



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**REPORT OF THE TENTH MEETING
OF THE MIDDLE EAST
REGIONAL MONITORING AGENCY BOARD**

MIDRMA Board/10

(Tehran, Iran Islamic Republic of, 3 – 5 May 2010)

The views expressed in this Report should be taken as those of the Middle East Regional Monitoring Agency Board (MIDRMA Board) and not of the Organization. MIDANPIRG will be informed of the outcome of this Report and any formal action taken will be included in the Report of the MIDANPIRG.

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

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MIDRMA Board/10
History of the Meeting

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

The Tenth Meeting of the Middle East Regional Monitoring Agency Board (MIDRMA Board/10) was held at the Conference Hall of CAO, I. R. Iran, Mehrabad International Airport, in Tehran, from 3 to 5 May 2010.

2. OPENING

2.1 The meeting was opened by the Vice Minister of Road & Transportation and President of CAO, I.R Iran, Capt. Reza Nakhjavani who extended a warm welcome to all participants to the MIDRMA Board/10 meeting and wished them a successful meeting and pleasant stay in Tehran. Capt. Nakhjavani extended a special welcome to Mr. Mohamed R. M. Khonji, ICAO Regional Director and Mr. Mohamed Smaoui, RO/AIS/MET and Secretary of the meeting. He thanked ICAO for organizing this meeting in Tehran and restated Iran's commitment to support the ICAO MID Regional Office and MIDANPIRG activities; in particular the MIDRMA project, with a view to ensure the safety of RVSM operations in the MID Region and to contribute to the improvement of the overall safety of international air navigation. In this respect, he underlined that safety of civil aviation, which is considered as a continuous challenge, should be given the utmost importance and priority.

2.2 In his opening address, Mr. Khonji welcomed also all the participants to Tehran. He expressed his gratitude and appreciation to CAO I.R Iran and especially to Capt. Nakhjavani, for hosting this important meeting and supporting the MIDANPIRG and the ICAO MID Regional Office activities. He pointed out that Iran has always played an important and positive role in the MID Region. Mr. Khonji thanked also Mr. Hamid Ghavabesh, Vice President for Aeronautical & International Affairs, and Mr. Mohammad Khodakarami, A/Director General of Aeronautical Affairs, CAO I.R Iran, as well as their staff for their good cooperation and for the excellent hospitality extended to the ICAO MID Regional staff and all participants.

2.3 Mr. Khonji recalled briefly the main duties and responsibilities of the MIDRMA Board as well as its achievements since its establishment. He gave a brief overview of the agenda of the meeting. Finally, Mr. Khonji thanked all the participants from States and IATA for supporting the MIDRMA and for attending the MIDRMA Board/10 meeting and wished them fruitful discussions.

3. ATTENDANCE

3.1 The meeting was attended by a total of forty two (42) participants from seven (7) States (Bahrain, Egypt, Iraq, Iran, Oman, Saudi Arabia, and UAE) and one (1) Organization (IATA). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Mohamed Zainal, Head of Standards, Licensing and Developments, from Bahrain Civil Aviation Affairs.

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4.2 Mr. Mohamed Smaoui, RO/AIS/MET, ICAO Middle East Office was the Secretary of the meeting.

5. LANGUAGE

5.1 Discussions were conducted in English and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda and Election of Vice Chairman

Agenda Item 2: Follow-up on MIDANPIRG/11 and MIDRMA Board Conclusions and Decisions

Agenda Item 3: Progress report on the MIDRMA Project

- outstanding issues pertaining to the MIDRMA Project (payment of contributions/arrears, logistic and administrative issues, etc);
- financial report on MIDRMA expenditures for 2009;
- status of expenditures of the MIDRMA for the year 2010 (current); and
- MIDRMA budget and States' contributions for the year 2011.

Agenda Item 4: RVSM Monitoring and related technical issues

Agenda Item 5: Draft MIDRMA Manual

Agenda Item 6: Review and update of the MIDRMA Project Action Plan/Timelines

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business

- Update of the list of MIDRMA Board Members and Alternates

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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

DRAFT DECISION 10/1: REQUEST FOR THE TRANSFER OF US\$ 100,000 TO THE MIDRMA ACCOUNT IN BAHRAIN

DRAFT CONCLUSION 10/2: MIDRMA FUNDING MECHANISM

DRAFT CONCLUSION 10/3: MIDRMA STAFFING

DRAFT CONCLUSION 10/4: REVIEW OF THE DRAFT MID RVSM SMR 2010

DRAFT CONCLUSION 10/5: MID REGION HEIGHT-KEEPING MONITORING STRATEGY

DRAFT CONCLUSION 10/6: MIDRMA GMU INFRASTRUCTURE

DRAFT CONCLUSION 10/7: AIRCRAFT WITHOUT KNOWN HEIGHT MONITORING RESULTS

DRAFT CONCLUSION 10/8: MID RVSM SMR 2012

DRAFT CONCLUSION 10/9: MIDRMA MANUAL

MIDRMA Board/10
Report on Agenda Item 1

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

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

1.2 The meeting recalled that, during the MIDRMA Board/9 meeting (Beirut, Lebanon, 13-15 October 2009), in the absence of Mr. Mohamed Zainal, Chairperson of the MIDRMA Board, Mr. Khaled Chamieh, Chief of the Air Navigation Department, DGCA Lebanon, was unanimously elected to act as the interim Chairperson only for that meeting.

1.3 The meeting recalled that Mr. Mohamed Zainal, Head of Standards, Licensing and Developments, from Bahrain Civil Aviation Affairs has been acting as Chairperson of the MIDRMA Board since the MIDRMA Board/1 Meeting (Cairo, 5-6 September 2005) and that no Vice Chairperson was elected so far.

1.4 Based on the above, Mr. Mohamed Abbas, Safety General Manager, Egyptian Civil Aviation Authority, was unanimously elected as the Vice Chairperson of the MIDRMA Board.

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Report on Agenda Item 2

**REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/11 and MIDRMA BOARD
CONCLUSIONS AND DECISIONS**

2.1 The meeting noted the status of relevant MIDANPIRG/11 and MIDRMA Board Conclusions and Decisions 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.

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Appendix 2A to the Report on Agenda Item 2

FOLLOW-UP ACTION ON RELEVANT MIDANPIRG/11 AND CURRENT MIDRMA BOARD CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 11/1: FOLLOW UP ON MIDANPIRG CONCLUSIONS AND DECISIONS</p> <p>That,</p> <p>a) States send their updates related to the MIDANPIRG follow up action plan to the ICAO MID Regional Office on regular basis (at least once every six months);</p> <p>b) the MIDANPIRG subsidiary bodies review the appropriate actions/tasks of the MIDANPIRG follow up action plan and undertake necessary updates based on the feedback from States; and</p> <p>c) ICAO MID Regional Office post the MIDANPIRG follow up action plan on the ICAO MID website and ensure that it is maintained up-to-date.</p>	<p>Implement Conclusion</p>	<p>ICAO States</p> <p>Subsidiary Bodies</p> <p>ICAO</p>	<p>State Letter Updated Action Plan</p> <p>Updated Action Plan</p> <p>Updated follow up Action Plan posted on web</p>	<p>Every six months</p> <p>Every six months</p> <p>Every six months</p>	<p>Ongoing</p> <p>(To be closed)</p>
<p>CONC. 11/3: INCREASING THE EFFICIENCY OF MIDANPIRG</p> <p>That, with a view to increase the efficiency of MIDANPIRG:</p> <p>a) States appoint an ICAO Focal Point Person(s) (ICAO-FPP) using the form at Appendix 4E to the Report on Agenda Item 4; who would:</p> <p>i) ensure the internal distribution of all ICAO MID Office correspondences related to MIDANPIRG activities and the follow-up within civil aviation administration;</p> <p>ii) follow up the ICAO MID Office postings of tentative schedule of meetings, MIDANPIRG follow up action plan, State Letters, working/information</p>	<p>Implement the Conclusion</p>	<p>ICAO States</p>	<p>State Letter (Reminder)</p> <p>List of ICAO FPP</p>	<p>Apr. 2009</p> <p>Jun. 2009</p>	<p>Actioned</p> <p>(To be closed)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>papers, reports of meetings, etc, on both the ICAO MID website and the MID Forum; and</p> <p>iii) ensure that required action and replies are communicated to ICAO MID Regional Office by the specified target dates.</p> <p>b) ICAO MID Regional Office copy all correspondences related to MIDANPIRG activities to the designated ICAO-FPP as appropriate.</p>					
<p>CONC. 11/17: MEMBERSHIP OF THE MID RMA</p> <p>That,</p> <p>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</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 exempted from the payment of contributions to the MID RMA for the first ten (10) years of operation (up-to end of 2015).</p>	<p>Implement the Conclusion</p>	<p>MID RMA Board and ICAO</p>	<p>MID RMA Board Reports</p>	<p>Ongoing</p>	<p>Actioned</p> <p>(To be replaced and superseded by MIDRMA Board/9 Draft Conc. 9/2)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 11/18: PAYMENT OF ARREARS TO THE MID RMA</p> <p>That,</p> <p>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;</p> <p>b) 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 RVMS SMR</p>	<p>Follow-up with concerned States</p>	<p>MID RMA Board Chairman and ICAO</p>	<p>Contributions/arrears paid</p>	<p>31 Mar. 2009</p>	<p>Actioned</p> <p>(To be closed)</p>
<p>CONC. 11/19: RADAR DATA RECORDING AND ANALYSIS SOFTWARE</p> <p>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.</p>	<p>Implement the Conclusion</p>	<p>MID RMA</p>	<p>Letters to concerned States</p> <p>Technical specifications of the software developed</p> <p>Software purchased</p>	<p>28 Feb.2009</p> <p>31 Mar.2009</p> <p>15 Apr. 2009</p>	<p>Actioned</p> <p>(To be closed)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 11/20: ICAO PROVISIONS RELATED TO MANDATORY REPORTING OF DATA TO THE RMAS</p> <p>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.</p>	<p>Follow up with ICAO HQ</p>	<p>ICAO</p>	<p>Appropriate provisions in Annexes 6 and 11</p>	<p>TBD</p>	<p>To be closed (Not supported by the ANC)</p>
<p>CONC. 11/21: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION</p> <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); 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 	<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>To be closed (To be included in the MIDRMA Manual)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>on a regular basis and in a timely manner:</p> <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 SMR. 					
<p>CONC. 11/22: MID RVSM SAFETY OBJECTIVES</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; 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 <u>not adversely affect the risk of en-route mid-air collision over the years.</u> 	<p>Follow up the implementation of the 3 safety objectives</p>	<p>MID RMA MIDANPIRG</p>	<p>SMR 2010</p>	<p>Jun. 2010</p>	<p>To be closed (To be included in the MIDRMA Manual)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DEC. 11/23: ESTABLISHMENT OF THE BAGHDAD FIR RVSM IMPLEMENTATION WORKING GROUP (BFRI WG)</p> <p>That, the Baghdad FIR RVSM Implementation Working Group is established with Terms of Reference as at Appendix 5.2G to the Report on Agenda Item 5.2</p>	<p>Conduct the BFRI WG meetings</p>	<p>ICAO</p>	<p>Reports of the BFRI WG meetings</p>	<p>Aug. 2009</p>	<p>Actioned (To be closed)</p>
<p>CONC. 11/34: COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS</p> <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> <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 5.2N to the Report on Agenda Item 5.2.</p>	<p>Implement Conclusion</p>	<p>States, ICAO</p>	<p>Input from States</p>	<p>Nov. 2009</p>	<p>Ongoing (proposed to be replaced by ATM/SAR/AIS SG/11 Draft Conc.11/ 11)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 11/35: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA</p> <p>That,</p> <p>a) the procedures at Appendix 5.2O to the Report on Agenda Item 5.2 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> <p>e) 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 5.2N to the Report on Agenda Item 5.2.</p>	<p>Implement Conclusion</p>	<p>States, ICAO</p>	<p>Implementation of Procedures</p> <p>Input from States</p> <p>Coordination with adjacent Regions</p>	<p>Ongoing</p> <p>Nov. 2009</p> <p>Ongoing</p>	<p>Ongoing</p> <p>(proposed to be replaced by ATM/SAR/AIS SG/11 Draft Conc. 11/ 12)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MIDRMA BOARD CURRENT DRAFT CONCLUSIONS AND DECISIONS					
<p>DRAFT CONC 8/2: CONTRIBUTION OF MID RMA MEMBER STATES FOR 2010</p> <p>That, based on the agreed funding mechanism for the MID RMA, and taking into consideration that Oman has already paid US\$ 30,000 as contribution to the MID RMA Project for year 2010, the contributions of MID RMA States for 2010 be paid before 1 November 2009 as follows:</p> <p>a) Bahrain, Egypt, Iran and Saudi Arabia pay US\$ 30,000 each; and</p> <p>b) Jordan, Kuwait, Lebanon, Syria and Yemen pay US\$ 10,000 each.</p>	Follow up with States	States + ICAO	Contributions paid	1 Nov. 2009	Actioned (To follow up with Syria for the payment of arrears)
<p>DRAFT CONC 8/3: MID RVSM SMR 2010</p> <p>That,</p> <p>a) the FPL/traffic data for the month of June 2009 be used for the development of the MID RVSM Safety Monitoring Report (SMR-2010);</p> <p>b) only the Flight Data excel Sheet available on the MID RMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MID RMA;</p> <p>c) States should give clear instructions to their ACC controllers for the reporting of FPL/traffic data during the month of June 2009 and special attention should be given to the reporting of Aircraft Registration; and</p> <p>d) the draft version of the RVSM SMR-2010 be ready before 31 March 2010 for review by the MID RMA Board Members before presentation to the MID RMA Board/10 meeting.</p>	Follow up with States	MID RMA & ICAO	Necessary data provided to the MID RMA, as required and in a timely manner	31 Aug. 2009	Actioned (To be closed)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DRAFT DEC. 9/1: <i>REQUEST FOR THE TRANSFER OF US\$ 100,000 TO THE MIDRMA ACCOUNT IN BAHRAIN</i></p> <p>That, the MID RMA Board Chairman is delegated the authority to certify a request for the transfer of the amount of US\$ 100,000 from the MID RMA account managed by ICAO HQ to the MID RMA account in Bahrain on 1 December 2009.</p>	<p>Follow up with ICAO HQ</p>	<p>MIDRMA Board Chairman + MIDRMA ADMIN + ICAO</p>	<p>Request for transfer of USD 100,000</p> <p>USD 100,000 transferred to the MIDRMA Bank Account</p>	<p>1 Dec. 2010</p>	<p>Actioned</p> <p>(USD 100,000 transfer red to the MIDRMA Bank Account in Bahrain)</p>
<p>DRAFT CONC 9/2: <i>MEMBERSHIP OF THE MIDRMA</i></p> <p>That, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, UAE and Yemen committed themselves to participate in the MIDRMA project, through the signature of the Memorandum of Agreement (MOA).</p>	<p>Implement the Conclusion</p>	<p>MIDRMA Board and ICAO</p>	<p>MIDRMA Board Reports Signed MOA</p>	<p>Ongoing</p>	<p>Actioned</p> <p>(To be presented to MIDANPIRG/12 and included in the MIDRMA Manual)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DRAFT CONC 9/3: MIDRMA FUNDING MECHANISM</p> <p>That,</p> <p>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;</p> <p>b) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay 14% each of the yearly operating budget of the MID RMA;</p> <p>c) Iraq, Jordan, Kuwait, Lebanon, Syria and Yemen pay 5% each of the yearly operating budget of the MID RMA;</p> <p>d) 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);</p> <p>e) the budget estimate for the MID RMA operation for each year be prepared/approved by the MID RMA Board before 31 May of previous year;</p> <p>f) the MID RMA Member States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO;</p> <p>g) in case a MID RMA Member State does not pay the contribution to the MID RMA Project in a timely manner, the MID RMA Board might consider to take penalty measures against this State (exclusion from the MID RVSM Safety Monitoring Report, review of the Membership, etc);</p> <p>h) 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</p>	<p>Implement the Conclusion</p>	<p>MIDRMA Board and ICAO</p>	<p>MIDRMA Board Reports</p> <p>States' contribution paid in a timely manner</p>	<p>Ongoing</p>	<p>(To be replaced and superseded by MIDRMA Board/10 Draft Conc. 10/2)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>the requests for advance payment to the MID RMA on 1 December of each year;</p> <p>i) 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;</p> <p>j) the MID RMA funding mechanism be revised by the MID RMA Board when necessary.</p>					
<p>DRAFT CONC 9/4: AIRCRAFT WITHOUT KNOWN HEIGHT MONITORING RESULTS</p> <p>That:</p> <p>a) States are urged to send to the MID RMA an updated list of approvals of operators and aircraft for RVSM operations, prior to 1 November 2009;</p> <p>b) based on the updated list of RVSM approvals and traffic data provided by States, the MID RMA identify those aircraft/operators without known height monitoring results, in accordance with ICAO aircraft grouping categories and forward the list of identified aircraft/operators to concerned States of registry, prior to 15 November 2009;</p> <p>c) States review the lists provided by the MID RMA, take necessary follow up action with concerned operators in order to carry out necessary height monitoring and send the monitoring results to the MID RMA before 31 December 2009.</p>	<p>Implement the Conclusion</p>	<p>States</p> <p>MIDRMA</p> <p>States</p>	<p>Updated list of RVSM approvals</p> <p>List of aircraft/operators requiring Height monitoring</p> <p>Height monitoring Results for identified aircraft/operators</p>	<p>1 Nov. 2009</p> <p>15 Nov. 2009</p> <p>31 Dec. 2009</p>	<p>(To be replaced and superseded by MIDRMA Board/10 Draft Conc. 10/7)</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DRAFT CONC 9/5: FEASIBILITY STUDY FOR GMU MONITORING IN THE MID REGION</p> <p>That, the MIDRMA develop a feasibility study, cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region with self-sufficiency capability (acquisition of necessary hardware, software, training, etc), in order to be presented to the MIDRMA Board/10 meeting for review and action, as appropriate.</p>	<p>Develop necessary cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region</p>	<p>MIDRMA</p>	<p>Cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region</p>	<p>1 May 2010</p>	<p>(To be replaced and superseded by MIDRMA Board/10 Draft Conc. 10/5 & 10/6)</p>
<p>DRAFT CONC 9/6: MID RMA MANUAL</p> <p>That,</p> <p>a) the MIDRMA Team and MIDRMA Board Members provide their comments on the Draft Version (V 0.2) of the MID RMA Manual to the ICAO MID Regional Office before 1 April 2010;</p> <p>b) the Draft MIDRMA Manual (V 0.3) be consolidated based on the outcome of the MIDRMA Board/9 meeting, the comments/inputs received from the MIDRMA Team and MIDRMA Board Members, in order to be presented to the MIDRMA Board/10 meeting for final review.</p>	<p>Follow up with MIDRMA Team and MIDRMA Board Members</p>	<p>ICAO</p>	<p>Comments and feedback on the Draft MIDRMA Manual (V 0.2) used to prepare an updated version (V 0.3)</p>	<p>1 Apr. 2009</p>	<p>(To be replaced and superseded by MIDRMA Board/10 Draft Conc. 10/9)</p>

MIDRMA Board/10
Report on Agenda Item 3

REPORT ON AGENDA ITEM 3: PROGRESS REPORT ON THE MIDRMA PROJECT

3.1 The meeting recalled that the MIDRMA Board/9 meeting (Beirut, Lebanon, 13-15 October 2009) noted with appreciation the improvement in the payment of contributions/arrears to the MIDRMA Project. However, it was highlighted that the MIDRMA Board/9 meeting urged Syria to pay the remaining amount/arrears (US\$ 18,750) as soon as possible and in any case prior to 1 November 2009, the deadline for the payment of contributions for the year 2010.

3.2 The meeting noted the status of MIDRMA States' contributions as follows:

	2006	2007	2008	2009	2010
Bahrain	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	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)	Paid (US\$ 30,000)
Iran	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Jordan	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)
Kuwait	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)
Lebanon	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)
Oman	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	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)	Paid (US\$ 30,000)
Syria ^(*)	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 1,250 from 10,000)	Paid (US\$ 10,000) (TBC)*
UAE	Exempted from payment up-to end of 2015				
Yemen	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)

3.3 The meeting was informed that Syria^(*) confirmed that the amount of US\$ 10,000 was transferred to ICAO on 5 September 2009 and the remaining amount to be paid (Arrears) is US\$ 8,750 only. However, it was noted that this amount has not yet been recorded in the MIDRMA financial statement developed by ICAO HQ related to the MIDRMA Project (RAB/05/802), as shown in **Appendix 3A** to the Report on Agenda Item 3, reflecting the contributions received in 2009. In this regard, the meeting re-emphasized on the need to comply with the instructions for payment contained in the invoices sent by ICAO HQ (Project code, fund number, invoice number, Bank information, etc) and underlined that the non-compliance with these instructions cause problems and delays in locating the money transfer. Accordingly, the ICAO MID Office was requested to coordinate with ICAO HQ in order to locate the amount transferred by Syria.

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3.4 The meeting urged Syria also to take necessary follow up actions in order to trace the transfer of US\$ 10,000 dated 5 September 2009 and ensure that this amount was received by ICAO HQ and credited to the MIDRMA Project Bank account (Fund Nr. 5176). Syria was urged also to ensure that all arrears are paid, as soon as possible, and in any case prior to 1 November 2010, the deadline for the payment of contributions for the year 2011.

3.5 The meeting reviewed the statement of expenditures of the MIDRMA project (RAB/05/802) as well as a statement of financial position and the estimated fund balance as of 31 December 2009, as at **Appendix 3A** to the Report on Agenda Item 3. The meeting noted that the balance of the funds available in the MIDRMA account managed by ICAO HQ in Montreal (RAB/05/802) is estimated to be US\$ 114,052 as of 31 December 2009.

3.6 The meeting reviewed and approved the financial statement and associated bills related to the MIDRMA expenditures for year 2009 as of 31 December 2009, prepared by the MIDRMA Administrator, as at **Appendix 3B** to the Report on Agenda Item 3. The financial expenditures for the first quarter of 2010 (as of 31 March 2010) were also reviewed as at **Appendix 3C** to the Report on Agenda Item 3.

3.7 The meeting was apprised of the status of the MIDRMA Bank account in Bahrain and noted that the fund balance of the MIDRMA Bank account in Bahrain is: Bahrain Dinars (BD) **33,226.596** # (US\$) **88,134**, as of 31 March 2010.

3.8 The meeting noted that in accordance with the MIDRMA Board/8 Draft Decision 8/1, the MIDRMA Board Chairman certified a request for the transfer of the amount of US\$ 75,000 from the MIDRMA account managed by ICAO Headquarters to the MIDRMA account in Bahrain. The transfer was actioned on 15 June 2009 and the amount of US\$ 75,000 has been received on 25 June 2009. Similarly, in accordance with the MIDRMA Board/9 Draft Decision 9/1, and further to the MIDRMA Board request for the transfer of the amount of US\$ 100,000 from the MIDRMA account managed by ICAO HQ to the MIDRMA account in Bahrain, the requested amount was transferred on 31 December 2009.

3.9 In accordance with the agreed MIDRMA funding mechanism, the meeting agreed that the MIDRMA Board Chairman, certify on behalf of the MIDRMA Member States a request for the transfer of the amount of US\$ 100,000 from the MIDRMA account managed by ICAO HQ to the MIDRMA Bank account in Bahrain on 1 September 2010. Accordingly, the meeting developed the following Draft Decision:

DRAFT DECISION 10/1: REQUEST FOR THE TRANSFER OF US\$ 100,000 TO THE MIDRMA ACCOUNT IN BAHRAIN

That, the MIDRMA Board Chairman is delegated the authority to certify a request for the transfer of the amount of US\$ 100,000 from the MIDRMA account managed by ICAO HQ to the MIDRMA Bank account in Bahrain on 1 September 2010.

3.10 The meeting recalled that the MIDRMA funding mechanism was agreed by the MIDRMA Board/3 meeting (Muscat, Oman, 24-25 November 2006) through Draft Conclusion 3/5 and endorsed by MIDANPIRG/10 (Doha, Qatar, 15-19 April 2007) through Conclusion 10/33 and accordingly the MIDRMA participating States were divided into two categories:

- Category 1: Bahrain, Egypt, Iran, Oman and Saudi Arabia will be paying 15% each of the yearly total cost of operation of the MIDRMA, and
- Category 2: Jordan, Kuwait, Lebanon, Syria and Yemen will be paying 5% each of the yearly total cost of operation of the MIDRMA.

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3.11 The meeting recalled that the MIDRMA Board/9 meeting (Beirut, Lebanon, 13-15 October 2009) noted with appreciation the commitment of Iraq to become a full MIDRMA Member State. Accordingly, the meeting agreed to the following Draft Conclusions, which are proposed to replace and supersede MIDANPIRG/11 Conclusion 11/17 related to the Membership of the MIDRMA and MIDANPIRG/10 Conclusion 10/33 related to the MIDRMA funding mechanism:

DRAFT CONCLUSION 9/2: MEMBERSHIP OF THE MID RMA

That, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, UAE and Yemen committed themselves to participate in the MID RMA project, through the signature of the Memorandum of Agreement (MOA).

DRAFT CONCLUSION 9/3: MID RMA FUNDING MECHANISM

That,

- a) the activities of the MIDRMA be ensured through contributions from all MIDRMA Member States, which could be recovered in accordance with ICAO Policies on charges for Airports and Air Navigation Services (Doc 9082), in coordination with IATA;*
- b) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay 14% each of the yearly operating budget of the MIDRMA;*
- c) Iraq, Jordan, Kuwait, Lebanon, Syria and Yemen pay 5% each of the yearly operating budget of the MIDRMA;*
- d) UAE is exempted from the payment of contributions to the MIDRMA for the first ten (10) years of operation (up-to end of 2015);*
- e) the budget estimate for the MIDRMA operation for each year be prepared/approved by the MIDRMA Board before 31 May of previous year;*
- f) the MIDRMA Member States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO;*
- g) in case a MIDRMA Member State does not pay the contribution to the MIDRMA Project in a timely manner, the MIDRMA Board might consider to take penalty measures against this State (exclusion from the MID RVSM Safety Monitoring Report, review of the Membership, etc);*
- h) the MIDRMA Board Chairman, in compliance with the Custodian Agreement and based on the agreed funding mechanism and the estimation of the yearly operating budget of the MIDRMA, be delegated the authority to certify on behalf of the MIDRMA Participating States the requests for advance payment to the MIDRMA on 1 December of each year;*
- i) the bills related to the MIDRMA expenses be certified by the MIDRMA Board chairman and reviewed by the MIDRMA Board at each of its meetings;*
- j) the MIDRMA funding mechanism be revised by the MIDRMA Board when necessary.*

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3.12 In accordance with the MIDRMA funding mechanism, the meeting noted that the budget estimate for the MIDRMA operation for each year should be prepared/approved by the MIDRMA Board before 31 May and that the MIDRMA participating States should pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO.

3.13 Based on the above, and with a view to further simplify the MIDRMA funding mechanism, the meeting agreed that the contributions of the MIDRMA States shall be maintained as follows:

- Bahrain, Egypt, Iran, Oman and Saudi Arabia pay **US\$ 30,000** each, and
- Iraq, Jordan, Kuwait, Lebanon, Syria and Yemen pay **US\$ 10,000** each.

3.14 Accordingly, the meeting agreed to the following Draft Conclusion, to replace and supersede the MIDRMA Board/9 Draft Conclusion 9/3 and MIDANPIRG/10 Conclusion 10/33 related to the MIDRMA funding mechanism:

DRAFT CONCLUSION 10/2: MIDRMA FUNDING MECHANISM

That,

- a) *the activities of the MIDRMA be ensured through contributions from all MIDRMA Member States, which could be recovered in accordance with ICAO Policies on charges for Airports and Air Navigation Services (Doc 9082), in coordination with IATA;*
- b) *the MIDRMA Member States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO;*
- c) *ICAO ensure that the year of contribution is clearly indicated in the invoices related to the MIDRMA Project;*
- d) *The annual amounts to be paid by the MIDRMA Member States are, as follows:*
 - i) *Bahrain, Egypt, Iran, Oman and Saudi Arabia annual contribution is US\$ 30,000 each; and*
 - ii) *Iraq, Jordan, Kuwait, Lebanon, Syria and Yemen annual contribution is US\$ 10,000 each;*
- e) *UAE is exempted from the payment of contributions to the MIDRMA for the first ten (10) years of operation (up-to end of 2015);*
- f) *the MIDRMA Member States comply with the payment instructions contained in the invoices sent by ICAO HQ (Project code, fund number, invoice number, Bank information, etc);*
- g) *the budget estimate for the MIDRMA operation for each year be prepared/approved by the MIDRMA Board before 31 May of previous year;*
- h) *in case a MIDRMA Member State does not pay the contribution to the MIDRMA Project in a timely manner, the MIDRMA Board might consider to take penalty measures against this State (exclusion from the MID RVSM Safety Monitoring Report, review of the Membership, etc);*

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- i) *the MIDRMA 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 MIDRMA, be delegated the authority to certify on behalf of the MIDRMA Member States the requests for advance payment from the MIDRMA account managed by ICAO HQ to the MIDRMA Bank account in Bahrain, as decided by the MIDRMA Board;*
- j) *the bills related to the MIDRMA expenses be certified by the MIDRMA Board chairman and reviewed by the MIDRMA Board at each of its meetings;*
- k) *the MIDRMA funding mechanism be revised by the MIDRMA Board when necessary.*

3.15 The meeting recognized that the scope of activities and work of the MIDRMA has increased significantly since its establishment. In this regard, it was highlighted that the work of the MIDRMA includes some tasks which are carried out on daily basis, in particular, the coordination and follow up required with Member States, Aircraft Operators, and other RMAs especially those adjacent to the MID Region. Accordingly, the meeting agreed that, in order to increase the efficiency of the MIDRMA, the appointment of a full-time employee to the MIDRMA became a necessity.

3.16 Based on a proposal by Bahrain for the appointment of Mr. Fathi Al-Thawadi as a full-time MIDRMA staff, the meeting reviewed the Curriculum Vitae (CV) of Mr. Fathi Al-Thawadi and recognized that the concerned has the necessary expertise and experience to assume the responsibility of a full-time MIDRMA staff. In addition, it was highlighted that the expertise needed for an RMA staff is not easily available in the market, and taking into consideration the background and previous experience of Mr. Al-Thawadi in the MIDRMA (as a part-time staff), the meeting agreed to the appointment of Mr. Al-Thawadi and developed the following Draft Conclusion:

DRAFT CONCLUSION 10/3: MIDRMA STAFFING

That, in accordance with the MIDRMA Memorandum of Agreement (MOA):

- a) *the MIDRMA staff is composed of local personnel provided by Bahrain, as follows:*
 - i) *MIDRMA Manager/Team Leader (Part Time)*
 - ii) *MIDRMA Officer (Full Time)*
 - iii) *MIDRMA Administrator (Part Time)*
- b) *the salaries of the MIDRMA staff are paid as monthly lump sums as follows:*
 - i) *MIDRMA Manager/Team Leader (Part Time) (500 BD)*
 - ii) *MIDRMA Officer (Full Time) (1,500 BD)*
 - iii) *MIDRMA Administrator (Part Time) (400 BD)*
- c) *the MIDRMA staff salaries be revised by the MIDRMA Board when necessary and as appropriate; and*
- d) *Bahrain is responsible of all administrative issues related to the MIDRMA staff, in coordination with the MIDRMA Board Chairman.*

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Appendix 3A to the Report on Agenda Item 3

Contributions and Transfer of Funds

REGIONAL-MID RMA (CUSTODAIN AGREEMENT)

Management Service Agreement

RAB05802

As at 31 December 2009

(in United States dollars)

Contributions

Date Received	Customer	Currency	Currency Amount	USD Amount	Exchange Rate	Description
2009/03/05	Civil Aviation Authority of Lebanon	USD	\$10,000	\$10,000	1	LEBANON INVOICE NO 21000030 CUST ID 900094 RAB/05/802 F
2009/03/09	Directorate General of Civil Aviation of Kuwait	USD	\$1,250	\$1,250	1	KUWAIT RAB/05/802 G
2009/04/09	Islamic Republic of Iran Civil Aviation Organization (IRICAO)	USD	\$29,977	\$29,977	1	IRAN RAB/05/802 INV. 21000028
2009/07/16		USD	\$32,441	\$32,441	1	SYRIA RAB 05 802A COSTS AND PARTICIPATION FEES
2009/07/31		USD	\$10,000	\$10,000	1	CARC JORDAN INV. 21000187
2009/08/12		USD	\$9,975	\$9,975	1	YEMEN INV. 21000192 PAID 12 AUG 09
2009/08/18		USD	\$30,000	\$30,000	1	BAHRAIN INV. 21000184 - RAB/05/802B
2009/08/20		USD	\$10,000	\$10,000	1	KUWAIT RAB05802G INV. 21000189
2009/10/21	General Authority of Civil Aviation of Saudi Arabia	USD	\$30,000	\$30,000	1	DEPOSIT - SAUDI ARABIA RAB/05/802I
2009/10/29	Ministry of Civil Aviation	USD	\$29,983	\$29,983	1	NATIONAL AIR NAVIGATION - EGYPT RAB/05/802 INV. 21000185
2009/11/18	Islamic Republic of Iran Civil Aviation Organization (IRICAO)	USD	\$29,975	\$29,975	1	IRAN - RAB/05/802 INV. 21000199
2009/12/30	Civil Aviation Authority of Lebanon	USD	\$10,000	\$10,000	1	CAA LEBANON RAB/05/802F INV. 21000188
			\$233,600	\$233,600		

Transfer To/From Other Funds

Date Received	Currency	Currency Amount	USD Amount	Exchange Rate	Description
		\$0	\$0		

Statement of Estimated Fund Balance

**REGIONAL-MID RMA (CUSTODAIN AGREEMENT)
Management Service Agreement
RAB05802
As at 31 December 2009
(in United States dollars)**

Financial Status from accounts:

Balance of Surplus (Deficit) as at 1 January 2009		72,686	
Adjustment		-	
Adjusted Balance of Surplus (Deficit) as at 1 January 2009			72,686
Add/(Deduct):			
Contributions Received (Schedule I)		233,600	
Transfer of Funds to/from Other Funds (Schedule I)		-	
Interest Earned and Accrued		580	
Gain(Loss) on Exchange and other Income		-	
Refund of Contributions		-	
Interest Expenses		-	
Refund of Interest Earned		-	
		<u>234,180</u>	
			306,866
Deduct Expenses (Note 1):			
Experts (Schedule II)		-	
Administrative Support Personnel (Schedule III)		-	
United Nations Volunteers (Schedule IV)		-	
Travel on Official Business (Schedule V)		-	
Mission Costs (Schedule VI)		-	
National Professionals (Schedule VII)		-	
Subcontracts (Schedule VIII)		-	
Fellowships (Schedule IX)		-	
Equipment (Schedule X)		-	
Sundry (Schedule XI)		175,285	
Administrative Overhead (Schedule XII) (Note 2)		17,529	
		<u>192,814</u>	
Add/(Deduct):			
Foreign Currency Revaluation Gain(Loss) (Note 5)			-
			<u>114,052</u>
Fund Balance/(Deficit Balance) as at 31 December 2009			114,052
Deduct commitments (Note 3):			
Experts (Schedule II)		-	
Administrative Support Personnel (Schedule III)		-	
United Nations Volunteers (Schedule IV)		-	
Travel on Official Business (Schedule V)		-	
Mission Costs (Schedule VI)		-	
National Professionals (Schedule VII)		-	
Subcontracts (Schedule VIII)		-	
Fellowships (Schedule IX)		-	
Equipment (Schedule X)		-	
Sundry (Schedule XI)		-	
Administrative Overhead (Schedule XII)		-	
		<u>-</u>	
Estimated funds available/(required) as at 31 December 2009 (Note 4)			114,052
Future Commitments entered beyond the reporting period (Note 3):			-
Estimated funds available/ (required) including future commitments beyond the reporting period (Note 4)			114,052

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Appendix 3B to the Report on Agenda Item 3

**MIDRMA FINANCIAL STATUS OF EXPENDITURE FOR YEAR 2009
(As of 31 December 2009)**

No	DESCRIPTION	EXPENSES IN US \$	EXPENSES IN B.D
1.	SMR 2008 Report		
1.1	MID RMA RVSM 2008 report printing for MIDAPIRG/11	111	42
1.2	Report Artwork & Design	159	60
1.3	Report Final printing & binding	531	200
2.	Manpower cost of staff assigned for MID RMA Management & Operations (JAN to DEC 2009)	28,647	10,800
3.	Duty Travel		
3.1	Attending the 11 th MIDANPIRG Meeting	10,576	3,987
3.2	Attending the 2 nd Meeting of ATS Route Network	2,995	1,129
3.3	Attending discussion meeting for RADAC	1,061	400
3.4	Attending MID RMA Board/8 Meeting	7,796	2,939
3.5	Attending the Special ATS Route Coordination	2,592	977
3.6	Attending MID RMA Board/9 Meeting	12,210	4,603
3.7	Attending the Fourth RMA Meeting	13,130	4,950
4.	Miscellaneous		
4.1	Renewal of MIDRMA domain & hosting for 2009	605	228
4.2	ESET Smart Security software License	557	210
4.3	SAAB – Site visit, Hotel accommodation	716	270
Total Expenses of Year 2009 as of 31/12/2009		US\$ 81,686	B.D 30,795

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Appendix 3C to the Report on Agenda Item 3

MIDRMA FINANCIAL STATUS OF EXPENDITURE FOR YEAR 2010

(Position as of 31 March 2010)

NO	DESCRIPTION	EXPENSES IN US \$	EXPENSES IN B.D
1.	MID RVSM Safety & Assessment Seminar	33,560	12,652
2.	Payments 1,2,3 for purchasing the RADAC Software	200,000	75,521
3.	Attending 1 st Meeting of Baghdad FIR RVSM	3,003	1132
4.	Attending 2 nd Meeting of MIDANPIRG St. Group	2,729	1,029
5.	Attending 3 rd Meeting ATS Routes Network	3,146	1,186
6.	MIDRMA Mail Box renewal fees for 2010	80	30
7.	Visa fees paid to Embassy	676	255
8.	Printing & Stationary	265	100
Total Expenses of Year 2010 as of 31/03/2010		US\$ 243,459	B.D 91,905

MIDRMA Board/10
Report on Agenda Item 4

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

MID RVSM SMR 2010

4.1 The meeting recalled that the MIDRMA Board/8 meeting (Abu Dhabi, UAE, 27-28 May 2009), through Draft Conclusion 8/3, agreed that the MID RVSM SMR-2010 be ready before 31 March 2010 for review by the MIDRMA Board Members before presentation the MIDRMA Board/10 meeting. Accordingly an Action Plan for the development of the SMR-2010 was initially developed by the MIDRMA Board/8 meeting and further updated by the MIDRMA Board/9 meeting (Beirut, Lebanon, 13-15 October 2009) and ATM/SAR/AIS SG/11 meeting (Bahrain, 10-12 November 2009), taking into consideration the delay observed in the provision of required data to the MIDRMA by a number of States. In this regard the meeting recalled that, in accordance with MIDANPIRG/11 Conclusion 11/21, States not providing the required data to the MIDRMA on a regular basis and in a timely manner, are to be included in the MIDANPIRG List of Air Navigation Deficiencies.

4.2 The meeting highlighted that the ATM/SAR/AIS SG/11 meeting shared the concern with the MIDRMA related to the reporting of Altitude Deviation Reports (ADRs), which is considered one of the most important elements for the development of the Safety Monitoring Reports. In this regard, it was recognized that it's unrealistic that a number of FIRs experiencing high volume of traffic continue to report NIL ADRs since 2007.

4.3 The meeting noted also with concern that despite the follow-up actions carried out by both the MIDRMA and the ICAO MID Regional Office with a view to update the list of RVSM approved aircraft in the MID Region, a number of States were not providing the required data on a regular basis and timely manner. In this regard, the meeting recalled that the ATM/SAR/AIS SG/11 meeting agreed with the MIDRMA Board/9 meeting that, those aircraft which are not listed in the MIDRMA database as having valid RVSM approvals, should be considered as non-RVSM compliant and accordingly, prohibited from entering any RVSM airspace and accordingly, agreed to the following Draft Conclusion:

DRAFT CONCLUSION 11/4: AIRCRAFT WITHOUT CONFIRMED RVSM APPROVAL STATUS

That,

- a) States and the MID RMA be invited to take necessary measures to ban any aircraft without confirmed RVSM approval status from entering the RVSM airspace;*
- b) States be urged to report any case of hand-over at an RVSM Flight Level of an aircraft without confirmed RVSM approval status from adjacent ACCs to the ICAO MID Regional Office and the MID RMA; and*
- c) the MID RVSM Programme Managers monitor and follow up this subject at the national level, in order to ensure the efficient implementation of a) and b) above.*

4.4 The following Tables present the status of provision of ADRs, CFRs and RVSM Approvals by States for the period January 2009 – April 2010:

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	JAN. 09			FEB. 09			MAR. 09			APR.09		
	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM
Bahrain	NIL	4		NIL	101		1	50	18 Mar	2	49	16 Apr
Egypt	NIL	NIL	19 Jan				NIL	NIL				
Iran	2	3		2	1		NIL	NIL		NIL	NIL	
Iraq												
Jordan	NIL	3		NIL	NIL		NIL	8		NIL	3	
Kuwait			29 Jan									
Lebanon	NIL	NIL		NIL	NIL		NIL	NIL	03 Mar	NIL	NIL	09 Apr
Oman							NIL	4	22 Mar	NIL	4	
Qatar	-	-		-	-		-	-		-	-	
Saudi Arabia	NIL	5	04 Jan	NIL	10		NIL	2		NIL	1	
Syria	NIL	NIL	20 Jan				NIL	NIL		NIL	NIL	
UAE	2	8		2	11		NIL	12	10 Mar	3	11	02 Apr
Yemen	NIL	NIL		NIL	NIL	04 Feb	NIL	2	06 Mar	NIL	NIL	24 Apr

	MAY. 09			JUN. 09			JUL. 09			AUG.09		
	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM
Bahrain	NIL	26		1	5		NIL			NIL	8	6 Sep
Egypt	NIL	NIL		NIL	NIL	03 Jun	NIL	NIL		NIL	NIL	3 Sep
Iran	NIL	NIL		NIL	NIL		NIL	NIL		NIL	8	
Iraq												
Jordan	NIL	NIL		NIL	6	23 Jun	NIL	NIL				
Kuwait						23 Jun						
Lebanon	NIL	NIL	17 May	NIL	NIL		NIL	NIL		NIL	NIL	
Oman	NIL	1		NIL	1	16 Jun	NIL	3				
Qatar	-	-	04 May	-	-		-	-		-	-	
Saudi Arabia	NIL	NIL		NIL	NIL		NIL	4		NIL	29	
Syria	NIL	NIL	10 May	1	NIL		4	NIL		3	NIL	
UAE	2	8		NIL	5	23 Jun	1	4	13 Jul	NIL	6	
Yemen	NIL	NIL		2	1	30 Jun	NIL	NIL	10 Jul	NIL	NIL	

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	SEP. 09			OCT. 09			NOV. 09			DEC.09		
	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM	ADR	CFR	RVSM
Bahrain	NIL	NIL			3	22	NIL	4		NIL	NIL	
Egypt	NIL	1	28 Sep	NIL	1	25 Oct	NIL	2	18 Nov	NIL	1	4 Jan
Iran	NIL	NIL		NIL	6	3 Oct	NIL	2		NIL	3	
Iraq												
Jordan	NIL	NIL		NIL	NIL		NIL	8	20 Nov	NIL	NIL	5 Jan
Kuwait									9 Nov			23 Dec
Lebanon	NIL	NIL		NIL	NIL	22 Oct	NIL	NIL	1 Dec			1 Dec
Oman			10 Oct	NIL	2		NIL	18		NIL	8	5 Jan
Qatar												
Saudi Arabia	NIL	NIL		NIL	NIL		NIL	3		NIL	5	
Syria	NIL	NIL	9 Oct				NIL	NIL		NIL		5 Dec
UAE	NIL			3	2		1	12				
Yemen	NIL	1	12 Oct	NIL	NIL		NIL	NIL		NIL	NIL	

	JAN. 10			FEB. 10			MAR. 10			APR. 10		
	ADR	CFR	RVSM									
Bahrain	1	2		2	3		1	NIL		1	NIL	
Egypt	NIL	NIL		NIL	NIL		NIL	1	7 Mar			
Iran	NIL	NIL		NIL	NIL		NIL	NIL				
Iraq												
Jordan	NIL	4	3 Jan	NIL	9	NIL	NIL	11	4 Mar	NIL	NIL	7 Apr
Kuwait		18	14 Jan		15				31 Mar			
Lebanon	NIL	NIL		NIL	NIL		NIL	NIL		NIL	NIL	30 Apr
Oman	NIL	4		NIL	3		NIL	NIL				
Qatar						12 Feb						
Saudi Arabia	NIL	14	5 Jan	NIL	4		NIL	3				
Syria	NIL	NIL		NIL	NIL		NIL	NIL				6 Apr
UAE	2	3		12	14		NIL	4				
Yemen												

4.5 Based on the above, and in accordance with MIDANPIRG/11 Conclusion 11/21, the meeting agreed to the inclusion of Kuwait in the MIDANPIRG List of Air Navigation Deficiencies for not providing the required data to the MIDRMA on a regular basis and in a timely manner.

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4.6 The meeting reviewed the draft MID RVSM SMR 2010 developed by the MIDRMA. It was highlighted that SMR 2010 presents evidence that, according to the data and methods used, the key safety objectives as set out by MIDANPIRG, through Conclusion 11/22, continue to be met. In this respect, it was noted with appreciation that the three safety objectives were met including safety objective#2 related to the overall vertical-collision risk, as follows:

Objective 1: The risk of collision associated with aircraft height-keeping performance in the MID RVSM airspace meets the ICAO Target Level of Safety (TLS) of 2.5×10^{-9} fatal accidents per flight hour. The 2010 value computed for the technical height risk is 1.26×10^{-11} . This meets RVSM Safety Objective 1.

4.7 The meeting recalled that the evidence concerning the risk of collision due to technical height-keeping performance is considered reliable if it can be shown, inter-alia, that the $P_z(1000)$ – the probability of vertical overlap due to technical height-keeping performance, between aircraft flying 1000 ft separation in the MID RVSM airspace, is less than 1.7×10^{-8} . For the MID RVSM SMR 2010, the computed value of the $P_z(1000)$ is 1.38×10^{-9} , which meets the ICAO requirement.

Objective 2: The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal accidents per flight hour. The 2010 value computed for the overall risk is 5.66×10^{-10} . This meets RVSM Safety Objective 2.

4.8 The effect of future traffic growth has also been assessed. The overall risk of collision will continue to meet the TLS of 2.5×10^{-9} fatal accidents per flight hour until 2015.

4.9 The meeting noted that for the purpose of calculation of the overall risk, ADRs and CFRs have been collected from the MIDRMA States for the period 1 January 2009 to 31 March 2010. It was emphasized that the accuracy of the estimation of the total risk is completely reliant on accurate reporting by States. In this regard, it was highlighted that all 11 the FIRs/UIRs covered by the SMR 2010 have provided ADRs to the MIDRMA. However, of the 11, 8 have provided NIL reports for the reporting period and 3 FIRs/UIRs have provided actual ADRs.

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.

4.10 The meeting noted that the analysis of operational error reports and coordination failure reports for 2009 and until March 2010 and the recommendations put forward in the SMR 2010, based on this analysis, provide sufficient evidence that RVSM Safety Objective 3 is being met. The following recommendations were highlighted:

- (i) The MIDRMA, in coordination with ICAO MID Regional Office and the concerned States affected by the poor communications with Baghdad ACC, shall ensure that incidents and altitude deviations are reported to the MIDRMA in a continuous basis and timely manner for operational safety assessment/analysis. All concerned parties are also urged to cooperate with Iraq to find better solutions to improve communication and coordination.

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- (ii) Yemen and other concerned States are requested to continue reporting all the communication failures over the Red Sea area.
- (iii) MIDRMA to continue monitoring RVSM operations in the whole Middle East RVSM airspace over the months by the collection of altitude deviation and coordination failure reports from the participating States. Those reports should describe the nature, duration and length of the altitude deviation and coordination failure.
- (iv) MIDRMA, in coordination with the its Member States, shall provide assistance to the operators requesting to conduct GMU monitoring.

4.11 With regard to the height-keeping performance, the meeting noted that a total of 5,950 individual airframes submitted flight plans for the sample period. The Table below shows that of these 5,950 individual airframes, 2,860 have HMU monitoring results from the European monitoring programme, and 3,090 airframes do not have known monitoring results:

Operators with ACFT having known monitoring results in EUR	2,860	48%
Operators with ACFT without known monitoring results	3,090	52%
Total	5,950	100%

4.12 A total of 1,249 RVSM approvals for the Middle East Region were available during the assessment period; 625 approvals are related to aircraft that have HMU monitoring results from the European monitoring programme, 31 aircraft conducted GMU monitoring with good results, and 613 approvals are related to aircraft without known monitoring results. However, for these 613 approvals, similar aircraft group performance from the European database have been used for the analysis, which raised the results of height-keeping monitoring to 90% as reflected in the Table below:

Middle East ACFT Monitored	636	50.9%
Middle East ACFT not Monitored	613	49.1%
Total	1,249	100%
Middle East ACFT Monitored & Similar Group Performance for ACFT without Height Monitoring Results	1125	90%

4.13 The meeting recalled that the MIDRMA Board/9 and the ATM/SAR/AIS SG/11 meetings noted that in other Regions Scrutiny Groups were established to perform the review of ADRs, with the objective of determining which reports have an influence on the risk of collision associated with the application of RVSM. In addition, the Scrutiny Group analyses and validates the Coordination Failure Reports (CFRs), and where applicable proposes remedial actions and procedures. Accordingly, the ATM/SAR/AIS SG/11 meeting, through Draft Decision 11/5, agreed with the MIDRMA Board/9 meeting on the establishment of a MID RVSM Scrutiny Group with Terms of Reference (TOR) as at **Appendix 4A** to the Report on Agenda Item 4. Accordingly, the first meeting of the Scrutiny Group was held concurrently with the MIDRMA Board/10 meeting on 3 May 2010.

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4.14 Based on the above, the meeting agreed that the Draft SMR 2010 should be further reviewed by all concerned parties and that the comments and suggestions to improve the SMR 2010 should reach the MIDRMA before 30 June 2010, in order to prepare the final version of the SMR 2010, which will be presented to MIDANPIRG/12 for endorsement. Accordingly, the meeting agreed to the following Draft Conclusion:

***DRAFT CONCLUSION 10/4: REVIEW OF THE DRAFT MID RVSM
SMR 2010***

That:

- a) *the MIDRMA Board Members, in coordination with the appropriate experts within their States (including the RVSM Managers), further review the Draft MID RVSM SMR 2010 and provide their comments and suggestions to the MIDRMA before **30 June 2010**;*
- b) *the MIDRMA consolidate the final version of the MID RVSM SMR 2010 based on the outcome of the Scrutiny Group meeting and the comments and suggestions received, in order to be presented to the MIDANPIRG/12 meeting for endorsement.*

Height Keeping Monitoring Requirements

4.15 The meeting recalled that the ICAO Separation and Airspace Safety Panel (SASP) agreed that globally applicable minimum long-term monitoring requirements were required as the Altimetry System Error (ASE) is invisible and could not be detected without specialized monitoring systems and could therefore pose a serious risk if uncorrected. In this respect, the meeting recalled that previous MIDRMA Board 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 further noted that Amendment 29 to ICAO Annex 6, Part II was adopted by the ICAO Council at the seventh meeting of its 189th Session on 26 February 2010. This Amendment, to the extent it becomes effective, will become applicable on 18 November 2010.

4.16 The meeting noted that as of 18 November 2010, the State of Registry that had issued an RVSM approval to an operator would be required to establish a requirement which ensures that a minimum of 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 1000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.

4.17 The meeting recalled that the MIDRMA Board/9 meeting agreed on a strategy with two lines of action (Short Term and Medium and Long Term) for the height-keeping monitoring in the MID Region. The meeting further reviewed and updated this strategy as at **Appendix 4B** to the Report on Agenda Item 4. Accordingly, the meeting agreed to the following Draft Conclusion:

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DRAFT CONCLUSION 10/5: MID REGION HEIGHT-KEEPING MONITORING STRATEGY

That, the MID Region height-keeping monitoring strategy is adopted as at Appendix 4B to the Report on Agenda Item 4.

4.18 In the same vein, the MIDRMA informed the meeting that the Minimum Monitoring Requirements Table (MMR) at **Appendix 4C** to the Report on Agenda Item 4 was reviewed and updated during the Global RMA meeting which took place in Canberra – Australia 02-06 November 2009. In this regard, the meeting urged States to enforce the implementation of the MMR Table to ensure that minimum monitoring requirement for all MID RVSM approved aircraft is continuously met.

4.19 The meeting was apprised of the MIDRMA GMU activities, in coordination with China RMA. It was highlighted in this regard that the MIDRMA was approached first by Iran then by airline operators from Egypt, Kuwait, Qatar, Saudi Arabia and UAE to conduct GMU monitoring. Accordingly, during the period 11 February - 2 March 2010, GMU checks were successfully conducted for 29 Iranian aircraft, under the supervision of Iran CAO and all technical, administrative and financial issues were smoothly closed. It was noted that amongst the 29 monitored aircraft, only one (1) aircraft (YAS AIR (MHD) AN74) was found to have aberrant height-keeping monitoring results.

4.20 The meeting recalled that the MIDRMA Board/9 meeting, through Draft Conclusion 9/5, agreed that the MID RMA develop a feasibility study, cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region with self-sufficiency capability (acquisition of necessary hardware, software, training, etc). In accordance with the MID Region height-keeping monitoring Strategy, and due to the increased demand for the conduct of GMU checks in the MID Region, the meeting agreed that the MIDRMA proceed with the purchase of two (2) GPS – based Monitoring Units (GMUs) manufactured by CSSI, which is an American Company specialized in height monitoring and providing GMU monitoring service for RVSM approved aircraft in USA. In this regard, it was highlighted that the GMU Units will be supplied with the required data processing software, and necessary training to the MIDRMA monitoring Team.

4.21 In connection with the above, the meeting encouraged States to involve their airworthiness engineers in the conduct of GMU checks in the MID Region, in coordination with the MIDRMA, providing that they get the necessary basic training and on-the-job training (OJT) for the conduct of the GMU checks. However, it was highlighted that the processing of the GMU height-keeping monitoring results will be carried out by the MIDRMA using the GMU data processing software.

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

DRAFT CONCLUSION 10/6: MIDRMA GMU INFRASTRUCTURE

That, in accordance with the MID Region height-keeping monitoring Strategy, and with a view to conduct GMU Monitoring in the MID Region with self-sufficiency capability, the MIDRMA proceed with the purchase of two (2) GPS – based Monitoring Units (GMUs), with the required data processing software and necessary training package.

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Action Plan for the development of the MID RVSM SMR 2012

4.23 The meeting recalled that the collection of data for the preparation of the Safety Monitoring Report is a lengthy process which is time-consuming.

4.24 It was highlighted that, in accordance with MIDANPIRG Conclusion 11/21, the required data for the MID RVSM SMR 2012, will remain exactly the same as for the previous reports; including the requirements for continuous submission of ADRs and CFRs, on a monthly basis.

4.25 It was underlined that all required data must be submitted in the right format and that any data received in a different format, or in an excel sheet different from the one available on the MIDRMA website, www.midrma.com, would not be acceptable. With regard to the sheet used to collect actual/current flight plan data of traffic operating between FL 290 and FL 410 inclusive, it was highlighted that the data to be reflected in the Excel sheet includes the following elements:

COLUMN	NAME	DESCRIPTION
A	DATE	Date of Flight – in the form of date/month/year
B	ACFT REG/ Mode S address	Aircraft registration or Mode S address
C	ACFT TYPE	Aircraft type
D	ACFT C/S	Aircraft call sign used during the flight
E	DEP ADM	Departure aerodrome of the flight
F	DEST ADM	Destination aerodrome of the flight
G	ENTRY POINT	The point from which the aircraft has entered the FIR boundary or the RVSM airspace between FL 290 & FL410 inclusive, (in case of an aircraft is departing from an aerodrome within the same FIR and the point cannot be determined, 0 value must be inserted in this field)
H	ENTRY LEVEL	The Flight level to which the aircraft has entered the relevant FIR (the level must correspond to the RVSM level only - between FL 290 & FL 410 inclusive)
I	ENTRY TIME	The actual time at which the aircraft has entered the FIR or the RVSM airspace (the time must be in UTC four figures time group without any space or dots in between)
J	EXIT POINT	The actual time to which the aircraft has left the FIR boundary or the RVSM airspace or in case of an aircraft is landing in an aerodrome within the same FIR, the point or the nearest point at which the aircraft has left the RVSM airspace, therefore, if this point cannot be determined, 0 value must be inserted in this field)
K	EXIT LEVL	The Flight level to which the aircraft has exited the relevant FIR (the level must correspond to the RVSM level only - between FL 290 & FL 410 inclusive), for ACFT landing within the FIR, insert 0 value.

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COLUMN	NAME	DESCRIPTION
L	EXIT TIME	The actual time at which the aircraft has exited the FIR or the RVSM airspace (the time must be in UTC four figures time group without any space or dots in between).
M	TOTAL FLYING TIME	This column has to be left blank, as special formulas shall automatically calculate the flying time, however, the responsibility of filling this field shall solely rely on office.
N	EQUIPMENT	Letter W must be inserted in this field as extracted from the flight plan, if non-RVSM aircraft was permitted to operate within the RVSM airspace letter M must be inserted.
O	REMARKS	Any other additional remarks or points related to the flight.

4.26 The meeting recalled that during the MIDRMA Board meetings, the reporting of the Aircraft Registration (ACFT REG in field B) was particularly highlighted since this information is necessary in order to be able to extract the height monitoring results from the European HMUs. Taking into consideration the evolving implementation of Mode S in the MID Region, the meeting agreed that States will have the possibility to report either the ACFT REG or the Mode S address. Accordingly, the MIDRMA was requested to modify the Excel sheet in order to divide field B into two sub-items (field B1 for ACFT REG) and (field B2 for Mode S address).

4.27 The meeting agreed that for the MID RVSM SMR 2012, the month of January 2011 will be used for the collection of the actual FPL/Traffic data. However, it was underlined that in order to improve the results of the SMR 2012, States shall make all efforts to oblige the operators of those aircraft identified as not having known monitoring results to carry out the necessary height monitoring, as soon as possible, and send the monitoring results to the MIDRMA before 30 November 2010.

4.28 Based on the above, the meeting agreed to the following Draft Conclusions:

**DRAFT CONCLUSION 10/7: AIRCRAFT WITHOUT KNOWN HEIGHT
MONITORING RESULTS**

That:

- a) *States are urged to send to the MIDRMA an updated list of approvals of operators and aircraft for RVSM operations, prior to **15 June 2010**;*
- b) *based on the updated list of RVSM approvals, the MIDRMA identify those aircraft/operators without known height monitoring results, in accordance with ICAO aircraft grouping categories and forward the list of identified aircraft/operators to concerned States of registry, prior to **1 July 2010**;*
- c) *States review the lists provided by the MIDRMA, take necessary follow up action with concerned operators in order to carry out necessary height monitoring and send the monitoring results to the MIDRMA before **30 November 2010**.*

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DRAFT CONCLUSION 10/8: MID RVSM SMR 2012

That,

- a) *the FPL/traffic data for the period 1-31 January 2011 be used for the development of the MID RVSM Safety Monitoring Report (SMR 2012);*
- b) *only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; and*
- c) *the draft version of the MID RVSM SMR 2012 be ready before 30 September 2011 for review by the ATM/SAR/AIS SG/12 meeting.*

4.29 Therefore, the meeting agreed to the following Action Plan for the development of the MID RVSM SMR 2012:

NO	START	ACTIVITY	END
1	01/01/2011	States to collect actual traffic data for all traffic operating between FL290 and FL410 inclusive	31/01/2011
2	01/01/2011	Collect Bahrain, Jordan and Kuwait SSR radar data for January 2011.	31/01/2011
3	01/02/2011	Collect States' actual traffic data and the recorded radar data	30/04/2011
4	01/05/2011	MIDRMA review of all ADRs and CFRs	31/05/2011
5	01/05/2011	MID RVSM scrutiny group meeting to validate all operational error reports.	31/05/2011
6	01/05/2011	Presentation of a progress report on the development of the MID RVSM SMR 2012 to the MIDRMA Board/11	31/05/2011
7	01/05/2011	Ensure MID RVSM approvals are up to date and collect monitoring results from other RMAs other than Eurocontrol.	31/05/2011
8	01/06/2011	Send copy of actual traffic data and MID RVSM approvals to Euro RMA for extracting height monitoring results	30/06/2011
9	01/07/2011	Euro RMA to extract operators/types from FPL, check monitoring results for approvals and send new list of operators requiring monitoring to MIDRMA.	31/07/2011
10	01/08/2011	MIDRMA calculation/evaluation of technical risk	31/08/2011
11	01/08/2011	MIDRMA calculation of the lateral overlap probability	31/08/2011
12	01/09/2011	MIDRMA calculation of the overall risk due all causes	30/09/2011

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NO	START	ACTIVITY	END
13	01/09/2011	Review of outstanding operational reports	30/09/2011
14	01/09/2011	Production of draft SMR 2012	01/10/2011
15	01/11/2011	Presentation of draft SMR 2012 to the ATM/SAR/AIS SG/12 meeting	30/11/2011

MID RVSM Safety Assessment Seminar

4.30 The meeting recalled that the MID RVSM Safety Assessment Seminar was successfully held in Bahrain from 22 to 24 February 2010. It was noted that thirty four (34) participants from 10 States (Bahrain, Egypt, Iran, Iraq, Jordan, Oman, Qatar, Saudi Arabia, Syria and UAE) and 1 International Organization (IATA) attended the Seminar. The meeting raised concern regarding the low level of attendance to such an important Seminar, which was organized upon request from States with a view to raise the knowledge of all involved parties related to the requirements for sustained RVSM safety assessment activity.

4.31 The meeting reviewed the outcome of the MID RVSM Safety Assessment Seminar at **Appendix 4D** to the Report on Agenda Item 4 and invited States, the MIDRMA and all concerned parties to take necessary follow-up actions on the Recommendations developed by the Seminar.

RVSM Implementation within Baghdad FIR

4.32 The meeting was apprised of the outcome of the First Meeting of the Baghdad FIR RVSM Implementation Working Group (BFRI WG/1), held in Cairo, from 18 to 20 January 2010.

4.33 The meeting recalled that, taking into consideration the delay observed in the implementation of a number of actions contained in the action plan developed by the BFRI WG/1 meeting, and noting that the safety case related to the establishment of a limited RVSM airspace within Baghdad FIR had not been developed, the MSG/2 meeting did not support a phased implementation of RVSM within Baghdad FIR. However, it was agreed that all efforts should be made to implement RVSM within the whole Baghdad FIR on 10 March 2011.

4.34 The meeting was informed that CSSI was awarded a contract to assist the Iraqi Civil Aviation Authority (ICAA) in the process of preparation for the implementation of RVSM within Baghdad FIR.

4.35 The meeting reviewed and updated the action plan for the implementation of RVSM within Baghdad FIR as at **Appendix 4E** to the Report on Agenda Item 4. In this regard, although the delay observed in the implementation of the action plan for the implementation of RVSM within Baghdad FIR, the meeting noted with appreciation Iraq willingness to implement all the requirements listed in the action plan and to update the ICAO MID Regional Office and the MIDRMA on regular basis.

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4.36 In connection with the above, Iraq requested that a coordination meeting between Iraq (with the presence of CSSI), the ICAO MID Regional Office, the MIDRMA and IATA be held in September 2010, in order to follow-up the status of implementation of the action plan for RVSM implementation and take necessary action to pave the way for the BFRI WG/2 meeting scheduled to be held in Cairo, 13-15 December 2010, to take the Go-no-Go decision for RVSM implementation within Baghdad FIR on 10 March 2011. The meeting agreed that this should be coordinated between Iraq, the ICAO MID Regional Office and the MIDRMA to decide on the exact dates and venue of this meeting.

MIDDLE EAST RVSM SCRUTINY GROUP (RVSM SG)

TERMS OF REFERENCE

A) TERMS OF REFERENCE

With a view to improve the quality of the MID RVSM Safety Monitoring Reports (SMR), the MID RVSM Scrutiny Group is established to:

- 1) review, analyze and evaluate the Altitude Deviation Reports of 300 ft or greater and Coordination Failure Reports (CFRs), in coordination with the MID RMA, as defined by ICAO Doc 9574;
- 2) determine/validate estimates of the duration of deviations from the cleared levels in order to be used as primary input in the preparation of the risk estimate by the MIDRMA;
- 3) identify large height deviation trends and recommend remedial actions in order to improve safety.

B) COMPOSITION

The MID RVSM Scrutiny Group shall consist of ATM Experts from Bahrain, Egypt, Iran, Saudi Arabia and Oman in addition to representatives from the MID RMA, ICAO, IATA and IFALPA. EUROCONTROL could be also invited to participate to the Scrutiny Group meetings, when required.

C) WORKING ARRANGEMENTS

The MID RVSM Scrutiny Group should report to the ATM/SAR/AIS Sub Group and MID RMA Board.

The MID RVSM Scrutiny Group meetings should be organized by the MID RMA, which should provide necessary secretarial support (invitation letter, agenda, work programme, reports, etc).

The MID RVSM Scrutiny Group should meet when deemed necessary and at least once every 18 months (before each MIDANPIRG meeting).

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Appendix 4B to the Report on Agenda Item 4

MID REGION HEIGHT-KEEPING MONITORING STRATEGY

Considering:

- a) The status of implementation of RVSM in the MID Region;
- b) the ICAO requirements for height-keeping monitoring contained in Annex 6, Annex 11 and Doc 9574 (RVSM Manual);
- c) the duties and responsibilities of the MIDRMA; and
- d) the sustained need for height-keeping monitoring of aircraft operating within the MID RVSM airspace;

Recognizing:

- i) that an important number of Middle East region aircraft do not have known monitoring results; and
- ii) the necessity to develop a MID Region Height monitoring infrastructure;

Agreed:

That the MID Region height-keeping monitoring Strategy is as described below:

1) Short Term:

- States to follow up with concerned aircraft operators to carry out necessary height keeping monitoring for the aircraft identified by the MIDRMA; and
- States encountering difficulties to get the necessary height monitoring results to coordinate with the MIDRMA for the conduct of GPS Monitoring Unit (GMU) monitoring for the identified operators' aircraft.

2) Medium and Long Term:

- the MIDRMA to conduct GMU Monitoring in the MID Region with self-sufficiency capability (acquisition of necessary hardware, software, training, etc);
- the use of the Omani Multilateral-based Height Monitoring Unit (HMU), or any other HMU that becomes available in the MID Region, as a possible means of conducting height-keeping monitoring; and
- the possibility of using a MID Region HMU infrastructure as the main mean of height-keeping monitoring in the Region, if supported by a feasibility study and business case and when decided by the MIDRMA Board to go ahead with such an important project.

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Appendix 4C to the Report on Agenda Item 4

MIDRMA MMR - 21 April 2010

MIDRMA RVSM MINIMUM MONITORING REQUIREMENTS:

1. **UPDATE OF MONITORING REQUIREMENTS TABLE AND WEBSITE.** As significant data is obtained, monitoring requirements for specific aircraft types may change. When Table 1 below, is updated, a letter will be distributed by the Regional Monitoring Agencies (RMAs) to the States concerned. The updated table will be posted on the RMA website being maintained by the International Civil Aviation Organization (ICAO). The secure website address is:

<http://portal.icao.int>
2. **INITIAL MONITORING.** All operators that operate or intend to operate in airspace where RVSM is applied are required to participate in the RVSM monitoring program. Table 1 establishes requirements for initial monitoring associated with the RVSM approval process. In their application to the appropriate State authority for RVSM approval, operators must show a plan for meeting the applicable initial monitoring requirements.
3. **AIRCRAFT STATUS FOR MONITORING.** Aircraft engineering work that is required for the aircraft to receive RVSM airworthiness approval must be completed prior to the aircraft being monitored. Any exception to this rule will be coordinated with the State authority.
4. **APPLICABILITY OF MONITORING FROM OTHER REGIONS.** Monitoring data obtained in conjunction with RVSM monitoring programs from other regions can be used to meet regional monitoring requirements. The RMAs, which are responsible for administering the monitoring program, have access to monitoring data from other regions and will coordinate with States and operators to inform them on the status of individual operator monitoring requirements.
5. **MONITORING PRIOR TO THE ISSUE OF RVSM OPERATIONAL APPROVAL IS NOT A REQUIREMENT.** Operators should submit monitoring plans to the responsible civil aviation authority and the RMA that show how they intend to meet the requirements specified in Table 1. Monitoring will be carried out in accordance with this table.
6. **AIRCRAFT GROUPS NOT LISTED IN TABLE 1.** Contact the RMA for clarification if an aircraft group is not listed in Table 1 or for clarification of other monitoring related issues. An aircraft group not listed in Table 1 will probably be subject to Category 2 monitoring requirements.
7. **TABLE OF MONITORING GROUPS.** Table 2 shows the aircraft types and series that are grouped together for operator monitoring purposes.
8. **TRAILING CONE DATA.** Altimetry System Error estimations developed using Trailing Cone data collected during RVSM certification flights can be used to fulfill monitoring requirements. It must be documented, however, that aircraft RVSM systems were in the approved RVSM configuration for the flight.
9. **MONITORING OF AIRFRAMES THAT ARE RVSM COMPLIANT ON DELIVERY.** If an operator adds new RVSM compliant airframes of a type for which it already has RVSM operational approval and has completed monitoring requirements for the type in accordance with the attached table, the new airframes are not required to be monitored. If an operator adds new RVSM compliant airframes of an aircraft type for which it has NOT previously received RVSM operational approval, then the operator should complete monitoring in accordance with the attached table.
10. **FOLLOW-ON MONITORING.** Monitoring is an on-going program that will continue after the RVSM approval process. Long term minimum monitoring requirements are established in the Annex 6 to the Convention on International Civil Aviation. On a regional basis, a programme shall be instituted for monitoring the height-keeping

performance of aircraft operating in RVSM airspace in order to ensure that continued application of this vertical

MONITORING IS REQUIRED IN ACCORDANCE WITH THIS TABLE			
MONITORING PRIOR TO THE ISSUE OF RVSM APPROVAL IS <u>NOT</u> A REQUIREMENT			
CATEGORY	AIRCRAFT GROUP	MINIMUM OPERATOR MONITORING FOR EACH AIRCRAFT GROUP	
1	GROUP APPROVED: DATA INDICATES COMPLIANCE WITH THE RVSM MASPS	A124, A300, A310-GE, A310-PW, A318, A320, A330, A340, A345, A346, A3ST, AVRO, B712, B727, B737CL, B737C, B737NX, B747CL, B74S, B744-5, B744-10, B752, B753, B767CL, B764, B772, B773, BD100, CL600, CL604, C525, C560, C56X, C650, C750, CARJ, CRJ7, CRJ9, DC10, E135-145, E170-190, F100, F900, FA10, GALX, GLEX, GLF4, GLF5, H25B-800, J328, LJ40, LJ45, LJ60, MD10, MD11, MD80, MD90, PRM1, T154	10% or Two airframes, whichever is higher, from each fleet* of an operator to be monitored as soon as possible but not later than 6 months after the issue of RVSM approval and thereafter as directed by the RMA * <i>Note. For the purposes of monitoring, aircraft within parenthesis [] may be considered as belonging to the same fleet. For example, an operator with six A332 and four A333 aircraft may monitor one A332 and one A333 or two A332 aircraft or two A333 aircraft. If the fleet has only one airframe that airframe must be monitored.</i>
2	GROUP APPROVED: INSUFFICIENT DATA ON APPROVED AIRCRAFT	Other group aircraft other than those listed above including: A380, ASTR, ASTR-SPX, B703, B731, B732, BD700, BE20, BE40, C500, C25A, C25B, C550**, DC86-7, DC93, DC95, F2TH, F70, FA20, FA50, GLF2, GLF2B, GLF3, H25B-700, H25C, IL62, IL76, IL86, IL96,, L101, L29B-2, L29B-731, LJ31, LJ35/36, LJ55, P180, SBR1, T134, T204, YK42	60% of airframes (round up if fractional) from each fleet of an operator or individual monitoring, as soon as possible but not later than 6 months after the issue of RVSM approval and thereafter as directed by the RMA ** Refer to aircraft group table for detail on C550 monitoring
3	Non-Group	Non-group approved aircraft	100% of aircraft shall be monitored as soon as possible but not later than 6 months after the issue of RVSM approval.

separation minimum meets regional safety objectives.

EFFECTIVE AS OF: 01 JANUARY 2010

Table 1: MINIMUM MONITORING REQUIREMENTS TABLE

Table 2: MONITORING GROUPS FOR AIRCRAFT CERTIFIED UNDER GROUP APPROVAL REQUIREMENTS

Monitoring Group	A/C ICAO	A/C Type	A/C Series
A124	A124	AN-124 RUSLAN	ALL SERIES
A300	A306 A30B	A300 A300	600, 600F, 600R, 620, 620R, 620RF B2-100, B2-200, B4-100, B4-100F, B4-120, B4-200, B4-200F, B4-220, C4-200
A310-GE	A310	A310	200, 200F, 300, 300F
A310-PW	A310	A310	220, 220F, 320
A318	A318	A318	ALL SERIES
A320	A319 A320 A321	A319 A320 A321	CJ , 110, 130 110, 210, 230 110, 130, 210, 230
A330	A332 A333	A330	200, 220, 240, 300, 320, 340
A340	A342 A343	A340	210 310
A345	A345	A340	540
A346	A346	A340	640
A380	A388	A380-800	800
A3ST	A3ST	A300	600R ST BELUGA
AN72	AN72	AN-74, AN-72	ALL SERIES
ASTR	ASTR	1125 ASTRA	ALL SERIES
ASTR-SPX	ASTR	ASTR SPX	ALL SERIES
AVRO	RJ1H, RJ70, RJ85	AVRO	RJ70, RJ85, RJ100
B703	B703	B707	300
B712	B712	B717	200
B727	B721 B722	B727	100, 100C, 100F, 100QF 200, 200F
B731	B731	B737	100
B732	B732	B737	200, 200C
B737CL	B733 B734 B735	B737	300 400 500

Monitoring Group	A/C ICAO	A/C Type	A/C Series
B737NX	B736 B737 B738 B739	B737 B737 B737 B737	600 700, 700BBJ 800, BBJ2 900
B737C	B737	B737	700C
B747CL	B741 B742 B743	B747	100, 100B, 100F, 200B, 200C, 200F, 200SF, 300
B74S	B74S	B747	SR, SP
B744-5	B744	B747	400, 400D, 400F (With 5 inch Probes)
B744-10	B744	B747	400, 400D, 400F (With 10 inch Probes)
B752	B752	B757	200, 200PF
B753	B753	B757	300
B767CL	B762 B763	B767	200, 200EM, 200ER, 200ERM, 300, 300ER, 300ERF
B764	B764	B767	400ER
B772	B772	B777	200, 200ER
B773	B773	B777	300, 300ER
BE20	BE20	BEECH 200 -KINGAIR	ALL SERIES
BE40	BE40	BEECHJET 400A	ALL SERIES
C500	C500	500 CITATION, 500 CITATION I, 501 CITATION I SINGLE PILOT	ALL SERIES
C525	C525	525 CITATIONJET 525 CITATIONJET I	ALL SERIES
C25A	C25A	525A CITATIONJET II	ALL SERIES
C25B	C25B	CITATIONJET III	ALL SERIES
C550-552	C550	552 CITATION II	ALL SERIES
C550-B	C550	550 CITATION BRAVO	ALL SERIES
C550-II	C550	550 CITATION II 551 CITATION II SINGLE PILOT	ALL SERIES
C550-SII	C550	S550 CITATION SUPER II	ALL SERIES
C560	C560	560 CITATION V 560 CITATION V ULTRA 560 CITATION V ULTRA ENCORE	ALL SERIES
C56X	C56X	560 CITATION EXCEL	ALL SERIES
C650	C650	650 CITATION III 650 CITATION VI 650 CITATION VII	ALL SERIES
C750	C750	750 CITATION X	ALL SERIES

Monitoring Group	A/C ICAO	A/C Type	A/C Series
CARJ	CRJ1 CRJ2	REGIONALJET	100 200, 200ER, 200LR
CRJ7	CRJ7	REGIONALJET	700
CRJ9	CRJ9	REGIONALJET	900
CL600	CL60	CL-600 CL-601	CL-600-1A11 CL-600-2A12, CL-600-2B16
CL604	CL60	CL-604	CL-600-2B16
BD100	CL30	CHALLENGER 300	ALL SERIES
BD700	GL5T	GLOBAL 5000	ALL SERIES
DC10	DC10	DC-10	10, 10F, 15, 30, 30F, 40, 40F
DC86-7	DC86 DC87	DC-8	61,63 71,73
DC86-7-1	DC86, DC87	DC-8	62, 62F 72, 72F
DC93	DC93	DC-9	30, 30F
DC95	DC95	DC-9	SERIES 51
E135-145	E135, E145	EMB-135, EMB-145	ALL SERIES
E170-190	E170 E190	EMB-170/75 EMB-190/95	
F100	F100	FOKKER 100	ALL SERIES
F2TH	F2TH	FALCON 2000 FALCON 2000-EX	ALL SERIES
F70	F70	FOKKER 70	ALL SERIES
F900	F900	FALCON 900 FALCON 900EX	ALL SERIES
FA10	FA10	FALCON 10	ALL SERIES
FA20	FA20	FALCON 20 FALCON 200	ALL SERIES
FA50	FA50	FALCON 50 FALCON 50EX	ALL SERIES
GALX	GALX	1126 GALAXY	ALL SERIES
GLEXP	GLEXP	BD-700 GLOBAL EXPRESS	ALL SERIES
GLF2	GLF2	GULFSTREAM II (G- 1159)	ALL SERIES
GLF2B	GLF2	GULFSTREAM IIB (G- 1159B)	ALL SERIES
GLF3	GLF3	GULFSTREAM III (G- 1159A)	ALL SERIES
GLF4	GLF4	GULFSTREAM IV (G- 1159C)	ALL SERIES
GLF5	GLF5	GULFSTREAM V (G- 1159D)	ALL SERIES
H25B-700	H25B	BAE 125 / HS125	700B

Monitoring Group	A/C ICAO	A/C Type	A/C Series
H25B-800	H25B	BAE 125 / HAWKER 800XP BAE125/HAWKER 800 BAE 125 / HS125	ALL SERIES/A, B/800
H25C	H25C	BAE 125 / HAWKER 1000	A , B
IL62	IL62	ILYUSHIN-62	
IL76	IL76	ILYUSHU-76	
IL86	IL86	ILYUSHIN-86	NO SERIES
IL96	IL96	ILYUSHIN-96	M , T, 300
J328	J328	328JET	ALL SERIES
L101	L101	L-1011 TRISTAR	1 (385-1), 40 (385-1), 50 (385-1), 100, 150 (385-1-14), 200, 250 (385-1-15), 500 (385-3)
L29B-2	L29B	L-1329 JETSTAR 2	ALL SERIES
L29B-731	L29B	L-1329 JETSTAR 731	ALL SERIES
LJ31	LJ31	LEARJET 31	ALL SERIES
LJ35/6	LJ35 LJ36	LEARJET 35 LEARJET 36	ALL SERIES ALL SERIES
LJ40	LJ40	LEARJET 40	ALL SERIES
LJ45	LJ45	LEARJET 45	ALL SERIES
LJ55	LJ55	LEARJET 55	NO SERIES B, C
LJ60	LJ60	LEARJET 60	ALL SERIES
MD10	MD10	MD-10	ALL SERIES
MD11	MD11	MD-11	COMBI, ER, FREIGHTER, PASSENGER
MD80	MD81, MD82, MD83, MD87, MD88	MD-80	81, 82, 83, 87, 88
MD90	MD90	MD-90	30, 30ER
P180	P180	P-180 AVANTI	ALL SERIES
PRM1	PRM1	PREMIER 1	ALL SERIES
SBR1	SBR1	SABRELINER	
T134	T134	TU-134	A, B
T154	T154	TU-154	A , B, M, S
T204	T204, T224, T234	TU-204 TU-224 TU-234	100, 100C, 120RR, 200, C
YK42	YK42	YAK-42	ALL SERIES



International Civil Aviation Organization

MID RVSM Safety Assessment Seminar
(Bahrain, 22-24 February 2010)



SUMMARY

1. INTRODUCTION:

1.1 The MID RVSM Safety Assessment Seminar was successfully held in Bahrain from 22 to 24 February 2010. Thirty four (34) participants from 10 States (Bahrain, Egypt, Iran, Iraq, Jordan, Oman, Qatar, Saudi Arabia, Syria and UAE) and 1 international organization (IATA) have attended the seminar. The list of participants is at **Attachment A**. The Seminar was hosted by the Middle East Regional Monitoring Agency (MIDRMA). It was moderated by Mr. Mohamed Smaoui, RO/AIS/MET, ICAO MID Regional Office.

1.2 The Seminar addressed different subjects related to RVSM implementation and safety assessment, according to the following agenda:

1. Introduction
2. RVSM implementation and Regional Monitoring Agencies (RMAs)
3. RVSM Safety Assessment/Height-keeping Performance Monitoring
4. Seminar Outcome/Recommendations
5. Closing Session

1.3 The main objective of the Seminar was to raise the awareness of States and their Air Navigation Service Providers about the requirements for sustained RVSM safety assessment activity.

1.4 A number of presentations covering the different agenda items were provided during the Seminar as follows:

Title of the Presentation	Speaker
RVSM Implementation in the MID Region and MID RMA Project	Mr. Mohamed Smaoui Regional Officer AIS/MET, ICAO MID Office, Cairo
RMA Issues	Mr. Saulo Da Silva Technical Officer ATM ICAO HQ, Montreal
MID RMA Activities	Mr. Fareed Al-Alawi MIDRMA Manager
Altimetry System Errors (ASE) issues	Mr. Andrew Lewis Technical Manager Airspace, Network Planning, Navigation Directorate of Airspace Policy - EUROCONTROL

Title of the Presentation	Speaker
RVSM Height-keeping Performance Monitoring	Mr. Robert L. Miller, Jr. Vice President, Aerospace Division CSSI, Inc.
Monitoring and Validation of Aircraft Height Keeping Performance in Europe	Mr. Andrew Lewis Technical Manager Airspace, Network Planning, Navigation Directorate of Airspace Policy - EUROCONTROL
The Safety Web – Real Time Risk Monitoring	Professor Hussein Abbass Director Defence & Security Applications Research Centre University of New South Wales Australian Defence Force Academy Campus
RVSM Software	Dr. Sameer Alam Research Fellow (ATM) University of New South Wales Australian Defence Force Academy Campus
RADAC System	Mr. Per-Olov Hornaeus Systems Engineer COMBITECH AB, Sweden
Efficient Air Transportation	Mr. Kenny Norberg Marketing Director, SAAB Sweden
MID RMA Safety Monitoring Activities/difficulties	Mr. Fathi Ibrahim Al-Thawadi Head of Aeronautical & Airport Ops. Systems Civil Aviation Affairs, Bahrain (MIDRMA)
Threat and Error Management (TEM) and Normal Operation Safety Survey (NOSS)	Dr. Christopher S. Henry Director NOSS Collaborative USA
European Safety Assessment Methodology	Mr. Andrew Lewis Technical Manager Airspace, Network Planning, Navigation Directorate of Airspace Policy – EUROCONTROL
RMA Manual	Mr. Saulo Da Silva Technical Officer ATM ICAO HQ, Montreal
Development of MIDRMA SMRs	Mr. Fareed Al-Alawi MIDRMA Manager

2. SUMMARY OF DISCUSSIONS

2.1 The Seminar reiterated the benefits of RVSM implementation and underlined the need for RVSM implementation within Baghdad FIR.

2.2 The Seminar recalled ICAO Annex 6, Annex 11 and Doc 9574 (RVSM Manual) provisions related to RVSM safety assessment and in particular monitoring of height-keeping performance.

2.3 The Seminar reiterated that the introduction and continued safe use of RVSM in a portion of airspace is said to be “safe” if the risk of midair collision meets the agreed Target Level of Safety (TLS). The Technical Risk or Risk associated with height-keeping performance should not exceed 2.5×10^{-9} fatal accidents per flight hour and the Overall Risk due to all causes should not exceed 5×10^{-9} fatal accidents per flight hour.

2.4 The Seminar noted that aircraft height-keeping performance is function of performance of aircraft altimetry and altitude-keeping systems. Such performance is assessed through the results of height-keeping performance monitoring.

2.5 The responsibilities of the RPG, the RMA and States/ATC with regard to RVSM implementation and continued operation were highlighted. The need for States to report required data to the RMA on regular basis and in a timely manner was particularly underlined.

2.6 The main causes of Altitude Deviations/Level Busts were presented. The Seminar recognized that the level of reporting of Altitude Deviation Reports (ADRs), which contributes to the assessment of the overall risk, is very low and does not reflect the reality.

2.7 The Seminar recognized that the quality of data reported by States to the RMA has a direct impact on the quality of the risk assessment. A good estimation of the risk could not be achieved without high-quality data. In this regard, it was recommended that States put in place a formal mechanism for the reporting of ADRs and CFRs, with appropriate procedures and forms and a continuous monitoring, if it's not already done as part of SMS implementation.

2.8 The Seminar was briefed about the MIDRMA Project and the MIDRMA activities and difficulties.

2.9 Some global issues related to the RMAs were presented especially the lack of reporting of required data by States and the lack of expertise to perform safety assessment.

2.10 The need for global coordination was highlighted. In this regard, it was recognized that the RMA coordination Group, meeting once a year, represent a good mechanism to ensure successful coordination.

2.11 The need for a suitable monitoring infrastructure was highlighted. In this regard, the advantages and drawbacks of ground-based systems (Height Monitoring Units (HMU) and Aircraft Geometric Height Measurement Element (AGHME)) and air portable GPS Monitoring Units (GMU or enhanced GMU (EGMU)) were noted. The Seminar was also informed that Research and Development is currently being carried out in Australia and USA for the use of ADS-B for height-keeping monitoring.

2.12 The Seminar was apprised of the European method of monitoring aircraft using HMU infrastructure as well as the European Safety Assessment Methodology.

2.13 It was highlighted that the height-keeping monitoring could not be carried out without RVSM approval, since the aircraft need to enter the RVSM airspace in order to be monitored. In this regard, it was recommended that Temporary approvals be granted to the aircraft/operator until the height-keeping monitoring results could be obtained.

2.14 The Seminar noted the causes and effects of Altimetry System Errors (ASE), how ASE is detected and how problems are solved. In this respect, it was highlighted that:

- Airworthiness Authorities should ensure that adequate RVSM compliance checks are made;
- a review of the compliance methods for non-standard configurations is needed;
- Manufacturers should review inspection and maintenance procedures with regard to ASE; and
- Operators should ensure that they react appropriately to RMA's ASE reports.

2.15 The three elements of the safety assessment process, as detailed in the ICAO Doc 9574, were presented:

- Quantitative safety goal: Target Level of Safety (TLS);
- Mathematical Model used to estimate risk (both Technical and Operational); and
- Decision-making process using TLS and risk estimates.

2.16 The Seminar noted with interest the Research and Development (R&D) of the University of New South Wales, Australia related to Safety Web-Real Time RVSM Risk Monitoring/Assessment based mainly on FPL, radar and ADS-B data. The main steps for the estimation of the Technical Risk carried out by the RVSM Risk Assessment Software were presented, especially:

- Passing Frequency;
- Total Vertical Error (TVE);
- Probability of vertical overlap $P_z(1000)$; and
- Probability of horizontal (lateral) overlap.

2.17 SAAB/COMBITECH presented their RADAC System which was lately purchased by the MIDRMA. RADAC is a Radar Data Acquisition and Analysis platform composed mainly of two modules: Radar Performance Analysis (RPA) and Passing Frequency System (PFS).

2.18 NOSS Collaborative made a presentation on Threat and Error Management (TEM) and Normal Operation Safety Survey (NOSS).

2.19 The importance of gathering stakeholders and providing forums for discussion of issues related to sustained RVSM safety assessment activity was highlighted.

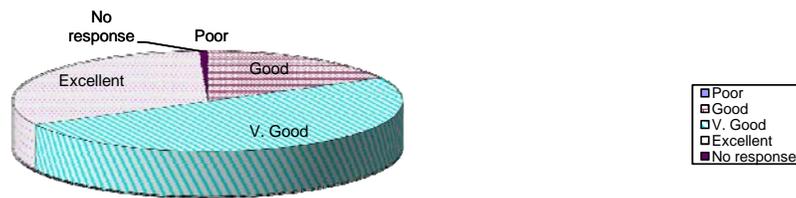
2.20 The participants expressed their gratitude to ICAO, the MIDRMA and Bahrain CAA for organizing such an important Seminar. The feedback of the participants related to the evaluation of the Seminar is at **Attachment B**.

MID RVSM SAFETY ASSESSMENT SEMINAR EVALUATION

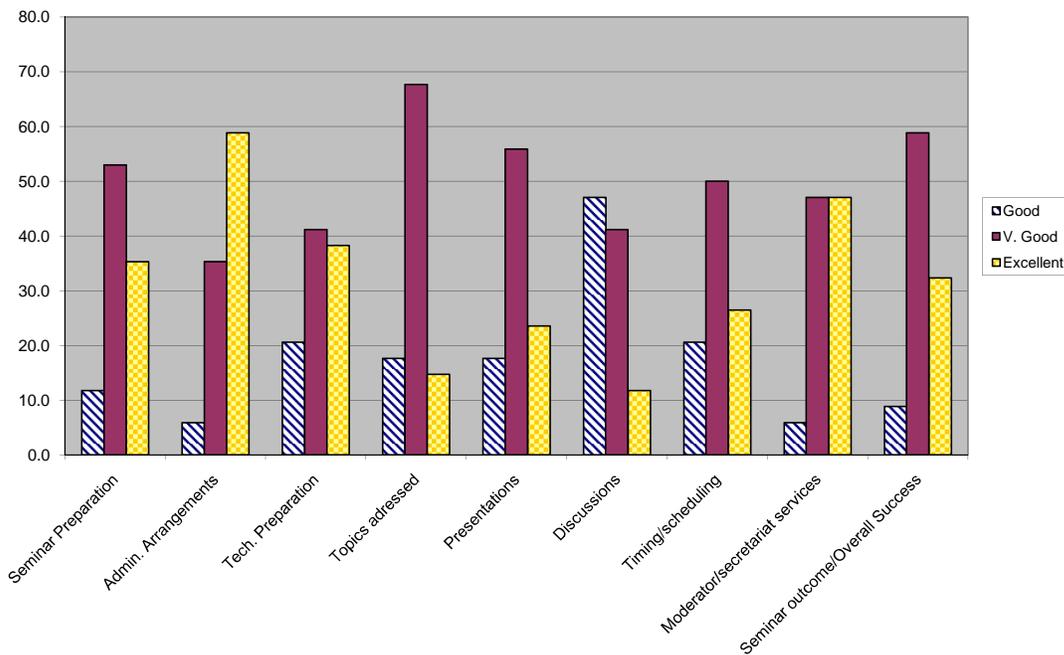
Questions	Poor		Good		V. Good		Excellent		No response		Total
	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	
Seminar Preparation	0	0.0	4	11.8	18	52.9	12	35.3	0	0.0	34
Admin. Arrangements	0	0.0	2	5.9	12	35.3	20	58.8	0	0.0	34
Tech. Preparation	0	0.0	7	20.6	14	41.2	13	38.2	0	0.0	34
Topics addressed	0	0.0	6	17.6	23	67.6	5	14.7	0	0.0	34
Presentations	0	0.0	6	17.6	19	55.9	8	23.5	1	2.9	34
Discussions	0	0.0	16	47.1	14	41.2	4	11.8	0	0.0	34
Timing/scheduling	0	0.0	7	20.6	17	50.0	9	26.5	1	2.9	34
Moderator/secretariat services	0	0.0	2	5.9	16	47.1	16	47.1	0	0.0	34
Seminar outcome/Overall Success	0	0.0	3	8.8	20	58.8	11	32.4	0	0.0	34
AVERAGE (%)		0.0		17.3		50.0		32.0		0.7	

Poor 0 Good 17.3 V. Good 50 Excellent 32 No response 0.7

MID RVSM Safety Assessment Seminar Overall Evaluation



MID RVSM Safety Assessment Seminar Evaluation



MIDRMA Board/10
 Appendix 4E to the Report on Agenda Item 4

ACTION PLAN FOR RVSM IMPLEMENTATION IN BAGHDAD FIR

ID	ACTION	TO BE DELIVERED BY	TARGET DATE	REMARKS
1	Nomination of RVSM Focal Point	Iraq	19 Jan2010	done
2	Nomination of Baghdad FIR RVSM Program Manager	Iraq	1 Mar 2010	done
3	Promulgation of national regulation to enable the implementation of RVSM	Iraq	1 Jun 2010	
4	Provide the MIDRMA with traffic data for the month of February 2010 (including A/C REG)	Iraq	15 Mar 2010	done
5	Submission of the latest airways structure for Baghdad FIR to the MID RMA	Iraq	15 Apr 2010	No progress
6	Calculating the passing frequency for all Bagdad FIR airways	MIDRMA	15 May 2010	No progress
7	Conclusions of the passing frequency results, evaluation of the need for ATS Route Network amendments related to RVSM and follow up implementation of the proposals with Iraq	MIDRMA	15 May 2010	No progress
8	Submit RVSM approvals to the MIDRMA for all Iraqi registered aircraft or any airline operators certified by Iraq and to continue updating these approvals as necessary	Iraq	15 Mar 2010 (on monthly basis)	done
9	Submit Coordination Failure Reports (CFR) and Altitude Deviation Reports (ADR) to the MIDRMA on a monthly basis	Iraq	On Monthly basis	pending
10	Develop ATC operational policy & procedures for normal RVSM operations	Iraq	1 May 2010	No progress

ID	ACTION	TO BE DELIVERED BY	TARGET DATE	REMARKS
11	Assess the impact of RVSM implementation on controller automation systems and plan for upgrades/modifications	Iraq	1 Jun 2010	
12	Develop ATC procedures for non-approved State aircraft to transit RVSM airspace	Iraq	1 Jun 2010	
13	Develop procedures for handling non-compliant civil aircraft	Iraq	1 Jun 2010	
14	Develop procedures for suspension of RVSM	Iraq	1 Jun 2010	
15	Development of Iraq national safety plan	Iraq	1 Jun 2010	
16	Simulations to assess ATC workload and possible need for airspace/air route/Sector changes	Iraq	1 Aug 2010	
17	ATC training plan	Iraq	1 Jun 2010	
18	Update of LOAs between Iraq and all adjacent FIRs	Iraq	15 Dec 2010	
19	ATCOs trained for RVSM operation	Iraq	15 Jan 2011	
20	Carry out pre-implementation safety analysis	MIDRMA	1 Dec 2010	
21	Carry out pre-implementation readiness Assessment	MIDRMA	1 Dec 2010	
22	Prepare necessary proposal for amendment to Doc 7030 related to RVSM implementation within Baghdad FIR	BFRI WG	15 Dec 2010	
23	Go-No-Go Decision for RVSM Implementation effective 10 March 2011	BFRI WG	15 Dec2010	

MIDRMA Board/10
Report on Agenda Item 5

REPORT ON AGENDA ITEM 5: DRAFT MIDRMA MANUAL

5.1 The meeting recalled that the MIDRMA Board/8 meeting reviewed the Draft MIDRMA Manual (V 0.2), as updated by the Secretariat, taking into consideration the outcome of the MIDANPIRG/11 meeting and through Draft Conclusion 8/4 agreed that the MIDRMA Team and MIDRMA Board Members provide their comments on the Draft Version (V 0.2) to the ICAO MID Regional Office before 15 September 2009, in order to develop the Final Version of the MIDRMA Manual and present it to the ATM/SAR/AIS SG/11 meeting.

5.2 It was highlighted that the MIDRMA Board/9 meeting noted with concern that comments were received only from the MIDRMA, which proposed to insert a number of documents/Forms in the Manual, i.e. *Explanation of Terms, List of Acronyms, MIDRMA RVSM Approved Aircraft List Form, MIDRMA Form F1-Point of Contact, MIDRMA Form F2-Record of RVSM Approval, MIDRMA Form F3-Withdrawal of RVSM Approval, MIDRMA RVSM Monitoring Application, Procedure for GMU Monitoring Request, Notes for the completion of the MIDRMA Forms with Country Codes And TFC Explanation of Columns.*

5.3 Based on the above, the MIDRMA Board/9 meeting recognized that additional effort is needed to finalize the MIDRMA Manual and, through Draft Conclusion 9/6 agreed that the MIDRMA Team and MIDRMA Board Members provide their comments on the Draft Version (V 0.2) of the MIDRMA Manual to the ICAO MID Regional Office before 1 April 2010; with a view to have the Draft MIDRMA Manual (V 0.3) ready for review by the MIDRMA Board/10 meeting. However, the meeting noted that the ICAO MID Regional Office received comments only from Jordan, which were mainly of editorial nature. Accordingly, the meeting agreed to the following Draft Conclusion to replace and supersede Draft Conclusion 9/6:

DRAFT CONCLUSION 10/9: MIDRMA MANUAL

That:

- a) *the MIDRMA Team and MIDRMA Board Members provide their comments on the Draft Version of the MIDRMA Manual to the ICAO MID Regional Office before 31 December 2010;*
- b) *the Final version of the MIDRMA Manual be consolidated based on the outcome of the MIDANPIRG/12 meeting, the comments/inputs received from the MIDRMA Team and MIDRMA Board Members, in order to be presented to the MIDRMA Board/11 meeting for final review.*

MIDRMA Board/10
Report on Agenda Item 6

REPORT ON AGENDA ITEM 6: REVIEW AND UPDATE OF THE MIDRMA PROJECT ACTION PLAN/TIMELINES

6.1 The MIDRMA Board, in each one of its meetings, reviews the progress made in the achievement of the actions included in the Action Plan and proceeds to its update.

6.2 Taking into consideration the outcome of its discussions, the MIDRMA Board/10 meeting reviewed and updated the action plan, as at **Appendix 6A** to the Report on Agenda Item 6.

Item No.	Actions	Responsible	2010							2011											
			M a y	J u n	J u l	A u g	S e p	O c t	N o v	D e c	J a n	F e b	M a r	A p r	M a y	J u n	J u l	A u g	S e p	O c t	N o v
11	Prepare the final draft version of the MIDRMA Manual for presentation to the MIDRMA Board/11 meeting	ICAO																			
12	Collection of FPL/Traffic data for the month of January 2011 for the development of SMR 2012	States + MIDRMA																			
13	Collect Bahrain, Jordan and Kuwait SSR radar data for January 2011.	MIDRMA																			
14	Preparation for the convening of the MIDRMA Board/11 meeting	ICAO + Syria																			
15	Prepare the draft version of the SMR 2012 for presentation to the ATM/SAR/AIS SG/12 meeting	MIDRMA																			

MIDRMA Board/10
Report on Agenda Item 7

REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME

7.1 The meeting recalled that it was agreed that the MIDRMA Board meetings should be hosted by the MIDRMA Member States on rotation basis. The meeting noted that based on a proposal from Syria, the MIDRMA Board/9 meeting agreed that the MIDRMA Board/11 meeting be held in Damascus during the first half of 2011. The meeting agreed that the exact date will have to be coordinated between the ICAO MID Regional Office, Syria and the Board Chairperson.

7.2 The meeting highlighted that the MIDRMA Board/12 and MIDRMA Board/13 meetings should be hosted by Kuwait and Yemen. However, because of the absence of the two concerned States, the meeting agreed that the MIDRMA Board/11 meeting will decide on the dates and venues of the MIDRMA Board/12 and MIDRMA Board/13 meetings.

MIDRMA Board/10
Report on Agenda Item 8

REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS

8.1 The meeting recalled that it was agreed that the list of MIDRMA Board Members and Alternates should be updated on a regular basis. Accordingly, the meeting reviewed and updated the list of MIDRMA Board Members and Alternates as at **Appendix 8A** to the Report on Agenda Item 8. It was re-iterated in this regard that, in order to keep track of both the MIDRMA management/financial and technical issues, to the extent possible, the designated MIDRMA Board Members and Alternates should not be changed frequently. It was also re-iterated that the attendance of the MIDRMA Board meetings should be limited to the designated Board Members and Alternates.

MIDRMA Board/10
Appendix 8A to the Report on Agenda Item 8

LIST OF MIDRMA BOARD MEMBERS/FOCAL PONTS AND ALTERNATES

STATE	MIDRMA BOARD MEMBER/FOCAL POINT	ALTERNATE
BAHRAIN	Mr. Ali Ahmed Mohammed Director Air Navigation Civil Aviation Affairs P.O. Box 586 - BAHRAIN Fax: (973) 17 321 992 Tel: (973) 17321116 Mobile: (973) 39969399 E-mail: aliahmed@caa.gov.bh	¹ Mr. Mohammed Zainal Head of Standards, Licensing and Development Civil Aviation Affairs P.O. Box 586 – BAHRAIN Fax: (973) 17 321 029 Tel: (973) 17 321 028 Mobile: (973) 3967 6707 E-mail: mzainal@caa.gov.bh
EGYPT	Mr. Mohamed Abbas Mohamed Safety General Manager Civil Aviation Authority Cairo International Airport Road Cairo – EGYPT Tel: (202) 2267 8529 Mobile:(010) 6790242 E-mail: md.soliman@gmail.com	Mr. Hassan Kamel Abdel Meguied ATS Safety Manager National Air Navigation Services Co. Cairo International Airport Road Cairo – EGYPT Fax: (202) 2268 0627 Tel: (202) 2265 7842 Mobile: (010) 1843 602 E-mail: hassan.kamel@nansceg.org
IRAN	Mr. Ali Reza Majzoubi Chief of Tehran ACC Iran Airports Company (IAC) Tehran – IRAN Fax: (98) 21 445 44114 Tel: (98) 21 445 4 4114 Mobile: +9891 2305 3095 Email: maj.alireza@yahoo.com Alireza.majzoubi@gmail.com	Mr. Mohammad Khodakarami A/Director General of Aeronautical Affairs Tehran Mehrabad International Airport (CAO) Tehran – IRAN Fax: (98) 21 660 36340 Tel: (98) 21 446 65576 Mobile: (98) 912 390 8196 E-mail: mokhodakarami@gmail.com
		Mr. Majid Khademhosseini Airworthiness In charge (Avionic) Flight Standard Department (CAO) Tehran – IRAN Fax: (98) 21 660 25066 Tel: (98) 21 661 02123 Mobile: (98) 9122140530 E-mail: majid.khadem@gmail.com m-khademhossini@cao.ir

¹ Chairperson of MIDRMA Board

STATE	MIDRMA BOARD MEMBER/FOCAL POINT	ALTERNATE
JORDAN	<p>Mr. Ahmad Ali Mohamed Al Jarrah Director Air Navigation Services Queen Alia Airport Amman - JORDAN Fax: 962-6 4451619 Tel: 962 4451666 Mobile: 962-7 99573290 E-mail: ahmadj1957@hotmail.com dans-qa@carc.gov.jo</p>	<p>Mr. Fawaz Abdalla Chief Training ATM Civil Aviation Regulatory Commission- Amman-Jordan P.O Box 7547/11110 Fax: 962-6 489 1266 Tel: 962 6 489 2282 Ext. 3395 Mobile: 962-7 77756136 E-mail: atmtrg@carc.gov.jo Atc22us@yahoo.com</p>
KUWAIT	<p>Mr. Mansour F. Al Harbi, First Officer – Radar Control, Air Navigation Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – KUWAIT. Tel: (965) 24760463 / 24342476. Fax: (965) 24315349. Mobile: (965) 99739088. E-mail: atc_controler@hotmail.com q8dgca_danoff@hotmail.com</p>	<p>Mr. Fawzi M. Al Marshood, Director of Air Navigation, Air Navigation Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – KUWAIT. Tel: (965) 24346220 / 24710268. Fax: (965) 24346221. Mobile: (965) 99700663. E-mail: baracoda99@hotmail.com q8dgca_danoff@hotmail.com</p>
LEBANON	<p>Mr. Khaled Chamieh Chief Air Navigation Department Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: (961-1) 629 023 Tel: (961-1) 628 178 Mobile: (961-3) 837 833 E-mail: chamiehk@beirutairport.gov.lb ais@beirutairport.gov.lb</p>	<p>Mr. Walid Al Hassanieh Chief ACC Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: (961-1) 629 023 Tel: (961-1) 629 026 Mobile: (961-3) 509 902 E-mail: hassaniehw@beirutairport.gov.lb</p>
OMAN	<p>Mr. Abdul Rahim Bin Salem Al-Harmi Director General for Meteorology and Air Navigation Directorate General of Meteorology and Air Navigation P.O. Box 21– Code 111 Muscat International Airport, Muscat, SULTANATE OF OMAN Fax: 968 24510712 Tel: 968 24519711 Mobile: 968 99159999 E-mail: al-harmi@dgcam.gov.om</p>	<p>Mr. Sabri Al Busaidy DMS Manager Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport P.O. Box 1 CPO Seeb Muscat - SULTANATE OF OMAN Fax: (968) 24519 939 Tel: (968) 24519 501 Mobile: (968) 359415 E-mail: sabri@dgcam.gov.om</p>

STATE	MIDRMA BOARD MEMBER/FOCAL POINT	ALTERNATE
<p>SAUDI ARABIA</p>	<p>Mr. Khalid Al Barakati Air Traffic Controller (ATC) General Authority of Civil Aviation (GACA) Operation and Planning P.O. Box 929 Jeddah 21421 - SAUDI ARABIA Fax: 966 2 6717717 Ext. 1817 Tel: 966 2 6717717 Ext. 1800 Mobile: 966 50 337 3395 E-mail: khaled1111alsharif@yahoo.com</p>	<p>Mr. Mohamed Bin Salmen Senior Software Engineer GAGA /Air Navigation Services Jeddah, SAUDI ARABIA Fax: 966 2 6717717 Ext. 1817 Tel: 966 2 671 7717 Mobile: 966 50 464 1964 E-mail: m_binsalman@yahoo.com</p>
		<p>Mr. Ahmed Z. Garout Airworthiness Inspector Safety & Economic Regulation General Authority of Civil Aviation (GACA) P.O Box 887 Jeddah 21165 SAUDI ARABIA Fax: 966 2 685 5754 / 5142 Tel: 966 2 685 5842 Mobile: 966 50 554 4372 E-mail: agarout@gaca.gov.sa</p>
<p>SYRIA</p>	<p>Mr. Ousama SAFI Head of ATC Damascus Airport P.O. Box 5409 Damascus - SYRIA Fax: +963 11 5400312 Tel: +963 11 5400 312 Mobile: +963 94 46 72 817 E-mail: ousafi@mail.sy</p>	<p>Mr. Fissal Dayoub ATC SCAA Damascus International Airport Fax: 963115400540 Tel: 9635400312 Mobile: 933693807 E-mail: fdayoub@mail.sy</p>
<p>UAE</p>	<p>Mr. Hassan Karam Director Air Navigation Services General Civil Aviation Authority P.O. Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6883 Tel: (971-2) 599 6885 Mobile: (971-50) 818 7492 E-mail: hkaram@szc.gcaa.ae</p>	<p>Mr. Abdulla Al Hashimi Manager ATC Operations General Civil Aviation Authority P.O. Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6836 Tel: (971-2) 599 6841 Mobile: (971-50) 442 4086 E-mail: ahashimi@szc.gcaa.ae</p>

STATE	MIDRMA BOARD MEMBER/FOCAL POINT	ALTERNATE
YEMEN	Mr. Ahmed Al Kobati Director Air Navigation Operations, Air Navigation Sector Civil Aviation & Meteorology Authority P.O. Box 1042 Sana'a - YEMEN Fax: (967-1) 344 047 Tel: (967-1) 345 402 Mobile: (00967) 77 7241 375 E-mail: cama570@yahoo.com	Mr. Yahia Hussain Al Shami Director Quality Assurance Air Navigation Sector Civil Aviation & Meteorology Authority P.O. Box 1042 Sana'a - YEMEN Fax: (967-1) 344 047 Tel: (967-1) 345 402 Mobile: (00967) 77 7710 297
MIDRMA	Middle East Regional Monitoring Agency P.O. Box 50468 – KINGDOM OF BAHRAIN Fax: (973) 17 32 1960 Tel: (973) 17 32 1950 Email: midrma@midrma.com	

MIDRMA Board/10
Attachment A to the Report

LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
<u>STATES</u>	
BAHRAIN Mr. Ali Ahmed Mohammed	Director Air Navigation Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 329 977 Tel: (973) 17 321 116 Mobile: (973) 39 969 399 Email: aliahmed@caa.gov.bh
Mr. Mohamed Abdullah Zainal	Head of Standards, Licensing and Developments Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 329 977 Tel: (973) 19 321 028 Mobile: (973) 396 76707 Email: mzainal@caa.gov.bh
Mr. Fareed Abdullah Al Alawi (MIDRMA)	Head, Air Traffic Operation Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 32 1992 Tel: (973) 17 321 158 Mobile: (973) 39 651 596 Email: falalawi@caa.gov.bh
EGYPT Eng. Amer Mohamed Ali	Egyptian Civil Aviation Authority Radar- RCMS Manager National Air Navigation Services Company Cairo-EGYPT Mobile: (2010) 651 9184 Email: amermohamed5@yahoo.com

NAME	TITLE & ADDRESS
Mr. Hassan Kamel Abdel Maguid	ATM Safety Manager National Air Navigation Services Company (NANSC) Cairo International Airport Road Cairo - EGYPT Fax: (202) 2265 7842 Tel: (202) 2265 7842 Mobile: (2010) 184 3602 Email: hassan.kamel@nansceg.org hassankam@hotmail.com
Mr. Mahmoud Abdel Aziz	G.M of Quality National Air Navigation Services Company Cairo Airport Road Cairo - EGYPT Fax: (202) 2267 1053 Tel: (202) 2265 7961 Mobile: (2016) 351 0769 Email: mahmoud5531@hotmail.com
Mr. Mohamed Abbas Soliman	Safety General Manager Ministry of Civil Aviation Civil Aviation Authority Cairo International Airport Road Cairo - EGYPT Fax: (202) 2267 8529 Tel: (202) 2267 8529 Mobile: (2012) 009 1998 Email: Mabbass@civilaviation.gov.eg
IRAQ Mr. Duraid Abdullah Hassan	Flight Safty Department Iraqi Civil Aviation Authority Baghdad International Airport Baghdad - IRAQ Tel: (964) 7709 832 999 Mobile: (964) 780 840 1408 Email: duraidHassan@iraqcaa.com
Mr. Thamer Hamzah Z. Al Mamoori	Air traffic Controller Iraqi Civil Aviation Authority Baghdad International Airport Baghdad - IRAQ Mobile: (964) 790 154 2321 Email: Thamirzabar@yahoo.com

NAME	TITLE & ADDRESS
<p>ISLAMIC REPUBLIC OF IRAN Mr. Mohammad Khodakarami</p>	<p>General Director of Aeronautical Affairs Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6603 6340 Tel: (98) 21 4466 5576 Mobile: (98) 912 390 8196 Email: mokhodakarami@gmail.com</p>
<p>Mr. Morad Esmaeili</p>	<p>Deputy of G.D of Aeronautical Department Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6603 6340 Tel: (98) 21 6602 5280 Mobile: (98) 912 327 4837 Email: moradesmaeil@yahoo.com</p>
<p>Mr. Mohsen Ali Asghari</p>	<p>Aeronautical Expert Mehrabad International Airport Civil Aviation Organization of Iran Email: m.a.asghari@gmail.com</p>
<p>Mr. Amir Pour Jabar</p>	<p>Airworthiness Chief Inspector Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6602 5066 Tel: (98) 21 6102 2109 Mobile: (98) 912 214 0655 Email: nimae05@yahoo.com</p>
<p>Mr. Houshang Badrnejad</p>	<p>Airworthiness Office Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6602 5066 Tel: (98) 21 6602 5107 Mobile: (98) 912 306 6798 Email: badrnejadh@yahoo.com</p>

NAME	TITLE & ADDRESS
Mr. Majid Khademhosseini	Airworthiness Incharge (Avioinic) Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6602 5066 Tel: (98) 21 6102 2123 Mobile: (98) 912 214 0530 Email: majid.khadem@gmail.com m-khademhossini@cao.ir
Mr. Alireza Majzoubi	Chief of Tehran ACC Mehrabad International Airport Airport Company- Iran (IAC) Fax: (98) 21 4454 4114 Tel: (98) 21 4454 4114 Mobile: (98) 912 305 3095 Email: maj.alireza@yahoo.com
Mr. Mehran Hormozdiaran	Expert Incharge of ACC Mehrabad International Airport Airport Company- Iran (IAC) Fax: (98) 21 4454 4114 Tel: (98) 21 4454 4061 Mobile: (98) 912 318 4180 Email: mhormozdiaran@yahoo.com
Mr. Abbas Niknejad	Chief of AIS Mehrabad International Airport IAC, AIS Fax: (98) 21 4464 9269 Tel: (98) 21 6602 5108 Mobile: (98) 912 810 9862 Email: a.niknejad@airport.ir
Mr. Gholam Reza Rafatjo	ATC Expert Mehrabad International Airport Airport Company- Iran (IAC) Tel: (98) 21 4454 4108 Mobile: (98)

NAME	TITLE & ADDRESS
Mr. Masoud Shahbazmoradi	ATC Expert Mehrabad International Airport Airport Company- Iran (IAC) Fax: (98) 21 4454 4117 Tel: (98) 21 4454 4116 Mobile: (98) 912 212 0501 Email: shahbazmass@yahoo.com
Mr. Shahin Mahmoudi	ATC Expert Mehrabad International Airport Airport Company- Iran (IAC) Tel: (98) 21 4454 4115 Mobile: (98) 912 150 2598 Email: shahin_mahmoudi@hotmail.com
Mr. Alireza Dirini Haghighi	Air Traffic Controller Tehran ACC- IAC- Iran Fax: (98) 21 4454 4114 Tel: (98) 21 4454 4120 Mobile: (98) 912 393 5608 Email: a.dirini@gmail.com
Mr. Azim Tahmasebi	Expert of Radar And Automation Airport Company- Iran (ACC) Tel: (98) 21 4454 4115 Mobile: (98) 912 635 9606 Email: tbzadc_tbs@yahoo.com
Mr. Ali Elahi Rad	Deputy of Procedure Design Office Airport Company- Iran (IAC) Fax: (98) 21 6603 6241 Tel: (98) 21 6602 5013 Mobile: (98) 912 525 9745 Email: elahirad@yahoo.com
Mr. Ali Soroush	Chief Controller Mehrabad International Airport ATC Fax: (98) 21 4454 4102 Tel: (98) 21 4454 4101

NAME	TITLE & ADDRESS
Mr. Alireza Mishkar Motlagh	Chief Controller Mehrabad International Airport ATC Fax: (98) 21 6602 5280 Tel: (98) 21 6602 5280
Mr. Aliakbar Vahedian	Chief Controller Mehrabad International Airport ATC Tel: (98) 21 6102 2244 Mobile: (98) 912 387 7917
Ms. Panthea Bazri Moarefi	Information Technology Engineer Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 4466 5496 Tel: (98) 21 6102 2236 Mobile: (98) 912 196 0465 Email: pmoarefi@gmail.com
Mr. Ramin Kashef Azar	Chief of Planning and Strategic Implementation of Strategy of ALC Mehrabad International Airport IAC Tel: (98) 21 6602 5450 Mobile: (98) 912 571 2553 Email: ram_kashef@yahoo.com
Mr. Ehsanallah Rezapour	Expert of Airport Knowledge Management Airport Company International Co operations Bureau Mehrabad International Airport Fax: (98) 21 6604 8000 Tel: (98) 21 4466 5529 Mobile: (98) 912 123 2005 Email: ehsan1353@yahoo.com
Mr. Mahmoodreza Rohani	Air Traffic Controller Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6603 6552 Tel: (98) 21 6102 2120 Mobile: (98) 912 802 7728 Email: mahmood.rohani@gmail.com m-rohani@cao.ir

NAME	TITLE & ADDRESS
Mr. Mehdi Ali Asgari	General Director of Safety and AIG Department Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6607 3526 Tel: (98) 21 6601 8659 Mobile: (98) 912 334 8669 Email: m-aliasgari@cao.ir
Mr. Hossein Toranji Jahromi	Safety Expert in Charge (USOAP) Mehrabad International Airport Civil Aviation Organization of Iran Fax: (98) 21 6102 2370 Tel: (98) 21 6102 2170 Mobile: (98) 912 276 5737 Email: trjate@yahoo.com
OMAN Mr. Abdul Rahim Bin Salem Al-Harmi	Director General for Civil Aviation & Meteorology Directorate General of Meteorology & Air Navigation (DGMAN) Muscat, SULTANATE OF OMAN Fax: (968) 2451 0712 Tel: (968) 2451 9711 Mobile: (968) 9915 9999 Email: al-harmi@dgcam.gov.om
Mr. Sabri Al Busaidy	Chief of Standards And Air space Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport Muscat - SULTANATE OF OMAN Tel: (968) 2451 9501 Mobile: (968) 9935 9415 Email: sabri@dgcam.gov.om
SAUDI ARABIA Eng. Ahmad Zaini Garoot	Airworthiness Inspector King Abdul Aziz Int'l Airport GACA- Jeddah KINGDOM OF SAUDI ARABIA Fax: (966) 2685 5745 Tel: (966) 2685 5842 Mobile: (966) 505 544 372 Email: agarout@gaca.gov.sa

NAME	TITLE & ADDRESS
Mr. Essam Jamil Raboey	Airworthiness Inspector King Abdul Aziz Int'l Airport GACA- Jeddah KINGDOM OF SAUDI ARABIA Fax: (966) 2685 5745 Tel: (966) 2685 5790 Mobile: (966) 552 227 900 Email: essam_raboey@yahoo.com erabouy@gaca.gov.sa
Mr. Khalid Al Barakati	Air Traffic Controller Air Traffic Management General Authority of Civil Aviation Operation and Planning GACA- Jeddah KINGDOM OF SAUDI ARABIA Fax: (966) 2671 7717 Tel: (966) 2671 7717 Ext.1814 Mobile: (966) 503 373 395 Email: khaled1111alsharif@yahoo.com
Eng. Mohammed Bin Salman	Senior Software Engineer Authority of Civil Aviation Air Navigation Services GACA- Jeddah KINGDOM OF SAUDI ARABIA Tel: (966) 2671 7717 Mobile: (966) 504 641 964 Email: m_binsalman@yahoo.com
Mr. Saeed Bin Mastour Al-Thobaiti	ATC Supervisor General Authority of Civil Aviation Riyadh KINGDOM OF SAUDI ARABIA Mobile: (966) 506 106 064 Email: SMTH4@hotmail.com
UNITED ARAB EMIRATES Mr. Juma Harib	Deputy Director Air Navigation Services DCAA Dubai- UNITED ARAB EMIRATES Fax: (971) 2599 6883 Tel: (971) 2599 6887 Mobile: (971) 506 682 725 Email: jharib@szc.gcaa.ae

NAME	TITLE & ADDRESS
<u>ORGANIZATIONS</u>	
IATA Ms. Ruby Sayyed	Manager Safety, Operations & Infrastructure International Air Transport Association (IATA) Amman - JORDAN Fax: (962) 6593 9912 Tel: (962) 6593 9919 Mobile: (962) 799 444 252 Email: SayyedR@iata.org

-END-