

INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE SEVENTH MIDDLE EAST REGIONAL MONITORING AGENCY BOARD

MID RMA Board/7

(Cairo, Egypt 14-16 October 2008)

The views expressed in this Report should be taken as those of the Middle East Regional Monitoring Agency Board (MID RMA 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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MID RMA Board/7 History of the Meeting

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Seventh Meeting of the Middle East Regional Monitoring Agency Board (MID RMA Board/7) was held at the Egyptian National Air Navigation Services Company (NANSC), Cairo, Egypt, from 14 to 16 October 2008.

2. OPENING

- 2.1 The opening ceremony of the MID RMA Board/7 meeting was attended by General Emad Sallam, Head of ECAA and General Ahmed Said, Chairman of NANSC as well as Mr. Mohamed Khonji, Regional Director, Middle East Office.
- Mr. Khonji welcomed all the participants to Cairo. He expressed his gratitude and appreciation to the Egyptian Civil Aviation Authority and especially to General Emad Sallam, Head of ECAA and General Ahmed Said, Chairman of NANSC, for hosting this meeting in the premises of NANSC and for supporting the ICAO Middle East Regional Office and MIDANPIRG activities. He pointed out that Egypt has always played an important and positive role in the MID Region.
- 2.3 Mr. Khonji indicated that the meeting would review the outstanding issues pertaining to the MID RMA Project, especially the arrears in the payment of contributions by some MID RMA Member States and the review of the MID RMA financial status.
- Mr. Khonji recalled briefly the main duties and responsibilities of the MID RMA Board as well as its achievements since its establishment and highlighted that the meeting is expected to review the Terms of Reference (TOR) of the Board as well as the duties and responsibilities of the MID RMA. He highlighted the importance of the RVSM safety assessment activity and underlined that the meeting would review the Draft RVSM Safety Monitoring Report (SMR-2008) prepared by the MID RMA Team with the support of EUROCONTROL. In this regard, he thanked EUROCONTROL for their good cooperation and the support/assistance provided to the MID RMA.
- 2.5 Finally, Mr. Khonji thanked all the participants from States specially UAE who had become a member of the Board and Bahrain for hosting the MID RMA, EUROCONTROL and IATA for supporting the MID RMA and for attending the MID RMA Board meetings.
- 2.6 General Emad Sallam extended a warm welcome to all participants to the MID RMA Board/7 meeting in Cairo. In his welcome address, he thanked ICAO and EUROCONTROL for their support and good cooperation. He also recalled with great appreciation the important role UAE has played for the successful implementation of RVSM in the MID Region. General Emad Sallam reiterated Mr. Khonji's words by extending his gratitude to Bahrain for hosting the MID RMA and for their continuous support.
- 2.7 General Emad Sallam highlighted the importance of all safety activities for the benefit of international air navigation and considered that the MID RMA activities are very important for the safe RVSM operations in the MID Region. He restated Egypt's commitment to support ICAO and to contribute to the improvement of the overall safety of international air navigation; in particular he highlighted Egypt's commitment to the MID RMA project with a view to ensure the safety of RVSM operations in the MID Region.

MID RMA Board/7 History of the Meeting

3. ATTENDANCE

3.1 The meeting was attended by a total of twenty six (26) participants from eleven (11) States (Bahrain, Egypt, Iraq, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, UAE and Yemen) and two (2) Organizations (EUROCONTROL and 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.
- 4.2 Mr. Mohamed Smaoui, RO/AIS/MET, 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

Agenda Item 2: Follow-up on MIDANPIRG/10 and MID RMA Board

Conclusions and Decisions

Agenda Item 3: Progress report on the MID RMA Project

- outstanding issues pertaining to the MID RMA Project (payment of contributions/arrears, logistic and administrative issues, etc);
- update on MID RMA expenditures for 2008; and
- expected expenditures for 2009 (decision regarding the purchase of a radar data recording and analysis software).

Agenda Item 4: RVSM Monitoring and related technical issues

Agenda Item 5: Review and update of the MID RMA Project Action

Plan/Timelines

Agenda Item 6: Future Work Programme

Agenda Item 7: Any other business

 Update of the list of MID RMA Board Members and Alternates

MID RMA Board/7 History of the Meeting

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 CONCLUSION 7/1: MEMBERSHIP OF THE MID RMA

DRAFT CONCLUSION 7/2: PAYMENT OF ARREARS TO THE MID RMA

DRAFT DECISION 7/3: REQUEST FOR TRANSFER OF MONEY TO THE MID RMA

ACCOUNT

DRAFT CONCLUSION 7/4: RADAR DATA RECORDING AND ANALYSIS SOFTWARE

DRAFT CONCLUSION 7/5: ICAO PROVISIONS RELATED TO THE MANDATORY

REPORTING OF DATA TO THE RMAS

DRAFT CONCLUSION 7/6: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE

MID REGION

DRAFT CONCLUSION 7/7: REQUIREMENTS FOR HEIGHT MONITORING FOR

AIRCRAFT/OPERATORS WITHOUT KNOWN MONITORING

RESULTS

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.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/10 and MID RMA BOARD CONCLUSIONS AND DECISIONS

- 2.1 The meeting noted the status of relevant MIDANPIRG/10 and MID RMA 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.
- 2.2 The meeting recalled that the first Meeting of MIDANPIRG Steering Group (MSG/1) held in Dubai, UAE, 1-3 July 2008 agreed that those MIDANPIRG/10 Conclusions/Decisions which were considered current by the appropriate MIDANPIRG subsidiary body should be presented to MIDANPIRG/11 for endorsement as a MIDANPIRG/11 Conclusions/Decisions (with new numbers i.e. Conclusion 11/XX). However, the meeting agreed that, in accordance with the ICAO Business plan and the requirements for performance monitoring, the MIDANPIRG Conclusions/Decisions and associated follow-up action plan should be formulated with clear tasks, specific deliverables and defined target dates. The meeting was also of view that those Conclusions/Decisions which are of general nature and whose status of implementation would be "Ongoing" for many years are more suitable for inclusion in the MID ANP, Handbooks, Manuals, Guidelines, etc, as appropriate.
- 2.3 Based on the above the meeting agreed that MIDANPIRG/10 Conclusions 10/28, 10/29, 10/31, 10/32, 10/33, 10/35, 10/38 and 10/40 be included in the Draft MID RMA Manual.

MID RMA Board/7 Appendix 2A to the Report on Agenda Item 2

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

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS				
	MIDANPIRG/10 Conclusions and Decisions								
Conc 10/26: Coordination of FLIGHTS OPERATING OVER HIGH SEAS That, taking into consideration that the Convention on International Civil Aviation shall be applicable only to civil aircraft: a) all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable; b) State aircraft operating in airspace over high seas, should: i) adhere, to the extent practicable, to ICAO provisions; or ii) operate with "Due Regard" for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures. c) States report any incident relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.3C to the Report on Agenda Item 5.3.	Implement Conclusion Conduct seminar	States ICAO MID Regional Office IATA	State letter Civil/ Military coordination seminar Input from States	July 2007Oct 2008	 State letter sent (AN 6/27-240 dated 15 July 2007) Seminar held in Cairo,26-27 May 2008 No input received 				

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
Conc 10/27: Uncoordinated Flights Over the Red Sea Area That, a) the procedures at Appendix 5.3D to the Report on Agenda Item 5.3 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area; b) States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures; c) IATA continue its effort in ensuring that concerned operators are fully conversant with these procedures; d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users be informed of and comply with the agreed procedures; and States: i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.3C to the Report on Agenda Item 5.3.	 Implement Conclusion Conduct seminar 	States ICAO MID Regional Office IATA	State letter Civil/ Military coordination seminar Input from States	July 2007Oct 2008TBD	 State letter sent (AN 6/27-240 dated 15 July 2007) Seminar held in Cairo,26-27 May 2008 No input received

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC 10/28: INITIAL SET UP AND ADMINISTRATIVE MANAGEMENT OF THE MID RMA That, a) Bahrain pays for the initial set up of the MID RMA without waiting for MID States contributions and the cost is recovered through the agreed funding mechanism, in coordination with the ICAO Technical Cooperation Bureau; and b) Bahrain is responsible for the administrative management of the MID RMA.	Follow up with Bahrain and the MID RMA	MID RMA Board and ICAO	MID RMA Board meeting reports	Ongoing	- Completed - To be included in MID RMA Manual
That, a) a MID RMA Board is established with Terms of Reference (TOR) as at Appendix 5.3J to the report on agenda item 5.3; and b) the MID RMA Board is to be composed of a focal point nominated by each Member State.	Follow up the MID RMA Board activities and work programme	ICAO States	MID RMA Board meeting reports	Ongoing	- Completed - To be included in MID RMA Manual
 CONC 10/30: MEMBERSHIP OF THE MID RMA That, a) Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria and Yemen committed themselves to participate in the MID RMA project; and b) taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, UAE is: 	Follow up with UAE to join the MID RMA	MID RMA Board and ICAO	UAE joins the MID RMA	TBD	To be replaced and superseded by MID RMA Board Draft Conc 7/1

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

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC 10/33: FUNDING MECHANISM OF THE MID RMA					
That, 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;	Follow up the implementation of the Funding mechanism	MID RMA Board and ICAO	Funding mechanism implemented	Ongoing	- Completed - To be included in MID RMA Manual
b) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay 15% each of the yearly operating budget of the MID RMA;					
c) Jordan, Kuwait, Lebanon, Syria and Yemen pay 5% each of the yearly operating budget of the MID RMA;					
d) the budget estimate for the MID RMA operation for each year be prepared/approved by the MID RMA Board before 30 April;					
e) the MID RMA participating States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO;					
f) the MID RMA Board Chairman, in compliance with the Custodian Agreement and based on the agreed funding mechanism and the estimation of the yearly operating budget of the MID RMA, be delegated the authority to certify on behalf of the MID RMA Participating States the requests for advance payment to the MID RMA on 1 December of each year;					
g) the bills related to the MID RMA expenses be certified by the MID RMA Board chairman and reviewed by the MID RMA Board at each of its meetings;					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
 h) in case the contributions for one year exceed the yearly cost for the operation and management of the MID RMA, the difference be deducted from the contributions of the next year(s); and i) the MID RMA funding mechanism be revised by the MID RMA Board when necessary. 					
CONC 10/34: MID RMA PROJECT ACTION PLAN/TIMELINES					
 That, a) the MID RMA Project Action Plan/Timelines is updated by the MID RMA Board as at Appendix 5.3K to the Report on Agenda Item 5.3; and b) concerned parties take necessary measures to expedite the implementation of the required actions on a timely manner. 	Follow up the implementation of the Action Plan	MID RMA Participating States MID RMA Board ICAO	Action Plan implemented in a timely manner	Ongoing	Completed
CONC 10/35: REQUIREMENTS FOR PROVISION OF DATA TO THE MID RMA					
 That, considering the on-going requirement for RVSM safety assessment in the MID Region: a) States not providing the required data to the MID RMA, in accordance with the requirements of safety monitoring agencies, be included in the MIDANPIRG List of air navigation deficiencies; b) the MID RMA ensure that the requests for provision of data are extended to MID States' RVSM Programme Managers and their Alternates in order to carry out the necessary internal coordination and speed up the process of collection of data; and 	Follow up the implementation of the Conclusion	MID RMA States ICAO	Data provided to the MID RMA as required	Ongoing	To be replaced and superseded by MID RMA Board Draft Conc 7/6

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
c) States ensure that good communication and cooperation between the RVSM Programme Managers and the MID RMA Board Members is established and observed.					
Conc 10/38: MID RVSM OPERATIONS SAFETY ASSESSMENT That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives: a) Safety Objective 1: that the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5 x 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 x 10-9 fatal accidents per flight hour; c) Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and d) Safety Objective 4: propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.	Follow up the implementation of the 4 safety objectives	MID RMA Eurocontrol MIDANPIRG	SMR 2007-2008	Sep 2008	- Completed - To be included in MID RMA Manual

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC 10/39: STATUS OF MID RVSM SAFETY OBJECTIVES					
That, the RVSM operations within the airspace of the MID RMA Member States:	Finalize the SMR 2006	MID RMA States	SMR 2006 finalized and	June 2007	Completed
a) Met safety objectives #1, #3 and #4; and		ICAO	sent to States		
b) had not been possible to assess against safety objective #2.					
CONC 10/40: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION					
That, considering the on-going requirement for RVSM safety assessment in the MID Region:	Follow up the implementation of the Conclusion	MID RMA States	Data provided to the MID RMA	Ongoing	To be replaced and superseded by MID
a) The MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);		ICAO	as required		RMA Board Draft Conc 7/6
b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;					
c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:					
i) approval of operators and aircraft for RVSM operations (monthly);					
ii) altitude deviations of 300 ft or more (monthly);					
iii) ATC/ATC coordination failures (monthly); and					
iv) traffic data (as requested by the MID RMA);					
d) the MID RMA coordinate with Bahrain, Oman, Saudi Arabia, Syria and Yemen for the recording and analysis of radar data, as and when required.					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
Conc 10/41: MID RVSM SAFETY MONITORING REPORT FOR 2007-2008 That, a) the MID RVSM Safety Monitoring Report (SMR) for 2007-2008 be ready before 1 September 2008; and b) the FPL/traffic data for the month of November 2007 be used for the development of the SMR 2007-2008.	Provide requested data to the MID RMA Develop the SMR 2007-2008	MID RMA States	Data provided as requested SMR 2007-2008 developed	Ongoing Sep 2008	Superseded by the MID RMA Board/5Draft Conclusion 5/4
MID RMA BOARD CURRENT CONCLUSIONS AND	D DECISIONS				
DRAFT CONC 6/1: PAYMENT OF CONTRIBUTIONS TO THE MID RMA					
That, a) as a last call from the MID RMA Board, those Sates that have not yet paid their contributions (arrears) to the MID RMA Project, honour their commitment and pay their contributions (arrears) as soon as possible and in any case before 31 June 2008; and b) in case a State has not paid all arrears by 30 June 2008: i) this State might not be covered by the MID RVSM SMR-2008; and ii) the MID RMA Board might consider reviewing its membership.	Follow up with concerned States	MID RMA Board ICAO	State Letters Payment of arrears	30 June 2008	Superseded by the MID RMA Board/7Draft Conclusion 7/2 Payment from Kuwait and Syria still pending

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
Draft Conc 6/2: Contribution of MID RMA Member States for 2009 That, based on the agreed funding mechanism for the MID RMA, the contributions of MID RMA States for 2009 be paid before 1 November 2008 as follows: a) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay US\$ 30,000 each; and b) Jordan, Kuwait, Lebanon, Syria and Yemen pay US\$ 10,000 each.	Follow up with States and ICAO HQ	States ICAO	Payment by States	1 Nov 2008	Ongoing
DRAFT CONC 6/3: REQUIREMENTS FOR HEIGHT MONITORING FOR AIRCRAFT/OPERATORS WITHOUT KNOWN MONITORING RESULTS That, in accordance with ICAO aircraft grouping categories and considering that the MID RVSM SMR-2008 should be ready before 1 September 2008: a) the MID RMA, in coordination with Eurocontrol, identify those aircraft/operators without known height monitoring results, based on the updated RVSM approvals and traffic data provided by States; and b) the States of registry are responsible to instruct the identified aircraft operators to conduct necessary height monitoring and provide monitoring results before 30 June 2008, using either GMU or the HMU infrastructure.	Implement the Conclusion	MID RMA States	Aircraft/Oper -ators without known monitoring results identified necessary monitoring conducted	30 Jun 2008	Superseded by the MID RMA Board/7Draft Conclusion 7/7

MID RMA Board/7-REPORT APPENDIX 2A

2A-11

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT CONC 6/4: REQUIREMENTS FOR PROVISION OF DATA TO THE MID RMA FOR THE DEVELOPMENT OF THE RVSM SMR-2008 That, with a view to have the RVSM SMR-2008 developed before 1 September 2008, as requested by MIDANPIRG/10: a) States that have not yet provided part or all of the required data to the MID RMA, to do so as soon as possible but in any case before 15 April 2008; and b) the RVSM SMR-2008 cover only those States that have provided the required data to the MID RMA, before the agreed deadline.	Follow up with States	MID RMA States ICAO	Data provided to the MID RMA as required	15 Apr 2008	Superseded by MSG/1 Draft Conclusion 1/7. Completed

REPORT ON AGENDA ITEM 3: PROGRESS REPORT ON THE MID RMA PROJECT

- 3.1 The meeting recalled that MIDANPIRG/10, under Conclusion 10/30, taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, and based on an offer from the MID RMA Board, invited UAE to join the MID RMA Project being exempted from the payment of contributions for the first ten (10) years of operation of the MID RMA.
- 3.2 Based on the above and further to the follow-up actions taken by the ICAO MID Regional Office, the meeting noted that UAE through Letter Ref.: 48600/27768 dated 10 June 2008 signed by the Director General of GCAA, informed the ICAO MID Regional Office that they agreed to join the MID RMA as a full participating Member State.
- 3.3 The meeting noted that MSG/1 meeting held in Dubai, UAE from 1 to 3 July 2008 noted with appreciation that UAE has joined officially the MID RMA and reiterated MIDANPIRG and MSG/1 thanks and appreciation for the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region.
- 3.4 The meeting noted with great appreciation that the representative of UAE and MID RMA Board Member, Mr. Hassan Karam, was given two original copies of the MID RMA Memorandum of Agreement (MOA) in order to be signed by the Director General GCAA. One of the original signed copies will be sent back to the ICAO MID Regional Office by courier.
- 3.5 Based on the above, the meeting agreed to the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/10 Conclusion 10/30:

DRAFT CONCLUSION 7/1: MEMBERSHIP OF THE MID RMA

That.

- a) Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, Yemen and UAE committed themselves to participate in the MID RMA project, through the signature of the Memorandum of Agreement (MOA); and
- b) taking into consideration the tremendous efforts deployed by UAE in the preparation for the successful and safe implementation of RVSM in the MID Region, UAE is exempted from the payment of contributions to the MID RMA for the first ten (10) years of operation (up-to end of 2015).
- 3.6 The meeting noted that the previous MID RMA Board meetings and MIDANPIRG/10 noted with concern that, a number of MID RMA Member States are not paying their contributions to the MID RMA Project within the specified timescales.
- 3.7 The meeting noted the status of MID RMA States' contributions as follows:

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

- 3.8 The meeting recalled that the MID RMA Board/6 meeting, under Draft Conclusion 6/2 agreed that the contributions of MID RMA States for 2009 be paid before 1 November 2008 as follows:
 - Bahrain, Egypt, Iran, Oman and Saudi Arabia pay US\$ 30,000 each (15%); and
 - Jordan, Kuwait, Lebanon, Syria and Yemen pay US\$ 10,000 each (5%).
- 3.9 The meeting thanked those States that have already paid the contributions for 2009 for respecting the timelines defined by the MID RMA Board. The representative of Yemen informed the meeting that Yemen has already paid the contributions for 2009 (US\$ 10,000) and this has to be reflected in the above table, since based on the information received from ICAO HQ, the payment from Yemen was not reflected. It appeared that Yemen was not complying with the instructions for payment contained in the invoices sent by ICAO HQs (Project code, fund number, invoice number, Bank information, etc) and that the amount of US\$ 10,000 has been transferred to the ICAO General Fund and not to the fund reserved to the MID RMA Project (RAB/05/802).
- 3.10 The meeting re-emphasized on the need to comply with the instructions for payment contained in the invoices sent by ICAO HQs (Project code, fund number, invoice number, Bank information, etc) and noted that the non compliance with these instructions cause problems and delays in locating where the money has been transferred.

- 3.11 Based on the information received from ICAO HQ, the meeting noted that Oman has paid twice the amount related to the contribution for year 2009 (US\$ 30,000). Accordingly, Oman agreed that the amount of US\$ 30,000 be kept in the MID RMA account and considered as Oman's contribution for year 2010.
- 3.12 The meeting recalled that the MSG/1 meeting noted with great concern that the contributions of Iran and Syria to the MID RMA project had not yet been paid. The meeting noted that the MID RMA Board/6 meeting, under Draft Conclusion 6/1, agreed to extend the deadline for payment of arrears to 30 June 2008 with the understanding that those States that would not pay their arrears before that deadline might not be included in the next RVSM Safety Monitoring Report (SMR-2008).
- 3.13 The MSG/1 meeting noted that Iran has accepted to pay the Iranian contributions to the MID RMA Project; however due to the long and complex administrative process the payment was delayed. The meeting further noted that Iran sent an official letter to the ICAO MID Regional Office on 30 June 2008 re-iterating their commitment to the MID RMA and confirming that the issue of payment of arrears to the MID RMA is one of the top priorities of the Iranian Civil Aviation Organization (CAO). Accordingly, Iran requested to extend the deadline for payment of arrears to 31 December 2008. Based on the above, the meeting agreed to the proposal of Iran and developed accordingly the following Draft Conclusion which replaced and superseded the MID RMA Board/6 Conclusion 6/1:

DRAFT CONCLUSION 1/6: PAYMENT OF ARREARS TO THE MID RMA

That.

- a) those States not having yet paid their contributions (arrears) to the MID RMA Project, are urged to honour their commitment and pay their contributions (arrears) as soon as possible, preferably before the MID RMA Board/7 meeting, and in any case before 31 December 2008; and
- *b)* in case a State has not paid all arrears by 31 December 2008:
 - i) this State might not be covered by the MID RVSM SMR-2008; and
 - ii) the MID RMA Board and MIDANPIRG might consider reviewing its membership.
- 3.14 The meeting further noted that MSG/1 meeting requested the ICAO MID Regional Office to send a State Letter to those States that had not yet paid their contributions/arrears in order to inform them about the MSG/1 Draft Conclusion and urge them to honour their commitment before the defined deadline. Accordingly, State Letter Ref.: AN 6/5.10.15A 272 dated 14 July 2008 was sent to Iran, Kuwait and Syria.
- 3.15 The meeting noted that, as a reply to the State Letter mentioned-above, on 19 September 2008, Syria informed the Office that the amount related to Syria's contributions to the MID RMA has been allocated for the financial year 2009. Accordingly, Syria requested to extend the deadline for payment of arrears until March 2009, date at which they believe the payment will be made.
- 3.16 The meeting noted with great satisfaction that Iran has transferred the amount of US\$ 80 000 as contributions to the MID RMA Project for years 1, 2 and 3 of operation of the MID RMA. Iran further informed the meeting that their contribution for year 2009 (US\$ 30,000) would be paid by end of January 2009.

3.17 Based on the above, the meeting agreed to extend the deadline for payment of arrears to 31 March 2009 and urged Kuwait and Syria to honour their commitments and pay their arrears before the agreed deadline. The meeting urged also those States that have not paid their contributions to the MID RMA Project for year 2009 to do so as soon as possible. In this regard, the meeting noted that the contributions of Kuwait and Lebanon would be paid by end of 2008. Accordingly, the meeting agreed to the following Draft Conclusion to replace and supersede the MSG/1 Draft Conclusion 1/6:

DRAFT CONCLUSION 7/2: PAYMENT OF ARREARS TO THE MID RMA

That,

- a) Kuwait and Syria are urged to pay their contributions (arrears) to the MID RMA Project as soon as possible and in any case before 31 March 2009;
- b) the deadline for the payment of contributions to the MID RMA Project for year 2009 is extended to 31 March 2009; and
- c) in case a State does not pay the contributions to the MID RMA within the agreed timescales, the MID RMA Board might consider:
 - i) to review the membership of this State; and
 - ii) to exclude this State from the MID RVSM SMR.
- 3.18 The meeting reviewed and approved the financial statement and associated bills related to the year 2008 as of 20 September 2008, as at **Appendix 3B** to the Report on Agenda Item 3.
- 3.19 The meeting was apprised of the status of the MID RMA Bank account in Bahrain and noted that the fund balance as of 8 October 2008 is US\$123,349.
- 3.20 The meeting reviewed the statement of expenditures of the MID RMA project (RAB/05/802) as well as a statement of financial position and the estimated fund balance as of 30 September 2008. The meeting noted that the balance of the funds available in the MID RMA account managed by ICAO (RAB/05/802) is estimated to be around US\$238,799. This estimate does not include interest allocation as this is still being processed. The expenditures for 2008 from the same account are estimated to be around US\$12,428.
- 3.21 The meeting recalled that, in accordance with MIDANPIRG/10 Conclusion 10/33 f) related to the MID RMA funding mechanism, the MID RMA Board Chairman, in compliance with the Custodian Agreement and based on the estimation of the yearly operating budget of the MID RMA, be delegated the authority to certify on behalf of the MID RMA Participating States the requests for advance payment to the MID RMA on 1 December of each year. Accordingly, the meeting developed the following Draft Decision:

DRAFT DECISION 7/3: REQUEST FOR TRANSFER OF MONEY TO THE MID RMA ACCOUNT

That, in accordance with MIDANPIRG/10 Conclusion 10/33 related to the MID RMA funding mechanism, the MID RMA Board Chairman is delegated the authority to certify a request for the transfer of the amount of US\$ 200,000 from the MID RMA account managed by ICAO Headquarters to the MID RMA account in Bahrain on 1 December 2008.

- 3.22 The meeting recalled that MIDANPIRG/10 agreed that the MID RMA buy a software for the recording and analysis of radar data and noted with appreciation that Bahrain, Oman, Saudi Arabia, Syria and Yemen agreed to provide the MID RMA with radar data, as and when required. The MID RMA Board/5 meeting was informed that, as a follow up action, the MID RMA established contact with a provider of such software and noted that the MID RMA could not afford to buy such an expensive software (around US\$ 500,000).
- 3.23 The meeting noted that the software is necessary for the calculation of the horizontal overlap and that the software used for the development of the MID RVSM SMR-2006 is obsolete and no longer operational. The meeting noted that the MID RMA developed the technical specifications related to the software for the recording and analysis of radar data and approached a number of vendors. Accordingly, it was mentioned that after long discussions with the vendors, the cost of the software could be reduced to approximately US\$ 200,000.
- 3.24 Taking into consideration the MID RMA status of expenditures, the agreed funding mechanism, and based on the fund available to the MID RMA (savings + arrears) and the real cost of the radar data recording and analysis software, the MID RMA Board/6 meeting agreed that the MID RMA Board/7 meeting takes the final decision about the purchase of such software.
- 3.25 In connection with the above the meeting highlighted the importance of the availability of radar data from the busiest FIRs of the region and the necessity for the MID RMA to have its own software for the recording and analysis of radar data in order to improve the results related to the assessment of the horizontal overlap. Accordingly, UAE agreed to provide radar data to the MID RMA starting from June 2009. Kuwait agreed also to provide radar data to the MID RMA as and when required.
- 3.26 Based on the above the meeting agreed that the MID RMA proceed with the purchase of the radar data recording and analysis software and agreed accordingly to the following Draft Conclusion:

DRAFT CONCLUSION 7/4: RADAR DATA RECORDING AND ANALYSIS SOFTWARE

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

MID RMA Board/7 Appendix 3A to the Report on Agenda Item 3

MIDRMA FINANCIAL STATUS OF EXPENDITURE FOR YEAR 2008 (AS OF 20 SEPTEMBER 2008)

No	DESCRIPTION	EXPENSES IN US \$	EXPENSES IN B.D
1.	SMR 2007 Report		
1.1	Eurocontrol RMA team Expenses to attend the MID RMA Board/ 6	5,066	1910
2.	Manpower cost of CAA staff assigned for MID RMA management & Operations for Period: JAN to AUG 2008	20,159	7,600
3	Special Assessment Hardware Equipment & Worksta	ation	
4.	Training/Workshop & Duty Travel		
4.1	Attending ATC Global for discussion meeting and S/W evaluation for supplies of Radar Data Analysis systems.	6,924	2,610.300
4.2	Attending MID RMA Board /6	6,525	2,460
4.3	Attending 3 rd RMA Special Meeting at ICAO HQ	9,645	3,636
4.4	Attending the Special Baghdad FIR coordination Meeting	2,647	998
4.5	CRM Training, SMR report review & discussions at Eurocontrol	7,194	2,712
5.	Miscellaneous		
5.1	MID RMA mail box renewal	80	30
5.2	Renewal of MID RMA domain name and hosting for 2008	605	228
5.3	ESET Smart Security software License	286	108
5.4	Equipments for MID RMA office	257	96.990
Tota	l Expenses of Year 2008 as of 20 Sept 08	\$ 59,388	22,389.290

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

Draft SMR 2008

- 4.1 The meeting recalled that MIDANPIRG/10 reviewed and approved the SMR for 2006.
- 4.2 The meeting recalled that the MSG/1 meeting (Dubai, 1-3 July 2008) noted that in the previous SMR 2006, it was not possible to provide an estimate for the probability of vertical overlap due to atypical errors. Hence, it was neither possible to provide in that report direct nor supporting evidence of compliance with the ICAO overall TLS of 5x10⁻⁹ fatal accident per flight hour. Therefore, it was stressed in so many occasions during the MID RMA Board/4, 5 and 6 meetings on the importance of submitting the altitude deviation reports to the MID RMA on regular basis in accordance with MIDANPIRG/10 Conclusion 10/40. Unfortunately, the meeting noted that the level of reporting from some States was not satisfactory and sometimes not acceptable at all.
- 4.3 The meeting was informed about the problems encountered by the MID RMA in the development of the SMR 2008. Concern was raised regarding the unsatisfactory provision of data by States (traffic data, updated aircraft RVSM approvals, Altitude Deviation Reports and Coordination Failure Reports).
- 4.4 The following table provided by the MID RMA presents the status of provision of data by States:

State	Actual FPL	ADR	CFR	RVSM				
	Traffic Data			Approvals				
Bahrain	Very Good	Very Good	Very Good	Very Good				
Egypt	Very Good	Very Good	Very Good	Very Good				
Iran	Acceptable	Very Good	Very Good	Very Good				
Jordan	Acceptable	Not Acceptable	Not Acceptable	Acceptable				
Kuwait	Not Acceptable	Not Acceptable	Not Acceptable	Not Acceptable				
Lebanon	Very Good	Acceptable	Acceptable	Very Good				
Oman	Acceptable	Not Acceptable	Not Acceptable	Very Good				
Saudi Arabia	Very Good	Very Good	Very Good	Very Good				
Syria	Not Acceptable	Not Acceptable	Not Acceptable	Not Acceptable				
UAE	Not Acceptable*	Acceptable	Acceptable	Very Good				
Yemen	Acceptable	Very Good	Not Acceptable	Not Acceptable				
Afghanistan	-	-	-	Not Acceptable				
Iraq	-	-	-	Not Acceptable				
Israel	-	-	-	Not Acceptable				
Qatar	-	-	-	Not Acceptable				

4.5 The problem of communication with the MID RMA Board Members/Focal Points in some States has been highlighted, since they are being changed frequently and accordingly the communication between the MID RMA and these States was very difficult. In this regard, it was noted with great concern that no traffic data was received from Kuwait and Syria and accordingly the MID RMA Team took the initiative of extracting the data related to

these two States from the traffic data of the adjacent States. Considering that UAE has joined the MID RMA during the process of assembling the necessary data for the development of the SMR 2008, the MID RMA managed also to extracting the data related to the Emirates FIR using the traffic data of the adjacent States. However, concern was raised regarding the quality of the data and the effect on the results of the safety assessment. It was highlighted that the MID RMA shall not be held liable or responsible of the quality of the data. It was further noted that Kuwait and Syria have not being providing the ADR and CFR as well as the updated list of RVSM approvals, as required. In this regard, the difficulties Kuwait is facing related to the traffic coming from Baghdad FIR, which is not an RVSM airspace, were highlighted. This includes problems of lack of communication and civil-military coordination.

- 4.6 The meeting noted with concern that despite the follow-up actions carried out by both the MID RMA and the ICAO MID Regional Office with a view to update the list of approved RVSM aircraft in the MID Region; a number of States had not provided the required data. In this regard, the meeting noted that Afghanistan, Qatar and Sudan provided ultimately their list of approved RVSM aircraft. However, the required data from Iraq and Israel is not yet available.
- 4.7 The meeting reviewed the draft version of the SMR 2008 prepared by the MID RMA with the assistance of EUROCONTROL. The meeting appreciated all the efforts deployed by the MID RMA Team to overcome the difficulties encountered and the delay observed for the provision of required data by States, in order to meet the deadlines defined during the MID RMA Board/6 meeting It was noted with appreciation that the four safety objectives were met including safety objective#2 related to the overall vertical-collision risk, as follows:

Objective #1: That the vertical-collision risk in MID RVSM airspace due

solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5×10^{-9} fatal

accidents per flight hour.

Result: The computed vertical-collision risk due to technical

height-keeping performance 1.93×10^{-13} meets the ICAO technical TLS of 2.5×10^{-9} fatal accidents per flight hour.

Objective #2: The overall vertical-collision risk – the overall risk of mid-

air collision in the vertical dimension - in MID RVSM airspace meets the ICAO overall TLS of 5×10^{-9} fatal

accidents per flight hour.

Result: The result for the estimated overall vertical-collision risk

found 5.1×10^{-11} which meets the ICAO overall TLS of 5×10^{-11}

10⁻⁹ fatal accidents per flight hour.

Objective #3: Address any safety-related issues raised in this report by

recommending improved procedures and practices.

Result: Safety related issues regarding the Middle East RVSM

operations have been identified and improved procedures and practices have been recommended for future

MIDRMA practices.

Objective #4:

Propose safety level improvements to ensure that any identified serious or risk bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route midair collision over the years.

Result:

Current risk bearing situations have been identified in the Report and actions have been proposed to the MIDRMA to ensure relevant information is collected in order to identify operational issues and potential mitigations

- 4.8 The meeting recognized that the level of reporting data to the MID RMA as well as the quality of the data provided have direct influence on the quality of the safety assessment results.
- 4.9 With a view to improve the draft version of the SMR 2008, the meeting agreed to the following:
 - in the introduction part of the SMR 2008, there should be a general description of the MID Region FIRs highlighting that RVSM is implemented in all FIRs except in Baghdad and Kabul FIRs. The agreed procedures for the handling of traffic between an RVSM and an non-RVSM airspaces should be highlighted;
 - even if the SMR 2008 demonstrated that all safety objectives were met, the report should reflect the concern related to the quality of the data used for the determination of the vertical collision risk, operational risk and overall vertical collision risk;
 - it should be reflected in the SMR 2008 that it would have been better to use the radar data from more than one FIR to determine the horizontal overlap, in line with the Recommendations of the SMR 2006; however, the use of radar data from the northern part of Bahrain FIR, which is one of the busiest areas in the MID Region, represents one of the worst scenarios and accordingly, the safety monitoring results would be better if radar data from other MID RVSM FIRs had been used;
 - Appendix B of the SMR 2008 "OPERATORS MONITORING COMPLIANCE" should be reviewed. For clarification purpose, the MID RMA was requested to specify clearly for each figure used in this Appendix if it was calculated based on the list of all MID RVSM approved aircraft or only the data extracted from the FPL data sample used for the period 15 November to 15 December 2007.
- 4.10 The meeting questioned if for future SMRs, it would be better to consolidate safety objectives #3 and #4. Accordingly, the MID RMA was requested to study the question and make a proposal to the ATM/SAR/AIS SG/10 meeting, as appropriate.

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

DRAFT CONCLUSION 7/5: ICAO PROVISIONS RELATED TO THE MANDATORY REPORTING OF DATA TO THE RMAS

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

- 4.13 The meeting recalled that Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen agreed to provide the MID RMA with radar data, as and when required. The meeting highlighted the importance of provision of required data to the MID RMA in a timely manner and continuous basis.
- 4.14 Based on the above and taking into account the Board decision to go ahead with the purchase of the radar data recording and analysis software, the meeting agreed to the following Draft Conclusion which is proposed to replace and supersede MIDANPIRG Conclusions 10/35 and 10/40:

DRAFT CONCLUSION 7/6: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION

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

- a) the MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);
- b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;
- c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:
 - *i)* approval of operators and aircraft for RVSM operations (on monthly basis);
 - ii) Altitude Deviation Reports (ADR) for deviations exceeding 300 ft (on monthly basis);
 - iii) Coordination Failure Reports (CFR) (on monthly basis); and
 - iv) traffic data (as requested by the MID RMA Board);

- d) Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen are committed to provide their radar data to the MID RMA, as and when required; and
- e) States not providing the required data to the MID RMA on a regular basis and in a timely manner:
 - i) be included in the MIDANPIRG List of air navigation deficiencies; and
 - ii) might not be covered by the RVSM SMR.
- 4.15 The meeting was of view that the MID RMA in coordination with ICAO and EUROCONTROL should organise a training event (workshop) on RVSM Safety Assessment, during which the different steps for the assessment of the vertical collision risk, the horizontal overlap, the overall vertical collision risk, etc, would be presented. It was also highlighted that during this event the radar data recording and analysis software could be presented. In this regard, the meeting noted with satisfaction that Bahrain agreed in principle to host the MID RVSM Safety Assessment Workshop and the ATM/SAR/AIS SG/11 from 8 to 12 November 2009.
- 4.16 The meeting was of view that the RVSM Safety Assessment Workshop would represent an important opportunity for the experts from the region to acquire better knowledge related to RVSM safety assessment activity. It was recognized that the expertise in such a complicated discipline could not be acquired in a short period. However, by participating in a number of RVSM safety assessment activities/exercises, the knowledge and expertise could be acquired, gradually. In this regard, the meeting was of view that the establishment of a scrutiny group during the development of the SMRs could be a good opportunity for a number of ATC and safety experts from the region to get such an expertise. Furthermore, the participation of experts from the region to the scrutiny group could provide local expertise. In this regard, the meeting noted that for the SMR 2006 and SMR 2008, the scrutiny group was composed of EUROCONTROL ATC and safety experts in addition to the MID RMA experts.
- 4.17 The meeting was of view that TOR of such a scrutiny group should be defined and presented to the MID RMA Board/8 meeting.

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

- 4.18 With regard to the sustained requirements for height keeping monitoring, the meeting recalled that the MID RMA Board/5 and Board/6 meetings were informed about a proposal for amendment of 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.
- 4.19 It was noted that the State of Registry that had issued an RVSM approval to an operator would be required to establish a requirement which ensures that two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, the requirement would be that the monitoring of that aeroplane shall be accomplished within the specified period.

- 4.20 Based on the above, the MID RMA Board/6 meeting, under Draft Conclusion 6/3, agreed that those aircraft/operators without known height monitoring results should be identified by the MID RMA in coordination with EUROCONTROL based on the updated RVSM approvals and traffic data provided by States, in accordance with ICAO aircraft grouping categories. The list of identified aircraft/operators should then be forwarded to States in order to instruct the identified operators to carry out necessary height monitoring (using GMU or the available HMU infrastructure).
- 4.21 The meeting noted that the MID RMA in coordination with EUROCONTROL and based on the updated RVSM approvals and traffic data provided by States, has identified the list of aircraft without known height monitoring results as well as a list of aircraft requiring height monitoring, in accordance with ICAO aircraft grouping categories. Accordingly, the meeting agreed to the following Draft Conclusion which replaces and supersedes Draft Conclusion 6/3:

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

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

- a) review the lists provided by the MID RMA and send feedback to the MID RMA before 30 November 2008; and
- b) instruct the identified aircraft operators to conduct necessary height monitoring using either GMU or the available HMU infrastructure and provide the monitoring results to the MID RMA before 31 January 2009.
- 4.22 In connection with the above, Egypt requested the agreement of the Board to go ahead with a feasibility study and Cost/Benefit Analysis related to the implementation of an HMU in the MID Region. Bahrain informed the meeting that they are considering to look into a consultancy service to carry out a feasibility study and Cost/Benefit Analysis for an appropriate Monitoring infrastructure to support the MID RMA activity. Since there was no documentation related to the subject presented to the meeting and taking into consideration the importance of the subject, the meeting agreed that it would not be appropriate to take any decision in this regard and requested both Bahrain and Egypt to present WPs on the subject to the next MID RMA Board/8 meeting.

Preparations for SMR 2010

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

REPORT ON AGENDA ITEM 5: REVIEW AND UPDATE OF THE MID RMA PROJECT ACTION PLAN/TIMELINES

- 5.1 The MID RMA 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.
- 5.2 Taking into consideration the outcome of its discussions, the MID RMA Board/7 meeting reviewed and updated the action plan, as at **Appendix 5A** to the Report on Agenda Item 5.

MID RMA Board/7 Appendix 5A to the Report on Agenda Item 5

MID RMA PROJECT ACTION PLAN/TIMELINES

Item No.	Actions	Responsible	ct 8	No 0		ec 8	an 9	Fe 0:	M: 0:	 A ₁ 0:	Ma 09	•	Ju 0	Ju 09	Au 09	0	Sep 09	
1	UAE signature of the MOA	UAE and ICAO																
2	Payment of arrears to the MID RMA Project	Kuwait and Syria																
3	Payment of contributions to the MID RMA Project for 2009	Iran, Kuwait, Lebanon and Syria																
4	Request to transfer US\$200,000 to the MID RMA account in Bahrain	Board Chairman + MID RMA ADMIN + ICAO			_													
5	Development of technical specifications/requirements related to the radar data recording and analysis software	MID RMA in coordination with Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen			_	_	\neg											
6	Purchase of the radar data recording and analysis software	MID RMA																
7	Present an updated Draft version of the SMR 2008 to the ATM/SAR/AIS SG/10 meeting	MID RMA																
8	Present the final version of the SMR 2008 to MIDANPIRG/11 meeting for approval	MID RMA																
9	Provide States with the lists of aircraft without known height monitoring results and the list of aircraft requiring height monitoring	MID RMA																

Item No.	Actions	Responsible	Oct 08	No 08		De 08		Jar 09	Feb 09		Iar)9	A _I 09		Ma 09		Ju: 09		Ju 09	Au ₁ 09	0	Sep 09	
10	Review the lists of aircraft without known height monitoring results and the list of aircraft requiring height monitoring provided by the MID RMA and send feedback to the MID RMA	Concerned States																				
11	Provide the monitoring results related to the aircraft requiring height monitoring to the MID RMA	Concerned States																				
12	Provision of required data to the MID RMA	States + MID RMA																				
13	Prepare an updated Draft version of the Draft MID RMA Manual for presentation to the MID RMA Board/8 meeting	MID RMA Board																				
14	Presentation of final status report on the MID RMA expenditures for 2008 accompanied with supporting documentation (bills) and a bank statement.	MID RMA + ICAO																				
15	Convening of the MID RMA Board/8 meeting	ICAO + Board Chairman + concerned States																				
16	Provision of FPL/Traffic data for the month of June 2009 to the MID RMA for the development of SMR 2010	States																				
17	Convening of the MID RVSM Safety Assessment Workshop	Bahrain + MID RMA + ICAO			_	_	_			_		_	_		-		L	_				-

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

- 6.1 The meeting recalled that the MID RMA Board/6 meeting noted that the Terms of Reference (TOR) of the MID RMA Board as well as the responsibilities and duties and the guiding principles addressing the scope, administrative arrangements and management of the MID RMA have not been updated since the establishment of the MID RMA. Accordingly, the meeting reviewed and updated the TOR of the MID RMA Board as at **Appendix 6A** to the Report on Agenda Item 6.
- 6.2 The meeting noted that the Appendix related to the guiding principles addressing the scope, administrative arrangement and management of the MID RMA is obsolete and has to be disregarded.
- 6.3 The meeting reviewed the duties and responsibilities of the MID RMA. It was agreed that, at this stage, the MID RMA should focus only on the activities related to RVSM safety monitoring/assessment, in accordance with the ICAO Doc 9574 (RVSM Manual). However, the duties and responsibilities of the MID RMA should reflect the particularities of the MID Region. The updated version of the duties and responsibilities of the MID RMA is at **Appendix 6B** to the Report on Agenda Item 6.
- The meeting noted with appreciation that the Secretariat developed a Draft MID RMA Manual, which includes reference material related the initial set up, administrative management, membership, funding mechanism, duties and responsibilities of the MID RMA as well as the requirements for RVSM safety assessment. It was noted that the Draft MID RMA Manual incorporated the relevant MIDANPIRG/10 Conclusions related to the MID RMA, in accordance with the MSG/1 decision related to the follow-up of MIDANPIRG Conclusions/Decisions.
- 6.5 The meeting reviewed the proposed Draft MID RMA Manual at **Appendix 6C** to the Report on Agenda Item 6 and agreed that the MID RMA Board Members should contribute to the improvement of this Manual. Accordingly, it was agreed that an updated version be presented to the MID RMA Board/8 meeting.
- The meeting recalled that the Board agreed that the MID RMA Board meetings should be hosted by Participating States on rotation basis. Based on an offer by Lebanon, the meeting recalled that the Board at its Sixth meeting agreed that the MID RMA Board/9 meeting be held in Beirut, Lebanon from 13 to 15 October 2009 and that the MID RMA Board/7 meeting decides on the venue of the MID RMA Board/8 meeting. It was noted that although Iran, Kuwait, Syria and Yemen were expected to make proposals for hosting the upcoming Board meetings, no proposal was received in this regard.
- 6.7 It was further noted that since UAE has joined officially the MID RMA, UAE might host one of the upcoming Board meetings.
- 6.8 Based on the above, the meeting agreed that the MID RMA Board/8 meeting be held during the second Quarter of 2009. The exact date and venue will determined by the ICAO MID Regional Office, in coordination with the Board Chairman and concerned States.

MID RMA Board/7 Appendix 6A to the Report on Agenda Item 6

MIDDLE EAST REGIONAL MONITORING AGENCY (MID RMA) BOARD TERMS OF REFERENCE

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

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

Composition:

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

The MID RMA Board meetings will be attended by:

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

MID RMA Board/7 Appendix 6B to the Report on Agenda Item 6

DUTIES AND RESPONSIBILITIES OF THE MID RMA

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

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



INTERNATIONAL CIVIL AVIATION ORGANIZATION



MANUAL OF THE MIDDLE EAST REGIONAL MONITORING AGENCY (MID RMA)

First Edition – October 2008

Draft MID RMA Manual ii

RECORD OF AMENDMENTS

<i>*</i>

The copyholder should record the insertion of each amendment in the table provided above.

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MID RMA MANUAL - GENERAL

1. **FOREWORD**

- 1.1 The Manual of the Middle East Regional Monitoring Agency (MID RMA) is a publication prepared by the ICAO Secretariat and adopted by the MID RMA Board and MIDANPIRG. Its purpose is to provide, for easy reference of interested parties, a consolidation of material related to the administrative management, membership, funding mechanism of the MID RMA, as well as its activities related to the sustained RVSM safety assessment and associated requirements for the provision of data. It contains the Terms of Reference (TOR) of the MID RMA Board and certain other provisions approved by the MID RMA Board and MIDANPIRG.
- 1.2 A Table of Contents is provided which serves also as a subject index and as a checklist for the current pages. Replacement pages will be issued as necessary. Additional material will be incorporated in the existing Sections or will be the subject of new Sections, as required.
- 1.5 The MID RMA Manual will be distributed to the Members and Observers of the MID RMA Board and to other States and International Organizations participating in meetings, contributing to, or having interest in the work of the MID RMA.

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1. **INTRODUCTION**

1.1 Monitoring of aircraft height-keeping performance was one of the underlying assumptions of the safety studies on which RVSM was based. In all regions where RVSM has been implemented, Regional Monitoring Agencies (RMAs) have been established by the appropriate Planning and Implementation Regional Groups (PIRGs) to carry out this function.

- 1.2 Since the implementation of RVSM in the MID Region with effect from 27 November 2003 and until 1 June 2004, the United Arab Emirates provided full support both financial and technical to the activities of the Middle East Central Monitoring Agency (MECMA), in monitoring the height-keeping performance of aircraft operating in RVSM airspace in the MID Region. RVSM was successfully implemented in the FIRs/UIRs of eleven (11) MID States, i.e.: Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, UAE and Yemen.
- 1.3 After the closure of MECMA, MIDANPIRG/9 held in Cairo, Egypt, from 11 to 15 April 2005, under Conclusion 9/13 agreed that the Middle East Regional Monitoring Agency (MID RMA) be established for carrying out RVSM and eventually, RNP and RNAV related duties and responsibilities in the MID Region as soon as possible and developed an Action Plan for the set up of the MID RMA.
- 1.4 The MID RMA/1 meeting held in Cairo, 14-15 June 2005, under Decision 5, agreed to the establishment of the MID RMA Board, which agreed during its first meeting held in Cairo, 5-6 September 2005, that Bahrain hosts the MID RMA. The meeting agreed also on the measures to be taken for the initial set up and management of the MID RMA.
- 1.5 The MID RMA/1 meeting and the MID RMA Board/1 meeting further updated the initial action plan developed by MIDANPIRG/9 related to the establishment of the MID RMA. All issues pertaining to the modalities, organizational structure and funding mechanism of the MID RMA have been discussed, which lead to the establishment of the MID RMA in Bahrain, effective 24 November 2005, with the help of EUROCONTROL and based on the offer made by Bahrain to establish and host the MID RMA, providing the required resources and ensuring the administrative management (provision and management of Staff). Bahrain offered to pay for the set up of the MID RMA without waiting for MID States' contributions, provided that Bahrain recover the cost through the agreed funding mechanism.
- 1.6 Based on the above, MIDANPIRG/10 agreed to the following Conclusion emanating from the MID RMA Board:

CONCLUSION 10/28: INITIAL SET UP AND ADMINISTRATIVE MANAGEMENT OF THE MID RMA

That,

- a) Bahrain pays for the initial set up of the MID RMA without waiting for MID States contributions and the cost is recovered through the agreed funding mechanism, in coordination with the ICAO Technical Cooperation Bureau; and
- b) Bahrain is responsible for the administrative management of the MID RMA.

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2. MID RMA PROJECT

2.1 MIDANPIRG/10, under Decision 10/29, agreed to the establishment of the MID RMA Board as follows:

DECISION 10/29: ESTABLISHMENT OF THE MID RMA BOARD

That.

- a) a MID RMA Board is established with Terms of Reference (TOR) as at Appendix 5.3J to the Report on Agenda Item 5.3; and
- b) the MID RMA Board is to be composed of a focal point nominated by each Member State.
- 2.2 An updated version of the Terms of Reference of the MID RMA Board is at **Appendix A**.
- 2.3 With a view to resolve the legal issues related to the membership, funding, duties and responsibilities of the MID RMA, the Memorandum of Agreement (MOA) at **Appendix B**, has been signed by the ten (10) participating States, i.e.: Bahrain, Egypt, Iran, Jordan, Lebanon, Kuwait, Oman, Saudi Arabia, Syria and Yemen, between 27 February and 21 March 2006.
- *N.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, MIDANPIRG/10, under Conclusion 10/30 and based on an offer from the MID RMA Board, invited UAE to join the MID RMA Project being exempted from the payment of contributions for the first ten (10) years of operation of the MID RMA. Accordingly, and further to the follow-up actions taken by the ICAO MID Regional Office, UAE joined officially the MID RMA Project on 10 June 2008.
- 2.4 With a view to clarify and define exactly the support functions provided by ICAO in the MID RMA Project, a Custodian agreement between ICAO, the MID RMA Board and Bahrain was signed by the ICAO Secretary General, the Under Secretary for Civil Aviation Affairs of Bahrain and the MID RMA Board Chairman (on behalf of the MID RMA participating States), as at **Appendix C**.
- 2.5 Based on the above MIDANPIRG/10 agreed to the following Conclusion related to the MID RMA Project:

CONCLUSION 10/32: MID RMA PROJECT

That,

- a) the MOA at Appendix 5.3G to the Report on Agenda Item 5.3 constitute the legal document related to the establishment, funding and management of the MID RMA; and;
- b) the Custodian Agreement between ICAO, the MID RMA Board and Bahrain at Appendix 5.3H to the Report on Agenda Item 5.3, signed by the ICAO Secretary General, the Under Secretary for Civil Aviation Affairs of Bahrain and the MID RMA Board Chairman on behalf of the MID RMA participating States, represents the legal document which describes the support functions provided by ICAO in the MID RMA project

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Funding Mechanism:

2.6 The MID RMA/1 meeting held in Cairo, from 14 to 15 June 2005 recognized that the organizational structure and funding mechanism of the MID RMA are key issues, which must be resolved between the MID States before further progress can be made. Accordingly, the meeting agreed that it is better to start with a "simple" funding mechanism, which could be refined once the MID RMA is established and operational, based on more up to date statistics and data. Therefore, the MID RMA Board agreed that the funding mechanism for the first year of operation of the MID RMA be based on contributions from the ten (10) participating States on equal share basis.

- 2.7 The MID RMA Board/3 meeting held in Muscat, Oman, from 24 to 25 November 2006, noted that the directives on global approach to cost recovery of RMAs did not mention a specific funding mechanism, nevertheless the issue of RMA cost sharing arrangements was left to the PIRGs decision. Taking into consideration the characteristics of the MID Region and its areas of major flows, a new MID RMA funding mechanism has been agreed upon and accordingly the MID RMA 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 MID RMA, and
 - Category 2: Jordan, Kuwait, Lebanon, Syria and Yemen will be paying 5% each of the yearly total cost of operation of the MID RMA.
- 2.8 Based on the above, MIDANPIRG/10 agreed to the following Conclusion emanating from the MID RMA Board/3 meeting:

CONCLUSION 10/33: FUNDING MECHANISM OF THE MID RMA

That,

- a) the activities of the MID RMA be ensured through contributions from all MID RMA Member States, which could be recovered in accordance with ICAO Policies on charges for Airports and Air Navigation Services (Doc 9082), in coordination with IATA;
- b) Bahrain, Egypt, Iran, Oman and Saudi Arabia pay 15% each of the yearly operating budget of the MID RMA;
- c) Jordan, Kuwait, Lebanon, Syria and Yemen pay 5% each of the yearly operating budget of the MID RMA;
- d) the budget estimate for the MID RMA operation for each year be prepared/approved by the MID RMA Board before 30 April;
- e) the MID RMA participating States pay their contributions on a yearly basis not later than 1 November of each year based on the invoices issued by ICAO;
- f) the MID RMA Board Chairman, in compliance with the Custodian Agreement and based on the agreed funding mechanism and the estimation of the yearly operating budget of the MID RMA, be delegated the authority to certify on behalf of the MID RMA Participating States the requests for advance payment to the MID RMA on 1 December of each year;
- g) the bills related to the MID RMA expenses be certified by the MID RMA Board chairman and reviewed by the MID RMA Board at each of its meetings;

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h) in case the contributions for one year exceed the yearly cost for the operation and management of the MID RMA, the difference be deducted from the contributions of the next year(s); and

i) the MID RMA funding mechanism be revised by the MID RMA Board when necessary.

Note: 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).



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3. RVSM SAFETY ASSESSMENT ACTIVITY

General Requirements

3.1 Implementation of RVSM should be based on a safety assessment, demonstrating that RVSM safety objectives have been satisfied. In accordance with the guidance material contained in the ICAO Manual on implementation of RVSM (Doc 9574), the RVSM safety objectives are set for both technical risk and overall risk as follows:

Safety objective for technical risk:

- 3.2 Technical risk is the risk of collision associated with aircraft height-keeping performance. Risk associated with operational errors (e.g. controller/pilot errors) and in-flight contingencies is not included.
- 3.3 The RVSM safety objective for technical risk is a TLS of 2.5 x 10⁻⁹ fatal accidents per aircraft flight hour. This value for technical risk was used to derive the global height-keeping performance specification and the global height-keeping performance specification.

Safety objective for overall risk:

- 3.4 Overall risk is the risk of collision due to all causes, which includes the technical risk and all risk due to operational errors and in-flight contingencies, such as controller/pilot errors, height deviations due to emergency procedures, and turbulence.
- 3.5 The RVSM safety objective for overall risk should be set by regional agreement.

Standards for Establishment and Operation of an RMA

- 3.6 Reference is made to Annex 11 para. 3.3.5.1, "for all airspace where a reduced vertical separation minimum of 300 m (1 000 ft) is applied between FL 290 and FL 410 inclusive, a programme shall be instituted, on a regional basis, for monitoring the height-keeping performance of aircraft operating at these levels, in order to ensure that the implementation and continued application of this vertical separation minimum meets the safety objectives. The coverage of the height-monitoring facilities provided under this programme shall be adequate to permit monitoring of the relevant aircraft types of all operators that operate in RVSM airspace".
- 3.7 Recognizing the safety oversight responsibilities necessary to support the implementation and continued safe use of RVSM, the following standards apply to any organization intending to fill the role of an RMA:
 - a) the organization must receive authority to act as an RMA as the result of a decision by a State, a group of States or a regional planning group, or by regional agreement;
 - b) the organization acting as an RMA should have personnel with technical skills and experience to carry out the following main functions:
 - i) establish and maintain a database of State RVSM approvals,
 - ii) monitor height-keeping performance,
 - iii) conduct safety and readiness assessments,
 - iv) monitor operator compliance with State approval requirements after RVSM implementation, and
 - v) initiate necessary remedial actions if RVSM requirements are not met.

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MID RMA Duties and Responsibilities

3.8 The duties and responsibilities of the MID RMA are at **Appendix D.**

MID Region safety assessment activity

- 3.9 The RVSM pre-implementation safety assessment for the MID Region was carried out in 2003 by MECMA. (Additional information if needed TBD)
- 3.10 The first RVSM post-implementation safety assessment was carried out by the MID RMA in 2007. The safety assessment was based on four safety objectives endorsed by MIDANPIRG, under Conclusion 10/38 as follows:

CONCLUSION 10/38: MID RVSM OPERATIONS SAFETY ASSESSMENT

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

- a) Safety Objective 1: that the vertical-collision risk in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5 x 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 x 10⁻⁹ fatal accidents per flight hour;
- c) Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and
- d) Safety Objective 4: propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.
- 3.11 MIDANPIRG/10 agreed that the MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR), which should be presented to MIDANPIRG at each meeting in order to assess the RVSM safety objectives and demonstrate if they have been satisfied or not and propose preventive and corrective measures in order to improve the situation.
- 3.12 MIDANPIRG/10 agreed that the MID RMA is responsible for the identification of the exact type and format of data necessary for performing collision risk calculations and the development of the appropriate forms, accordingly. States are requested to provide the required data in a timely manner. The data will include, but not necessarily be limited to:
 - a) approval of operators and aircraft for RVSM operations (monthly);
 - b) altitude deviations of 300 ft or more (monthly);
 - c) ATC/ATC coordination failures (monthly); and
 - d) traffic data (as requested by the MID RMA);
- 3.13 MIDANPIRG/10 agreed also that States not providing the required data to the MID RMA, in accordance with the requirements of safety monitoring agencies, be included in the MIDANPIRG List of air navigation deficiencies.

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3.14 Based on the above MIDANPIRG/10 agreed to the following Conclusions:

CONCLUSION 10/35: REQUIREMENTS FOR PROVISION OF DATA TO THE MID RMA

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

- a) States not providing the required data to the MID RMA, in accordance with the requirements of safety monitoring agencies, be included in the MIDANPIRG List of air navigation deficiencies;
- b) the MID RMA ensure that the requests for provision of data are extended to MID States' RVSM Programme Managers and their Alternates in order to carry out the necessary internal coordination and speed up the process of collection of data; and
- c) States ensure that good communication and cooperation between the RVSM Programme Managers and the MID RMA Board Members is established and observed.

CONCLUSION 10/40: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION

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

- a) The MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);
- b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;
- c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:
 - i) approval of operators and aircraft for RVSM operations (monthly);
 - ii) altitude deviations of 300 ft or more (monthly);
 - iii) ATC/ATC coordination failures (monthly); and
 - iv) traffic data (as requested by the MID RMA);
- d) the MID RMA coordinate with Bahrain, Oman, Saudi Arabia, Syria and Yemen for the recording and analysis of radar data, as and when required.
- 3.15 The forms for reporting flight data, the Coordination failures and the altitude deviation reports at **Appendices E**, **F** and **G**, respectively are also available on the MID RMA website: www.midrma.com

APPENDIX A

MIDDLE EAST REGIONAL MONITORING AGENCY (MID RMA) BOARD

TERMS OF REFERENCE

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

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

Composition:

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

The MID RMA Board meetings will be attended by:

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

MID RMA MANUAL APPENDIX B



Middle East Regional Monitoring Agency (MID RMA)

MEMORANDUM

OF AGREEMENT



Bahrain - 27 February, 2006

MEMORANDUM OF AGREEMENT

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

1. PARTIES

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

2. AGREEMENT

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

The Parties have agreed as follows:

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

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- monitoring the effectiveness of the altimetry system modifications to enable aircraft to meet the required height keeping performance criteria;
- evaluation of the stability of altimetry system error;
- undertake monitoring missions to States as required;
- determine in the light of analysis made of data received and of missions conducted, whether compliance with required safety standards is maintained and initiate corrective action as needed in each case; and
- submit a report to each Board meeting on MID RMA activities, its analysis of data and any identified departure from RVSM Safety limits, for its consideration and action as appropriate.
- 6. The Participating States have accepted Bahrain's offer to host the MID RMA in Bahrain to enable the early establishment and functioning of the MID RMA;
- 7. Bahrain will provide the offices, equipment and local personnel needed for the MID RMA operations and pay for the initial set up of the MID RMA without waiting for MID States' contributions. The advance payment made by Bahrain shall be recovered through States' contributions in compliance with the agreed funding mechanism;
- 8. Based on the agreed funding mechanism for the first year of operation of the MID RMA, the cost for the establishment of the MID RMA, its operation and management for the first year shall not exceed the estimated amount of US\$ 300,000, which shall be borne by the Participating States on equal basis;
- 9. The funding mechanism and consequent contributions of Participating States may be modified in subsequent years by decision of the Board;
- 10. The MID RMA staff shall be composed of:

1. MID RMA Manager/Team Leader (Part Time)

2. One Assistant MID RMA Officer (Full Time)

3. Database Specialist (Part Time)

- 11. The MID RMA Manager/Team Leader shall manage the project on day-to-day basis and effect coordination with the Chairman of the MID RMA Board. He shall submit the MID RMA reports to the Board with copies to the ICAO Regional Office in Cairo;
- 12. Bahrain shall monitor the progress of the MID RMA, maintain financial accounting and provide general support and timely reporting;
- 13. Participating States authorize the MID RMA Board Chairman to negotiate on behalf of the MID RMA an agreement with ICAO and Bahrain specifying ICAO's role as the custodian of the funds collected for the purpose of this agreement, in compliance with ICAO's Financial Regulations and Rules;
- 14. This Memorandum of Agreement shall come into effect on the date it has been signed by the Participating States;
- 15. Any amendment to this Memorandum of Agreement, shall be carried out by the parties to this agreement;
- 16. Any dispute arising out of or relating to this Memorandum of Agreement, shall be settled by direct consultation between the Participating States concerned;
- 17. Any Participating State may withdraw from this Memorandum of Agreement by giving a prior notice of **six (6) months** to other Participating States. The obligations assumed by the Participating States under this Memorandum of Agreement shall continue to exist after the

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

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

MID RMA

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

With copy to the:

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

Agreed on behalf of MID RMA States

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Custodian Agreement between ICAO, the Middle East Regional Monitoring Agency (MID RMA), and Bahrain.

Whereas the Middle East Regional Monitoring Agency (MID RMA) desires to request the International Civil Aviation Organization (ICAO) to perform certain custodian functions with respect to the funds collected from the member States of the MID RMA;

Whereas the member States of the MID RMA, under the Memorandum of Agreement on the Establishment, Operation and Management of the Middle East Regional Monitoring Agency (MID RMA) and its Funding by the Participating States, have authorized the MID RMA Board Chairman to negotiate on behalf of the MID RMA an agreement with ICAO and Bahrain specifying ICAO's role as the custodian of the funds collected for the purpose of the Memorandum of Agreement;

Whereas Bahrain agrees under the Memorandum of Agreement to host the MID RMA in Bahrain and undertakes to monitor the progress of the MID RMA, maintain financial accounting and provide general support and timely reporting;

The Parties have agreed as follows:

1. The Custodian Functions of ICAO

- 1.1 In accordance with the apportionment provided by the MID RMA Board, ICAO shall use its best efforts to assist in collecting the funds from each of the member States of the MID RMA by issuing a request for payment to each member State.
- 1.2 ICAO shall act as the custodian of the funds collected under subparagraph 1.1, to the extent defined as follows:
 - a) Creating a fund for the MID RMA, in compliance with existing ICAO financial Rules and Regulations.
 - b) depositing the funds received into the MID RMA fund mentioned in subparagraph 1.1 and issuing acknowledgements of receipts to individual States when funds are received;
 - c) recording the funds received in the MID RMA fund and tracking accrued interest;
 - d) reporting on funds received and balance of funds to the RMA Board via its chairman on a quarterly basis;
 - e) subject to availability of funds, reimbursing Bahrain on the basis of a certified request for payment by the Chairman of the MID RMA Board on a semi-annual basis:

2. Administration Fees of ICAO

2.1 ICAO shall be entitled to receive ten per cent (10%) of the funds collected, as administration fees.

3. Exclusion of ICAO's Responsibility and Liability

- 3.1 ICAO has no responsibility to certify that funds spent by Bahrain are for the purpose for which they were intended. Nor shall any form of verification or audit be performed on expenditure related to the MID RMA. Any request for audit shall be commissioned by the MID RMA Board and contracted with an independent external auditor.
- 3.2 ICAO is under no obligation to provide an itemized statement of expenditure since it has no responsibility for the budget of the MID RMA Board.
- 3.3 ICAO shall not receive invoices for payment to third parties nor shall it be required to make any disbursements other than to Bahrain for reimbursement of their costs.
- 3.4 In no event shall ICAO be held liable for any claim or damage arising from the execution of this Agreement. Without limiting the generality of the foregoing, ICAO shall not be liable for:
 - a) the failure to collect from member States which are in default. Following two reminders sent to the States by ICAO, it shall be the sole responsibility of the MID RMA Board to engage in further collection action or to enforce any applicable sanctions with respect to members States which are in default:
 - b) the loss of the funds, such as in the course of their deposits, transmissions or transfers;
 - c) any deficit position of the MID RMA fund.
- 3.5 The MID RMA shall indemnify, hold and save harmless, and defend, at its own expense, ICAO, its officials, agents, servants and employees, from and against all suits, claims, demands and liability of any nature or kind, including their costs and expenses, arising out of the acts or omissions of the MID RMA or the MID RMA's employees, officers, agents or sub-contractors, in the performance of this Agreement. This provision shall extend, *inter alia*, to claims and liability in the nature of workmen's compensation claims, product liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the MID RMA, its employees, officers, agents, servants, or sub-contractors. The obligations under this clause do not lapse upon termination of this Agreement.

4. Compliance with ICAO Financial Regulations and Rules

4.1 ICAO shall be bound by its Financial Regulations and Rules in all matters under this Agreement. No provision of this agreement shall be interpreted in conflict with the Financial Regulations and Rules.

5. Settlement of Disputes

5.1 Any dispute, controversy or claim arising out of or relating to this Agreement shall be settled amicably through negotiation and consultation between the Parties.

6. Immunity of ICAO

6.1 Nothing in or relating to this Agreement shall be deemed a waiver, express or implied, of any immunity from suit or legal process or any privilege, exemption or other immunity enjoyed or which may be enjoyed by ICAO, its officers and staff, either pursuant to the Convention on the Privileges and Immunities of the Specialized Agencies or other conventions, agreements, laws or decrees of an international character.

7. Language of Correspondence

7.1 All reports, correspondence and other information shall be in English.

8. Notices

8.1 All correspondence between the Parties shall be sent in writing to the following offices and addresses:

a) ICAO:

International Civil Aviation Organization

Technical Co-operation Bureau

999 University Street Montreal, Québec

H3C 5H7

Tel:

++ 514-954-8219 Ext. 8082

Fax:

++ 514-954-6287

E-mail:

vdorofeyev@icao.int

b) MID RMA:

Middle East Regional Monitoring Agency

(MID RMA)

C/o Civil Aviation Affairs

P.O. Box: 586 Manama, Bahrain

Tel:

++ 973 17 32 91 50

Fax:

++ 973 17 32 91 60

E-mail:

midrma@batelco.com.bh

c) Bahrain:

The Under Secretary

Civil Aviation Affairs

Bahrain International Airport

Tel:

++ 973 17 321 100

Fax:

++ 973 17 329 066

E-mail:

aralgaoud@caa.gov.bh

9. Amendment to the Agreement

9.1 This Agreement may be amended by an instrument in writing signed by each of the Parties.

Termination or Renewal of the Agreement

- 10.1 This Agreement is concluded initially for a term of two (2) years. It shall be automatically renewed at the time of expiration, unless one Party notifies the other Parties by a prior written notice of three (3) months that it intends to terminate this Agreement at the end of the term.
- 10.2 ICAO may terminate this Agreement at any time by providing prior written notice of three (3) months.

11. Entry into Force

This Agreement shall come into force at the time of signature by all the Parties.

Acknowledged and agreed:

For ICAO

Secretary General 9 May 2006 For Bahrain

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Under Secretary Civil
Aviation Affairs
6/June/ 2006

For MID RMA Member States

Chairman of MID RMA Board 3 Tune 2006

APPENDIX D

DUTIES AND RESPONSIBILITIES OF THE MID RMA

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

- a) to establish and maintain a central registry of State RVSM approvals of operators and aircraft using the Middle East Region airspace where RVSM is applied;
- b) to facilitate the transfer of approval data to and from other RVSM regional monitoring agencies;
- c) to establish and maintain a data base containing the results of height-keeping performance monitoring and all altitude deviations of 300 ft or more within Middle East Region airspace, and to include in the database the results of MID RMA requests to operators and States for information explaining the causes of observed large height deviations;
- d) provide timely information on changes of monitoring status of aircraft type classifications to State authorities and operators;
- e) to assume overall responsibility for assessing compliance of operators and aircraft with RVSM height-keeping performance requirements in conjunction with RVSM introduction in the Middle East Region;
- f) to provide the means for identifying non-RVSM approved operators using Middle East airspace where RVSM is applied; and notifying the appropriate State approval authority;
- g) to conduct readiness assessments and safety assessments as an aid for the Middle East RVSM Task Force for decision making in preparation for RVSM implementation in those FIRs where RVSM is not yet implemented;
- h) to carry out post-implementation safety assessments with a view to verify that the defined safety level continues to be met;
- i) to establish and maintain a database containing the results of navigation error monitoring;
- j) to prepare, each year a report setting out the results of navigation error monitoring for the preceding six-month period. This report shall be presented to the ICAO Middle East Regional Office, Cairo, and States as part of their decision process related to safety management;
- k) to conduct safety assessments in conjunction with expansion or changes to the RNP route structure within the Middle East Region;
- to assist States in carrying out safety assessments in relation to requirements identified within
 the framework of safety management programmes likely to have an impact on the safety of
 air navigation at a sub-regional level; and
- m) to liaise with other Regional Monitoring Agencies and organizations to harmonise implementation strategies.

Note: The MID RMA will be guided by the working principles indicated in the RMA Manual available on the ICAO website.

MID RMA MANUAL APPENDIX E

				FL	IGHT DATA FORM						
DATE		ICAO ACFT TYPE		ENTRY LEVEL	ENTRY TIME	EXIT POINT	EXIT LEVEL	EXIT TIME	TOTAL FLYING TIME	Equipments	Remarks

COORDINATION FAILURES FORM



1	2	3	4	5	6	7	8	9	10	1	1	1	2	13	14
No.	Date	ACFT Callsinge	ACFT	Route	SSR Code	Dep.	Dest.	Coord	Actual	FIR I	Entry	FIR	Exit	Fault	Details
			Type					Level	Level	Point	Time	Point	Time		
1															
2															
3															
4															
5															
6															
7															
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10															
11															
12															
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14															
15															
16															
17															
18															
19															
20															

1

Route - (B) Bidirectional or (U) Unidirectional

Coord Level - The FL wich was coordinated and passed .

Actual Level - The FL which is the ACFT actualy maintaing .

Fault - unit determined to be responsible for the failure if not determined by the supervisor put (?)

Details - short description of failure. -e.g revision not passed, no estimate received etc..

ALTITUDE DEVIATION REPORT FORM

MID RMA MANUAL APPENDIX G

This form should be used to report altitude deviations of 300 feet (90 metres) or more from the cleared flight level which occur above FL245. The information provided will form part of the data collection used by MIDRMA for MID RVSM Safety Assessment purposes.

1. Date (day/month/year)	2. Time (in UTC)	3. Name of ATS Unit and Sector	4. Geographical Location of Occurrence
5. ATS Route		6. Flight Identification	7. Aircraft Type
8. Cleared Flight Leve	el	9. Observed Flight Level	10. Time Spent Deviating from Cleared Flight Level (express in seconds) (see Note 1)
11. Cleared Flight Lev deviation if differd Cleared Flight Lev deviation (Box 8)	ent from	12. Cause of Deviation	13. Other Traffic if Loss of Separation Occurred
			Minimum Vertical Separation (feet)
			Minimum Horizontal Separation (nm)
14. Crew Comments,	if any, when r	notified of altitude deviation	
15. Additional Remar	ks		

Note 1: Insert in Box 10 the overall deviation time until the aircraft:

- a. returned its Cleared Flight Level (as inserted in Box 8); or
- b. was cleared to a different flight level (as inserted in Box 11), if applicable.

See reverse side for guidance on the completion of this form. When complete please send to:

MIDRMA

P.O.Box 50468 Kingdom of Bahrain

Fax number: +973 17 329160 e-mail: midrma@midrma.com & midrma@batelco.com.bh

Web Site: www.midrma.com

GUIDELINES FOR COMPLETION OF ALTITUDE DEVIATION REPORT FORM

Follow State Guidance as to any additional reporting process and addresses for this Form.

Use this Form to report altitude deviations of 300 feet or more which occur above FL 245.

2. Guidance for Completion.

Complete the Form as soon as practicable after the occurrence. Fill in as many Boxes as possible. If the information requested is NOT KNOWN, use N/K.

- Box 1: Insert the Day (DD), Month (MM), Year (20YY).
- Box 2: Insert the hour (hh) and Minute (mm) of occurrence in UTC.
- Box 3: Self-explanatory.
- **Box 4:** Insert the location using latitude/longitude, a place name, aerodrome, bearing/distance from a NAVAID or significant point, etc.
- **Box 5:** Insert the ATS route. If this Form is to be used for all altitude deviation reports, then specify route segment, e.g. SID&TARS/aerodrome traffic circuit, etc.
- Box 6: Insert the Callsign and/or registration.
- **Box 7:** Use ICAO aircraft type designators.
- **Box 8:** Insert either the Cleared Flight Level (CFL), altitude (A), or height (H) in feet. If metric add m. Insert altimeter setting if relevant.
- Box 9: Insert the aircraft's flight level during the altitude deviation as observed by ATC.
- **Box 10:** Insert the amount of time (in seconds) spent deviating from Cleared Right Level. Insert the overall deviation time until the aircraft:
 - a. returned to its Cleared Flight Level, as inserted in Box 8; or
 - b. was cleared to a different flight level, as inserted in Box 11, if appli cable.
- **Box 11:** Insert the Cleared Flight Level after the altitude deviation if different from the Cleared Flight Level before the altitude deviation.
- Box 12: Insert the cause of deviation from one of the following categories:
 - Pilot error;
 - · Controller error,
 - Pilot-controller loop error (e.g. pilot misunderstands cleared flight level and reads back wrong cleared flight level, controller does not notice the error);
 - Equipment (e.g. autopilot failure)
 - ACAS resolution advisory manoeuvre
 - Turbulence;
 - Other;
 - Unknown.
- Box 13: If separation was lost, insert the horizontal and vertical spacing at the closest point.
- Box 14: Self-explanatory.
- **Box 15:** Insert additional remarks concerning any cause or factors believed relevant to the occurrence, as applicable.

MID RMA Board/7 Report on Agenda Item 7

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 The meeting recalled that the MID RMA Board/5 meeting requested that the list of MID RMA Board Members and Alternates be updated on a regular basis. Accordingly the meeting reviewed and updated the list of MID RMA Board Members and Alternates as at **Appendix 7A** to the Report on Agenda Item 7. It was re-iterated in this regard that, in order to keep track with both the MID RMA management/financial and technical issues, to the extent possible, the designated MID RMA Board Members and Alternates should not be changed frequently. It was also re-iterated that the attendance of the MID RMA Board meetings should be limited to the designated Board Members and Alternates.

MID RMA Board/7 Appendix 7A to the Report on Agenda Item 6

LIST OF MID RMA BOARD MEMBERS/FOCAL PONTS AND ALTERNATES

STATE	RMA BOARD MEMBER/FOCAL POINT	ALTERNATE
BAHRAIN	Mr. Ali Ahmed Mohammed Director Air Navigation Civil Aviation Affairs P.O. Box 586 KINGDOM OF 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) 321 029 Tel: (973) 321 028 Mobile: (973) 967 6707 E-mail: mzainal@caa.gov.bh
Едүрт	Mr. Mohamed Abbas Mohamed Safety General Manager Civil Aviation Authority Cairo International Airport Road Cairo – EGYPT Tel: (202) 2678 529 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) 268 0627 Tel: (202) 265 7842 Mobile: (010) 1843 602 E-mail: hassan.kamel@nansceg.org
IRAN	Mr. Ghasem Sheikhi Narany Chief of Tehran ACC Tehran Mehrabad International Airport P.O. Box 13445 – 1798 Tehran – IRAN Fax: (98) 21 4454 4114 Tel: (98) 21 4454 4114 Mobile: (98) 912 390 8202 E-mail: skn4507@.yahoo.com	Mr. Mohammad Khodakarami Deputy Director General ATS Tehran Mehrabad International Airport P.O. Box 13445 – 1798 Tehran – IRAN Fax: (98) 21 4454 4102 Tel: (98) 21 4454 4103 Mobile: (98) 912 390 8196 E-mail: mkhd4444@.yahoo.com
JORDAN	Mr. Ahmad Ali Mohamed Al Jarrah Director Air Navigation Services Queen Alia Airport Amman - JORDAN Fax: 962-6 4451619 Tel: 626 4451666 Mobile: 962-7 99573290 Email: ahmadj1957@hotmail.com dans-qa@carc.gov.jo	

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¹ Chairperson of MID RMA Board

STATE	RMA BOARD MEMBER/FOCAL POINT	ALTERNATE
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OMAN	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	Mr. Abdullah Nasser Rashid Al-Harthy Senior Air Traffic Controller Directorate General of Meteorology and Air Navigation P.O. Box 1 – Code 111 Muscat International Airport, Muscat, SULTANATE OF OMAN Fax: (968) 24 510 122 Tel: (968) 24 519 201 Mobile: (968) 9947 6806 E-mail: abdullah_nasser@dgcam.gov.om
S. ARABIA	Mr. Aon Al-Garni Head of ATM General Authority of Civil Aviation P.O. Box 40217 Jeddah 21499 - SAUDI ARABIA Fax: (966-2) 640 1477 Tel: (966-2) 640 1005 Mobile: (966-5) 05772984 E-mail: aonabdul@yahoo.com	Eng. Saleh Al-Motirey General Authority of Civil Aviation P.O. Box 929 Jeddah 21421 - SAUDI ARABIA Fax: (966-2) 6719041 Tel: (966-2) 6717717 Mobile: (966-5) 6601307 E-mail: salmotirey@yahoo.com

STATE	RMA BOARD MEMBER/FOCAL POINT	ALTERNATE
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MID RMA Board/7 Attachment A to the Report

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