## **MID RMA Board/9-REPORT**



# INTERNATIONAL CIVIL AVIATION ORGANIZATION

# **REPORT OF THE NINTH MIDDLE EAST REGIONAL MONITORING AGENCY BOARD**

# MID RMA Board/9

(Beirut, Lebanon 13 - 15 October 2009)

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

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## PART I - HISTORY OF THE MEETING

### **1.** PLACE AND DURATION

1.1 The Ninth Meeting of the Middle East Regional Monitoring Agency Board (MID RMA Board/9) was held at the Radisson Blu Martinez Hotel, in Beirut, Lebanon from 13 to 15 October 2009.

### 2. **OPENING**

2.1 The meeting was opened by Dr. Hamdi Chaouk, Director General of Civil Aviation, Lebanon who extended a warm welcome to all participants to the MID RMA Board/9 meeting and wished them a successful meeting and pleasant stay in Beirut.

2.2 Dr. Chaouk thanked ICAO for organizing this meeting in Beirut and restated Lebanon's commitment to support the ICAO MID Regional Office and MIDANPIRG activities; in particular the MID RMA project, with a view to ensure the safety of RVSM operations in the MID Region and to contribute to the improvement of the overall safety of international air navigation.

2.3 Mr. Jehad Faqir, Deputy Regional Director, ICAO Middle East Office welcomed also all the participants to Beirut. He expressed his gratitude and appreciation to DGCA Lebanon and especially to Dr. Hamdi Chaouk, for hosting this important meeting and supporting the MIDANPIRG and the ICAO MID Regional Office activities. He pointed out that Lebanon has always played an important and positive role in the MID Region.

2.4 Mr. Faqir 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. He recalled briefly the main duties and responsibilities of the MID RMA Board as well as its achievements since its establishment.

2.5 Mr. Faqir highlighted that the meeting is expected to, inter-alia, review and update the action plan for the development of the RVSM Safety Monitoring Report (SMR 2010) based on the progress report provided by the MID RMA; and address the issue of height-keeping monitoring in the MID Region, especially for those aircraft without known height monitoring results.

2.6 Finally, Mr. Faqir thanked all the participants from States, EUROCONTROL and IATA for supporting the MID RMA and for attending the MID RMA Board/9 meeting and wished them fruitful discussions.

### **3.** ATTENDANCE

3.1 The meeting was attended by a total of twenty nine (29) participants from eleven (11) States (Bahrain, Egypt, Iraq, Iran, Jordan, Lebanon, Oman, Saudi Arabia, Syria, UAE and Yemen) and two (2) Organizations (EUROCONTROL and IATA). The list of participants is at **Attachment A** to the Report.

## MID RMA Board/9 History of the Meeting

# 4. OFFICERS AND SECRETARIAT

4.1 In the absence of Mr. Mohamed Zainal, Chairman of the MID RMA Board, Mr. Khaled Chamieh, Chief of the Air Navigation Department, DGCA Lebanon chaired the meeting.

4.2 Mr. Mohamed Smaoui, RO/AIS/MET, was the Secretary of the meeting supported by Mr. Jehad Faqir, Deputy Regional Director, ICAO Middle East Office.

### 5. LANGUAGE

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

### 6. AGENDA

6.1

The following Agend	The following Agenda was adopted:				
Agenda Item 1:	Adoption of the Provisional Agenda				
Agenda Item 2:	Follow-up on MIDANPIRG/11 and MID RMA Board Conclusions and Decisions				
Agenda Item 3:	Progress report on the MID RMA Project				
	<ul> <li>outstanding issues pertaining to the MID RMA Project (payment of contributions/arrears, logistic and administrative issues, etc); and</li> <li>update on MID RMA expenditures for 2009.</li> </ul>				
Agenda Item 4:	RVSM Monitoring and related technical issues				
Agenda Item 5:	Draft MID RMA Manual				
Agenda Item 6:	Review and update of the MID RMA Project Action Plan/Timelines				
Agenda Item 7:	Future Work Programme				
Agenda Item 8:	Any other business				
	<ul> <li>Update of the list of MID RMA Board Members and Alternates</li> </ul>				

### MID RMA Board/9 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 DECISION 9/1:	Request for the transfer of US\$ 100,000 to the MIDRMA Account in Bahrain				
DRAFT CONCLUSION 9/2:	Membership of the MID RMA				
DRAFT CONCLUSION 9/3:	MID RMA FUNDING MECHANISM				
DRAFT CONCLUSION 9/4:	AIRCRAFT WITHOUT KNOWN HEIGHT MONITORING RESULTS				
DRAFT CONCLUSION 9/5:	FEASIBILITY STUDY FOR GMU MONITORING IN THE MID REGION				
DRAFT CONCLUSION 9/6:	MID RMA MANUAL				

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# PART II: REPORT ON AGENDA ITEMS

# **REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA**

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

1.2 In the absence of Mr. Mohamed Zainal, Chairman of the MID RMA Board, Mr. Khaled Chamieh, Chief of the Air Navigation Department, DGCA Lebanon, was unanimously elected to act as the interim chairman of the meeting.

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# REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/11 and MID RMA BOARD CONCLUSIONS AND DECISIONS

2.1 The meeting noted the status of relevant MIDANPIRG/11 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.

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# MID RMA Board/9 Appendix 2A to the Report on Agenda Item 2

# FOLLOW-UP ACTION ON RELEVANT MIDANPIRG/11 AND CURRENT MID RMA BOARD CONCLUSIONS AND DECISIONS

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

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	CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
	<li>iii) ensure that required action and replies are communicated to ICAO MID Regional Office by the specified target dates.</li>					
b)	ICAO MID Regional Office copy all correspondences related to MIDANPIRG activities to the designated ICAO-FPP as appropriate.					
Co	NC. 11/17: MEMBERSHIP OF THE MID RMA					
Tha	t,	Implement the Conclusion	MID RMA Board and ICAO	MID RMA Board Reports	Ongoing	Actioned
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					(To be replaced and superseded by Draft Conc. 9/2)
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).					

CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/18: PAYMENT OF ARREARS TO THE MID RMA					
That,	Follow-up with concerned States	MID RMA Board Chairman	Contributions/arrears paid	31 Mar. 2009	Actioned
<ul> <li>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;</li> </ul>		and ICAO	paid		
<ul> <li>b) deadline for the payment of contributions to the MID RMA Project for year 2009 is extended to 31 March 2009; and</li> </ul>					
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					
CONC. 11/19: 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	Implement the Conclusion	MID RMA	Letters to concerned States Technical specifications of the software developed	28 Feb.2009 31 Mar.2009	Ongoing (software expected to be installed in the MID RMA 29/01/2010)
possible.			Software purchased	15 Apr. 2009	

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CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/20: ICAO PROVISIONS RELATED TO MANDATORY REPORTING OF DATA TO THE RMAS					
That, taking into consideration the unsatisfactory level of reporting of data by States to the RMAs, ICAO consider to include provisions related to mandatory reporting of data (list of RVSM approved aircraft, Altitude Deviation Reports and Coordination Failure Reports) in Annex 6 and Annex 11, as appropriate.	Follow up with ICAO HQ	ICAO	Appropriate provisions in Annexes 6 and 11	TBD	(Not supported by the ANC)
CONC. 11/21: 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 as	Ongoing	Ongoing (To be included in
a) the MID RMA is responsible for the development of the RVSM Safety Monitoring Reports (SMR);		ICAO	required		the MID RMA Manual)
b) the MID RMA determine the exact type and format of data necessary for performing collision risk calculations and inform States accordingly;					
<ul><li>c) States provide the required data in a timely manner. The data will include, but not necessarily be limited to:</li><li>i) approval of operators and aircraft for RVSM</li></ul>					
<ul><li>operations (on monthly basis);</li><li>ii) Altitude Deviation Reports (ADR) for deviations exceeding 300 ft (on monthly basis);</li></ul>					
<ul> <li>iii) Coordination Failure Reports (CFR) (on monthly basis); and</li> <li>iv) traffic data (as requested by the MID RMA Board)</li> </ul>					
<ul> <li>d) Bahrain, Kuwait, Oman, Saudi Arabia, UAE and Yemen are committed to provide their radar data to the MID RMA, as, when and where required; and</li> </ul>					
e) States not providing the required data to the MID RMA on a regular basis and in a timely manner:					

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CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<ul> <li>be included in the MIDANPIRG List of Air Navigation Deficiencies; and</li> </ul>					
ii) might not be covered by the RVSM SMR.					
CONC. 11/22: MID RVSM SAFETY OBJECTIVES					
That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives:	Follow up the implementation of the 3 safety objectives	MID RMA MIDANPIRG	SMR 2010	Jun. 2010	Ongoing (To be included in
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;					the MID RMA Manual)
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 $5 \times 10^{-9}$ fatal accidents per flight hour; and					
c) Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.					
DEC. 11/23: ESTABLISHMENT OF THE BAGHDAD FIR RVSM IMPLEMENTATION WORKING GROUP (BFRI WG)					
That, the Baghdad FIR RVSM Implementation Working Group is established with Terms of Reference as at <b>Appendix</b> <b>5.2G</b> to the Report on Agenda Item 5.2	Conduct the BFRI WG meetings	ICAO	Reports of the BFRI WG meetings	Aug. 2009	First meting scheduled to be held in Cairo, 18-20 January 2010

# MID RMA Board/9-REPORT APPENDIX 2A

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CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE initiated by	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/34: COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS					
That, taking into consideration that the Convention on International Civil Aviation shall be applicable to civil aircraft:	Implement Conclusion	States, ICAO	Input from States	Nov. 2009	Ongoing
a) all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable;					
b) State aircraft operating in the airspace over high seas, should:					
i) adhere, to the extent practicable, to ICAO provisions; or					
ii)operate with "Due Regard" for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures.					
<ul> <li>c) States report any incident/s relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.2N to the Report on Agenda Item 5.2.</li> </ul>					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
Conc. 11/35: Uncoordinated flights Over the Red Sea Area					
<ul> <li>SEA AREA</li> <li>That,</li> <li>a) the procedures at Appendix 5.20 to the Report on Agenda Item 5.2 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area;</li> <li>b) States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures;</li> <li>c) IATA continue effort to ensuring that concerned operators are fully conversant with these procedures;</li> <li>d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users are informed of and comply with the agreed procedures; and</li> <li>e) States: <ul> <li>i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and</li> <li>ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.2N to the Report on Agenda Item 5.2.</li> </ul> </li> </ul>	Implement Conclusion	States, ICAO	Implementation of Procedures Input from States Coordination with adjacent Regions	Ongoing Nov. 2009 Ongoing	Ongoing

CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS	
MID R	MID RMA BOARD/8 DRAFT CONCLUSIONS AND DECISIONS					
DRAFT DEC 8/1:       REQUEST FOR TRANSFER OF US\$         75,000 TO THE MID RMA ACCOUNT IN BAHRAIN         That, the MID RMA Board Chairman is delegated the	Follow up with ICAO HQ	MID RMA	Request for transfer	15 Jun. 2009	Actioned	
authority to certify a request for the transfer of the amount of US\$ 75,000 from the MID RMA account managed by ICAO Headquarters to the MID RMA account in Bahrain on 15 June 2009.		Board Chairman + MID RMA ADMIN + ICAO	of USD 75,000 USD 75,000 transferred to the MID RMA bank account		(USD 75,000 transfer red to the MID RMA Bank account in Bahrain)	
<ul> <li>DRAFT CONC 8/2: CONTRIBUTION OF MID RMA MEMBER STATES FOR 2010</li> <li>That, based on the agreed funding mechanism for the MID RMA, and taking into consideration that Oman has already paid US\$ 30,000 as contribution to the MID RMA Project for year 2010, the contributions of MID RMA States for 2010 be paid before 1 November 2009 as follows:</li> <li>a) Bahrain, Egypt, Iran and Saudi Arabia pay US\$ 30,000 each; and</li> </ul>	Follow up with States	States + ICAO	Contributions paid	1 Nov. 2009	Ongoing	
b) Jordan, Kuwait, Lebanon, Syria and Yemen pay US\$ 10,000 each.						

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CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	Remarks
DRAFT CONC 8/3: MID RVSM SMR 2010					
<ul> <li>That,</li> <li>a) the FPL/traffic data for the month of June 2009 be used for the development of the MID RVSM Safety Monitoring Report (SMR-2010);</li> <li>b) only the Flight Data excel Sheet available on the MID RMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MID RMA;</li> <li>c) States should give clear instructions to their ACC controllers for the reporting of FPL/traffic data during the month of June 2009 and special attention should be given to the reporting of Aircraft Registration; and</li> <li>d) the draft version of the RVSM SMR-2010 be ready before 31</li> </ul>	Follow up with States	MID RMA & ICAO	Necessary data provided to the MID RMA, as required and in a timely manner	31 Aug. 2009	Ongoing
March 2010 for review by the MID RMA Board Members before presentation to the MID RMA Board/10 meeting.					
DRAFT CONC 8/4: MID RMA MANUAL					
<ul> <li>That,</li> <li>a) the Draft MID RMA Manual(V 0.2) is endorsed as at Appendix 5A to the Report on Agenda Item 5; and</li> <li>b) the MID RMA Team and MID RMA Board Members provide their comments on the Draft Version (V 0.2) to the ICAO MID Regional Office before 15 September 2009, in order to develop the Final Version of the MID RMA Manual and present it to the ATM/SAR/AIS SG/11 meeting.</li> </ul>	Follow up with MID RMA Team and MID RMA Board Members	ICAO	Comments and feedback on the Draft MID RMA Manual (V 0.2) used to prepare an updated version (V 0.3)	15 Sep. 2009	Ongoing (To be replaced and superseded by Draft Conc. 9/6)

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

3.1 The meeting recalled that the previous MID RMA Board meetings as well as MIDANPIRG/10 and MIDANPIRG/11 meetings noted with concern that, a number of MID RMA Member States were not paying their contributions to the MID RMA Project within the specified timescales.

3.2 The meeting recalled that the deadline for the payment of arrears to the MID RMA Project was extended by the MID RMA Board/7 to 31 March 2009. Accordingly, MIDANPIRG/11, through Conclusion 11/18 urged those States that have not yet done so, to pay their contributions/arrears within the specified timeframe.

3.3 The meeting noted that the MID RMA Board/8, through Draft Decision 8/2 agreed that the contributions for the year 2010 be paid by the MID RMA Member States before 1 November 2009.

3.4 The meeting noted the status of MID RMA States' contributions as follows:

	2006	2007	2008	2009	2010
Bahrain	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Egypt	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	<mark>Not Paid</mark> (US\$ 30,000)
Iran	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	Not Paid (US\$ 30,000)
Jordan	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)
Kuwait	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Paid (US\$ 10,000)
Lebanon	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	Not Paid (US\$ 10,000)
Oman	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)
Saudi Arabia <sup>(1)</sup>	Paid (US\$ 30,000)	Paid (US\$ 20,000)	Paid (US\$ 30,000)	Paid (US\$ 30,000)	<sup>(1)</sup> Paid (US\$ 30,000)
Syria <sup>(*)</sup>	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 1,250 from 10,000)*	Not Paid (US\$ 10,000)
UAE		Exempted from payment up-to end of 2015			
Yemen <sup>(2)</sup>	Paid (US\$ 30,000)	N/A	Paid (US\$ 1,250)	Paid (US\$ 10,000)	<sup>(2)</sup> Paid (US\$ 10,000)

3.5 The meeting noted with appreciation the improvement in the payment of contributions/arrears. In this regard, it was noted that as a follow up action to the MID RMA Board/8 meeting, the ICAO MID Office sent State Letter Ref.: AN 6/10.15A-09/217 dated 7 July 2009 to Syria<sup>(\*)</sup> in order to check with the Commercial Bank of Syria to try to trace the amount of US\$ 32,500 which was claimed to be transferred to ICAO on 13 January 2009. On 16 July 2009, the amount of US\$ 32,441 was received by ICAO HQ.

3.6 The meeting further noted that the total of the contributions/arrears that have to be paid by Syria is US\$ 18,750 and urged Syria accordingly to pay the remaining amount as soon as possible and in any case prior to 1 November 2009, which is the deadline for the payment of contributions for the year 2010.

<sup>(1)</sup>The meeting noted that Saudi Arabia informed the MID Office that a cheque of US\$ 30,000 was sent to the Saudi Representative in ICAO HQ on 16 September 2009 for payment of the MID RMA contributions for 2010. However, it was noted that this amount has not yet been received by ICAO HQ and accordingly was not recorded in the MID RMA financial statement developed by ICAO HQ related to the MID RMA Project (RAB/05/802), as shown in **Appendix 3A** to the Report on Agenda Item 3 reflecting the contributions received in 2009 as of 31 August 2009. Accordingly, Saudi Arabia was requested to follow up the issue in order to ensure that the US\$ 30,000 were received in ICAO HQ and credited to the MID RMA Project Bank account (Fund Nr. 5176).

<sup>(2)</sup>The representative of Yemen informed the meeting that Yemen has already paid the contributions for 2010 (US\$ 10,000). A first payment was made in July 2009 but without specifying (customer ID and invoice number). This was not received/traced by ICAO HQ as reflected in **Appendix 3A** to the Report on Agenda Item 3. However, Yemen followed up the subject and ensured that a transfer of US\$ 10,000 was made on 2 September 2009 in accordance with the instructions for payment contained in the invoice sent by ICAO HQ (Project code, fund number, invoice number, Bank information, etc). Accordingly, the ICAO MID Office was requested to follow up with ICAO HQ in order to ensure that the transfer was well received.

3.9 Based on the above, the meeting re-emphasized on the need to comply with the instructions for payment contained in the invoices sent by ICAO HQ (Project code, fund number, invoice number, Bank information, etc) and underlined that the non-compliance with these instructions cause problems and delays in locating where the money has been transferred.

3.10 The meeting noted that Iran has not been able to pay the contribution for 2010 because the initial invoice sent by ICAO HQ does not mention clearly that the payment is related to the contribution to the MID RMA Project for the year 2010. After coordination between, Iran, the ICAO MID Regional Office and ICAO HQ a revised invoice was sent to Iran on 2 October 2009 showing clearly that it pertains to the year 2010. Accordingly, Iran confirmed that the payment of contribution for 2010 will be made before 1 November 2009, in accordance with the MID RMA Board/8 Draft Conclusion 8/2. ICAO was requested also to ensure that for the future the invoices related to the MID RMA Project indicate clearly the year of contribution.

3.11 The meeting noted that in accordance with the MID RMA Board/8 Draft Decision 8/1, the MID RMA Board Chairman certified a request for the transfer of the amount of US\$ 75,000 from the MID RMA account managed by ICAO Headquarters to the MID RMA account in Bahrain. The transfer was actioned on 15 June 2009 and the amount of US\$ 75,000 has been received on 25 June 2009.

3.12 The meeting reviewed the statement of expenditures as well as a statement of financial position of the MID RMA project (RAB/05/802) as of 31 August 2009 at **Appendix 3B** to the Report on Agenda Item 3 and 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\$ 113,611.

3.13 The meeting reviewed and approved the financial statement and associated bills related to the MID RMA expenditures for the year 2009 as of 30 September 2009, as at **Appendix 3C** to the Report on Agenda Item 3, as presented by the MID RMA Administrator. The meeting was apprised also of the status of the MID RMA Bank account in Bahrain and noted that the fund balance of the MID RMA Bank account in Bahrain is: B.D. 129,395 # US\$ 343,224, as of 30 September 2009.

3.14 Taking into consideration the fund balance of the MID RMA Bank account in Bahrain and the expected expenses related to the purchase of the radar data recording and analysis software (US\$ 250,000) and the hosting of the MID RVSM Safety Assessment Seminar, the meeting agreed that the MID RMA Board Chairman, certify on behalf of the MID RMA Member States a request for the transfer of the amount of US\$ 100,000 from the MID RMA account managed by ICAO HQ to the MID RMA Bank account in Bahrain on 1 December 2009. Accordingly, the meeting developed the following Draft Decision:

## DRAFT DECISION 9/1: REQUEST FOR THE TRANSFER OF US\$ 100,000 TO THE MIDRMA ACCOUNT IN BAHRAIN

That, the MID RMA Board Chairman is delegated the authority to certify a request for the transfer of the amount of US\$ 100,000 from the MID RMA account managed by ICAO HQ to the MID RMA account in Bahrain on **1 December 2009**.

3.15 The meeting recalled that the Memorandum of Agreement (MOA) related to the MID RMA Project has been signed, so far, by the eleven (11) MID States, which have implemented RVSM, i.e.: Bahrain, Egypt, Iran, Jordan, Lebanon, Kuwait, Oman, Saudi Arabia, Syria, UAE and Yemen.

3.16 The meeting recalled that MIDANPIRG/11, through Decision 11/23, agreed to the establishment of the Baghdad FIR RVSM Implementation Working Group (BFRI WG) for the development of necessary planning materials related to RVSM implementation in Baghdad FIR and for assisting the Iraqi Civil Aviation Authority in expediting the implementation of such an important project. The BFRI WG/1 meeting is tentatively scheduled to be held in Cairo from 18 to 20 January 2010.

3.17 The meeting further noted that the Special ATS Route Coordination Meeting between Bahrain, Iraq and Kuwait held in Cairo, 15-16 July 2009 developed an Action Plan for RVSM Implementation within Baghdad FIR as at **Appendix 3D** to the Report on Agenda Item 3. The meeting noted that 18 November 2010 was agreed to be the tentative date for RVSM implementation in the Baghdad FIR.

3.18 The meeting recognized that the MID RMA would be heavily involved in the preparation for RVSM implementation within Baghdad FIR. The meeting noted with appreciation the commitment of Iraq to become a full MID RMA Member State. Accordingly, the meeting agreed that the ICAO MID Office take necessary follow-up action with Iraq in order to sign the MID RMA MOA.

3.19 Based on the above, the meeting agreed to the following Draft Conclusions, which are proposed to replace and supersede MIDANPIRG/11 Conclusion 11/17 related to the Membership of the MID RMA and MIDANPIRG/10 Conclusion 10/33 related to the MID RMA funding mechanism:

# DRAFT CONCLUSION 9/2: MEMBERSHIP OF THE MID RMA

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

### DRAFT CONCLUSION 9/3: MID RMA FUNDING MECHANISM

That,

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

3.20 Taking into consideration that MIDANPIRG/12 is tentatively scheduled for October 2010, the meeting agreed that the above Draft Conclusions be approved by the Second Meeting of the MIDANPIRG Steering Group (MSG/2) scheduled to be held in Amman, Jordan from 9 to 11 March 2010, in order to take effect immediately (starting year 2011 for the revised funding mechanism).

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# MID RMA Board/9 Appendix 3A to the Report on Agenda Item 3

#### **Contributions and Transfer of Funds**

Schedule I

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

#### Contributions

Date Received	Customer	Currency	Currency Amount U	SD Amount	Exchange R	ate Description
2009-03-05 2009-03-09 2009-04-09 2009-07-16 2009-07-31 2009-08-18 2009-08-20	Civil Aviation Authority of Lebanon Directorate General of Civil Aviation of Kuwait Islamic Republic of Iran Civil Aviation Organization (IRICAO)	USD USD USD USD USD USD USD	\$10,000 \$1,250 \$29,977 \$32,441 \$10,000 \$30,000 \$10,000	\$10,000 \$1,250 \$29,977 \$32,441 \$10,000 \$30,000 \$10,000	1 1 1 1 1 1	LEBANON INVOICE NO 21000030 CUST ID 900094 RAB/05/802 F KUWAIT RAB/05/802 G IRAN RAB/05/802 INV. 21000028 SYRIA RAB 05 802A COSTS AND PARTICIPATION FEES CARC JORDAN INV. 21000187 BAHRAIN INV. 21000187 BAHRAIN INV. 21000184 - RAB/05/802B KUWAIT RAB05802G INV. 21000189
			\$123,668	\$123,668	-	

#### Transfer To/From Other Funds

Date Received

Currency Currency Amount USD Amount Exchange Rate Description

\$0 \$0

\_\_\_\_\_

MID RMA Board/9 Appendix 3B to the Report on Agenda Item 3

#### **Statement of Estimated Fund Balance**

### REGIONAL-MID RMA (CUSTODAIN AGREEMENT)

Management Service Agreement RAB05802

As at 31 August 2009 (in United States dollars)

Financial Status from accounts: Balance of Surplus (Deficit) as at 1 January 2009

Adjustment

Adjusted Balance of Surplus (Deficit) as at 1 January 2009 72,686 Add/(Deduct): Contributions Received (Schedule I) 123,668 Transfer of Funds to/from Other Funds (Schedule I) Interest Earned and Accrued Gain(Loss) on Exchange and other Income Refund of Contributions Interest Expenses Refund of Interest Earned 123,668 196,354 Deduct Expenses (Note 1): Experts (Schedule II) Administrative Support Personnel (Schedule III) United Nations Volunteers (Schedule IV) Travel on Official Business (Schedule V) Mission Costs (Schedule VI) National Professionals (Schedule VII) Subcontracts (Schedule VIII) Fellowships (Schedule IX) Equipment (Schedule X) Sundry (Schedule XI) 75,221 Administrative Overhead (Schedule XII) (Note 2) 7,522 82,743 Add/(Deduct): Foreign Currency Revaluation Gain(Loss) (Note 5) Fund Balance/(Deficit Balance) as at 31 August 2009 113,611 Deduct commitments (Note 3): Experts (Schedule II) Administrative Support Personnel (Schedule III) United Nations Volunteers (Schedule IV) Travel on Official Business (Schedule V) Mission Costs (Schedule VI) National Professionals (Schedule VII) Subcontracts (Schedule VIII) Fellowships (Schedule IX) Equipment (Schedule X) Sundry (Schedule XI) Administrative Overhead (Schedule XII) Estimated funds available/(required) as at 31 August 2009 (Note 4) 113,611 Future Commitments entered beyond the reporting period (Note 3): Estimated funds available/ (required) including future commitments beyond the reporting period (Note 4) 113.611 \_\_\_\_\_

72,686

# MID RMA Board/9 Appendix 3C to the Report on Agenda Item 3

# MID RMA STATUS OF EXPENDITURE FOR YEAR 2009

# Position as of 30 September 2009

No	DESCRIPTION	EXPENSES IN US \$	EXPENSES IN B.D
1.	SMR 2008 Report		
1.1	MID RMA RVSM 2008 report printing	111	42
1.2	SMR 2008 Artwork & Design	159	60
1.3	SMR 2008 Report final printing & binding	531	200
2.	Manpower cost of staff assigned for MID RMA Management & Operations (JAN to AUG 2009)	19,098	7,200
3.	Training/Workshop & Duty Travel		
3.1	Attending the 11 <sup>th</sup> MIDANPIRG Meeting	10,576	3,987
3.2	Attending the 2 <sup>nd</sup> Meeting of the ATS Route Network (ARN/TF/2)	2,995	1,129
3.3	Expenses of discussion & review meeting for the Radar Data Analysis RADAC	1,061	400
3.4	Attending MID RMA Board / 8	7,796	2,939
3.7	Attending the Special ATS Route Coordination Meeting	2,592	977
4.	Miscellaneous		
4.1	Renewal of MIDRMA domain & hosting for 2008	605	228
4.2	ESET Smart Security software License	557	210
	Expenses of Year 2009 as of 30 Sept 2009	46,081	17,372

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# PLAN FOR RVSM Implementation in Baghdad FIR

### Background

ICAO Doc 9574 presents a five-step process to guide RVSM implementation, as follows:

### a) <u>Step 1 — Identify the need for RVSM</u>

This step should be conducted in consultation with provider States and user organizations and should include an assessment of:

- 1) The potential for an increase in the airspace system capacity;
- 2) The ability to provide improved vertical flight profiles to aircraft;
- 3) The consequences for ATS in terms of:
  - Workload;
  - Required facilities;
  - Re-Sectorization; and
  - Transition procedures;
- 4) The costs to non-RVSM approved operators of having to operate outside RVSM airspace;
- 5) The overall cost/benefit of the implementation of RVSM; and
- 6) The state of RVSM implementation in adjacent regions.

### b) Step 2 — Preliminary assessment of system safety

This step should be undertaken to determine whether RVSM can be implemented in the defined airspace in conformance with the agreed safety objectives. This step should address conditions expected after RVSM implementation, and include:

- 1) An estimate of the maximum aircraft passing frequency within Baghdad FIR;
- 2) An assessment of the typical lateral track keeping accuracy of RVSM-approved aircraft within Baghdad FIR;
- 3) An evaluation of whether a TLS budget of  $2.5 \times 10-9$  fatal accidents per flight hour, as a consequence of technical height-keeping deviations, can be satisfied;
- 4) An analysis of height deviations as a consequence of operational errors and emergency actions. this should assess the frequency of occurrence of such deviations together with an assessment of the level of risk of collision in the existing environment and in the planned RVSM airspace, the causes of the errors, and recommended measures to reduce the risk in RVSM airspace. Possible sources of information include:
  - Incident and/or occurrence reports of inadvertent departures from assigned flight levels;
  - Transponder height data;
  - Routine position reports that may identify operations at an incorrect flight level; and
  - Specific data collection;

- 5) An evaluation of whether the overall risk objectives can be satisfied; and
- 6) Consideration of any other operational problems which may affect safety, e.g. wake turbulence.

## c) Step 3 — Planning and Preparation

This step should include:

- 1) the continued consultation, cooperation and commitment of regulatory authorities, ATS providers and airspace users;
- 2) the development of a detailed work programme and identification of those issues which lie on the critical path. The programme should incorporate:
  - Implementation considerations and requirements.
  - Airworthiness issues.
  - Procedures for the State approval of aircraft.
  - Flight crew operating procedures and training;
  - ATC system requirements, simulations, procedures and training.
  - System performance monitoring considerations.
  - If applicable, an agreed means of handling non-RVSM approved aircraft;
  - Completion of any remedial measures necessary; and
  - Possible requirements for phased implementation;
- 3) Regional agreement on implementation timescales.

## d) Step 4 — Verification phase

Before commencing this phase, it is essential that a high proportion of the anticipated RVSM aircraft population meet RVSM requirements. Further, an appropriate means of monitoring aircraft height-keeping should be in place if sufficient height-keeping data are not already available. The verification process will take place over an agreed period of time during which the total system operation will be evaluated in the existing 600 m (2 000 ft) VSM environment. This phase should continue until:

- 1) It has been demonstrated that RVSM approval requirements and related guidance material are adequate, in the sense that compliance with such requirements leads to an observed height keeping performance consistent with the global height-keeping performance specification;
- 2) The causes of observed errors inconsistent with the global height-keeping performance specification have been remedied;
- 3) The technical TLS of  $2.5 \times 10$ -9 fatal accidents per aircraft flight hour has been met with a predetermined level of statistical confidence;
- 4) The system integrity has been verified; this should include confirmation, with a predetermined level of statistical confidence, that the introduction of RVSM does not increase the risk due to operational errors and in-flight contingencies. This may require the implementation of additional effective safety measures to reduce the risk as a result of these events; and
- 5) If quantification of the level of overall risk indicates, with a predetermined level of confidence, that the overall safety objectives will be violated in an RVSM environment, additional effective safety measures need to be determined and implemented in order to meet the overall safety objectives.

### 3D-3

## e) Step 5 — Operational use of RVSM

The commencement of the 300 m (1 000 ft) RVSM operations will be conditional upon the satisfactory completion of the 600 m (2 000 ft) verification phase. At the beginning of the operational application of RVSM, a comprehensive evaluation of all elements of RVSM operations should be carried out. After this evaluation, it will be necessary to ensure continued system safety. Particular attention will be required to ensure that:

- 1) All aircraft operating in RVSM airspace are RVSM approved;
- 2) The RVSM approval process remains effective;
- 3) The TLS of  $2.5 \times 10-9$  fatal accidents per aircraft flight hour (in respect of monitored technical height-keeping performance of a representative sample of the aircraft population) continues to be met with a predetermined level of statistical confidence;
- 4) With a predetermined level of statistical confidence, the introduction of RVSM does not increase the level of risk due to operational errors and in-flight contingencies;
- 5) Additional safety measures, introduced to reduce the risk as a result of operational errors and in-flight contingencies and to meet the overall safety objectives are effective;
- 6) Evidence of altimetry system error (ASE) stability exists; and
- 7) ATC procedures remain effective.

3D-4

ID	ACTION	TO BE	TARGET	REMARKS
		DELIVERED BY	DATE	
1	Nomination of Baghdad FIR RVSM Program Manager	Iraq	Sep. 2009	
2	Collect traffic data for the month of June 2009	Iraq	Aug. 2009	
3	Submission of the latest airways structure for Baghdad FIR	Iraq	Aug. 2009	
4	Calculating the passing frequency for all Bagdad FIR airways	MID RMA	Sep. 2009	
5	Conclusions of the passing frequency results and evaluation of the need for ATS Route Network amendments related to RVSM	MID RMA	Sep. 2009	
6	Submit RVSM approvals to the MIDRMA for all Iraqi registered aircraft or any airline operators certified by Iraq and to continue updating these approvals as necessary	Iraq	Sep. 2009	
7	Submit coordination failure reports (CFR) and Altitude Deviation Reports (ADR) to the MIDRMA on a monthly basis	Iraq	On Monthly basis	
8	Establish requirements for pre and post implementation monitoring	MID RMA	Oct. 2009	
9	Develop ATC operational policy & procedures for normal RVSM operations	Iraq	Nov. 2009	
10	Assess the impact of RVSM implementation on controller automation systems and plan for upgrades/modifications	Iraq	Sep. 2009	
11	Develop ATC procedures for non-approved State aircraft to transit RVSM airspace	Iraq	Sep. 2009	
12	Develop procedures for handling non-compliant civil aircraft	Iraq	Sep. 2009	
13	Develop procedures for suspension of RVSM	Iraq	Sep. 2009	
14	Evaluate the need for simulations	Iraq	Mar. 2010	

# ACTION PLAN FOR RVSM Implementation in Baghdad FIR

ID	ACTION	TO BE DELIVERED	TARGET DATE	REMARKS
	to assess ATC workload and	BY		
	possible need for airspace/air			
	route/Sector changes			
15	ATC training plan	Iraq	Nov. 2009	
16	Modify LOAs for all adjacent FIRs	Iraq	Sep. 2010	
17	Conduct local RVSM training for air traffic controllers	Iraq	Sep. 2010	
18	Carry out pre-implementation safety analysis	MID RMA	Jun. 2010	
19	Development of Iraq national safety plan	Iraq	Dec. 2009	
20	Carry out pre-implementation readiness Assessment	MID RMA	Sep. 2010	
21	examine existing legislation and regulations to identify any changes required for RVSM	Iraq	Sep. 2010	
22	Develop procedures for aircraft found to be non-compliant through monitoring	MID RMA & Iraq	Oct. 2010	
23	Evaluate the need for ATS Route Network amendments related to RVSM	MID RMA	Sep. 2010	
24	Go-No-Go Decision for RVSM Implementation effective 18 November 2010	BFRI WG	Sep. 2010	

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

### MID RVSM SMR 2010

4.1 The meeting recalled that MIDANPIRG/11 reviewed and approved the MID RVSM SMR-2008. It was noted with appreciation that the four safety objectives were met including safety objective#2 related to the overall vertical-collision risk. However, the meeting recalled that concern was raised regarding the unsatisfactory provision of data by States (traffic data, updated aircraft RVSM approvals, Altitude Deviation Reports and Coordination Failure Reports).

4.2 The meeting recalled that MIDANPIRG/11 agreed that FPL/traffic data for the month of June 2009 be used for the development of SMR 2010. The meeting noted that the MID RMA Team underlined that all required data must be submitted in the right format and that any data received in a different format, or in an excel sheet different from the one available on the MID RMA website, <u>www.midrma.com</u>, would not be acceptable. It was re-emphasized that this sheet must not be changed or modified under any circumstances; and that any modification will lead to the rejection of all submitted data. The data to be reflected in the Excel sheet includes the following elements:

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

COLUMN	NAME	DESCRIPTION
		level only - between FL 290 & FL 410 inclusive), for ACFT landing within the FIR, insert 0 value.
L	EXIT TIME	The actual time at which the aircraft has exited the FIR or the RVSM airspace (the time must be in UTC four figures time group without any space or dots in between).
М	TOTAL FLYING TIME	This column has to be left blank, as special formulas shall automatically calculate the flying time, however, the responsibility of filling this field shall solely rely on office.
N	EQUIPMENT	Letter W must be inserted in this field as extracted from the flight plan, if non-RVSM aircraft was permitted to operate within the RVSM airspace letter M must be inserted.
0	REMARKS	Any other additional remarks or points related to the flight.

4.3 The meeting recalled that during the MID RMA Board/8 meeting, the data related to Aircraft Registration (ACFT REG in field B) was particularly highlighted since this information is necessary in order to be able to extract the height monitoring results from the European HMUs. In this regard, concern was raised by Oman regarding the reporting of the ACFT REG and the related additional workload on the air traffic controllers if they are required to check for each flight if the ACFT REG is identical to the one reflected in the FPL. It was clarified that this information is very important and has an influence on the result of the assessment; in addition it's required only for the month we are collecting the FPL/Traffic data (June 2009). Accordingly, the MID RMA Board/8 meeting agreed that the verification of the ACFT REG should be the responsibility of the departure/entry FIR, i.e.: in case there's a difference between the ACFT REG reflected in the FPL and the real ACFT REG, this has to be notified by the departure/entry FIR. In the specific case of Oman, the MID RMA Board/8 meeting agreed that particular attention should be given to the flights:

- departing Oman and going to the APAC Region;
- coming from the APAC Region and landing in Oman; and
- operating within Oman (domestic flights).

4.4 The meeting noted that during the past 3 months the MID RMA Team has been busy collecting and analyzing the required data from the MID RMA Member States necessary for the development of the MID RVSM SMR 2010. It was highlighted that upon receipt of the Actual Flight Data from the MID RMA Member States, the data is to be checked thoroughly by the MID RMA Team and reviewed very carefully in terms of continuity (i.e.: entry and exit points especially at the FIR boundaries). It was noted that this task is time consuming and could be considered the most difficult part of the process for the preparation of data required for commencing the safety analysis. The meeting noted with concern that the level of reporting of necessary data is far below expectation. In particular, it was highlighted that a number of States have either not yet sent their flight data to the MID RMA or failed to send a correct set of data. In this regard, the meeting recalled that the MID RMA notifies a State of the acceptance of the submitted Actual Flight Data, only if the errors found do not exceed 3% of the total number of flights submitted.

State	Total flight data received (days)	Total flights recorded	Missing dates	Missing A/C REG
Bahrain	30	24301	0	2.2%
Egypt	30	19229	0	0
Iran	30	10559	0	0
Jordan	30	8555	0	0.02%
Kuwait	30	4057	0	2.68%
Lebanon	30	2949	0	0
Oman	30	22525	0	?
Saudi Arabia	0	0	-	-
Syria	25	8092	16,17,18,19,20	0.3%
UAE	30	15868	0	?
Yemen	30	3489	0	0
		<mark>109065</mark>		

4.5 The table below reflects the status of provision of FPL/traffic data to the MID RMA:

4.6 The meeting noted that Iran sent their traffic data three times but it was rejected by the MID RMA due to missing A/C REG of more than 22% of the traffic. However, the meeting noted with satisfaction that the Iranian delegates provided the MID RMA Team during the meeting with a CD-ROM containing a full set of traffic data. The meeting further noted that Saudi Arabia has not yet sent the traffic data to the MID RMA. This will cause a delay in the process of developing the MID RVSM SMR 2010. In this regard, it was highlighted that the quality check of the data sent by all the adjacent States to Iran and Saudi Arabia, especially in term of continuity, could not be carried out until the MID RMA receives the required data from these two States. Accordingly, the meeting urged Saudi Arabia to make an additional effort in order to send their traffic data to the MID RMA before 31 October 2009.

4.7 The meeting noted the MID RMA concern related to the reporting of Altitude Deviation Reports (ADRs), which is considered one of the most important elements for the development of the Safety Monitoring Reports. In this regard, the meeting shared the concern with the MID RMA and agreed that it's unrealistic that a number of FIRs experiencing high volume of traffic continue to report NIL ADRs since 2007.

4.8 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 RVSM approved aircraft in the MID Region; a number of States were not providing the required data on a regular basis and timely manner.

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

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

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

#### 4-5

### MID RMA Board/9 Report on Agenda Item 4

4.10 Based on the above, the meeting noted with concern that, with the exception of one or two States, all States are reporting NIL for the ADRs. In this regard, it was highlighted that UAE has already implemented a Safety Management System (SMS) and has a built in function in their ATC/radar System which generates a warning in case of an Altitude deviation exceeding 300 ft. This was the main reason for an efficient reporting of ADRs. The meeting recognized that the culture of reporting safety data should be built gradually in the MID Region and this might take a long time. However, States that have not yet implemented SMS were urged to put in place a formal mechanism for the reporting of ADRs and CFRs, with appropriate procedures and forms and a continuous monitoring.

4.11 With regard to the reporting of RVSM approved aircraft to the MID RMA, the meeting re-iterated that those aircraft which are not listed in the MID RMA database as having a valid RVSM approvals, should be considered as non-RVSM compliant and accordingly, prohibited from entering any RVSM airspace. Accordingly, the MID RMA was requested to advise all MID States about this proceeding.

4.12 Based on the above, the meeting re-iterated the importance of provision of required data to the MID RMA in a timely manner and regular basis and recalled MIDANPIRG/11 Conclusion 11/21, as follows:

CONCLUSION 11/21: SUSTAINED RVSM SAFETY ASSESSMENT ACTIVITY IN THE MID REGION

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

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

# Radar data Recording and Analysis software (RADAC)

4.13 The meeting recalled that the determination of the frequency of horizontal overlap is an important and rigorous part of the safety assessment activity. In this regard, the meeting recalled that MIDANPIRG/11 supported the decision of the MID RMA Board/7 meeting related to the purchase of the radar data recording and analysis software and agreed accordingly to the following Conclusion:

# CONCLUSION 11/19: 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, Iran, Kuwait, Oman, Saudi Arabia, UAE and Yemen, develop the technical specifications/requirements related to the radar data recording and analysis software and proceed with the purchase of such software as soon as possible.

4.14 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.

4.15 It was also recalled that the airspace to the north of Bahrain is one of the most busiest and complex airspace in the whole MID Region. Accordingly, the determination of the frequency of horizontal overlap in this particular airspace represents a worst case scenario.

4.16 The meeting recalled that one of the Recommendations of the SMR-2008 was to measure the frequency of horizontal overlap in other parts of the MID Region, as well. It was highlighted that, in accordance with the Recommendations of the SMR-2008 and MIDANPIRG Conclusion 11/21, and following careful evaluation of the MID Region ATS route network and traffic data, the MID RMA Board/8 meeting agreed that the frequency of horizontal overlap should be determined in a minimum of 4 different locations, namely: Muscat in Oman, HIL in Saudi Arabia, KTN in Syria and TAZ in Yemen. Accordingly, Oman, Saudi Arabia, Syria and Yemen were urged to confirm their approval for the provision of radar data to the MID RMA, for measuring the frequency of horizontal overlap. Furthermore, the meeting noted that it would be even better if radar data could be provided by Jordan over Amman and by Iran over YAZD. However, the meeting was informed that YAZD is situated in an area which is not covered by radars in Iran.

4.17 The meeting was apprised of the actions carried out by the MID RMA in order to develop/finalize the technical specifications/requirements related to the radar data recording and analysis software and expedite the process of its purchase.

4.18 The meeting noted that further to the MID RMA Board/8 meeting the questionnaire prepared by software vendor "SAAB/COMBITECH" was sent to concerned States (Bahrain, Jordan, Oman, Saudi Arabia and Yemen) in order to be answered by the appropriate radar engineers prior to 15 June 2009.

4.19 Based on the data received from the above States, further coordination has been carried out between "SAAB/COMBITECH" and the radar engineers from Bahrain, Jordan and Saudi Arabia to discuss in detail their Interface Control Documents (ICD) and other related issues/information required for the development of the RADAC software.

4.20 As a result of the above coordination with the concerned States, it was decided that the technical specifications/requirements be based on the radar systems used by Bahrain, Jordan and Saudi Arabia, as follows:

	Bahrain	Jordan	Saudi Arabia
Radar format	RDIF	Air Cat 500	ASTERIX, cat 34 & 48
Physical I/F	HDLC/RS232	HDLC/RS232	RS232 or Ethernet/UDP
Reference document	CAA paper 87002 with additional information in BAH/SYS/000/ IRS/00003	Thomson CSF no. 39110479-430, rev D	As found in web site: <u>http://www.eurocontrol.int/</u> asterix/public/ standard_page/documents.html Cat 34 edition 1.27 Cat 48 edition 1.16

4.21 The meeting noted the main milestones and timelines related to the purchase of the RADAC software, as follows:

- 12 Jul. 2009	MIDRMA sent the letter of intent to COMBITECH;
- 17 Aug. 2009	the official Order of purchase was signed;
- 1 Oct. 2009	Data Format Specifications were submitted
- 31 Oct. 2009	Delivery of recorded radar data samples
- 18 Dec. 2009	Factory Acceptance Test (FAT)
- 29 Jan. 2010	Site Acceptance Test (SAT)

4.22 In connection with the above, the meeting urged concerned States (Bahrain, Jordan and Saudi Arabia) to provide 10 minute radar data sample to the MID RMA before 31 October 2009, in order to be used by COMBITECH for the necessary tests prior to the Factory Acceptance Test (FAT) scheduled for 18 December 2009.

4.23 Taking into consideration that the Radar Data Recording and Analysis software (RADAC) will not be available in the MID RMA before 29 January 2010, it was decided that for the MID RVSM SMR 2010, the determination of frequency of horizontal overlap be based on the radar data related to the airspace to the north of Bahrain FIR (worst case scenario). Accordingly, Bahrain was requested to keep the radar data for the month of June 2009 in order to be used when the RADAC Software will be available.

4.24 The meeting noted with interest a presentation made by the MID RMA on the RADAC system and its capabilities. The presentation was an opportunity for the Board Members to get an overview of the RADAC System (platform for data acquisition, data interpretation, data filter, etc) and especially the Passing Frequency System (PFS) designed for the monitoring of aircraft in the RVSM airspace (determination of the probability of collision between aircraft).

# MID RVSM Scrutiny Group

4.25 The meeting recalled that the ICAO Doc. 9574, Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive, calls for regional review of Altitude Deviation Reports (large height deviations) occurring in airspace where RVSM has been implemented. It was noted also that in other Regions Scrutiny Groups were established to perform such reviews, with the objective of determining which reports have an influence on the risk of collision associated with the application of RVSM. In addition, the Scrutiny Group will analyze and validate the Coordination Failure Reports (CFRs), and where applicable propose remedial actions and procedures.

4.26 In connection with the above, the meeting recalled that the MID RMA Board/7 meeting recognized the need for the experts from the region to acquire better knowledge and expertise related to RVSM safety assessment activity. It was further acknowledged that such an expertise could be acquired gradually through the participation in ICAO Training events such as the MID RVSM Safety Assessment Seminar and the Scrutiny Group meetings during the preparation of the MID RVSM SMRs. Furthermore, it was highlighted that the participation of experts from the region to the scrutiny group could provide local expertise, especially in the ATM field. 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. Accordingly, the MID RMA Board/7 meeting was of view that TOR of such a scrutiny group should be developed and presented to the MID RMA Board/8 meeting.

4.27 The meeting noted that the main task of the Scrutiny Group is to review, analyse and evaluate the large height deviation reports and recommend remedial actions, as appropriate. In this regard, it was highlighted that the participation of ATM Experts from the participating States with good understanding of the ATS route network and use of airspace in the MID Region would add to the efficiency of the Scrutiny Group.

4.28 Based on the above, the meeting agreed to the establishment of a MID RVSM Scrutiny Group with Terms of Reference (TOR) as at **Appendix 4A** to the Report on Agenda Item 4, providing that these TOR be updated by the MID RMA Board/10 meeting based on the outcome of the MID RVSM Safety Assessment Seminar. In this respect, the meeting recalled that this Seminar was tentatively scheduled to be held in Bahrain, 8-9 November 2009. However, due to the interference with the date of the Global RMA Meeting (Australia, 3-7 November 2009) and the unavailability of the majority of the key speakers, the Seminar was postponed to February 2010.

#### Action Plan for the development of the MID RVSM SMR 2010

4.29 Taking into consideration the delay observed in the provision of required data to the MID RMA by a number of States (Traffic data, ADR, CFRs and updated list of RVSM approvals), the meeting reviewed and updated the action plan for the development of the SMR 2010, as follows:

No	Start	Activity	End
1	01/06/2009	States to collect actual traffic data for all traffic	<del>30/06/2009</del>
		operating between FL290 and FL410 inclusive	<u>31/10/2009</u>
2	01/06/2009	Collect Bahrain's SSR radar data for June 2009	30/06/2009
3	01/07/2009	Collect States' actual traffic data	<del>30/09/2009</del>
			<mark>31/10/2009</mark>
4	01/06/2009	Ensure MID RVSM approvals up to date, based on	<del>31/07/2009</del>
		the traffic data received from States	<mark>30/11/2009</mark>
5	01/07/2009	Review of operational reports (01/05/06 to <del>30/06/09</del>	<del>15/08/2009</del>
		<mark>30/09/09</mark> )	<mark>31/10/2009</mark>
6	01/10/2009	Send copy of actual traffic data and MID RVSM	<del>30/10/2009</del>
		approvals to Euro RMA for extracting height monitoring results	<u>30/11/2009</u>

No	Start	Activity	End
7	01/11/2009	Euro RMA to extract operators/types from FPL, check monitoring results for approvals and send new list of operators requiring monitoring to MID RMA.	<del>30/11/2009</del> 15/12/2009
8	<del>01/12/2009</del>	Collect SSR radar data for December 2009 from Jordan, Saudi Arabia and Syria.	<del>31/12/2009</del>
9	<del>01/01/2010</del>	Collect SSR radar data for January 2010 from Oman and Yemen.	<del>31/01/2010</del>
10	01/01/2010	MID RMA evaluation of technical risk	<del>31/01/2010</del> <mark>14/02/2010</mark>
11	01/02/2010	Update of performance investigations to MIDRMA, identify investigations to be conducted by MID RMA	28/02/2010
12	01/02/2010	Review of outstanding operational reports	<del>28/02/2010</del> <mark>15/03/2010</mark>
13	01/03/2010	Production of draft SMR 2010	<del>31/03/2010</del> <mark>15/04/2010</mark>

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

4.30 The meeting recalled that the SMR for 2006 and 2008 were developed based on the FPL/traffic data of 30 days for each report. The height monitoring results for all aircraft types belonging to the sample periods were extracted from the EUROCONTROL HMU database and were used for further safety analysis. However, the meeting recalled that there was a considerable number of airframes not monitored due to the absence of height monitoring results by the European HMUs, since these particular airframes operate only within the Middle East Region.

4.31 It was highlighted that some aircraft without known height monitoring results have not carried out any HMU/GMU checks since the implementation of RVSM in the MID Region in November 2003. In this regard, the importance of submitting evidence of height monitoring by aircraft operators to the concerned authority before the renewal of any RVSM certification, was highlighted.

4.32 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. In this regard, 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 1000 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.

#### 4-10

#### MID RMA Board/9 Report on Agenda Item 4

4.33 In connection with the above, the meeting recalled that the MIDANPIRG RVSM Task Force developed useful guidance material during the preparation of the RVSM implementation in the MID Region (Airworthiness and ATC Manuals). The meeting was of view that these Manuals are still valid and should be posted on the MID RMA website for use by States. It was particularly highlighted that these Manuals would be very helpful for the preparation of RVSM implementation in Baghdad FIR.

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

4.35 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 MID RMA Board/7 meeting agreed to the following Draft Conclusion:

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

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

- a) review the lists provided by the MID RMA and send feedback to the MID RMA before 30 November2008; 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.

4.36 The meeting noted with concern that necessary actions have not been taken by concerned States and that the monitoring results have not yet been provided to the MID RMA.

4.37 Based on the above, the meeting re-iterated the responsibility of States related to sustained requirements for height keeping monitoring. It was underlined that, the height monitoring results for the identified aircraft should be provided to the MID RMA as soon as possible, in order to be used for the development of the SMR 2010. As agreed during the MID RMA Board/8, it was highlighted that those States encountering difficulties to get the necessary height monitoring results might seek the assistance of the MID RMA to conduct the GMU monitoring, as appropriate. In this regard, the meeting noted that further to an initial unsuccessful attempt to cooperate with ARINC for carrying out GMU Monitoring in the MID Region, the MID RMA with the support of the ICAO MID Regional Office, reached an initial agreement with MAAR (Monitoring Agency for Asia Region) and Aerothai for conducting such GMU monitoring for the MID RVSM approved aircraft, in accordance with the following procedure:

- 1. The operators fill out and submit the RVSM Monitoring Application form to the MID RMA (form available on the MIDRMA website <u>www.midrma.com</u>).
- 2. The MIDRMA requests the State CAA for the Airworthiness Approval of the aircraft.
- 3. Upon receipt of the Airworthiness Approval of the aircraft, the MID RMA forwards this Approval to the MAAR, along with the RVSM Monitoring Application form completed by the operator.
- 4. MAAR will submit a confirmation receipt back to the MID RMA and will forward the application to their Monitoring Service Team (Aerothai).
- 5. Aerothai will contact the MID RMA and the operator to discuss options and make arrangements for the Monitoring Services to be provided.
- 6. The Operator confirms acceptance of the proposed Monitoring Service working programme.
- 7. Aerothai will conduct the monitoring flight and send the results to MAAR.
- 8. MAAR shall forward the results to the MID RMA and the operator.
- 9. The MID RMA will issue an official letter to the State CAA and the operator.
- 10. The State shall issue the appropriate F2 form (available on the MID RMA website) and send it to the MID RMA, and shall update all the State's RVSM approvals.
- 11. The MID RMA will update the RVSM database accordingly.

4.38 The meeting noted that the cost for the monitoring of an aircraft will be around USD 2,500 in addition to the cost of travel and accommodation for the Aerothai monitoring Team.

4.39 The meeting noted that the MID RMA was approached by SAMA Airlines, (Saudi Airline) to arrange for GMU checks for 2 B737. The MID RMA has attempted to contact MAAR to arrange for these trial checks, but has not yet received any reply from MAAR. The MID RMA also requested that concurrently with the GMU checks of the SAMA airlines aircraft, MAAR conducts GMU checks for 2 Iran Air A310. Unfortunately, despite several requests, no confirmation has been received from MAAR, so far.

4.40 The meeting noted that Oman is undergoing a big Multilateration surveillance project. The meeting noted that one of the applications of Multilateration is height-keeping monitoring. In this regard, it was highlighted that Multilateration-based HMU systems have been deployed at various locations around the globe.

4.41 The meeting noted with appreciation that Oman intends to implement a Multilateration-based HMU as part of the Multilateration surveillance project. This HMU, when operational (implementation date expected for beginning of 2013), could be used by the MID RVSM approved aircraft for conducting necessary height-keeping monitoring. Accordingly, the meeting invited Oman to take into consideration, inter-alia, the MID Region traffic flows, when deciding about the location of the HMU ground stations (sensors) and to keep the MID RMA Board informed about the developments in this respect.

4.42 Based on the above the meeting agreed on two lines of action:

#### a) Short Term:

- States to follow up with concerned aircraft operators to carry out necessary height keeping monitoring for the identified aircraft, in accordance with the list developed by the MID RMA; and
- those States encountering difficulties to get the necessary height monitoring results might seek the assistance of the MID RMA to conduct GMU monitoring for the identified operators' aircraft, in coordination with MAAR/Aerothai.

#### b) Medium and Long Term:

- the MID RMA develop a feasibility study, cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region with self-sufficiency capability (acquisition of necessary hardware, software, training, etc); and
- use of the Omani Multilateration-based HMU as a possible means of conducting height-keeping monitoring in the MID Region.
- 4.43 Accordingly, the meeting agreed to the following Draft Conclusions:

#### DRAFT CONCLUSION 9/4: AIRCRAFT WITHOUT KNOWN HEIGHT MONITORING RESULTS

That:

- a) States are urged to send to the MID RMA an updated list of approvals of operators and aircraft for RVSM operations, prior to **1** November 2009;
- b) based on the updated list of RVSM approvals and traffic data provided by States, the MID RMA identify those aircraft/operators without known height monitoring results, in accordance with ICAO aircraft grouping categories and forward the list of identified aircraft/operators to concerned States of registry, prior to **15 November 2009**;
- c) States review the lists provided by the MID RMA, take necessary follow up action with concerned operators in order to carry out necessary height monitoring and send the monitoring results to the MID RMA before **31 December2009**.

#### 4-13

#### MID RMA Board/9 Report on Agenda Item 4

#### DRAFT CONCLUSION 9/5: FEASIBILITY STUDY FOR GMU MONITORING IN THE MID REGION

That, the MID RMA develop a feasibility study, cost benefit analysis and action plan related to the conduct of GMU Monitoring in the MID Region with selfsufficiency capability (acquisition of necessary hardware, software, training, etc), in order to be presented to the MID RMA Board/10 meeting for review and action, as appropriate.

4.44 With a view to give effect to the above Draft Conclusion 9/4 in a timely manner, the meeting agreed that upon receipt of the list of identified aircraft/operators from the MID RMA, a State Letter is to be issued by the ICAO MID Regional Office, urging States to take necessary follow-up action with concerned operators.

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#### MIDDLE EAST RVSM SCRUTINY GROUP (RVSM SG)

#### **TERMS OF REFERENCE**

#### A) TERMS OF REFERENCE

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

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

#### **B**) **COMPOSITION**

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

#### C) WORKING ARRANGEMENTS

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

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

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

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#### REPORT ON AGENDA ITEM 5: DRAFT MID RMA MANUAL

5.1 The meeting recalled that, in accordance with the MSG/1 and MIDANPIRG/11 guidance related to the handling of the Conclusions/Decisions which are of general nature and whose status of implementation would be "Ongoing" for many years, the Secretariat developed a Draft MID RMA Manual, which includes reference material related to the initial set up, administrative management, membership, funding mechanism, duties and responsibilities of the MID RMA as well as the requirements for RVSM safety assessment.

5.2 The meeting recalled that the MID RMA Board/7 meeting reviewed the Draft MID RMA Manual (V 0.1) and agreed that the MID RMA Board Members should contribute to the improvement of this Manual. It was further noted that the MID RMA Board/8 meeting reviewed the Draft MID RMA Manual (V 0.2), as updated by the Secretariat, taking into consideration the outcome of the MIDANPIRG/11 meeting and through Draft Conclusion 8/4 agreed that the MID RMA Team and MID RMA Board Members provide their comments on the Draft Version (V 0.2) to the ICAO MID Regional Office before **15 September 2009**, in order to develop the Final Version of the MID RMA Manual and present it to the ATM/SAR/AIS SG/11 meeting.

5.3 The meeting noted with concern that comments were received only from the MID RMA, which proposed to insert the documents at **Appendix 5A** to the Report on Agenda Item 5 in the Manual, i.e.: (Explanation of Terms, List of Acronyms, MIDRMA RVSM Approved A/C List Form, MIDRMA Form F1\_Point of Contact, MIDRMA Form F2\_Record of RVSM Approval, MIDRMA Form F3\_Withdrawal of RVSM Approval, MIDRMA RVSM Monitoring Application, Procedure for GMU Monitoring Request, Notes for the completion of the MIDRMA Forms with Country Codes And TFC Explanation of Columns).

5.4 Based on the above, the meeting recognized that additional effort is needed to finalize the MID RMA Manual and agreed accordingly to the following Draft Conclusion:

DRAFT CONCLUSION 9/6: MID RMA MANUAL

That:

- a) the MID RMA Team and MID RMA Board Members provide their comments on the Draft Version (V 0.2) of the MID RMA Manual to the ICAO MID Regional Office before **1** April 2010;
- b) the Draft MID RMA Manual (V 0.3) be consolidated based on the outcome of the MID RMA Board/9 meeting, the comments/inputs received from the MID RMA Team and MID RMA Board Members, in order to be presented to the MID RMA Board/10 meeting for final review.

# EXPLANATION OF TERMS

The following definitions are intended to clarify specialized terms used in this document.

**Aberrant aircraft.** Aircraft which exhibit measured height-keeping performance that is significantly different from the core height-keeping performance measured for the whole population of aircraft operating in RVSM airspace.

**Aircraft type group.** Aircraft are considered to be members of the same group if they are designed and assembled by one manufacturer and are of nominally identical design and build with respect to all details that could influence the accuracy of height-keeping performance.

**Altimetry system error (ASE).** The difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure.

Altimetry system error stability. Altimetry system error for an individual aircraft is considered to be stable if the statistical distribution of altimetry system error is within agreed limits over an agreed period of time.

**Altitude.** The vertical distance of a level, point or an object considered as a point, measured from mean sea level (MSL).

**Assigned altitude deviation (AAD).** The difference between the transponder Mode C altitude and the assigned altitude/flight level.

Automatic altitude-control system. A system that is designed to automatically control the aircraft to a referenced pressure altitude.

**Collision risk.** The expected number of mid-air aircraft accidents in a prescribed volume of airspace for a specific number of flight hours due to loss of planned separation.

**Exclusionary RVSM airspace.** Airspace in which flight cannot be planned by civil aircraft which do not hold a valid RVSM approval from the appropriate State authority.

**Flight level.** A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

*Note 1. – A pressure type altimeter calibrated in accordance with the standard atmosphere:* 

- a) when set to a QNH altimeter setting, will indicate altitude;
- b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
- c) when set to 1013.2 hPa, may be used to indicate flight levels.
- Note 2.– The terms "height" and "altitude, used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Flight technical error (FTE). The difference between the altitude indicated by the altimeter display being used to control the aircraft and the assigned altitude/flight level.

**Height.** The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

**Height-keeping capability.** Aircraft height-keeping performance that can be expected under nominal environmental operating conditions with proper aircraft operating practices and maintenance.

**Height-keeping performance.** The observed performance of an aircraft with respect to adherence to flight crew prescribed flight level. This includes both technical and operational errors.

**Large Height deviation.** A deviation of 90m (300ft) or more in magnitude from the cleared flight level.

**Non-compliant aircraft.** An aircraft configured to comply with the requirements of the RVSM MASPS which, through height monitoring, is found to have a total vertical error (TVE) or an assigned altitude deviation (AAD) of 90 m (300 ft) or greater, or an altimetry system error (ASE) greater than 75 m (245 ft).

**Non-exclusionary RVSM airspace.** Airspace where a vertical separation of 300 m (1 000 ft) is applied between RVSM-approved aircraft, but in which flight may be planned by civil aircraft that do not hold a valid RVSM approval from the appropriate State authority. In such airspace, a vertical separation of 600 m (2 000 ft) must be applied between any non-RVSM approved aircraft and all other aircraft.

**Occupancy.** A parameter of the collision risk model which is twice the number of aircraft proximate pairs in a single dimension divided by the total number of aircraft flying the candidate paths in the same time interval.

**Operational error.** Any vertical deviation of an aircraft from the correct flight level as a result of incorrect action by ATC or the flight crew.

**Overall risk.** The risk of collision due to all causes, which includes the technical risk (see definition) and the risk due to operational errors and inflight emergencies.

**Passing frequency.** The frequency of events in which two aircraft are in longitudinal overlap when travelling in the same or opposite direction on the same route at adjacent flight levels and at the planned vertical separation.

**RVSM Airworthiness** approval. The process by which the State authority ensures that aircraft meet the RVSM minimum aviation system performance specification (MASPS). Typically, this would involve an operator meeting the requirements of the aircraft manufacturer service bulletin for the aircraft and having the State authority verify the successful completion of this work.

**RVSM approval.** The term is used synonymously with RVSM operational approval.

**RVSM Operational approval.** The process by which the State authority ensures that an operator meets all the requirements for operating aircraft in RVSM airspace. RVSM Airworthiness approval is a prerequisite for Operational approval.

**Target level of safety (TLS).** A generic term representing the level of risk which is considered acceptable in particular circumstances.

**Technical risk.** The risk of collision associated with aircraft technical heightkeeping performance, which specifically refers to the performance affected by the avionics of the aircraft, not the flight crew.

**Total vertical error (TVE).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

**Track.** The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic, or grid).

**Vertical separation.** The spacing provided between aircraft in the vertical plane.

**Vertical separation minimum (VSM).** VSM is documented in the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) as being a nominal 300 m (1 000 ft) below FL 290 and 600 m (2 000 ft) above FL 290 except where, on the basis of regional agreement, a value of less than 600 m (2 000 ft) but not less than 300 m (1 000 ft) is prescribed for use by aircraft operating above FL 290 within designated portions of the airspace.

# LIST OF ACRONYMS

AAD	Assigned altitude deviation
ACAS	Airborne collision avoidance system
ADR	Altitude deviation report
ACC	Area control centre
ASE	Altimetry system error
ATC	Air traffic control
ATS	Air traffic services
CFL	Cleared flight level
CFR	Coordination failure report
CMA	Central Monitoring Agency
CRM	Collision risk model
FTE	Flight technical error
GMS	GPS-based monitoring system
GMU	GPS-based monitoring unit
GPS	Global positioning system
HF	High frequency
HMU	Height monitoring unit
JAA	Joint Aviation Authorities
LHD	Large Height Deviation
MASPS	Minimum aircraft system performance specification
MID RMA	Middle East Regional Monitoring Agency
MMR	Minimum Monitoring Requirements
RMA	Regional Monitoring Agency
RVSM	Reduced vertical separation minimum

SD	Standard deviation
2D	Standard deviation

- SMR Safety monitoring report
- SSR Secondary surveillance radar
- TD Traffic data
- TLS Target level of safety
- TVE Total vertical error
- VSM Vertical separation minimum

No.	Registration	State of Registry	Operator	State of Operator	Туре	Series	Serial No	Hex Mode S	Airworthiness(AW) Approved	Date of AW issued	Date of RVSM approval	Expiry Date	Operator Name	Remarks
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Tel: +973 17 329150 Fax: +973 17 329160 Email - midrma@midrma.com P.O. Box 50468 Kingdom of Bahrain

#### MIDRMA F1 FORM

#### POINT OF CONTACT DETAILS/CHANGE OF POINT OF CONTACT DETAILS FOR MATTERS RELATING TO MID APPROVALS

This form should be completed and returned to the address above on the first reply to the MIDRMA or when there is a change to any of the details requested on the form (**PLEASE USE BLOCK CAPITALS**).

STATE OF REGISTRY:

STATE OF REGISTRY (ICAO 2 LETTER IDENTIFIER):

Enter the 1- or 2-letter ICAO identifier as contained in ICAO Doc 7910.

In the event of there being more than one identifier for the same State, the one that appears first in the list should be used.

ADDRESS:

#### **CONTACT PERSON:**

Full Name:					
Title:	Surname:			Initials:	
Post/Position:					
Telephone #:		Fax #	+:		
E-mail:					

Initial Reply\*/Change of Details\* (\*Delete as appropriate)





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#### MIDRMA F2 FORM

#### RECORD OF APPROVAL TO OPERATE IN MID RVSM AIRSPACE

1. When a State of Registry approves or amends the approval of an operator/aircraft for operations within the MID airspace, details of that approval must be recorded and sent to the Middle East Regional Monitoring Agency (MIDRAM) as soon as possible.

2. Before providing the information as requested below, reference should be made to the accompanying notes (PLEASE USE BLOCK CAPITALS).

State of Registry <sup>1</sup> :				
Name of Operator <sup>2</sup> :				
State of Operator <sup>1</sup> :				
Aircraft Type <sup>3</sup> :				
Aircraft Series <sup>4</sup> :				
Manufacturers Serial No:				
Registration No:				
Mode S Address Code <sup>5</sup> :				
Airworthiness Approval <sup>6</sup> :				
Date Issued <sup>7</sup> :				
RVSM Approval <sup>6</sup> :				
Date Issued <sup>7</sup> :				
Date of Expiry <sup>7</sup> (If Applicable):				

Remarks<sup>8</sup>:

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Tel: +973 17 329150 Fax: +973 17 329160 Email - midrma@midrma.com P.O. Box 50468 Kingdom of Bahrain

# MIDRMA F3 FORM

#### WITHDRAWAL OF APPROVAL TO OPERATE IN MID REGION RVSM AIRSPACE

1. When a State of Registry has cause to withdraw the approval of an operator/aircraft for operations within the MID RVSM airspace, details as requested below, must be submitted to the Middle East Regional Monitoring Agency (MIDRAM) by the most appropriate method.

2. Before providing the information as requested below, reference below, reference should be made to the accompanying notes (PLEASE USE BLOCK CAPITALS).

State of Registry <sup>1</sup> :						
Name of Operator <sup>2</sup> :						
State of Operator <sup>1</sup> :						
Aircraft Type <sup>3</sup> :						
Aircraft Series <sup>4</sup> :						
Manufacturers Serial No:						
Registration No:						
Mode S Address Code <sup>5</sup> :						
Date of Withdrawal of RVSM Approval <sup>7</sup> :						
Reason of Withdrawal of RVSM Approval	8 <sub>.</sub>					

Remarks<sup>8</sup>:



## REDUCED VERTICAL SEPARATION MINIMUM (RVSM) MONITORING APPLICATION

Operator Name:		_		
Address:				
Operator Primary Point of Contact De	etails			
Name:	Title:			
Telephone Number:	Fax Number:			
Email Address:				
Secondary Point of Contact Details				
Name:	Title:			
Telephone Number:	Fax Number:			
Email Address:				
Civil Aviation Authority Contact Deta	ils			
Name:	Title:			
Telephone Number:	Fax Number:			
Email Address:				

#### AIRCRAFT INFORMATION (Please be sure to include data for the ENTIRE fleet)

Registration Number	Aircraft Type/version no.	Serial Number

## NOTES TO AID COMPLETION OF THE MIDRMA F1, F2, AND F3 FORMS

- 1. Please read these notes before attempting to complete the MIDRMA F1, F2, and F3 forms.
- 2. It is important that the MID Region Approvals have an accurate record of a point of contact for any queries that might arise. Recipients are therefore requested to include a completed MIDRMA F1 with their first reply to the MIDRMA. Thereafter, there is no further requirement unless there has been a change to the information requested on the form.
- 3. If recipients are unable to pass the information requested in the MIDRMA F2 to the MIDRMA through the Internet, by direct electronic transfer, a hard copy of MIDRMA F2 must be completed for each aircraft granted RVSM approval and fax it to the MIDRMA office on +97317329160. The numbers below refer to the superscript numbers on the blank MIDRMA F2.
  - 1. Enter the 1 or 2 letter ICAO identifier as contained in ICAO Doc 7910, Index to Nationality Letters for Location Indicators. In the case of there being more than one identifier designated for the State, use the identifier that appears first.
  - 2. Enter the operator's 3 letter ICAO identifier as contained in ICAO Doc 8585. For International General Aviation, enter "IGA". For military aircraft, enter "MIL". If none, place an X in this field and write the name of the operator/owner in the Remarks row.
  - **3.** Enter the ICAO designator as contained in ICAO Doc 8643, e.g., for Airbus A320-211, enter A320; for Boeing B747-438 enter B744.
  - **4.** Enter series of aircraft type or manufacturer's customer designation, e.g., for Airbus A320-211, enter 211; for Boeing B747-438, enter 400 or 438.
  - 5. Enter ICAO allocated Aircraft Mode S address code.
  - **6.** Enter yes or no.
  - 7. Example: For October 26, 1998 write 10/26/98.
  - 8. Use a separate sheet of paper if insufficient space available.
- 4. The above numbers also refer to those superscript numbers used in the MIDRMA F3 -"Withdrawal of Approval to Operate in MID Region RVSM Airspace." *MIDRMA F3 must be completed and forwarded to the MIDRMA immediately when the state of registry has cause to withdraw the approval of an operator/aircraft for operations within the MID Region RVSM Airspace.*

# ICAO STATE CODES

ICAO State Code	State
OA	Afghanistan
LA	Albania
DA	Algeria
NS	American Samoa
FN	Angola
TQ	Anguilla
TA	Antigua and Barbuda
LV	Areas Under The Control Of The Palestinian Authority
SA	Argentina
UD	Armenia
TN	Aruba
FH	Ascension I.
Y	Australia
LO	Austria
UB	Azerbaijan
MY	Bahamas
OB	Bahrain
VG	Bangladesh
TB	Barbados
UM	Belarus
EB	Belgium
MZ	Belize
DB	Benin
TX	Bermuda
VQ	Bhutan
SL	Bolivia
LQ	Bosnia and Herzegovina
FB	Botswana
SB	Brazil
FJ	British Indian Ocean Territory
TU	British Virgin Islands
WB	Brunei Darussalam
LB	Bulgaria
DF	Burkina Faso
HB	Burundi
VD EV	Cambodia
FK	Cameroon
C CC	Canada Canamy Jalanda
GC GV	Canary Islands
UV V	Cape Verde

ICAO State Code	State
MW	Cayman Islands
FE	Central African Republic
FT	Chad
SC	Chile
ZB	China
SK	Colombia
FM	Comoros
FC	Congo
NC	Cook Islands
MR	Costa Rica
DI	Côte d'Ivoire
LD	Croatia
MU	Cuba
LC	Cyprus
LK	Czech Republic
ZK	Democratic People's Republic of Korea
FZ	Democratic Republic of the Congo
EK	Denmark
HD	Djibouti
TD	Dominica
MD	Dominican Republic
SE	Ecuador
HE	Egypt
MS	El Salvador
FG	Equatorial Guinea
HH	Eritrea
EE	Estonia
HA	Ethiopia
SF	Falkland Islands (Malvinas)
NF	Fiji
EF	Finland
LF	France
TF	French Antilles
SO	French Guyana
NT	French Polynesia
FO	Gabon
GB	Gambia
ED	Germany
DG	Ghana
LX	Gibraltar
LG	Greece
BG	Greenland
TG	Grenada

ICAO State Code	State
MG	Guatemala
GU	Guinea
GG	Guinea-Bissau
SY	Guyana
MT	Haiti
MH	Honduras
VH	Hong Kong, China
LH	Hungary
BI	Iceland
VA	India
WA	Indonesia
OI	Iran (Islamic Republic of)
OR	Iraq
EI	Ireland
LL	Israel
LI	Italy
MK	Jamaica
RJ	Japan
PJ	Johnston Island
OJ	Jordan
UA	Kazakhstan
HK	Kenya
NG	Kiribati
OK	Kuwait
UA	Kyrgyzstan
VL	Lao People's Democratic Republic
EV	Latvia
OL	Lebanon
FX	Lesotho
GL	Liberia
HL	Libyan Arab Jamahiriya
PL	Line Islands
EY	Lithuania
EL	Luxembourg
VM	Macao, China
FM	Madagascar
FW	Malawi
WB	Malaysia Malaysia (Daningular)
WM VR	Malaysia (Peninsular) Maldives
VR GA	Maldives
LM	Malta
PK	Marta Marshall Islands
ΓΛ	iviaisilali Islallus

ICAO State Code	State
GQ	Mauritania
FI	Mauritius
MM	Mexico
PT	Micronesia (Federated States of)
PM	Midway
LN	Monaco
ZM	Mongolia
TR	Montserrat
GM	Morocco
FQ	Mozambique
VY	Myanmar
FY	Namibia
AU	Nauru
VN	Nepal
EH	Netherlands
TN	Netherlands Antilles
NW	New Caledonia
NZ	New Zealand
MN	Nicaragua
DR	Niger
DN	Nigeria
NI	Niue
PG	Northern Mariana Islands
EN	Norway
00	Oman
OP	Pakistan
PT	Palau
MP	Panama
AY	Papua New Guinea
SG	Paraguay
SP	Peru
RP	Philippines
EP	Poland
LP	Portugal (Madeira and Azores)
TJ	Puerto Rico
OT	Qatar
RK	Republic of Korea
LU	Republic of Moldova
FM	Réunion
LR	Romania
U	Russian Federation
HR	Rwanda
TL	Saint Lucia

ICAO State Code	State
TV	Saint Vincent and the Grenadines
NS	Samoa
FP	Sao Tome and Principe
OE	Saudi Arabia
GO	Senegal
LY	Serbia and Montenegro
FS	Seychelles
GF	Sierra Leone
WS	Singapore
LZ	Slovakia
LJ	Slovenia
AG	Solomon Islands
НС	Somalia
FA	South Africa
GE	Spain
VC	Sri Lanka
ТК	St. Kitts and Nevis
HS	Sudan
SM	Suriname
FD	Swaziland
ES	Sweden
LS	Switzerland
OS	Syrian Arab Republic
UT	Tajikistan
VT	Thailand
LW	The Former Yugoslav Republic of Macedonia
WP	Timor-Leste
DX	Togo
NF	Tonga
TT	Trinidad and Tobago
DT	Tunisia
LT	Turkey
UT	Turkmenistan
MB	Turks and Caicos Islands
NG	Tuvalu
HU	Uganda
UK	Ukraine
OM	United Arab Emirates
EG	United Kingdom
BK	United Nations Interim Administration Mission in Kosovo
HT	United Republic of Tanzania
K	United States
SU	Uruguay

(UNMIK)

ICAO State Code	State
UT	Uzbekistan
NV	Vanuatu
SV	Venezuela
VV	Viet Nam
TI	Virgin Islands
PW	Wake Island
NL	Wallis and Futuna Islands
GS	Western Sahara
OY	Yemen
FL	Zambia
FV	Zimbabwe

#### Procedure to be followed for conducting GMU monitoring request:

- The operators will fill out and submit an RVSM Monitoring Application (Available in the MIDRMA website www.midrma.com)
- 2. The MIDRMA will request the State CAA for Airworthiness Approval of the aircraft.
- 3. Upon the receipt of the Airworthiness Approval of the aircraft the MIDRMA is going to forward this certificate to monitoring unit/body as soon as possible with the RVSM Monitoring Application form filled by the operator.
- The monitoring unit/body will submit a confirmation receipt back to the MIDRMA and will forward the application to their Monitoring Service Team.
- 5. The Monitoring Service Team will contact the MIDRM and the operator to discuss options and arrange for the Monitoring Services.
- 6. Operator accepts and agrees on the Monitoring Service proposed working program.
- 7. The Monitoring Service Team conducts the monitoring flight.
- The monitoring unit/body will obtain the results from their Monitoring Service Team and shall forward the results to the MIDRMA and the operator.
- 9. The MIDRMA will issue an official letter to the State CAA and the operator.
- 10.The State shall issue the appropriate F2 form and send it to the MIDRMA or update all the state's RVSM approvals.
- 11. The MIDRMA will update the RVSM database accordingly.

COLUM N	NAME	DESCRIPTION
Α	DATE	Date of Flight – in the form of date/month/year
В	ACFT REG	Aircraft registration
С	ACFT TYPE	Aircraft type
D	ACFT C/S	Aircraft call sign used during the flight
E	DEP ADM	Departure aerodrome of the flight
F	DEST ADM	Destination aerodrome of the flight
G	ENTRY POINT	The point from which the aircraft has entered the FIR boundary or the RVSM airspace between FL 290 & FL410 inclusive, (in case of an aircraft is departing from an aerodrome within the same FIR and the point can not be determined, 0 value must be inserted in this field)
н	ENTRY LEVEL	The Flight level to which the aircraft has entered the relevant FIR (the level must correspond to the RVSM level only - between FL 290 & FL 410 inclusive)
1	ENTRY TIME	The actual time at which the aircraft has entered the FIR or the RVSM airspace (the time must be in UTC four figures time group without any space or dots in between)
J	EXIT POINT	The actual time to which the aircraft has left the FIR boundary or the RVSM airspace or in case of an aircraft is landing in an aerodrome within the same FIR, the point or the nearest point at which the aircraft has left the RVSM airspace, therefore, if this point can not be determined, 0 value must be inserted in this field)
к	EXIT LEVL	The Flight level to which the aircraft has exited the relevant FIR (the level must correspond to the RVSM level only -between FL 290 & FL 410 inclusive), for ACFT landing within the FIR, insert 0 value.
L	EXIT TIME	The actual time at which the aircraft has exited the FIR or the RVSM airspace (the time must be in UTC four figures time group without any space or dots in between).
м	TOTAL FLYING TIME	This column has to be left blank, as special formulas shall automatically calculate the flying time, however, the responsibility of filling this field shall solely rely on office.
N	EQUIPMENT	Letter W must be inserted in this field as extracted from the flight plan, if non-RVSM aircraft was permitted to operate within the RVSM airspace letter M must be inserted.
O REMARKS		Any other additional remarks or points related to the flight.

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

6.1 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.

6.2 Taking into consideration the outcome of its discussions, the MID RMA Board/9 meeting reviewed and updated the action plan, as at **Appendix 6A** to the Report on Agenda Item 6.

#### MID RMA Board/9 Appendix 6A to the Report on Agenda Item 6

# MID RMA PROJECT ACTION PLAN/TIMELINES

Item No.	Actions	Responsible	Oct 09	Nov 09	)ec 09	Ja 1(	Fel 10	Mar 10	Apr 10	Ma 1	•	ın 0	յ Մ	Au 1(	0	Sep 10
1	Payment of arrears to the MID RMA Project (US\$ 8,750)	Syria														
2	Payment of contributions to the MID RMA Project for 2010	Egypt, Iran, Lebanon and Syria														
3	Ensure that the 2010 contributions from Saudi Arabia and Yemen were received in ICAO HQ and credited to the MID RMA Project Bank account (Fund Nr. 5176)	Saudi Arabia, Yemen and ICAO														
4	Request to transfer US\$100,000 to the MID RMA Bank account in Bahrain	Board Chairman + MID RMA ADMIN + ICAO														
5	Signature of the MOA by Iraq	Iraq and ICAO														
6	Provision of FPL/Traffic data for the month of June 2009 to the MID RMA for the development of SMR 2010	Saudi Arabia														
7	Provision of required data to the MID RMA	States + MID RMA														
8	Provision of 10 minute radar data sample to the MID RMA	Bahrain, Jordan and Saudi Arabia														
9	Purchase of the RADAC software and its installation in the MID RMA	MID RMA														

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Item No.	Actions	Responsible	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10
10	Send to the MID RMA an updated list of approvals of operators and aircraft for RVSM operations	States												
11	Provide States with the lists of aircraft without known height monitoring results and the list of aircraft requiring height monitoring	MID RMA												
12	Review the lists of aircraft without known height monitoring results and take necessary follow up action with concerned operators in order to carry out necessary height monitoring and send the monitoring results to the MID RMA	Concerned States												
13	Upon receipt of the list of identified aircraft/operators from the MID RMA, a State Letter is to be issued by the ICAO MID Regional Office, urging States to take necessary follow-up action with concerned operators	ICAO												
14	Feasibility study and cost benefit analysis for GMU Monitoring in the MID Region	MID RMA												
15	Develop a Draft version of the SMR 2010													

Item No.	Actions	Responsible	Oct 09	No 09		ec 9	Jan 10	Feb 10	ar 0	Ар 1(	Ma 10	× 1	Ju 1	յր 1	Au 10	Sej 10	
16	Provide comments on the Draft version (V 0.2) of the MID RMA Manual to ICAO MID Office																
17	Prepare an updated Draft version (V 0.3) of the MID RMA Manual for presentation to the MID RMA Board/10 meeting	ICAO															
18	Presentation of final status report on the MID RMA expenditures for 2009 accompanied with supporting documentation (bills) and a bank statement.	MID RMA + ICAO															
19	Convening of the MID RVSM Safety Assessment Seminar	MID RMA + Bahrain + ICAO															
20	Convening of the MID RMA Board/10 meeting	ICAO + Iran + Board Chairman															

#### **REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME**

7.1 The meeting recalled that it was agreed that the MID RMA Board meetings should be hosted by the MID RMA Member States on rotation basis. The meeting noted that the MID RMA Board/10 meeting will be held in Tehran, Iran from 3 to 5 May 2010.

7.2 Based on a proposal from Syria, the meeting agreed that the MID RMA Board/11 meeting be held in Damascus during the first half of 2011. The exact date and venue will be determined by the ICAO MID Regional Office, in coordination with Syria and the Board Chairman.

7.3 The meeting highlighted that the MID RMA Board/12 and MID RMA Board/13 meetings should be hosted by Kuwait and Yemen and invited these two States to make a proposal for hosting a meeting during the MID RMA Board/10 meeting.

#### **REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS**

8.1 The meeting recalled that it was agreed that the list of MID RMA Board Members and Alternates should be updated on a regular basis. Accordingly the meeting reviewed and updated the list of MID RMA Board Members and Alternates as at **Appendix 8A** to the Report on Agenda Item 8. It was re-iterated in this regard that, in order to keep track 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.

8.2 The meeting was advised that the MID RMA has stopped using the email address (midrma@batelco.com.bh) and that the only valid email address which should be used for communication with the MID RMA is (midrma@midrma.com).

Appendix 8A to the Report on Agenda Item 8

# 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 - BAHRAIN Fax: (973) 17 321 992 Tel: (973) 17321116 Mobile: (973) 39969399 E-mail: <u>aliahmed@caa.gov.bh</u>	<sup>1</sup> Mr. Mohammed Zainal Head of Standards, Licensing and Development Civil Aviation Affairs P.O. Box 586 – BAHRAIN Fax: (973) 17 321 029 Tel: (973) 17 321 028 Mobile: (973) 3967 6707 E-mail: <u>mzainal@caa.gov.bh</u>
Egypt	Mr. Mohamed Abbas Mohamed Safety General Manager Civil Aviation Authority Cairo International Airport Road Cairo – EGYPT Tel: (202) 2267 8529 Mobile: (010) 6790242 E-mail: <u>md.soliman@gmail.com</u>	Mr. Hassan Kamel Abdel Meguied ATS Safety Manager National Air Navigation Services Co. Cairo International Airport Road Cairo – EGYPT Fax: (202) 2268 0627 Tel: (202) 2265 7842 Mobile: (010) 1843 602 E-mail: <u>hassan.kamel@nansceg.org</u>
IRAN	Mr. Ali Reza Majzoubi Chief of Tehran ACC Iran Airports Company (IAC) Tehran – IRAN Fax: +982144544114 Tel: (9821) 4454 4114 Mobile: +9891 2305 3095 Email: maj.alireza@yahoo.com	Mr. Mohammad Khodakarami A/Director General of Legal and International Aeronautical Affairs Tehran Mehrabad International Airport (CAO) Tehran – IRAN Fax: (98) 21 660 25246 Tel: (98) 21 660 25115 Mobile: (98) 912 390 8196 E-mail: <u>mokhodakarami@gmail.com</u>
JORDAN	Mr. Ahmad Ali Mohamed Al Jarrah Director Air Navigation Services Queen Alia Airport Amman - JORDAN Fax: 962-6 4451619 Tel: 962 4451666 Mobile: 962-7 99573290 Email: <u>ahmadj1957@hotmail.com</u> <u>dans-qa@carc.gov.jo</u>	Mr. Fawaz Abdalla Chief Training ATM Civil Aviation Regulatory Commission- Amman-Jordan P.O Box 7547/11110 Fax: 962-6 489 1266 Tel: 962 6 489 2282 Ext. 3395 Mobile: 962-7 77756136 Email: <u>atmtrg@carc.gov.jo</u> <u>Atc22us@yahoo.com</u>

<sup>&</sup>lt;sup>1</sup> Chairperson of MID RMA Board

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STATE	RMA BOARD MEMBER/FOCAL POINT	ALTERNATE
KUWAIT	Mr. Adel Al-Yagout Acting Director of Air Navigation Directorate General of Civil Aviation Kuwait International Airport P.O. Box 17, Safat, 13001 KUWAIT Fax: (965) 476 2708 Tel: (965) Mobile: (965) 95 71 755 E-mail: <u>q8dgca_danoff@hotmail.com</u>	Mr. Khaled A. Al Shayji Deputy Director of Air Navigation Directorate General of Civil Aviation Kuwait International Airport P.O. Box 17, Safat, 13001 KUWAIT Fax: (965) 4310069 Tel: (965) 4760463 Mobile: (965) 95 726 16 (965) 91 77 786
LEBANON	Mr. Khaled Chamieh Chief Air Navigation Department Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: (961-1) 629 023 Tel: (961-1) 628 178 Mobile: (961-3) 837 833 E-mail: <u>chamiehk@beirutairport.gov.lb</u> <u>ais@beirutairport.gov.lb</u>	Mr. Walid Al Hassanieh Chief ACC Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: (961-1) 629 023 Tel: (961-1) 629 026 Mobile: (961-3) 509 902 E-mail: hassaniehw@beirutairport.gov.lb
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: <u>al-harmi@dgcam.gov.om</u>	Mr. Sabri Al Busaidy DMS Manager Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport P.O. Box 1 CPO Seeb Muscat - SULTANATE OF OMAN Fax: (968) 24519 939 Tel: (968) 24519 501 Mobile: (968) 359415 Email: sabri@dgcam.gov.om
SAUDI Arabia	Mr. Khalid Al Barakati Air Traffic Controller (ATC) General Authority of Civil Aviation (GACA) Operation and Planning P.O.Box 929 Jeddah 21421 - SAUDI ARABIA Fax: 6401477 Tel: 6405000 Ext. 5589 Mobile: 966 0503373395 Email: <u>khaled1111alsharif@yahoo.com</u>	Mr. Mohamed Bin Salmen Senior Software Engineer GAGA /Air Navigation Services Jeddah, SAUDI ARABIA Fax: Tel: 96626717717 Mobile: 966504641964 Email: <u>m_binsalman@yahoo.com</u>

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STATE	RMA BOARD MEMBER/FOCAL POINT	ALTERNATE					
SYRIA	Mr. Ousama SAFI Head of ATC Damascus Airport P.O. Box 5409 Damascus - SYRIA Fax: +963 11 5400312 Tel: +963 11 5400 312 Mobile: +963 94 46 72 817 Email: ousafi@mail.sy	Mr. Fissal Dayoub ATC SCAA Damascus International Airport Fax: 963115400540 Tel: 9635400312 Mobile: 933693807 Email: <u>fdayoub@mail.sy</u>					
UAE	Mr. Hassan Karam Director Air Navigation Services General Civil Aviation Authority P.O. Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6883 Tel: (971-2) 599 6885 Mobile: (971-50) 818 7492 Email: <u>hkaram@szc.gcaa.ae</u>	Mr. Abdulla Al Hashimi Unit Operations Specialist General Civil Aviation Authority P.O. Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6836 Tel: (971-2) 599 6841 Mobile: (971-50) 442 4086 Email: <u>ahashimi@szc.gcaa.ae</u>					
YEMEN	Mr. Ahmed Al Kobati Director Air Navigation Operations, Air Navigation Sector Civil Aviation & Meteorology Authority P.O. Box 1042 Sana'a - YEMEN Fax: (967-1) 344 047 Tel: (967-1) 345 402 Mobile:(00967) 77 7241 375 E-mail: cama570@yahoo.com	Mr. Yahia Hussain Al Shami Director Quality Assurance Air Navigation Sector Civil Aviation & Meteorology Authority P.O. Box 1042 Sana'a - YEMEN Fax: (967-1) 344 047 Tel: (967-1) 345 402 Mobile: (00967) 77 7710 297					
MID RMA	Middle East Regional Monitoring Agency P.O. Box 50468 – KINGDOM OF BAHRAIN Fax: (973) 17 32 1960 Tel: (973) 17 32 1950 Email: midrma@midrma.com						

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#### MID RMA Board/9 Attachment A to the Report

# LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
<u>STATES</u>	
BAHRAIN	
Mr. Ali Ahmed Mohammed	Director Air Navigation Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 321 992 Tel: (973) 17 321 116 Mobile: (973) 39 969 399 Email: <u>aliahmed@caa.gov.bh</u>
Mr. Fareed Abdullah Al Alawi (MID RMA)	Head, Air Traffic Operation (MID RMA Manager) Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 32 1992 Tel: (973) 17 321 158 Mobile: (973) 39 651 596 Email: <u>falalawi @caa.gov.bh</u>
Mr. Fathi Al-Thawadi (MID RMA)	Head of Aeronautical & Airport Ops. Systems Development Computer Services Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 19 321 992 Tel: (973) 17 329 153 Mobile: (971) 39 676 614 Email: <u>fathi@caa.gov. bh</u>
Mr. Sanad S. Salim (MID RMA)	Chief, Computer Services MID RMA Administrative Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 321 992 Tel: (973) 17 321 054 Mobile: (973) 396 96 991 Email: ssalim@caa.gov.bh

NAME	TITLE & ADDRESS
EGYPT	
Mr. Mahmoud Abdel Aziz	Senior Air Traffic Controller National Air Navigation Services Company Cairo Air Navigation Center Cairo Airport Road Cairo - EGYPT Fax: (202) 2268 0627 Tel: (202) 2265 7961 Mobile: (2016) 351 0769 Email: <u>mahmoud5531@hotmail.com</u>
Mr. Mohamed Abbas Soliman	Safety General Manager Egyptian Civil Aviation Authority Cairo International Airport Road Cairo - EGYPT Fax: (202) 22678529 Tel: (202) 22678 529 Mobile: (2010) 6790242 Email: <u>md.soliman@gmail.com</u>
IRAQ	
Mr. Ali Khalil Ibrahim	Director of ATS Iraqi Civil Aviation Authority Baghdad International Airport Baghdad - IRAQ Mobile: 964-7901568252 Email: <u>ali_atc_biap@yahoo.com</u>
Mr. Kawa Ahmed Mohammed	Air Traffic Controller Tel: 00 964 813 2750
Mr. Sami Khalaf Ameed	Air Traffic Controller Mobile: 00 964 790 535 7878 Email: ALDUSARY67@yahoo.com
ISLAMIC REPUBLIC OF IRAN	
Mr. Mohammad Khodakarami	Acting D.G. of Aeronautical Affairs (in CAO) Mehrabad International Airport P.O.Box 13445 - 1798 Tehran - ISALAMIC REPUBLIC OF IRAN Fax: (9821) 6603 6340 Tel: (9821) 6603 6341 Mobile: +9891 23908196 Email: mokhodakarami@gmail.com

NAME	TITLE & ADDRESS
Mr. Mohsen Aliasghari	Fax: (9821) 6603 6340 Tel: (9829) 6602 2087 Mobile: +9891 7992 926 Email: M.A.Asghary@Gmail.com
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