to the MID RMA Develop the SMR 2007-2008</p>	<p>MID RMA States</p>	<p>Data provided as requested SMR 2007-2008 developed</p>	<p>Ongoing Sep 2008</p>	<p>Replaced and superseded by MID RMA Board/5 Draft Conclusion 5/4 Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/42: ESTABLISHMENT OF THE RVSM/PBN TASK FORCE</p> <p>That, a) the RVSM and RNP/RNAV Task Forces are merged; and b) the TOR of the new established RVSM/PBN Task Force are at Appendix 5.3L to the Report on Agenda Item 5.3.</p>	<p>Conduct the RVSM/PBN TF/1 meeting</p>	<p>ICAO</p>	<p>Report of RVSM/PBN TF/1</p>	<p>Dec.2007</p>	<p>To be superseded by MSG/1 Draft Concl. 1/5 for PBN/GNSS TF. (as updated by PBN/GNSS TF/1)</p>
<p>DEC. 10/43: MID REGION PBN STRATEGY</p> <p>That, the RVSM /PBN Task Force: a) follow up the developments related to Performance Based Navigation (PBN); and b) develop a MID Region strategy to implement the PBN concept.</p>	<p>Conduct a PBN Seminar and the RVSM/PBN TF/1 meeting</p>	<p>ICAO RVSM/PBN TF</p>	<p>Seminar Report of the meeting MID Region PBN Strategy</p>	<p>Nov. 2007 Dec. 2007 Dec. 2007</p>	<p>Completed. Completed Completed, (Draft Strategy and Plan to be considered by ATM/SAR/AIS SG/10 and MIDANPIRG/11)</p>
<p>DEC. 10/44: ESTABLISHMENT OF A MID REGION SSR CODE STUDY GROUP</p> <p>That, the MID Region SSR Code Study Group is established with the Terms of Reference as at Appendix 5.3M to the Report on Agenda Item 5.3.</p>	<p>Conduct the meeting(s)</p>	<p>ICAO</p>	<p>Report of the meeting(s) Guidance material</p>	<p>Dec. 2007</p>	<p>Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/45: DEVELOPMENT AND PROMULGATION OF CONTINGENCY PLANS</p> <p>That,</p> <p>a) States are urged to develop and promulgate contingency plans in accordance with Annex 11 and Annex 15 provisions;</p> <p>b) ICAO MID Office carry out a survey on the status of development and promulgation of contingency plans in the Region;</p> <p>c) States use the template at Appendix 5.3N to the Report on Agenda Item 5.3 for the development and promulgation of contingency plans; and</p> <p>d) the relevant subsidiary bodies of MIDANPIRG revise their Terms of Reference (TOR) to include the development of regional guidance material leading to a MID Regional Contingency Plan for ATM including supporting CNS elements</p>	<p>Carry out the survey and analyze the results</p>	<p>ICAO States</p>	<p>State Letter</p> <p>Survey replies</p> <p>Analysis of results</p>	<p>Jun. 2007</p> <p>Aug. 2007</p> <p>Dec. 2007</p>	<p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Conclusion to be updated for MIDANPIRG/11</p>
<p>CONC. 10/46: ICAO LANGUAGE PROFICIENCY</p> <p>That, with a view to expedite the process of implementation of the ICAO Language Proficiency requirements, States are urged to:</p> <p>a) ensure that all stakeholders (pilots, controllers, language teachers, regulator,s etc.) are familiar with the ICAO language proficiency requirements;</p> <p>b) adopt/incorporate the ICAO language proficiency requirements (Amendment 164 to Annex 1) into national legislation;</p> <p>c) establish a plan to coordinate administrative and training matters (testing, number of personnel to be trained, training centres, duration of training, etc.);</p>	<p>Follow-up with States Conduct a Seminar</p>	<p>ICAO States</p>	<p>State Letter</p> <p>Seminar</p> <p>Input from States</p>	<p>Jun. 2007</p> <p>Sep. 2007</p> <p>Mar. 2008</p>	<p>Completed</p> <p>Completed</p> <p>Ongoing (as per national plans)</p> <p>Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<ul style="list-style-type: none"> d) develop/select test(s) to meet ICAO language proficiency requirements; e) assess current language proficiency level of controllers and pilots, according to the ICAO rating scale; f) develop language training packages designed to reduce the gap between current language proficiency level and ICAO Level 4; g) develop language training package to maintain language proficiency and a schedule of language refresher training; h) review recruitment and selection procedures and consider a minimum of at least ICAO level 3 in language proficiency before entry to professional training programmes; and i) present reports to ICAO on progress achieved in preparing for implementation of ICAO language proficiency requirements, on regular basis. 					
<p>CONC. 10/47: USE OF THE ENGLISH LANGUAGE AND STANDARD ICAO PHRASEOLOGY</p> <p>That,</p> <ul style="list-style-type: none"> a) States are urged to ensure that their air traffic controllers and pilots use the standard ICAO phraseology in aeronautical communication; and b) in order to improve situational awareness and prevent the occurrence of ATS incidents and accidents, States are invited to implement measures that require or encourage air traffic controllers and pilots to: <ul style="list-style-type: none"> i. use as much as possible the English language in aeronautical communication; and ii. use only the English language in aeronautical communication, in all situations where at least one of the pilots in the environment (sector) does not speak the national language. 	<p>Follow-up with States Conduct a Seminar</p>	<p>ICAO States</p>	<p>State Letter Seminar Input from States</p>	<p>Jun. 2007 Sep. 2007 Mar. 2008</p>	<p>Completed Completed Completed Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/48: SEARCH AND RESCUE (SAR) AGREEMENTS</p> <p>That, with a view to strengthen search and rescue cooperation and coordination:</p> <p>a) States are urged to sign SAR agreements with their neighbouring States; and</p> <p>b) the model of SAR agreement available in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual) as at Appendix 5.3O to the Report on Agenda Item 5.3, be used to guide States in the development of their own SAR agreements.</p>	<ul style="list-style-type: none"> - Urge States to sign SAR agreements - Conduct Seminar 	<p>ICAO</p> <p>States</p>	<p>State Letter</p> <p>Seminar</p> <p>SAR agreements signed</p>	<p>Jun. 2007</p> <p>Oct. 2008</p> <p>Dec. 2008</p>	<p>Completed</p> <p>Completed</p> <p>Ongoing</p> <p>Conclusion to be updated for MIDANPIRG/11</p>
<p>CONC. 10/49: 406 MHZ BEACON REGISTRATION DATABASE (IBRD)</p> <p>That, MID States are:</p> <p>a) urged to require ELT owners and users of 121.5/243 Mhz ELTs to upgrade to 406 Mhz ELT as soon as possible and in any case before 1 February 2009;</p> <p>b) urged to require ELT owners to register their 406 Mhz ELTs in the IBRD database; and</p> <p>c) invited to designate an IBRD focal point and request Cospas-Sarsat to allocate the designated person a user identification and password in order to access the IBRD database and take advantage of the service available.</p>	<p>Follow up with States</p>	<p>ICAO</p> <p>States</p>	<p>State Letter</p> <p>Input from States on registration of 406 MHz ELTs in the IBRD database</p>	<p>Sep. 2007</p> <p>Dec. 2008</p>	<p>Completed</p> <p>Conclusion to be updated for MIDANPIRG/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/50: USE OF EMAIL TO ENHANCE COMMUNICATION BETWEEN THE AIS COMMUNITY IN THE MID REGION</p> <p>That, with a view to enhance the communication between the AIS Community in the MID Region:</p> <p>a) States, that have not yet done so, publish in their AIP (para. GEN 3.1.1) their AIS email address, as soon as possible; and</p> <p>b) ICAO consider the amendment of Annex 15 Appendix 1, para. GEN 3.1.1 to add such requirement.</p>	<p>Comply with the Conclusion</p>	<p>ICAO HQ States AIS/MAP TF</p>	<p>Appropriate provisions in Annex 15 Feed back from States and users</p>	<p>TBD TBD</p>	<p>Completed SL Ref. AN 8/4 – 354 dated 18 October 2007; Report of AIS/MAP TF/4 meeting.</p>
<p>CONC. 10/51: ADVANCE POSTING OF THE AIRAC INFORMATION ON THE WEB</p> <p>That, in order to improve the timeliness of aeronautical information, MID States are invited to arrange for the advance posting of AIRAC information on the web, before dissemination of the official hardcopies of the AIP Amendment/ Supplement.</p>	<p>Comply with the Conclusion</p>	<p>States AIS/MAP TF</p>	<p>Feed back from States and users</p>	<p>Feb. 2008</p>	<p>Proposed to be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/31</p>
<p>CONC. 10/52: ELECTRONIC AIP (eAIP)</p> <p>That,</p> <p>a) pending the development of Global eAIP provisions, MID States, that have not yet done so, publish their Integrated Aeronautical Information Package in PDF/HTML format on a CD-ROM, without discontinuing the provision of the information in hardcopy; and</p> <p>b) in order to prevent proliferation of eAIP formats, ICAO consider developing necessary specifications and clear provisions related to the eAIP content, structure, presentation and format.</p>	<p>Comply with the Conclusion</p>	<p>States ICAO HQ</p>	<p>States publish their eAIP. ICAO issue appropriate provisions in Annex 15 related to eAIP</p>	<p>Feb. 2008 TBD</p>	<p>Proposed to be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/36</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 10/53: LICENSING OF THE AIS/MAP PERSONNEL</p> <p>That, recognizing the importance of AIS and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skill of the AIS staff, ICAO consider the introduction of the licensing of the AIS/MAP personnel as a Recommended Practice in Annex 1.</p>	<p>Follow up with ICAO HQ</p>	<p>ICAO HQ</p>	<p>Appropriate provisions in Annex 1</p>	<p>TBD</p>	<p>Not supported by the ANC during the review of MIDANPIRG/10 report. Proposed to be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/35</p>
<p>CONC. 10/54: METHODOLOGY FOR THE IMPLEMENTATION OF QMS WITHIN MID STATES' AISS</p> <p>That, States that have not yet implemented a QMS within their AIS, are urged to apply the methodology at Appendix 5.4A to the Report on Agenda Item 5.4.</p>	<p>Follow up with concerned States</p>	<p>ICAO States AIS/MAP TF</p>	<p>State Letter Feed back from States</p>	<p>Jul. 2007 Feb. 2008</p>	<p>SL Ref. AN 8/4.1 – 317 dated 18 September 2007; Very few replies received from States; Proposed to be replaced by the ATM/SAR/AIS SG/10 Draft Conc 10/34</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DEC. 10/55: ESTABLISHMENT OF A QMS IMPLEMENTATION ACTION GROUP</p> <p>That, the QMS implementation Action Group is established with Terms of Reference as at Appendix 5.4B to the Report on Agenda Item 5.4.</p>	<p>Follow-up the activities of the Action Group</p>	<p>ICAO</p>	<p>Feedback from the Action Group reported to the AIS/MAP TF</p>	<p>Feb. 2008</p>	<p>Completed</p>
<p>CONC. 10/56: ROADMAP FOR THE IMPLEMENTATION OF eTOD REQUIREMENTS</p> <p>That, MID States:</p> <ul style="list-style-type: none"> a) develop their plans related to the implementation of eTOD requirements; and b) communicate their implementation roadmap to the ICAO MID Regional Office, prior to 15 June 2007, specifying clearly if they would encounter any difficulty to comply with the dates of applicability. 	<p>Follow up with States</p>	<p>ICAO States</p>	<p>State Letter</p> <p>Action Plan/ Roadmap for the implementation of eTOD received from States</p> <p>Report of eTOD WG/1 meeting</p>	<p>Jun. 2007 Jun. 2007 Jul. 2007</p>	<p>To be replaced and superseded by ATM/SAR/AIS SG/10 Draft Conc.10/39</p>
<p>CONC. 10/57: COLLABORATIVE APPROACH FOR THE IMPLEMENTATION OF eTOD REQUIREMENTS</p> <p>That, in order to expedite the implementation of eTOD requirements, MID States:</p> <ul style="list-style-type: none"> a) develop a high level policy for the management of a national eTOD programme; b) define clearly the responsibilities and roles of the different Administrations within and outside the Civil Aviation Authority in the implementation process (AIS, Aerodromes, Military, National Geographic and Topographic Administrations/Agencies, etc); and c) secure the necessary resources for the eTOD programme. 	<p>Comply with the conclusion</p>	<p>States</p>	<p>National eTOD Programme defined and managed.</p>	<p>Jul. 2007</p>	<p>To be replaced and superseded by ATM/SAR/AIS SG/10 Draft Conc.10/40</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DEC. 10/58: ESTABLISHMENT OF AN eTOD WORKING GROUP</p> <p>That, for harmonization and coordination of eTOD implementation activities on a regional basis, the electronic Terrain and Obstacle Data Working Group is established with Terms of Reference as at Appendix 5.4D to the Report on Agenda Item 5.4.</p>	<p>Creation of the eTOD WG</p> <p>Follow up the work programme</p>	<p>ICAO States</p>	<p>Report of meeting</p> <p>Guidance material</p>	<p>Jul. 2007</p> <p>Feb. 2008</p>	<p>Completed</p>
<p>CONC. 10/59: FOLLOW UP ON THE OUTCOME OF THE MID eTOD SEMINAR</p> <p>That,</p> <p>a) the recommendations of the MID eTOD Seminar at Appendix 5.4E to the Report on Agenda Item 5.4 be studied by the concerned MIDANPIRG subsidiary bodies (eTOD WG, AIS/MAP TF, ATM/SAR/AIS SG and CNS/ATM/IC SG); and</p> <p>b) necessary follow-up action is to be taken by States and ICAO with a view to implement them.</p>	<p>Follow up on the recommendations of the MID eTOD Seminar</p>	<p>eTOD WG AIS/MAP TF States ICAO</p>	<p>Reports of meetings</p> <p>Follow-up actions taken, as appropriate</p>	<p>Jul. 2007</p> <p>Feb. 2008</p>	<p>To be replaced and superseded by ATM/SAR/AIS SG/10 Draft Conc.10/40</p>
<p>CONC. 10/60: FOLLOW-UP ON THE OUTCOME OF THE GLOBAL AIS CONGRESS</p> <p>That, ICAO with the support of States and international organizations, take necessary follow-up action, as soon as possible, to implement the Recommendations of the Global AIS Congress.</p>	<p>Follow up developments in ICAO HQ</p>	<p>ICAO HQ</p>	<p>Amendment of Annex 4 and Annex 15, as appropriate</p>	<p>TBD</p>	<p>AIS-AIM SG established. Completed</p>
<p>CONC. 10/61: AIS/MAP TIMELINES FOR THE MID REGION</p> <p>That, the AIS/MAP Timelines for the MID Region be updated as at Appendix 5.4G to the Report on Agenda Item 5.4.</p>	<p>Follow up the timelines</p>	<p>AIS/MAP TF</p>	<p>Updated Timelines</p> <p>Feed back from States</p>	<p>Feb. 2008</p> <p>Feb. 2008</p>	<p>Completed Updated Timelines developed by the AIS/MAP TF/4 meeting</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DEC. 10/62: REVISED TERMS OF REFERENCE AND WORK PROGRAMME OF THE AIS/MAP TASK FORCE</p> <p>That, the Terms of Reference and Work Programme of the AIS/MAP Task Force be updated as at Appendix 5.4H to the Report on Agenda Item 5.4.</p>	Follow up the work programme	AIS/MAP TF	Report of AIS/MAP TF/4	Mar. 2008	To be replaced and superseded by ATM/SAR/AIS SG/10 Draft Dec.10/46
<p>CONC. 10/76: ENHANCEMENT OF MID REGION'S AIR NAVIGATION DEFICIENCY DATABASE</p> <p>That, ICAO MID Regional Office provide searching feature for the MID Air Navigation Deficiency database on the website.</p>	Implement the conclusion	ICAO MID Office	Searching feature for MID AN Def. Database is provided	TBD	Ongoing;
<p>CONC. 10/77: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION</p> <p>That,</p> <p>a) MID States review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office;</p> <p>b) MID States increase their efforts to overcome the delay in mitigating air navigation deficiencies identified by MIDANPIRG and explore ways and means to eliminate deficiencies;</p> <p>c) MID States experiencing difficulties in financing the elimination of safety-related deficiencies may wish to take advantage of the funding opportunity offered by the International Financial Facility for Aviation Safety (IFFAS);</p>	Follow-up implementation of the conclusion	States ICAO Users IFFAS	Concerned States eliminate their air navigation deficiencies	Nov. 2008	Ongoing

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>d) users of air navigation facilities and services in the MID Region report to the ICAO MID Regional Office when the remedial action on a deficiency has been taken, and</p> <p>e) ICAO continues to provide assistance to States for the purpose of rectifying deficiencies; and when required, States request ICAO assistance through Technical Co-operation Programme and/or Special Implementation Projects (SIP).</p>					
<p>CONC. 10/80: REPORTING MECHANISM AND SHARING OF SAFETY-RELATED INFORMATION</p> <p>That, MID States:</p> <p>a) update their legislation to support a “just culture” reporting environment as part of their safety programme;</p> <p>b) develop and implement non-punitive reporting mechanisms as part of their safety programme for the identification of hazards and assessment of risks in order to implement appropriate mitigating measures;</p> <p>c) designate focal points to whom operators can send incident reports for investigation and resolution and from whom they could request information for clarification purpose; and</p> <p>e) share information on ATS incidents and accidents.</p>	<p>Urge States to comply with the Conclusion</p>	<p>ICAO States</p>	<p>State Letter</p> <p>Update list of focal points</p> <p>Reports from States</p>	<p>Sept 2007 Nov. 2007</p> <p>TBD</p>	<p>Completed</p> <p>TBD</p> <p>Conclusion to be updated for MIDANPIRG/11</p>
<p>CONC. 10/81: SURVEY ON ATS SAFETY MANAGEMENT</p> <p>That,</p> <p>a) MID States that have not yet done so, are urged to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS;</p> <p>b) in order to obtain information from MID States regarding the status of implementation of SMS within their Air</p>	<p>-Carry out the survey and analyze the results</p> <p>-Conduct SMS Training Course</p>	<p>ICAO States</p>	<p>Training Course</p> <p>State Letter</p> <p>Survey replies</p> <p>Analysis of results</p>	<p>May 2007</p> <p>Jul. 2007</p> <p>Nov. 2007</p> <p>Dec. 2007</p>	<p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>Traffic Services and/or the difficulties they face to implement the required system, ICAO MID Regional Office carry out a survey on the implementation of SMS; and</p> <p>c) MID States take advantage of the SMS guidance material available and training courses offered by ICAO.</p>					<p>Conclusion to be updated for MIDANPIRG/11</p>
<p>CONC. 10/83: REQUIREMENTS FOR THE IMPLEMENTATION OF SMS IN VARIOUS AIR NAVIGATION FIELDS</p> <p>That, taking into consideration that the implementation of Safety Management System (SMS) is a fundamental tenet for the improvement of overall aviation safety; ICAO consider development of new provisions in its appropriate Annexes requiring the implementation of SMS in various air navigation fields.</p>	<p>Follow up with ICAO HQ</p>	<p>ICAO HQ</p>	<p>New ICAO SMS provisions developed for other safety related areas</p>	<p>TBD (Envisaged for applicability for Amendments to Annexes 6, 11, 13 & 14 on 19 Nov. 2009 and for Amendments to Annexes 1 & 8 on 18 November 2010).</p>	<p>Amendment proposals to Annex 1, Annex 6, Parts I and III, Annex 8, Annex 11, Annex 13 and Annex 14, Volume I, to harmonize and extend provisions relating to safety management were circulated to All States (Ref.. SL: AN 12/51-07/74 dated 07 Dec. 2007).</p>

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REPORT ON AGENDA ITEM 3: IMPROVEMENT OF THE MID ATS ROUTE NETWORK

3.1 The meeting noted that the MID ATS Route Network Task Force (ARN TF), which was established by the ATM/SAR/AIS SG/9 meeting in December 2007, held its meeting at the ICAO MID Regional Office in Cairo, Egypt 28 – 30 July 2008. The Task Force meeting was attended by a total of thirty two (32) participants, including experts from nine (9) States (Bahrain, Egypt, Iraq, Kuwait, Pakistan, Qatar, Saudi Arabia, Syria and United Arab Emirates) and (3) three Organization (AACO, IATA and IFALPA). The meeting recalled that the Task Force was established with the primary objective of development of a MID ATS route network with improved capacity and efficiency, following a MIDANPIRG/10 instruction to this effect.

3.2 The meeting noted that the ARN TF/1 meeting reviewed its terms of reference and made some changes to align text in the TOR with the intent, and accordingly agreed on Draft Decision 1/1: *Terms of Reference of the MID ATS Route Network Task Force*. The meeting reviewed the revised TOR and accordingly agreed on the Draft Decision to supersede the ATM/SAR/AIS SG/9 Draft Decision 9/2 and ARN TF/1 Draft Decision 1/1:

DRAFT DECISION 10/1: TERMS OF REFERENCE OF THE MID ATS ROUTE NETWORK TASK FORCE (ARN TF)

*That, the Terms of Reference of MID Region ATS Route Network Task Force is revised as at **Appendix 3A** to the Report on Agenda Item 3.*

(This Draft Decision supersedes the ATM/SAR/AIS SG/9 Draft Decision 9/2 and ARN TF/1 Draft Decision 1/1)

3.3 The meeting discussed the issues of amendment and editorial changes to the MID ANP Table ATS-1 (ATS routes) and recalled that the ATM/SAR/AIS SG/9 meeting had formulated Draft Conclusion 9/1: *Amendment and Editorial Changes in the Basic ANP Table ATS-1*, urging States to adhere to established procedures for amendment of the ANP and to inform ICAO about editorial changes. The meeting noted however, that the problem identified by the Sub-Group in December 2009 still required attention. The meeting recalled also, the procedures for amendment of the ANP, Basic and FASID, which are reflected at **Appendix 3B** to the Report on Agenda Item 3.

3.4 The meeting recognized that, in some cases, probably most, the variances that States had effected, were for the betterment of airspace capacity, efficiency and safety enhancement, which should be acknowledged and recognized as positive effort. The meeting recalled that the ATM/SAR/AIS SG/8 in November 2006, and the MIDANPIRG/10 meeting in April 2007, had noted the concern regarding the lengthy mechanism used for the amendment of the ATS route network, particularly in light of the new and rapidly changing ATM environment.

3.5 However, the meeting acknowledged also, that changes to the Regional network, that are implemented without following established international (ICAO) procedures, not only compromised the usefulness of the Table ATS-1 as a Regional requirement, but the objectives of Regional planning, and furthermore complicated the procedural amendment of the ANP. In this connexion, the meeting recalled that the ATS route network contained in the Basic ANP Table ATS-1 constitutes the Regional ATS route requirements agreed by provider and user States as well as users (aircraft operators), in many cases involving parties beyond the MID Region, and that such requirements are approved by the ICAO Council.

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3.6 The meeting noted that, it was not always necessary for ATS route amendment proposals to be considered by the MIDANPIRG subsidiary bodies before being processed in accordance with the formal procedures for ANP amendment. In particular, the meeting noted that such proposals are well coordinated with immediately concerned States/FIRs and constitute an improvement to the ATS route network, may be proposed directly to the Regional Office and processed without the need for further consideration by the ARN TF or the ATM/SAR/AIS SG. In this case, the processing time would be significantly shorter.

3.7 The meeting acknowledged however, the need for an amendment proposal to contain adequate details and clear reasons for the proposed changes, in order to reduce processing time. To aid this process, the Secretariat highlighted some methods that States could use to provide information to the Regional Office as part of their ATS route amendment proposal. One was using a similar format as the Secretariat uses to circulate amendment proposals to States and concerned international organizations for comments. The other was using the Basic ANP Table ATS-1 which is provided to States in PDF format, and using the PDF tools to indicate proposed changes (strike out and comments), and provide other details such as facts that lead the State to the conclusion that the amendment is necessary, on additional pages.

3.8 Based on the foregoing, the meeting agreed on the following Draft Conclusion to supersede the ATM/SAR/AIS SG/9 Draft Conclusion 9/1:

**DRAFT CONCLUSION 10/2: AMENDMENT AND EDITORIAL CHANGES TO THE
REGIONAL ATS ROUTE NETWORK**

That, in order to maintain the integrity, objectives and benefits of the MID Basic Air Navigation Plan Table ATS-1 and related Charts, MID States are urged to:

- a) adhere to established ICAO procedures for amendments and establishment of ATS routes that form part of the Regional ATS route network;*
- b) inform ICAO when minor editorial changes in the Regional ATS routes are deemed necessary, before any such changes take effect; and*
- c) submit to the MID Regional Office, descriptions of existing Regional ATS routes that are at variance with the MID Basic ANP Table ATS-1 in a format that will be detailed by a State Letter, including proposals for amendment of Table ATS-1 as applicable.*

(This Draft Conclusion supersedes the ATM/SAR/AIS SG/9 Draft Conclusion 9/1)

3.9 The meeting noted that, due to the effect of some of the changes that have been implemented by States that have not followed the ICAO procedures for amendment of the ATS route network, and the need to address such changes accordingly, delays will be experienced in processing some of the Table ATS-1 amendment proposals, until the disparities have been significantly addressed.

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3.10 The meeting noted that the ARN TF/1 meeting in July 2008 discussed a number of ATS route proposals presented by IATA. In considering the route proposals, the Task Force noted that most of them constituted interim amendment proposals to the existing Regional ATS route network in the ANP Table ATS-1. The Task Force agreed that to achieve its primary objective of an improved Regional ATS route network, a comprehensive “user requirement” was necessary. To this end, the Task Force agreed that IATA would develop a comprehensive route network proposal, to be presented to the next meeting of the ARN TF, constituting a “user requirement” that when approved would, in due time replace the existing ATS route network requirement.

3.11 The meeting endorsed the ARN TF/1 Draft Conclusion 1/4: *Amendment of MID Basic ANP Table ATS-1* calling on the Secretariat to process amendment proposals arising from the ARN TF/1 meeting, and Draft Conclusion 1/5: *Follow-up Action on Proposed ATS Routes Development* urging States and concerned International Organization to take necessary follow up action on ATS route proposals presented by the ARN TF/1 meeting. Furthermore, the meeting considered the ATS route proposals intended for interim amendments to the MID ATS route network, from the ARN TF/1 meeting, follow-up actions that had been requested by the Task Force and updated the follow up actions as at **Appendix 3C** to this Report on Agenda Item 3.

3.12 To support the process of ATS route network development in the MID Region, the meeting endorsed the MID ATS Route Catalogue proposed by the ARN TF/1, as a planning tool that would serve as an ATS route depository, for action on the proposals prior to the stage of formal ANP amendment proposal described in the ANP, as well the consequential ARN TF/1 Draft Conclusion 1/3: *MID ATS Routes Catalogue*.

3.13 The meeting agreed with emphasis, that the usage of the Catalogue will be to contain a list of ATS route proposals that have been agreed within the framework of MIDANPIRG for further consideration/processing, in the near term or future, until such ATS routes/proposals have been processed as amendments to Table ATS-1 and approved by the ICAO Council, or agreed to be removed from the Catalogue for such reasons as being improbable, overtaken by events, or replaced by an agreed alternative. The Catalogue will be used to record and track the routes’ development, and will as such be a living document updated at relevant meetings and by the Secretariat as requested within the MIDANPIRG framework. Moreover, the meeting acknowledged specifically that, it shall not be the purpose or intention of the *MID ATS Route Catalogue*, to duplicate the ANP Table ATS-1 or its purpose.

3.14 The meeting recalled that MIDANPIRG/10 had adopted Conclusion 10/24: *MID ATS Route Network*, in which, *inter alia*, some of the ATS routes from the Table ATS 1 that had not been implemented for a significantly long time, were removed from the Table ATS 1 to a list of "Future ATS Route Requirements" for future consideration within the framework of the ATM/SAR/AIS SG. The meeting agreed that these routes would be moved to the proposed MID ATS Route Catalogue.

3.15 In the context of new routes being developed, the role of the MID RMA to ensure sustainable safety and efficiency in the MID RVSM implementation was highlighted. In this regard, it was recalled also that the MID RMA is a member of the ARN TF, furthermore, that its role in the Task Force is highlighted in the Task Force's TOR.

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3.16 Based on the above, the ATM/SAR/AIS SG/10 formulated the following Draft Conclusion to consolidate and supersede the ARN TF/1 Draft Conclusions 1/3, 1/4 and 1/5:

DRAFT CONCLUSION 10/3: MID ATS ROUTE CATALOGUE

That, in order to support the process of ATS route development in the MID Region, including the keeping of a record of ATS routes proposed for development and facilitating follow-up on the actions pertaining to the routes' development:

- a) *the MID ATS Route Catalogue is adopted as at **Appendix 3D** to the Report on Agenda Item 3; and*
- b) *MID States and concerned International Organizations are urged to periodically review the Catalogue, note developments and take action as applicable.*

(This Draft Conclusion supersedes the ARN TF/1 Draft Conclusions 1/3, 1/4 and 1/5)

3.17 Furthermore, the meeting recognized the benefit of supporting the objective of the MID ATS Route Catalogue related development considerations with graphical depiction of the ATS route proposals on charts. To this effect, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 10/4: CHARTING TOOLS TO SUPPORT ATS ROUTE DEVELOPMENT

That, in order to facilitate the work of the MID ATS route development, ICAO consider the development of a charting tool to support the depiction and consideration of ATS route proposals contained in the MID ATS Route Catalogue, taking into consideration offers from States and International Organizations to assist as necessary.

3.18 Further to the above, Saudi Arabia offered to assist with regard to the proposed chart support process, which offer was acknowledged with appreciation by the meeting. The meeting noted that ICAO has already started development of the electronic air navigation plan and the charts thereto are available on the website: (<http://192.206.28.81/eganp>). It is expected that the desired charting tools could be part of this development.

3.19 The meeting recalled that at its ninth meeting in December 2007, the ATM/SAR/AIS Sub-Group had formulated Draft Conclusion 9/3: *Air Traffic Flow Management (ATFM) Seminar*, requesting the MID Regional Office to arrange an ATFM Seminar in 2009. The meeting noted also that ACAC had a programme of seminars/workshops, and that ACAC was in coordination with the MID Regional Office with regard to coordination of these activities to optimize their benefit to States. For the purpose of presenting the Draft Conclusion to MIDANPIRG/11, the meeting adopted the Conclusion as the ATM/SAR/AIS SG/10 as follows:

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**DRAFT CONCLUSION 10/5: AIR TRAFFIC FLOW MANAGEMENT SEMINAR
(ATFM) SEMINAR**

That, in order to facilitate the development of MID Region ATFM implementation strategy, the MID Regional Office make necessary arrangements to hold an ATFM Seminar in 2009.

(This Draft Conclusion supersedes ATM/SAR/AIS SG/9 Draft Conclusion 9/3: Air Traffic Flow Management (ATFM) Seminar)

3.20 The meeting reviewed updated information regarding ATS routes discussed at the SBFCM and coordinated the update of the information with that provided in the list of deficiencies.

3.21 The meeting noted ongoing work within the airspace user community as presented by IATA, to increase airspace capacity and efficiency. The meeting noted that efforts would include a number of States, and that the concerned States would be formally involved once the proposal/s had been sufficiently aligned, and similarly, when sufficient maturity is achieved, they would be submitted to ICAO for processing in accordance with established procedures.

3.22 In the same vein, the meeting noted the outcome of the work that had been carried out at expert levels, outside the regular sessions of the ATM/SAR/AIS SG/10, to advance the development of a proposal to duplicate ATS route R784 within the Baghdad FIR. The background to this route development proposal is that, as part of the environmental and fuel savings campaign currently ongoing within the airline industry, an increasing number of carriers are utilizing the airspace within Baghdad FIR for flights between Western Europe and the southeastern part of the MID region.

3.23 The meeting noted that duplicated in Baghdad FIR would be from a point north of the Baghdad/Kuwait FIR border to the border with Ankara FIR. The route would be accordance with the ICAO RNAV 5 specification, if possible. Should this not be operationally achievable, then implementation according to the RNAV 1 specification would be pursued.

3.24 The next step will be to arrange a meeting between Iraq, Turkey and IATA at a suitable venue, for determination of an appropriate interface point between the Ankara and Baghdad FIRs. Additionally, Turkey and IATA will discuss the continuation of the new duplicated route in the airspace of Ankara FIR.

3.25 The meeting noted that the route has also been discussed within the framework of the Route Development Group – Eastern Part of the EUR Region (RDGE), and that the MID Regional Office will be coordinating as necessary with the EUR/NAT Office to facilitate development of the route proposal.

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Appendix 3A to the Report on Agenda Item 3

**MID ATS ROUTE NETWORK TASK FORCE
(ARN TF)**

(Revised)

A) TERMS OF REFERENCE

1. Review the MID ATS route network in order to assess its capacity and constraints.
2. 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.
3. 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
4. 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 TF should explore the utility that can be realized from the route catalogue concept/ATS route database.
5. Engage the necessary parties regarding routes under consideration, especially the Military Authorities.
6. In coordination with the MID RMA, carry out safety assessment of the proposed changes to the ATS route network.
7. After adoption by the ATM/SAR/AIS SG, or as delegated by the same, submit completed route proposals for amendment of the Basic ANP Table ATS-1, to the MID Office for processing.

B) COMPOSITION

The ARN TF will be composed of:

- a) experts nominated by Middle East Provider States from both Civil Aviation Authority and Military Authority;
- b) ~~ICAO~~, IATA, ~~and~~ IFALPA ~~and~~ MID RMA; ~~and~~
- c) other representatives from adjacent States and concerned international organizations (on ad-hoc basis).

C) WORKING ARRANGEMENTS

The Task Force shall:

- a) report to the ATM/SAR/AIS Sub Group; and
- b) meet as required and at least once a year.

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Appendix 3B to the Report on Agenda Item 3

EXTRACT FROM THE MID BASIC AIR NAVIGATION PLAN

PROCEDURE FOR THE AMENDMENT OF REGIONAL PLANS, INCLUDING FASID MATERIAL

27. The Basic ANP and FASID may be amended by a RAN meeting or by following the amendment procedures below.

PROCEDURE FOR THE AMENDMENT OF APPROVED BASIC AIR NAVIGATION PLANS

Approved by Council on 25 February 1998

1. Introduction

The procedure outlined below has been evolved to provide a means of maintaining basic regional plans in a current condition by correspondence.

2. General criteria

2.1 The Assembly has resolved that regional plans shall be revised when it becomes apparent that they are no longer consistent with current and foreseen requirements of international civil aviation and that, when the nature of a required change permits, the associated amendment of the regional plan shall be undertaken by correspondence between the Organization and the Contracting States and international organizations concerned.

2.2 When a State cannot immediately implement a particular part or a specific detail of a regional plan, although it intends to do so when practicable, this in itself should not cause the State to propose an amendment to the plan.

3. Procedure

3.1 If, in the light of the above criteria, any Contracting State (or group of States) of a region wishes to effect a change in the approved Basic ANP for that region it should propose to the Secretary General, through the ICAO Regional Office accredited to that State, an appropriate amendment to the plan, adequately documented; the proposal should include the facts that lead the State to the conclusion that the amendment is necessary. Such amendments may include additions, modifications or deletions. (This procedure does not preclude a State having previous consultation with other States before submitting an amendment proposal to the ICAO Regional Office.)

3.2 The Secretary General will circulate the proposal, adequately documented, with a request for comments to all provider and user States of the region considered affected as well as to user States outside the region and international organizations which may be invited to attend suitable ICAO meetings and which may be concerned with the proposal. If, however, the Secretary General considers that the proposed amendment conflicts with established ICAO policy, or that it raises questions which the Secretary General considers should be brought to the attention of the Air Navigation Commission, the proposal will be first presented, adequately documented, to the Commission. In such cases, the Commission will decide the action to be taken on the proposal.

3.3 If, in reply to the Secretary General's inquiry to States and selected international organizations, no objection is raised to the proposal by a specified date, the proposal shall be submitted to the President of the Council, who is authorized to approve the amendment on behalf of the Council.

3.4 If, in reply to the Secretary General's inquiry to States and selected international organizations any objection is raised, and if objection remains after further consultation, the matter will be documented for formal consideration by the Commission. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.

3.5 Proposals for the amendment of regional plans submitted by international organizations directly concerned with the operation of aircraft, which may be invited to attend suitable ICAO meetings and which attended the meeting(s) where the relevant plan was prepared, will be dealt with in the same manner as those received from States, except that, before circulating a proposal to States and selected international organizations pursuant to 3.2, the Secretary General will ascertain whether it has adequate support from the State or States whose facilities will be affected. If such support is not forthcoming, the proposal will be presented to the Commission, and the Commission will decide on the action to be taken on the proposal.

3.6 Proposals for the amendment of regional plans may also be initiated by the Secretary General provided that the State or States whose facilities will be affected have expressed their concurrence with the proposal.

3.7 Amendment to regional plans which have been approved in accordance with the above procedure will be promulgated at convenient intervals.

PROCEDURE FOR THE AMENDMENT OF THE FACILITIES AND SERVICES IMPLEMENTATION DOCUMENT (FASID)

Approved by Council on 26 February 1997

1. Amendments to the FASID shall be effected on the basis of an adequately documented proposal submitted by a Contracting State (or a group of States) to the ICAO Regional Office; the proposal should include the facts that lead to the conclusion that the amendment is necessary. Such amendments may include additions, modifications or deletions to the FASID. (This procedure does not preclude a State having previous consultation with other States before submitting an amendment proposal to the ICAO Regional Office.)

2. The ICAO Regional Office will circulate the proposal, adequately documented, with a request for comments to the provider States in the region and to user States except those which obviously are not affected, and, for information and comments if necessary, to international organizations which may be invited to attend suitable ICAO meetings and which may be concerned with the proposal. If, however, it is considered that the proposed amendment conflicts with established ICAO policy, or that it raises questions which should be brought to the attention of the Air Navigation Commission, the proposal will be adequately documented and presented to the Commission. In such cases, the Commission will decide the action to be taken on the proposal.

3. If, in reply to the ICAO Regional Office's inquiry, no objection is raised to the proposal by a specified date, it will be deemed that a regional agreement on the subject has been reached and the proposal shall be incorporated into the FASID.
4. If, in reply to the ICAO Regional Office's inquiry, any State objects to the proposal, and if objection remains after further consultation, the matter will be documented for discussion by the respective planning and implementation regional group (PIRG) and, ultimately, for formal consideration by the Commission, if necessary. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.
5. Proposals for the amendment of the FASID submitted by international organizations directly concerned with the operation of aircraft in the region, which may be invited to attend suitable ICAO meetings where the FASID was prepared, will be dealt with in the same manner as those received from States, except that, before circulating the proposal to all interested States, it will be ascertained whether the proposal has adequate support from the State or States whose facilities or services will be affected. If such support is not forthcoming, the proposal will not be pursued.
6. Proposals for the amendment of the FASID may also be initiated by the ICAO Regional Office provided that the State or States whose facilities or services will be affected have expressed their concurrence with the proposal.
7. Amendments to the FASID which have been approved in accordance with the above procedure will be promulgated at convenient intervals.

ABBREVIATIONS

All abbreviations used in this document are contained in the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400), with the exception of those used in the explanations of the various tables, which also give their meaning.

ATM/SAR/AIS SG/10
 Appendix 3C to the Report on Agenda Item 3

**ATS ROUTE DEVELOPMENT
 PROPOSALS AND FOLLOW UP ACTION**

MID/001	ATS Route Name:	Entry-Exit:	Inter-Regional Cross Reference if any	Users Priority	High	Originator of Proposal	IATA
	New AWY between SALWA-COPPI	SALWA-COPPI				Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken / Required	Deadline for each Action
SALWA (N25 15.6 E050.30.8) – COPPI (N27 50.6 E047 44.0) This route is proposed as a one way northbound to cater for departure from Doha intersection point on “A791/G663”, maybe “TANDA N26 27.1 E049 18.2” to allow traffic to transit for North African destinations				New ATS route.		<ul style="list-style-type: none"> - Bahrain has no objection . - Qatar has no objection however will have time restriction of 15:00 to 03:00 UTC subject to concurrence with Saudi Arabia. - Saudi Arabia needs to study the proposal further and will advise by 31 October 2008. - Pending Saudi Arabia response Secretariat will make Amendment Proposal. 	
Flight Level Band: FL180 200 – FL410							
Potential City Pairs: DOH to Western Europe/USA DOH to BEY, DAM, AMM DOH to North-Africa							
Conclusions/Remarks						Last updated	ARN TF/1, July 2008

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APPENDIX 3C

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MID/002	ATS Route Name: New AWY Proposed between TONBA-KHG	Entry-Exit: TONBA to KHG (Dakhla) Libya to Egypt FIR	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
TONBA (N21 35.3 E 0-19 51.2) KHG (N25 26.9 E030 35.4)				New ATS route.		<ul style="list-style-type: none"> - Egypt highlighted that UM999 already exists and is used by 3 to 5 flights a day also that communication is being upgraded with a new station at Dakhla. More detail on user need will be necessary to justify establishment as per IATA proposal. - IATA will provide detail regarding focus traffic for Egypt to reconsider the proposal. - The proposal will be reconsider by ARN TF/2. 		
Flight Level Band: FL290 – FL410								
Potential City Pairs: Lagos-Doha								
Conclusions/Remarks		Proposals 2, 4 and 5 are options to each other				Last updated	ARN TF/1, July 2008	

MID/003	ATS Route Name: New AWY Proposed between TONBA-MB (Dakhla)	Entry-Exit: TONBA to MB (Dakhla) Libya to Egypt FIR	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
								Date of Proposal
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required		Deadline for each Action
TONBA (N21 35.3 E 0-19 51.2) MB (N25 25.2 E029 00.1)				New ATS route.		To be considered with and similarly to Proposal 2 & 4.		
Flight Level Band: FL290 – FL410								
Potential City Pairs: West Africa airports-Doha								
Conclusions/Remarks	Proposals 2, 4 and 5 are options to each other					Last updated	ARN TF/1, July 2008	

MID/004	ATS Route Name: New AWY Proposed between KFR to MB (Dakhla) Or KHG	Entry-Exit: KFR to MB (Dakhla) or KHG Libya to Egypt FIR	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
								Date of Proposal
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required		Deadline for each Action
KFR (N24 09.2 E023 18.5) MB (N25 25.2 E029 00.1) Or KHG (N25 26.9 E030 35.4)				New ATS route.		To be considered with and similarly to Proposal 2.		
Flight Level Band: FL290 – FL410								
Potential City Pairs: West Africa airports-Doha								
Conclusions/Remarks	Proposals 2, 4 and 5 are options to each other					Last updated	ARN TF/1, July 2008	

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APPENDIX 3C

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MID/005	ATS Route Name: New AWY between BNA-KATAB-SEMURU	Entry-Exit: BNA-KATAB-SEMURU	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
								Date of Proposal
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required		Deadline for each Action
BNA (N32 07.5 E020 15.2) – KATAB (N29 25.0 E029 05.1) – SEMRU (N28 02.0 E032 03.1)				New ATS route.		For future consideration		
Flight Level Band: FL290 – FL410								
Potential City Pairs: CMN/ALG/TUN/TIP-DOH								
Conclusions/Remarks		This AWY would save considerable track miles BNA – KATAB – SEMRU Libya FIR to Egypt FIR					Last updated	ARN TF/1, July 2008

MID/006	ATS Route Name: New AWY – VUSET to ITRAX	Entry-Exit: VUSET – ITRAX Oman FIR	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
								Date of Proposal
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required		Deadline for each Action
VUSET – “N23 55.7 E059 08.2 ITRAX – N24 12.8 E055 47.8				New ATS route.				
Flight Level Band: FL290 – FL410								
Potential City Pairs: SGN, PEK, HKG, PVG, DEL, AMD, KHI, KIX, DAC, KTM - Doha								
Conclusions/Remarks							Last updated	ARN TF/1, July 2008

MID/007	ATS Route Name: New AWY Northbound EGNOV - HFR		Entry-Exit: EGNOV – HFR	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
								Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status		ANP Status		Action Taken/Required	Deadline for each Action
EGNOV (N27 03.0 E047 47.2) – HFR (N28 19.8 E046 07.8)				New ATS route.				Alternative to the SALWA-COPPI	
Flight Level Band: FL180 – FL410									
Potential City Pairs: DOH – Western Europe and USA DOH – BEY, DMM, AMM DOH – North Africa									
Conclusions/Remarks		This proposal benefits if Q707 can be changed to a two way AWY. The Link between EGNOV – HFR would be a one way AWY Northbound to cater for departing traffic from Doha. The real benefit of this AWY could only be achieved by extension to current opening hrs of Q707.			Alternative to the SALWA-COPPI (MID 001)		Last updated	ARN TF/1, July 2008	

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MID/008	ATS Route Name: Q707	Entry-Exit: EGNOV – SALWA	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
EGNOV (N27 03.0 E047 47.2) – SALWA (N25 15.6 E050.30.8)				Opening hours to be extended. Suggested from 1430 – 0300UTC Weekends H24 To change current AWY Q707 from one-way to two way between points EGNOV – SALWA North Africa traffic – If Q707 is made a two way AWY, then traffic can route from point “GEPAK (N26 33.0 E048 43.5) on AWY A791/G663		<ul style="list-style-type: none"> - Bahrain has no objection. - Qatar can extend hours from 15:00 to 03:00 UTC provided Saudi Arabia concurs. - Saudi Arabia will study the proposal and revert to the Secretariat by 31 October 2008. 	31 Oct. 2008	
Flight Level Band: GND - UNL								
Potential City Pairs: Doha – Western Europe/USA – Doha Doha – BEY, DAM, AMM – Doha Doha – North Africa dest. - Doha								
Conclusions/Remarks							Last updated	ARN TF/1, July 2008

MID/009	ATS Route Name:	Entry-Exit:	Inter-Regional Cross Reference if any	Users Priority	High	Originator of Proposal	IATA	
	New AWY between SALWA-LOTUS-ASTIN	SALWA-LOTUS-ASTIN				Date of Proposal	ARN TF/1	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Proposed new AWY would be two way. Alternatively, IATA would accept Salwa – (intersection point on Y100) – Y100 – LOTUS – New AWY – PURDA (N21 08.1 E051 03.5) – join with A419 SALWA (N25 15.6 E050.30.8) LOTUS (N22 00.0 E050 39.2) ASTIN (N20 04.2 E049 53.3)				New ATS route.		<ul style="list-style-type: none"> - Proposal replace by the following agreed option: Doha to Bundu than via V997 to R659. - Bahrain will issue NOTAM for activation on the next AIRAC date. - MID Regional Office to circulate Amendment Proposal to change V997 to Regional route. 	Immediate	Sept. 2008
Flight Level Band: FL180 – FL410								
Potential City Pairs: Doha – Eastern/ South Africa - Doha								
Conclusions/Remarks		Replacement proposal (Doha-Bundu-U997-R659). Approved for immediate implementation.				Last updated	ARN TF/1, July 2008	

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MID/010	ATS Route Name: A415-DOH(VOR)-SALWA-KIREN	Entry-Exit: DOHA-SALWA-KIREN	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
A415-DOH(VOR)-SALWA-KIREN				Implemented with time restrictions		<ul style="list-style-type: none"> - Bahrain has no objection. - Qatar can extend hours from 15:00 to 03:00 UTC provided Saudi Arabia concurs. - Saudi Arabia will study the proposal and revert to the Secretariat by 31 October 2008. 	31 Oct. 2008	
Flight Level Band: GND-FL410								
Potential City Pairs: Doha-Western Europe/USA-Doha Doha-North Africa-Doha Doha-Africa-Doha								
Conclusions/Remarks		IATA requests to change opening hours H24				Last updated	ARN TF/1, July 2008	

MID/011	ATS Route Name: New AWY between SIDAD-ALVIX	Entry-Exit: SIDAD-ALVIX	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Shortcut to OKBK						<ul style="list-style-type: none"> - Kuwait has no objection. Will issue NOTAM designating route initially as domestic to facilitate flight planning. - ICAO will circulate Amendment Proposal for the Regional ATS route designation. 	Sept. 2008	
Flight Level Band:								
Potential City Pairs: from North to Kuwait								
Conclusions/Remarks		Approved for immediate implementation.				Last updated	ARN TF/1, July 2008	

MID/012	ATS Route Name: New Parallel AWY to UL 550	Entry-Exit: Parallel AWY to UL550	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New Parallel AWY to UL 550				New ATS route.		<ul style="list-style-type: none"> - Egypt will continue to study how to address issue of east bound traffic for reduced traffic (Egypt Air and Kuwait Airways). - The Segment in Jeddah FIR is used bidirectionally already. 		
Flight Level Band: 6000ft TO FL 250								
Potential City Pairs: Cairo-Kuwait								
Conclusions/Remarks		Egypt highlighted similar proposal has been studied before and not found acceptable due to military restrictions and uncoordinated flights over the red sea area.				Last updated	ARN TF/1, July 2008	

MID/013	ATS Route Name: A415	Entry-Exit:	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
A415-King Khaled (KIA)..Al Ahsa(HSA).. Doha (DOH) for traffic from OEJD and OKAC FIRs to overfly the northern OMAE FIR						<ul style="list-style-type: none"> - Bahrain has no objection in principle but procedures and time to be agreed. - UAE more time review the proposal. - Qatar offers to extend hours of operation from 19:00-03:00 to 15:00-03:00 UTC provided Saudi Arabia concurs. - Traffic is to cross GETEX FL210 maintaining. 	30 Sept 08	
Flight Level Band:								
Potential City Pairs: For traffic from Riyadh to India and beyond								
Conclusions/Remarks		This route is already available FL350 and above in Emirates FIR				Last updated	ARN TF/1, July 2008	

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MID/014	ATS Route Name: V164	Entry-Exit:	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
	Date of Proposal						ARN TF/1	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
V164-King Khaled (KIA).. King Fahd (KFA) change from uni-direction eastbound to bi-direction.						<ul style="list-style-type: none"> - Bahrain has no objection for FL250 and below between KIA and KFA. - Bahrain will study feasibility of traffic volume that can be permitted to descend below FL250. - Saudi Arabia agrees. 		
Flight Level Band:								
Potential City Pairs: For traffic from airports in Gulf region to Riyadh and beyond								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

MID/015	ATS Route Name: Egypt and Saudi Arabia	Entry-Exit: UAE to Egypt and beyond	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
	Date of Proposal						ARN TF/1	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New, bi-directional route segments						<ul style="list-style-type: none"> - Egypt will address similarly with new Parallel AWY to UL 550 (proposal number 15). 		
Flight Level Band: Upper Airspace								
Potential City Pairs: UAE to Egypt and beyond (unlimited)								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

MID/016	ATS Route Name: Gulf Region 1	Entry-Exit: UAE to MAHDI via Saudi Arabia	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New, bi-directional route segments						- To be re-submitted by IATA with no segment crossing the Mecca.		
Flight Level Band: Upper Airspace								
Potential City Pairs: UAE to West Africa and South America								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

MID/017	ATS Route Name: Gulf Region 2	Entry-Exit: UAE to East Central and South Africa	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implemen- tation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New, bi-directional route segments UAE to East Central and South Africa						- Bahrain and UAE have implemented A419 (some parts under-discussion with military). This should address the requirement in this proposal.	TBD	
Flight Level Band: Upper Airspace								
Potential City Pairs: UAE to East Central and South Africa								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

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MID/018	ATS Route Name: Gulf Region Eastbound	Entry-Exit: UAE to Pakistan, India, and beyond to Asia/Pacific	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New, bi-directional route segments UAE to Pakistan, India, and beyond to Asia/Pacific						<ul style="list-style-type: none"> - To be submitted to Oman and APAC Office. - To be considered by ARN TF/2. 	Aug. 2008	
Flight Level Band: Upper Airspace								
Potential City Pairs: UAE to Pakistan, Indian & beyond to Asia/Pacific (unlimited)								
Conclusions/Remarks		Iran has recently developed M561 which might provide interim relief .					Last updated	ARN TF/1, July 2008

MID/019	ATS Route Name: Iran	Entry-Exit: UAE to Iran and beyond	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
New, bi-directional route segments						<ul style="list-style-type: none"> - Under consideration by Iran and UAE. 	TBD	
Flight Level Band: Upper Airspace								
Potential City Pairs: UAE to Iran and beyond (unlimited)								
Conclusions/Remarks							Last updated	ARN TF/1, July 2008

MID/020	ATS Route Name:	Entry-Exit:	Inter-Regional Cross Reference if any	Users Priority	High	Originator of Proposal	IATA
	New route Parallel to A791/A145	DELMA-A145				Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
<p>From DELMA in the CAI FIR a route to point DDDDD on B544 18NMs south of UA791 (SOBAS) and crosses: CAI-JED FIR Boundary at AAAAA, 33 NMs south of KITOT V54 at BBBB, 13 NMs south of TBK, W334 at CCCCC, 31 NMs south-east of TBK from DDDDD to FFFFF on A424 18 NMs south of UA791(HIL) and crosses: A788 at EEEEE 31 NMs south-west of HIL from FFFFFto MGA on A145 ad crosses: G662 at GGGGG, 47 NMs south-east of HIL V20 at HHHHH, 24 NMs south of NALBU B417 at IIII, 20 NMs south-west of RARLO W333 at JJJJ, 10 NMs south-west of SERPU UT503 at KKKKK, 9 NMs south-east of SERPU, and W23 at LLLLL, 36 NMs south of SIBLI from MGA, the route continues normally on A145.</p>						- Egypt and Saudi Arabia will consider the proposal for future.	
Flight Level Band: Upper Airspace							
Potential City Pairs:							
Conclusions/Remarks					Last updated		ARN TF/1, July 2008

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MID/021	ATS Route Name: New airways between Sharjah and Tehran		Entry-Exit: LOPEG- DEBES	Inter-Regional Cross Reference if any		Users Priority High	Originator of Proposal IATA
						Date of Proposal ARN TF/1	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
A new waypoint XXXXX to be created half way between KUMUN and PAPAR i.e. 37 NMs from either point. The old SIDs through LOPEG and DEBES will be re-instated with the difference that alter either point, traffic will proceed to XXXXX instead of PAPAR, distance LOPEG-XXXXX 23 NMs and DEBES-XXXXX 40 NMs						- Already under consideration by Iran and UAE.	
Flight Level Band:							
Potential City Pairs: Sharjah-Tehran							
Conclusions/Remarks						Last updated	ARN TF/1, July 2008

MID/022	ATS Route Name:	Entry-Exit: Route from Syria or Jordan all the way to JED, SAH, ADE, MED via QTR/TBK	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Route from Syria or Jordan all the way to JED, SAH, ADE, MED via QTR/TBK						<ul style="list-style-type: none"> - North of Tabuk already agreed with Saudi Arabia and Jordan. LOA to be updated. - For South of Tabuk, Saudi Arabia will revert to ARN TF Secretariat by 31 December 2008. 	Dec. 2008	
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

MID/023	ATS Route Name:	Entry-Exit: Route from Jordan or Syria to BEY via DAM-DAKWE-KAD	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Route from Jordan or Syria to BEY via DAM-DAKWE-KAD				New ATS route.		<ul style="list-style-type: none"> - Syria will study the request and provide update after internal consultations. - ICAO MID Region to follow-up with SCAA. 	TBD 30 Sept. 08	
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

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MID/024	ATS Route Name:	Entry-Exit: Route from Jordan to CAI via TBA-W976	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Route from Jordan to CAI via TBA-W976				New ATS route.		- Egypt will require more time to study and initiate proposal to Jordan to establish a point 5 to 7 NM South of METSA in order to facilitate direct routing to DATOK.	TBD	
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	

MID/025	ATS Route Name: R462	Entry-Exit: DENDA-MIBSI	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
Request permission to use this AWY for traffic with destination DOHA DENBA R462 MIBSI P899 BUNDU						- UAE has no objection if Oman agrees. - ICAO will send proposal to Oman.		
Flight Level Band: FL290 to FL410								
Potential City Pairs: SGN, PEK, HKG, PVG, DEL, AMD, KHI, KIX, DAC, KTM-Doha								
Conclusions/Remarks						Last updated	ARN TF/1, July 2008	
Proposal to be send to Oman for response								

MID/026	ATS Route Name: Replacement of IATA Proposals (3) and (9).	Entry-Exit: TELEM-VAXIM and PRA-TELEM	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA
							Date of Proposal	ARN TF/1
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action	
SODEB to/from MINAR with 24 hours availability; thence MINAR to Ahmedabad or Pratapgarh (PRA)						<ul style="list-style-type: none"> - SODEB to/from MINAR with 24 hours availability. - MINAR to Ahmedabad or Pratapgarh (PRA). - To be relayed to Oman and APAC Regional Office, Bangkok. 		
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks	Proposed by Pakistan to replace IATA Original proposals (3) and (9) which have been removed from this Appendix					Last updated	ARN TF/1, July 2008	

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MID ATS ROUTES CATALOGUE

MID/00X	ATS Route Name:	Entry-Exit:	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	
							Date of Proposal	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken / Required		Deadline for each Action
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks							Last updated	

MID/00X	ATS Route Name:	Entry-Exit:	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	
							Date of Proposal	
Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken / Required		Deadline for each Action
Flight Level Band:								
Potential City Pairs:								
Conclusions/Remarks							Last updated	

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REPORT ON AGENDA ITEM 4: RVSM MONITORING AND RELATED TECHNICAL ISSUES

MID RMA Financial and Managerial Issues

4.1 The meeting was apprised of the outcome of the MID RMA Board/6 and Board/7 meetings, which were held in Amman, Jordan, from 18 to 19 March 2008 and in Cairo, Egypt, from 14 to 16 October 2008, respectively.

4.2 The meeting recalled that MIDANPIRG/10, under Conclusion 10/30, taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, and based on an offer from the MID RMA Board, invited UAE to join the MID RMA Project being exempted from the payment of contributions for the first ten (10) years of operation of the MID RMA.

4.3 The meeting noted that further to the follow-up actions taken by the ICAO MID Regional Office, UAE through Letter Ref.: 48600/27768 dated 10 June 2008 signed by the Director General of GCAA, informed the ICAO MID Regional Office that they agreed to join the MID RMA as a full participating Member State.

4.4 The meeting noted that MSG/1 meeting held in Dubai, UAE from 1 to 3 July 2008 and the MID RMA Board/7 meeting noted with appreciation that UAE has joined officially the MID RMA and reiterated MIDANPIRG thanks and appreciation for the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region.

4.5 The meeting noted with appreciation that UAE has signed the MID RMA Memorandum Of Agreement (MOA) on 21 October 2008, as reflected in **Appendix 4A** to the Report on Agenda Item 4.

4.6 In connection with the above the meeting agreed to the following Draft Conclusion emanating from the MID RMA Board/7 meeting, which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/30:

DRAFT CONCLUSION 10/6: MEMBERSHIP OF THE MID RMA

That,

- a) Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, Yemen and UAE committed themselves to participate in the MID RMA project, through the signature of the Memorandum of Agreement (MOA); and*
- b) taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, UAE is exempted from the payment of contributions to the MID RMA for the first ten (10) years of operation (up-to end of 2015).*

4.7 The meeting noted that the previous MID RMA Board meetings, MIDANPIRG/10 and MSG/1 noted with concern that, a number of MID RMA Member States are not paying their contributions to the MID RMA Project within the specified timescales. The status of MID RMA States' contributions is as follows:

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	Year 1 (Nov. 05 – Nov. 06)	Year 2 (Nov. 06 – Dec. 07)	Year 3 (2008)	Year 4 (2009)
Bahrain	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Egypt	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Iran	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Not paid (US\$ 30,000)
Jordan	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)
Kuwait	Paid (US\$ 30,000)	N/A	Not paid (US\$ 1,250)	Not Paid (US\$ 10,000)
Lebanon	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Not Paid (US\$ 10,000)
Oman	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Saudi Arabia	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Syria	Not paid (US\$ 30,000)	N/A	Not paid (US\$ 1,250)	Not Paid (US\$ 10,000)
UAE	Exempted from payment up-to end of 2015			
Yemen	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)

4.8 The meeting noted that the MID RMA Board/7 meeting agreed to extend the deadline for payment of arrears to 31 March 2009 and urged Kuwait and Syria to honour their commitments and pay their arrears before the agreed deadline. It was also noted that deadline for payment of contributions to the MID RMA Project for year 2009 was extended to 31 March 2009. Accordingly, the meeting agreed to the following Draft Conclusion to replace and supersede the MSG/1 Draft Conclusion 1/6:

DRAFT CONCLUSION 10/7: PAYMENT OF ARREARS TO THE MID RMA

That,

- a) *Kuwait and Syria are urged to pay their contributions (arrears) to the MID RMA Project as soon as possible and in any case before 31 March 2009;*
- b) *the deadline for the payment of contributions to the MID RMA Project for year 2009 is extended to 31 March 2009; and*
- c) *in case a State does not pay the contributions to the MID RMA within the agreed timescales, the MID RMA Board might consider:*
 - i) *to review the membership of this State; and*
 - ii) *to exclude this State from the MID RVSM SMR.*

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4.9 The meeting noted that, taking into consideration the MID RMA status of expenditures, the agreed funding mechanism, and based on the fund available to the MID RMA (savings + arrears) and the cost of the radar data recording and analysis software, the MID RMA Board/7 meeting agreed that the MID RMA proceed with the purchase of the radar data recording and analysis software and agreed accordingly to the following Draft Conclusion:

DRAFT CONCLUSION 10/8: RADAR DATA RECORDING AND ANALYSIS SOFTWARE

That, considering the importance of availability of radar data for the assessment of the horizontal overlap, the MID RMA, on behalf of MID RMA Member States and in coordination with, Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen, develop the technical specifications/requirements related to the radar data recording and analysis software and proceed with the purchase of such software as soon as possible.

4.10 The meeting recalled that the MID RMA Board/7 meeting agreed that the MID RMA should send a letter to concerned States explaining what kind of radar data is needed (above FL 280, no image is required, over specific areas, etc) and asking for some technical information about the FDP/RDP system (format, etc) in order to finalize the technical specifications related to the radar data recording and analysis software. In this regard, the meeting re-iterated that Tehran FIR is one of the biggest and busiest FIRs of the Region and that radar data from Iran will be needed for the development of the SMR 2010. Accordingly, the meeting invited Iran to agree to provide radar data to the MID RMA, as, when and where required.

RVSM Safety Monitoring

4.11 The meeting recalled that in the previous SMR 2006, it was not possible to provide an estimate for the probability of vertical overlap due to atypical errors. Hence, it was neither possible to provide in that report direct nor supporting evidence of compliance with the ICAO overall TLS of 5×10^{-9} fatal accident per flight hour. Therefore, it was stressed in so many occasions during the MID RMA Board and ATM/SAR/AIS SG meetings on the importance of submitting the altitude deviation reports to the MID RMA on regular basis in accordance with MIDANPIRG/10 Conclusion 10/40.

4.12 The meeting noted that the MID RMA Board/7 meeting was informed about the problems encountered by the MID RMA in the development of the SMR 2008. Concern was raised regarding the unsatisfactory provision of data by States (traffic data, updated aircraft RVSM approvals, Altitude Deviation Reports and Coordination Failure Reports). The following table provided by the MID RMA presents the status of provision of data by States:

State	Actual FPL Traffic Data	ADR	CFR	RVSM Approvals
Bahrain	Very Good	Very Good	Very Good	Very Good
Egypt	Very Good	Very Good	Very Good	Very Good
Iran	Acceptable	Very Good	Very Good	Very Good
Jordan	Acceptable	Not Acceptable	Not Acceptable	Acceptable
Kuwait	Not Acceptable	Not Acceptable	Not Acceptable	Not Acceptable
Lebanon	Very Good	Acceptable	Acceptable	Very Good
Oman	Acceptable	Not Acceptable	Not Acceptable	Very Good

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Saudi Arabia	Very Good	Very Good	Very Good	Very Good
Syria	Not Acceptable	Not Acceptable	Not Acceptable	Not Acceptable
UAE	Not Acceptable*	Acceptable	Acceptable	Very Good
Yemen	Acceptable	Very Good	Not Acceptable	Not Acceptable
Afghanistan	-	-	-	Not Acceptable
Iraq	-	-	-	Not Acceptable
Israel	-	-	-	Not Acceptable
Qatar	-	-	-	Not Acceptable

4.13 The problem of communication with the MID RMA Board Members/Focal Points in some States has been highlighted, since they were being changed frequently and accordingly the communication between the MID RMA and these States was very difficult. In this regard, it was noted with great concern that no traffic data was received from Syria and the traffic data received from Kuwait was completely corrupted. Accordingly, the MID RMA Team took the initiative of extracting the data related to these two States from the traffic data of the adjacent States. Considering that UAE has joined the MID RMA during the process of assembling the necessary data for the development of the SMR 2008, the MID RMA managed also to extracting the data related to the Emirates FIR using the traffic data of the adjacent States. However, concern was raised regarding the quality of the data and the effect on the results of the safety assessment. It was highlighted that the MID RMA shall not be held liable or responsible of the quality of the data. It was further noted that Kuwait and Syria have not been providing the ADR and CFR as well as the updated list of RVSM approvals, as required.

4.14 The meeting noted that the MID RMA Board/7 meeting reviewed the draft version of the SMR 2008 prepared by the MID RMA with the assistance of EUROCONTROL. It was recognized that the level of reporting data to the MID RMA as well as the quality of the data provided have direct influence on the quality of the safety assessment results. The meeting noted the comments made by the MID RMA Board/7 meeting on the Draft SMR 2008 and reviewed the revised Draft version of the SMR 2008. In this regard, the meeting recalled that during the review of the Draft SMR 2008 by the MID RMA Board/7 meeting, concern was raised regarding the difficulties Kuwait is facing related to the traffic coming from Baghdad FIR, which is not an RVSM airspace. This includes problems of lack of communication and civil-military coordination. However, it was noted that these violations were not officially reported by Kuwait. The meeting noted that the MID RMA took follow up action with Kuwait and it was confirmed that the quasi-totality of violations took place below FL 280 and accordingly have no impact on the SMR 2008.

4.15 The meeting appreciated all the efforts deployed by the MID RMA Team to overcome the difficulties encountered and the delay observed for the provision of required data by States, in order to meet the deadlines defined during the MID RMA Board/6 meeting. It was noted with appreciation that the four safety objectives were met including safety objective#2 related to the overall vertical-collision risk, as follows:

Objective #1: That the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5×10^{-9} fatal accidents per flight hour.

Result: The computed vertical-collision risk due to technical height-keeping performance 1.93×10^{-13} meets the ICAO technical TLS of 2.5×10^{-9} fatal accidents per flight hour.

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- Objective #2:** The overall vertical-collision risk – the overall risk of mid-air collision in the vertical dimension - in MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour.
- Result:** The result for the estimated overall vertical-collision risk found 5.1×10^{-11} which meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour.
- Objective #3:** Address any safety-related issues raised in this report by recommending improved procedures and practices.
- Result:** Safety related issues regarding the Middle East RVSM operations have been identified and improved procedures and practices have been recommended for future MIDRMA practices.
- Objective #4:** Propose safety level improvements to ensure that any identified serious or risk bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.
- Result:** Current risk bearing situations have been identified in the Report and actions have been proposed to the MIDRMA to ensure relevant information is collected in order to identify operational issues and potential mitigations.

4.16 The meeting noted that the MID RMA Board/7 meeting was of view that it would be more appropriate to have the requirements for mandatory reporting of data to the RMAs included in the provisions of ICAO Annex 6 and Annex 11, as appropriate, since in all ICAO Regions States are required to provide to their RMAs on regular basis their list of RVSM approved aircraft, ADRs and CFRs. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 10/9: ICAO PROVISIONS RELATED TO THE MANDATORY REPORTING OF DATA TO THE RMAs

That, taking into consideration the unsatisfactory level of reporting of data by States to the RMAs, ICAO consider to include provisions related to mandatory reporting of data (list of RVSM approved aircraft, Altitude Deviation Reports and Coordination Failure Reports) in Annex 6 and Annex 11, as appropriate.

4.17 The meeting recalled that Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen agreed to provide the MID RMA with radar data, as and when required. The meeting re-iterated the importance of provision of required data to the MID RMA in a timely manner and continuous basis and agreed accordingly to the following Draft Conclusion which is proposed to replace and supersede MIDANPIRG Conclusions 10/35 and 10/40:

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***DRAFT CONCLUSION 10/10: SUSTAINED RVSM SAFETY ASSESSMENT
ACTIVITY IN THE MID REGION***

That, considering the on-going requirement for RVSM safety assessment in the MID Region:

- a) the MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);*
- b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;*
- c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:*
 - i) approval of operators and aircraft for RVSM operations (on monthly basis);*
 - ii) Altitude Deviation Reports (ADR) for deviations exceeding 300 ft (on monthly basis);*
 - iii) Coordination Failure Reports (CFR) (on monthly basis); and*
 - iv) traffic data (as requested by the MID RMA Board);*
- d) Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen are committed to provide their radar data to the MID RMA, as, when and where required; and*
- e) States not providing the required data to the MID RMA on a regular basis and in a timely manner:*
 - i) be included in the MIDANPIRG List of air navigation deficiencies; and*
 - ii) might not be covered by the RVSM SMRs.*

4.18 Based on the above, the meeting recalled the benefits of the implementation of RVSM in the MID Region especially with regard to the increase of the airspace capacity and the efficiency of air transport operations. However, it was emphasized that the MID RMA is required to present an RVSM Safety Monitoring Report to each MIDANPIRG Meeting with a view to demonstrate that safety is not compromised within the MID RVSM airspace and that the Target Levels of Safety are met. Accordingly, the meeting re-iterated that unless States make all effort to provide the required data to the MID RMA on a regular basis and in a timely manner, the MID RMA could not carry out its functions as specified in its duties and responsibilities and it would be impossible to demonstrate that the safety of RVSM operations in the whole MID RVSM airspace is maintained.

4.19 The meeting was of view that, it might be necessary to raise the awareness of States and their Air Navigation Service Providers about the requirements of the sustained RVSM safety assessment activity. In this respect, the meeting noted that the MID RMA Board/7 meeting was of view that the MID RMA in coordination with ICAO and Eurocontrol should organize a training event (seminar/workshop) on RVSM safety assessment, during which the different steps for the assessment of the vertical collision risk, the horizontal overlap, the overall vertical collision risk, etc, would be presented. It was also highlighted that during this training event the radar data recording and analysis software could be presented. In this regard, the meeting noted with satisfaction that Bahrain agreed in principle to host the MID RVSM Safety Assessment Seminar/Workshop and the ATM/SAR/AIS SG/11 from 8 to 12 November 2009.

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4.20 The meeting agreed with the MID RMA Board/7 meeting that the RVSM Safety Assessment Seminar/Workshop would represent an important opportunity for the experts from the region to acquire better knowledge related to RVSM safety assessment activity. It was recognized that the expertise in such a complicated discipline could not be acquired in a short period. However, by participating in a number of RVSM safety assessment activities/exercises, the knowledge and expertise could be acquired, gradually. In this regard, the meeting was of view that the establishment of a scrutiny group during the development of the SMRs could be a good opportunity for a number of ATC and safety experts from the region to get such an expertise. Furthermore, the participation of experts from the region to the scrutiny group could provide local expertise. In this regard, the meeting noted that for the SMR 2006 and SMR 2008, the scrutiny group was composed of EUROCONTROL ATC and safety experts in addition to the MID RMA experts. The meeting noted that the TOR of such a scrutiny group would be defined and presented to the MID RMA Board/8 meeting.

Requirements for Height Monitoring for aircraft/operators without known monitoring results

4.21 The meeting noted that the MID RMA Board/5, Board/6 and Board/7 meetings were informed about a proposal for amendment to Annex 6 Part I and Part II concerning long term monitoring requirements for height keeping performance which would harmonize RVSM approval criteria and help to maintain the safety of operations. It was noted that the State of Registry that had issued an RVSM approval to an operator would be required to establish a requirement which ensures that two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator of aircraft type grouping consists of a single aeroplane, the requirement would be that the monitoring of that aeroplane shall be accomplished within the specified period.

4.22 The meeting recalled that the MID RMA Board/6 meeting, under Draft Conclusion 6/3, agreed that those aircraft/operators without known height monitoring results should be identified by the MID RMA in coordination with EUROCONTROL based on the updated RVSM approvals and traffic data provided by States, in accordance with ICAO aircraft grouping categories. The list of identified aircraft/operators should then be forwarded to the concerned States in order to instruct the identified operators to carry out necessary height monitoring (using GMU or the available HMU infrastructure).

4.23 The meeting further noted that the MID RMA in coordination with EUROCONTROL and based on the updated RVSM approvals and traffic data provided by States, has identified the list of aircraft without known height monitoring results as well as a list of aircraft requiring height monitoring, in accordance with ICAO aircraft grouping categories. It was noted in this regard that a total of **749** RVSM approvals from the Middle East Region were available during the assessment period used for the development of the SMR 2008. From the **749** approved aircraft, only **465** aircraft (62%) had monitoring results from the European HMUs, and **284** aircraft (38%) had no known monitoring results.

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4.24 Based on the above, the meeting noted that the MID RMA Board/7 meeting developed the following Draft Conclusion:

*DRAFT CONCLUSION 7/7: REQUIREMENTS FOR HEIGHT MONITORING
FOR AIRCRAFT/OPERATORS WITHOUT KNOWN
MONITORING RESULTS*

That, based on the lists of aircraft without known height monitoring results and the list of aircraft requiring height monitoring identified by the MID RMA, in accordance with ICAO aircraft grouping categories, the States of registry are urged to:

- a) review the lists provided by the MID RMA and send feedback to the MID RMA before 30 November 2008; and*
- b) instruct the identified aircraft operators to conduct necessary height monitoring using either GMU or the available HMU infrastructure and provide the monitoring results to the MID RMA before 31 January 2009.*

4.25 In connection with the above, the meeting noted that Egypt requested the agreement of the MID RMA Board to go ahead with a feasibility study and Cost/Benefit Analysis related to the implementation of an HMU in the MID Region. It was also noted that Bahrain informed the MID RMA Board/7 meeting that they are considering to look into a consultancy service to carry out a feasibility study and Cost/Benefit Analysis for an appropriate Monitoring infrastructure to support the MID RMA activity. The meeting noted that Bahrain and Egypt were requested to present WPs on the subject to the next MID RMA Board/8 meeting.

Preparations for SMR 2010

4.26 Based on the experience gained during the development of the SMR 2006 and SMR 2008, and considering that the process of collecting the data necessary for the development of SMRs is time consuming, the meeting noted that the MID RMA Board/7 meeting started the planning related to the development of the SMR 2010. Accordingly, considering that MIDANPIRG/12 is tentatively scheduled for the fourth quarter of 2010, it was agreed that FPL/traffic data for the month of June 2009 should be used for the development of SMR 2010.

4.27 The meeting recalled that for the development of the SMR 2008, concern was raised regarding the level of reporting of the Aircraft Registration (ACFT REG). It was underlined that this information is very important and has an influence on the results of the assessment. The meeting re-iterated that the verification of the ACFT REG is the responsibility of the departure/entry FIR, i.e.: in case there's a difference between the ACFT REG reflected in the FPL and the real ACFT REG, this has to be notified by the departure/entry FIR.

4.28 The meeting recalled that the MID RMA Board/7 meeting questioned if for future SMRs, it would be better to consolidate safety objectives #3 and #4. Accordingly, the meeting was of view that contrary to safety objectives #1 and #2 which are measurable, safety objectives #3 and #4 are subjective and inter-related.

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4.29 Based on the above, the meeting agreed to consolidate safety objectives #3 and #4, and developed the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/38:

DRAFT CONCLUSION 10/11: MID RVSM SAFETY OBJECTIVES

That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives:

- a) **Safety Objective 1:** *that the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5×10^{-9} fatal accidents per flight hour;*
- b) **Safety Objective 2:** *that the overall vertical-collision risk – i.e. the overall risk of mid-air collision in the vertical dimension in MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour; and*
- c) **Safety Objective 3:** *address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.*

MID RMA Duties and Responsibilities

4.30 The meeting recalled that the MID RMA Board/6 meeting noted that the Terms of Reference (TOR) of the MID RMA Board as well as the duties and responsibilities, and the guiding principles addressing the scope, administrative arrangements and management of the MID RMA have not been updated since the establishment of the MID RMA. Accordingly, the meeting noted that the MID RMA Board/7 reviewed and updated the TOR of the MID RMA Board as at **Appendix 4B** to the Report on Agenda Item 4.

4.31 The meeting reviewed the duties and responsibilities of the MID RMA at **Appendix 4C** to the Report on Agenda Item 4, as updated by the MID RMA Board/7 meeting. It was agreed that, at this stage, the MID RMA should focus only on the activities related to RVSM safety monitoring/assessment, in accordance with the ICAO Doc 9574 (RVSM Manual).

4.32 The meeting noted with appreciation that the Secretariat developed a Draft MID RMA Manual, which includes reference material related to the initial set up, administrative management, membership, funding mechanism, duties and responsibilities of the MID RMA as well as the requirements for RVSM safety assessment. It was noted that the Draft MID RMA Manual incorporated the relevant MIDANPIRG/10 Conclusions related to the MID RMA, in accordance with the MSG/1 decision related to the follow-up of MIDANPIRG Conclusions/Decisions. The meeting noted that the MID RMA Board/7 meeting agreed that the MID RMA Board Members should contribute to the improvement of this Manual. Accordingly, it was agreed that an updated version be presented to the MID RMA Board/8 meeting.

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RVSM Implementation in Baghdad FIR

4.33 The meeting noted with appreciation that through the combined efforts of all aviation stakeholders, RVSM was implemented in the AFI region starting 25 September 2008, under the leadership of ICAO.

4.34 The meeting recalled that the Special Baghdad FIR Coordination Meeting (Cairo, 28-29 May 2008) recognized the importance of implementing RVSM in the Baghdad FIR. The meeting noted that IATA considers that with the efforts of all concerned parties, RVSM implementation in Baghdad FIR could be achievable during 2009.

4.35 The meeting was of view that the provision of required ATC and CNS facilities and services represent one of the pre-requisites for the RVSM implementation; Planning for RVSM implementation would require also the active participation of experts in airworthiness, flight operations, air traffic management, safety assessment and height monitoring; A detailed Functional Hazard Analysis (FHA) shall be carried out to provide assurance that all hazards and risks associated with RVSM implementation in Baghdad FIR have been identified and analyzed; and an RVSM Pre-Implementation Safety Case (PISC) should be developed to provide evidence about the safe implementation of RVSM. In this regard, the meeting recalled that in accordance with its duties and responsibilities the MID RMA is responsible for the development of the RVSM PISC for Baghdad FIR.

4.36 Based on the above the meeting agreed to the establishment of a Working Group for the development of necessary planning materials related to RVSM implementation in Baghdad FIR and for assisting the Iraqi Civil Aviation Authority in expediting the implementation of such an important project. Accordingly, the meeting developed the following Draft Decision:

***DRAFT DECISION 10/12: ESTABLISHMENT OF THE BAGHDAD FIR
RVSM IMPLEMENTATION WORKING GROUP
(BFRI WG)***

*That, the Baghdad FIR RVSM Implementation Working Group is established with Terms of Reference as at **Appendix 4D** to the Report on Agenda Item 4.*

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Appendix 4A to the Report on Agenda Item 4



**Middle East Regional Monitoring Agency
(MID RMA)**

**MEMORANDUM
OF AGREEMENT**

Bahrain - 27 February, 2006

MEMORANDUM OF AGREEMENT
on the establishment, operation and management of the
Middle East Regional Monitoring Agency (MID RMA)
and its funding by the Participating States

1. PARTIES

1.1 The Parties to this memorandum of agreement are: Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria and Yemen.

2. AGREEMENT

- CONSIDERING the urgent need to institute a programme, on a regional basis, for monitoring the height-keeping performance of aircraft operating in RVSM airspace;
- CONSIDERING the Parties' earlier decision that the Middle East Regional Monitoring Agency (MID RMA) will be funded entirely by the participating States and that the budget estimate for the first year, be paid by the Parties on equal basis;

The Parties have agreed as follows:

1. The Parties to this memorandum of agreement, referred to hereunder as Participating States agree to establish the Middle East Regional Monitoring Agency (MID RMA) and undertake to become its members;
2. The MID RMA shall be managed as a Regional programme; shall have legal personality and shall act through the MID RMA Board;
3. The overall objective of the MID RMA is the promotion of safety of air navigation in the Middle East Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional Monitoring Agency;
4. The MID RMA Board, in which each Participating State is entitled to appoint one member, shall retain overall direction and responsibility for the supervision and operation of the MID RMA in accordance with the relevant obligations of the Participating States under the Convention on International Civil Aviation and its Annexes. The Board shall elect its chairman. It shall inter-alia, supervise and direct the MID RMA, follow-up its activities and reports and assign its priorities. It shall also secure the commitment of Participating States for funding the MID RMA in accordance with agreed funding mechanism and for provision of necessary data for the MID RMA;
5. The MID RMA's scope, duties and responsibilities will be those agreed by the Board's first meeting and could be revised by the Board. The MID RMA will be assigned clear tasks in a step-by-step approach starting with RVSM height monitoring and RVSM post-implementation safety assessment, having in mind the end objectives, which will include RNP/RNAV and SMS. The MID RMA duties and responsibilities will include, but will not be limited to the following:
 - collecting and analysing RVSM data received from MID States as well as from Eurocontrol/FAA, IATA and airlines;
 - collecting data on aircraft approved by various States for operation within RVSM airspace in the MID Region and enter such data in the MID RMA database;
 - verification of the effectiveness of the approval process by States;
 - establishing a database for reporting height deviations of aircraft;
 - verification that the target level of safety on implementation of RVSM is met and maintained;

- monitoring the effectiveness of the altimetry system modifications to enable aircraft to meet the required height keeping performance criteria;
 - evaluation of the stability of altimetry system error;
 - undertake monitoring missions to States as required;
 - determine in the light of analysis made of data received and of missions conducted, whether compliance with required safety standards is maintained and initiate corrective action as needed in each case; and
 - submit a report to each Board meeting on MID RMA activities, its analysis of data and any identified departure from RVSM Safety limits, for its consideration and action as appropriate.
6. The Participating States have accepted Bahrain's offer to host the MID RMA in Bahrain to enable the early establishment and functioning of the MID RMA;
 7. Bahrain will provide the offices, equipment and local personnel needed for the MID RMA operations and pay for the initial set up of the MID RMA without waiting for MID States' contributions. The advance payment made by Bahrain shall be recovered through States' contributions in compliance with the agreed funding mechanism;
 8. Based on the agreed funding mechanism for the first year of operation of the MID RMA, the cost for the establishment of the MID RMA, its operation and management for the first year shall not exceed the estimated amount of US\$ 300,000, which shall be borne by the Participating States on equal basis;
 9. The funding mechanism and consequent contributions of Participating States may be modified in subsequent years by decision of the Board;
 10. The MID RMA staff shall be composed of:
 1. MID RMA Manager/Team Leader (Part Time)
 2. One Assistant MID RMA Officer (Full Time)
 3. Database Specialist (Part Time)
 11. The MID RMA Manager/Team Leader shall manage the project on day-to-day basis and effect coordination with the Chairman of the MID RMA Board. He shall submit the MID RMA reports to the Board with copies to the ICAO Regional Office in Cairo;
 12. Bahrain shall monitor the progress of the MID RMA, maintain financial accounting and provide general support and timely reporting;
 13. Participating States authorize the MID RMA Board Chairman to negotiate on behalf of the MID RMA an agreement with ICAO and Bahrain specifying ICAO's role as the custodian of the funds collected for the purpose of this agreement, in compliance with ICAO's Financial Regulations and Rules;
 14. This Memorandum of Agreement shall come into effect on the date it has been signed by the Participating States;
 15. Any amendment to this Memorandum of Agreement, shall be carried out by the parties to this agreement;
 16. Any dispute arising out of or relating to this Memorandum of Agreement, shall be settled by direct consultation between the Participating States concerned;
 17. Any Participating State may withdraw from this Memorandum of Agreement by giving a prior notice of **six (6) months** to other Participating States. The obligations assumed by the Participating States under this Memorandum of Agreement shall continue to exist after the

withdrawal from this Memorandum of Agreement to the extent necessary to permit the orderly finalization of activities, the withdrawal of personnel, the distribution of funds and assets and the settlement of contractual obligations. Additional funds, if necessary, to cover the above mentioned expenditures shall be provided by the Participating States.

18. The hosting of the MID RMA by Bahrain may be terminated at the request of Bahrain, with two years advance written notification to the MID RMA Board to allow sufficient time for selection of an alternative location and necessary arrangements for transfer of the MID RMA.
19. All correspondence relating to the implementation of this Agreement, shall be addressed to:

MID RMA



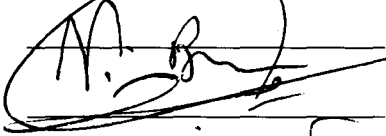








Chairman of the MID RMA Board
C/o Ministry of Transportation
P.O. Box 586
Bahrain International Airport
Manama - Bahrain

With copy to the:

ICAO Regional Director

ICAO Middle East Regional Office
Egyptian Civil Aviation Complex, Airport Road
P.O Box 85, Airport Post office, Terminal One
11776, Cairo, Egypt

Agreed on behalf of MID RMA States

State	Signature	Title	Date
Bahrain		AIDIRECTOR AIR NAVIGATION	27/2/06
Egypt		ATS Safety Manager	28/2/2006
Iran		CAO, N. REZAKHANLOU	21.03.2006
Jordan		Director ATM	28/2/2006
Lebanon		CHIEF AIR NAV DEPT	27th Feb 2006
Kuwait		DT DG CA Gov NEA	27/2/2006
Oman		ADGCAM	27th Feb 2006
Saudi Arabia		RUSM / Manager	27.2.2006
Syria		Director General	21. March 2006
Yemen		Chairman of Cama	21.03.2006
UAE		DG. UAE GCAA	20/10/2008

MIDDLE EAST REGIONAL MONITORING AGENCY (MID RMA) BOARD

TERMS OF REFERENCE

The Terms of Reference of the MID RMA Board are as follows:

1. The Board ~~will be~~ **is** responsible for overall supervision, direction, and management of the MID RMA project.
2. The Board ~~will~~ **shall** elect a Chairperson.
3. The elected Chairperson ~~will be~~ **acts as** the contact point/coordinator on behalf of the MID RMA Board members to oversee the MID RMA project in coordination with ICAO.
4. The Board ~~will~~ **shall** review and update the MID RMA work plan on a yearly basis and/or whenever required.
5. The Board ~~will~~ **shall** meet at least once a year or when deemed necessary to review/update, consider, and approve:
 - i. the MID RMA safety reports;
 - ii. matters related to funding mechanism, costs, accounting, etc; and
 - iii. the duties, responsibilities and scope of the MID RMA.
6. **The MID RMA Board meetings should be hosted by Participating States on rotation basis.**
- ~~6.7.~~ The Board ~~through its Chairperson will~~ reports its activity to MIDANPIRG through the ATM/SAR/AIS Sub Group.

Composition:

The MID RMA Board ~~will~~ **shall** consist of focal points nominated by each Participating MID Region State as signatories on their behalf with ICAO Technical Cooperation Bureau (TCB) in relation with the MID RMA project.

The MID RMA Board meetings will be attended by:

- The Board members
- ICAO Regional Office, as permanent observer; and
- Other Organizations (EUROCONTROL, FAA, IATA, etc) as observes on ad-hoc basis and as required.

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Appendix 4C to the Report on Agenda Item 4

DUTIES AND RESPONSIBILITIES OF THE MID RMA

The Middle East Regional Monitoring Agency (MID RMA) has the following duties and responsibilities:

- 1- To establish and maintain a central registry of State RVSM approvals of operators and aircraft using the Middle East Region airspace where RVSM is applied.
- 2- To initiate checks of the “approval status” of aircraft operating in the relevant RVSM airspace, identify non-approved operators and aircraft using RVSM airspace and notify the appropriate State of Registry/State of the Operator and other RMAs, accordingly.
- 3- To establish and maintain a database containing the results of height keeping performance monitoring and all altitude deviations of 300 ft or more within Middle East Region airspace, and to include in the database the results of MID RMA requests to operators and States for information explaining the causes of observed large height deviations.
- 4- Provide timely information on changes of monitoring status of aircraft type classifications to State Authorities and operators.
- 5- To assume overall responsibility for assessing compliance of operators and aircraft with RVSM height keeping performance requirements in conjunction with RVSM introduction in the Middle East Region.
- 6- To facilitate the transfer of approval data to and from other RVSM Regional Monitoring Agencies.
- 7- To establish and maintain a database containing the results of navigation error monitoring.
- 8- To conduct safety analysis for RVSM operations in the MID Region and prepare RVSM Safety Monitoring Reports (SMR) as instructed by MIDANPIRG and the MID RMA Board.
- 9- To conduct readiness and safety assessments to aid decision-making in preparation for RVSM implementation in those FIRs where RVSM is not yet implemented.
- 10- To carry out post-implementation safety assessments, as appropriate.
- 11- Based on information provided by States related to planned changes to the ATS routes structure, advise States and MIDANPIRG on the effects of such changes on the safe RVSM operations in the MID Region.
- 12- To liaise with other Regional Monitoring Agencies and organizations to harmonise implementation strategies.

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Appendix 4D to the Report on Agenda Item 4

**BAGHDAD FIR RVSM IMPLEMENTATION WORKING GROUP
(BFRI WG)**

A) TERMS OF REFERENCE

With a view to coordinate and support the RVSM implementation activities in the Baghdad FIR, the Baghdad FIR RVSM Implementation Working Group (BFRI WG) shall:

- 1) Carry out a readiness assessment survey for RVSM implementation within Baghdad FIR;
- 2) Assist Iraq in the development of a comprehensive RVSM implementation plan and national safety plan;
- 3) Monitor and coordinate with Iraq the implementation of the RVSM programme within Baghdad FIR;
- 4) Carry out a Functional Hazard Analysis (FHA) which provides assurance that all hazards and risks associated with RVSM implementation within Baghdad FIR have been identified and analyzed;
- 5) Assist Iraq in the identification of necessary ATS equipment changes to accommodate the RVSM operations within Baghdad FIR;
- 6) Assist Iraq in the development of necessary ATS procedures related to RVSM operations within Baghdad FIR, including the contingency procedures;
- 7) Develop in coordination with the MID RMA an RVSM Pre-Implementation Safety Case (PISC) to provide evidence about the safe implementation of RVSM in Baghdad FIR;
- 8) Identify the needs for training and assist Iraq in the development of a training plan for the ATS personnel;
- 9) Consider interface issues related to RVSM implementation and operations with the adjacent Regions;
- 10) Assist Iraq in the publication of necessary Aeronautical Information Publication related to RVSM implementation within Baghdad FIR;
- 11) Monitor the process of signature of updated Letter of Agreements between Baghdad ACC and the adjacent ACCs;
- 12) Prepare necessary proposal for amendment to Doc 7030 related to RVSM implementation within Baghdad FIR; and
- 13) Address any other issue related to RVSM implementation within Baghdad FIR.

B) COMPOSITION

The BFRI WG will be composed of:

Bahrain, Iran, Iraq, Jordan, Kuwait, Saudi Arabia and Syria, MID RMA, IATA and IFALPA.

Other representatives, who could contribute to the activity of the Working Group, could be invited to participate as observers.

C) WORKING ARRANGEMENTS

- 1) The BFRI WG shall:
 - report to the ATM/SAR/AIS Sub Group; and
 - appoint a Rapporteur to facilitate its proceedings; and
 - meet as required and be dissolved once RVSM is implemented within Baghdad FIR.
- 2) The work of the BFRI WG shall be carried out mainly through exchange of correspondence (email, facsimile, Tel, etc) between its Members; and
- 3) The convening of the Working Group meetings should be initiated by the Rapporteur in coordination with the Members of the Group and the ICAO MID Regional Office.

ATM/SAR/AIS SG/10
Report on Agenda Item 5

REPORT ON AGENDA ITEM 5: SSR CODE ALLOCATION PLAN (CAP) FOR THE MID REGION

5.1 The meeting discussed the work and outcome of the MID Secondary Surveillance Radar Codes Allocation Study Group (SSGCASG), culminating with the outcome of the second meeting of the Study Group (SSRCASG/2), which was held at the ICAO Middle East Regional Office, Cairo, Egypt 04-05 March 2008.

5.2 The meeting recalled that at its ninth meeting in December 2008, the ATM/SAR/AIS Sub-Group considered the modified Terms of Reference (TOR) and list of tasks of the SSRCASG and, adopted Draft Decision 9/4: *Revised Terms of Reference of the Study Group*, and Draft Decision 9/5: *List Of Tasks for the SSR Code Allocation Study Group*. The meeting agreed however, that in order to allow the Study Group necessary flexibility in its working arrangements, the List of Tasks for the Study Group should be left at level of the Study Group itself. Accordingly, the meeting agreed to the following Draft Decision to supersede MIDANPIRG/10 Conclusion 10/44 and ATM/SAR/AIS SG/9 Draft Conclusions/Decisions 9/4, 9/5:

DRAFT DECISION 10/13: MID REGION SSR CODE ALLOCATION STUDY GROUP (SSRCASG)

That, the MID Region SSR Code Allocation Study Group revised Terms of Reference are adopted as at Appendix 5A to the Report on Agenda Item 5.

(This Draft Conclusion supersedes ATM/SAR/AIS Draft Decisions 9/4 and 9/5 and is to supersede MIDANPIRG/10 Conclusion 10/44).

5.3 The meeting noted that in addition to long term issues that were inherent in the existing MID SSR CAP, there were SSR code allocation problems that arose from the interface areas between the ICAO MID, EUR and AFI Regions, as well as code shortage problems that were exacerbated by the inappropriate use of codes, such as the use of domestic codes on international flights.

5.4 The meeting recalled also that the ATM/SAR/AIS SG/9 formulated Draft Conclusion 9/6: *Measures to Address Non-system SSR Code Allocation Problems* and Draft Conclusion 9/7: *Application of Originating Region Code Assignment Method (ORCAM) in the Mid Region*. The meeting recalled however, that for the SSRCASG to complete its work, particularly with regard to selection of number and configuration of the MID ORCAM Participating Areas (PAs), it requires specific data and information which includes traffic patterns and volume, as well as Flight Data Processing Systems' (FDPS) capabilities. The meeting noted with concern that this information had not been forthcoming as expected and urged States that had not already done so to provide the requested information as per State Letters from the MID Regional Office. In this regard, the meeting endorsed the SSRCASG/2 meeting Draft Conclusion 2/3: *Collection of Traffic Volume and Pattern Data*.

5.5 It was indicated that some FIRs such as Bahrain, continue to face problems with respect to some adjacent FIRs who do not use the SSR codes as allocated in the MID CAP. This resulted in the air traffic controllers in Bahrain ACC having to change codes as part of coordinating the traffic, consequently creating unnecessary workload burden on the controllers. The meeting noted also that, coordination and code assignment changes involving aircraft from the Baghdad FIR into

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Jeddah and Kuwait FIRs is also a continuing problem. The meeting requested the Secretariat to send a State Letter reminding States about their obligations and the MIDANPIRG Conclusions related to the matter.

5.6 In light of the foregoing, the meeting formulated the following Draft Conclusions to supersede ATM/SAR/AIS SG/9 9/6, 9/7, and SSRCASG/2 Draft Conclusion 2/3:

DRAFT CONCLUSION 10/14: MEASURES TO ADDRESS NON-SYSTEM SSR CODE ASSIGNMENT PROBLEMS

That, in order address those SSR code assignment problems that are not typically the Code Allocation Plan (CAP) system problems:

- a) MID States are urged to undertake necessary coordination with adjacent States/FIRs to address identified SSR Code assignment problems or potential problems with such adjacent FIRs; and*
- b) in cases where identified Code assignment conflicts are beyond the ability of States' bilateral or multilateral initiatives to address, the ICAO MID Regional Office be notified as soon as practical, in order to take necessary action.*

(This Draft Conclusion supersedes ATM/SAR/AIS Draft Conclusion 9/6).

DRAFT CONCLUSION 10/15: ADOPTION OF THE ORIGINATING REGION CODE ASSIGNMENT METHOD (ORCAM) IN THE MID REGION

That, in order to improve the MID SSR Code Allocation System:

- a) the MID Region adopts the Originating Region Code Assignment Method (ORCAM). The MID Region will consider three ORCAM Participating Areas (PA); the number of PAs to be finalised based on studies of Regional traffic patterns and volume data, and coordination with adjacent ICAO Regions;*
- b) the ICAO MID Regional Office take necessary action to obtain data from States and other ICAO Regions for the Study Group to complete its work; and*
- c) In order to facilitate an effective analysis of the traffic statistics required for decision on PAs, MID FIRs provide traffic data in accordance with the format provided by the MID Regional Office.*

(This Draft Conclusion supersedes ATM/SAR/AIS Draft Conclusion 9/7 and SSRCASG Draft Conclusion 2/3).

5.7 The meeting noted with encouragement that SSRCASG/2 had discussed the issues of "code sharing," reduction of the current three hour code occupancy time, as well as the use of code series 75 and 76, all of which had been noted in past meeting of the Study Group, and that the SSRCASG/2 had noted clear benefits for the short and long term. Accordingly SSRCASG/2 had formulated Draft Conclusion 2/1: *SSR Codes Sharing*, calling for the adoption of the "code sharing" approach in the MID Region, and Draft Conclusion 2/2: *Reduction of SSR Code Occupancy Time*.

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5.8 Based on the above, the ATM/SAR/AIS SG/10 formulated the following Draft Conclusions to supersede the SSRCASG/2 Draft Conclusions 2/1 and 2/2:

DRAFT CONCLUSION 10/16: SSR CODES SHARING IN THE MID REGION

That, in order to increase the availability of SSR codes in the MID SSR code allocation system:

- a) the MID Region adopt the approach of “code sharing” between FIRs that are geographically adequately disparate and where directional assignment of SSR codes makes “code sharing” practical;*
- b) the “code sharing” be implemented after an amendment of the MID ANP FASID to this effect has been approved, appropriate safety assessments have been carried out, and the concerned FIRs signed the relevant Letters of Agreement (LOA), except where a Regional arrangement obviates such action; and*
- c) the CNS Sub-Group be requested to consider the feasibility of FDPS upgrades in the MID Region to further support SSR code sharing approach.*

(This Draft Conclusion supersedes SSRCASG Draft Conclusion 2/1).

DRAFT CONCLUSION 10/17: REDUCTION OF SSR CODE OCCUPANCY TIME

That, in order to increase the availability of SSR codes allocated to each MID FIR:

- a) the SSR code occupancy time be changed from three hours to a maximum of two hours where practicable;*
- b) the time to be applied by each FIR continue to be predicated by safety and be based on the requirement of the FIR as dictated by such factors as the size of the FIR; and*
- c) the Secretariat take appropriate measures to process the amendment of the MID ANP FASID Part V Attachment B.*

(This Draft Conclusion supersedes SSRCASG Draft Conclusion 2/2).

5.9 Regarding the use of code series 75 and 76, the meeting noted that, as part of the short term measures to alleviate code shortage, the Study Group requested the Secretariat look into the possible use of these code series as this could provide immediate relief which is required by some MID FIRs, noting that the series were used in some FIRs in other ICAO Regions. The ATM/SAR/AIS SG/10 meeting noted that the Secretariat is at a point of verifying with MID States regarding radar systems in use in the Region, which might impact on whether or not the above series are used in the Region. In this regard, States were urged to respond to the relevant State Letters from the MID Regional Office.

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SSR CODES ALLOCATION STUDY GROUP (SSRCASG)

TERMS OF REFERENCE

(Revised)

- 1- Assess the SSR Code allocation system situation in the MID Region and the adjacent ICAO Regions.
- 2- Propose short term solutions to address the identified SSR Code allocation system problems.
- 3- Evaluate the advantages/disadvantages of a single *Participating Area* (PA) versus multiple PAs.
- 4- Analyze the development of PAs taking into consideration the following:
 - operational consideration for the definition of PAs (scope and number);
 - volume of traffic;
 - impact on adjacent FIRs/Pas;
 - national defense requirements;
 - automation system limitations; and
 - Duration of code usage within a particular area..
- 5- Analyze the application the *Originating Region Code Assignment Method* (ORCAM) in the MID Region.
- 6- Identify long term measures.
- 7- The Study Group will have the mandate to discuss, within its TORs, with adjacent ICAO Regions without having to go through the ATM/SAR/AIS SG.
- 8- The Study Group will consist of the following MID States and International Organizations :

STATES

Egypt, Iran, Oman, Saudi Arabia, Syria and UAE.

ORGANIZATIONS (AS OBSERVERS)

IATA, ICAO and, EUROCONTROL (on *ad-hoc* basis).

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Report on Agenda Item 6

REPORT ON AGENDA ITEM 6: ATS SAFETY MANAGEMENT SYSTEMS

6.1 The meeting recalled the harmonized ICAO provisions for safety management pertaining to Annexes 6, 11 and 14. More specifically, the meeting recalled that the provisions require States to establish a safety programme and, as a part of such a programme, require aerodrome operators, air traffic services providers and air operators to implement a Safety Management System (SMS) acceptable to the Authority. The meeting reflected on the various responsibilities in the implementation of safety management provisions, and recognized that there were three distinct elements in the provisions of the safety management to be highlighted:

- *Safety Programmes* to be established by authorities;
- *Safety Management Systems* to be implemented by ATS service providers, as part of, and as required within the context of the State Safety Programme; and
- Establishment of an *Acceptable Level of Safety*
 - *State Safety Programmes* – To fulfil its diverse safety responsibilities effectively, a State requires a Safety programme to integrate its multidisciplinary safety activities into a coherent whole. A State Safety Programme therefore is an integrated set of regulations and activities aimed at improving safety.
 - *Safety Management Systems* – *The ICAO definition for Safety Management System (SMS) is: A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures. The SMS, which is to be established and sustained by service providers, is part of the State Safety Programme and should meet the requirements of the Safety Programme.*
 - *Acceptable Level of Safety* – *The concept of acceptable level of safety responds to the need to complement the prevailing approach to management of safety based upon regulatory compliance, with a performance-based approach. The acceptable level of safety expresses their safety goals, or expectations, of the State and the service provider.*

6.2 Details on the State Safety Programmes, Safety Management System, and the Acceptable Level of Safety, as well as their relationships can be found in the ICAO Safety Management Manual (Doc 9859).

6.3 The meeting recalled that, the ICAO Safety Management provisions became applicable as of 23 November 2006 for national authorities, aerodromes operators and air traffic services providers.

6.4 The meeting noted that the 36th Session of the ICAO Assembly adopted Resolution A36-7: *ICAO Global Planning for Safety and Efficiency* to supersede A33-16 on the ICAO Global Aviation Safety Plan (GASP), and that the GASP, which is Appendix A to Resolution A36-7, addresses, inter alia, implementation of safety management systems and the concept of “just culture.”

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6.5 Furthermore, the meeting noted that with respect to collection and protection of safety related information, and improving accident prevention, the Assembly adopted Resolution A36-8: *Non-disclosure of certain accident and incident records* to supersede Resolution A33-17, Resolution A36-9: *Protecting information from safety data collection and processing systems in order to improve aviation safety*, to supersede Resolution A35-17, and Resolution A36-10: *Improving accident prevention in civil aviation* to supersede Resolution A31-10.

6.6 The meeting recalled that the implementation of safety management provisions in the MID Region was noted by MIDANPIRG/10 as low and below expectation. The MID list of air navigation deficiencies indicates that most States are yet to implement Annex 11 provisions with respect to safety management. Furthermore, that a survey aimed at assessing the status of implementation (or progress), had a low response and was thus regarded by the ATM/SAR/AIS SG/9 meeting, as inconclusive.

6.7 Based on the above, the meeting formulated the following Draft Conclusion to update material in MIDANPIRG/10 Conclusion 10/80: *Reporting Mechanism and Sharing of Safety-related Information* and Conclusion 10/81: *Survey on ATS Safety Management*, and to supersede the two Conclusions:

DRAFT CONCLUSION 10/18: ATS SAFETY MANAGEMENT

That, MID States:

- a) *that have not yet done so, are urged to establish safety programmes and ensure the implementation of safety management systems by their ATS service providers in accordance with the provisions of Annex 11;*
- b) *are urged to give effect, through legislative provisions where applicable, to ICAO Resolutions A36-7, A36-8, A36-9 and A36-10 regarding safety management systems, collection and protection of safety information, and improving accident prevention;*
- c) *designate focal points to whom operators may send incident reports for investigation and resolution, and from whom they may request pertinent information;*
- d) *share safety information including information on ATS incidents and accidents; and*
- e) *take advantage of the safety management guidance material and training offered by ICAO.*

(This Draft Conclusion is to supersede MIDANPIRG Conclusions 10/80 and 10/81).

6.8 The meeting noted the importance of focal points as contained in above Draft Conclusion, and that the updates regarding the focal points and their contact details were imperative for proper reporting of incidents and follow up.

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REPORT ON AGENDA ITEM 7: CONTINGENCY PLANS

7.1 The meeting recalled that the provisions regarding contingency arrangements, which detail States' ATS obligations to develop and promulgate contingency plans for implementation in the event of disruption or potential disruption of ATS and supporting services, are contained in Chapter 2 of Annex 11. Furthermore, that guidance material relating to the development, promulgation and implementation of contingency plans is contained in Attachment C to Annex 11.

7.2 To this end, the meeting recalled also that the MIDANPIRG/10 meeting, Doha 15 to 19 April 2007, noting the low level of implementation of contingency plans had adopted Conclusion 10/45: *Development and Promulgation of Contingency Plans*, among others, requesting the MID Regional Office to conduct a survey in order to assess progress in the implementation of contingency arrangements. However, due to the low level of responses, the outcome of the survey could not be taken as a reflection of the status of implementation of the Annex 11 contingency arrangements provisions in the MID Region. Accordingly, at its ninth meeting in December 2007, the ATM/SAR/AIS Sub-Group formulated Draft Conclusion 9/8: *Interaction with states*, requesting the Secretariat to accord further effort on interaction with States, with the objective to more accurately determine the level of implementation of contingency arrangements and necessary action to address implementation.

7.3 The meeting noted that, since 2007 a number of States have provided the MID Regional Office with copies of their contingency plans, which indicates continuing efforts to comply with the provisions of Annex 11. The plans however, were still to be aligned with the agreed template referred to in MIDANPIRG/10 Conclusion 10/45 and all of the provisions of Annex 11. The meeting noted also, that one of the challenges contributing to the low pace in implementation was the process of consultation and agreements with adjacent airspaces (States), in support of the contingency plans.

7.4 The meeting recalled that, although, some disabling natural phenomena were not frequent in the Region, devastating floods had been experienced recently, and so is a volcanic activity. Moreover, the Region is reportedly not out of the risk of earth quakes. These were some of the sound reasons to expedite the implementation of contingency arrangements.

7.5 Based on the above, the meeting agreed to the following Draft Conclusion to update and supersede MIDANPIRG/10 Conclusion 10/45 and ATM/SAR/AIS SG/9 Draft Conclusion 9/8:

**DRAFT CONCLUSION 10/19: DEVELOPMENT AND PROMULGATION OF
CONTINGENCY PLANS**

That, MID States:

- a) *are urged to develop and promulgate contingency plans in accordance with Annex 11 and Annex 15 provisions; and*
- b) *use the template at **Appendix 7X** to the Report on Agenda Item 7 for the development and promulgation of contingency plans.*

(This Draft Conclusion supersedes MIDANPIRG/10 Conclusion 10/45 and ATM/SAR/AIS SG/9 Draft Conclusion 9/8).

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Report on Agenda Item 8

REPORT ON AGENDA ITEM 8: SEARCH AND RESCUE (SAR) AND CIVIL/MILITARY COORDINATION

Search and Rescue

8.1 The meeting recalled that States' obligations with regard to SAR are rooted, specifically, in Article 25 of the Convention. Furthermore, in support of the provision of Annex 12, the basic principles, operational requirements and planning criteria regarding search and rescue services, have been developed for the MID Region and are indicated in the MID Basic Air Navigation Plan (ANP) (Doc 9708). Some of the provisions in the ANP are the outcome of Regional Air Navigation (RAN) meetings, in particular the Limited Middle East (COM/MET/RAC) Regional Air Navigation (MID LIM RAN 1996) meeting in January 1996.

8.2 The meeting recalled also that, while the establishment of formal agreements between neighbouring States has the status of a *Recommendation* in Annex 12, in respect of the MID Region, the provision has been adopted as part of the MID Region ANP, following the MID LIM RAN 1996 Conclusion 3/7: *Cooperation between States*. As such the text in the Conclusions within the framework of MIDANPIRG is complementary to the MID LIM RAN 1996 Conclusion 3/7. The meeting noted nonetheless, that the provision for States to designate a search and rescue point of contact for the receipt of Cospas-Sarsat distress data is a Standard in Annex 12.

8.3 The meeting was apprised on the outcome of the Search & Rescue (SAR) and Civil/Military Coordination Seminar, held by the ICAO MID Regional Office at Le Passage Hotel in Cairo, Egypt from 26-27 May 2008. Fifty five (55) participants, including experts, government officials and advisors from twelve (12) States and four (4) International Organizations attended the Seminar.

8.4 The meeting noted that the Seminar was held as a Special Implementation Project (SIP). The objective of the Seminar was to provide and share information with participants, on ICAO provisions and guidance material, experiences and practices in the MID States and from other ICAO Regions, as well as views, ways and means on implementation. The target audience was Civil Aviation Administration (CAA) and Air Navigation Service Provider (ANSP) officials involved with SAR and civil/military coordination at the administrative and operational levels, military officials who functionally address similar issues with the civil aviation community, SAR providers, user representatives and international/regional organizations dealing with related matters.

8.5 The meeting noted that the Seminar presentations highlighted the importance of changing to and registering the 406MHz beacons whose services (provided by Cospas-Sarsat) offer far more benefits than for the 121.5MHz beacons, and that Cospas-Sarsat System will cease satellite processing of 121.5/243 MHz beacons from 1 February 2009. For users of the 121.5/243 MHz beacons after this period, this would bring the alert services conditions to the pre-1985 era, when there was no satellite coverage service for the beacons.

8.6 The Seminar participants were informed about the Cospas-Sarsat beacon usage forecast, that by 2009 nearly 500,000 121.5 MHz beacons would still be in use, which brings up the question that States and users have to address, of how these many 121.5 MHz will be provided with services. In this context, the need to have registered the 406MHz beacons by the February 1, 2009 deadline and the requirement for States to provide SPOCs as early as possible to ICAO and Cospas-Sarsat Secretariat was underscored.

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8.7 The meeting noted the requirement for States to provide update information to ICAO regarding the status of implementation of SAR requirements, the SAR Point of Contact (SPOC), and that the information is to be published in the AIP, as was discussed at the Seminar. The meeting noted that Seminar outlined the following as its outcome to be presented to relevant bodies within MIDANPIRG and ICAO for necessary action:

The Seminar:

- a) urged the MID States to assess the need for training of the SAR Technical personnel and to communicate the results to the ICAO MID regional office for appropriate actions;
- b) considered that MID States should give increased priority to the implementation of SAR agreement in accordance with MIDANPIRG Conclusion 10/48 and ATM/SAR/AIS SG Draft Conclusion 9/9, and consider the inclusion of Search And Rescue EXercises (SAREX) Cooperation as part of SAR agreements;
- c) urged the MID States to review and update as necessary the MID ANP SAR requirements through the appropriate regional mechanism; and
- d) noted the critical impact of non-availability of Cospas-Sarsat coverage of 121.5MHz beacons as of 1 February 2009, and that States should take necessary action in accordance with MIDANPIRG Conclusion 10/46.

8.8 The meeting was updated on the outcome of the 36th Session of the ICAO Assembly with regard to SAR, and noted in particular that in order to assist and facilitate States in discharging their responsibilities under Article 25 of the Convention, Assembly has adopted Resolution 36-13: *Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation* (which is reviewed and updated as necessary at every Assembly Session for which a Technical Commission is established). The meeting noted that Appendix N of the Resolution: *Provision of Search and Rescue Services*, resolving clauses address various elements that are pertinent to implementation: delimitation of areas, cooperation with maritime search and rescue services, agreements with other States, delegation of responsibilities, and remedies to inadequacies in the provision of efficient SAR services. The text of Appendix N to Assembly Resolution A36-13 is reproduced at **Appendix 8A** to the Report on Agenda Item 8.

8.9 The meeting recalled that at its ninth meeting in December 2007, the ATM/SAR/AIS Sub-Group reviewed issues related to the MIDANPIRG/10 Conclusion 10/48: *Search and Rescue (SAR) Agreements*, urging MID States to sign SAR agreements and providing a model SAR agreement that may be used to facilitate that process, and Conclusion 10/49: *406 MHz Beacon Registration Database (IBRD)* urging MID States to upgrade emergency locator transmitters (ELTs) from 121.5/243 MHz to 406 MHz by 1 February 2009, in order to continue benefiting from the services provided by the Cospas-Sarsat system. The ATM/SAR/AIS SG/9 then formulated Draft Conclusion 9/9: *Search and Rescue (SAR) Agreements* to update MIDANPIRG/10 Conclusion 10/48.

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8.10 The meeting discussed ways and means to foster implementation with regard to SAR agreements, and acknowledged with appreciation a draft agreement developed by Saudi Arabia to facilitate the signing of SAR agreements throughout the MID Region. Moreover, that Saudi Arabia was ready to sign the agreement with willing States. The meeting noted that the MID Region had also been consulted regarding the formulation of the letter and was in support of the effort by Saudi Arabia.

8.11 The draft agreement proposed by Saudi Arabia was generally accepted and there was willingness to sign it, in some cases with slight modifications to its text. However, the meeting noted that the participants at the meeting did not have the mandates to sign the agreement. Furthermore, in some States the mandate to sign rests in much higher levels of authority, often involving multiples of government bodies, such as the military, the ministry of interior and of foreign affairs. It was agreed that participants would consult with relevant stakeholders in their States regarding the draft agreement and to proceed towards signature where applicable, without necessarily reverting to the Sub-Group.

8.12 It was noted that, institutional arrangement had been established in Saudi Arabia which facilitate the convening of various concerned parties in matters of SAR where concurrences can be achieved to sign SAR agreements. This was noted as a good example of what can be achieved based on enabling institutional arrangements. The meeting recognized that the process of signing the agreements could be effectively facilitated through the development of enabling legislation, to start with, from which relevant parties could be authorised to sign agreements based on provisions of such legislation.

8.13 In the context of the above including the implementation challenges discussed, the meeting agreed that a SAR Ad-hoc Working Group (SAR AWG) should be convened with the objective to look more closely into the challenges and available proposals to address them, develop recommendations to facilitate and foster implementation, and review the SAR requirements in the ANP with a view to updating and aligning them with the current provisions and need of the Region.

8.14 The meeting noted with appreciation that, Saudi Arabia has invested in the necessary infrastructure and institutional arrangements to provide satellite coverage of 121.5MHz and 406MHz beacons and MID States could benefit from the services provided by signing a letter of agreement with Saudi Arabia. The meeting noted however, that the 121.5MHz coverage was not worldwide and that consequently aircraft flying beyond the cover area will still have to upgrade to 406MHz. Saudi Arabia was requested to make the offer formal through written communication to ICAO as well as with working papers to relevant forums.

8.15 In light of the foregoing, the meeting agreed on the following Draft Conclusions to supersede MIDANPIRG/10 Conclusions 10/48, 10/49 and ATM/SAR/AIS SG/9 Draft Conclusion 9/9:

DRAFT CONCLUSION 10/20: SEARCH AND RESCUE (SAR) AGREEMENTS

That, in order to strengthen search and rescue cooperation and coordination, including the giving effect to ICAO provisions, in particular Annex 12 Chapter 3 and Conclusion 3/7 of LIM MID RAN 1996:

- a) MID States are urged to sign SAR agreements with their neighboring States;*
- b) MID States are urged to develop legislative and regulatory provisions to enable the signing of SAR agreements;*

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- c) *MID States designate SAR focal points with whom other States and ICAO can communicate and coordinate development of SAR agreements, forward contact details of the focal points to ICAO MID Regional Office by 30 June 2009, and update such details as necessary;*
- d) *the model of SAR agreement available in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual (reproduced at **Appendix 8B** to the report on agenda item 8) be used to guide States in the development of their own SAR agreements; and*
- e) *ICAO assist States in their efforts to sign SAR agreements.*

(This Draft Conclusion supersedes ATM/SAR/ AIS SG/9 Draft Conclusion 9/9 and is to supersede MIDANPIRG/10 Draft Conclusion 10/48).

DRAFT CONCLUSION 10/21: 406 MHZ BEACONS

That, in order to continue receiving beyond 1 February 2009, the Cospas-Sarsat services that are currently available to owners and users of 121.5/243 Mhz ELTs, and to further benefit from the added services available to owners and users of 406Mhz beacons, MID States that have not done so are urged to:

- a) *require ELT owners and users of 121.5/243 Mhz ELTs to upgrade to 406 Mhz ELTs as soon as possible, and register their 406 Mhz ELTs in the International 406 Mhz Registration Database (IBRD); and*
- b) *designate to the Cospas-Sarsat Secretariat, an IBRD focal point and request Cospas-Sarsat for access to the IBRD in order to benefit from the services available.*

(This Draft Conclusion is to supersede MIDANPIRG/10 Conclusion 10/49).

DRAFT DECISION 10/22: SAR AD-HOC WORKING GROUP (SARAWG)

*That, in order to review and develop updates to the MID ANP with regard to SAR requirements, as well as develop recommendations to foster implementation of provisions in the SAR field, the MID SAR Ad-Hoc Working Group is established with Terms of Reference(TOR) as at **Appendix 8C** to the Report on Agenda Item 8.*

Civil/Military Coordination

8.16 With regard to the subject of coordination of civil air traffic with military activities the meeting recalled that the relevant provisions are covered in a number of ICAO documents, in particular: the Convention (Article 3) Annexes 2, 11 and 15, PANS ATM (Doc 4444), Air Traffic Services Planning Manual (Doc 9426), Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations (Doc 9554) and Manual concerning Interception of Civil Aircraft (Doc 9433).

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8.17 The meeting was apprised that the SAR and Civil/Military Coordination Seminar held in Cairo in May 2008, and noted some salient points of the Seminar, inter alia, the issue of flexible use of airspace (FUA), ICAO SARPs, policies and guidance material contained in Annexes 2 and 11, Assembly Resolutions, the Manual concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations (Doc 9554), Manual concerning Interception of Civil Aircraft (Doc 9433), Global ATM Operational Concept (Doc 9854) applicability to Civil Military coordination and Flexible use of Airspace (FUA), the Global Air Navigation Plan (Doc 9750), and the ICAO Business Plan).

8.18 Participants noted that there were a number of provisions that constitute the States' responsibilities. Furthermore, participants noted the available guidance material and that some of the material was in the process of being updated. The Seminar participants also noted outcome of the LIM MID (COM/MET/RAC) RAN meeting in 1996, from which provision have been incorporated in the ANP and the MIDANPIRG Conclusions. Furthermore, the Seminar was informed about the Regional achievements in civil/military coordination and application of the FUA concept, despite challenges concerning military requirements, and the implementation of the flexible use of airspace concept, (supported by the Global Plan Initiative 1 (GPI 1): *Flexible Use of Airspace*) for which a project and a list of tasks have been adopted by MIDANPIRG/10.

8.19 The meeting noted that the Seminar participants had also been apprised on the experiences from other ICAO Regions, in particular the EUR Region and North America. From these the meeting noted that there experience from which the MID Region could benefit.

8.20 The meeting noted that as part of its outcome, under Civil/Military Coordination the Seminar:

- a) urged ICAO to develop global guidance material for civil/military cooperation to assist States to implement the Flexible Use of Airspace (FUA) concept as indicated by the Global Plan Initiative 1 (GPI-1) and that MID States should explore means of using other Regions' experiences in the implementation of FUA; and
- b) considered that while the global guidance material is available, the development of Regional guidelines for civil/military cooperation will facilitate optimum use of the airspace by all its users, civil or military. It was also considered that these Regional guidelines for civil/military cooperation should be developed through an appropriate Regional mechanism.

8.21 The meeting was also apprised on the outcome of the 36th Session of Assembly with regard to civil/military coordination and cooperation. The meeting noted Assembly Resolution 36-13: on the *Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation*, which is reviewed and updated as necessary at every Assembly Session for which a Technical Commission is established. The meeting acknowledged that Resolution 36-13: Appendix O: *Coordination of Civil and Military Air Traffic*, reproduced at **Appendix 8D** to the Report on Agenda Item 8, could be effectively applied to enhance safety and efficiency in the use of airspace. The meeting noted in particular that, a new resolving clause had also been added, that, "*the Council shall endeavor to support States in the establishment of civil/military agreements by providing advice and guidance.*"

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8.22 The meeting recalled that the ATM/SAR/AIS SG/9 in December 2007 reviewed and noted the MIDANPIRG/10 including Conclusion 10/25: *Civil Military Coordination*, urging MID States to take a number of specific measures aimed at achieving effective civil/military coordination, as well as Conclusion 10/26: *Coordination of Flights Operating over High Seas*, and Conclusion 10/27: *Uncoordinated Flights over the Red Sea Area*, addressing the respective specific coordination issues. Furthermore, that despite slight, mostly editorial changes, these Conclusions remain largely valid.

8.23 Based on the foregoing, the meeting agreed on the following Draft Conclusions to update and supersede MIDANPIRG/10 Conclusions 10/25, 10/26, and 10/27:

DRAFT CONCLUSION 10/23: CIVIL/MILITARY COORDINATION

That, in order to facilitate effective civil/military co-ordination and joint use of airspace in accordance with ICAO provisions, MID States that have not already done so, are urged to:

- a) *implement ICAO provisions in Annexes 2, 11 and 15, and give effect to LIM MID (COM/MET/RAC) RAN 1996, Recommendations 2/9, 2/10 and 2/13 as well as Assembly Resolution A36-13 Appendix O, regarding coordination of civil air traffic with military activities;*
- b) *arrange for Letters of Agreement (LOAs) to be signed between ATS authorities and Military authorities in order to establish coordination procedures for the exchange of information; and*
- c) *take steps and arrange as necessary for the Military authorities to be:*
 - i. *fully involved in the airspace planning and management process;*
 - ii. *aware of the new developments in civil aviation; and*
 - iii. *involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate.*

(This Draft Conclusion is to supersede MIDANPIRG/10 Conclusion 10/25).

DRAFT CONCLUSION 10/24: COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS

That, taking into consideration that the Convention on International Civil Aviation shall be applicable to civil aircraft:

- a) *all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable;*
- b) *State aircraft operating in the airspace over high seas, should:*
 - i) *adhere, to the extent practicable, to ICAO provisions; or*
 - ii) *operate with "Due Regard" for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures.*

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- c) *States report any incident/s relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at **Appendix 8E** to the Report on Agenda Item 8.*

(This Draft Conclusion is to supersede MIDANPIRG/10 Conclusion 10/26).

DRAFT CONCLUSION 10/25: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA

That,

- a) *the procedures at **Appendix 8F** to the Report on Agenda Item 8 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area;*
- b) *States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures;*
- c) *IATA continue effort to ensuring that concerned operators are fully conversant with these procedures;*
- d) *all parties involved, through their proper channels, take appropriate action to ensure that the airspace users are informed of and comply with the agreed procedures; and*
- e) *States:*
- i) *report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and*
- ii) *report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at **Appendix 8E** to the Report on Agenda Item 8.*

(This Draft Conclusion is to supersede MIDANPIRG/10 Conclusion 10/27).

8.24 The meeting acknowledged the value of the SAR and Civil/Military Seminar held by the MID Regional Office in May 2008, and was of the view that such Seminars should be held at regular intervals of up to two (2) years to sustain the stakeholders' awareness and keep them involved. It was also recalled that ACAC has a programme of seminars/workshops that can include similar seminars.

8.25 The meeting noted that Saudi Arabia had established programmes for information and interaction of concerned parties in order to promote awareness on civil/military cooperation issues, and that this efforts includes seminars.

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Resolution: 36-13	Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation
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APPENDIX N

PROVISION OF SEARCH AND RESCUE SERVICES

Whereas in accordance with Article 25 of the Convention each Contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable and to collaborate in coordinated measures which may be recommended from time to time pursuant to the Convention;

Whereas Annex 12 to the Convention contains specifications relating to the establishment and provision of search and rescue services within the territories of Contracting States as well as within areas over the high seas;

Whereas Annex 12 to the Convention specifies that those portions of the high seas where search and rescue services will be provided shall be determined on the basis of regional air navigation agreements, which are agreements approved by the Council usually on the advice of regional air navigation meetings;

Whereas Annex 12 to the Convention recommends that search and rescue regions should, in so far as practicable, be coincident with corresponding flight information regions and, with respect to those areas over the high seas, maritime search and rescue regions;

Whereas Article 69 of the Convention specifies that, if the Council is of the opinion that the air navigation services of a Contracting State are not reasonably adequate for the safe operation of international air services, present or contemplated, the Council shall consult with the State directly concerned, and other States affected, with a view to finding means by which the situation may be remedied, and may make recommendations for that purpose; and

Whereas the air navigation services referred to in Article 69 of the Convention include, inter alia, search and rescue services;

The Assembly resolves that:

1. search and rescue regions, whether over States' territories or, in accordance with regional air navigation agreement, over an area greater than a State's sovereign airspace or over the high seas, shall be delimited on the basis of technical and operational considerations, including the desirability of coincident flight information regions, search and rescue regions, and, with respect to areas over the high seas, maritime search and rescue regions, with the aim of ensuring safety, and optimizing efficiency with the least overall cost;

2. States shall ensure the closest practicable cooperation between maritime and aeronautical search and rescue services where they serve the same area and, where practical, establish joint rescue coordination centres to coordinate aeronautical and maritime search and rescue operations;

3. if any search and rescue regions need to extend over the territories of two or more States, or parts thereof, agreement thereon should be negotiated between the States concerned;

4. the providing State in implementing search and rescue services over the territory of the delegating State shall do so in accordance with the requirements of the delegating State, which shall establish and maintain in operation such facilities and services for the use of the providing State as are mutually agreed to be necessary;

5. any delegation of responsibility by one State to another or any assignment of responsibility over the high seas shall be limited to technical and operational functions pertaining to the provision of search and rescue services in the area concerned;

6. remedies to any inadequacies in the provision of efficient search and rescue services, including over the high seas, should be sought through negotiations with States which may be able to give operational or financial assistance in search and rescue operations, with a view to concluding agreements to that effect;

and, *furthermore*, declares that:

7. any Contracting State which delegates to another State the responsibility for providing search and rescue services within its territory does so without derogation of its sovereignty; and

8. the approval by Council of regional air navigation agreements relating to the provision by a State of search and rescue services within areas over the high seas does not imply recognition of sovereignty of that State over the area concerned.

Associated practices

1. Contracting States should, in cooperation with other States and the Organization, seek the most efficient delineation of search and rescue regions and consider, as necessary, pooling available resources or establishing jointly a single search and rescue organization to be responsible for the provision of search and rescue services within areas extending over the territories of two or more States or over the high seas.

2. The Council should encourage States whose air coverage of the search and rescue regions for which they are responsible cannot be ensured because of a lack of adequate facilities, to request assistance from other States to remedy the situation and to negotiate agreements with appropriate States regarding the assistance to be provided during search and rescue operations.

IAMSAR MANUAL

(Volume I)

SAR AGREEMENTS

Notes regarding SAR agreements, and the sample agreement that begins on the following page:

Parties may be organizations within a State, maritime and/or aeronautical SAR authorities of two or more different States (particularly with neighbouring search and rescue regions), or higher authorities of two or more States, i.e., the sample agreement can be adapted for local, national, or international use.

Each section of the sample agreement may be optionally used or adapted as the Parties agree, bearing in mind consistency with the principles of international law, and the goals of IMO, ICAO and the States and organizations concerned.

It is generally advisable to include specific information, such as phone numbers or addresses, in appendices or other documents separate from the basic signed agreement.

When SRRs are addressed in the agreements, normally only the lines separating the SRRs of the Parties are described, since other delimitation of the SRRs would normally involve States other than the Parties. Agreements between national organizations may or may not need to address geographic areas of responsibility. It should be recognized among the Parties that the establishment of SRRs is mainly for ensuring the availability of SAR services, and to facilitate proper distribution of distress alerts to RCCs; SRRs should not be viewed as affecting political boundaries, and do not need to align with political boundaries if the Parties so agree for the sake of improving or simplifying SAR operations. SRR delimitation over international waters is not intended to obstruct the provision of SAR services in any way. Furthermore, the provision of SAR services within an SRR shall be without regard to the nationality or circumstances of the persons in distress.

If agreements discuss territorial entry for SAR, provisions should account for a balance of concerns for sovereignty and concerns for saving lives.

The concept of “territory” is understood to include territorial land, airspace and seas.

It is advisable that SAR agreements address sensitive issues to the degree necessary for practical SAR co-operation between or among the Parties, while emphasizing the humanitarian nature of SAR, and avoiding topics which are unrelated to SAR, or which are both politically sensitive and unnecessary.

**Agreement on [Aeronautical and/or Maritime] Search and Rescue between
[name the Parties]**

1. INTRODUCTION

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

Desiring to support the provisions of the [International Convention on Maritime Search and Rescue of the International Maritime Organization (IMO) and/or the Convention on International Civil Aviation of the International Civil Aviation Organization (ICAO)]; and

Seeking to provide an overall plan for SAR co-ordination, use of available resources, mutual assistance, and efforts to improve SAR services;

The Parties have agreed as follows:

2. EXTENT OF ASSISTANCE

The Parties agree to co-operate in the following areas:

- (a) Support each other by pooling SAR facilities as appropriate for operations within their respective search and rescue regions (SRRs);
- (b) Make, and respond to, requests for operational assistance between the designated rescue co-ordination centres (RCCs) or rescue sub-centres (RSCs) of the Parties as capabilities allow;
- (c) Develop procedures and communications appropriate for co-ordination among facilities of both Parties responding to the same distress incident, and for co-ordination between the RCCs or RSCs of the Parties;
- (d) Normally apply the guidance of the International Aeronautical and Maritime SAR Manuals regarding SAR operational procedures and communications;
- (e) Work to establish agreed procedures, which balance concerns for sovereignty and for saving lives, regarding entry of various types of SAR facilities into the territory of the other Party, solely for a search or a rescue operation; and
- (f) Enter into other collaborative SAR efforts which may include:
 - mutual visits by SAR personnel of the Parties;
 - joint training or exercises;
 - co-operation in development of SAR procedures, techniques, equipment, or facilities;

- exchange of pertinent SAR or communications information; and
- establishment of one or more SAR committees to provide a means for ongoing co-operation in improving SAR effectiveness.

3. SEARCH AND RESCUE REGIONS

Establishment of SRRs is intended only to effect an understanding concerning where each Party accepts primary responsibility for co-ordinating or providing SAR services. SRRs of the Parties shall be separated by lines connecting points as follows: [appropriate co-ordinate points describing applicable lines]

4. TERMS OF AGREEMENT

Each Party will:

- (a) Keep information readily available on availability of any SAR facilities or other resources which may be needed for implementing this Agreement.
- (b) Keep each other fully and promptly informed of all SAR operations of mutual interest, or which may involve use of facilities of the other Party;
- (c) Authorize its RCC(s) to request assistance via the RCC(s) of the other Party, and to provide all pertinent information on the distress situation and the scope of assistance needed;
- (d) Authorize its RCC(s) to promptly respond to a request for assistance from an RCC of the other Party;
- (e) Authorize its RCC(s) to promptly arrange, or arrange in advance, with other national authorities for territorial entry of SAR facilities of the other Party (including overflight or landing of SAR aircraft, and similar accommodation of surface (land or water) SAR units) as circumstances dictate for fuelling, medical, or other appropriate and available operational support, or in response to a request to the RCC of the other Party for assistance of those facilities which would involve territorial entry;
- (f) Normally fund its own activities in relation to this Agreement unless otherwise arranged by the Parties in advance, and, in any event, will not allow a matter of reimbursement of cost to delay response to persons in distress.

5. GENERAL PROVISIONS

This Agreement:

shall enter into force . . . [provisions as appropriate];
may be amended . . . [provisions as appropriate]; and
may be terminated or superseded . . . [provisions as appropriate].

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Appendix 8C to the Report on Agenda Item 8

SAR AD-HOC WORKING GROUP (SAR AWG)

A) TERMS OF REFERENCE

In order to review and develop updates to the MID ANP with regard to SAR requirements, as well as develop recommendations to foster implementation of provisions in the SAR field, the SAR Ad-hoc Working Group (SAR AWG) shall undertake the following:

- 1) Considering:
 - a. the provisions of ICAO giving effect to and including the Chicago Convention (Doc 7300), with regard to aircraft in distress and their occupants.
 - b. available guidance material in the field of SAR, in particular the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual (Doc 9731)
 - c. Regional Air Navigation Meetings reports, in particular the MID LIM (COM/MET/RAC) RAN, 1996 MIDANPIRG requirements, in the field of SAR
 - d. concerns, challenges and views of MIDANPIRG and its subsidiary bodies with respect to implementation of SAR provisions
 - e. the challenges experienced by States and the consequential long outstanding deficiency related the signing of SAR Agreements.
- 2) In view of the above, and in order to facilitate the elimination of outstanding deficiencies, in particular those related to SAR Agreements:
 - a. develop recommended material to update Regional requirements (including MID ANP Basic and FASID requirements)
 - b. Identify/develop model SAR legislation and regulations to assist States in developing enabling legislative provisions.
 - c. Develop guidelines to assist States in ensuring effective coordination in the provision of SAR services, with parties with the State including maritime and military entities.
 - d. Develop guidance for States to facilitate compliance with SAR requirements related to upgrade and registration of emergency beacons (from 121.5 MHz to 406 MHz), as well as optimally benefiting from Cospas-Sarsat services.

B) COMPOSITION

The **SAR AWG** will be composed of individuals identified from the following States and International Organizations:

- MID States
- International Organizations (IATA, IFALPA)

Other representatives, who could contribute to the activity of the Working Group, may be invited to participate as observers.

C) WORKING ARRANGEMENTS

1) The **SAR AWG** shall:

- report to the ATM/SAR/AIS Sub Group.
- appoint a Rapporteur to facilitate its proceedings
- meet once in order to complete its work, provided that, based on the decision of the ATM/SAR/AIS SG, the work group may due to unforeseen circumstances inhibiting completion of its work, be extended to a second meeting in as short a time as possible.

2) Members of the **SAR AWG** shall review all available material circulated with guidance of its Rapporteur and Secretariat, in advance of the meeting in order reduce the process of familiarization with relevant material during the period of the meeting.

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APPENDIX O

Coordination of Civil and Military Air Traffic

Whereas the airspace as well as many facilities and services should be used in common by civil aviation and military aviation;

Whereas Article 3 (d) of the Convention requires that Contracting States, when issuing regulations for their State aircraft, have due regard for the safety of navigation of civil aircraft;

Recognizing that growing air traffic demand would benefit from greater access to airspace used for military purposes and that satisfactory solutions to the problem of common use of airspace have not evolved in all areas;

Whereas although full integration of the control of civil and military air traffic may be regarded as the ultimate goal, improvement in coordination in many States offers, at the present time, an immediate approach towards resolution of existing difficulties; and

Recalling that the ICAO Global ATM Operational Concept states that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly;

The Assembly resolves that:

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of international civil air traffic;
2. the regulations and procedures established by Contracting States to govern the operation of their state aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2; and
3. the Council shall endeavour to support States in the establishment of civil/military agreements by providing advice and guidance.

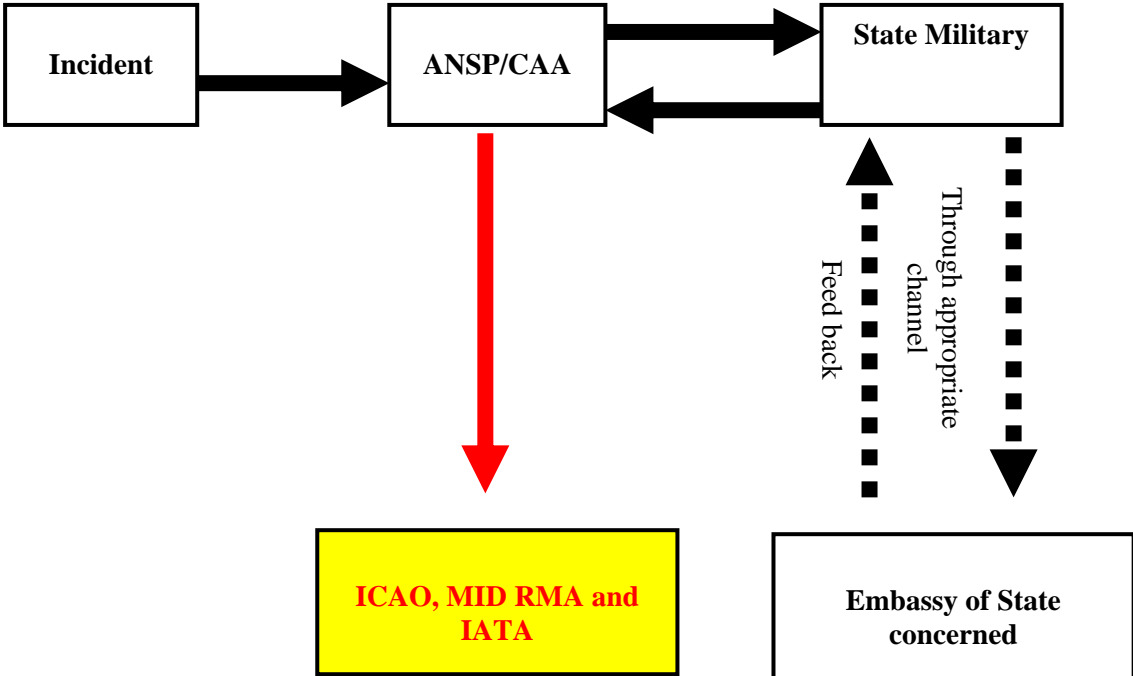
Associated practices

1. Contracting States should as necessary initiate or improve the coordination between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.
2. The Council should ensure that the matter of civil and military coordination in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings.
3. When establishing the regulations and procedures mentioned in Resolving Clause 2, the State concerned should coordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

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INCIDENTS DATA REPORTING MECHANISM

Taking into consideration the deficiencies noted in the reporting process of incidents involving State aircraft, as an interim measure, the following flow chart is a suggested process which may facilitate feedback on State aircraft incidents:



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Appendix 8F to the Report on Agenda Item 8

**PROCEDURES FOR THE HANDLING OF UNCOORDINATED FLIGHTS
CROSSING THE RED SEA AREA**

Uncoordinated flights operating within the Red Sea area shall implement the following procedures:

1. ~~Committing all~~ **All** uncoordinated flights over the Red Sea ~~area to~~ **should** squawk the Radar Code A2000.
The representative of IATA was assigned the task of notifying concerned airlines operating in this region of the importance of such issue. States are also requested to report to IATA and the MID RMA any aircraft that do not use the Radar Code A2000.
2. Uncoordinated flights should maintain a single flight level (FL) while crossing the Red Sea from south to north, namely FL300.
3. Uncoordinated flights should maintain a single flight level (FL) while crossing the Red Sea from north to south, namely FL290, ~~unless otherwise is coordinated.~~
4. Uncoordinated flights crossing the Red Sea should provide their flight details on the working frequencies of the concerned Air Traffic Control Centres (ACCs), namely Sana'a, Jeddah, Khartoum, and Cairo and notify these Centres of the following data: call sign, direction, altitude, time of crossing the reporting points along the boundaries of the FIR.
5. Uncoordinated flights crossing the Red Sea should transmit their flight details 10 minutes prior to crossing the boundaries of the concerned FIR and the compulsory reporting points, in addition to listen on to the appropriate frequencies in order to identify other civil aircraft that may conflict with them and represent risk of collision.
6. Civil Aviation Authorities of the concerned States should instruct their ACCs to develop procedures for the communication of appropriate information regarding uncoordinated flights; survey and register irregularities by these uncoordinated flights; and find a mechanism in coordination with Regional Offices and other international bodies to commit these flights to conformity with the ~~reached~~ **agreed** recommendations.
7. Increase the awareness of Air Traffic Controllers at ACCs in the concerned States of this situation and of the potential risks; in addition to benefit from radar facilities for the monitoring of non-conforming flights.
8. All flights flying in the center of the Red Sea and maintaining RVSM Flight levels (between FL290-FL410) should be RVSM approved in accordance with the MID Region requirements.
9. Unless otherwise coordinated, all the abovementioned flights, in case of non-compliance with the Region's requirements for flying in an RVSM area, should be allocated two Flight levels, namely FL250 and FL260.

10. All navigational information regarding aircraft on direct routes in the center of the Red Sea and considered unidentified by the Air Traffic Control Centres should be sent via either AFTN or any other means.
11. *IATA will assist in requesting civil flights operating within Sana'a FIR to operate on established ATS routes.
12. The agreement above should be added in the form of Letters of Agreement (LOAs) between the ACCs of the concerned Arab States.

Note:-

- ** Included in the agreement at the request on Yemen*

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REPORT ON AGENDA ITEM 9: PERFORMANCE BASED NAVIGATION (PBN)

9.1 The meeting recalled that the 36th Session of ICAO Assembly had adopted Resolution A36-23: *Performance based navigation global goals*, copy of which is reflected at **Appendix 9A** to the Report on Agenda Item 9, and that other developments in the implementation of PBN had to be aligned with the Resolution.

9.2 **PBN/GNSS Task Force:** The meeting recalled that, at its ninth meeting in December 2007, the ATM/SAR/AIS Sub-Group reviewed the role of the existing MIDANPIRG subsidiary bodies with regard to RVSM and PBN issues. And, with the objective to increase efficiency within the MIDANPIRG framework, the Sub-Group agreed on the establishment of a PBN Task Force. Furthermore, cognizant of the strong and increasing relationship between GNSS and PBN implementation, the ATM/SAR/AIS SG/9 was of the view that merging the GNSS and PBN Task Forces should be explored. Accordingly the ATM/SAR/AIS SG/9 had formulated Draft Conclusion 9/10: *Reassignment of RVSM and PBN Functions*, regarding the establishment of the PBN Task Force and possible merger of the same with the GNSS Task Force.

9.3 The meeting noted that subsequently, the RVSM/PBN TF/1, GNSS TF/7 and MIDANPIRG Steering Group (MSG/1) reviewed the issue of the Task Forces related to PBN implementation, and that the latter (MSG/1) formulated Draft Conclusion 1/5 dissolving the RVSM/PBN and the GNSS Task Forces and establishing the PBN/GNSS Task Force.

9.4 The first meeting of the PBN/GNSS Task Force, as established by the MSG/1 meeting was held at the MID Regional Office from 20 to 23 October 2008. Thirty four (34) participants from nine (9) States and four (4) International Organizations participated in the meeting.

9.5 In reviewing the outcome of the previous meetings of MIDANPIRG subsidiary bodies with regard to PBN and efficiency enhancement issues within MIDANPIRG, in particular the outcome of MSG/1, the PBN/GNSS TF/1 meeting agreed that issues relating to working arrangements of the PBN/GNSS Task Force should be removed from the Draft Decisions and incorporated in the terms of reference. Furthermore, that previous Draft Decisions should be consolidated and presented to the ATM/SAR/AIS SG/10. Accordingly, the PBN/GNSS TF/1 had formulated Draft Decision 1/1: *Dissolution of the RVSM/PBN and GNSS Task Forces and Establishment of the PBN/GNSS Task Force*.

9.6 Based on the above, the ATM/SAR/AIS SG/10 formulated the following Draft Decision to update and supersede MSG/1 Draft Decision 1/5 and PBN/GNSS TF/1 Draft Decision 1/1:

DRAFT DECISION 10/26: DISSOLUTION OF THE RVSM/PBN AND GNSS TASK FORCES AND ESTABLISHMENT OF THE PBN/GNSS TASK FORCE

*That, taking into consideration the status of implementation of RVSM and PBN in the MID Region and the close inter-relationship between the PBN goals and GNSS implementation, and with in order to enhance the efficiency of MIDANPIRG, the RVSM/PBN and the GNSS Task Forces are dissolved and the PBN/GNSS Task Force is established with TOR as at **Appendix 9B** to the Report on Agenda Item 9.*

(This Draft Decision is to supersede MSG/1 Draft Decision 1/5 and PBN/GNSS TF/1 Draft Decision 1/1).

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9.7 **PBN Concept and global developments:** Regarding global developments related to the implementation of PBN, the meeting noted that the PBN/GNSS TF/1 discussed, among others, the Flight Procedure Implementation Programme (Flight Procedure Office) concept to address some of the challenges in the implementation of PBN. The meeting noted that the FPO concept is the result of recognition that the implementation of PBN, in particular for the terminal and approach phases of flight, requires expertise, data quality control and data management that are not easily accessible for many States.

9.8 The meeting noted that the FPO concept is getting high acceptance in various Regions of the world. Among other developments, the preparatory work done in the Asia Pacific Region has served as a valuable example for the other Task Forces as they proceed with their work plans. Also, at the forthcoming Special Africa-Indian Ocean Regional Air Navigation Meeting (AFI/RAN) to be held in Durban, South Africa from 24 to 29 November 2008, it is expected that the FPO concept will be proposed for the AFI region. To this effect, the meeting noted the initial working paper that is intended to present the concept to the Special AFI/RAN. The meeting noted furthermore, that the CAR and SAM Regions have envisaged possibilities in developing a regional Flight Procedure Implementation Programme.

9.9 The meeting endorsed the agreement of the PBN/GNSS meeting, that such an implementation programme (FPO) could be valuable for the MID Region and should further explored.

9.10 The meeting noted that, in deliberating the issues related to the development of the Strategy and Plan for implementation of PBN in the MID Region, in addition to Assembly Resolution A36-23, the PBN/GNSS TF/1 meeting took into consideration, *inter alia*, current status of implementation of PBN (noting the RNP/RNAV developments in the Region, which started before the PBN concept), developments related to implementation of PBN in other ICAO Regions, relevant guidance material including the PBN concept's application of specification by flight phase, as well as supporting navigation infrastructure, as indicated in the two table below:

Table 1: Application of Navigation Specification by Flight Phase

NAVIGATION SPECIFICATION	FLIGHT PHASE							
	En Route OCEANIC /REMOTE	En Route Continental	ARR	APPROACH				DEP
				Initial	Interm.	Final	MISSED	
RNAV 10	10							
RNAV 5		5	5					
RNAV 2		2	2					2
RNAV 1		1	1	1	1		1 ^b	1
RNP 4	4							
Basic-RNP 1			1 ^{a,c}	1 ^a	1 ^a		1 ^{ab}	1 ^{a,c}
RNP APCH				1	1	0.3	1	
RNP AR APCH				1-0.1	1-0.1	0.3 – 0.1	1-0.1	

Notes:

The numbers given in the table refer to the 95% accuracy requirements (NM)

RNAV 5 is an en-route navigation specification which may be used for the initial part of the STAR outside 30NM and above MSA

RNP 2 and Advanced-RNP 1 are expected to be included in a future revision of the PBN Manual;

1a means that the navigation application is limited to use on STARs and SIDs only;

1b means that the area of application can only be used after the initial climb of a missed approach phase

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Ic means that beyond 30 NM from the airport reference point (ARP), the accuracy value for alerting becomes 2 NM

Table 2 Overview of navigation specification and supporting infrastructure

	GNSS	IRU	D/D	D/D/IRU	D/VOR
RNAV 10	√	√			
RNAV 5	√	√	√	√	√
RNAV 2/1	√		√	√	
RNP 4	√				
Basic-RNP 1	√				
RNP APCH	√				
RNP AR APCH	√				

9.11 The meeting noted that, in addition to the above imperatives in the implementation of PBN, there were several others. Among these, is the situation that the implementation of PBN and WGS 84 were inseparable—States have to implement WGS 84 in order to fully implement PBN. Other special PBN implementation challenges are as follows:

- Airspace concept development
- WGS-84 surveys
- Electronic Terrain and Obstacle Data
- Procedure design
- Ground and Flight Validation
- Operational approval
- Safety assessment
- Awareness and training for pilots and ATC

9.12 **PBN Implementation support:** The PBN/GNSS TF/1 meeting noted that currently the ICAO PBN programme is addressing the PBN implementation challenges highlighted above. However, the Task Force was apprised that resources including funding to adequately address all the challenges was lacking. The Secretariat indicated that in order to resolve the problem, support from all Stakeholders (Air navigation service providers (ANSP's), aircraft operators, user communities, etc.) would be required. Accordingly, in order address the matter the Task Force formulated the following Draft Conclusion which has been adopted by the ATM/SAR/AIS SG/10:

DRAFT CONCLUSION 10/27 : PBN IMPLEMENTATION SUPPORT

That, in order to address challenges in PBN implementation, stakeholders in the PBN implementation (Air navigation service providers (ANSP's), aircraft operators, user communities, etc.) be encouraged to provide support including resources to the States and ICAO PBN programme.

This Draft Conclusion supersedes PBN/GNSS TF/1 Draft Conclusion 1/2)

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9.13 ***PBN Regional Implementation Strategy and Plan:*** The meeting noted that the PBN/GNSS TF, in accordance with its terms of reference, was required to complete development of the Regional PBN Implementation Strategy and Plan in 2008, in order to allow sufficient time for the MID States to complete development of their individual national implementation plans by 2009 in accordance with the Assembly Resolution A36-23.

9.14 The meeting noted also that, in its deliberations, the Task Force, among others, closely examined the current and proposed application of the RNAV specification. It was noted that the RNAV 5 specification cannot be used for Oceanic/remote airspace and that in principle RNAV 10 should be used for that particular airspace. It was recognized also, that presently some of the airspace that had previously been classified as remote continental/oceanic, now has the required surveillance capability to support RNAV 5. Nevertheless, there remains other airspace in the MID region that still can be classified as Oceanic. RNAV 10 would be therefore, be appropriate as the navigation specification for such airspace, at least for the short term (2008-2012).

9.15 The meeting noted with appreciation that the PBN/GNSS Task Force, after thoroughly examining the various navigation specifications for applications in all applicable phases of flight and the planning terms (short, medium and long terms), successfully completed development of both the PBN Implementation Regional Strategy and Implementation plan as at **Appendices 9C** and **9D** respectively, to the report on agenda 9, and accordingly Draft Conclusion 1/4: *MID Region PBN Implementation Strategy and Plan*. The ATM/SAR/AIS SG/10 noted that in accordance with the Strategy, which follows other ICAO Regional planning norms, the material from State implementation plans, considered as requirements, will be processed in accordance with established procedures for incorporation into the MID Region Air Navigation Plan (ANP).

9.16 Based on the above, the meeting agreed on the following Draft Conclusion to supersede PBN/GNSS TF/1 Draft Conclusion 1/4, MIDANPIRG/9 Conclusion 9/6: *RNAV/RNP Implementation Strategy for the MID Region*, Conclusion 9/7: *Implementation of T-RNAV*, as well as MIDANPIRG/10 Conclusion 10/43: *MID Region PBN Strategy*:

DRAFT CONCLUSION 10/28: MID REGION PBN IMPLEMENTATION STRATEGY AND PLAN

*That, in order to provide direction to the Stakeholders in their strategic planning during the transition to full implementation of PBN, the Middle East Regional Strategy for Implementation of PBN is adopted as at **Appendix 9C** to the Report on Agenda Item 9. The PBN Regional Implementation Plan is adopted as at **Appendix 9D** to the Report on Agenda Item 9.*

(This Draft Conclusion supersedes PBN/GNSS TF/1 Draft Conclusion 1/4 and is to supersede MIDANPIRG/9 Conclusion 9/6: and Conclusion 9/7, as well as MIDANPIRG/10 Conclusion 10/43)

9.17 ***State PBN Implementation Plan:*** The meeting noted that in order to facilitate States' to develop their individual PBN State implementation plans, the Task Force had agreed on the template to be used by States. Accordingly, the meeting endorsed the template as at **Appendix 9E** to Report on Agenda Item 9 and accordingly Draft Conclusion 1/5: *PBN State Implementation plan*. The meeting noted furthermore, that guidance material on the State implementation plans was also available on the ICAO PBN web site: <http://www2.icao.int/en/pbn/Pages/Documentation.aspx> . In this context, the meeting agreed to the following Draft Conclusion:

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DRAFT CONCLUSION 10/29: PBN STATE IMPLEMENTATION PLAN

That, in order to give effect to Assembly Resolution A36-23: Performance based navigation global goals, MID States are urged to complete development of their individual State Implementation plans based on the regional PBN implementation plan by 30 September 2009 so that it may be reviewed by the ATM/SAR/AIS SG as part of the Regional agreement process.

(This Draft Conclusion supersedes PBN/GNSS TF/1 Draft Conclusion 1/5)

9.18 **PBN Implementation Action Plan:** The meeting noted that the PBN action plan provides a systematic plan of all tasks that need to be undertaken to achieve PBN implementation according to the PBN strategy and Implementation plan. The action plan is divided into three sub-plans, one for en-route, one for terminal and another for approach implementation. The action plan is furthermore supported by the PBN performance objectives which provide the benefits and the high level tasks (actions).

9.19 The meeting also noted material reflected at **Appendix 9F** to the Report on Agenda Item 9, which was initially developed by the CAR/SAM Region for a PBN Implementation Action Plan, and considered by the APAC Regions for the same purpose. The meeting noted, that the PBN/GNSS TF/1, in order avoid unnecessary duplication, agreed to consider the same material in its forthcoming meetings, for adaptation to the requirements of MID Region. The meeting noted that the other significance of the Regional Action plan format is that it is usable for development of State PBN implementation action plans.

9.20 **Performance Framework Form (PFF)and Performance Objectives:** The meeting noted that the PBN/GNSS TF/1 recalled the MID Region Strategy for implementation of Global Plan Initiatives (GPIs) which was adopted by MIDANPIRG/10 under Conclusions 10/13: *MID Region Strategy for the Implementation of the Global Plan Initiatives* and Conclusion 10/14: *Implementation of Work Programme in Support of Strategic performance Objectives*. The Task Force further recognized the developments within ICAO to facilitate the realization of a performance based Global ATM system, in particular that ICAO has made significant progress in the development of relevant guidance material. The meeting noted that the intent of the guidance material is to promote a globally harmonized approach to transition planning and to ensure collaboration in developing air navigation systems and procedures.

9.21 Furthermore, the Sub-Group recalled that ICAO has been developing planning tools to support the Global Air Navigation Plan. To this end, ICAO has developed a common output and management form designated as the “Performance Framework Form (PFF), which is applicable to both the Regional and national planning frameworks to facilitate ease of understanding and harmonization at global and Regional levels. The PFF contains the performance objectives for the Region, the benefits to be realized, the tasks to support achievement of the objectives, responsible parties and target dates, performance measurement, as well as the GPIs also supporting the objective.

9.22 The meeting noted that the performance objectives are intended to achieve a performance based global air traffic management (ATM) system through the implementation of air navigation systems and procedures in a progressive, cost-effective and cooperative manner. This approach recognizes that regional planning and implementation process is the principal engine of ICAO’s planning framework. It is here that the top-down approach comprising global guidance and regional harmonization measures converge with the bottom-up approach constituted by national planning by States. It was indicated to the meeting that the Regional performance framework (contained in the PFF) also serves as the basis for development of the State performance objectives,

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and as indicated under the discussion on Implementation Action Plan above, provides the high level tasks for the implementation action plans. The meeting noted that the PBN/GNSS TF/1 had formulated Draft Conclusion 1/6: *MID Region PBN Implementation Performance Objectives*.

9.23 Based on the above, the meeting endorsed the following Draft Conclusion:

***DRAFT CONCLUSION 10/30: MID REGION PBN IMPLEMENTATION
PERFORMANCE OBJECTIVES***

*That, in order to provide direction to the planning for implementation of PBN in the MID Region in accordance with ICAO planning framework, the MID ATM performance objectives be developed in accordance with the format in **Appendix 9G** to the Report on Agenda Item 9.*

9.24 The meeting concurred with the view of the Task Force that the format of the PBN performance objective discussed above be presented to the CNS/ATM IC SG/4 to serve as essential material in the review of the MID Region GPI Implementation strategy.

ASSEMBLY RESOLUTION A36-23

A36-23: Performance based navigation global goals

Whereas a primary objective of ICAO is that of ensuring the safe and efficient performance of the global Air Navigation System;

Whereas the improvement of the performance of the Air Navigation System on a harmonized, worldwide basis requires the active collaboration of all stakeholders;

Whereas the Eleventh Air Navigation Conference recommended that ICAO, as a matter of urgency, address and progress the issues associated with the introduction of area navigation (RNAV) and required navigation performance (RNP);

Whereas the Eleventh Air Navigation Conference recommended that ICAO develop RNAV procedures supported by global navigation satellite system (GNSS) for fixed wing aircraft, providing high track and velocity-keeping accuracy to maintain separation through curves and enable flexible approach line-ups;

Whereas the Eleventh Air Navigation Conference recommended that ICAO develop RNAV procedures supported by GNSS for both fixed and rotary wing aircraft, enabling lower operating minima in obstacle rich or otherwise constrained environments;

Whereas Resolution A33-16 requested the Council to develop a programme to encourage States to implement approach procedures with vertical guidance (APV) utilizing such inputs as GNSS or distance measuring equipment (DME)/DME, in accordance with ICAO provisions;

Recognizing that implementation of approach with vertical guidance (APV) is still not widespread;

Recognizing that the Global Aviation Safety Plan has identified Global Safety Initiatives (GSIs) to concentrate on developing a safety strategy for the future that includes the effective use of technology to enhance safety, consistent adoption of industry best practices, alignment of global industry safety strategies and consistent regulatory oversight;

Recognizing that the Global Air Navigation Plan has identified Global Plan Initiatives (GPIs) to concentrate on the incorporation of advanced aircraft navigation capabilities into the air navigation system infrastructure, the optimization of the terminal control area through improved design and management techniques, the optimization of the terminal control area through implementation of RNP and RNAV SIDs and STARs and the optimization of terminal control area to provide for more fuel efficient aircraft operations through FMS-based arrival procedures; and

Recognizing that the continuing development of diverging navigation specifications would result in safety and efficiency impacts and penalties to States and industry;

The Assembly:

1. *Urges* all States to implement RNAV and RNP air traffic services (ATS) routes and approach procedures in accordance with the ICAO PBN concept laid down in the *Performance Based Navigation Manual* (Doc 9613);

2. *Resolves* that:
 - a) States and planning and implementation regional groups (PIRGs) complete a PBN implementation plan by 2009 to achieve:
 - 1) implementation of RNAV and RNP operations (where required) for en route and terminal areas according to established timelines and intermediate milestones; and
 - 2) implementation of approach procedures with vertical guidance (APV) (Baro-VNAV and/or augmented GNSS) for all instrument runway ends, either as the primary approach or as a back-up for precision approaches by 2016 with intermediate milestones as follows: 30 per cent by 2010, 70 per cent by 2014; and
 - b) ICAO develop a coordinated action plan to assist States in the implementation of PBN and to ensure development and/or maintenance of globally harmonized SARPs, Procedures for Air Navigation Services (PANS) and guidance material including a global harmonized safety assessment methodology to keep pace with operational demands;
3. *Urges* that States include in their PBN implementation plan provisions for implementation of approach procedures with vertical guidance (APV) to all runway ends serving aircraft with a maximum certificated take-off mass of 5700 kg or more, according to established timelines and intermediate milestones;
4. *Instructs* the Council to provide a progress report on PBN implementation to the next ordinary session of the Assembly; and
5. *Requests* the Planning and Implementation Regional Groups (PIRG) to include in their work programme the review of status of implementation of PBN by States according to the defined implementation plans and report to ICAO any deficiencies that may occur.

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Appendix 9B to the Report on Agenda Item 9

**PROPOSED TERMS OF REFERENCE FOR
PBN/GNSS TASK FORCE**

1. TERMS OF REFERENCE

- a) Carry out specific studies in support of the implementation of Performance Based Navigation (PBN) in the MID, according to the ICAO Strategic Objectives and Global Plan Initiative (GPI) 5 and related GPIs (GPIs 7, 10, 11, 12, 20, 21).
- b) Identify other issues/action items arising from the work of ICAO or for consideration by ICAO in order to facilitate regional and global harmonization of existing applications as well as future implementation of Performance Based Navigation operations.
- c) Determine and recommend, on the basis of the study, the PBN strategy and Implementation Plan for the MID Region, based on the ICAO PBN Implementation goals as reflected in assembly resolution 36-23.
- d) Assist States that may require support in the implementation of PBN.
- e) Monitor the progress of updated studies, projects, trials and demonstrations by the MID Region States, and information available from other Regions.
- f) Provide a forum for active exchange of information between States related to the implementation of GNSS.
- g) Identify deficiencies and constraints that would impede implementation of GNSS, and propose solutions that would facilitate the rectification of such problems.
- h) Identify and address, to the extent possible, institutional financial and legal matters related to the GNSS implementation in the MID Region.
- i) Develop a system of post-implementation reviews to ensure the effective and safe introduction of PBN and non-PBN GNSS operation.

2. WORK PROGRAMME

- a) Study and assess the Regional RNAV and RNP requirements.
- b) Initially focus assistance to States that may require support on development of the State PBN implementation plans.
- c) Identify priority routes and terminal areas where RNAV and RNP should be implemented.
- d) Identify priority runways for Approach Procedures with Vertical Guidance (APV) to be implemented based on the ICAO RNP APCH navigation specification (APV/Baro-VNAV).

- e) Develop an amendment proposal to the MID Regional Supplementary Procedures concerning the implementation of PBN in the Region.
- f) Identify guidance material and training needs.
- g) Follow up on the developments in ICAO affecting the Global Plan and PBN in particular, in order to update the Regional plans accordingly.
- h) Coordinate with other ICAO Regions as necessary to address implementation interface issues.
- i) Undertake other functions relevant to implementation of PBN as assigned by the ATM/SAR/AIS SG or MIDANPIRG.
- j) Complete the development of the Regional PBN Implementation Strategy and Plan in 2008.
- k) Report to the ATM/SAR/AIS SG and keep the CNS SG closely briefed.
- l) Monitor the progress achieved related to the feasibility study pertaining to the possible use of EGNOS as GNSS augmentation system in the MID Region.
- m) Monitor the progress of the NAVISAT study.
- n) Review and identify intra and inter regional co-ordination issues related to the implementation of GNSS and where appropriate recommend actions to address those issues.
- o) Examine to what extent the GNSS system accessible in the Region can meet the navigational requirements of ATM service providers and aircraft operators in the Region.
- p) Identify and co-ordinate GNSS implementation priorities in the MID Region.
- q) Provide assistance to States in planning and implementation of GNSS in the MID Region including the development of GNSS procedures.
- r) Suggest ways and means for rectifying the problems as they arise related to the implementation of GNSS.
- s) Provide necessary knowledge in GNSS operational application.

3. THE TASK FORCE SHALL IN ITS WORK BE GUIDED BY THE FOLLOWING PRINCIPLES

- a) Implementation of PBN shall follow the ICAO PBN goals and milestones.
- b) Avoid undue equipage of multiple on board equipment and/or ground-based systems.
- c) Avoid the need for multiple airworthiness and operational approvals for intra- and inter-regional operations.

- d) Continue application of conventional air navigation procedures during the transition period, to guarantee the operations by users that are not RNAV- and/or RNP-equipped.
- e) The first regional PBN Implementation Strategy and Plan should address the short term (2008-2012), medium term (2013-2016) and take into account long term global planning issues.
- f) Cognizance that the primary objective of ICAO is that of ensuring the safe and efficient performance of the global Air Navigation System, ensure that pre- and post-implementation safety assessments will be conducted to ensure the application and maintenance of the established target levels of safety.
- g) Take into account the introduction of new technologies, encourage implementation and development in GNSS.
- h) Coordinated implementation with other relevant Regional Plans.
- i) Apply ICAO guidance material and information as may be applicable to the Region to facilitate the implementation of PBN.

4. COMPOSITION OF THE TASK FORCE

STATES

MID Region States

ORGANIZATIONS (AS OBSERVERS)

IATA, IFALPA, IFATCA, EUROCONTROL, ACAC and additional representative from International/Regional Organizations may be invited when required.

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Appendix 9C to the Report on Agenda Item 9

MID REGION PBN STRATEGY

1. INTRODUCTION

1.1 This document provides the high level strategy that is further detailed in the regional implementation plan (roadmap). Introduction of PBN should be consistent with the Global Air Navigation Plan. Moreover, PBN Implementation shall be in full compliance with ICAO SARPs and PANS and be supported by ICAO Global Plan Initiatives.

1.2 In November 2006 the ICAO Council accepted the second amendment to the Global Air Navigation Plan for the CNS/ATM System, which has been renamed the Global Air Navigation Plan (Doc 9750), referred to as the Global Plan. A key part of the Global Plan framework are Global Plan Initiatives (GPIs), which are options for air navigation system improvements that when implemented, result in direct performance enhancements. The GPIs include implementation of performance based navigation (PBN) and navigation system. The introduction of PBN must be supported by an appropriate navigation infrastructure consisting of an appropriate combination of Global Navigation Satellite System (GNSS), self-contained navigation system (inertial navigation system) and conventional ground-based navigation aids.

2. EN-ROUTE OPERATIONS

2.1 Considering the traffic characteristic and CNS/ATM capability of the Region, the en-route operation can be classified as Oceanic, Remote continental, Continental, and local/domestic. In principle, each classification of the en-route operations should adopt, but not be limited to single RNAV or RNP navigation specification. This implementation strategy will be applied by the States and international organizations themselves, as coordinated at Regional level to ensure harmonization.

2.2 In areas where operational benefits can be achieved and appropriate CNS/ATM capability exists or can be provided for a more accurate navigation specification, States are encouraged to introduce the more accurate navigation specification on the basis of coordination with stakeholders and affected neighbouring States.

3. TERMINAL OPERATIONS

3.1 Terminal operations have their own characteristics, taking into account the applicable separation minima between aircraft and between aircraft and obstacles. It also involves the diversity of aircraft, including low-performance aircraft flying in the lower airspace and conducting arrival and departure procedures on the same path or close to the paths of high-performance aircraft.

3.2 In this context, the States should develop their own national plans for the implementation of PBN in TMAs, based on the MID PBN Regional Plan, seeking the harmonization of the application of PBN and avoiding the need for multiple operational approvals for intra- and inter-regional operations, and the applicable aircraft separation criteria.

4. INSTRUMENT APPROACHES

4.1 During early implementation of PBN, IFR Approaches based on PBN should be designed to accommodate mixed-equipage (PBN and non-PBN) environment. ATC workload should be taken into account while developing approach procedures. One possible way to accomplish this is to co-locate the Initial Approach Waypoint for both PBN and conventional approaches. States should phase-out non-precision approach procedures at a certain point when deemed operational suitable and taking in consideration GNSS integrity requirements.

5. IMPLEMENTATION STRATEGY

5.1 In order to address the operational requirements, the following PBN Implementation & Harmonisation Strategy for the ICAO MID Region is formulated as follows:

- a) Implementation of any RNAV or RNP application shall be in compliance with ICAO PBN Manual (Doc 9613).
- b) Implementation of RNAV5/RNAV1 depending on operation requirements for continental en-route and local/domestic en-route applications at least until 2016.

Note: All current RNP-5 applications shall be redefined as RNAV-5 or, depending on operational needs, as RNAV-1.

- c) Implementation of RNAV1/Basic-RNP-1 depending on operation requirements for terminal applications at least until 2016.
- d) Implementation of RNAV-10 for oceanic/remote continental until at least 2016.
- e) Replacement of RNAV 5/RNAV-1 specification by RNP specifications (e.g. advanced-RNP-1) for the use in the en-route and terminal airspace to commence by 2016.
- f) The target date for the completion of implementation for the Approach procedures with vertical guidance (APV) (APV/Baro-VNAV and/or APV/SBAS) for all instrument runway ends is 2016: The development of new conventional non-precision approach procedures should be discouraged. Existing conventional non-precision approach procedures should be phased out not later than 2016, pending readiness of stand-alone GNSS.
- g) The use of NDB for approach operations shall be terminated not later than 2012.

Note: Although SBAS APV-I and II is currently not referenced in ICAO Doc9613, in accordance with the general Assembly resolution (A36-23) it is included in this Strategy as part of APV.

**DRAFT MID PERFORMANCE-BASED NAVIGATION IMPLEMENTATION
REGIONAL PLAN**

1. EXECUTIVE SUMMARY

1.1 This Middle East PBN Implementation Regional Plan has been produced in line with Resolution A 36/23 adopted by ICAO Assembly in its 36th Session held in September 2007. The Regional Plan addresses the strategic objectives of PBN implementation based on clearly established operational requirements, avoiding equipage of multiple on-board or ground based equipment, avoidance of multiple airworthiness and operational approvals and explains in detail contents relating to potential navigation applications.

1.2 The Plan envisages pre- and post-implementation safety assessments and continued availability of conventional air navigation procedures during transition. The Plan discusses issues related to implementation which include traffic forecasts, aircraft fleet readiness, adequacy of ground-based CNS infrastructure etc. Implementation targets for various categories of airspace for the short term (2008 – 2012) and for the medium term (2011 – 2016) have been projected in tabular forms to facilitate easy reference. For the long term (2016 and beyond) it has been envisaged that GNSS will be the primary navigation infrastructure. It is also envisaged that precision approach capability using GNSS and its augmentation system will become available in the long term.

2. EXPLANATION OF TERMS

2.1 The drafting and explanation of this document is based on the understanding of some particular terms and expressions that are described below:

2.1.1 **Middle East PBN Implementation Plan** - A document offering appropriate guidance for air navigation service providers, airspace operators and users, regulating agencies, and international organizations, on the evolution of navigation, as one of the key systems supporting air traffic management, and which describes the RNAV and RNP navigation applications that should be implemented in the short, medium and long term in the MID Region.

2.1.2 **Performance Based Navigation** - Performance based navigation specifies RNAV and RNP system performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in an airspace.

2.1.3 **Performance requirements** - Performance requirements are defined in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept. Performance requirements are identified in navigation specifications which also identify which navigation sensors and equipment may be used to meet the performance requirement.

3. ACRONYMS

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

AACO	Arab Air Carrier Association
ABAS	Aircraft-Based Augmentation System
AIS	Aeronautical Information System
APAC	Asia and Pacific Regions
APCH	Approach

APV	Approach Procedures with Vertical Guidance
ATC	Air Traffic Control
Baro VNAV	Barometric Vertical Navigation
CNS/ATM	Communication Navigation Surveillance/Air Traffic Management
CPDLC	Controller Pilot Data Link Communications
DME	Distance Measuring Equipment
FASID	Facilities and Services Implementation Document
FIR	Flight Information Region
FMS	Flight Management System
GBAS	Ground-Based Augmentation System
GNSS	Global Navigation Satellite System
GRAS	Ground-based Regional Augmentation System
IATA	International Air Transport Association
IFALPA	International Federation of Air Line Pilots' Associations
INS	Inertial Navigation System
IRU	Inertial Reference Unit
MIDANPIRG	Middle East Air Navigation Planning and Implementation Regional Group
MID RMA	Middle East Regional Monitoring Agency
PANS	Procedures for Air Navigation Services
PBN	Performance Based Navigation
PIRG	Planning and Implementation Regional Group
RCP	Required Communication Performance
RNAV	Area Navigation
RNP	Required Navigation Performance
SARP	Standards and Recommended Practices
SBAS	Satellite-Based Augmentation System
SID	Standard Instrument Departure
STAR	Standard Instrument Arrival
TMA	Terminal Control Area
VOR	VHF Omni-directional Radio-range
WGS	World Geodetic System

4. INTRODUCTION

Need for the roadmap

4.1 The Performance Based Navigation (PBN) concept specifies aircraft RNAV system performance requirements in terms of accuracy, integrity, availability, continuity and functionality needed for the proposed operations in the context of a particular airspace concept, when supported by the appropriate navigation infrastructure. In this context, the PBN concept represents a shift from sensor-based to performance –based navigation.

4.2 The implementation of RVSM on 27 NOV 2003 in the MID Region brought significant airspace and operational benefits to the Region. However, the realization of new benefits from RVSM have reached a point of diminishing returns. The main tool for optimizing the airspace structure is the implementation of performance based navigation (PBN), which will foster the necessary conditions for the utilization of RNAV and RNP capabilities by a significant portion of airspace users in the MID region.

4.3 In view of the need for detailed navigation planning, it was deemed advisable to prepare a PBN Roadmap to provide proper guidance to air navigation service providers, airspace operators and user, regulating agencies, and international organization, on the evolution of performance base navigation, as one of the key systems supporting air traffic management, which describes the RNAV and RNP navigation applications that should be implemented in the short and medium term in the MID Region.

4.4 Furthermore, the MID PBN Roadmap will be the basic material for the development of a boarder MID air navigation strategy, which will serve as guidance for regional projects for the implementation of air navigation infrastructure, such as SBAS, GBAS, etc., as well as for the development of national implementation plans.

4.5 The PBN Manual (Doc 9613) provides guidance on RNAV/RNP navigation specifications and encompasses two types of approvals: airworthiness, exclusively relating to the approval of aircraft, and operational, dealing with the operational aspects of the operator. RNAV/RNP approval will be granted to operators that comply with these two types of approval.

4.6 After the implementation of PBN as part of the airspace concept, the total system needs to be monitored to ensure that safety of the system is maintained. A system safety assessment shall be conducted during and after implementation and evidence collected to ensure that the safety of the system is assured.

Benefits of Performance-Based Navigation

- a) Reduces need to maintain sensor- specific routes and procedures, and their associated costs.
- b) Avoids need for development of sensor- specific operations with each new evolution of navigation systems; the present requirement of developing procedures with each new introduction is often very costly.
- c) Allows more efficient use of airspace (route placement, fuel efficiency, noise abatement).
- d) In true harmony with the way in which RNAV systems are used.
- e) Facilitates the operational approval process for operators by providing a limited set of navigation specification intended for global use.
- f) Improved airport and airspace arrival paths in all weather conditions, and the possibility of meeting critical obstacle clearance and environmental requirements through the application of optimized RNAV or RNP paths.
- g) Reduced delays in high-density airspaces and airports through the implementation of additional parallel routes and additional arrival and departure points in terminal areas.
- h) For the pilots, the main advantage of using this system is that the navigation function is performed by highly accurate and sophisticated onboard equipment and thus allowing reduction in cock-pit workload, with increase in safety.
- i) For Air Traffic Controllers, the main advantage of aircraft using a RNAV system is that ATS routes can be straightened as it is not necessary for the routes to pass over locations marked by conventional NAVAIDS.

- j) RNAV based arrival and departure routes can complement and even replace radar vectoring, thereby reducing approach and departure controllers' workload.
- k) Increase of predictability of the flight path.

Goals and Objectives of PBN Implementation

4.7 The MIDANPIRG/10 meeting required that PBN be implemented in a strategic manner in the MID Region and accordingly established the RVSM/PBN Task Force which, *inter alia*, was required to follow up developments related to PBN and develop an implementation strategy. The 36th Session of ICAO Assembly adopted Resolution A36-23: *Performance based navigation global goals*, which, amongst others, highlighted global and regional harmonization in the implementation of PBN. Accordingly, the MID PBN Implementation Regional Plan has the following strategic objectives:

- (a) To ensure that implementation of the navigation element of the MID CNS/ATM system is based on clearly established operational requirement.
- (b) To avoid unnecessarily imposing the mandate for multiple equipment on board or multiple systems on ground.
- (c) To avoid the need for multiple airworthiness and operational approvals for intra and inter-regional operations.
- (d) To avoid an eclipsing of ATM operational requirements by commercial interests, generating unnecessary costs States, international organization, and airspace users.
- (e) To explain in detail the contents of the MID air navigation plan and of the MID CNS/ATM plan, describing potential navigation application.

4.8 Furthermore, the MID PBN Roadmap will provide a high-level strategy for the evolution of the navigation applications to be implemented in the MID region in the short term (2008-2012), medium term (2013-2016). This strategy is based on the coverage of area navigation (RNAV) and required navigation performance (RNP), which will be applied to aircraft operations involving instrument approaches, standard departure (SID) routes, standard arrival (STAR) routes, and ATS routes in oceanic and continental areas.

4.9 The MID PBN Implementation Regional Plan is developed by the MID States together with the international organizations concerned (AACO, ACAC, IATA, IFALPA, IFATCA), and is intended to assist the main stakeholders of the aviation community to plan a gradual transition to the RNAV and RNP concepts. The main stakeholders of the aviation community that benefit from this roadmap are:

- Airspace operators and users
- Air navigation service providers
- Regulating agencies
- International organizations

4.10 The Plan is intended to assist the main stakeholders of the aviation community to plan the future transition and their investment strategies. For example, airlines and operators can use this Regional Plan to plan future equipage and additional navigation capability investment; air navigation service providers can plan a gradual transition for the evolving ground infrastructure, Regulating agencies will be able to anticipate and plan for the criteria that will be needed in the future.

Planning principles

4.11 The implementation of PBN in the MID Region shall be based on the following principles:

- (a) develop strategic objectives and airspace concepts as described in the PBN manual (Doc 9613) to justify the implementation of the RNAV and/or RNP concepts in each particular airspace;
- (b) States conduct pre- and post-implementation safety assessments to ensure the application and maintenance of the established target level of safety;
- (c) development of airspace concept, applying airspace modelling tools as well as real-time and accelerated simulations, which identify the navigation applications that are compatible with the aforementioned concept; and
- (d) continued application of conventional air navigation procedures during the transition period, to guarantee the operation by users that are not RNAV- and/or RNP-equipped.

4.12 Planning documentation. The implementation of PBN in the MID Region will be incorporated into the Regional Supplementary Procedures (Doc 7030) as approved by the ICAO Council. The States' PBN implementation plan will include a concise and detailed schedule of implementation for all phases of flight which will be endorsed through Regional agreement processes and considered by the Council as requirements for incorporated the Air Navigation Plan (ANP).

5. PBN OPERATIONAL REQUIREMENTS AND IMPLEMENTATION STRATEGY

5.1 Introduction of PBN should be consistent with the Global Air Navigation Plan. Moreover, PBN Implementation shall be in full compliance with ICAO SARPs and PANS and be supported by ICAO Global Plan Initiatives.

5.2 In November 2006 the ICAO Council accepted the second amendment to the Global Air Navigation Plan for the CNS/ATM System, which has been renamed the Global Air Navigation Plan (Doc 9750), referred to as the Global Plan. A key part of the Global Plan framework are Global Plan Initiatives (GPIs), which are options for air navigation system improvements that when implemented, result in direct performance enhancements. The GPIs include implementation of performance based navigation (PBN) and navigation system. The introduction of PBN must be supported by an appropriate navigation infrastructure consisting of an appropriate combination of Global Navigation Satellite System (GNSS), self-contained navigation system (inertial navigation system) and conventional ground-based navigation aids.

5.3 It is envisaged that for the short term and medium term implementation of PBN, the establishment of a backup system in case of GNSS failure or the development of contingency procedures will be necessary.

En-route

5.4 Considering the traffic characteristic and CNS/ATM capability of the Region, the en-route operation can be classified as Oceanic, Remote continental, Continental, and local/domestic. In principle, each classification of the en-route operations should adopt, but not be limited to single RNAV or RNP navigation specification. This implementation strategy will be applied by the States and international organizations themselves, as coordinated at Regional level to ensure harmonization.

5.5 In areas where operational benefits can be achieved and appropriate CNS/ATM capability exists or can be provided for a more accurate navigation specification, States are encouraged to introduce the more accurate navigation specification on the basis of coordination with stakeholders and affected neighboring States.

Terminal

5.6 Terminal operations have their own characteristics, taking into account the applicable separation minima between aircraft and between aircraft and obstacles. It also involves the diversity of aircraft, including low-performance aircraft flying in the lower airspace and conducting arrival and departure procedures on the same path or close to the paths of high-performance aircraft.

5.7 In this context, the States should develop their own national plans for the implementation of PBN in TMAs, based on the MID PBN Regional Plan, seeking the harmonization of the application of PBN and avoiding the need for multiple operational approvals for intra- and inter-regional operations, and the applicable aircraft separation criteria.

Approaches

5.8 During early implementation of PBN, IFR Approaches based on PBN should be designed to accommodate mixed-equipage (PBN and non-PBN) environment. ATC workload should be taken into account while developing approach procedures. One possible way to accomplish this is to co-locate the Initial Approach Waypoint for both PBN and conventional approaches. States should phase-out non-precision approach procedures at a certain point when deemed operational suitable and taking in consideration GNSS integrity requirements.

Implementation Strategy

5.9 In order to address the operational requirements, the following PBN Implementation & Harmonisation Strategy for the ICAO MID Region is formulated as follows:

- a) Implementation of any RNAV or RNP application shall be in compliance with ICAO PBN Manual (Doc 9613).
- b) Implementation of RNAV5/RNAV1 depending on operation requirements for continental en-route and local/domestic en-route applications at least until 2016.

Note: All current RNP-5 applications shall be redefined as RNAV-5 or RNAV-1 depending on operational needs.

- c) Implementation of RNAV1/Basic-RNP-1 depending on operation requirements for terminal applications at least until 2016.
- d) Implementation of RNAV-10 for oceanic/remote continental until at least 2016;

- e) Replacement of RNAV 5/RNAV-1 specification by RNP specifications (e.g. advanced-RNP-1) for the use in the en-route and terminal airspace to commence by 2016.
- f) The target date for the completion of implementation for the Approach procedures with vertical guidance (APV) (APV/Baro-VNAV and/or APV/SBAS) for all instrument runway ends is 2016: The development of new conventional non-precision approach procedures should be discouraged. Existing conventional non-precision approach procedures should be phased not later than 2016, pending readiness of stand-alone GNSS.
- g) The use of NDB for approach operations shall be terminated not later than 2012.

Note: Although SBAS APV-I and II is currently not referenced in ICAO Doc9613, in accordance with the general Assembly resolution (A36-23) it is included in this Strategy as part of APV.

6. CURRENT STATUS AND FORECAST

MID Traffic Forecast

6.1 The GEN part of FASID (Part II) provides the information and data of the following traffic forecasts and trends:

- air traffic demand for air navigation systems planning
- Passenger traffic
- Aircraft movements
- Major city-pairs traffic

6.2 The forecast data as well as the figures contained in the FASID document are the results of the regular meetings of, MIDANPIRG Traffic Forecasting Sub-group, which had in last meeting in May 2006. Notably however, in the past two years, air traffic growth trend for the MID Region has signalled a significantly higher aircraft fleet and traffic growth than was previously forecast.

6.3 World scheduled traffic measured in terms of Passenger-kilometers Performed (PKPs) is forecast to increase at a “most likely” average annual rate at 4.6 per cent for the period 2005-2025. International traffic is expected to increase at 5.3 per cent per annum.

6.4 The airlines of the Middle East regions are expected to experience the highest growth in passenger traffic at 5.8 per cent per annum through to the year 2025 compared to the world average of 4.6%.

6.5 World scheduled freight traffic measured in terms of tonne-kilometres performed is forecast to increase at a “most likely” average annual rate of 6.6 per cent for the period 2005-2025. International freight traffic is expected to increase at an average annual growth rate of 6.9 per cent.

6.6 Air freight traffic of the airlines of Middle East region is expected to remain higher than the world average at 7.8 per annum.

6.7 The following major route groups to, from and within the Middle East Region have been identified:

- Between Middle East - Europe
- Between Middle East - Africa
- Between Middle East - Asia/Pacific
- Between Middle East - North America
- Intra Middle East

6.8 Movement forecasts for the major route groups for the 2007-2025 periods are depicted in **Table 1**.

TABLE 1

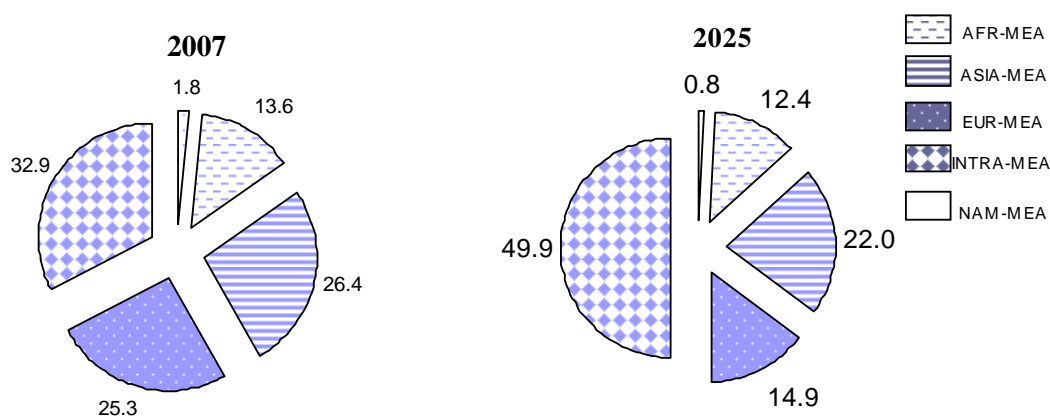
AIRCRAFT MOVEMENTS FORECAST TO THE YEAR 2025

	Actual	Forecast	Average	Annual	Growths
	2007	2025		(per cent)	
				2007-2025	
AFR-MEA	84933	291159		7.1	
ASIA-MEA	165364	514979		6.5	
EUR-MEA	158346	350380		4.5	
INTRA MEA	205769	1170709		10.1	
NAM-MEA	11075	18703		3.0	
TOTAL	625487	2345929		7.6	

6.9 The total aircraft movements to/from and within the Middle East region are estimated to increase from some 625000 in 2007 to around 2346000 in 2025 at an average annual growth rate of 7.6 per cent. The resulting movements' shares for the year 2025 are depicted in **Figure 1**.

FIGURE 1

SHARES OF SELECTED ROUTE GROUPS IN AIRCRAFT MOVEMENTS



Aircraft Fleet Readiness

6.10

CNS Infrastructure

Navigation infrastructure

Global Navigation Satellite System (GNSS)

6.11 Global Navigation Satellite System (GNSS) is a satellite-based navigation system utilizing satellite signals, such as Global Positioning System (GPS), for providing accurate and reliable position, navigation, and time services to airspace users. In 1996, the International Civil Aviation Organization (ICAO) endorsed the development and use of GNSS as a primary source of future navigation for civil aviation. ICAO noted the increased flight safety, route flexibility and operational efficiencies that could be realized from the move to space-based navigation.

6.12 GNSS supports both RNAV and RNP operations. Through the use of appropriate GNSS augmentations, GNSS navigation provides sufficient accuracy, integrity, availability and continuity to support en-route, terminal area, and approach operations. Approval of RNP operations with appropriate certified avionics provides on-board performance monitoring and alerting capability enhancing the integrity of aircraft navigation.

6.13 GNSS augmentations include Aircraft-Based Augmentation System (ABAS), Satellite-Based Augmentation System (SBAS), Ground-Based Augmentation System (GBAS), and Ground-based Regional Augmentation System (GRAS).

Other PBN Infrastructure

6.14 Other navigation infrastructure that supports PBN applications includes INS, VOR/DME, DME/DME, and DME/DME/IRU. These navigation infrastructures may satisfy the requirements of RNAV navigation specifications, but not those of RNP.

6.15 INS may be used to support PBN en-route operations with RNAV-10 and RNAV-5 navigation specifications.

6.16 VOR/DME may be used to support PBN en-route and STAR operations based on RNAV-5 navigation specification.

6.17 Uses of DME/DME and DME/DME/IRU may support PBN en-route and terminal area operations based on RNAV-5, and RNAV-1 navigation specifications. Validation of DME/DME coverage area and appropriate DME/DME geometry should be conducted to identify possible DME/DME gaps, including identification of critical DMEs, and to ensure proper DME/DME service coverage.

Note.- The conventional Navaid infrastructure should be maintained to support non-equipped aircraft during a transition period until at least 2016.

Surveillance Infrastructure

6.18 For RNAV operations, States should ensure that sufficient surveillance coverage is provided to assure the safety of the operations. Because of the on-board performance monitoring and alerting requirements for RNP operations, surveillance coverage may not be required. Details on the surveillance requirements for PBN implementation can be found in the ICAO PBN Manual and ICAO PANS-ATM (Doc 4444), and information on the current surveillance infrastructure in the MID can be found in ICAO FASID table.

Communication Infrastructure

6.19 Implementation of RNAV and RNP routes includes communication requirements. Details on the communication requirements for PBN implementation can be found in ICAO PANS-ATM (Doc 4444), ICAO RCP Manual (Doc 9869), and ICAO Annex 10. Information on the current communication infrastructure in the MID can also be found in ICAO FASID table.

7. IMPLEMENTATION ROADMAP OF PBN

ATM Operational Requirements

7.1 The Global ATM Operational Concept: Doc 9854 makes it necessary to adopt an airspace concept able to provide an operational scenario that includes route networks, minimum separation standards, assessment of obstacle clearance, and a CNS infrastructure that satisfies specific strategic objectives, including safety, access, capacity, efficiency, and environment.

7.2 In this regard, the following programmes will be developed:

- a) Traffic and cost benefit analyses
- b) Necessary updates on automation
- c) Operational simulations in different scenarios
- d) ATC personnel training
- e) Flight plan processing
- f) Flight procedure design training to include PBN concepts and ARINC-424 coding standard
- g) Enhanced electronic data and processes to ensure appropriate level of AIS data accuracy, integrity and timeliness
- h) WGS-84 implementation in accordance with ICAO Annex 15
- i) Uniform classification of adjacent and regional airspaces, where practicable
- j) RNAV/RNP applications for SIDs and STARs
- k) Coordinated RNAV/RNP routes implementation
- l) RNP approach with vertical guidance

7.3 The above programmes should conform to the performance objectives and regional action plan supporting the regional implementation plan (roadmap).

Short Term (2008-2012)

En-route

7.4 During the planning phase of any implementation of PBN routes, States should gather inputs from all aviation stakeholders to obtain operational needs and requirements. These needs and requirements should then be used to derive airspace concepts and to select appropriate PBN navigation specification.

7.5 In this phase, the current application of RNAV-10 is expected to continue for Oceanic and Remote continental routes.

7.6 For Continental routes, the applications of RNAV-5 and RNAV-1 navigation specifications are expected. Before the PBN concept was established, the MID Region adopted the Regional implementation of RNP-5. Under the PBN concept it is now required that RNP 5 will change into RNAV-5. Based on operational requirements, States may choose to implement RNAV-1 routes to enhance efficiency of airspace usages and support closer route spacing, noting that appropriate communication and surveillance coverage is provided. Details of these requirements are provided in the PBN manual (Doc 9613) and PANS-ATM (Doc 4444).

7.7 **Operational approval.** Operators are required to have operational approval for RNAV-5. Depending on operational requirement RNAV-1 for terminal operations and RNAV-10 for Oceanic/Remote Continental operations,.

Terminal

7.8 In selected TMAs, the application of RNAV-1 in a surveillance environment can be supported through the use of GNSS or ground navigation infrastructure, such as DME/DME and DME/DME/IRU. In this phase, mixed operations (equipped and non-equipped) will be permitted.

7.9 In a non- surveillance environment and/or in an environment without adequate ground navigation infrastructure, the SID/STAR application of Basic-RNP-1 is expected in selected TMAs with exclusive application of GNSS.

7.10 **Operational approval.** Operators are required to have operational approval for RNAV-1. In addition, operators are required to have Basic RNP-1 approval when operating in procedural control TMAs.

Note: In order to avoid unnecessary approvals, operators equipped with GNSS should apply for combined RNAV-1 and Basic RNP-1.

Approach

7.11 The application of RNP APCH procedures is expected to be implemented in the maximum possible number of airports, primarily international airports. To facilitate transitional period, conventional approach procedures and conventional navigation aids should be maintained for non-equipped aircraft.

7.12 States should promote the use of APV operations (Baro-VNAV or SBAS) to enhance safety of RNP approaches and accessibility of runways.

7.13 The application of RNP AR APCH procedures should be limited to selected airports, where obvious operational benefits can be obtained due to the existence of significant obstacles.

7.14 **Operational approval requirements.** Operators shall plan to have operational approval for RNP APCH with VNAV operations (Baro-VNAV). Depending on operational need, aircraft shall also meet the RNP AR APCH specification.

7.15 Application of RNAV-5 or RNAV-1 for continental en-route will be mandated by the end of 2012.

SUMMARY TABLE AND IMPLEMENTATION TARGETS

SHORT TERM (2008-2012)	
<i>Airspace</i>	<i>Navigation Specification</i>
En-route – Oceanic	RNAV-10
En-route - Remote continental	RNAV-10
En-route – Continental	RNAV-5, RNAV-1
En-route - Local / Domestic	RNAV-5, RNAV-1
TMA – Arrival	RNAV-1 in surveillance environment and with adequate navigation infrastructure. Basic RNP-1 in non-surveillance environment
TMA – Departure	RNAV-1 in surveillance environment and with adequate navigation infrastructure. Basic RNP-1 in non-surveillance environment
Approach	RNP APCH with Baro-VNAV in most possible airports; RNP AR APCH in airport where there are obvious operational benefits.

Implementation Targets

- RNP APCH (with Baro-VNAV) in 30% of instrument runways by 2010 and 50% by 2012 and priority should be given to airports with most significant operational benefits
- RNAV-1 SIDs/STARs for 30% of international airports by 2010 and 50% by 2012 and priority should be given to airports with RNP Approach
- RNP-5 and B-RNAV which is implemented in MID Region to be redefined as per ICAO PBN terminology by 2009 (MIDANPIRG/11), full implementation of PBN by 2012 for continental en-route.

Medium Term (2013-2016)

En-route

7.16 Noting the current development of route spacing standards for RNAV-1, in this phase, it is expected that the implementations of all existing RNAV/RNP routes are consistent with PBN standards. However, in order to ensure implementation harmonization, States are urged to implement their RNAV/RNP routes based on a Regional agreements and consistent PBN navigation specifications and separation standards.

7.17 With regard to oceanic remote operations, it is expected that with the additional surveillance capability, the requirement for RNAV-10 will disappear, and be replaced by navigation specifications for continental en-route applications.

7.18

7.19 **Operational approval.** Operators are required to have operational approval for RNAV-5 and RNAV-1..

Terminal

7.20 RNAV-1 or Basic RNP-1 will be fully implemented in all TMAs by the end of this term.

7.21 **Operational approval.** Operators are required to have operational approval for RNAV-1/Basic RNP-1 approval.

Note: In order to avoid unnecessary approvals, operators equipped with GNSS should apply for combined RNAV-1 and Basic RNP-1

Approach

7.22 In this phase, full implementation of RNP APCH with Baro-VNAV or APV SBAS for all instrument runways is expected. These applications may also serve as a back-up to precision approaches.

7.23 The extended application of RNP AR Approaches should continue for airports where there are operational benefits.

7.24 The introduction of application of landing capability using GNSS is expected to guarantee a smooth transition toward high-performance approach and landing capability.

7.25 **Operational approval requirements.** Operators are required to have operational approval for RNP APCH with VNAV operations (Baro-VNAV). Depending on operations, aircraft shall also meet RNP AR specification.

7.26 Application of RNAV-1 or Basic RNP-1 for all terminal areas and APV/Baro-VNAV or APV/SBAS for all instrument runway ends, either as the primary approach or as a back-up for precision approaches will be mandated by 2016.

SUMMARY TABLE AND IMPLEMENTATION TARGETS

MEDIUM TERM (2013-2016)	
<i>Airspace</i>	<i>Navigation Specification (preferred/acceptable)</i>
En-route – Oceanic	Nil
En-route - Remote continental	Nil
En-route – Continental	RNAV-1, RNAV-5
En-route - Local / Domestic	RNAV-1 , RNAV-5
TMA – (Arrival, Departure)	RNAV-1 or RNP-1 application
Approach	RNP APCH (with Baro-VNAV) and APV Expansion of RNP AR APCH where there are operational benefits Introduction of landing capability using GNSS and its augmentations
Implementation Targets	
<ul style="list-style-type: none"> ▪ RNP APCH with Baro-VNAV or APV in 100% of instrument runways by 2016 ▪ RNAV-1 or RNP-1 SID/STAR for 100% of international airports by 2016 ▪ RNAV-1 or Basic RNP-1 SID/STAR at busy domestic airports where there are operational benefits ▪ Implementation additional RNAV/RNP routes 	

Long Term (2016 and Beyond)

7.27 In this phase, GNSS is expected to be a primary navigation infrastructure for PBN implementation. States should work co-operatively on a multinational basis to implement GNSS in order to facilitate seamless and inter-operable systems and undertake coordinated Research and Development (R&D) programs on GNSS implementation and operation.

7.28 Moreover, during this phase, States are encouraged to consider segregating traffic according to navigation capability and granting preferred routes to aircraft with better navigation performance.

7.29 Noting the current development of Advanced RNP-1 navigation specification, it is expected that this navigation specification will play an important role in the long term implementation of PBN for enroute and terminal operations.

7.30 With the expectation that precision approach capability using GNSS and its augmentation systems will become available, States are encouraged to explore the use of such capability where there are operational and financial benefits.

7.31 During this term the use of Advanced RNP-1 for terminal and en-route will be mandated by a date to be determined.

8. TRANSITIONAL STRATEGIES

8.1 During the transitional phases of PBN implementation, sufficient ground infrastructure for conventional navigation systems must remain available. Before existing ground infrastructure is considered for removal, users should be consulted and given reasonable transition time to allow them to equip appropriately to attain equivalent PBN-based navigation performance. States should approach removal of existing ground infrastructure with caution to ensure that safety is not compromised, such as by performance of safety assessment, consultation with users through regional air navigation planning process and national consultative forums. Moreover, noting that navigation systems located in a particular State/FIR may be supporting air navigation in airspace in other States/FIRs States are required to cooperate and coordinate bilaterally, multilaterally and within the framework of Regional agreements, in the phasing out of conventional ground based navigation systems and maintaining the serviceability of required navigation aids for area navigation (e.g. DME).

8.2 States should ensure that harmonized separation standards and procedures are developed and introduced concurrently in all flight information regions to allow for a seamless transition towards PBN.

8.3 States should cooperate on a multinational basis to implement PBN in order to facilitate seamless and inter-operable systems and undertake coordinated R&D programs on PBN implementation and operation.

8.4 States are encouraged to consider segregating traffic according to navigation capability and granting preferred routes to aircraft with better navigation performance, taking due consideration of the need of State/Military aircraft.

8.5 States should encourage operators and other airspace users to equip with PBN avionics. This can be achieved through early introductions of RNP approaches, preferably those with vertical guidance.

8.6 ICAO MID Region Regional Office should provide leadership supporting implementation and transition towards PBN.

9. SAFETY ASSESSMENT AND MONITORS

Methodology

Need for Safety Assessment

9.1 To ensure that the introduction of PBN en-route applications within the MID Region is undertaken in a safe manner and in accordance with relevant ICAO provisions, implementation shall only take place following conduct of a safety assessment that has demonstrated that an acceptable level of safety will be met. This assessment may also need to demonstrate levels of risk associated with specific PBN en-route implementation. Additionally, ongoing periodic safety reviews shall be undertaken where required in order to establish that operations continue to meet the target levels of safety.

Roles and Responsibilities

9.2 To demonstrate that the system is safe, it will be necessary that the implementing agency – a State or group of States - ensures that a safety assessment and, where required, ongoing monitoring of the PBN en-route implementation are undertaken. The implementing agency may have the capability to undertake such activities or may seek assistance from the Middle East Regional Monitoring Agency (MID RMA). The latter course of action is preferred as the MID RMA would be in a position to establish the necessary monitoring and data collection activity in an effective manner. Furthermore, the MIDANPIRG/10 meeting in April 2007 adopted the revised terms of reference of the MID RMA, whose scope includes safety monitoring of RNP/RNAV.

9.3 In undertaking a safety assessment to enable en-route implementation of PBN, a State, implementing agency or the MID RMA shall:

- (a) Establish and maintain a database of PBN approvals;
- (b) Monitor aircraft horizontal-plane navigation performance and the occurrence of large navigation errors and report results appropriately to the MID RMA;
- (c) Conduct safety and readiness assessments and report results appropriately to the MID RMA;
- (d) Monitor operator compliance with State approval requirements after PBN implementation; and
- (e) Initiate necessary remedial actions if PBN requirements are not met.

9.4 The duties and responsibilities of the MID RMA as well as the agreed principles for its establishment are available from the ICAO MID Regional Office.

10. PERIODIC REVIEW OF IMPLEMENTATION ACTIVITIES

Procedures to Modify the Regional Plan

10.1 Whenever a need is identified for a change to this document, the Request for Change (RFC) Form (to be developed) should be completed and submitted to the ICAO MID Regional Office. The Regional Office will collate RFCs for consideration by the PBN/GNSS Task Force (ATM/SAR/AIS Sub-group of MIDANPIRG).

10.2 When an amendment has been agreed by a meeting of the PBN/GNSS Task Force, a new version of the PBN Regional Plan will be prepared, with the changes marked by an “|” in the margin, and an endnote indicating the relevant RFC, to enable a reader to note the origin of the change. If the change is in a table cell, the outside edges of the table will be highlighted. Final approval for publication of an amendment to the PBN Regional Plan will be the responsibility of MIDANPIRG.

Appendix A – Practical Examples of tangible benefits (living document)

(To be Developed)

Appendix B – Reference documentation for developing operational and airworthiness approval regulations/procedures

(To be Developed)

ATM/SAR/AIS SG/10
Appendix 9E to the Report on Agenda Item 9

**PROPOSED LIST OF CONTENTS FOR THE
STATE PBN IMPLEMENTATION PLAN**

- Background
 - Future Demands on Aviation
 - Operational Efficiency
 - Environmental Issues
- Strategic objective and Airspace concepts
- Performance Based Navigation
 - PBN
 - Current Status of PBN
- Benefits of PBN and Global Harmonization (Safety, Efficiency, Environment)
- Challenges
 - Transition to the PBN System
 - Increasing Demands
 - Efficient Operations
 - Environmental Impact
- Implementation Strategy
 - Short Term (Now until end of 2012)
 - En-route
 - Departures and Arrivals
 - Approaches
 - NAVAID Infrastructure
 - Ground based
 - Space based
 - Medium Term (2013 until end of 2016)
 - En-route
 - Departures and Arrivals
 - Approaches
 - NAVAID Infrastructure
 - Ground based
 - Space based
 - Long Term (2016 and beyond)
 - En-route
 - Departures and Arrivals
 - Approaches
 - NAVAID Infrastructure
 - Ground based
 - Space based
- Implementation Schedule
 - En-route
 - Departures and Arrivals
 - Approaches

ATM/SAR/AIS SG/10
Appendix 9F to the Report on Agenda Item 9

PBN IMPLEMENTATION REGIONAL ACTION PLAN

PBN en-route Action Plan

PBN en-route Action Plan GPI 1, 4, 5, 7, 8, 10, 11, 12, 16, 21,23				
		Start	End	Remarks
1	AIRSPACE CONCEPT			
1.1	Establish and prioritize Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2	Collect air traffic data to understand airspace traffic flows in a particular airspace.			
1.3	Analyse navigation capability of the fleet			
1.4	Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance.			
1.5	Optimise the airspace structure, by reorganising the network or implementing new routes based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2	DEVELOP PERFORMANCE MEASUREMENT PLAN			
2.1	Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2	Conduct Performance Measurement Plan			
3	AIRSPACE SAFETY ASSESSMENT			
3.1	Determine which methodology shall be used to evaluate airspace safety and ATS routes spacing, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2	Prepare a data collection programme for airspace safety assessment			
3.3	Prepare preliminary airspace safety assessment			

PBN en-route Action Plan GPI 1, 4, 5, 7, 8, 10, 11, 12, 16, 21,23			
	Start	End	Remarks
3.4 Prepare final airspace safety assessment			
4 ESTABLISH COLLABORATION DECISION MAKING (CDM) PROCESS			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			
5 ATC AUTOMATED SYSTEMS			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 AIRCRAFT AND OPERATORS APPROVAL			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			

PBN en-route Action Plan GPI 1, 4, 5, 7, 8, 10, 11, 12, 16, 21,23			
	Start	End	Remarks
6.5			Establish and keep updated a record of approved aircraft and operators
6.6			Verify operations with a continuing monitoring programme
7			STANDARDS AND PROCEDURES
7.1			Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.
7.2			Finalize implementation of WGS-84
7.3			Develop and publish AIC notifying PBN implementation planning
7.4			Publish AIP Supplement including applicable standards and procedures
7.5			Review Procedural Manuals of the ATS units involved
7.6			Update Letters of Agreement between ATS units
7.7			Develop amendment to the regional documentation, if necessary
7.8			Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable
7.9			Identify transition areas and procedures, if necessary
7.10			Conduct ATC simulations to identify the workload/operational factors, if necessary, and report the simulations activities to the ATM Committee
8			TRAINING
8.1			Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)
8.2			Develop training programme and documentation for Air Traffic Controllers and AIS Operators
8.3			Develop training programme to regulators (aviation safety inspectors)

PBN en-route Action Plan GPI 1, 4, 5, 7, 8, 10, 11, 12, 16, 21,23			
	Start	End	Remarks
8.4 Conduct training programmes			
8.5 Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected			
9 DECISION FOR IMPLEMENTATION			
9.1 Evaluate operational documentation availability (ATS, OPS/AIR)			
9.2 Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)			
9.3 Review safety assessment results			
10 SYSTEM PERFORMANCE MONITORING			
10.1 Develop post-implementation en-route operations monitoring programme			
10.2 Execute post-implementation en-route operations monitoring programme			
Pre operational implementation date			
Definitive implementation date			

PBN TMA Action Plan

PBN TMA Action Plan GPI 5, 7, 8, 10, 11, 12				
		Start	End	Remarks
1	AIRSPACE CONCEPT			
1.1	Establish and prioritize Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2	Collect air traffic data to understand airspace traffic flows in the TMA.			
1.3	Analyse aircraft fleet navigation capacity operating in the TMA			
1.4	Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance			
1.5	Optimise the airspace structure, by implementing new SID and STARS, based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2.	DEVELOP PERFORMANCE MEASUREMENT PLAN			
2.1	Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2	Conduct Performance Measurement Plan			
3	AIRSPACE SAFETY ASSESSMENT			
3.1	Determine which methodology shall be used to evaluate airspace safety and routes spacing, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2	Prepare a data collection programme for airspace safety assessment			
3.3	Prepare preliminary airspace safety assessment			

PBN TMA Action Plan GPI 5, 7, 8, 10, 11, 12			
	Start	End	Remarks
3.4 Prepare final airspace safety assessment			
4 ESTABLISH COLLABORATION DECISION MAKING (CDM) PROCESS			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			
5 ATC AUTOMATED SYSTEMS			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 AIRCRAFT AND OPERATOR APPROVAL			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			

PBN TMA Action Plan GPI 5, 7, 8, 10, 11, 12			
	Start	End	Remarks
6.5			Establish and keep updated a record of approved aircraft and operators
6.6			Verify operations with a continuing monitoring programme
7			STANDARDS AND PROCEDURES
7.1			Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.
7.2			Develop and publish AIC notifying PBN implementation planning
7.3			Publish AIP Supplement including applicable standards and procedures
7.4			Review Procedural Manuals of the ATS units involved
7.5			SID and/or STAR Ground Validation and Flight Inspection/Flight Validation
7.6			Data Base Validation Requirements/Procedures
7.5			Update Letters of Agreement between ATS units
7.6			Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable
7.7			Conduct ATC simulations to identify the workload/operational factors, if necessary.
8			TRAINING
8.1			Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)
8.2			Develop training programme and documentation for Air Traffic Controllers and AIS Operators

PBN TMA Action Plan GPI 5, 7, 8, 10, 11, 12			
	Start	End	Remarks
8.3			Develop training programme to regulators (aviation safety inspectors)
8.4			Conduct training programmes
8.5			Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected
9			DECISION FOR IMPLEMENTATION
9.1			Evaluate operational documentation availability (ATS, OPS/AIR)
9.2			Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)
9.3			Review safety assessment results
10			SYSTEM PERFORMANCE MONITORING
10.1			Develop post-implementation TMA operations monitoring programme
10.2			Execute post-implementation TMA operations monitoring programme
			Pre operational implementation date
			Definitive implementation date

PBN Approach Action Plan

PBN APP Action Plan GPI 1, 12, 16, 21, 23			
	Start	End	Remarks
1 AIRSPACE CONCEPT			
1.1 Establish and prioritize Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2 Analyse aircraft fleet navigation capacity operating in the Airport			
1.3 Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance			
1.4 Design Instrument Approach Procedure (RNP APCH/APV Baro-VNAV or RNP AR), based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2 DEVELOP PERFORMANCE MEASUREMENT PLAN			
2.1 Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2 Conduct Performance Measurement Plan			
3 PROCEDURE SAFETY ASSESSMENT			
3.1 Determine which methodology shall be used to evaluate procedure safety, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2 Prepare a data collection programme for airspace safety assessment			
3.3 Prepare preliminary procedure (s) safety assessment			

PBN APP Action Plan GPI 1, 12, 16, 21, 23			
	Start	End	Remarks
3.4 Prepare final procedure (s) safety assessment			
4 ESTABLISH COLLABORATION DECISION MAKING (CDM) PROCESS			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			
5 ATC AUTOMATED SYSTEMS			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 AIRCRAFT AND OPERATOR APPROVAL			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			

PBN APP Action Plan GPI 1, 12, 16, 21, 23			
	Start	End	Remarks
6.5			Establish and keep updated a record of approved aircraft and operators
6.6			Verify operations with a continuing monitoring programme
7			STANDARDS AND PROCEDURES
7.1			Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.
7.2			Develop and publish AIC notifying PBN implementation planning
7.3			Publish AIP Supplement including applicable standards and procedures
7.4			Review Procedural Manuals of the ATS units involved
7.5			Update Letters of Agreement between ATS units, if necessary
7.6			Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable
7.7			Conduct ATC simulations to identify the workload/operational factors, if necessary.
8			TRAINING
8.1			Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)
8.2			Develop training programme and documentation for Air Traffic Controllers and AIS Operators

PBN APP Action Plan GPI 1, 12, 16, 21, 23			
	Start	End	Remarks
8.3			Develop training programme to regulators (aviation safety inspectors)
8.4			Conduct training programmes
8.5			Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected
9			DECISION FOR IMPLEMENTATION
9.1			Evaluate operational documentation availability (ATS, OPS/AIR)
9.2			Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)
9.3			Review safety assessment results
10			SYSTEM PERFORMANCE MONITORING
10.1			Develop post-implementation APP operations monitoring programme
10.2			Execute post-implementation APP operations monitoring programme
			Pre operational implementation date
			Definitive implementation date

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Appendix 9G to the Report on Agenda Item 9

**PBN IMPLEMENTATION
PERFORMANCE OBJECTIVES**

OPTIMIZATION OF THE ATS ROUTE STRUCTURE EN-ROUTE AIRSPACE				
<i>Benefits</i>				
Environment	▪ reductions in fuel consumption;			
Efficiency	▪ ability of aircraft to conduct flight more closely to preferred trajectories;			
	▪ increase in airspace capacity;			
	▪ facilitate utilization of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency.			
<i>Short-term Strategy(2008-2012)</i>				
TASK	DESCRIPTION	START-END	RESPONSIBILITY	STATUS
AOM	<i>En-route airspace</i>			
	Develop regional strategic plan	2008-2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008-2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009-2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN implementation plan, in order to design and implement a trunk route network, connecting major city pairs in the upper airspace and for transit to/from aerodromes, on the basis of PBN and, in particular, RNAV/5, taking into account interregional harmonization	2009-2010	ATM/SAR/AIS (ARN TF)	ARN TF/2 to start work
	Develop State PBN implementation plans	2008-2009	MIDANPIRG/12 (ATM/SAR/AIS, States)	States preparing plans
	Standards and Procedures	2008-2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009	ATM/SAR/AIS SG (MID RMA)	MID RMA to start work

	Establish collaborative decision making (CDM) process	2008-2010	MIDANPIRG/12 (ATM/SAR/AIS SG, CNS SG)	
	ATC Automated Systems	2009-2012	States	
	Publish national regulations for aircraft and operators approval using PBN manual as guidance material	2008-2010	States	Review and adapt available foreign approval guidance material
	Training	2008-2010	States	Identify training needs and develop corresponding guidelines
	System performance measurement	2010-2012	ATM/SAR/AIS SG (ARN TF)	ARN TF/2 to start work
	Implement the designed ATS route network	2009-2012	MIDANPIRG/12 (ATM/SAR/AIS) STATES	
	monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2008-2012	MIDANPIRG/12 (ATM/SAR/AIS SG, CNS SG)	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/20: WGS-84			

OPTIMIZATION OF THE ATS ROUTE STRUCTURE IN TERMINAL AIRSPACE				
<i>Benefits</i>				
Environment Efficiency	<ul style="list-style-type: none"> ▪ reductions in fuel consumption; ▪ ability of aircraft to conduct flight more closely to preferred trajectories; ▪ increase in airspace capacity; ▪ facilitate utilization of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency. 			
<i>Strategy Short term (2008-2012)</i>				
TASK	DESCRIPTION	STAR T- END	RESPONSIBILITY	STATUS
AOM, AO	<i>In terminal airspace</i>			
	Develop regional strategic plan	2008 - 2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008 - 2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009 - 2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN implementation plan, in order to design and implement optimized standard instrument departures (SIDs), standard instrument arrivals (STARs), instrument flight procedures, holding, approach and associated procedures (particular RNAV 1 and Basic RNP1) in accordance with Regional Plan.	2009 - 2010	States	
	Develop State PBN implementation plans	2008 - 2009	MIDANPIRG/12 (ATM/SAR/AIS SG), States	States preparing plans
	Standards and Procedures	2008 - 2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009 - 2012	States	

	Establish collaborative decision making (CDM) process	2008 - 2010	MIDANPIRG/12 (ATM/SAR/AIS SG, CNS SG)	
	Publish national regulations for aircraft and operators approval using PBN manual as guidance and considering available foreign approval material	2008 - 2010	States	Review and adapt available foreign approval guidance material
	ATC Automated Systems	2009 - 2012	States	
	Training	2008 - 2010	States	States to identify training needs and develop corresponding guidelines
	System performance measuring (measurement and monitoring plan)	2009 - 2012	States, ATM/SAR/AIS SG	States to start work
	Implement SIDs and STARs	2009 - 2012	States	
	Monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2009 - 2012	States, ATM/SAR/AIS SG	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: Functional integration of ground systems with airborne systems.			

IMPLEMENTATION OF VERTICALLY GUIDED RNP APPROACHES				
Benefits				
Efficiency	▪ Improvements in capacity and efficiency at aerodromes.			
Safety	▪ Improvements in safety at aerodromes.			
<i>Strategy Short term (2008-2012)</i>				
TASK	DESCRIPTION	STAR T- END	RESPONSIBILITY	STATUS
AOM, AO	<i>At airports</i>			
	Develop regional strategic plan	2008 - 2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008 - 2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009 - 2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN Implementation Plan, in order to design and implement RNP APCH with Baro-VNAV in most possible airports; RNP AR APCH at airports where there are obvious operations airports.	2009 - 2012	States	
	Develop State PBN implementation plans	2008 - 2009	MIDANPIRG/12 (ATM/SAR/AIS SG), States	States preparing plans
	Standards and Procedures	2012 - 2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009 - 2012	States	
	Establish collaborative decision making (CDM) process	2008 - 2012	States	

	Publish national regulations for aircraft and operators approval using PBN manual as guidance and considering available foreign approval material	2008 - 2010	States	Review and adapt available foreign approval guidance material
	Training	2008 - 2010	States	States to identify training needs and develop corresponding guidelines
	System performance measuring (measurement and monitoring plan)	2009 - 2012	States, ATM/SAR/AIS SG	States to start work
	Implement APV procedures	2009 - 2012	States	
	Monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2009 - 2012	States, ATM/SAR/AIS SG	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures.			

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REPORT ON AGENDA ITEM 10: AIS/MAP ISSUES

10.1 The meeting reviewed the outcome of the ATM/SAR/AIS SG/9 meeting (Cairo, 10-13 December 2007) and AIS/MAP TF/4 meeting (Cairo, 19-21 February 2008) with a view to consolidate a list of Draft Conclusions and Decisions to be presented to MIDANPIRG/11. The meeting was also apprised of the latest developments in the AIS/MAP field.

Status of implementation of AIS/MAP requirements (IAIP, AIRAC and Aeronautical Charts)

10.2 The meeting noted that the AIS/MAP TF/4 meeting was presented with an overview of ICAO provisions relevant to the AIS/MAP field. With respect to the status of implementation of AIRAC system, the meeting recognized that late receipt of aeronautical information continues to be a problem for the aviation community in the MID Region. It was also noted that the AIRAC procedures are not fully adhered to by a number of MID States. It was identified that this is due mainly to the lack of coordination between AIS and the technical departments providing the raw material to the AIS for promulgation. In this regard, the meeting recalled that MIDANPIRG/10 was of the view that the signature of Service Level Agreements (SLA) between AIS and the data originators will solve to a large extent this deficiency.

10.3 The meeting shared the concern of the AIS/MAP TF/4 meeting regarding the provisions of Annex 15 Chapter 6 and Appendix 4 related to AIRAC. It was recognized that the use of the words “significant” and “major” changes leads to different interpretations. The meeting was of view that it would be easier and less ambiguous if Annex 15 would present a comprehensive list of changes for which the use of AIRAC is mandatory or recommended.

10.4 The meeting recalled that MIDANPIRG/10, under Conclusion 10/51, invited States to arrange for advance posting of AIRAC information on the web before dissemination of the official hardcopies of the AIP Amendments/Supplements. In this regard, the meeting agreed with the AIS/MAP TF/4 meeting that the ICAO MID Forum could be used by States for the posting of AIS publications, especially the AIRAC information. Accordingly, the meeting invited the ICAO MID Regional Office, in coordination with Bahrain, to investigate such possibility. In this regard, the meeting noted that in Europe the AIS AGORA forum has proved its usefulness for the exchange of aeronautical information.

10.5 With a view to enhance communication between the AIS Community in the MID Region, the meeting noted that MIDANPIRG/10, under Conclusion 10/50, invited States to publish in their AIP (para. GEN 3.1.1) their AIS email address and encouraged the communication by emails in accordance with the ICAO Guidelines on the use of Public Internet for Aeronautical Applications (Doc 9855). It was highlighted that the use of public internet should be limited to the non-time critical aeronautical ground-ground applications (i.e.: the information being transferred over the internet has no immediate effect on an active flight). Checklist of valid NOTAM.

10.6 The meeting noted that five (5) States only (Bahrain, Iran, Jordan, Kuwait and Saudi Arabia) are using the email for the dissemination of AIP Supplements, AICs and Monthly printed plain-language list of valid NOTAM. The meeting noted also with appreciation that Egypt, Iran, Kuwait and Lebanon have published their AIP on a CD-ROM. The table below gives details about the use of internet for the publication of aeronautical information by MID States:

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	AIS email address	AIS website	Remarks
Afghanistan	afghanaip@auab.centaf.af.mil	www.motca.gov.af	Draft version of the AIP available on the web
Bahrain	aisadmin@caa.gov.bh	www.bahrainairport.com	AIP available on the web
Egypt	ais@nansceg.org	www.nansceg.org	NOTAM Summary and AIRAC AMDTs and SUPs on the web
Iran	ais_iran@airport.ir	http://ais.airport.ir	AICs, Amdts, SUPs, and NOTAM Summaries available on the web
Iraq	hisham.icaa@yahoo.com	www.ramcc.dtic.mil	Draft version of the AIP available on the web
Israel			
Jordan	ais.hq@carc.gov.jo	www.carc.gov.jo	Draft version of the AIP available on the web
Kuwait	ais1@kuwait-airport.com.kw	www.kuwait-airport.com.kw	
Lebanon	ais@beirutairport.gov.lb		
Oman	Ebriefing@dgcam.gov.om		
Qatar	doha.ais@caa.gov.qa	www.caa.gov.qa	aisadmin@bahrain.gov.bh (AIP maintained by Bahrain)
Saudi Arabia		www.gaca.gov.sa/ATS	NOTAM summary available on the web
Syria			
UAE	ais@gcaa.ae briefing@emirates.net.ae	www.gcaa.ae	AICs, SUPs and NOTAM Summaries available on the web
Yemen			

10.7 Based on the above, the meeting agreed to the following Draft Conclusions, emanating from the AIS/MAP TF/4 meeting. These Draft Conclusions are proposed to replace and supersede MIDANPIRG/10 Conclusion 10/51:

DRAFT CONCLUSION 10/31: USE OF THE PUBLIC INTERNET FOR THE ADVANCE PUBLICATION OF AERONAUTICAL INFORMATION

That, in order to improve the timeliness of aeronautical information and in accordance with the ICAO Guidelines on the use of Public Internet for Aeronautical Applications (Doc 9855):

a) *MID States are encouraged to use the internet for the advance publication of the following elements of the Integrated Aeronautical Information Package containing non-time critical aeronautical information (i.e.: posting of the information on the web and/or dissemination by email):*

- *AIP;*
- *AIP Amendments (both AIRAC and non AIRAC);*
- *AIP Supplements (both AIRAC and non AIRAC);*
- *Aeronautical Information Circulars (AIC);*

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- *monthly printed plain-language list of valid NOTAM; and*
- *NOTAM containing a checklist of valid NOTAM.*

Note: Appropriate arrangements for the provision of information in paper copy form should remain available.

- b) *ICAO, in coordination with Bahrain, investigate the possibility that the ICAO MID Forum be used by States for the posting of AIS publications.*

DRAFT CONCLUSION 10/32: IMPROVEMENT OF THE ADHERENCE TO THE AIRAC SYSTEM

That, in order to improve the adherence to the AIRAC System, States, that have not yet done so, are urged to:

- a) *fully comply with the AIRAC procedures, in accordance with specifications provided in Annexes 11, 14 (both volumes) and 15 as well as the provisions of the MID Basic ANP Chapter VIII;*
- b) *organize awareness campaigns involving AIS and all technical Departments providing the raw data to the AIS for promulgation; and*
- c) *arrange for the signature of Service Level Agreements (SLA) between AIS and the data originators.*

DRAFT CONCLUSION 10/33: ANNEX 15 PROVISIONS RELATED TO AIRAC

That, ICAO consider to review the current provisions of Annex 15 Chapter 6 and Appendix 4 related to AIRAC by replacing the words “significant” and “major” changes, which lead to different interpretations, by a comprehensive list of changes which necessitate the use of the AIRAC System.

10.8 IATA and IFALPA strongly supported the above Draft Conclusions. They recognized that there’s an important room for improvement with regard to the compliance with the AIRAC procedures in the MID Region and urged States to accord high priority for the elimination of the identified deficiencies in the AIS/MAP field. States that have not yet done so, were urged to publish in their AIP (para. GEN 3.1.1) their email address, in accordance with MIDANPIRG/10 Conclusion 10/50.

10.9 With regard to the provision of pre-flight information services, it was noted that the quality of services provided by the AIS Aerodrome Briefing Offices is not meeting the user requirements. In this regard, it was highlighted that pilots are sometimes supplied with so much information that it is not always apparent to them which parts of it are either important or relevant to their flight. This lead to the situation where the users are using more and more the products of the commercial data houses which offer an integrated and tailored briefing packages. Accordingly, the meeting recognized that unless the service provided by the AIS Briefing Offices is improved on a global basis, the use of commercial facilities for the provision of pre-flight briefings will be the only viable solution for pilots and airlines. In this regard, the meeting reiterated the need to comply with MIDANPIRG/9 Conclusion 9/26 “*ENHANCED PRE-FLIGHT INFORMATION SERVICE*” and re-emphasized that the only way to improve the quality of the services provided by AIS would be the implementation of AIS automation, Quality Management System and the provision of tailored products meeting the user requirements.

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10.10 Based on the above, the meeting reviewed and updated the following table which summarizes the status of implementation of AIS/MAP requirements related to the IAIP, AIRAC and aeronautical charts in the MID Region:

	AIP	AIRAC	NOTAM	Pre-Flight Information	Aeronautical Charts
Afghanistan	<ul style="list-style-type: none"> - AIP not published officially in 3 parts. However Draft version not fully compliant with Annex 15 requirements is available on the web. - Lack of regular amendment 	<ul style="list-style-type: none"> - Lack of implementation of the AIRAC system 	<ul style="list-style-type: none"> - Lack of compliance with Annex 15 and Doc 8126 provisions related to NOTAM format and requirements - No monthly summary of NOTAM 	<ul style="list-style-type: none"> - Non provision of pre-flight information service. 	<ul style="list-style-type: none"> - A number of Aeronautical charts are not produced or non compliant with Annex 4 requirements.
Bahrain	<ul style="list-style-type: none"> - Well updated AIP, available on the web 	<ul style="list-style-type: none"> - AIRAC procedures implemented 	<ul style="list-style-type: none"> - No deficiency identified. 	<ul style="list-style-type: none"> - Pre-flight information service provided with a Central automated system 	<ul style="list-style-type: none"> - No deficiency identified
Egypt	<ul style="list-style-type: none"> - Well updated AIP; available on CD 	<ul style="list-style-type: none"> - AIRAC procedures implemented 	<ul style="list-style-type: none"> - No deficiency identified. 	<ul style="list-style-type: none"> - Pre-flight information service provided with a Central automated system 	<ul style="list-style-type: none"> - No deficiency identified
Iran	<ul style="list-style-type: none"> - Well updated AIP. Electronic version available on CD. 	<ul style="list-style-type: none"> - AIRAC procedures implemented 	<ul style="list-style-type: none"> - No deficiency identified. 	<ul style="list-style-type: none"> - Non provision of pre-flight information service (in progress) 	<ul style="list-style-type: none"> WAC Chart ICAO 1:1000000 not yet published.

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	AIP	AIRAC	NOTAM	Pre-Flight Information	Aeronautical Charts
Iraq	<ul style="list-style-type: none"> – AIP not published officially in 3 parts. However Draft version not fully compliant with Annex 15 requirements is available on the web. – Lack of regular amendment 	<ul style="list-style-type: none"> – Lack of implementation of the AIRAC system 	<ul style="list-style-type: none"> – Lack of compliance with Annex 15 and Doc 8126 provisions related to NOTAM format and requirements – No monthly summary of NOTAM 	<ul style="list-style-type: none"> – Non provision of pre-flight information service. 	<ul style="list-style-type: none"> – A number of Aeronautical charts are not produced or non compliant with Annex 4 requirements.
Israel	<ul style="list-style-type: none"> – AIP generally up-to-date, but not available on an electronic means (CD or website) 	<ul style="list-style-type: none"> – Lack of implementation of the AIRAC system 	<ul style="list-style-type: none"> – No deficiency reported except that related to the monthly summary of NOTAM 	<ul style="list-style-type: none"> – Non provision of pre-flight information service. 	<ul style="list-style-type: none"> – The Enroute chart-ICAO is not produced.
Jordan	<ul style="list-style-type: none"> – Well updated AIP, available on the web, but not available on a CD.. 	<ul style="list-style-type: none"> – AIRAC procedures not fully implemented 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – Pre-flight information service provided with a Local automated system. 	<ul style="list-style-type: none"> – WAC Chart ICAO 1:1000000 not yet published.
Kuwait	<ul style="list-style-type: none"> – Well updated AIP, available on CD and website. 	<ul style="list-style-type: none"> – AIRAC procedures implemented 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – Pre-flight information service provided with a central automated system 	<ul style="list-style-type: none"> – WAC Chart ICAO 1:1000000 not yet published. (in final stage, will be published soon)

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	AIP	AIRAC	NOTAM	Pre-Flight Information	Aeronautical Charts
Lebanon	<ul style="list-style-type: none"> – AIP generally up-to-date, but not available on an electronic means (CD or website) 	<ul style="list-style-type: none"> – AIRAC procedures not fully implemented 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – Pre-flight information service provided with a Central automated system 	<ul style="list-style-type: none"> – WAC Chart ICAO 1:1000000 not yet published.
Oman	<ul style="list-style-type: none"> – AIP generally up-to-date, and available on a CD 	<ul style="list-style-type: none"> – Lack of implementation of the AIRAC system 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – Non provision of pre-flight information service. Lack of AIS automation 	<ul style="list-style-type: none"> – WAC Chart ICAO 1:1000000 not yet published.
Qatar	<ul style="list-style-type: none"> – Published with AIP Bahrain. – Well updated AIP, available on the web 	<ul style="list-style-type: none"> – AIRAC procedures implemented 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – Pre-flight information service provided with an automated system 	<ul style="list-style-type: none"> – Aerodrome Chart-ICAO not yet published.
Saudi Arabia	<ul style="list-style-type: none"> – AIP generally up-to-date, but not available on an electronic means (CD or website). – Some inconsistencies noted. 	<ul style="list-style-type: none"> – AIRAC procedures implemented 	<ul style="list-style-type: none"> – No deficiency identified. 	<ul style="list-style-type: none"> – AIS Aerodrome Units not established at Int'l Airports – Non provision of pre-flight information service. Lack of AIS automation 	<ul style="list-style-type: none"> – A number of Aeronautical charts are not produced.

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	AIP	AIRAC	NOTAM	Pre-Flight Information	Aeronautical Charts
Syria	<ul style="list-style-type: none"> – AIP not regularly updated; – AIP not available on an electronic means (CD or website). – Some inconsistencies noted. 	– Lack of implementation of the AIRAC system	– Some deficiencies identified (inconsistencies, language proficiency, etc)	– Non provision of pre-flight information service. Lack of AIS automation	– WAC Chart ICAO 1:1000000 not yet published.
UAE	– Well updated AIP, but not available on an electronic means (CD or website)	– AIRAC procedures implemented	– No deficiency identified.	– Non provision of pre-flight information service. Lack of AIS automation	– No deficiency identified.
Yemen	<ul style="list-style-type: none"> – AIP updated; – AIP not available on an electronic means (CD or website). – Some inconsistencies noted. 	– Lack of implementation of the AIRAC system	– No deficiency identified.	– Non provision of pre-flight information service. Lack of AIS automation	– A number of Aeronautical charts are not produced.

WGS-84 implementation

10.11 The meeting highlighted the requirements for the implementation of WGS-84 and reviewed the status of its implementation in the MID Region. It was noted in this regard that although the implementation of WGS-84 should have been completed since 1998, some MID States have still not fully completed the implementation of the system.

10.12 It was highlighted that the geoid undulation appears to be a specific domain with low degree of implementation among MID States.

10.13 The meeting noted that, as a pre-requisite for the transition from AIS to AIM, the ATM/SAR/AIS SG/9 meeting, under Draft Conclusion 9/12, urged States that have not yet done so, to give high priority to the implementation of existing Annex 15 SARPs, in particular, WGS-84, Quality Management System and AIS Automation. The meeting noted that as a follow-up action the ICAO MID Regional Office sent State Letter Ref.: AN 8/1.1- 031 dated 22 January 2008 to concerned States asking for an action plan with clear timelines for the implementation/completion of implementation of the different elements of the WGS-84 system. However, the level of replies was unsatisfactory.

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10.14 The meeting reviewed the status of implementation of WGS-84 in the MID Region and updated the FASID Table AIS-5 (WGS-84 Requirements) as at **Appendix 10B** to the Report on Agenda Item 10. A simplified Status report of WGS-84 implementation in the MID Region is also presented at **Appendix 10A** to the Report on Agenda Item 10.

10.15 The Status of implementation of WGS-84 in the MID Region can be summarized as follows:

- a) five (5) States have fully implemented WGS-84 including the geoid undulation;
- b) six (6) States have implemented the majority of WGS-84 requirements; however one or two elements (geoid undulation and/or quality system) are not yet implemented;
- c) two (2) States have partially implemented WGS-84; and
- d) two (2) States have not yet implemented WGS-84.

10.16 The meeting underlined that the implementation of WGS-84 is an important prerequisite also for the implementation of Performance Based Navigation (PBN) and urged those States that have not yet completed the implementation of WGS-84 to accord high priority to this project and to expedite the process of full implementation of WGS-84.

Implementation of Quality Management System (QMS)

10.17 The meeting noted that the AIS/MAP TF/4 meeting underlined the importance of implementation of QMS for AIS/MAP services, highlighted the requirements for implementation and reviewed and updated the status of implementation of QMS in the MID Region.

10.18 It was recognized that the role of AIS is one of the foundation building blocks for the successful transition to a global ATM system. At the core of this building block lies the quality system that will provide quality and timely information to the aviation community. The timeliness and integrity of quality aeronautical information/data is a significant enabling activity for the globalization of ATM.

10.19 The meeting recalled that MIDANPIRG/10 recognized that, while the importance and need for the provision of high quality aeronautical information is gaining momentum, the implementation of quality system appears to be a specific domain with low degree of implementation among MID States.

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10.20 The meeting reviewed and updated the status of implementation of QMS in the MID Region as follows:

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

10.21 The meeting recalled that MIDANPIRG/10, under Conclusion 10/54, endorsed the methodology at **Appendix 10C** for the implementation of QMS within MID States' AISs.

10.22 The meeting noted that as a follow up action, the ICAO MID Regional Office sent State Letter AN 8/4.1 - 317 dated 18 September 2007 to concerned States asking them to inform the ICAO MID Office, before 30 October 2007, about the status of implementation of QMS in their AIS, specifying clearly if they encountered/are encountering any difficulty to comply with Annex 15 provisions related to quality system and/or to apply any item/action listed in the methodology for the implementation of QMS as endorsed by MIDANPIRG/10. Those States that have not yet implemented a QMS were requested to communicate their implementation plan to the ICAO MID Regional Office, showing clearly the implementation dates of the different phases of the project (as detailed in the methodology). Noting that only three (3) States replied to the request of the MID Office, a reminder was sent to States on 16 January 2008 (Ref.: AN 8/4.1 – 016). However, the level of replies was still far from expectations (2 more replies received).

10.23 The meeting noted that with a view to support the implementation of QMS within MID States' AISs, MIDANPIRG/10, under Decision 10/55, agreed to the establishment of a QMS Implementation Action Group.

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10.24 The meeting recalled that the AIS/MAP TF/4 meeting noted that EUROCONTROL through the Controlled and Harmonized Aeronautical Information Network “CHAIN” project, supported the European States in meeting ICAO requirements related to QMS (awareness campaigns, development of guidelines, development of Computer Based Training “CBT”, etc). It was highlighted in this regard that the main objectives were to:

- support States to establish system-wide traceable processes;
- improve accuracy and quality of aeronautical navigational data with focus on data integrity;
- enhance data management by establishing common procedures/processes to enable interoperability; and
- enhance the transfer of aeronautical information between origination and publication.

10.25 The meeting further noted that the participants of the AIS/MAP TF/4 meeting were provided with the CHAIN CD-ROM containing all the deliverables. It was also noted that more information about CHAIN and its deliverables is available on the CHAIN website at: www.eurocontrol.int/chain. The meeting encouraged States to take full benefit from the CHAIN deliverables (SLA Guide & Template, originator index, Standard Input Forms “SIF”, etc). It was underlined that for the implementation of the CHAIN solutions, a stepwise approach has to be followed.

10.26 The meeting reviewed the Terms of Reference of the QMS Implementation Action Group as at **Appendix 10D** to the Report on Agenda Item 10. The meeting re-iterated MIDANPIRG/10 Conclusion 10/54 related to the Methodology for the implementation of QMS within MID States’ AISs and urged those States, that have not yet done so, to implement the required QMS in accordance with the guidance provided by both the Methodology for the implementation of QMS agreed by MIDANPIRG/10 and by the CHAIN deliverables. Accordingly, the meeting agreed to the following Draft Conclusion which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/54:

DRAFT CONCLUSION 10/34: IMPLEMENTATION OF QMS WITHIN MID STATES’ AISs

That, in accordance with Annex 15 provisions, States, that have not yet done so, are urged to implement/complete the implementation of a QMS within their AIS, before December 2009, based on the methodology for the implementation of QMS at Appendix 10C to the Report on Agenda Item 10 and the EUROCONTROL CHAIN deliverables.

Licensing of the AIS/MAP Personnel

10.27 The meeting recalled that, recognizing the importance of AIS as an essential foundation block of the future ATM operational concept and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skills of the AIS staff, MIDANPIRG/10 was of view that AIS/MAP personnel should be licensed and agreed accordingly to the following Conclusion:

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CONCLUSION 10/53:**LICENSING OF THE AIS/MAP PERSONNEL**

That, recognizing the importance of AIS and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skill of the AIS staff, ICAO consider the introduction of the licensing of the AIS/MAP personnel as a Recommended Practice in Annex 1.

10.28 The meeting noted that the Air Navigation Commission (ANC) during its review of the MIDANPIRG/10 report and especially Conclusion 10/53, recalled that a similar Conclusion was formulated by GREPECAS/13 and that the Commission, during its review of the report of GREPACS/13, recognized that the competency of personnel involved in safety critical activities was paramount, but that such competencies could be achieved without licensing.

10.29 The meeting noted that the AIS/MAP personnel in Iran and in Saudi Arabia are licensed. The meeting further noted that notwithstanding the decision of the ANC, States could include in their national legislations/regulations provisions related to the licensing of the AIS/MAP personnel. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 10/35:**LICENSING OF THE AIS/MAP PERSONNEL**

That, recognizing the importance of AIS and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skill of the AIS staff, States are encouraged to include in their national legislations/regulations provisions related to the licensing of the AIS/MAP personnel.

AIS Automation

10.30 The meeting noted that the AIS/MAP TF/4 meeting underlined the importance of implementation of AIS automation, reviewed the status of implementation of AIS automation in the MID Region and based on the developments in the European Region developed some guidance to expedite the implementation of AIS automation in the MID Region.

10.31 The meeting highlighted the pressing need for AIS automation, which should be introduced with the objective of improving the overall speed, accuracy, efficiency, and cost-effectiveness of the aeronautical information service in the region. In this regard, the need to further develop AIS/MAP to support the new global ATM operational concept was pointed out.

10.32 The meeting recalled the outcome of the 11th Air Navigation Conference (ANC/11), held in Montreal in 2003, especially Recommendation 1/8, expressing the need to define requirements for safe and efficient global aeronautical information management that would support a digital, real-time, accredited and secure aeronautical information environment. It was recalled that the ANC/11 requested ICAO to urgently adopt a common aeronautical information exchange model, taking into account operational systems or concepts of data interchange, including specifically, AICM/AIXM, and their mutual interoperability.

10.33 The meeting noted that MIDANPIRG/9 and MIDANPIRG/10 recognized that one of the major challenges of the MID Region is in the automation of AIS. The objective is to ensure that the right information reaches the end-user where and when required. This will provide the basis for improved decision making by all participants of the ATM community and thus, will contribute overall to increased aviation safety and performance.

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10.34 The meeting reviewed and updated the status of implementation of AIS automation in the MID Region as follows:

	AIS Database	NOTAM System (NOF)	Briefing (AIS AD Units)	AIP Production (Text)	Charts Production	eAIP
Afghanistan	– No			– Manual	– Manual	- No eAIP is available
Bahrain	– No	– Automated System	– Automated System	– Manual	– Manual	– No eAIP is available (will be published by end of 2009)
Egypt	– Yes (based on AIXM 3.3 and will be upgraded to AIXM 4.5)	– Automated System (Central)	– Automated System (Central)	– Automated	– Manual	– No eAIP is available
Iran	– No	– Semi-automated	– No	– Manual	– Manual	– No eAIP is available
Iraq	– No			– Manual	– Manual	– No eAIP is available
Israel	– No	– Automated System	– Automated System in Ben – Gurion Int'l Airport	– Manual	– External company	– No eAIP is available
Jordan	– No	– Semi-automated	– Semi-automated	– Manual	– Manual	– No eAIP is available
Kuwait	– No	– Automated	– Automated	– Manual	– Manual	– No eAIP is available (will be published by mid 2009)
Lebanon	– No	– Automated	– Automated	- Semi-automated	– Manual	– No eAIP is available

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	AIS Database	NOTAM System (NOF)	Briefing (AIS AD Units)	AIP Production (Text)	Charts Production	eAIP
Oman	– No	- Semi-automated	- Semi-automated	– Manual	– Manual	– No eAIP is available
Qatar	– No	- Automated System	– Automated	– Manual	– Manual	– No eAIP is available
Saudi Arabia	– Yes (based on AIXM 3.3 and will be upgraded to AIXM 4.5)	– Automated System	– Automated System (not yet fully operational)	– Automated	– Manual	– No eAIP is available (will be published early 2009)
Syria	– No	– Semi-automated	– Semi-automated	– Manual	– Manual	– No eAIP is available
UAE	– No	- Semi-automated	- Semi-automated	– Manual	– Manual	– No eAIP is available
Yemen	– No	- Semi-automated	- Semi-automated	– Manual	– Manual	– No eAIP is available

10.35 The meeting recalled that, taking into consideration that the development of a global eAIP provisions by ICAO might take time, MIDANPIRG/10, under Conclusion 10/52, invited States that have not yet done so, to publish their IAIP in PDF/HTML format on a CD-ROM without discontinuing the provision of the information in hardcopy.

10.36 The meeting noted that with a view to overcome the limitations of the paper-based AIS which is a source of integrity errors, incoherence and distribution delays, many activities have been going on since many years to increase and to standardise the use of automation in AIS. It was recalled that by 1998, in the quest for improved quality, efficiency and economy, some European States had started to publish their Aeronautical Information Publications (AIPs) in electronic format. The isolated development undertaken by some States, however, resulted in an unnecessary duplication of effort, incompatibility problems and divergent implementations. The diverse technical solutions resulted in different ways of browsing/navigating the AIP content on screen. The consequence of this was that users had to become accustomed to different styles, navigation structures and presentation formats when browsing a variety of AIPs.

10.37 To address the lack of a common publishing standard, the meeting noted that EUROCONTROL developed an electronic AIP (eAIP) specification with the aim of harmonizing the publication and consultation of the AIP in electronic format, in the drive towards paperless AIS and the potential this has in achieving required integrity of data, enhanced data selection, distribution and reduced costs.

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10.38 The meeting noted that the AIS/MAP TF/4 meeting noted that the EUROCONTROL eAIP specification is compatible with the ICAO requirements for AIP content and structure, as laid down in Annex 15, and enforces a strict application of these requirements. It provides a standard way to:

- publish the content of an AIP (including AIP Amendments (AMDT), AIP Supplements (SUP) and Aeronautical Information Circulars (AIC)) in a structured electronic format; and
- visualize the content of an AIP on a computer screen, using Web technology.

10.39 The meeting noted that the AIS/MAP TF/4 meeting was apprised of the eAIP advantages for both producers and users. The meeting noted that the use of the extensible Markup Language (XML) for the EUROCONTROL eAIP Specification guarantees that the eAIP is a truly electronic document. The information content is completely separated from its presentation, which, in turn, may be tailored to support every target media. It was underlined that the central component of the eAIP Specification is the eAIP Document Type Definition (DTD). This is complemented by additional rules, style sheets, security considerations, etc.

10.40 The meeting noted that a series of eAIP Manuals and proof of concept tools are available on the EUROCONTROL website at: www.eurocontrol.int/eaip and encouraged States to use this documentation for the development of their eAIPs.

10.41 It was highlighted that, to a certain extent, the eAIP can be used for computer-to-computer data exchange. However, the eAIP Specification does not offer the same capabilities for structured aeronautical data exchange as the Aeronautical Information Exchange Model (AIXM). The essential difference between the two is that AIXM models the aeronautical information, while the eAIP models the AIP document. AIXM is primarily intended for computer-to-computer aeronautical data exchange. The eAIP is primarily intended to provide the AIP content for publication in various formats and on various media, according to users' needs.

10.42 Based on the above, the meeting agreed to the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/52:

DRAFT CONCLUSION 10/36: ELECTRONIC AIP (eAIP)

That,

- a) pending the development of Global eAIP provisions, MID States, that have not yet done so, are invited to publish their eAIP based on the EUROCONTROL eAIP specifications; and*
- b) in order to prevent proliferation of eAIP formats, ICAO give high priority to the development of necessary specifications and clear provisions related to the eAIP content, structure, presentation and format, taking into consideration the EUROCONTROL eAIP specification.*

10.43 The meeting recalled that AIXM was originally developed by EUROCONTROL for the needs of the European AIS Database (EAD), which represents a single reference for quality-assured aeronautical data for the States of the European Civil Aviation Conference (ECAC), allowing each State to use this data to provide its AIS services. It became operational on 6 June 2003.

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10.44 The meeting noted that the AIS/MAP TF/4 meeting was apprised of the developments related to the development of the AIXM version 5, which is intended to be a global standard for international exchange of aeronautical information. In this regard, it was noted that more information about AIXM is available on the AIXM website at: (www.aixm.aero).

10.45 The meeting noted that the AIS/MAP TF/4 meeting was informed about the Europe-Middle East ATM Coordination (EMAC) mechanism/activities, especially with regard to the exchange of aeronautical information. In this regard, it was noted that the Transport Ministers of Cyprus, Egypt, Jordan, Lebanon and Syria signed on 4 February 2003 the Protocol establishing a Europe-Middle East coordination mechanism for Air Traffic Management with the overall objective to increase the collective performance of ATM systems in the Middle East region, while satisfying the users' need at the lowest possible costs and enhancing the safety of air navigation in the region.

10.46 The meeting noted that within the framework of EMAC the exchange of Aeronautical Information was initially considered as a potential area of cooperation for which the following action has been identified: "*ESTABLISHMENT OF THE APPROPRIATE INFRASTRUCTURE REGARDING THE CONNECTION AND UTILIZATION OF THE EUROPEAN AIS DATABASE (EAD)*".

10.47 With regard to the exchange of aeronautical information, it was noted that the objective is to strengthen the cooperation between the EMAC States and EUROCONTROL with the financial support of European Commission and the EUROMED Aviation Project and the assistance of ICAO for the improvement of the provision of Aeronautical Information Services. The extension of the European Aeronautical Information Database (EAD) to cover other EMAC States (Egypt, Jordan, Lebanon and Syria) was identified as a major project/initiative. In this respect, close coordination with EUROCONTROL is required in order to identify the necessary actions (infrastructure/equipments, training, institutional issues, etc) for the implementation of the project.

10.48 The meeting noted that the AIS/MAP TF/4 meeting was apprised of the functionalities, capabilities and advantages of the EAD. It was particularly noted that two migration scenarios are possible:

- direct connection to EAD system; and
- regional replica of the EAD.

10.49 The meeting noted that among the EMAC States, Cyprus is already connected to the EAD since December 2007 and that during the EUROMED meeting held in Brussels in November 2007, Egypt and Jordan reconfirmed their interest to be connected to the EAD.

10.50 The meeting noted also that EUROCONTROL is willing to fully support States to further progress the connection of their AIS to the EAD.

10.51 In view of the above, the meeting encouraged the EMAC States to take appropriate actions in order to initiate formal coordination with EUROCONTROL to take advantage of EAD and agreed to the establishment of an AIS Automation Action Group with Terms of Reference (TOR) as at **Appendix 10E** to the Report on Agenda Item 10.

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10.52 Based on the above the meeting agreed to the following Draft Conclusion and Decision:

DRAFT CONCLUSION 10/37: EXTENSION OF THE EAD TO THE EMAC STATES

That, the EMAC States are encouraged to initiate formal coordination with EUROCONTROL and take appropriate actions in order to be connected to the European AIS Database (EAD).

DRAFT DECISION 10/38: ESTABLISHMENT OF AN AIS AUTOMATION ACTION GROUP

That, the AIS Automation Action Group is established with Terms of Reference as at Appendix 10E to the Report on Agenda Item 10.

10.53 The meeting noted with appreciation that Egypt participated in the EUROCONTROL xNOTAM trial that was taking place between February and July 2008. It was further noted that Bahrain, Egypt and Jordan are also participating in the second phase of the EUROCONTROL xNOTAM trial.

Electronic Terrain and Obstacle Data (eTOD)

10.54 The meeting reviewed the outcome of the ATM/SAR/AIS SG/9, the AIS/MAP TF/4 and eTOD WG/1 meetings related to eTOD.

10.55 The meeting recalled that significant safety benefits for international civil aviation will be provided by in-flight and ground-based applications that rely on quality electronic terrain and obstacle data.

10.56 The meeting recalled that in accordance with para. 10.6 of Annex 15, States shall ensure that:

- a) as of 20 November 2008, electronic terrain and obstacle data are made available in accordance with Area 1 specifications and terrain data in accordance with Area 4 specifications; and
- b) as of 18 November 2010, electronic terrain and obstacle data are made available in accordance with Area 2 and Area 3 specifications.

10.57 The meeting recalled that MIDANPIRG/10, under Decision 10/58, established the eTOD Working Group with a view to, inter-alia, analyze the eTOD requirements and develop a common understanding of these requirements, recommend the way forward the eTOD timely implementation and develop and maintain a MID Region eTOD implementation strategy.

10.58 The meeting noted that the eTOD WG/1 meeting reviewed and analyzed the numerical requirements for terrain and obstacle data for areas 1, 2, 3 and 4 as defined in Annex 15, Appendix 8, Tables A8-1 and A8-2.

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10.59 The meeting noted that during the eTOD WG/1 meeting, it was concluded that the requirements for areas 1, 3 and 4 are clear enough and that MID States would not face major difficulties to comply with the applicability date of 20 November 2008 for the provision of eTOD for areas 1 and 4. The implementation of the requirements for area 3 by 18 November 2010 is achievable; but, Area 2 is questionable. Many issues have to be addressed and clarified, as soon as possible, with a view to comply with the applicability date of 18 November 2010.

10.60 The meeting noted that the eTOD requirements have caused significant concern in States, from both technical and institutional perspectives, which might instigate a delay in the implementation process.

10.61 Concern was raised regarding the following issues:

- the high cost involved in the implementation of the eTOD requirements;
- the requirements, mainly for area 2, might need to be reviewed/refined;
- the cross-border issue, mainly with regard to area 2, was identified as being in urgent need for further analysis and clarification;
- for IFR aerodromes/heliports where a terminal control area has not been established, Area 2 shall be the area within a 45-km radius of the aerodrome/heliport reference point. The meeting was of view that 45 km for heliports and small aerodromes may be too much; and
- the cost recovery, data ownership and intellectual property issues are not addressed.

10.62 The meeting recalled that with a view to collect information from States regarding their Action Plan/Roadmap for the implementation of eTOD and to assist them in the implementation process, the eTOD WG/1 agreed to use the questionnaire at **Appendix 10F** to the Report on Agenda Item 10 for a survey on the implementation of eTOD in the MID Region. The meeting noted that as a follow action the questionnaire was sent to States on 17 July 2007 through State Letter Ref.: AN 8/2.4 - 248. The deadline for reply was 30 October 2007. Noting that only (2) replies were received from States, the ATM/SAR/AIS SG/9 meeting agreed to the extension of the deadline until 15 January 2008. The meeting further noted that a reminder was sent to States on 16 January 2008 through State Letter Ref.: AN 8/2.4 - 017. The deadline for reply was extended one more time to 1 February 2008. However, only (4) replies were received from States. It was also highlighted that some of the received answers contained some inconsistencies/not accurate information.

10.63 Based on the above, the meeting agreed that the ICAO MID Regional Office resend the eTOD questionnaire to all MID States with a view to collect updated information on the implementation of eTOD in the MID Region and urged States to reply before 15 January 2009. Accordingly, the meeting agreed to the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/56:

DRAFT CONCLUSION 10/39: SURVEY ON THE IMPLEMENTATION OF eTOD IN THE MID REGION

That, in order to obtain information from MID States regarding their Action Plan/Roadmap for the implementation of eTOD and the difficulties they might encounter to meet the applicability dates specified in Annex 15:

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- a) *the questionnaire at **Appendix 10F** to the Report on Agenda Item 10, be used for a survey on the implementation of eTOD in the MID Region;*
- b) *States send their replies to the questionnaire to the ICAO MID Regional Office, prior to **15 January 2009**, specifying clearly if they would encounter any difficulty to comply with the dates of applicability; and*
- c) *the results of the survey should serve as a basis for the development/update of the MID Region eTOD implementation Strategy/Action Plan.*

10.64 The meeting noted that the eTOD WG/1 meeting was apprised of the experience of Jordan, Egypt, USA (FAA), and Italy related to the implementation of eTOD. It was also noted that the eTOD WG/1 meeting noted the work carried out by Jeppesen to build a unified terrain database out of the Shuttle Radar Topography Mission (SRTM) data with 90 m postspacing.

10.65 The meeting further noted that the AIS/MAP TF/5 meeting was apprised of the activities of the EUROCONTROL TOD Working Group. In this regard, the meeting noted that EUROCONTROL sent a letter to ICAO HQ informing that European States may face in all possibilities a delay of two years or more in the implementation of the eTOD requirements.

10.66 Based on the above, the meeting reviewed and endorsed the MID Region eTOD Implementation Strategy at **Appendix 10G** to the Report on Agenda Item 10 and agreed, accordingly, to the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/10 Conclusions 10/57 and 10/59:

**DRAFT CONCLUSION 10/40: MID REGION eTOD IMPLEMENTATION
STRATEGY**

*That, the MID Region eTOD implementation Strategy is adopted as at **Appendix 10G** to the Report on Agenda Item 10.*

10.67 The meeting reviewed and updated the MID Region AIS/MAP Timelines related to eTOD as at **Appendix 10H** to the Report on Agenda Item 10. It was noted in this regard that no State from the MID Region has notified ICAO of a difference to the provisions of Annex 15, Chapter 10. The meeting noted with appreciation that Bahrain, Jordan, Kuwait and Qatar reconfirmed that they will implement the eTOD requirements for area 1 (and 4 as appropriate) by end of 2008 or beginning of 2009. Saudi Arabia informed the meeting that the requirements for area 1 and 4 will be implemented by mid 2009. It was also noted that Iran and Syria will not be able to implement the eTOD requirements before 2010.

10.68 The meeting recalled that the sixth Recommendation of the MID eTOD Seminar, reproduced here-after, is pertaining to the development of provisions in the Basic ANP to include the new eTOD requirements as well as a new FASID Table in which detailed planning of eTOD implementation by States are reflected:

RECOMMENDATION 6: ANP REQUIREMENTS RELATED TO eTOD

ICAO should develop an amendment to the Basic Air Navigation Plans (ANP) for all ICAO Regions to include new eTOD requirements and introduce new table in the Facilities and Services Implementation Documents (FASIDs) in which detailed planning of eTOD implementation by States together with an indication of the implementation timelines, will be reflected..

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10.69 Based on the above, the meeting reviewed and endorsed the Draft FASID Table at **Appendix 10I** to the Report on Agenda Item 10 and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 10/41: DRAFT FASID TABLE RELATED TO eTOD

*That, ICAO consider to include the Draft FASID Table at **Appendix 10I** to the Report on Agenda Item 10 into the MID FASID, Part VIII (AIS), with necessary amendments, as appropriate.*

10.70 The meeting reviewed the eTOD WG Terms of Reference as at **Appendix 10J** to the Report on Agenda Item 10. It was highlighted that the work of the eTOD Working Group shall be carried out mainly through exchange of correspondence (email, facsimile, Tel, etc) between its Members. In this regard, the meeting was of view that States should make use of the ICAO MID Forum for the exchange of information and sharing of experience related to eTOD. Accordingly, the meeting agreed to the following Draft Decision:

DRAFT DECISION 10/42: TERMS OF REFERENCE OF THE eTOD WORKING GROUP

*That, the Terms of Reference of the eTOD Working Group be updated as at **Appendix 10J** to the Report on Agenda Item 10.*

10.71 In connection with the above, the meeting was of view that the eTOD WG should continue its activity with a view to harmonize, coordinate and support the eTOD implementation on a regional basis. It was noted that the eTOD WG/2 meeting is tentatively scheduled to be held back-to-back with the AIS/MAP TF/5 meeting during the second Quarter of 2009.

Aeronautical Information Management (AIM)

10.72 The meeting reviewed the outcome of the ATM/SAR/AIS SG/9 and AIS/MAP TF/4 meetings related to the transition from AIS to AIM.

10.73 The meeting recalled that the 11th Air Navigation Conference (ANC/11) held in Montreal in 2003 endorsed the ATM Operational Concept and recognized that in the global 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 (CDM) environment, the timely availability from authorized sources of high quality electronic aeronautical, meteorological, airspace and flow management information would be necessary. The ANC/11 stressed out that aeronautical information services (AIS) and meteorological services (MET) are subsets of the ATM information requirements and therefore, would need to be fully addressed when developing ATM requirements.

10.74 To ensure the cohesion and linkages between different components of the operational concept and to accomplish the role of AIS, the ANC/11 recognized the need for the interchange and management of aeronautical information to be used by different services and users, while taking into account interoperability of existing and future systems.

10.75 The meeting recalled that the Global AIS Congress held in Madrid in 2006 agreed that, in order to prevent diverging developments in the future and realising the safety critical nature of aeronautical information, it is considered essential that ICAO takes the lead at the global level with regard to the transition from AIS to AIM. The Congress agreed that the Eurocontrol Document "From AIS to AIM – a Global Strategy" made available to the Congress constituted a firm basis for further debate, which could assist ICAO in facilitating global change.

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10.76 The meeting noted that the most important changes to move from AIS to AIM are the transition from a product-centred service to the provision and management of data in an interoperable form sufficient for end use, and the broadening of scope in terms of information coverage. In this respect, in order to satisfy user requirements for Gate-to-Gate operations, an enlarged scope of aeronautical information would be needed. Accordingly, MET, FIS, ATM system status, demand and capacity management, etc, are all of concern to AIM alongside the other traditional AIS information categories.

10.77 Though the transition from a product-centric (current AIS) to a data centric (AIM) service is essential, it is foreseen that AIM will still have to cater for the provision of traditional AIS products during the transition phase.

10.78 The meeting recognized that the transition from AIS to AIM will raise a number of legal and institutional issues which should be resolved.

10.79 Based on the above the meeting noted that the ATM/SAR/AIS SG/9 meeting developed Draft Conclusion 9/11 inviting ICAO to consider the creation of a multi-disciplinary group in order to, inter-alia, develop a global strategy/roadmap for the transition from AIS to AIM and prepare new AIM related SARPs and guidance material based on the AIM documents developed by EUROCONTROL, in line with the Recommendations of the Global AIS Congress. In this regard, the meeting noted that the Air Navigation Commission, on 20 March 2008, agreed to the establishment of the AIS-AIM Study Group (AIS-AIMSG), and it is expected that the First meeting of this Study Group be held in Montreal from 2 to 4 December 2008.

10.80 The meeting was apprised of the main subjects to be addressed by the AIS-AIMSG and the associated deliverables. It was noted that the work of the Study Group would be completed within four years. The meeting particularly noted that a first round of SARPs related mainly to the standard aeronautical data models, eAIP, electronic charts and quality system for AIM, is expected to be adopted in 2010. It was also noted that in 2013, it's expected to have an AIM Divisional Meeting, during which the Net-centric concept will be endorsed. The second round of SARPs related to AIM with associated guidance material would be adopted in 2013.

10.81 The meeting noted that the implementation of AIM SARPs is expected to be phased between 2015 and 2019. In this regard, recognizing that not all States or regions would be able to implement the AIM related SARPs with same rate, the meeting was of view that implementation should be evolutionary, based on regional needs and taking into consideration national capabilities.

10.82 Based on the above, the meeting noted that Draft conclusion 9/11 developed by the ATM/SAR/AIS SG/9 meeting is superseded by events and agreed to the following consolidated Draft Conclusion and Decision emanating from both the ATM/SAR/AIS SG/9 and AIS/MAP TF/5 meetings:

DRAFT CONCLUSION 10/43: PRE-REQUISITES FOR THE TRANSITION TO AIM

That, as a pre-requisite for the transition from AIS to AIM, States that have not yet done so, are urged to give high priority to the implementation of existing Annex 15 SARPs, in particular, WGS-84, Quality Management System and automation.

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DRAFT DECISION 10/44: PLANNING FOR THE TRANSITION FROM AIS TO AIM

That, based on the ICAO Global ATM Operational Concept and in support of the Global Plan Initiative (GPI-18: Aeronautical Information), the AIS/MAP Task Force:

- a) include in its work programme the development of an action plan/strategy for the transition from AIS to AIM in the MID Region; and*
- b) carry out a review of the AIS parts of the MID Basic ANP and FASID in order to introduce/develop planning material related to the transition from AIS to AIM.*

MID AIM Seminar

10.83 The meeting was apprised of the outcome of the MID AIM Seminar, which was successfully held in Cairo from 21 to 23 October 2008. The meeting noted with appreciation that the seminar, which addressed important subjects related to the transition from AIS to AIM, was very well attended and that the participants were satisfied with the seminar outcome and overall success.

10.84 IATA expressed its regret for not being able to be represented in this seminar due to lack of resources.

10.85 The meeting agreed that the AIS/MAP Task Force should review the Executive Summary of the MID AIM Seminar at **Appendix 10K** to the Report on Agenda Item 10 and take necessary follow up actions.

Harmonization of the Publication of the Latitude and Longitude Coordinates

10.86 The meeting noted that the requirements for the publication of the geographical coordinates of a facility on the ground or a point/position in the air in term of Latitude and Longitude could be found in many ICAO Annexes and Documents. It was noted that some differences exist in the provisions related to the publication of Latitude and Longitude. It was further noted that many States are not complying with the provisions of Annexes 4 and 15 related to the format and publication resolution of Latitude and Longitude. Accordingly, the meeting agreed to the following Draft Conclusion:

**DRAFT CONCLUSION 10/45: HARMONIZATION OF THE PUBLICATION OF
LATITUDE AND LONGITUDE COORDINATES**

That, in order to prevent proliferation of the formats used in the publication of the geographical coordinates in form of Latitude and Longitude:

- a) States are urged to comply with the provisions of Annexes 4 and 15 related to the format and publication resolution of Latitude and Longitude; and*
- b) ICAO consider the review and harmonization of the different provisions related to the subject contained in the different ICAO Annexes and Documents.*

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Terms of Reference (TOR) and Work Programme of the AIS/MAP Task Force

10.87 Taking into consideration the new requirements for the transition from AIS to AIM and the latest developments in the AIS/MAP field, the meeting reviewed and updated the Terms of Reference and Work Programme of the AIS/MAP Task Force as at **Appendix 10L** to the Report on Agenda Item 10 and agreed to the following Draft Decision, which is proposed to replace and supersede MIDANPIRG/10 Decision 10/62:

DRAFT DECISION 10/46: TERMS OF REFERENCE OF THE AIS/MAP TASK FORCE

*That, the Terms of Reference and Work Programme of the AIS/MAP Task Force be updated as at **Appendix 10L** to the Report on Agenda Item 10.*

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STATUS OF IMPLEMENTATION OF WGS-84 IN THE MID REGION

	FIR	ENR	TMA/CTA/CTZ	APP	RWY	AD/HEL	GUND	QUALITY SYSTEM	AIP	REMARKS
AFGHANISTAN	N	N	N	N	N	N	N	N	N	
BAHRAIN	F	F	F	F	F	F	F	F	F	
EGYPT	F	F	F	F	F	F	F	F	F	
IRAN	F	F	F	N	F	F	F	F	F	
IRAQ	P	P	P	P	P	P	N	N	P	
ISRAEL	N	N	N	N	N	N	N	N	N	
JORDAN	F	F	F	F	F	F	F	F	F	
KUWAIT	F	F	F	F	F	F	F	N	F	
LEBANON	F	F	F	F	F	F	N	N	F	
OMAN	F	F	F	F	F	F	F	F	F	
QATAR	F	F	F	F	F	F	N	N	F	
SAUDI ARABIA	F	F	F	F	F	F	N	F	F	GUND implementation under process
SYRIA	N	F	P	P	P	P	N	N	N	
UNITED ARAB EMIRATES	F	F	F	F	F	F	F	F	F	
YEMEN	F	F	F	F	F	F	F	N	F	

Legend:

F: Fully implemented	P: Partly implemented	N: Not implemented
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FASID TABLE AIS-5 — WGS-84 REQUIREMENTS

EXPLANATION OF THE TABLE

Column

- 1 Name of the State, territory or aerodrome for which WGS-84 coordinates are required with the designation of the aerodrome use:
- RS — international scheduled air transport, regular use
 RNS — international non-scheduled air transport, regular use
 RG — international general aviation, regular use
 AS — international scheduled air transport, alternate use
- 2 Runway designation numbers
- 3 Type of each of the runways to be provided. The types of runways, as defined in Annex 14, Volume 1, Chapter I, are:
- NINST — non-instrument runway;
 NPA — non-precision approach runway
 PA1 — precision approach runway, Category I;
 PA2 — precision approach runway, Category II;
 PA3 — precision approach runway, Category III.
- 4 Requirement for the WGS-84 coordinates for FIR, shown by an ‘‘X’’ against the State or territory to be covered.
- 5 Requirement for the WGS-84 coordinates for Enroute points, shown by an ‘‘X’’ against the State or territory to be covered.
- 6 Requirement for the WGS-84 coordinates for the Terminal Area, shown by an ‘‘X’’ against the aerodrome to be covered.
- 7 Requirement for the WGS-84 coordinates for the Approach points, shown by an ‘‘X’’ against the runway designation to be covered.
- 8 Requirement for the WGS-84 coordinates for runways, shown by an ‘‘X’’ against the runway designation to be covered.
- 9 Requirement for the WGS-84 coordinates for Aerodrome/Heliport points (e.g. aerodrome/heliport reference point, taxiway, parking position, etc.), shown by an ‘‘X’’ against the aerodrome to be covered.
- 10 Requirement for geoid undulation shown by an ‘‘X’’ against the runway threshold to be covered.
- 11 Requirement for the WGS-84 Quality System, shown by an ‘‘X’’ against the State or territory to be covered.
- 12 Requirement for publication of WGS-84 coordinates in the AIP shown by an ‘‘X’’ against the State or territory to be covered.
- 13 Remarks (timetable for implementation)

Note.- For Columns 4 to 12 use the following symbols:

- X- Required but not implemented
 XI- Required and implemented

WGS-84 Requirements (MID FASID Table AIS-5)

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
AFGHANISTAN												
(OAKB) KABUL/Kabul			X	X	X			X			X	X
RS	11 29	NPA PA1				X X	X X		X X			
(OAKN) KANDAHAR/Kandahar					X			X				
AS	05 23	NPA NPA				X X	X X		X X			
BAHRAIN												
(OBBI) Bahrain Intl.					XI			XI				
RS	12L 30R	PA1 PA1				XI XI	XI XI		XI XI			
RS	12R 30L	NPA NPA				XI XI	XI XI		XI XI			
EGYPT												
HEAR EL-ARISH/El-Arish Int'l					XI			XI				
AS	16 34	NPA NPA				XI XI	XI XI		XI XI			
(HEAT) Asyut					X			XI				
AS RS	13 31	NINST NPA				XI	XI XI		XI			
(HEAX) Alexandria Int'l					XI			XI				
RS	18 36	NINST NPA				XI	XI XI		XI			
	04 22	NPA NINST				XI	XI XI		XI			
HEAZ CAIRO/Almaza Int'l					XI			XI				
ANS	18 36	NPA NPA				XI XI	XI XI		XI XI			
	05 23	NINST NINST					XI XI					

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STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
HEBA ALEXANDRIA/Borg El-Arab RS					X			X				
	14 32	NPA PA1				X XI	XI XI		XI XI			
(HECA) Cairo RS					XI			XI				
	05L 23R	PA2 PA2				XI XI	XI XI		XI XI			
	05R 23L	PA2 PA2				XI XI	XI XI		XI XI			
	16 34	NINST NINST				XI XI	XI XI		XI XI			
(HEGN) Hurghada RS					XI			XI				
	16 34	NPA PA1				XI XI	XI XI		XI XI			
(HELX) Luxor RS					XI			XI				
	02 20	NPA PA1				XI XI	XI XI		XI XI			
HEMA MARSA ALAM/ Marsa Alam RNS					XI			XI				
	15 33	NPA NPA				XI XI	XI XI		XI XI			
HEOW SHARK EL OWEINAT/Shark El-Owenat Int'l AS					XI			XI				
	01 19	NPA NINST				XI XI	XI XI		XI			
HEPS PORT SAID/Port Said Int'l AS					XI			XI				
	10 28	NPA NPA				XI XI	XI XI		XI XI			
(HESC) St. Catherine RS AS								XI				
	17 35	NINST NINST					XI XI					
(HESH) Sharm-El-Sheikh RS					XI			XI				
	04L 22R	PA1 NINST				XI XI	XI XI		XI			
	04R 22L	NPA NINST				XI XI	XI XI		XI			
(HESN) Aswan RS					XI			XI				
	17 35	NPA PA1				XI XI	XI XI		XI XI			

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
(HETB) Taba					XI	XI		XI				
AS	04 22	NPA NINST					XI XI		XI			
IRAN			XI	XI						XI	XI	
(OIKB) Bandar Abbass/ Bandar Abbas Intl RS	03R 21L	NPA PA1			XI	X X	XI XI			XI XI XI		
	03L 21R	NINST NINST				X X	XI XI			XI XI		
(OIFM) Esfahan/ Shahid Beheshti Intl RS	08L 26R	NPA PA1			XI	X X	XI XI			XI XI		
	08R 26L	NPA NPA				X X	XI XI			XI XI		
(OIMM) Mashhad/ Shahid Hashemi Nejad Intl RS	13L 31R	NPA PA1			XI	X X	XI XI			XI XI		
	13R 31L	NPA NPA				X X	XI XI			XI XI		
(OISS) Shiraz/shahid Dastghaib Intl RS	11R 29L	NPA PA1			XI	X X	XI XI			XI XI		
	11L 29R	NPA NPA				X X	XI XI			XI XI		
(OITT) Tabriz/Tabriz Intl RNS	12L 30R	NPA PA1			XI	X X	XI XI			XI XI		
	12R 30L	NINST NINST				X X	XI XI			XI XI		
(OIII) Tehran/ Mehrabad Intl RS	11R 29L	NPA PA1			XI	X X	XI XI			XI XI		
	11L 29R	NPA NPA				X X	XI XI			XI XI		
(OIII) TEHRAN/Imam Khomeini Intl RS	11 29	NPA PA1			XI	X X	XI XI			XI XI		

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STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
(OIZH) Zahedan/Zahedan					XI			XI				
Intl	17	NPA				X	XI		XI			
RS	35	PA1				X	XI		XI			
IRAQ			X	X						X	X	
(ORBI) Baghdad					X			X				
Intl.	15L	PA2				X	X		X			
RS	33R	PA2				X	X		X			
	15R	PA1				X	X		X			
	33L	PA1				X	X		X			
(ORMM) Basrah Intl.					X			X				
RS	14	PA2				X	X		X			
	32	PA2				X	X		X			
ISRAEL			X	X						X	X	
(LLET) EILAT/Eilat					X			X				
RNS	03	NPA				X	X		X			
	21	NINST					X					
(LLHA) HAIFA/Haifa					X			X				
RS	16	NINST					X					
	34	NINST					X					
(LLJR) JERUSALEM/Atarot					X			X				
RS	12	PA1				X	X		X			
	30	NPA				X	X		X			
(LLOV) OVDA/Intl					X			X				
RNS	02L	NINST				X	X		X			
	20R	NPA					X					
(LLBG) TEL AVIV/ Ben Gurion					X			X				
RS	03	NPA				X	X		X			
	21	NINST					X					
	08	NPA				X			X			
	26	PA1				X			X			
	12	PA1				X			X			
	30	NPA				X			X			
(LLSD) TEL AVIV/ Sde-Dov					X			X				
AS	03	NINST					X					
	21	NINST					X					

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
JORDAN			XI	XI						XI	XI	
(OJAI) Amman/ Queen Alia Intl RS	08R 26L	NPA PA2			XI	XI XI	XI XI	XI	XI XI			
	08L 26R	PA2 PA2				XI XI	XI XI		XI XI			
(OJAM) Amman/Marka Intl AS	24 06	PA1 NINST			XI	XI XI	XI XI	XI	XI			
(OJAQ) Aqaba/King Hussein Intl RNS	01 19	PA1 NPA			XI	XI XI	XI XI	XI	XI XI			
(OJJR) JERUSALEM/ Jerusalem RS	12 30	NPA PA1										
KUWAIT			XI	XI						X	XI	
(OKBK) Kuwait Intl. RS	33L 15R	PA2 PA2			XI	XI XI	XI XI	XI	XI XI			
	33R 15L	PA2 PA2				XI XI	XI XI		XI XI			
LEBANON			XI	XI						X	XI	
(OLBA) R.B.H-Beirut Intl. RS	17 35	PA1 NINST			XI	XI XI	XI XI	XI	X			RWY 35 not used for landing RWY 36 no Land during night
	18 36	PA1 NINST				XI XI	XI XI		X			
	03 21	PA1 NINST				XI XI	XI XI		X			
OMAN			XI	XI						XI	XI	
(OOMS) Muscat/- Muscat intl. Airport RS	26 08	PA1 PA1			XI	XI XI	XI XI	XI	XI XI			
(OOSA) Salalah AS	07 25	NPA PA1			XI	XI XI	XI XI	XI	XI XI			
QATAR			XI	XI						X	XI	
(OTBD) Doha Int. Airport RS	34 16	PA2 PA1			XI	XI XI	XI XI	XI	X X			

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
SAUDI ARABIA			XI	XI						X	XI	
(OEDF) DAMMAM/King Fahd Intl RS					XI			XI				
	16L 34R	PA2+ PA2+				XI XI	XI XI		X X			
	16R 34L	PA2+ PA2+				XI XI	XI XI		X X			
(OEJN) JEDDAH/King Abdulaziz RS					XI			XI				
	16R 34L	PA2 PA2				XI XI	XI XI		X X			
	16C 34C	PA2 PA2				XI XI	XI XI		X X			
	16L 34R	PA1 PA1				XI XI	XI XI		X X			
(OEMA)MADINAH/Prince Mohammad Bin Abdulaziz RS					XI			XI				
	17 35	PA1 PA1				XI XI	XI XI		X X			
	18 36	NPA PA1				XI XI	XI XI		X X			
(OERK) RIYADH/King Khalid Intl RS					XI			XI				
	15L 33R	PA1 PA1				XI XI	XI XI		X X			
	15R 33L	PA1 PA1				XI XI	XI XI		X X			
SYRIA			X	XI						X	X	
(OSAP) Aleppo Intl. RS					XI			X				
	09 27	NPA PA1				XI XI	XI XI		X			
(OSLK) Bassel Al-Assad RS					X			X				
	17 35	NPA PA1				X X	X X					
(OSDI) Damascus RS					XI			XI				
	05L 23R	NPA PA1				X XI	X XI		X X			
	05R 23L	PA1 NPA				X X	X X		X X			

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 REQUIRED									REMARKS
CITY/AERODROME/	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/HEL	GUND	QUALITY SYSTEM	AIP	
1	2	3	4	5	6	7	8	9	10	11	12	13
UNITED ARAB EMIRATES			XI	XI						XI	XI	
(OMAA) Abu Dhabi Int. Airport RS					XI			XI				
	31L 13R	PA3 PA1				XI XI	XI XI		XI XI			
	13L 31R	PA3 PA3				XI XI	XI XI		XI XI			
(OMAL) Al Ain Int. Airport RS					XI			XI				
	01 19	PA1 NPA				XI XI	XI XI		XI XI			
(OMDB) Dubai Int. Airport RS					XI			XI				
	12L 30R	PA3 PA3				XI XI	XI XI		XI XI			
	12R 30L	PA1 PA1				XI XI	XI XI		XI XI			
(OMFJ) Fujairah Int. Airport RS					XI			XI				
	11 29	NPA PA1				XI XI	XI XI		XI XI			
(OMRK) Ras Al Khaimah Int. Airport RS					XI			XI				
	16 34	NPA PA1				XI XI	XI XI		XI XI			
(OMSJ) Sharjah Int. Airport RS					XI			XI				
	12 30	NPA PA2				XI XI	XI XI		XI XI			
YEMEN			XI	XI						X	XI	
(OYAA) Aden Intl RS					XI			XI				
	08 26	NPA PA1				XI XI	XI XI		XI XI			
(OYHD) Hodeidah Intl RS					XI			XI				
	03 21	NPA NPA				XI XI	XI XI		XI XI			
(OYRN) Mukalla/Riyan RS					XI			XI				
	06 24	NPA NPA				XI XI	XI XI		XI XI			
(OYSN) Sanna'a Intl RS					XI			XI				
	18 36	PA1 NPA				XI XI	XI XI		XI XI			
(OYTZ) Taiz Intl RS					XI			XI				
	01 19	NPA NPA				XI XI	XI XI		XI XI			

**METHODOLOGY FOR THE IMPLEMENTATION OF QMS
WITHIN MID STATES' AISs**

With a view to expedite and foster the implementation of Quality Management Systems (QMS) within MID States AISs, the following methodology is adopted. States are urged to:

- a) Set up a project structure relative to the implementation of QMS (project team, managing Committee, etc) and appoint a quality manager.
- b) Appoint quality representatives from various areas of activity.
- c) Define the roles and responsibilities of the Project Team Members.
- d) Secure a financial commitment for the project.
- e) Increase the workforce awareness about quality management and the importance of customer satisfaction.
- f) Allocate necessary resources in order to implement, maintain and improve the quality system taking into consideration the customer requirements.
- g) Select a consultant to guide the process, assist in the correct interpretation of ISO 9000 requirements and ensure that the internal Team is kept on track for compliance.
- h) Determine the quality system framework/scope and decide if there is any permissible exclusion.
- i) Undertake quality system and English language proficiency training.
- j) Train internal auditors with a view to carry out internal audits of the system and participate in the process of development, implementation and continual improvement of the QMS.
- k) Motivate the AIS personnel, encourage the teamwork and get everybody involved in writing down how he carries out his parts of the AIS/MAP activities.
- l) Establish a mechanism/procedure to ensure that the competence/skill of the AIS staff is regularly evaluated and meet the requirements. A licensing system could be envisaged for this purpose.
- m) Establish a continuous dialogue with the end users and identify their requirements with a view to provide them with value-added, defect-free and high quality products that are timely and competitively priced.

ATM/SAR/AIS SG/10
Appendix 10D to the Report on Agenda Item 10

**MID REGION QUALITY MANAGEMENT SYSTEM IMPLEMENTATION
ACTION GROUP (QMS AG)**

A) TERMS OF REFERENCE

With a view to support the implementation of Quality Management System in compliance with the ISO 9000 requirements within MID States' AISs, the MID Region QMS Action Group shall:

- 1) identify the difficulties that MID States could have to comply with Annex 15 requirements pertaining to quality system;
- 2) develop a common understanding of ISO 9000 requirements and develop associated guidelines as required;
- 3) foster the implementation of the methodology adopted in the MID Region for the implementation of QMS within Aeronautical Information Services;
- 4) guide the development and support the roll-out of an awareness campaign for QMS implementation within MID States; and
- 5) monitor the implementation of QMS within MID States' AISs.

B) COMPOSITION

The QMS AG will be composed of the following Experts:

State	Member's Name and Title	Member's Contact Details
Bahrain * <i>(Rapporteur of the AG)</i>	Mr. Abdul Nasser A. Al-Emadi Supervisor Aeronautical Information & Quality Coordinator	Fax: (973) 17 323 876 Tel: (973) 17329 183 Mobile: (973) 3969 6707 Email: abdulnasser@caa.gov.bh
Jordan	Mrs. Hanan Qabartai Chief AIS HQ	Tel: (962) 6 4892282 ext. 3525 Fax: (962) 6 4891266 Mobile: (962)796768012 Email: ais.hq@carc.gov.jo
Egypt	Mr. Mahfouz Mostafa Ahmed Chief AIS HQ, Cairo	Fax: (20) 2 2267 8882/5 Tel: (20) 2 2267 9009 Mobile: (20) 10 8555079 Email: mahfouz.moustafa@nansceg.org
Saudi Arabia	Mr. Gharman Abdel Aziz El Shahri Chief of Charting Office	Fax: (966) 6405000 Ext. 2302 Tel: (966) 640 5000 Ext 2300 Mobile: (966) 504 700 111 Email: abu_bander1@yahoo.com
Yemen	Mr. Hussein Al –Sureihi Director of AIS-HQ	Fax: (967-1) 345 527 Tel: (967-1) 346652/3 Mobile: (967) 77777 6898 Email: jaber777768@yahoo.com

C) WORKING ARRANGEMENTS

The QMS AG shall report to the AIS/MAP Task Force.

The work of the QMS AG shall be carried out mainly through exchange of correspondence (email, facsimile, Tel, etc) between its Members.

ATM/SAR/AIS SG/10
 Appendix 10E to the Report on Agenda Item 10

MID REGION AIS AUTOMATION ACTION GROUP (AISA AG)

A) TERMS OF REFERENCE

With a view to foster and harmonize the implementation of AIS Automation in the MID Region, the AIS Automation Action Group shall:

- 1) ensure that AIS systems in the MID Region be automated along the same or similar lines in order to ensure compatibility and monitor the implementation process;
- 2) monitor technical and operational developments related to AIS automation in other regions, including AIXM, eAIP, EAD, etc, and consider how the MID Region could take benefit from these developments;
- 3) develop a common understanding of the aeronautical information conceptual and exchange models;
- 4) foster the development of eAIP by MID States;
- 5) study the necessary communication infrastructure necessary for the exchange of aeronautical information in the MID region; and
- 6) develop a cohesive and comprehensive AIS Automation Plan for the MID Region.

B) COMPOSITION

The composition of the AISA AG is as follows:

State	Member's Name and Title	Member's Contact Details
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State	Member's Name and Title	Member's Contact Details
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Note: The Members of the Action Group should be from both the AIS Operational and Engineering sides (Communication issues).

C) WORKING ARRANGEMENTS

The AISA AG shall report to the AIS/MAP Task Force.

The work of the AISA AG shall be carried out mainly through exchange of correspondence (email, facsimile, Tel, etc) between its Members.

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ICAO MIDDLE EAST REGIONAL OFFICE
SURVEY ON IMPLEMENTATION OF ELECTRONIC TERRAIN AND
OBSTACLE DATA (ETOD) IN THE MID REGION

INTRODUCTION:

The purpose of this questionnaire on implementation of electronic Terrain and Obstacle Data (eTOD) in the MID Region is to collect information from States regarding their Action Plan/Roadmap for the implementation of the eTOD provisions as specified in Annex 15 and if they will be able to meet the applicability dates (20 November 2008 and 18 November 2010). The results of this survey could be used for the development/update of the MID Region eTOD implementation Strategy/Action Plan.

NAME OF STATE	DATE

Focal point: Who in your State could we contact for further clarification concerning eTOD implementation?

Name:	
Organization:	
Title:	
Telephone:	
Fax:	
e-mail:	

		YES	NO
1	Has your State established a high level framework (regulation, assignment of responsibilities, etc) for the implementation of eTOD?		
2	Has your State established a national eTOD Programme for the implementation of eTOD requirements, as per Annex 15 requirements?		
3	Has your State secured necessary resources for the implementation of eTOD? If, Yes, please give details about the estimated budget:		
4	Has your State developed an Action Plan/Roadmap with clear timelines for the implementation of eTOD?		

		YES	NO
5	<p>Please specify the expected date of implementation of:</p> <p>a) Terrain data for Area 1:</p> <p>b) Terrain data for Area 2:</p> <p>c) Terrain data for Area 3:</p> <p>d) Terrain data for Area 4:</p> <p>e) Obstacle data for Area 1:</p> <p>f) Obstacle data for Area 2:</p> <p>g) Obstacle data for Area 3:</p>		
6	<p>Who are the different parties/Administrations in your State involved in the implementation eTOD (AIS, Aerodromes, Military, National Geographic and Topographic Administrations/Agencies, etc)?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>		
7	<p>Has your State assigned the responsibility for the collection of Terrain data related to Areas 1 to 4?</p> <p>If Yes, please specify:</p> <p>a) Area 1:</p> <p>b) Area 2:</p> <p>c) Area 3:</p> <p>d) Area 4:</p>		
8	<p>Has your State made any assessment as to who should be responsible for the payment of Terrain data collection related to Areas 1 to 4?</p> <p>If Yes, please specify:</p> <p>a) Area 1:</p> <p>b) Area 2:</p> <p>c) Area 3:</p> <p>d) Area 4:</p>		
9	<p>Has your State assigned the responsibility for the collection of Obstacle data within Areas 1 to 3?</p> <p>If Yes, please specify:</p> <p>a) Area 1:</p> <p>b) Area 2:</p> <p>c) Area 3:</p>		
10	<p>Has your State made any assessment as to who should be responsible for the payment of Obstacle data collection related to Areas 1 to 3?</p> <p>If Yes, please specify:</p> <p>a) Area 1:</p> <p>b) Area 2:</p> <p>c) Area 3:</p>		

		YES	NO
11	<p>Is there any existing Terrain database available in your State? If, Yes: a) In which format the data is available/provided to users? b) Does the data available meet the requirements of Annex 15 for Areas 1 to 4?</p>		
12	<p>Is there any existing Obstacle database available in your State? If, Yes: a) In which format the data is available/provided to users? b) Does the data available meet the requirements of Annex 15 for Areas 1 to 3?</p>		
13	<p>Has your State made any assessment of the candidate techniques that could be used for Terrain and Obstacle Data acquisition? If, Yes: a) was that based on a cost-benefit analysis? b) Which is/are the retained technique(s)? </p>		
14	<p>Has your State made any assessments as to which level of detail obstacle data should be collected? If, Yes, please give details: </p>		
14	<p>Has your State developed a case study for a representative aerodrome? If, Yes, please give details: </p>		
15	<p>Have you published in your AIP (AD 2.10) the description of obstacles separated into Area 2 and Area 3? If, No, when do you intend to revise the AIP to separate the obstacles in this manner? </p>		
16	<p>Any further comments (difficulties encountered, suggestions, etc): </p>		

MID REGION ETOD IMPLEMENTATION STRATEGY

Considering:

- a) the new provisions introduced by Amendment 33 to Annex 15 related to eTOD; and
- b) the guidance material contained in Doc 9881 (Guidelines for electronic Terrain, Obstacle and Aerodrome Mapping Information); and

Recognizing that:

- i) significant safety benefits for international civil aviation will be provided by in-flight and ground-based applications that rely on quality electronic Terrain and Obstacle Data; and
- ii) the implementation of eTOD requirements is a challenging costly and cumbersome task of cross-domain nature;

The MID Region eTOD implementation strategy is detailed below:

- 1) the eTOD implementation should be in compliance with ICAO provisions contained in Annex 15 and Doc 9881;
- 2) the eTOD implementation should be based on national plans/roadmaps;
- 3) eTOD implementation should be managed by each State as a national eTOD programme supported by necessary resources, a high level framework and a detailed planning including priorities and timelines for the implementation of the programme;
- 4) States should adopt/follow a collaborative approach involving all concerned parties in the implementation of eTOD provisions and establish a multi-disciplinary team defining clearly the responsibilities and roles of the different Administrations within and outside the Civil Aviation Authority in the implementation process (AIS, Aerodromes, Military, National Geographic and Topographic Administrations/Agencies, etc);
- 5) eTOD requirements should be analyzed and a common understanding of these requirements should be developed;
- 6) States should make an inventory and evaluate the quality of existing terrain and obstacle data sources and in the case of data collection, consider carefully the required level of details of collected terrain and obstacle data with particular emphasis on obstacle data and associated cost;
- 7) States should carry out theoretical studies of candidate techniques for data acquisition (photogrammetry, LIDAR, etc) based on a Cost-Benefit Analysis and supported by case study for a representative aerodrome;
- 8) in the development of their eTOD programme, States should take into consideration the requirements for update/maintenance of data, especially the obstacle data;

- 9) States, while maintaining the responsibility for data quality and availability, should consider to which extent provision of electronic terrain and obstacle data could be delegated to national geodetic Institutes/Agencies, based on Service Level Agreement reflecting such delegation. Collaboration between States and data providers/integrators should also be considered;
- 10) ICAO and States should undertake awareness and training programmes to promote and expedite the eTOD implementation;
- 11) implementation of eTOD provisions should be considered as a global matter, which necessitates coordination and exchange of experience between States, ICAO and other national/international organizations involved;
- 12) to the extent possible, States should work co-operatively especially with regard to the cross-border issue, for the sake of harmonization and more efficient implementation of eTOD; and
- 13) States encountering difficulties for the implementation of eTOD may seek assistance from ICAO, through a TCB project, and/or from other States.

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Middle East Region
AIS/MAP IMPLEMENTATION PLAN
Updated Timelines

TIMELINES:



Global



Regional



National

Middle East — Aeronautical Information Services Implementation																		
		2000	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Global	Provision of Terrain Data for Area 2																	
MID Region																		
States	Afghanistan																	
	Bahrain																	
	Egypt																	
	Iran, Islamic Rep. of																	
	Iraq																	
	Israel																	
	Jordan																	
	Kuwait																	
	Lebanon																	
	Oman																	
	Qatar																	
	Saudi Arabia																	
	Syrian Arab Republic																	
	United Arab Emirates																	
	Yemen																	
Global	Provision of Obstacle Data for Area 2																	
MID Region																		
States	Afghanistan																	
	Bahrain																	
	Egypt																	
	Iran, Islamic Rep. of																	
	Iraq																	
	Israel																	
	Jordan																	
	Kuwait																	
	Lebanon																	
	Oman																	
	Qatar																	
	Saudi Arabia																	
	Syrian Arab Republic																	
	United Arab Emirates																	
	Yemen																	

Middle East — Aeronautical Information Services Implementation		2000	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Global	Provision of Terrain Data for Area 3											■						
MID Region												■						
States	Afghanistan											■						
	Bahrain											■						
	Egypt											■						
	Iran, Islamic Rep. of											■						
	Iraq											■						
	Israel											■						
	Jordan											■						
	Kuwait											■						
	Lebanon											■						
	Oman											■						
	Qatar									■								
	Saudi Arabia											■						
	Syrian Arab Republic											■						
	United Arab Emirates											■						
	Yemen											■						
Global	Provision of Obstacle Data for Area 3											■						
MID Region												■						
States	Afghanistan											■						
	Bahrain											■						
	Egypt											■						
	Iran, Islamic Rep. of											■						
	Iraq											■						
	Israel											■						
	Jordan											■						
	Kuwait											■						
	Lebanon											■						
	Oman											■						
	Qatar									■								
	Saudi Arabia											■						
	Syrian Arab Republic											■						
	United Arab Emirates											■						
	Yemen											■						

Middle East — Aeronautical Information Services Implementation		2000	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Global	Provision of Terrain Data for Area 4																	
MID Region																		
States	Afghanistan										-	-	-	-	-	-	-	-
	Bahrain										-	-	-	-	-	-	-	-
	Egypt																	
	Iran, Islamic Rep. of																	
	Iraq																	
	Israel											-	-	-	-	-	-	-
	Jordan																	
	Kuwait																	
	Lebanon										-	-	-	-	-	-	-	-
	Oman											-	-	-	-	-	-	-
	Qatar																	
	Saudi Arabia																	
	Syrian Arab Republic											-	-	-	-	-	-	-
	United Arab Emirates																	
	Yemen										-	-	-	-	-	-	-	-

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FASID TABLE AIS-X — eTOD REQUIREMENTS

EXPLANATION OF THE TABLE

Column

- 1 Name of the State, territory or aerodrome for which electronic Terrain and Obstacle Data (eTOD) are required with the designation of the aerodrome use:
 - RS — international scheduled air transport, regular use
 - RNS — international non-scheduled air transport, regular use
 - RG — international general aviation, regular use
 - AS — international scheduled air transport, alternate use
- 2 Runway designation numbers
- 3 Type of each of the runways to be provided. The types of runways, as defined in Annex 14, Volume 1, Chapter I, are:
 - NINST — non-instrument runway;
 - NPA — non-precision approach runway
 - PA1 — precision approach runway, Category I;
 - PA2 — precision approach runway, Category II;
 - PA3 — precision approach runway, Category III.
- 4 Requirement for the provision of Terrain data for Area 1, shown by an “X” against the State or territory to be covered.
- 5 Requirement for the provision of Terrain data for Area 2 (TMA), shown by an “X” against the aerodrome to be covered.
- 6 Requirement for the provision of Terrain data for Area 2 (45 Km radius from the ARP), shown by an “X” against the aerodrome to be covered.
- 7 Requirement for the provision of Terrain data for Area 3, shown by an “X” against the aerodrome to be covered.
- 8 Requirement for the provision of Terrain data for Area 4, shown by an “X” against the runway threshold to be covered.
- 9 Requirement for the provision of Obstacle data for Area 1, shown by an “X” against the State or territory to be covered.
- 10 Requirement for the provision of Obstacle data for Area 2 (TMA), shown by an “X” against the aerodrome to be covered.
- 11 Requirement for the provision of Obstacle data for Area 2 (45 Km radius from the ARP), shown by an “X” against the aerodrome to be covered.
- 12 Requirement for the provision of Obstacle data for Area 3, shown by an “X” against the aerodrome to be covered.
- 13 Remarks (timetable for implementation)

Note: For Columns 4 to 12 use the following symbols:

- X- Required but not implemented
- XI- Required and implemented

STATE, TERRITORY OR AERODROME FOR WHICH eTOD IS REQUIRED			TERRAIN DATA REQUIRED				OBSTACLE DATA REQUIRED			REMARKS		
CITY/AERODROME	RWY No	RWY TYPE	Area 1	Area 2		Area 3	Area 4	Area 1	Area 2		Area 3	
				TMA	45 Km				TMA			45 Km
1	2	3	4	5	6	7	8	9	10	11	12	13
(HETB) Taba AS				X		X			X		X	
	04 22	NPA NINST										
IRAN			X					X				
(OIKB) Bandar Abbass/ Bandar Abbas Intl RS				X		X			X		X	
	03R 21L	NPA PA1										
	03L 21R	NINST NINST										
(OIFM) Esfahan/ Shahid Beheshti Intl RS				X		X			X		X	
	08L 26R	NPA PA1										
	08R 26L	NPA NPA										
(OIMM) Mashhad/ Shahid Hashemi Nejad Intl RS				X		X			X		X	
	13L 31R	NPA PA1										
	13R 31L	NPA PA1										
(OISS) Shiraz/shahid Dastghaib Intl RS				X		X			X		X	
	11R 29L	NPA PA1										
	11L 29R	NPA PA1										
(OITT) Tabriz/Tabriz Intl RNS				X		X			X		X	
	12L 30R	NPA PA1										
	12R 30L	NINST NINST										
(OIII) Tehran/ Mehrabad Intl RS				X		X			X		X	
	11R 29L	NPA PA1										
	11L 29R	NPA NPA										
(OIII) TEHRAN/Emam Khomaini Intl RS				X		X			X		X	
	11L 29R	NPA PA1					X					

STATE, TERRITORY OR AERODROME FOR WHICH eTOD IS REQUIRED			TERRAIN DATA REQUIRED				OBSTACLE DATA REQUIRED			REMARKS		
CITY/AERODROME	RWY No	RWY TYPE	Area 1	Area 2		Area 3	Area 4	Area 1	Area 2		Area 3	
				TMA	45 Km				TMA			45 Km
1	2	3	4	5	6	7	8	9	10	11	12	13
JORDAN			X					X				
(OJAI) Amman/ Queen Alia Intl RS	08R 26L	NPA PA2		X		X			X		X	
	08L 26R	PA2 PA2					X X					
(OJAM) Amman/Marka Intl AS				X		X			X		X	
	24 06	PA1 NINST										
(OJAQ) Aqaba/King Hussein Intl RNS					X	X				X	X	
	01 19	PA1 NPA										
(OJJR) JERUSALEM/ Jerusalem RS					X	X				X	X	
	12 30	NPA PA1										
KUWAIT			X					X				
(OKBK) Kuwait Intl. RS				X		X			X		X	
	33L 15R	PA2 PA2					X X					
	33R 15L	PA2 PA2					X X					
LEBANON			X					X				
(OLBA) Beirut Intl. RS				X		X			X		X	
	17 35	PA1 NINST										
	18 36	PA1 NINST										
	03 21	PA1 NINST										
OMAN			X					X				
(OOMS) Muscat/Seeb Muscat Intl. Airport RS				X		X			X		X	
	26 08	PA1 PA1										
(OOSA) Salalah AS												
	07 25	NPA PA1										
QATAR			X					X				
(OTBD) Doha Int. Airport RS				X		X			X		X	
	34 16	PA2 NPA					X					

STATE, TERRITORY OR AERODROME FOR WHICH eTOD IS REQUIRED			TERRAIN DATA REQUIRED				OBSTACLE DATA REQUIRED			REMARKS		
CITY/AERODROME	RWY No	RWY TYPE	Area 1	Area 2		Area 3	Area 4	Area 1	Area 2		Area 3	
				TMA	45 Km				TMA			45 Km
1	2	3	4	5	6	7	8	9	10	11	12	13
UNITED ARAB EMIRATES			X					X				
(OMAA) Abu Dhabi Int. Airport				X		X			X		X	
	31L 13R	PA3 PA1					X					
	13L 31R	PA3 PA3				X X						
(OMAL) Al Ain Int. Airport RS				X		X			X		X	
	01 19	PA1 NPA										
(OMDB) Dubai Int. Airport RS				X		X			X		X	
	12L 30R	PA3 PA3					X X					
	12R 30L	PA1 PA1										
(OMFJ) Fujairah Int. Airport RS				X		X			X		X	
	11 29	NPA PA1										
(OMRK) Ras Al Khaimah Int. Airport RS				X		X			X		X	
	16 34	NPA PA1										
(OMSJ) Sharjah Int. Airport RS				X		X			X		X	
	12 30	NPA PA2					X					
YEMEN			X					X				
(OYAA) Aden Intl RS				X		X			X		X	
	08 26	NPA PA1										
(OYHD) Hodeidah Intl RS				X		X			X		X	
	03 21	NPA NPA										
(OYRN) Mukalla/Riyan RS				X		X			X		X	
	06 24	NPA NPA										
(OYSN) Sanna'a Intl RS				X		X			X		X	
	18 36	PA1 NPA										
(OYTZ) Taiz Intl RS				X		X			X		X	
	01 19	NPA NPA										

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**MID REGION ELECTRONIC TERRAIN AND OBSTACLE DATA WORKING GROUP
(eTOD WG)**

A) TERMS OF REFERENCE

With a view to harmonize, coordinate and support the eTOD implementation activities on a regional basis, the MID Region eTOD Working Group shall:

- 1) analyse the eTOD requirements and develop a common understanding of these requirements (clarify the needs in terms of data format, temporality, cross-border harmonisation and develop associated guidelines as required);
- 2) recommend the way forward the eTOD timely implementation;
- 3) develop and maintain a MID Region eTOD implementation strategy;
- 4) guide the development and support the roll-out of an awareness campaign for eTOD implementation within MID States;
- 5) carry out a theoretical study of candidates techniques for electronic Terrain and Obstacle Data acquisition including a cost benefit analysis;
- 6) develop a high level MID Region business case for eTOD implementation;
- 7) carry out a study case for a representative aerodrome from the MID Region;
- 8) assist States in the development of mandate/policy pertaining to the implementation of eTOD requirements;
- 9) develop an action plan for the implementation of eTOD requirements in the MID Region;
- 10) monitor the cost-conscious and timely implementation of eTOD requirements in the MID Region;
- 11) monitor and review latest developments pertaining to eTOD; and
- 12) develop its work programme within the scope of its Terms of Reference.

B) COMPOSITION

The eTOD Working Group will be composed of Experts nominated by Middle East Provider States from different technical areas within and outside the Civil Aviation Authority (AIS/MAP, Aerodrome, Military, Procedure Designers, ATC, Navigators, surveyors, National Geographic Administration/Agency, etc).

ICAO, IATA and IFALPA are Observers.

Other representatives from industry and user Organisations having a vested interest in Aeronautical Information Services and eTOD in particular could participate in the work of this Working Group.

C) WORKING ARRANGEMENTS

The eTOD Working Group shall report to the AIS/MAP Task Force.

The work of the eTOD Working Group shall be carried out mainly through exchange of correspondence (email, facsimile, Tel, etc) between its Members. The Working Group shall meet as required and at least once a year. The convening of the Working Group meetings should be initiated by the Rapporteur in coordination with the Members of the Group and ICAO MID Regional Office.

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**MID AIM SEMINAR
EXECUTIVE SUMMARY**

1. INTRODUCTION:

1.1 The MID AIM Seminar has been successfully held in Cairo from 21 to 23 October 2008. 53 participants from 16 States, 3 international organizations and 1 Commercial data house have attended the seminar. The seminar was hosted by the Egyptian National Air Navigation Services Company (NANSC). It was moderated by Mr. Mohamed Smaoui, RO/AIS/MET, ICAO MID Office and Mr. Manfred Unterreiner, Chairman AIS Operations Subgroup, AIM, EUROCONTROL.

1.2 The seminar addressed different subjects related to the transition from AIS to AIM according to the following agenda:

1. Introduction
2. Setting the Scene/Drivers for change
 - ANC/11 and ATM Operational Concept
 - User Requirements, Single European Sky (SES)
3. Current Status of AIS
 - Global and Regional issues/developments
 - MID Regional AIS/MAP planning and implementation Status
4. Transition towards Aeronautical Information Management (AIM)
 - From Strategy to Implementation
5. AIM Opportunities & Enablers for Change
 - QMS and CHAIN
 - Training and Competency Management
 - eAIP
 - Data Modelling/Exchange (AICM/AIXM)
 - Digital NOTAM (xNOTAM)
 - EAD
 - eTOD and airport mapping
 - Emerging Technologies (GIS, 4D, Digital Data Link, etc).
6. Conclusions and closing session

1.3 The main objectives of the MID AIM Seminar were to:

- a) increase the level of awareness of States regarding the current shortcomings of AIS and the necessity to transit from the provision of AIS products to the interchange and management of aeronautical information in digital form;
- b) provide States with a better understanding of the planning and implementation issues related to the transition from AIS to AIM; and

- c) provide briefings related to international experiences, directions and advances being made in the field, in particular: QMS and CHAIN, AICM/AIXM, xNOTAM, EAD, eAIP, etc.

2. SUMMARY OF DISCUSSIONS

2.1 The seminar recognized the limitations of the current AIS, which do not meet the new global ATM system requirements envisioned by the ATM Operational Concept.

2.2 The need to support the global ATM system by establishing conditions for the provision, in real-time, of high quality aeronautical information to any airspace user, any time, anywhere, was re-iterated.

2.3 The seminar recalled and supported the Recommendations of the Global AIS Congress.

2.4 ICAO should take the lead in the development of the AIM Strategy/Roadmap and associated AIM SARPs and guidance material; and ensure that they are suitable for global use. Particularly, when defining the Roadmap for the transition from AIS to AIM, ICAO should establish clear milestones and related success criteria.

2.5 The Seminar noted with appreciation the establishment of the AIS-AIMSG and emphasized that States and international organizations should assist ICAO and contribute to the development of successful AIM SARPs, based on a partnership approach and sharing of experience and expertise. In particular, active contribution by the States is encouraged to support the work of the AIS-AIMSG considering that input would be coordinated through the Study Group Members or regional ‘contact points’.

2.6 The Seminar recognized the urgent need for ICAO to develop SARPs and guidance material to enable the global exchange of data in digital format, i.e.: provision of a standard Aeronautical Information Conceptual Model and standard Aeronautical Information Exchange Model (AICM/AIXM).

2.7 The need to define appropriate means to allow the further evolution of the standard models in a managed and supportable manner was highlighted.

2.8 Legal and institutional issues as well as cost-recovery and copyright issues should be addressed.

2.9 Policy, regulations and human factors are critical components of AIM.

2.10 Performance goals for the transition from AIS to AIM need to be identified.

2.11 A common understanding of Global AIM in terms of vision, goals, functions and capabilities need to be developed. Milestones that are achievable and mechanisms for coordination and monitoring of progress need to be identified.

2.12 States can proceed at their own rate towards the common vision.

2.13 The achievement of current ICAO requirements is an essential foundation for the transition towards AIM and States need to take urgent action to achieve the requirements, in particular concerning the implementation of a QMS.

- 2.14 QMS is one of the most important pre-requisites for the transition from AIS to AIM and for a performance driven business.
- 2.15 Need for Quality and Implementation Monitoring “You can improve only what you measure”.
- 2.16 Urgent need for ICAO to develop the AIM QMS Manual.
- 2.17 The deliverables shared with and provided to the seminar e.g. the CHAIN solutions need to be exploited in order to enable increased supply of digital products/data.
- 2.18 Future AIM will have a series of implication on staff competency. A global training and competency management scheme shall be established and an ICAO AIM Training Manual has to be published, as a matter of urgency.
- 2.19 Projects like xNOTAM (Digital NOTAM) would be beneficial for the Civil Aviation Community only with a global effort.
- 2.20 Transition from AIS to AIM requires information management technologies that were not necessary for conventional AIS i.e.: UML, XML, GML, GIS, data link, etc.
- 2.21 Best use must be made of the Experience gained from the implementation of the EAD in the European Region. Participation of the MID States to the EAD would be very beneficial for the AIS Community to promote the availability, completeness and quality of aeronautical information, in a harmonized and cost-effective manner.
- 2.22 The ICAO Work Programme that supports the transition from AIS to AIM has been defined. However, much work has to be done and the timescales are very tight.
- 2.23 The importance of gathering AIM stakeholders and providing forums for discussion of planning and implementation issues related to the transition from AIS to AIM, was highlighted. In this regard, the Seminar recognized the importance for all stakeholders to attend the AIM Congresses (the upcoming AIM Congress will be held in Johannesburg, South Africa, 23-25 June 2009).
- 2.24 MID States were encouraged to host one of the AIM Congresses.
- 2.25 MID States were also encouraged to organize AIM Seminars, Workshops, awareness campaigns, etc.
- 2.26 The Seminar noted with concern the non-attendance of the end users representative Organizations (IATA and IFALPA).
- 2.27 The participants expressed their gratitude to ICAO for organizing such an important Seminar, to EUROCONTROL for their support and to Egypt for hosting the Seminar.

MIDANPIRG
AERONAUTICAL INFORMATION SERVICES AND AERONAUTICAL CHARTS
TASK FORCE (AIS/MAP/TF)

1. TERMS OF REFERENCE

The AIS/MAP Task Force shall:

- 1) examine the Status of implementation of the ICAO requirements in the field of AIS/MAP;
- 2) identify and review those specific deficiencies related to AIS/MAP and recommend action to be taken to eliminate them;
- 3) prepare amendments to relevant MID Basic ANP and FASID, as appropriate;
- 4) assist States to implement a quality system for aeronautical information in an expeditious manner;
- 5) monitor and review latest developments in the AIS/MAP field; ~~and~~
- 6) foster the integrated improvement of aeronautical information services through proper training and qualification of the personnel performing technical duties in this aeronautical activity;
- 7) monitor the eTOD implementation activities in the MID Region;
- 8) assist States in the transition from AIS to AIM; and
- 9) follow up the implementation of PBN in the MID Region and address PBN-related issues pertaining to the AIS/MAP field, as appropriate.

The AIS/MAP Task Force shall report to the ATM/SAR/AIS Sub-Group at each Sub-Group meeting.

2. WORK PROGRAMME

Ref	Tasks	Priority	Target Completion Date
1	Identify reasons that hinder States from implementation and adherence to the AIRAC System and suggest ways and means, which would facilitate adherence to the AIRAC System.	A	(1)
2	Analyze the status of implementation of WGS-84 in the MID Region and recommend measures to be taken to improve the situation.	A	(1)
3	Review the status of implementation of ICAO requirements pertaining to the Integrated Aeronautical Information Package and aeronautical charts in the MID Region.	A	(1)
4	Foster the standardized production of aeronautical charts in the MID Region, identifying the obstacles that some States could have in adjusting to the specifications of ICAO Annex 4 and recommend possible course of action to be taken by those States in order to comply with the requirements.	A	2007 ⁽¹⁾
5	Foster the implementation of Quality System within the Aeronautical Information Services in the MID Region, identifying the difficulties that States could have to comply with the specifications of ICAO Annex 15.	A	2007 ⁽¹⁾
6	Recommend possible course of action to be taken by each State in order to comply with ICAO requirements pertaining to Quality system.	A	2007 2009
7	Develop a Quality assurance/management Plan for the MID Region to orient/assist States in the implementation of Quality Management System in accordance with ISO 9001-2000.	B	2007
8	Monitor and review technical and operating developments in the area of automation and AIS databases.	A	(1)
9	Develop a cohesive Air Navigation Plan for AIS Automation in the MID Region taking into consideration the outcome of the 11th Air Navigation Conference.	B	2008
10	Carry out studies for the harmonization and automated processing of AIS, MET and FPL products in the MID Region;	A	2008
11	Prepare amendments to relevant MID Basic ANP and FASID, as appropriate.	A	(1)
12	Highlight the importance of giving AIS its proper status in the Civil Aviation Administrations.	A	(1)
13	Identify the AIS/MAP training resources available in the MID Region.	B	2008 2009
14	Propose an AIS/MAP training action plan for the MID Region	B	2008 2009
15	Address the issue of AIS/MAP personnel licensing and recommend action, as appropriate	B	2007

⁽¹⁾ Continuous Task

⁽¹⁾ Continuous Task

Ref	Tasks	Priority	Target Completion Date
16	Harmonize, coordinate and support the eTOD implementation activities on a regional basis.	A	2008 ⁽¹⁾
17	Ensure that the planning and implementation of AIM in the region, is coherent and compatible with the developments in adjacent regions, and that it is carried out within the framework of the ATM Operational Concept, the Global Air Navigation Plan and the associated Global Plan Initiatives (GPIs).	A	2010
18	ensure that the link between planned activities, organizational cost and performance assessment is well established	A	2010
19	address those AIS/MAP issues related to the implementation of PBN in the MID Region.	A	2010

3. PRIORITIES

- A High priority tasks, on which work should be speeded up.
- B Medium priority tasks, on which work should begin as soon as possible, but without detriment to priority A tasks.
- C Tasks of lesser priority, on which work should begin as time and resources allow, but without detriment to priority A and B tasks.

4. COMPOSITION

MIDANPIRG Provider States + IATA + IFALPA + **IFATCA**

Other representatives from industry and user Organizations having a vested interest in Aeronautical Information Services could participate as observers in the work of the Task Force, as appropriate.

ATM/SAR/AIS SG/10
Report on Agenda Item 11

**REPORT ON AGENDA ITEM 11: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE ATM/SAR
AND AIS/MAP FIELDS**

11.1 The meeting recalled that MIDANPIRG/10 noted that during the review of MIDANPIRG/9 report by the ICAO Council, it was agreed that the proposal to amend the form used for the identification, assessment and reporting of air navigation deficiencies would be taken into account by the Secretariat at the next revision of the methodology since more experience/feedback is needed from MID Region before global use. The meeting was of the view to continue using the amended form by MIDANPIRG subsidiary bodies as endorsed by MIDANPIRG/9 under Conclusion 9/61 in order to give more time to assess its effectiveness in defining reasons for non elimination of deficiencies in the MID Region.

11.2 The meeting noted that MIDANPIRG/10 developed Conclusion 10/77 related to the elimination of air navigation deficiencies as follows:

*CONCLUSION 10/77: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE
MID REGION*

That,

- a) MID States review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office;*
- b) MID States increase their efforts to overcome the delay in mitigating air navigation deficiencies identified by MIDANPIRG and explore ways and means to eliminate deficiencies;*
- c) MID States experiencing difficulties in financing the elimination of safety-related deficiencies may wish to take advantage of the funding opportunity offered by the International Financial Facility for Aviation Safety (IFFAS);*
- d) Users of air navigation facilities and services in the MID Region report to the ICAO MID Regional Office when the remedial action on a deficiency has been taken, and*
- e) ICAO continues to provide assistance to States for the purpose of rectifying deficiencies; and when required, States request ICAO assistance through Technical Co-operation Programme and/or Special Implementation Projects (SIP).*

11.3 The meeting reviewed and updated the list of deficiencies in the ATM/SAR and AIS/MAP fields as at **Appendices 11A** and **11B** to the Report on Agenda Item 11, respectively.

ATM/SAR/AIS SG/10
Report on Agenda Item 11

11.4 IATA highlighted that Egypt represents a special case of an entire State being present in two different Air Navigation Plans (AFI ANP and MID ANP). In this regard, it was noted that there are some discrepancies between the APIRG and MIDANPIRG lists of air navigation deficiencies related to Egypt. Accordingly, close coordination between the ICAO ESAF and MID Regional Offices was requested in order to harmonize both the lists of air navigation deficiencies and ANP provisions pertaining to Egypt.

11.5 In the same vein, the meeting was of view that this issue could be presented to the upcoming Special AFI RAN Meeting (Durban, South Africa, 24 - 29 November 2008) and inquired if it would not be more efficient if Egypt would be part of one ANP only.

ATM/SAR/AIS SG/10
Appendix 11A to the Report on Agenda Item 11

Deficiencies in the ATM Field

AFGHANISTAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR		Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Afghanistan	Dec.2008	A
2	MID ANP Table ATS-1 Plan of ATS routes	Afghanistan Uzbekistan	Segment of ATS route A219 not implemented	Dec, 1997	ICAO to follow up with States to determine what action is needed to achieve implementation Probably to extend B466 till TERMEZ in the MID Plan and delete requirement for A219.	O	Segment Kandahar – Termez: Not implemented	Afghanistan Uzbekistan	Dec, 2008	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
3	Annex 11 para. 2.26 2.27	Afghanistan ICAO	Implementation of ATS Safety Management	Nov, 2006		H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Afghanistan	Dec.2008	A
4	Annex 11 Para. 2.28 2.30	Afghanistan ICAO	Development of contingency plans	Nov, 2006		H S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Afghanistan	Dec.2008	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

BAHRAIN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Bahrain with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Bahrain	Jun.2010	A
2	MID ANP Table ATS-1 Plan of ATS routes	Bahrain Iran Qatar	Segment MIDS1 PIMAL of ATS route A453 not implemented	Dec, 1997	Initial direct alignment KISH – BAHRAIN was changed to pass via PIMAL. Still not yet implemented – Economic impact – Not affecting safety (Alternative Route R219)	S	States to follow up	Bahrain Iran ICAO	Dec.2007	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
3	MID ANP Table ATS-1 Plan of ATS routes	Bahrain Qatar Saudi Arabia	ATS route B419 not implemented	Dec, 1997	Not implemented Doha—King Fahd Economic impact Subject to military restrictions Saudi Arabia ready to implement	S	States to continue negotiations with one another and military	Bahrain Qatar Saudi Arabia	Jun.2007	B
2	MID ANP Table ATS-1 Plan of ATS routes	Bahrain	ATS route B418 trajectory not implemented through King Fahd and PIMAL	Dec 2007	Route implemented in variance with ANP	S	States to continue negotiations with one another and military	Bahrain	Dec 2008	B
4	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	Under development Agreement signed with Kuwait, Qatar, others being negotiated	O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Bahrain	Dec 2008 Dec 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Most of MID States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Egypt issued regulation and started development of SAR agreement with Cyprus and other States	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Egypt with neighbouring States	Dec.2008 Dec 2009	A
2	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Under development	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Egypt	Jun.2008	A
3	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006		H	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Egypt	Jun.2008	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
4	MID ANP Table ATS-1		ATS Route L/UL315 not implemented	Mar, 2007	The segments CAIRO-HURGHADA-GIBAL are not implemented (Alternative A727)	S	Egypt	Dec.2008	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

IRAN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Most of MID States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Iran with neighbouring States	Dec.2008 Dec 2009	A
2	Annex 11 Para. 2.28 2.30		Development of contingency plans	Nov, 2006	Ongoing	H O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Iran	Jun.2008 Dec 2009	A
3	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Ongoing	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Iran	Dec.2008 Dec 2009	A
4	MID ANP Table ATS-1 Plan of ATS routes	Iran/UAE	ATS routes A418/UP574 not implemented KUMUN – PAPAR	Dec 2006	KUMUN-PAPAR segment not implemented	S	States to continue negotiations with one another	Iran/UAE	Jun 2008	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
5	MID ANP Table ATS-1 Plan of ATS routes		ATS route L126 SOGUM—MIGMI segment not fully implemented	May 2008 (SBFCM)	Segment SIGNI—MIGMI closed Iran has no problem opening. The route is already reflected in Iran charts.	S	States to negotiate with one another and coordinate opening of the route	Iran, Iraq	TBD	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

IRAQ

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Iraq with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Iraq with neighbouring States	Dec.2009	A
2	MID ANP Table ATS-1 Plan of ATS Routes		ATS route G667 not implemented	Sep, 2006	Implementation of G667 segment between Abadan and Kuwait is under negotiation with military side and with Iraq Iraq has no plan to open the route	S		Iraq Iran Kuwait	Jun.2008 No Plan to open the route	B
3	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006		H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Iraq	Dec.2008 Dec. 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
4	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006		S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Iraq Dec 2009	A
5	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS route UP975 not implemented in the Baghdad and Damascus FIRs	2003	Coordination between Iraq and Syria. Notam issued opening route in Baghdad FIR	S	States to negotiate with one another and coordinate opening of the route	Iraq/Syria Dec 2008	B
6	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS route UL602 not implemented in the Baghdad and Damascus FIRs	2003	Coordination between Iraq and Syria. Notam issued opening route in Baghdad FIR	S	States to negotiate with one another and coordinate opening of the route	Iraq/Syria Dec 2008	B
7	Annex 11 Para. 3.3.4.1		Non-provision of updated list of RVSM approved aircraft to the MID RMA	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis in order to enable it to discharge its functions and responsibilities	Iraq MID RMA ICAO March 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
8	MID ANP Table ATS-1 Plan of ATS routes		ATS route G795 Rafha-Basrah segment not implemented	May 2008 (SBFCM)	Coordination between Iraq and Saudi Arabia.	S	States to negotiate coordination issues between the two FIRs, update LoA and coordinate opening of the route	Iraq and Saudi Arabia	TBD July 2009	B
9	MID ANP Table ATS-1 Plan of ATS routes		ATS route A424 LOTAN - Baghdad segment (Baghdad FIR) not implemented	May 2008 (SBFCM)	Communication problems between concerned FIRs	O	ATM related communication between ACCs to be resolved; States to update the LoA and coordinate opening of the route.	Iraq	TBD No Plan to open the route	B
10	MID ANP Table ATS-1 Plan of ATS routes		ATS route L126 SOGUM – MIGMI segment not fully implemented	May 2008 (SBFCM)	Segment SIGNI – MIGMI closed	S	States to negotiate with one another and coordinate opening of the route	Iran, Iraq	TBD	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

ISRAEL

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Israel with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Ongoing	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Israel with neighbouring States	Dec.2008	A
2	MID ANP Table ATS-1 Plan of ATS routes	Israel Cyprus	ATS route B406 not implemented	Dec, 1997	No sections implemented as B17/UB17 Larnaca-MERVA(FIR BDY)	S O	To be followed by both the ICAO EUR and MID Offices	Israel, Cyprus ICAO to assist	Dec, 2008	B
3	Annex 11 Para. 2.28 2.30		Development of contingency plans	Nov, 2006		H S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Israel	Dec.2008	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
4	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006		H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Israel	Dec.2008	A
5	Annex 11 Para. 3.3.4.1		Non-provision of updated list of RVSM approved aircraft to the MID RMA	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis in order to enable it to discharge its functions and responsibilities	Israel MID RMA ICAO		A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

JORDAN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	MID ANP Table ATS-1 Plan of ATS routes	Jordan Syria	ATS route B412 not implemented	Dec, 1997	Most segments not implemented. Jordan ready to implement.-Only segment RBG - King Abdulaziz implemented	S	States to co-ordinate to finalize implementation- Realignment would be considered	Jordan, Syria ICAO to assist	Dec, 2008 No Plan to open the route	B
2	MID ANP Table ATS-1 Plan of ATS routes	Jordan Syria	ATS route G662 not implemented	Dec, 1997	Not implemented Damascus to Guriat Negotiations with military ongoing, in advanced stage	S	States to continue coordination to achieve implementation	Jordan , Syria	Dec, 2007 Jun 2009	B
3	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	National contingency plan developed.	H S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Jordan	Dec, 2008 March 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
4	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Work in progress SMS developed and details will be forwarded to ICAO	F H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Jordan	Dec .2008	A
5	MID ANP Table ATS-1		ATS Route UP559 not implemented	Mar, 2007	The segments TURAI-F-TONTU-DAMASCUS-DAKWE-KHALDEH-KUKLA-LARNACA are not implemented	S		Jordan, Lebanon and Syria	Dec.2008	B
6	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities	Jordan MID RMA ICAO	March 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Kuwait with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Kuwait with neighbouring States	Dec.2008 March 2009	A
2	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Implementation of SMS is expected to start in April 2007	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Kuwait	Nov.2008 March 2009	A
3	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	Contingency Plan was signed with Bahrain and Iran. Work in progress for the coordination with other neighbouring States	H S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Kuwait	Dec.2008 Dec2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
4	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities	Kuwait MID RMA ICAO		A
5	MID ANP Table ATS-1 Plan of ATS routes		ATS route G669 route Rafha SOLAT Kuwait segment not implemented	May 2008 (SBFCM)	Airspace restrictions	S	Airspace restrictions to be addressed	Kuwait	TBD No Plan to implement the route	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

LEBANON

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Lebanon with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Lebanon with neighbouring States	Dec.2008	A
2	MID ANP Table ATS-1 Plan of ATS routes	Lebanon Syria	ATS route G202 not implemented	Dec, 1997	Not implemented DAKWE - Damascus Economic impact- alternative routes available but longer-Not affecting safety	S	ICAO to follow-up	Lebanon Syria	Dec, 2007	B
3	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006		H O	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Lebanon	Dec.2008	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
4	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006		H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Lebanon	Dec.2008	A
5	MID ANP Table ATS-1		ATS Route UP559 not implemented	Mar, 2007	The segments TURAIF-TONTU-DAMASCUS-DAKWE-KHALDEH-KUKLA-LARNACA are not implemented	S		Jordan-Lebanon and Syria	Dec.2007	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

OMAN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Oman with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Oman with neighbouring States	Jun.2008	A
2	Annex 11 Para. 2.28 2.30		Development of contingency plans	Nov, 2006	Under development	H O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Oman	Jun.2008	A
3	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities	Oman MID RMA ICAO		A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

QATAR

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Qatar and Bahrain with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Lack of SAR agreements can be detrimental to safety of persons in distress where searches overlap national boundaries. Draft Model SAR agreements adopted at MIDANPIRG/5. No significant progress achieved- ICAO to assist	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Qatar and Bahrain	Jun.2008	A
2	MID-ANP Table-ATS-1 Plan of ATS routes	Qatar-Saudi Arabia	ATS route A415 not implemented	Dec, 1997	Doha to King Khalid implemented at variance with the Plan - slightly longer - Military restrictions Economic impact- Not affecting safety	S	Saudi Arabia and Qatar to continue negotiations to open this route.	Saudi Arabia Qatar	Dec, 2007	B

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
3	MID ANP Table ATS-1 Plan of ATS routes	Bahrain Iran Qatar	ATS route A453 not implemented	Dec, 1997	Initial direct alignment KISH – BAHRAIN was changed to pass via PIMAL. Still not yet implemented- Economic impact- Not affecting safety	S	States to follow up	Bahrain Iran Qatar	Dec, 2007	B
4	MID ANP Table ATS-1 Plan of ATS routes	Bahrain Qatar Saudi Arabia	ATS route B419 not implemented	Dec, 1997	Not implemented Doha - King Fahd-Economic impact Subject to military restrictions Saudi Arabia ready to implement	S	States to continue negotiations with one another and military	Bahrain Qatar Saudi Arabia	Dec, 2007 No Plan to implement the route	B
5	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Details of SMS will be communicated to ICAO	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Qatar	Jun, 2008 March 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
6	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	Work progressing; agreement signed with Bahrain	S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Qatar Bahrain	Jun-2008 Jun 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Saudi Arabia with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements. Ready to sign agreement as per drafted (model) agreement presented at ATM/SAR/AIS SG/10 SAR National Board established	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Saudi Arabia with neighbouring States	Jun.2009	A
2	MID ANP Table ATS-1 Plan of ATS routes	Qatar Saudi Arabia	ATS route A415 implemented with variance to Table ATS 1	Dec, 1997	Doha to King Khalid implemented at variance with the Plan . slightly longer-Military restrictions Economic impact- Not affecting safety	S	Saudi Arabia and Qatar to continue negotiations to open this route.	Saudi Arabia Qatar	Dec, 2008 Jun 2009	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
3	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	QMS Department established	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Saudi Arabia	Jun.2008 Jun 2009	A
4	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	A draft contingency plan not fully compliant with the agreed template has been developed.	H O	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Saudi Arabia	Dec.2008 Jun 2009	A
5	MID ANP Table ATS-1		Segment METSA-Al SHIGAR of ATS Route B/UB 411 not implemented	Mar, 2007	Jordan and Saudi Arabia already approved the segment.	S		Saudi Arabia	Dec.2007 Dec 2008	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

SYRIA

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Syria with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements. Agreement with Turkey and Cyprus completed. Agreement with Jordan and Lebanon pending	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Syria with neighbouring States	Dec. 2008 Dec 2009	A
2	MID ANP Table ATS-1 Plan of ATS routes	Lebanon Syria	ATS route G202 not implemented	Dec, 1997	Not implemented DAKWE - Damascus Economic impact- alternative routes available but longer-Not affecting safety	S	ICAO to follow-up	Lebanon ,Syria	Dec, 2008 No plan to open the route	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
3	MID ANP Table ATS-1 Plan of ATS routes	Lebanon Syria	ATS route B410 not implemented	Dec, 1997	UL620 proceeding to BALMA then, R655-ChekkaChekka-Damascus to be implemented-Non-technical nature-Economic impact-Aircraft using longer routes	S	To be discussed in EMAC*** meetings.	Syria ICAO to assist	Dec, 2007 Dec 2009	B
4	Annex 11 Para. 2.28 2.30		Development of contingency plans	Nov, 2006	Draft available	H O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Syria	Jun, 2008 Jun 2009	A
5	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006	Committee established	H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Syria	Aug, 2008 Dec 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
6	MID ANP Table ATS-1		ATS Route UP559 not implemented	Mar, 2007	The segments TURAIF-TONTU-DAMASCUS-DAKWE-KHALDEH-KUKLA-LARNACA are not implemented	S		Jordan-Lebanon and Syria	Dec.2008 NO PLAN	B
7	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS route UP975 not implemented in the Baghdad and Damascus FIRs	2003	Coordination between Iraq and Syria	S	States to negotiate with one another and coordinate opening of the routes	Iraq/Syria	Dec-2008 MARCH 2009	B
8	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS route UL602 not implemented in the Baghdad and Damascus FIRs	2003	Coordination between Iraq and Syria	S	States to negotiate with one another and coordinate opening of the routes	Iraq/Syria	Dec-2008 MARCH 2009	B
9	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities	Syria MID RMA ICAO	MARCH 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

UAE

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	UAE with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Work ongoing to sign agreements. The agreement with Bahrain and Oman to be updated and the one with Iran has to be developed/coordinated.	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	UAE with neighbouring States	Dec.2009	A
2	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006	Plan completed and Agreements signed with Bahrain and Oman. Others pending	O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	UAE	Dec .2008	A
3	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID-RMA	Nov, 2006		Ø	Need to provide the MID-RMA with required data in order to enable it to discharge its functions and responsibilities	UAE – MID RMA – ICAO	Dec .2008	A
4	MID ANP Table ATS-1 Plan of ATS routes	Iran/UAE	ATS routes A418/UP574 not implemented KUMUN – PAPAN	Dec 2006	KUMUN-PAPAN segment not implemented	S	States to continue negotiations with one another	Iran/UAE	Jun 2008	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the ATM Field

YEMEN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	LIM/MID/RAN Concl. 3/7 Cooperation between States in SAR	Yemen with neighbouring States	Lack of Search and Rescue Agreements between neighbouring States	Nov, 1994	Ongoing	S	A. States to commence negotiations with neighbours to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States	Yemen with neighbouring States	Dec.2008	A
2	Annex 11 para. 2.26 2.27		Implementation of ATS Safety Management	Nov, 2006		H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Yemen	Dec.2008	A
3	Annex 11 Para. 2.28 2.30		Development of contingency plan	Nov, 2006		H O	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Yemen	Dec.2008	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
4	Annex 11 Para. 3.3.4.1		Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2008		O	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities	Yemen MID RMA ICAO		A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

ATM/SAR/AIS SG/10
Appendix 11B to the Report on Agenda Item 11

Deficiencies in the AIS/MAP field

AFGHANISTAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System	May, 1995	ICAO to follow up with State	F H O	Need for implementation of AIRAC requirements	Afghanistan	Dec, 2007 Jan, 2010	U
2	ANNEX 4: Para 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Afghanistan	Dec, 2007 Dec, 2010	B
3	ANNEX 4: Para 13.2	-	Non-production of Aerodrome/ Heliport Chart - ICAO	May, 1995		F H O	Need to produce Aerodrome/ Heliport Chart - ICAO for all Int'l Aerodromes	Afghanistan	Dec, 2007 Dec, 2009	A
4	ANNEX 4 Para. 7.2	-	Non-production of the Enroute Chart-ICAO	May, 1995		F H O	Need to produce the Enroute Chart-ICAO	Afghanistan	Dec, 2007 Dec, 2010	A
5	ANNEX 4: Para 3.2	-	Non-production of Aerodrome Obstacle Chart-ICAO Type A	May, 1995		F H O	Need to produce Aerodrome Obstacle Chart-ICAO Type A for all Int'l Airports RWYs, except if a notification to this effect is published in the AIP (if no significant obstacles exist)	Afghanistan	Dec, 2007 Dec, 2009	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
6	ANNEX 15: Para 4.1.1	-	Newly Restructured AIP tested	Jun, 1996	An incomplete electronic version of the AIP is available on the web	F H O	Need to produce and issue the new restructured AIP	Afghanistan	Dec, 2007 Dec, 2010	U
7	ANNEX 15: Para 3.7.1	-	Implementation of WGS-84	Dec, 1997		F H O	Need to implement WGS-84	Afghanistan	Dec, 2007 Dec, 2010	U
8	ANNEX 15: Para 4.2.9 & 4.3.7	-	Lack of regular and effective updating of the AIP	Jan, 2003	ICAO to follow up with State	F H O	Need to update the AIP on a regular basis	Afghanistan	Dec, 2007 Dec, 2009	U
9	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		F H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Afghanistan	Dec, 2007 Dec, 2011	U
10	ANNEX 4: Para 11.2	-	Non-production of Instrument Approach Chart-ICAO	Jan, 2003		F H O	Need to produce Instrument Approach Chart-ICAO for all Int'l Aerodromes	Afghanistan	Dec, 2007 Dec, 2008	A
11	ANNEX 15: Para. 5.2.8.3	-	Non-production of the monthly printed plain language summary of NOTAM	Jan, 2003		H O	Need to produce the monthly printed plain language summary of NOTAM	Afghanistan	Dec, 2007 Dec, 2008	A
12	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004		F H O	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Afghanistan	Dec, 2007 Dec, 2009	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995	Coordination with neighboring States required	F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Iran+neighboring states	Dec, 2007 Dec, 2009	B
2	ANNEX 4: Para. 13.2	-	Non-production of Aerodrome/ Heliport Chart- ICAO	May, 1995		F H	Need to produce Aerodrome/ Heliport Chart – ICAO for all Int'l Aerodromes	Iran	Mar, 2007	A
3	ANNEX 4: Para. 3.2	-	Non-production of Aerodrome Obstacle Chart-ICAO Type A	May, 1995	ICAO to follow up with State	F O	Need to produce Aerodrome Obstacle Chart-ICAO Type A for all Int'l Airports RWYs, except if a notification to this effect is published in the AIP (if no significant obstacles exist)	Iran	Dec, 2007 Dec, 2009	A
4	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003	ICAO to follow up with State	F H	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Iran	Dec, 2007 Dec, 2009	U
5	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Dec, 2007		F H	AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	Iran	Dec, 2009	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

IRAQ

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System	May, 1995	ICAO to follow up with State	F H O	Need to fully comply with the AIRAC procedure	Iraq	Dec, 2007 Jan, 2010	U
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Iraq	Dec, 2007 Dec, 2010	B
3	ANNEX 4: Para. 7.2	-	Non-production of the Enroute Chart-ICAO	May, 1995		F H O	Need to produce the Enroute Chart-ICAO	Iraq	Dec, 2007 Dec, 2010	A
4	ANNEX 4: Para. 13.2	-	Non-production of Aerodrome/ Heliport Chart - ICAO	May, 1995		F H O	Need to produce Aerodrome/ Heliport Chart - ICAO for all Int'l Aerodromes	Iraq	Dec, 2007 Dec, 2010	A
5	ANNEX 15: Para 4.1.1	-	Newly Restructured AIP	Jun, 1996	An incomplete electronic version of the AIP is available on the web	F H O	Need to produce and issue the new restructured AIP	Iraq	Dec, 2007 Dec, 2010	U
6	ANNEX 15: Para 3.7.1	-	Implementation of WGS-84	Dec, 1997		F H O	Need to implement WGS-84	Iraq	Dec, 2007 Dec, 2010	U

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
7	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		F H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Iraq	Dec, 2007 Dec, 2011	U
8	ANNEX 15: Para 4.2.9 & 4.3.7	-	Lack of regular and effective updating of the AIP	Jan, 2003	ICAO to follow up with State	F H O	Need to update the AIP on a regular basis	Iraq	Dec, 2007 Jan, 2010	U
9	ANNEX 15: Para. 5.2.8.3	-	Non-production of the monthly printed plain language summary of NOTAM	Jan, 2003		H O	Need to produce the monthly printed plain language summary of NOTAM	Iraq	Dec, 2007 Dec, 2008	A
10	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO	Jan, 2003		F H O	Need to produce Instrument Approach Chart-ICAO for all Int'l Aerodromes	Iraq	Dec, 2007 Dec, 2008	A
11	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004		F H O	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Iraq	Dec, 2007 Dec, 2009	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

ISRAEL

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para 6	-	Lack of implementation of AIRAC System	May, 1995	ICAO to follow up with State	H O	Need for implementation of AIRAC requirements	Israel	Dec, 2007	U
2	ANNEX 4: Para. 7.2	-	Non-production of the Enroute Chart-ICAO	May, 1995		S O	Need to produce the Enroute Chart-ICAO	Israel	Dec, 2007	A
3	ANNEX 15: Para 3.7.1	-	Implementation of WGS-84	Dec, 1997		H O	Need to implement WGS-84	Israel	Dec, 2007	U
4	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Israel	Dec, 2007	U
5	ANNEX 15: Para. 5.2.8.3	-	Non-production of the monthly printed plain language summary of NOTAM	Jan, 2003		H	Need to produce the monthly printed plain language summary of NOTAM	Israel	Dec, 2007	A
6	ANNEX 15 Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004		H O	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Israel	Dec, 2007	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

JORDAN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		F H	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Jordan	Dec, 2007 Dec, 2009	U
2	ANNEX 15: Para. 6	-	Lack of implementation of AIRAC System	Mar, 2004	ICAO to follow up with State	H O	Need to fully comply with the AIRAC procedure	Jordan	Dec, 2007 Dec, 2009	U
3	Doc 8126: Para. 3.2.2 & 3.3	-	Lack of adequate resources and efficient working arrangements	Jul, 2005		F H	Need to provide AIS (including AIS Briefing Offices) with adequate resources and efficient working arrangements	Jordan	Jun, 2007 Mar, 2009	A
4	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	Feb, 2008		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Jordan	Dec, 2009	B

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	ANNEX 4 Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Kuwait	Dec, 2007 Dec, 2008	B
2	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003	Work in progress	H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Kuwait	Dec, 2007 Dec, 2009	U

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIS/MAP field

LEBANON

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
1	ANNEX 4 Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Lebanon	Dec, 2007	B
2	ANNEX 15:Para. 3.2	-	Implementation of a Quality System	Jan, 2003	F H	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Lebanon	Dec, 2007	U
3	ANNEX 15:Para. 3.7.2.4	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	F H	ICAO to follow up with State to determine what action is needed to achieve implementation.	Lebanon	Dec, 2007	A

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIS/MAP field

OMAN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	ANNEX 15:Para. 3.2	-	Implementation of a Quality System	Jan, 2003		H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Oman	Dec, 2007	U
2	ANNEX 15:Para 6.	-	Lack of implementation of AIRAC System	Mar, 2004	ICAO to follow up with State	H O	Need to fully comply with the AIRAC procedure	Oman	Dec, 2007	U
3	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Jul, 2005		F H	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Oman	Jun, 2008	A
4	Doc 8126: Para. 3.2.2 & 3.3	-	Lack of adequate resources and efficient working arrangements	Jul, 2005		F H	Need to provide AIS (including AIS Briefing Offices) with adequate resources and efficient working arrangements	Oman	Jun, 2008	A
5	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Jul, 2005		F H	AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	Oman	Jun, 2008	A
6	ANNEX 15: Para 4.2.9 & 4.3.7	-	Lack of regular and effective updating of the AIP	Feb, 2008		F H O	Need to update the AIP on a regular basis	Oman	Dec, 2008	U

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
7	Doc 8126: Para. 5.10.3 & 6.1.3	-	Lack of follow up on the validity of NOTAMs	Feb, 2008	F H O	Need to comply with Doc 8126 provisions related to the maximum period of validity of a NOTAM	Oman	Dec, 2008	B
8	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	Feb, 2008	F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Oman	Dec, 2009	B

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

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIS/MAP field

QATAR

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
1	ANNEX 4: Para. 13.2	-	Non-production of Aerodrome/Heliport Chart - ICAO	May, 1995		H O	Need to produce Aerodrome/Heliport Chart - ICAO for all Int'l Aerodromes	Qatar	Dec, 2007 Dec, 2008	A
2	ANNEX 15:Para. 3.2	-	Implementation of a Quality System	Jan, 2003		H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Qatar	Dec, 2007 Dec, 2009	U
3	ANNEX 15:Para. 3.7.2.4	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	ICAO to follow up with State to determine what action is needed to achieve implementation.	H	Need to implement geoid undulation referenced to the WGS-84 ellipsoid.	Qatar	Dec, 2007 Dec, 2009	A
4	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004		H O	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Qatar	Dec, 2007	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Saudi Arabia	Dec, 2007 Jun, 2009	B
2	ANNEX 4: Para. 7.2	-	Non-production of the Enroute Chart-ICAO	May, 1995		F O	Need to produce the Enroute Chart-ICAO	Saudi Arabia	Jun, 2007 Jun, 2009	A
3	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		H O	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Saudi Arabia	Mar, 2008 Jun, 2009	U
4	ANNEX 15: Para. 3.7.2.4	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	ICAO to follow up with State to determine what action is needed to achieve implementation.	H	Need to implement geoid undulation referenced to the WGS-84 ellipsoid.	Saudi Arabia	Mar, 2007 Dec, 2009	A
5	ANNEX 4: Para. 3.2	-	Non-production of Aerodrome Obstacle Chart-ICAO Type A	Mar, 2004	For some RWYs in Saudi Arabia, the Aerodrome Obstacle Chart-ICAO Type A has not been produced	F H O	Need to produce Aerodrome Obstacle Chart-ICAO Type A for all Int'l Airports RWYs, except if a notification to this effect is published in the AIP (if no significant obstacles exist)	Saudi Arabia	Jun, 2007 Mar, 2009	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
6	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Nov, 2007		⊖ AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	Saudi Arabia	Mar, 2008	A
7	ANNEX 15: Para. 8.1	-	AIS Aerodrome Units not established at International Airports and pre-flight information service not provided	Nov, 2007		○ Need to provide a pre-flight information service at all aerodromes used for international air operations.	Saudi Arabia	Dec, 2010	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System	May, 1995	ICAO to follow up with State	F H	Need to fully comply with the AIRAC procedure	Syria	Jun, 2007 Dec, 2009	U
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Syria	Dec, 2007 Dec, 2009	B
3	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		F H	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Syria	Jun, 2008 Sep, 2010	U
4	ANNEX 15: Para. 3.7.2.4	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	ICAO to follow up with States to determine what action is needed to achieve implementation.	F H	Need to implement geoid undulation referenced to the WGS-84 ellipsoid.	Syria	Jun, 2008 Aug, 2010	A
5	ANNEX 15: Para 4.2.9 & 4.3.7	-	Lack of regular and effective updating of the AIP	Jul, 2005	ICAO to follow up with State	F H O	Need to update the AIP on a regular basis	Syria	Dec, 2007 Aug, 2009	U
6	ANNEX 15 Para. 3.1.1.2, 3.1.5, 3.1.6 & 4.1	-	Lack of consistency between the different Sections of the AIP containing the same information.	Jul, 2005		H	Need to review the AIP for consistency	Syria	Dec, 2007 Aug, 2009	U

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
7	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Jul, 2005		F H	AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	Syria	Dec, 2007 Sep, 2009	A
8	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Jul, 2005		F H	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Syria	Dec, 2007 Jun, 2009	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Mar, 2007		O AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	UAE	Jun, 2008 Dec, 2008	A
2	ANNEX 15: Para. 3.2	-	The scope and objectives of the quality system implemented do not fully address the requirements of ICAO Annex 15	Jun, 2007		a properly organized quality system for AIS, which provides users with the necessary assurance and confidence that distributed aeronautical information/data satisfy stated requirements for data quality and for data traceability by the use of appropriate procedures in every stage of data production or data modification process, from survey/origin to distribution to the next intended user, should be implemented.	UAE	Dec, 2008	U

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIS/MAP field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Description	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System	May, 1995	ICAO to follow up with State	H O	Need to fully comply with the AIRAC procedure	Yemen	Jun, 2007	U
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995		F H S	Need to produce the assigned sheets of the World Aeronautical Chart – ICAO 1:1 000 000	Yemen	Dec, 2007	B
3	ANNEX 4: Para. 7.2	-	Non-production of the Enroute Chart-ICAO	May, 1995		F H	Need to produce the Enroute Chart-ICAO	Yemen	Jun, 2007	A
4	ANNEX 15: Para. 3.2	-	Implementation of a Quality System	Jan, 2003		F H	Need to introduce a properly organized quality system in conformity with ISO 9000 series of quality assurance standards.	Yemen	Dec, 2007	U
5	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO	Jan, 2003	Yemen has produced the Instrument Approach Chart-ICAO except for TAIZ Intl Airport	O	Need to produce Instrument Approach Chart-ICAO for all Int'l Aerodromes	Yemen	Jun, 2007	A
6	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004		F H	Need to provide a pre-flight information service at all aerodromes used for international air operations.	Yemen	Jun, 2007	A

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination	Description	Executing body	Date of completion	Priority for action	
7	ANNEX 15: Para. 3.6.5	-	Lack of AIS automation	Jul, 2005		F H	AIS automation should be introduced with the objective of improving the speed, accuracy, efficiency and cost-effectiveness of aeronautical information services	Yemen	Jun, 2007	A

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

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

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

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

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

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

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

Definition:

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

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

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

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REPORT ON AGENDA ITEM 12: MID REGION STRATEGY FOR THE IMPLEMENTATION OF GPIS

12.1 The meeting was apprised on development of the ICAO Air Navigation Planning process. That the ICAO planning objective is to achieve a performance based global air traffic management (ATM) system through the implementation of air navigation systems and procedures in a progressive, cost-effective and cooperative manner. The Regional planning and implementation process is the principal engine of ICAO's planning framework. It is here that the top-down approach comprising global guidance and regional harmonization measures converge with the bottom-up approach constituted by national planning by States.

12.2 The meeting recalled that the first meeting of the MIDANPIRG Steering Group (MSG/1 Dubai, UAE from 1 to 3 July 2008), proposed an update of MID Strategy for the Implementation of the GPIS in order to reflect the outcome of the 36th General Assembly and to concentrate on the incorporation of advanced aircraft navigation capabilities into the air navigation system infrastructure.

12.3 Accordingly, the MSG/1 agreed that the CNS/ATM/IC SG/4 meeting should work further on the MID Region strategy for the implementation of the GPIS and to present the same to MIDANPIRG/11 for its consideration and adoption.

12.4 In light of the above, the meeting recalled also that, in order to guide the PIRGs and States regarding the implementation of GPI's, the ALLPIRG/5 meeting developed Conclusion 5/2 as follows:

CONCLUSION 5/2: IMPLEMENTATION OF GLOBAL PLAN INITIATIVES (GPIS)

That, recognizing that the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure, the regional planning groups:

- a) note that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, it provides an effective architecture for achieving a harmonized and seamless Global ATM system;*
- b) identify GPIS that most closely align with the well established implementation plans of their respective regions;*
- c) select GPIS that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished;*
- d) implement GPIS that take into account the Initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;*
- e) utilize the planning tools as the common planning and implementation mechanism, thereby ensuring proper coordination and global integration; and*

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- f) *review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs using a common template.*

12.5 The meeting noted that, the PBN/GNSS TF/1 meeting 20-23 October 2008 considered the latest developments regarding the transition to performance based approach to planning, and based on the Draft *MID PBN Implementation Regional Plan* which was formulated by the Task Force, developed the first draft of its performance objectives, and agreed that the remaining performance objectives should be drafted by the Secretariat for consideration by the PBN/GNSS TF/2 meeting. Among others, the Task Force considered the following material on which it based its performance framework.

TRANSITION TO A PERFORMANCE BASED APPROACH

12.6 *Basis:* The notion of a performance based air navigation system emanated from good industry practices that have emerged over many years. As the aviation industry has evolved into a less regulated and more corporatized environment with greater accountabilities, the advantages of transitioning from systems based to performance-based planning are apparent.

12.7 *Principles:* The performance-based approach (PBA) adheres to the following principles: strong focus on results through adoption of performance objectives and targets; collaborative decision making driven by the results; and reliance on facts and data for decision making. Assessment of achievements is periodically checked through a performance review, which in turn requires adequate performance measurement and data collection capabilities.

12.8 *Advantages:* Result oriented, transparent and promotes accountability; shift from prescribing solutions to specifying desired performance; employs quantitative and qualitative methods; avoids a technology driven approach; helps decision makers to set priorities, makes the most appropriate trade-offs, and allows optimum resource allocation.

ICAO EFFORTS TOWARD IMPLEMENTATION OF A GLOBAL ATM SYSTEM

12.9 *Global guidance:* To facilitate the realization of a performance based Global ATM system, ICAO has made significant progress in the development of relevant guidance material. The intent of the guidance material is to promote a globally harmonized approach to transition planning and to ensure collaboration in developing air navigation systems and procedures. The documents are as follows:

- a) *Global Air Traffic Management Operational Concept (Doc 9854)* was endorsed by the ICAO Eleventh Air Navigation Conference in 2003; it provides the overall vision and direction for the civil aviation community;
- b) *The Air Traffic Management System Requirements (Doc 9882)* was developed in June 2007; it elaborates the overall vision into material specifying the functional evolution of ATM aimed at the manufacturing industry;

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- c) In an effort to assist planners in weighing outcomes and making appropriate decisions, *the Manual on Global Performance of the Air Navigation System (Doc 9883)* was developed in February 2008. This Doc consists of two parts: Part I is the foundation document addressing the basic performance management terminology and techniques that are the common denominator between all performance planning/management applications while Part II provides a broad overview of the tasks that need to be undertaken to adopt a performance based transition approach; and
- d) The *Global Air Navigation Plan (Doc 9750)*, revised in November 2006, assists States and regional planning groups in identifying the most appropriate operational improvements and supports implementation. It describes a strategy aimed at achieving near and medium term ATM benefits on the basis of available and foreseen aircraft capabilities and ATM infrastructure.

REGIONAL PLANNING

12.10 *Mechanism:* The Planning and Implementation Regional Groups (PIRGs) play a pivotal role in facilitating and monitoring the implementation of regional air navigation infrastructure. The meeting noted that the ICAO PIRGs are to adopt the methodology described herein for transition to a performance based Global ATM system.

12.11 *Process:* The Figure 1, the planning flow chart, shown in **Appendix 12A** to the Report on Agenda Item 12 (extracted from the Global Air Navigation Plan Doc 9750) in conjunction with figure 2, transition approach, shown in **Appendix 12B** the Report on Agenda Item 12 (extracted from Part II of the Global Performance Manual Doc 9883), provide a broad overview of the tasks that need to be undertaken by the PIRGs.

12.12 *Performance framework form:* The outcome of the above process would result in an output and management form that has been designated as “Performance Framework Form (PFF)”. The PFF has been standardized for application to both the regional and the national planning framework. The common template facilitates ease of understanding and harmonization. The explanatory notes provided in **Appendix 12C** to Report on Agenda Item 12, serve as guide for completing the PFF. A sample of the PFF has been used to develop the draft MID ATM Work Programme including performance objectives as at **Appendix 12D** the Report on Agenda Item 12.

12.13 *Monitoring and reporting:* PIRGs should identify the individual parties responsible for achieving the performance objectives and establish a monitoring mechanism. The responsibilities and timeframe should be clearly defined so that the involved parties are aware of their commitments throughout the planning process. Regional plans should include information on progress achieved and provide periodic reports to ICAO Headquarters.

12.14 The meeting recalled that, in accordance with the Global [Air Navigation] Plan, GPIs are described as a set of implementation methodologies derived from today’s operational environment and available guidance materials. Planning will be focused on specific performance objectives, supported by a set of GPIs, and States and regions should choose initiatives that meet their performance objectives, specific to the particular needs of a State, region, homogeneous ATM area or major traffic flow. Furthermore, as highlighted by ALLPIRG/5 Conclusion 5/2, identify GPIs that most closely align with the well established implementation plans of their respective regions.

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12.15 Accordingly, the 23 GPIs are designed to contribute to achieving the regional performance objectives and to support the logical progression of regional implementation work programmes.

NATIONAL PLANNING

12.16 *Process:* In terms of establishing the infrastructure for air navigation systems, States, in cooperation with the ATM community, have been developing their national plans in harmony with the regional plan by using relevant ICAO guidance material. States should evolve or develop national plans aligned with the regionally agreed performance objectives through the use of common template described in Appendix C. The tasks should include the necessary detailed actions so as to successfully achieve national performance objectives.

12.17 *Monitoring and reporting:* National plans should identify the individual parties responsible for achieving the performance objectives as well as a means for monitoring the progress. The responsibilities and timeframe should be clearly defined so that the involved parties are aware of their commitments throughout the planning process. National plans should include information on progress achieved and provide periodic reports to PIRGs.

CONCLUSION

12.18 *Evolutionary approach:* A global ATM system will emerge through the implementation of many initiatives over several years on an evolutionary basis. The set of initiatives contained in the Global Plan are meant to facilitate and harmonize the work already underway within the Regions and States so as to bring needed benefits to aircraft operators over the near and medium terms. ICAO will continue to develop newer initiatives on the basis of the ATM operational concept, which will subsequently be placed in the Global Plan. At first, the planning and implementation activities begin with application of available procedures, processes and capabilities. The evolution progresses to the application of emerging procedures, processes and capabilities and, ultimately, migrates to the ATM system based on the operational concept.

12.19 Based on the above, the meeting agreed that in reviewing the MID Strategy for implementation of GPIs pursuant to outcome of the MSG/1, the CNS/ATM IC SG/4 consider the work already carried out by the ATM/SAR/AIS SG/10 (in addition to the work of the PBN/GNSS TF/1) related to the performance framework as contained in the PFF. In this context, the meeting noted that, other than the field of ATM, the planning framework as supported by the GPIs is also applicable to other air navigation fields (AGA, AIS, CNS, SAR).

12.20 Considering the need to have a clearly defined strategy to implement ATM systems as well as the need to align work programmes of the States, Regions and ICAO Headquarters, the meeting agreed on the following Draft Conclusions:

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DRAFT CONCLUSION 10/47:**REGIONAL PERFORMANCE FRAMEWORK**

That,

- a) a regional performance framework be adopted on the basis of and alignment with the Global Air Navigation Plan, the Global ATM Operational Concept, and ICAO guidance material and planning tools. The performance framework should include the identification of regional performance objectives and completion of regional performance framework forms; and*
- b) the CNS/ATM IC SG be requested to take into consideration the ATM Performance Framework in reviewing the MID Strategy for implementation of GPIs.*

DRAFT CONCLUSION 10/48:**NATIONAL PERFORMANCE FRAMEWORK**

That, MID States be invited to adopt a national performance framework on the basis of ICAO guidance material and ensure their alignment with the regional performance objectives, the regional air navigation plan and the Global ATM Operational Concept. The performance framework should include identification of national performance objectives and completion of national performance framework forms.

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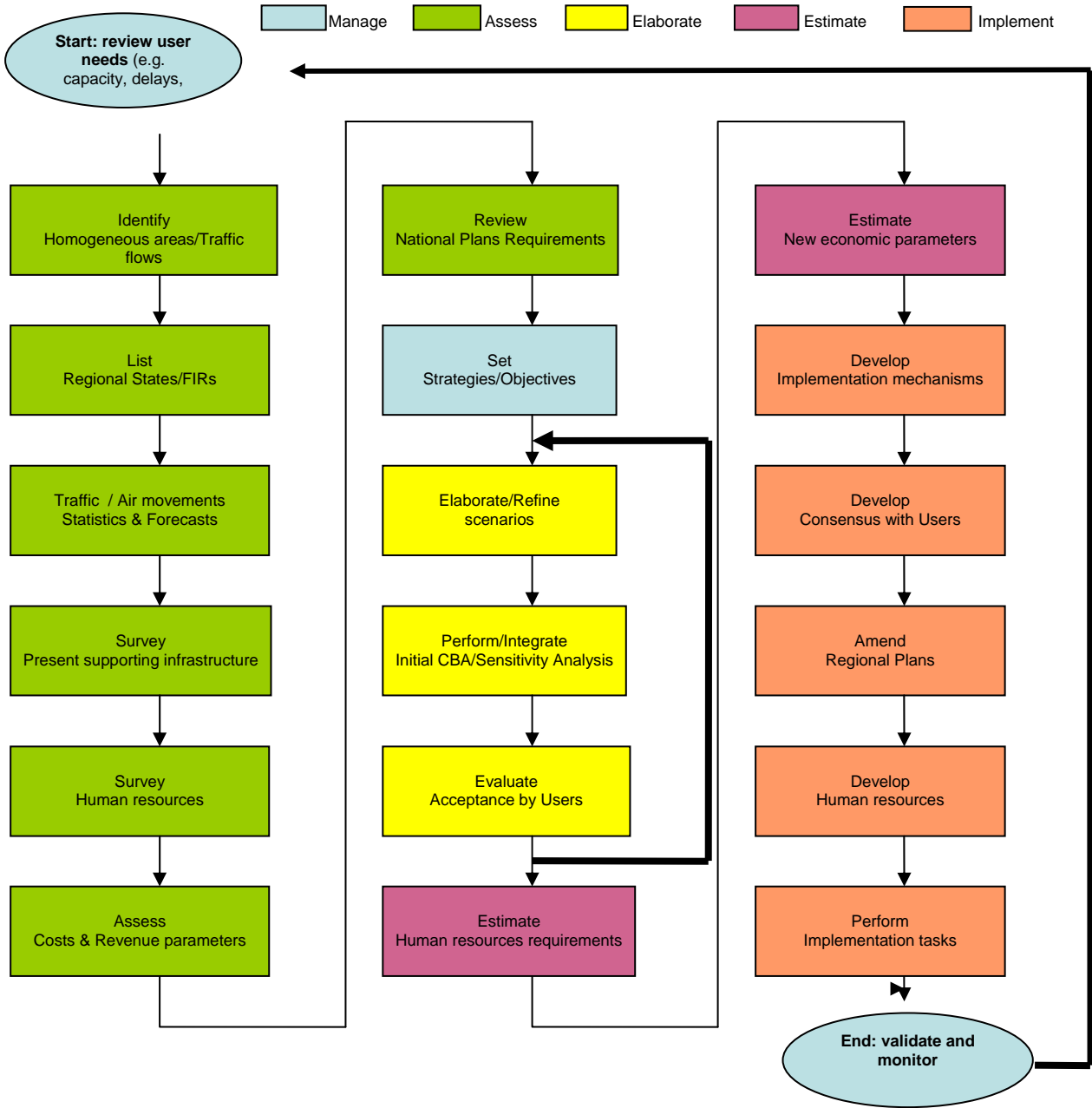


Figure 1. Planning flow chart

Extracted from Global Air Navigation Plan -Doc 9750, Chapter 1

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Appendix 12B to the Report on Agenda Item 12

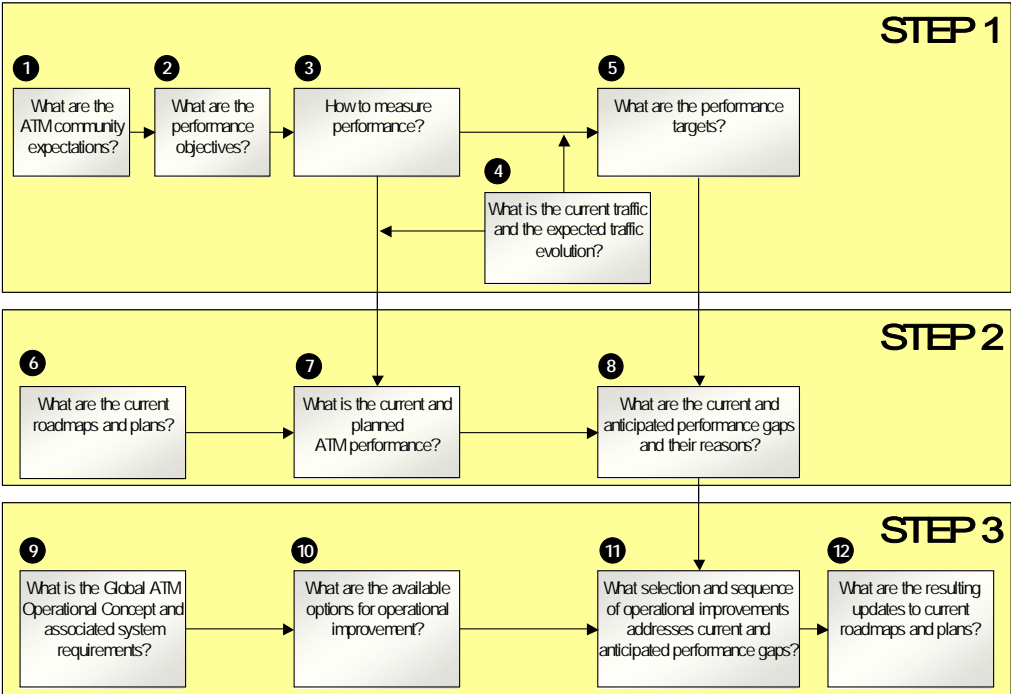


Figure 2 – Performance-based transition approach

Extracted from Part II of the
Manual on Global Performance of the Air Navigation System-Doc 9883

PERFORMANCE FRAMEWORK FORM - EXPLANATORY NOTES

1. **Performance framework form:** This form is an output and management form which is applicable to both regional and national planning and includes references to the Global Plan. Other formats may be appropriate but should contain as a minimum the elements described below.
2. **Performance objective:** Regional /national performance objectives should be developed using a performance based approach that best reflects the necessary activities needed to support regional/national ATM systems. During their life cycle, performance objectives may change depending on the ATM system's evolution; therefore, throughout the implementation process, these should be coordinated with and be available to all interested parties within the ATM Community. The establishment of collaborative decision making processes ensures that all stakeholders are involved in and concur with the requirements, tasks and timelines.
3. **Regional performance objective:** Regional performance objectives are the improvements required to the air navigation system in support of the global performance objectives, and are related to the operating environments and priorities applicable at the regional level.
4. **National performance objective:** National performance objectives are the improvements required to the air navigation system in support of the regional performance objectives, and are related to the operating environments and priorities applicable at the State level.
5. **Benefits:** The regional/national performance objectives should meet the expectations of the ATM community as described in the operational concept and should lead to benefits for stakeholders and be achieved through operational and technical activities aligned with each performance objective.
6. **Strategy:** ATM evolution requires a clearly defined progressive strategy including tasks and activities which best represent the national and regional planning processes in accordance with the global planning framework. The goal is to achieve a harmonized implementation process evolving toward a seamless global ATM system. For this reason, it is necessary to develop short (1 to 5 years) and medium term (6 to 10 years) work programmes, focusing on improvements to the system indicating a clear work commitment for the parties involved.
7. **ATM operational concept components;** Each strategy or set of tasks should be linked with associated components of the ATM operational concept. The designators for ATM components are as follows:
 - AOM – Airspace organization and management
 - DCB – Demand and capacity management
 - AO – Aerodrome operations
 - TS – Traffic synchronization
 - CM – Conflict management
 - AUO – Airspace user operations
 - ATM SDM – ATM service delivery management

8. Tasks: The regional/ national work programmes, using this PFF templates, should define tasks in order to achieve the said performance objective and at the same time maintain a direct relation with ATM system components. The following principles should be considered when developing work programme:

- The work should be organized using project management techniques and performance-based objectives in alignment with the strategic objectives of ICAO.
- All tasks involved in meeting the performance objectives should be developed using strategies, concepts, action plans and roadmaps which can be shared among parties with the fundamental objective of achieving seamlessness through interoperability and harmonization.
- The planning of tasks should include optimizing human resources as well as encouraging dynamic use of electronic communication between parties such as the Internet, videoconferences, teleconferences, e-mail, telephone and facsimile. Additionally, resources should be efficiently used, avoiding any duplication or unnecessary work.
- The work process and methods should ensure that performance objectives can be measured against timelines and the national and regional progress achieved can be easily reported to PIRGs and ICAO Headquarters respectively.

9. Timeframe: Indicates start and end time period of that particular task(s).

10. Responsibility: Indicates the organization/entity/person accountable for the execution or management of the related tasks.

11. Status: The status is mainly focused on monitoring the progress of the implementation of that task(s) as it progresses toward the completion date.

12. Linkage to global plan initiatives(GPIs): The 23 GPIs, as described in the Global Plan, provide a global strategic framework for planning for air navigation systems and are designed to contribute to achieving the regional/national performance objectives. Each performance objective should be mapped to the corresponding GPIs. The goal is to ensure that the evolutionary work process at the State and regional levels will be integrated into the global planning framework.

Performance Framework Form

- Performance objective:
- Regional performance objective:
- National performance objective:
- Benefits:
- Strategy:
- ATM operational concept components;
- Tasks:
- Timeframe:
- Responsibility:
- Status:
- Linkage to global plan initiatives (GPIs):

REGIONAL PERFORMANCE OBJECTIVES /NATIONAL PERFORMANCE OBJECTIVES — OPTIMIZE THE ATS ROUTE STRUCTURE IN EN-ROUTE AIRSPACE				
Benefits				
Environment: Efficiency		<ul style="list-style-type: none"> •reductions in fuel consumption; •ability of aircraft to conduct flight more closely to preferred trajectories; •increase in airspace capacity; •facilitate utilization of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency. 		
Strategy Short term (2010) Medium term (2011 - 2015)				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AOM	En-route airspace <ul style="list-style-type: none"> • analyze the en-route ATS route structure and implement all identifiable improvements; • implement all remaining regional requirements (e.g. RNP 10 routes); and • finalize implementation of WGS-84 • monitor implementation progress • develop a strategy and work programme to design and implement a trunk route network, connecting major city pairs in the upper airspace and for transit to/from aerodromes, on the basis of PBN and, in particular, RNAV/5, taking into account interregional harmonization; • monitor implementation progress 	2005-2008		
linkage to GPIs	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures.			

ATM/SAR/AIS SG/10
Appendix 12D to the Report on Agenda Item 12

SEAMLESS ATM SYSTEM

MID ATM WORK PROGRAMME

REGIONAL PLANNING PROCESS

The regional planning process shall be conducted in accordance with the global plan initiatives (GPIs) of the Global Plan (Doc 9750) and the ICAO vision for an integrated ATM system, harmonized and interoperable, as established in the Global ATM Operational Concept (Doc 9854).

The objective is to achieve the maximum level of inter-operability and harmonization among sub-systems for a seamless and interoperable regional ATM system for all users during all phases of flight, complying with agreed levels of safety, providing optimum economic operations, to be environmentally sustainable and to fulfil national aviation security requirements.

The planning should be developed based on clearly defined performance objectives. The planning horizon should be focused on the strategies of development, activities or main tasks for two periods – that of less than 5 years (short-term) and 6 to 10 years (medium-term). Some already identified tasks to be analyzed beyond this period may be included if they conform to ICAO ATM requirements.

ATM PERFORMANCE OBJECTIVES

The performance objectives for regional ATM work programmes should be developed with performance based approach that best reflects the necessary activities needed to support regional ATM system implementation.

During its life cycle, the performance objectives may change in a dynamic manner depending on the ATM system's evolution; therefore, these should be coordinated with and available to all interested parties within the ATM Community in order to achieve timely communication throughout the implementation process. The establishment of collaborative decision making processes (CDM) ensures that all stakeholders are involved in and concur with the requirements, tasks and timelines.

The following sections describe aspects pertaining to the performance objectives and required changes, and how these changes foster harmonized improvements throughout the regional ATM system.

Benefits

The ATM implementation strategies should provide a group of common benefits for all stakeholders and be achieved through the operational and technical activities planned in each performance objective. These benefits should be in accordance with the ICAO strategic objectives.

Identification of work

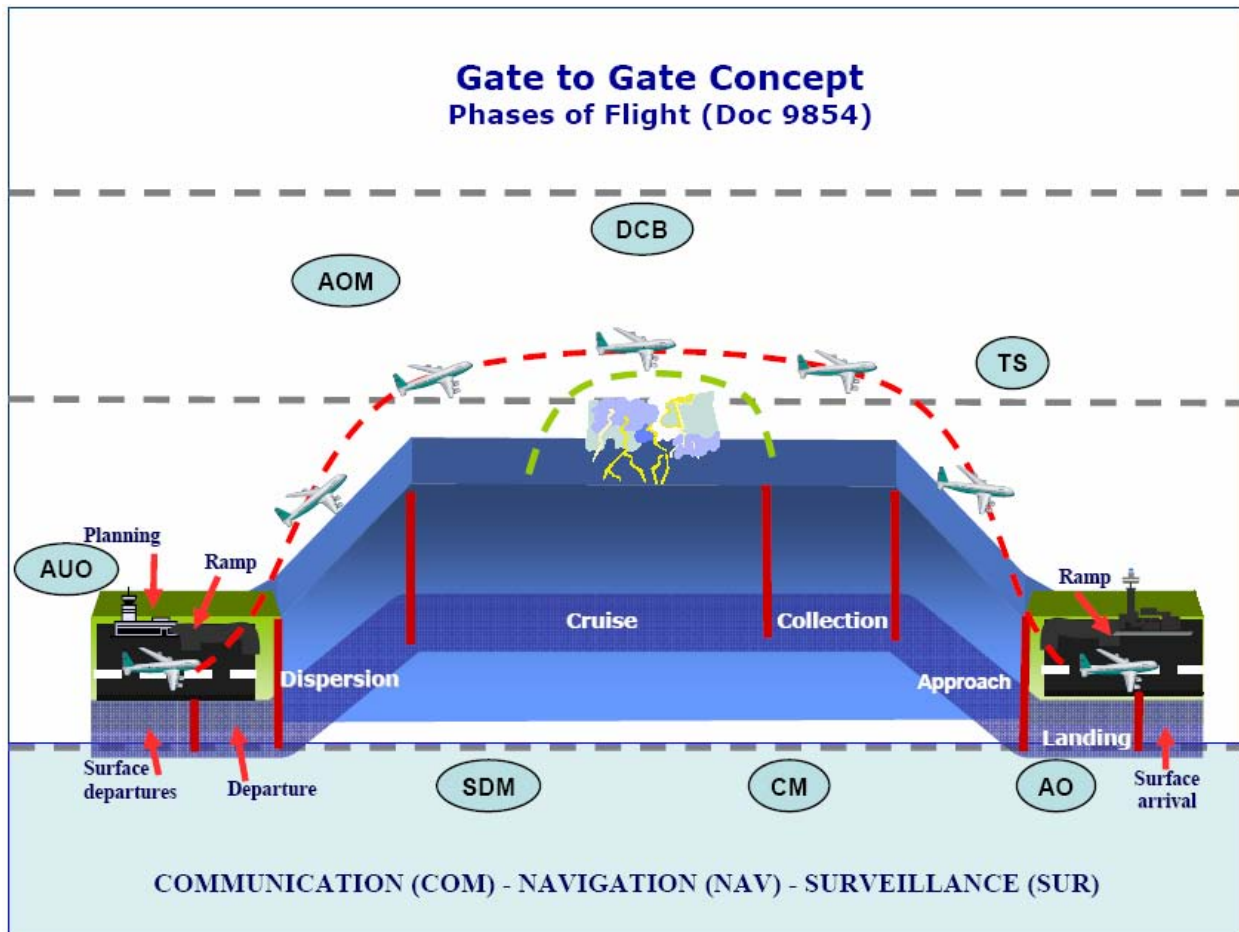
Each strategy or set of activities should be identified with associated components of the ATM system when describing the tasks. According to the Doc 9854, the designators for ATM components are as follows:

- **AOM** — Airspace organization and management
- **DCB** — Demand and capacity balancing
- **AO** — Aerodrome operations
- **TS** — Traffic synchronization
- **CM** — Conflict management
- **AUO** — Airspace user operations
- **ATM SDM** — ATM service delivery management

Each ATM system component pertains to tasks and activities related to phases of air operations (en-route, terminal and airport), capacity management, airspace management including its flexible use and aeronautical information management.

The infrastructure includes the ground technical systems and capacity required to support operations such as communications, navigation and surveillance, data processing, inter-operability of systems, information management system and spectrum management, including both civil and military systems.

The following diagram shows the ATM components in relation to the phases of flight:



Work Programmes

ATM evolution requires a clearly defined progressive strategy including tasks and activities which best represent the regional and national planning processes in accordance with the global planning framework. The goal is to obtain a harmonized regional implementation evolving toward a seamless global ATM system.

For this reason, it is necessary to develop short and medium term work programmes, focusing on the necessary changes to the system in which a clear work commitment will be carried out by the parties involved.

The regional work programmes should define additional tasks and activities, maintaining a direct relation with ATM system components such as airspace organization, civil-military coordination, human factors, aeronautical regulations, operational safety systems management and environmental protection, among others.

The referenced framework for regional activities should also include the coordination of activities with military authorities who play an important role in helping to ensure that the best use is made of the available airspace resources by all airspace users while still safeguarding national security.

The following principles should be considered when developing work programmes:

- The work should be organized using project management techniques and performance-based objectives in alignment with the strategic objectives of ICAO. The work programmes should be in accordance with the progress, characteristics and regional implementation needs.
- All activities involved in accomplishing the performance objectives should be designed following strategies, concepts, action plans and roadmaps which can be shared among States to align the regional work with the fundamental objective of achieving interoperability and seamlessness to the highest level.
- The planning of activities should include optimizing human resources, as well as encouraging dynamic use of electronic communication between States such as the Internet, videoconferences, teleconferences, e-mail, telephone and facsimile. Additionally, it should be ensured that resources will be efficiently used, avoiding any duplication or unnecessary work.
- The new work process and methods should ensure that performance objectives can be measured against timelines and the regional progress achieved can be easily reported to the Air Navigation Commission and to the ICAO Council.

Status

The status is mainly focused on monitoring the progress of the implementation activity as it progresses toward a specific completion date. The status of the activity is defined as follows:

- **Valid** the feasibility and benefits of an activity has been confirmed, work has been initiated but the activity itself has not been finalized.
- **Completed** implementation of the activity has been finalized by the involved parties.
- **Tentative** the feasibility and benefits of an activity is being investigated or developed.

A tentative status indicates a potential activity; normally this activity will not be included in the regional planning documents unless it is an ICAO defined requirement.

Relationship between Performance Objectives and Global Plan Initiatives

The 23 GPIs provide a global strategic framework and are designed to contribute to achieving the regional performance objectives and to support the logical progression of regional implementation work programmes.

Each performance objective should be referenced to the pertinent GPIs. The goal is to ensure that the evolutionary work process will be integrated into the global planning framework.

NATIONAL ACTION PLANS

States shall develop their own national action plans reflecting the specific activities or tasks along with the expected benefits to be obtained and the date by which each one should be completed according to its own needs and based on the regionally-agreed performance objectives. States should submit their national action plans to the ICAO regional Offices so they may report regional achievements to the Council of ICAO.

The activities should include the necessary detailed actions to successfully achieve the national performance objectives, relating these activities with the short and medium term regionally-agreed performance objectives.

National plans should identify the individual parties responsible for achieving the objectives as well as a means for monitoring and eventually reporting progress on the actions to ICAO. The responsibilities and time-tables should be clearly defined so that the involved parties are aware of their commitments throughout the planning process.

Additionally, national action plans should include adequate means to provide information on implementation progress achieved such as through a periodic reporting process. This facilitates senior management levels' efforts to prioritize the actions and resources required. The same information provided to ICAO will allow feedback and assistance to be provided specific for each Region as they work to achieve a Global ATM system.

ATM PERFORMANCE OBJECTIVES

OPTIMIZATION OF THE ATS ROUTE STRUCTURE EN-ROUTE AIRSPACE				
<i>Benefits</i>				
Environment Efficiency	<ul style="list-style-type: none"> ▪ reductions in fuel consumption; ▪ ability of aircraft to conduct flight more closely to preferred trajectories; ▪ increase in airspace capacity; ▪ facilitate utilization of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency. 			
Performance Matrixes:	<ul style="list-style-type: none"> i. PBN routes implemented ii. Routes structure actual distance to required distance iii. CO₂ reduction of new routes 			
<i>Short-term Strategy(2008-2012)</i>				
TASK	DESCRIPTION	START-END	RESPONSIBILITY	STATUS
AOM	<i>En-route airspace</i>			
	Develop regional strategic plan	2008-2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008-2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009-2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN implementation plan, in order to design and implement a trunk route network, connecting major city pairs in the upper airspace and for transit to/from aerodromes, on the basis of PBN and, in particular, RNAV/5, taking into account interregional harmonization	2009-2010	ATM/SAR/AIS (ARN TF)	ARN TF/2 to start work
	Develop State PBN implementation plans	2008-2009	MIDANPIRG/12 (ATM/SAR/AIS, States)	States preparing plans
	Standards and Procedures	2008-2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009	ATM/SAR/AIS SG (MID RMA)	MID RMA to start work
	Establish collaborative decision making (CDM) process	2008-2010	MIDANPIRG/12 (ATM/SAR/AIS SG, CNS SG)	
	ATC Automated Systems	2009-2012	States	

	Publish national regulations for aircraft and operators approval using PBN manual as guidance material	2008-2010	States	Review and adapt available foreign approval guidance material
	Training	2008-2010	States	Identify training needs and develop corresponding guidelines
	System performance measurement	2010-2012	ATM/SAR/AIS SG (ARN TF)	ARN TF/2 to start work
	Implement the designed ATS route network	2009-2012	MIDANPIRG/12 (ATM/SAR/AIS) STATES	
	monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2008-2012	MIDANPIRG/12 (ATM/SAR/AIS) SG, CNS SG)	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/20: WGS-84			

OPTIMIZATION OF THE ATS ROUTE STRUCTURE IN TERMINAL AIRSPACE				
<i>Benefits</i>				
Environment Efficiency	<ul style="list-style-type: none"> ▪ reductions in fuel consumption; ▪ ability of aircraft to conduct flight more closely to preferred trajectories; ▪ increase in airspace capacity; ▪ facilitate utilization of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency. 			
<i>Strategy Short term (2008-2012)</i>				
TASK	DESCRIPTION	STAR T- END	RESPONSIBILITY	STATUS
AOM, AO	<i>In terminal airspace</i>			
	Develop regional strategic plan	2008-2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008-2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009-2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN implementation plan, in order to design and implement optimized standard instrument departures (SIDs), standard instrument arrivals (STARs), instrument flight procedures, holding, approach and associated procedures (particular RNAV 1 and Basic RNP1) in accordance with Regional Plan.	2009-2010	States	
	Develop State PBN implementation plans	2008-2009	MIDANPIRG/12 (ATM/SAR/AIS SG), States	States preparing plans
	Standards and Procedures	2008-2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009-2012	States	
	Establish collaborative decision making (CDM) process	2008-2010	MIDANPIRG/12 (ATM/SAR/AIS SG, CNS SG)	

	Publish national regulations for aircraft and operators approval using PBN manual as guidance and considering available foreign approval material	2008-2010	States	Review and adapt available foreign approval guidance material
	ATC Automated Systems	2009-2012	States	
	Training	2008-2010	States	States to identify training needs and develop corresponding guidelines
	System performance measuring (measurement and monitoring plan)	2009-2012	States, ATM/SAR/AIS SG	States to start work
	Implement SIDs and STARs	2009-2012	States	
	Monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2009-2012	States, ATM/SAR/AIS SG	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: Functional integration of ground systems with airborne systems.			

IMPLEMENTATION OF VERTICALLY GUIDED RNP APPROACHES				
Benefits				
Efficiency	▪ Improvements in capacity and efficiency at aerodromes.			
Safety	▪ Improvements in safety at aerodromes.			
<i>Strategy Short term (2008-2012)</i>				
TASK	DESCRIPTION	STAR T- END	RESPONSIBILITY	STATUS
AOM, AO	<i>At airports</i>			
	Develop regional strategic plan	2008-2009	MIDANPIRG/11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional implementation plan	2008-2009	MIDANPIRG /11 (PBN /GNSS TF)	PBN/GNSS TF/1 agreed on Draft for presentation at ATM/SAR/AIS SG/10
	Develop regional action plan	2009-2010	MIDANPIRG /12 (PBN /GNSS TF)	Need identified by PBN/GNSS TF/1. Small WG to be formed to draft action plan.
	Develop Airspace Concept based on the MID PBN Implementation Plan, in order to design and implement RNP APCH with Baro-VNAV in most possible airports; RNP AR APCH at airports where there are obvious operations airports.	2009-2012	States	
	Develop State PBN implementation plans	2008-2009	MIDANPIRG/12 (ATM/SAR/AIS SG), States	States preparing plans
	Standards and Procedures	2012-2010	States	Ongoing
	Formulate safety plan (assessment and monitoring)	2009-2012	States	
	Establish collaborative decision making (CDM) process	2008-2012	States	
	Publish national regulations for aircraft and operators approval using PBN manual as guidance and considering available foreign approval material	2008-2010	States	Review and adapt available foreign approval guidance material
	Training	2008-2010	States	States to identify training needs and develop corresponding guidelines

	System performance measuring (measurement and monitoring plan)	2009-2012	States, ATM/SAR/AIS SG	States to start work
	Implement APV procedures	2009-2012	States	
	Monitor implementation progress in accordance with MID PBN implementation roadmap and States implementation plan	2009-2012	States, ATM/SAR/AIS SG	
References	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures.			

ENHANCE CIVIL/MILITARY COORDINATION AND CO-OPERATION				
Benefits				
Efficiency				
<ul style="list-style-type: none"> ▪ increase airspace capacity; and ▪ allow a more efficient ATS route structure 				
Continuity:				
<ul style="list-style-type: none"> ▪ ensure safe and efficient action in the event of unlawful interference; ▪ make available military restricted airspace more hours of the day so that aircraft can fly on their preferred trajectories; and ▪ improve search and rescue services. 				
<i>Strategy (2008-2012)</i>				
TASK	DESCRIPTION	START- END	RESPONSIBILITY	STATUS
AOM, AUO	<i>En-route and terminal airspace</i>			
	<ul style="list-style-type: none"> ▪ conduct a regional review of special use airspace; 	2009-2009	MIDANPIRG/12 (ATM/SAR/AIS SG), States	
	<ul style="list-style-type: none"> ▪ develop Regional guidance material on civil/military coordination and co-operation to be used by States to develop national policies, regulations and procedures to achieve optimum use of the airspace by all its users, civil or military; 	2009-2010	ATM/SAR/AIS SG	
	<ul style="list-style-type: none"> ▪ establish civil/military coordination bodies at national level; 	2008-2009	States	
	<ul style="list-style-type: none"> ▪ arrange for permanent liaison and close cooperation between civil ATS units and appropriate air defence units; 	2009-	States	
	<ul style="list-style-type: none"> ▪ Implement collaborative civil/military airspace planning at national level 	2009-	States	
	<ul style="list-style-type: none"> ▪ Increase role of civil/military coordination forums 		States, MIDANPIRG	
	<ul style="list-style-type: none"> ▪ develop a regional strategy and work programme for implementation of flexible use of airspace in a phased approach beginning with more dynamic sharing of restricted airspace while working towards full integration of civil and military aviation activities; 	2009-2010	MIDANPIRG/12 (ATM/SAR/AIS SG), States	
	<ul style="list-style-type: none"> ▪ Implement FUA 	2008-	States	
	<ul style="list-style-type: none"> ▪ monitor implementation progress 	2008-	ATM/SAR/AIS SG	
GPI References	GPI/1: flexible use of airspace, GPI/5: performance-based navigation.			

ALIGN UPPER AIRSPACE CLASSIFICATION				
Benefits				
Efficiency				
<ul style="list-style-type: none"> ▪ enhanced airspace capacity ▪ enhanced airspace management coordination, message exchange capabilities and utilization of flexible and dynamic airspace management techniques; ▪ harmonization of interregional coordination processes; 				
Continuity				
<ul style="list-style-type: none"> ▪ improvement of airspace interoperability and seamlessness; and ▪ improvement in ATM contingency planning and implementation 				
Safety				
<ul style="list-style-type: none"> ▪ provision of positive air traffic control services to all aircraft operations in the upper airspace 				
<i>Strategy (2008-2012)</i>				
TASK	DESCRIPTION	START- END	RESPONSIBILITY	STATUS
AOM	<ul style="list-style-type: none"> ▪ Develop a regional implementation strategy and work programme for the implementation of ICAO Annex 11 airspace Class A above FL 195. 	2009-2010		
	<ul style="list-style-type: none"> ▪ identify key stakeholders, air traffic controllers, pilots, and relevant international organisations for coordination and cooperation on changes for new airspace organization, using a CDM process; 			
	<ul style="list-style-type: none"> ▪ Coordinate changes for regional and national documents; • Doc 8733, CAR/SAM ANP, AIP, and ATS letters of agreement 			
	<ul style="list-style-type: none"> ▪ carry out improvements in ground systems to support new airspace organization configurations, as necessary; 			
	<ul style="list-style-type: none"> ▪ publish national regulatory material for implementation of new rules and procedures to reflect airspace organizational changes; 			
	<ul style="list-style-type: none"> ▪ train air traffic controllers, pilots and airspace users (civil and military), as required in new procedures,; 			
	<ul style="list-style-type: none"> ▪ monitor implementation progress. 			
GPI References	GPI/4: align upper airspace classification.			

COMPLETE IMPLEMENTATION OF RVSM OPERATIONS IN THE MID REGION				
Benefits				
Environment				
<ul style="list-style-type: none"> ▪ reduced fuel consumption and related reduction in emissions. 				
Efficiency				
<ul style="list-style-type: none"> ▪ increased airspace capacity; 				
<i>Strategy Near term (2008-2012)</i>				
TASK	DESCRIPTION	START- END	RESPONSIBILITY	STATUS
AOM	<ul style="list-style-type: none"> ▪ Review and foster implementation of RVSM requisite conditions in the Baghdad and Kabul FIRs 	2008-2009		
	<ul style="list-style-type: none"> ▪ Coordinate RVSM implementation/operations with adjacent regions. 			
	<ul style="list-style-type: none"> ▪ Implement RVSM in the remaining FIRs (Baghdad and Kabul) ▪ Monitor RVSM operations in the MID Region; 			
	<ul style="list-style-type: none"> ▪ Ensure MID RMA operations continuity; 			
GPI References	GPI/2: reduced vertical separation minima			

IMPROVE DEMAND AND CAPACITY BALANCING				
Benefits				
Environment				
<ul style="list-style-type: none"> ▪ reduction in weather- and traffic-induced holding, leading to reduced fuel consumption and emissions. 				
Efficiency				
<ul style="list-style-type: none"> ▪ improved traffic flows; ▪ improved predictability; ▪ improved management of excess demand for service in ATC sectors and aerodromes; ▪ improved operational efficiency; ▪ enhanced airport capacity; ▪ enhanced airspace capacity. 				
Safety				
<ul style="list-style-type: none"> ▪ improved safety management. 				
<i>Strategy Near term (2008-2012)</i>				
TASK	DESCRIPTION	START- END	RESPONSIBILITY	STATUS
DCB	<ul style="list-style-type: none"> ▪ identify key stakeholders (ATC service providers and users, military authorities, airport authorities, aircraft operators and relevant international organisations) for purposes of coordination and cooperation, using a CDM process; 			
	<ul style="list-style-type: none"> ▪ identify and analyse traffic flow problems and develop methods for improving efficiencies on a gradual basis, as needed, through enhancements in current: <ul style="list-style-type: none"> ○ airspace organization and management (AOM) and ATS routes structure and SID and STARS, ○ CNS systems, ○ aerodrome capacity, ○ ATS capacity, ○ training for controllers and pilots; and ○ ATS letters of agreement; 			
	<ul style="list-style-type: none"> ▪ define common elements of situational awareness between FMUs; <ul style="list-style-type: none"> ○ common traffic displays, ○ common weather displays (Internet), ○ communications (teleconferences, web, etc.), and ○ daily teleconference/messages methodology advisories; 			
	<ul style="list-style-type: none"> ▪ develop methods to establish demand/capacity forecasting; 			
	<ul style="list-style-type: none"> ▪ develop a regional strategy and work programme for harmonized implementation of ATFM service; and 			
	<ul style="list-style-type: none"> ▪ monitor implementation progress. 			
GPI References	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; GPI/15: match IMC and VMC operating capacity; and GPI/16: decision support and alerting systems.			

IMPROVE ATM SITUATIONAL AWARENESS				
Benefits				
Efficiency				
<ul style="list-style-type: none"> ▪ enhanced traffic surveillance; ▪ enhanced collaboration between flight crew and the ATM system; ▪ improved collaborative decision-making through sharing electronic aeronautical data information; ▪ reduced of workload for both pilots and controllers; ▪ improved operational efficiency; ▪ enhanced airspace capacity; ▪ improved implementation on a cost-effective basis; 				
Safety				
<ul style="list-style-type: none"> ▪ improved available electronic terrain and obstacle data in the cockpit; ▪ reduced of the number of controlled flight into terrain related accidents; and ▪ improved safety management. 				
<i>Strategy</i> <i>Near term (2008-2012)</i>				
TASK	DESCRIPTION	START- END	RESPONSIBILITY	STATUS
SDM	▪ identify parties concerned			
	▪ identify the automation level required according to the ATM service provided in airspace and international aerodromes, assessing <ul style="list-style-type: none"> ○ operational architecture design, ○ characteristics and attributes for interoperability, ○ data bases and software, and ○ technical requirements; 			
	▪ improve ATS inter-facility communication			
	▪ implement flight plan data processing system and electronic transmission tools			
	▪ implement radar data sharing programs where benefits can be obtained			
	▪ develop situational awareness training programmes for pilots and controllers			
	▪ implement ATM surveillance systems for situational traffic information and associated procedures			
	▪ implement ATS automated message exchanges, as required <ul style="list-style-type: none"> ○ FPL, CPL, CNL, DLA, etc. 			
	▪ implement automated radar handovers, where able;			
	▪ implement ground and air electronic warnings, as needed <ul style="list-style-type: none"> ○ Conflict prediction of Terrain proximity ○ MSAW ○ DAIW ○ surface movement surveillance systems 			
	▪ implement data link surveillance technologies and applications: ADS, CPDLC, AIDC, as required.			
▪ implement automated MET information systems for hazardous weather phenomena alerts including low-level wind shear and runway wake vortices				

<i>Medium term (2016)</i>				
	▪ implement additional/advanced automation support tools to increase sharing of aeronautical information			
	▪ implement surveillance tools to identify airspace sector constraint			
	▪ implement teleconferences with ATM stakeholders			
	▪ monitor implementation progress			
GPI References	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; and GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems; GPI/17: implementation of data link applications; GPI/18: aeronautical Information; GPI/19: meteorological systems.			

ATM/SAR/AIS SG/10
Report on Agenda Item 13

REPORT ON AGENDA ITEM 13: FUTURE WORK PROGRAMME

13.1 The meeting recalled that with a view to increase the efficiency of MIDANPIRG and considering the new regional planning methodologies precipitated by the Global Plan and ICAO Business Planning requirements, MIDANPIRG/10 endorsed a revised version of the MIDANPIRG Procedural Handbook, which includes, inter-alia, updated version of the MIDANPIRG Subsidiary Bodies Terms of Reference.

13.2 Taking into consideration the advanced status of implementation of RVSM in the MID Region and the global PBN Implementation established as per Assembly Resolution A36-23: *Performance based navigation global goals*, and considering the MSG/1 Draft Conclusion 1/3: *Discontinuation of the RVSM/PBN and GNSS Task Forces and Establishment of the PBN/GNSS Task Force*, the meeting reviewed and updated the TOR of the ATM/SAR/AIS Sub Group as at **Appendix 13A** to the Report on Agenda Item 13 and agreed to the following Draft Decision:

DRAFT DECISION 10/49: REVISED TOR OF THE ATM/SAR/AIS SUB-GROUP

*That, the Terms of Reference and Work Programme of the ATM/SAR/AIS Sub-Group be updated as at **Appendix 13A** to the Report on Agenda Item 13.*

13.3 The meeting recalled that during the MID RMA Board/7 meeting, Bahrain agreed in principle to host the MID RVSM Safety Assessment Seminar/Workshop and the ATM/SAR/AIS SG/11 from 8 to 12 November 2009. Taking into consideration the work programme of the Sub Group and its subsidiary bodies, and pending the confirmation from Bahrain, the Sub Group agreed that the ATM/SAR/AIS SG/11 meeting be tentatively scheduled to be held in Bahrain from 10 to 12 November 2009.

13.4 In accordance with the ICAO Business plan and the requirements for performance monitoring, the meeting developed a follow-up action plan as at **Appendix 13B** to the Report on Agenda Item 13.

**REVISED OF THE
AIR TRAFFIC MANAGEMENT/SEARCH AND RESCUE/
AERONAUTICAL INFORMATION SERVICES SUB-GROUP (ATM/SAR/AIS SG)**

1. TERMS OF REFERENCE

- a) Support a performance based transition to the ATM system envisaged in the Global ATM Operational Concept, in consideration of the regional performance objectives, supported by the Global Air Navigation Plan Initiatives (GPIs)
- b) Ensure that the planning and implementation of ATM systems in the region, is coherent and facilitates the objective of achieving seamlessness through interoperability and harmonization with other Regions.
- c) Keep under review the adequacy of requirements in the Air Traffic Management, Aeronautical Information Services and Search and Rescue fields, taking into account, *inter alia*, changes in user requirements, the evolution in operational requirements and technological developments.
- d) Identify, State by State, those specific deficiencies and problems that constitute major obstacles to the provision of efficient air traffic management, aeronautical information services and search and rescue services and recommend specific measures to eliminate them.

2. WORK PROGRAMME

- (1) Analyse the operational implications of the introduction of CNS/ATM systems in the fields of ATM, SAR and AIS/MAP and propose any required actions with a view to ensuring their smooth integration in the operational environment.
- (2) Consider problems and make specific recommendations relating to ATM interface issues with other regions.
- (3) Monitor achievements and progress in the implementation of RVSM in the region in light of acquired experience.
- (4) Follow-up on the MID RMA operation and monitoring activities and support the continued safe use of RVSM in the MID Region.
- (5) Taking into account human factors studies and available guidance material, make operational recommendations related to ATS and AIS personnel in the changing technological environment.
- (6) Review the MID code allocation and assignment system and, taking into consideration technological and operational advances, develop a proposal for an improved system.
- (7) Review, within the context of the Global Plan, specific ATM requirements for navigation.

- (8) Carry out an analysis of the ATS reported incidents and propose remedial actions as necessary.
- (9) Keep MIDANPIRG apprised of recurring incidents which may have a serious impact on the safety of air navigation in the region.
- (10) Review the requirements and monitor the status of implementation of Search and Rescue (SAR) services.
- (11) Promote and assist States in the development of SAR agreements.
- (12) Taking into considering the ATM performance objectives that have been agreed, develop detailed tasks, identify deliverables with deadlines and monitor implementation of the following:
 - (a) Performance based navigation
 - (b) Optimization of the ATS route structure – En-route
 - (c) Optimization of the ATS route structure – Terminal
 - (d) Implementation of Contingency plans
 - (e) Civil/Military coordination and coordination
 - (f) Situational awareness (surveillance)
 - (g) Completion of RVSM implementation and monitoring
 - (h) Transition to the new ICAO Model Flight Plan
 - (i) Implementation of Safety Management in ATS
 - (j) Transition from AIS to AIM
- (13) Review the requirements and monitor the status of implementation of AIS/MAP services.
- (14) Analyse, review and monitor deficiencies in the ATM/SAR and AIS/MAP fields.

3. COMPOSITION

3.1 The Sub-Group will compose of:

- a) MIDANPIRG Provider States; and
- b) concerned International and Regional Organizations as observers.

ATM/SAR/AIS SG/10
Appendix 13B to the Report on Agenda Item 13

DRAFT FOLLOW-UP ACTION PLAN

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Dec. 10/1	Terms of Reference of the MID ATS Route Network Task Force (ARN TF)	That, the Terms of Reference of MID Region ATS Route Network Task Force is revised as at Appendix 3A to the Report on Agenda Item 3.	<ul style="list-style-type: none"> - Development of routes - Convening of meetings 	ARNTF, ICAO	Task Force Reports	Ongoing
Draft Conc. 10/2	Amendment and editorial changes to the Regional ATS Route Network	<p>That, in order to maintain the integrity, objectives and benefits of the MID Basic Air Navigation Plan Table ATS-1 and related Charts, MID States are urged to:</p> <ul style="list-style-type: none"> a) adhere to established ICAO procedures for amendments and establishment of ATS routes that form part of the Regional ATS route network; b) inform ICAO when minor editorial changes in the Regional ATS routes are deemed necessary, before any such changes take effect; and c) submit to the MID Regional Office, descriptions of existing Regional ATS routes that are at variance with the MID Basic ANP Table ATS-1 in a format that will 	Implement Draft Conclusion	States	<ul style="list-style-type: none"> - State Letter - Amendment of the ANP in accordance with established procedures - Editorial updates from States - Comprehensive Table ATS 1 Amendment 	<p>Feb. 09</p> <p>Ongoing</p> <p>Ongoing</p> <p>June 09</p>

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		be detailed by a State Letter, including proposals for amendment of Table ATS-1 as applicable.				
Draft Conc. 10/3	MID ATS Route Catalogue	<p>That, in order to support the process of ATS route development in the MID Region, including the keeping of a record of ATS routes proposed for development, and to facilitate follow up on the actions pertaining to the routes' development:</p> <p>a) the MID ATS Route Catalogue is adopted as at Appendix 3D to the Report on Agenda Item 3; and</p> <p>b) MID States and concerned International Organizations are urged to periodically review the Catalogue, note developments and take action as applicable.</p>	<ul style="list-style-type: none"> - Implement the Resolution - Take action as indicated in catalogue 	States, ICAO International Organizations	<p>Development of route proposals</p> <p>Inputs from States and International Organizations</p>	Ongoing
Draft Conc. 10/4	Charting Tools to Support ATS Route Development	That, in order to facilitate the work of the MID ATS route development, ICAO consider the development of a charting tool to support the depiction and consideration of ATS route proposals contained in the MID ATS Route Catalogue, taking into consideration offers from States and International Organizations to assist as necessary.	Follow-up with ICAO HQ	ICAO HQ	Charting Tool	TBD

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/5	Air Traffic Flow Management Seminar (ATFM) Seminar	That, in order to facilitate the development of MID Region ATFM implementation strategy, the MID Regional Office make necessary arrangements to hold an ATFM Seminar in 2009.	Follow-up with MID Office	ICAO	ATFM Seminar	July 09
Draft Conc. 1/6	Membership of the MID RMA	That, a) Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, Yemen and UAE committed themselves to participate in the MID RMA project, through the signature of the Memorandum of Agreement (MOA); and b) taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, UAE is exempted from the payment of contributions to the MID RMA for the first ten (10) years of operation (up-to end of 2015).	Implement the Conclusion	MID RMA Board and ICAO	MID RMA Board Reports	Ongoing
Draft Conc. 1/7	Payment of Arrears to the MID RMA	That, a) Kuwait and Syria are urged to pay their contributions (arrears) to the MID RMA Project as soon as	Follow-up with concerned States	MID RMA Board Chairman and ICAO	Contributions paid	31 March 2009

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>possible and in any case before 31 March 2009;</p> <p>b) the deadline for the payment of contributions to the MID RMA Project for year 2009 is extended to 31 March 2009; and</p> <p>c) in case a State does not pay the contributions to the MID RMA within the agreed timescales, the MID RMA Board might consider:</p> <p>i) to review the membership of this State; and</p> <p>ii) to exclude this State from the MID RVSM SMR.</p>				
Draft Conc. 10/8	Radar Data Recording And Analysis Software	That, considering the importance of availability of radar data for the assessment of the horizontal overlap, the MID RMA, on behalf of MID RMA Member States and in coordination with, Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen, develop the technical specifications/requirements related to the radar data recording and analysis software and proceed with the purchase of such software as soon as possible.	Implement the Conclusion	MID RMA	Letters to concerned States Technical specifications of the software developed Software purchased	30 Nov 08 31 Jan 09 30 Apr 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/9	ICAO provisions related to the mandatory Reporting of data to the RMAs	That, taking into consideration the unsatisfactory level of reporting of data by States to the RMAs, ICAO consider to include provisions related to mandatory reporting of data (list of RVSM approved aircraft, Altitude Deviation Reports and Coordination Failure Reports) in Annex 6 and Annex 11, as appropriate.	Follow up with ICAO HQ	ICAO	- Appropriate provisions in Annexes 6 and 11	TBD
Draft Conc. 10/10	Sustained RVSM Safety Assessment Activity in the MID Region	<p>That, considering the on-going requirement for RVSM safety assessment in the MID Region:</p> <ul style="list-style-type: none"> a) the MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR); b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly; c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to: <ul style="list-style-type: none"> i) approval of operators and aircraft for RVSM operations (on monthly basis); 	Follow up the implementation of the Conclusion	MID RMA States ICAO	Data provided to the MID RMA as required	Ongoing

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<ul style="list-style-type: none"> ii) Altitude Deviation Reports (ADR) for deviations exceeding 300 ft (on monthly basis); iii) Coordination Failure Reports (CFR) (on monthly basis); and iv) traffic data (as requested by the MID RMA Board); d) Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen are committed to provide their radar data to the MID RMA, as, when and where required; and e) States not providing the required data to the MID RMA on a regular basis and in a timely manner: <ul style="list-style-type: none"> i) be included in the MIDANPIRG List of air navigation deficiencies; and ii) might not be covered by the RVSM SMRs 				
Draft Conc. 10/11	MID RVSM Safety Objectives	<p>That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives:</p> <ul style="list-style-type: none"> a) Safety Objective 1: that the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO 	Follow up the implementation of the 3 safety objectives	MID RMA MIDANPIRG	SMR 2010	Jun 2010

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>target level of safety (TLS) of 2.5×10^{-9} fatal accidents per flight hour;</p> <p>b) Safety Objective 2: that the overall vertical-collision risk – i.e. the overall risk of mid-air collision in the vertical dimension in MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour; and</p> <p>c) Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will <u>not adversely affect the risk of en-route mid-air collision over the years.</u></p>				
Draft Dec. 10/12	Establishment of the Baghdad FIR RVSM Implementation Working Group (BFRI WG)	That, the Baghdad FIR RVSM Implementation Working Group is established with Terms of Reference as at Appendix 4D to the Report on Agenda Item 4.	Conduct the BFRI WG meetings	ICAO	Report of BFRI WG meetings	Dec.2009

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Dec. 10/13	MID Region SSR Code Allocation Study Group (SSRCASG)	<p>That, the MID Region SSR Code Allocation Study Group revised Terms of Reference are adopted as at Appendix 5X to the Report on Agenda Item 5 (Appendix A to this working paper).</p> <p>This Draft Conclusion supersedes ATM/SAR/AIS Draft Decisions 9/4 and 9/5.</p>	Convene Study Group Meetings and discussions through correspondence	ICAO, SSCASG	Revised MID SSR Code Allocation system	May 09
Draft Conc. 10/14	Measures to address non-system SSR code Assignment problems	<p>That, in order address those SSR code assignment problems that are not typically the CAP system problems:</p> <p>a) MID States are urged to undertake necessary coordination with adjacent States/FIRs to address identified SSR Code Allocation problems or potential problems with such adjacent FIRs; and</p> <p>b) in cases where identified Code Allocation conflicts are beyond the ability of States' bilateral or multilateral initiatives to address, the ICAO MID Regional Office be notified as soon as practical, in order to take necessary action.</p> <p>This Draft Conclusion supersedes ATM/SAR/AIS Draft Conclusion 9/6.</p>	Implement Conclusion	States	Optimally managed SSR Code assignments	Ongoing

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/15	Adoption of the Originating Region Code Assignment Method (ORCAM) in the MID Region	<p>That, in order to improve the MID SSR Code Allocation System:</p> <p>a) the MID Region adopts the Originating Region Code Assignment Method (ORCAM). The MID Region will consider three ORCAM Participating Areas (PA); the number of PAs to be finalised based on studies of Regional traffic patterns and volume data, and coordination with adjacent ICAO Regions;</p> <p>b) the ICAO MID Regional Office take necessary action to obtain data from States and other ICAO Regions for the Study Group to complete its work. In order to facilitate an effective analysis of the traffic statistics required for decision on PAs; and</p> <p>c) MID FIRs provide traffic data in accordance with the format provided by the MID Regional Office.</p> <p>This Draft Conclusion supersedes ATM/SAR/AIS Draft Conclusion 9/7 and SSRASG Draft Conclusion 2/3.</p>	Follow-up Collection of Data	ICAO, States	<p>- Compilation of Data</p> <p>- Study Group Report</p> <p>Electronic Communication Follow-up</p> <p>State Input</p>	<p>Feb. 09</p> <p>March 09</p> <p>Dec. 08</p>

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/16	SSR Codes Sharing in the MID Region	<p>That, in order to increase the availability of SSR codes in the MID CAP:</p> <p>a) the MID Region adopt the approach of “code sharing” between FIRs that are geographically adequately disparate and where directional assignment of SSR codes makes “code sharing” practical;</p> <p>b) the “code sharing” be implemented after an amendment of the MID ANP FASID to this effect has been approved, appropriate safety assessments have been carried out, and the concerned FIRs signed the relevant Letters of Agreement (LOA), except where a Regional arrangement obviates such action; and</p> <p>c) the CNS Sub-Group be requested to consider the feasibility of FDPS upgrades in the MID Region.</p> <p>This Draft Conclusion supersedes SSRCASG Draft Conclusion 2/1.</p>	Follow-up on aspects of the Draft Conclusion	States, ICAO	<p>MIDANPIRG/11 Report</p> <p>FASID Amendment</p> <p>CNS SG Reports</p>	<p>Feb 09</p> <p>May 09</p> <p>Nov 09</p>

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>applicable, to ICAO Resolutions A36-7, A36-8, A36-9 and A36-10 regarding safety management systems, collection and protection of safety information, and improving accident prevention;</p> <p>c) designate focal points to whom operators may send incident reports for investigation and resolution and from whom they may request pertinent information;</p> <p>d) share safety information including information on ATS incidents and accidents; and</p> <p>e) take advantage of the safety management guidance material and training offered by ICAO.</p> <p>This Draft Conclusion is to supersede MIDANPIRG Conclusions 10/80 and 10/81.</p>			<p>Focal Points, and updates of contact information</p>	<p>Ongoing</p>

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/19	Development and Promulgation of Contingency Plans	That, MID States: a) are urged to develop and promulgate contingency plans in accordance with Annex 11 and Annex 15 provisions; and b) use the template at Appendix 7X to the Report on Agenda Item 7 for the development and promulgation of contingency plans.	Follow-up on Conclusion	States, ICAO	Sub-group Report	Nov. 09
Draft Conc. 10/20	Search and Rescue (SAR) Agreements	That, in order to strengthen search and rescue cooperation and coordination, including the giving effect to ICAO provisions, in particular Annex 12 Chapter 3 and Conclusion 3/7 of LIM MID RAN 1996: a) MID States are urged to sign SAR agreements with their neighboring States; b) MID States are urged to develop legislative and regulatory provisions to enable the signing of SAR agreements; c) States designate SAR focal points with whom other States and ICAO can communicate and coordinate development of SAR agreements, forward contact details of the focal points to ICAO MID Regional	Follow-up Implementation of Conclusion	ICAO States	SAR Agreements Focal Points	Dec. 09 June 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>Office by 30 June 2009, and update such details as necessary;</p> <p>d) the model of SAR agreement available in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual) (reproduced at Appendix B to this working paper) be used to guide States in the development of their own SAR agreements; and</p> <p>e) ICAO assist States in their efforts to sign SAR agreements.</p> <p>(This Draft Conclusion supersedes ATM/SAR/ AIS SG/9 Draft Conclusion 9/9 and is to supersede MIDANPIRG/10 Draft Conclusion 10/48).</p>				
Draft Conc. 10/21	406 Mhz Beacons	<p>That, in order to continue receiving beyond 1 February 2009, the Cospas-Sarsat services that are currently available to owners and users of 121.5/243 Mhz ELTs, and to further benefit from the added services available to owners and users of 406MHz beacons, MID States that have not already done so are urged:</p> <p>a) to require ELT owners and users of 121.5/243 Mhz ELTs to upgrade to 406 Mhz ELT as soon</p>	Follow-up Implementation of Conclusion	States ICAO	State Letter	Feb. 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>as possible, and register their 406 Mhz ELTs in the International 406 Mhz Registration Database (IBRD) database; and</p> <p>b) to designate to the Cospas-Sarsat Secretariat, an IBRD focal point and request Cospas-Sarsat for access to the IBRD database in order to benefit from the service available.</p> <p>(This Draft Conclusion is to supersede MIDANPIRG/10 Draft Conclusion 10/49).</p>			<p>Beacon upgrades and registration</p> <p>Focal points</p>	<p>Feb. 09</p> <p>Feb. 09</p>
Draft Dec. 10/22	SAR Ad-hoc Working Group (SAR AWG)	That, in order to review and develop updates to the MID ANP with regard to SAR requirements, as well as develop recommendations to foster implementation of provisions in the SAR field, the MID SAR Ad-Hoc Working Group is established with Terms of Reference(TOR) as at Appendix 8B to the Report on Agenda Item 8.	Discussions through email Convene SAR AWG	ICAO States	Implementation Guidance and Assistance	July 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>iii. involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate.</p> <p>(This Draft Conclusion is to supersede MIDANPIRG/10 Draft Conclusion 10/25).</p>				
Draft Conc. 10/24	Coordination of flights operating over high Seas	<p>That, taking into consideration that the Convention on International Civil Aviation shall be applicable to civil aircraft:</p> <p>a) all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable;</p> <p>b) State aircraft operating in the airspace over high seas, should:</p> <p>i. adhere, to the extent practicable, to ICAO provisions; or</p> <p>ii. operate with “Due Regard” for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures.</p>	Implement Conclusion	States, ICAO	Input from States	Nov. 09

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>c) States report any incident/s relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 8D to the Report on Agenda Item 8.</p> <p>(This Draft Conclusion is to supersede MIDANPIRG/10 Draft Conclusion 10/26).</p>				
Draft Conc. 10/25	Uncoordinated Flights Over the Red Sea Area	<p>That,</p> <p>a) the procedures at Appendix 8E to the Report on Agenda Item 8 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area;</p> <p>b) States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures;</p> <p>c) IATA continue effort to ensuring that concerned operators are fully conversant with these procedures;</p> <p>d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users are informed of and comply with the agreed procedures; and</p>	Implement Conclusion	States, ICAO	<ul style="list-style-type: none"> - Implementation of Procedures - Input from States - Coordination with adjacent Regions 	<p>Ongoing</p> <p>Nov. 09</p> <p>Ongoing</p>

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>e) States:</p> <ul style="list-style-type: none"> i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 8F to the Report on Agenda Item 8. <p>(This Draft Conclusion is to supersede MIDANPIRG/10 Draft Conclusion 10/27).</p>				
Draft Dec. 10/26	Dissolution of the RVSM/PBN and GNSS Task Forces and Establishment of the PBN/GNSS Task Force	<p>That, taking into consideration the status of implementation of RVSM and PBN in the MID Region and the close inter-relationship between the PBN goals and GNSS implementation and with a view to enhance the efficiency of MIDANPIRG, the RVSM/PBN and the GNSS Task Forces are dissolved and the PBN/GNSS Task Force is established with TOR as at Appendix 9B to the Report on Agenda Item 9.</p> <p>(This Draft Decision is to supersede MSG/1 Draft Decision 1/5).</p>	Convene Task force meetings	ICAO States PBN/GNSS TF	PBN Implementation Guidance and Planning	May 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/27	PBN implementation support	That, in order to address challenges in PBN implementation, stakeholders in the PBN implementation (Air navigation service providers (ANSP's), aircraft operators, user communities, etc.) be encouraged to provide support including resources to the States and ICAO PBN programe.	Communication of Conclusion to stakeholders and follow-up	ICAO, Stakeholders	State Letter Stakeholder Inputs	Feb. 09 Ongoing
Draft Conc. 10/28	MID Region PBN Implementation Strategy and Plan	That, in order to provide direction to the Sakeholders in their strategic planning during the transition to full implementation of PBN, the Middle East Regional Strategy for Implementation of PBN is adopted as at Appendix 9E to the Report on Agenda Item 9. The PBN Regional Implementation Plan is adopted as at Appendix 9F to the Report on Agenda Item 9. (This Draft Conclusion is to replace MIDANPIRG/9 Conclusions 9/6: and 9/7, as well as MIDANPIRG/10 Conclusion 10/43).	Implementation of PBN Strategy and Plan	ICAO, States	Adoption by MIDANPIRG/11 State Letter State Plans PBN Implementation	Feb. 09 March 09 Nov. 09 Ongoing

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/29	PBN State Implementation plan	That, in order to give effect to Assembly Resolution A36-23: Performance based navigation global goals, MID States are urged to complete development of their individual State Implementation plans based on the regional PBN implementation plan by 30 September 2009 so that it may be reviewed by the ATM/SAR/AIS SG as part of the Regional agreement process.	Implement the Conclusion	States	State Implementation Plans	Nov. 09
Draft Conc. 10/30	MID Region PBN Implementation Performance Objectives	That, in order to provide direction to the planning for implementation of PBN in the MID Region in accordance with ICAO planning framework, the MID performance objectives will be developed in accordance with the format in Appendix 8B to the Report on Agenda Item 8 (Appendix H to this working paper).	Implement the Conclusion	ICOA States	Draft Performance Objective Coordinated performance based planning	May 09 Ongoing
Draft Conc. 10/31	Use of the Public Internet for the Advance Publication of Aeronautical information	That, in order to improve the timeliness of aeronautical information and in accordance with the ICAO Guidelines on the use of Public Internet for Aeronautical Applications (Doc 9855): a) MID States are encouraged to use the internet for the advance publication of the following elements of the Integrated	Implement the Conclusion	States ICAO and Bahrain	- Feed back from States and users - Feasibility study for the use of the ICAO MID Forum	Apr 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		<p>Aeronautical Information Package containing non-time critical aeronautical information (i.e.: posting of the information on the web and/or dissemination by email):</p> <ul style="list-style-type: none"> - AIP; - AIP Amendments (both AIRAC and non AIRAC); - AIP Supplements (both AIRAC and non AIRAC); - Aeronautical Information Circulars (AIC); - monthly printed plain-language list of valid NOTAM; and - NOTAM containing a checklist of valid NOTAM. <p>Note: Appropriate arrangements for the provision of information in paper copy form should remain available.</p> <p>b) ICAO, in coordination with Bahrain, investigate the possibility that the ICAO MID Forum be used by States for the posting of AIS publications.</p>				

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/32	Improvement of the adherence to the AIRAC System	<p>That, in order to improve the adherence to the AIRAC System, States, that have not yet done so, are urged to:</p> <ul style="list-style-type: none"> a) fully comply with the AIRAC procedures, in accordance with specifications provided in Annexes 11, 14 (both volumes) and 15 as well as the provisions of the MID Basic ANP Chapter VIII; b) organize awareness campaigns involving AIS and all technical Departments providing the raw data to the AIS for promulgation; and c) arrange for the signature of Service Level Agreements (SLA) between AIS and the data originators. 	Implement the Conclusion	States	Feed back from States (awareness campaigns, SLAs)	Apr 09
Draft Conc. 10/33	Annex 15 provisions related to AIRAC	That, ICAO consider to review the current provisions of Annex 15 Chapter 6 and Appendix 4 related to AIRAC by replacing the words “significant” and “major” changes, which lead to different interpretations, by a comprehensive list of changes which necessitate the use of the AIRAC System.	Follow up with ICAO HQ	ICAO	- Appropriate provisions in Annexes 15	TBD

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/34	Implementation of QMS within MID States' AISs	That, in accordance with Annex 15 provisions, States, that have not yet done so, are urged to implement/complete the implementation of a QMS within their AIS, before December 2009, based on the methodology for the implementation of QMS at Appendix 10C to the Report on Agenda Item 10 and the EUROCONTROL CHAIN deliverables.	Follow up with concerned States	ICAO States AIS/MAP TF	- State Letter - Feed back from States	Dec. 09
Draft Conc. 10/35	Licensing of the AIS/MAP Personnel	That, recognizing the importance of AIS and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skill of the AIS staff, States are encouraged to include in their national legislations/regulations provisions related to the licensing of the AIS/MAP personnel.	Implement the Conclusion	States	Feed back from States	Apr 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/36	electronic AIP (eAIP)	That, a) pending the development of Global eAIP provisions, MID States, that have not yet done so, are invited to publish their eAIP based on the EUROCONTROL eAIP specifications; and b) in order to prevent proliferation of eAIP formats, ICAO give high priority to the development of necessary specifications and clear provisions related to the eAIP content, structure, presentation and format, taking into consideration the EUROCONTROL eAIP specification.	Follow up with States and ICAO HQ	States ICAO	- States publish their eAIP. - ICAO issue appropriate provisions in Annex 15 related to eAIP	TBD
Draft Conc. 10/37	Extension of the EAD to the EMAC States	That, the EMAC States are encouraged to initiate formal coordination with EUROCONTROL and take appropriate actions in order to be connected to the European AIS Database (EAD).	Follow up with States	EMAC States Eurocontrol ICAO	Feed back from EMAC States (Migration to EAD)	Apr 09
Draft Dec. 10/38	Establishment of an AIS Automation Action Group	That, the AIS Automation Action Group is established with Terms of Reference as at Appendix 10E to the Report on Agenda Item 10.	Follow-up the activities of the Action Group	AIS/MAP TF ICAO	Feedback from the Action Group reported to the AIS/MAP TF/5	May 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/39	Survey on the implementation of eTOD in the MID Region	<p>That, in order to obtain information from MID States regarding their Action Plan/Roadmap for the implementation of eTOD and the difficulties they might encounter to meet the applicability dates specified in Annex 15:</p> <ul style="list-style-type: none"> a) the questionnaire at Appendix 10F to the Report on Agenda Item 10, be used for a survey on the implementation of eTOD in the MID Region; b) States send their replies to the questionnaire to the ICAO MID Regional Office, prior to 15 January 2009, specifying clearly if they would encounter any difficulty to comply with the dates of applicability; and c) the results of the survey should serve as a basis for the development/update of the MID Region eTOD implementation Strategy/Action Plan. 	Conduct the survey	ICAO	Feed back from States	15 Jan 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/40	MID Region eTOD implementation Strategy	That, the MID Region eTOD implementation Strategy is adopted as at Appendix 10G to the Report on Agenda Item10.	Follow up the eTOD implementation status	States eTOD WG AIS/MAP TF	- Feed back from States - updated eTOD status of implementation	
Draft Conc. 10/41	Draft FASID table related to eTOD	That, ICAO consider to include the Draft FASID Table at Appendix 10I to the Report on Agenda Item 10 into the MID FASID, Part VIII (AIS), with necessary amendments, as appropriate.	Follow up with ICAO HQ	ICAO	eTOD FASID Table included in the MID FASID	TBD
Draft Dec. 10/42	Terms of Reference of the eTOD Working Group	That, the Terms of Reference of the eTOD Working Group be updated as at Appendix 10J to the Report on Agenda Item 10.	Implement the eTOD WG Work Programme	eTOD WG AIS/MAP TF	eTOD WG/2 Report	May 09
Draft Conc. 10/43	Pre-requisites for the transition to AIM	That, as a pre-requisite for the transition from AIS to AIM, States that have not yet done so, are urged to give high priority to the implementation of existing Annex 15 SARPs, in particular, WGS-84, Quality Management System and automation.	Follow up with concerned States	States ICAO	- Feed back from States - State Letters	Apr 09

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Dec. 10/44	Planning for the transition From AIS to aim	That, based on the ICAO Global ATM Operational Concept and in support of the Global Plan Initiative (GPI-18: Aeronautical Information), the AIS/MAP Task Force: a) include in its work programme the development of an action plan/strategy for the transition from AIS to AIM in the MID Region; and b) carry out a review of the AIS parts of the MID Basic ANP and FASID in order to introduce/develop planning material related to the transition from AIS to AIM.	Implement the Conclusion	AIS/MAP TF	AIS/MAP TF/5 Report	May 09
Draft Conc. 10/45	Harmonization of the publication of latitude and longitude Coordinates	That, in order to prevent proliferation of the formats used in the publication of the geographical coordinates in form of Latitude and Longitude: a) States are urged to comply with the provisions of Annexes 4 and 15 related to the format and publication resolution of Latitude and Longitude; and b) ICAO consider the review and harmonization of the different provisions related to the subject contained in the different ICAO Annexes and Documents.	Follow up with States and ICAO HQ	ICAO	- Feed back from States - Appropriate provisions in relevant ICAO Annexes	TBD

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
Draft Conc. 10/48	National performance framework	That, MID States be invited to adopt a national performance framework on the basis of ICAO guidance material and ensure their alignment with the regional performance objectives, the regional air navigation plan and the Global ATM Operational Concept. The performance framework should include identification of national performance objectives and completion of national performance framework forms.	Follow up on Conclusion	ICAO, MIDANPIRG, States	Adoption of National performance framework approach Development of State Performance Objectives	Feb. 09 Nov. 09
Draft Dec. 10/49	Revised TOR of the ATM/SAR/AIS Sub- Group	That, the Terms of Reference and Work Programme of the ATM/SAR/AIS Sub-Group be updated as at Appendix 13A to the Report on Agenda Item 13.	Follow-up the Work Programme	ATM/SAR/AIS SG	Sub-Group Reports	Nov. 09

ATM/SAR/AIS SG/10
Report on Agenda Item 14

REPORT ON AGENDA ITEM 14: ANY OTHER BUSINESS

14.1 The representative of Afghanistan and Iraq indicated that there was much progress being realized in Afghanistan and in Iraq with respect to ATM and related expertise, institutional arrangements and CNS infrastructure. He provided a brief summary of developments including the imminent changes in Iraq related to implementation of Class A airspace, general development regarding the transition of the airspace management to the Iraqi Civil Aviation Authority, as well as work on the possible duplication of ATS route R784. It was indicated that Afghanistan was still facing significant challenges to fully implement ICAO provisions. However, a number of advances have also been made, including the development of the AIP.

14.2 The meeting noted with concern that a number of MID States have not attended the ATM/SAR/AIS SG/10 meeting, which is considered one of the most important MIDANPIRG subsidiary bodies. The meeting highlighted that, the presence of Oman, UAE and Yemen in particular was critical to several important decisions that had to be made, which involve their respective FIRs, such as the geographical position in relation the traffic flows, and inter-Regional interface issues.

14.3 Mr. Aon Abdullah Al-Garn, Chairman of the Sub Group, thanked all participants for their active participation which had been instrumental to successful outcome of the meeting and adjourned the deliberations.

14.4 Mr. Jehad Faqir, Deputy Regional Director MID Regional Office noted that the meeting had considered a considerable amount of business involving important major Regional developments. On behalf the Regional Office, he thanked all participants for their role and officially closed the meeting.

ATTACHMENT A

ATM/SAR/AIS SG/10-REPORT
Attachment A to the Report

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