INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST OFFICE

REPORT OF THE ELEVENTH MEETING OF MIDANPIRG RVSM TASK FORCE (MID RVSM TF/11)

(Cairo, 20 –21 April 2004)

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

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

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PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Eleventh Meeting of MIDANPIRG Reduced Vertical Separation Minimum Task Force (RVSM TF/11), was held at the Conference Room of the ICAO Regional Office, Cairo from 20 – 21 April 2004.

2. OPENING

2.1 The meeting was opened by Mr. Zerhouni, Regional Director for the ICAO Middle East Office. He congratulated the Chairman of the RVSM Task Force, Mr. Sabri Said Al-Busaidy and the Rapporteurs of the ATC, OPS/AIR and SAM Working Groups, Mr. Mohamed Zainal, Mr. Ibrahim Negm and Mr. Riis Johansen for a job well done and expressed his personal thanks and appreciation and that of MIDANPIRG and the Air Navigation Commission to all those involved in the planning process. He however pointed out that the job will only be completed when RVSM is implemented within Baghdad and Kabul FIRs and requested the Task Force to give some thoughts to the issue.

2.1.1 Mr. Zerhouni also thanked Eurocontrol, FAA and IATA for their sustained support and assistance that have greatly contributed in the materialization of this challenging project.

2.1.2 Finally, Mr. Zerhouni paid tribute to the Director General of the UAE GCAA, Mr. Mohammad Al-Ghaith for his vision and involvement and reiterated that, he has been instrumental in paving the way for the safe implementation of RVSM in the region by hosting MECMA and all RVSM Task Force Meetings/Seminars.

2.1.3 Mr. Zerhouni pointed out the urgent need to set-up a Middle East mechanism for the establishment of the new Regional Monitoring Agency (RMA), on a permanent basis.

2.3 Mr. Sabri Said Al-Busaidy, of Oman, Chairman of the Task Force also welcomed the delegates and thanked all those who have contributed in the planning for the safe implementation of RVSM.

3. ATTENDANCE

3.1 The meeting was attended by a total of 54 participants from 11 States (Bahrain, Egypt, Iraq, Kuwait, Oman, Pakistan, Saudi Arabia, Syria, United Arab Emirates, the United States (FAA and ATC Cell-Qatar and Yemen) and 3 Organizations (AACO, EUROCONTROL, IATA). The list of participants is at **Appendix C** to the report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Sabri Said Al-Busaidy of Oman. Mr. Dhiraj Ramdoyal, Regional Officer, Air Traffic Management from the ICAO Middle East Office was Secretary of the meeting supported by Mr. Mohamed Khonji, the Deputy Regional Director. The Regional Director also participated actively during the discussions.

5. LANGUAGE

5.1 The discussions were conducted in English. Documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Status of Conclusions/Decisions emanating from the MIDANPIRG/8 Meeting concerning implementation of RVSM in the MID Region

Agenda Item 2: Safety and Monitoring aspects

Agenda Item 3: ATC operations aspects

Agenda Item 4 Programme management issues
- Interface issues
- Implementation of RVSM within the Baghdad and Kabul FIRs

Agenda Item 5: Any other business.

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PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: STATUS OF CONCLUSIONS/DECISIONS EMANATING FROM THE MIDANPIRG/8 MEETING CONCERNING IMPLEMENTATION OF RVSM IN THE MID REGION

1.1 Under this agenda item the meeting was appraised of the status of relevant conclusions and decisions endorsed by MIDANPIRG/ 8 relating to the safe implementation of RVSM in the Middle East Region. The meeting was informed of the concerns of the ICAO Air Navigation Commission and the Council regarding the decision by the UAE to stop supporting solely the activities of the Middle East Central Monitoring Agency (MECMA) and other activities related to the implementation/post-implementation of RVSM with effect from 1 June 2004. The urgent need for the establishment of a regional mechanism to take over the activities of Middle East Regional Monitoring Agency was highlighted. An update on the status of Conclusions/Decisions is at **Appendix 1A** to the report on Agenda Item 1.

MID RVSM TF/11
Appendix 1A to the Report on Agenda Item 2

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
CONCLUSION 8/12: ESTABLISHMENT OF A REGIONAL SAFETY AND MONITORING AGENCY *That,* *a) the task of monitoring safety in conjunction with implementation of RVSM in the Middle East Region be assigned to a Central Monitoring Agency;* *b) the monitoring agency, referred to as the Middle East Central Monitoring Agency (MECMA), will be established and staffed by the United Arab Emirates' General Civil Aviation Authority (UAE-GCAA) based at the Head Office in Abu Dhabi; and* c) *the Terms of Reference of MECMA be amended as indicated at **Appendix 6F** to the report on Agenda Item 6, to include additional tasks for carrying out safety and airspace monitoring in respect of RNP/RNAV implementation*.	**Pending as from 1 June 2004**	*Note that as from 1 June 2004, the UAE has indicated that it will stop supporting solely the activities of MECMA*

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
CONCLUSION 8/13: ***IMPLEMENTATION OF THE ATS SAFETY MANAGEMENT PROGRAMMES IN THE MID REGION*** *That,* *a) In accordance with the provisions of Annex 11(Chapter 2 paragraph 2.26), States shall implement systematic and appropriate ATS safety management programme with a view to ensure that,* *i) the established level of safety applicable to the provision of ATS within an airspace or at an aerodrome is met; and* *ii) safety-related enhancements be implemented whenever necessary;* b) *with a view to ensure that the activities necessary for the implementation of safety management programmes be carried out in a timely manner, adequate budgetary provisions be made by States;* **c)** *sustained cooperation and co-ordination with adjacent States/service providers be made in the process; and*	**On-going activity**	

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
d) *States explore ways and means of establishing a mechanism for setting up the standards, monitoring requirements and criteria for the regional implementation of ATS safety management programme and MECMA be invited to play a leading role in the process.*		*Note: Support of UAE will not be expected after 1 June 2004*
CONCLUSION 8/16: ATC PROFICIENCY *That States, with a view to ensure that the level and quality of services are maintained, be invited, through their safety management programme, to evaluate and identify the requirement for ATC refresher courses, including English language training for Air Traffic Controllers*	**On-going activity**	
DECISION 8/17: AIR-GROUND COMMUNICATIONS PROBLEMS *That taking into account the number of recurring incidents attributed to poor air-ground communication problems in the region, the matter be addressed within the framework of the CNS/MET Sub-Group.*	**On-going activity**	
CONCLUSION 8/20: ENDORSEMENT OF GUIDANCE MATERIALS DEVELOPED WITHIN THE FRAMEWORK OF THE RVSM TASK FORCE *That States use the provisions of the ATC, Operations/Airworthiness Manuals and the RVSM Model Safety Plan developed within the framework of the RVSM Task Force for regional application and in the development of their own Manuals/Procedures*	**Actioned**	

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
CONCLUSION 8/21: AMENDMENT TO THE MID ATS ROUTE NETWORK That, taking into account the fact that the safety assessment for the implementation of RVSM in the MID Region has been built on the existing ATS route structure, States adopt a conservative approach while carrying out major change(s) to the MID ATS route network and it be coordinated with MECMA.	**On-going activity**	
CONCLUSION 8/22: COORDINATION PROBLEMS OVER THE RED SEA AREA *That,* *a) with effect from 27 November 2003, the procedures developed at ***Appendix 6K** to the report on Agenda Item 6, be followed by all uncoordinated flights operating over the Red Sea;* *b) States concerned publish an AIP Supplement as soon as possible, and no later than 30 October 2003 for the promulgation of these procedures;* *c) IATA ensures that concerned operators are fully conversant with these procedures; and*	**On-going**	*Need to follow-up on implementation* *States have raised concerns on flights not following established procedures* *Saudi Arabia has proposed some minor adjustments*

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
d) State/military aircraft when flying under "Due Regard" over the Red Sea be informed of the procedures to be followed by Civil Uncoordinated Flights and be requested to take into account the restrictions applicable within RVSM airspace. *Note:* Procedures have been finalized through:* *- informal meeting(s)/ consultations by Egypt;* *- two meetings organized by the Arab Civil Aviation Commission (ACAC);* *- Sustained support from IATA;* *- RVSM Task Force; and* *- Willingness of concerned States to find a solution to the problem in the interest of safety*	**On-going**	

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
CONCLUSION 8/23: IMPLEMENTATION OF RVSM IN THE MID REGION *That,* *Having considered the issues listed under items a) through i), below, a reduced vertical separation minimum (RVSM) will be implemented on an exclusive basis between FL 290 and FL 410 on **27 November 2003 at 0200 UTC** within the Middle East Region*:* *a) operator readiness has been assessed through traffic sampling and is found to be sufficient for safe and efficient implementation of RVSM;* *b) the target level of safety (TLS) for technical risk of 2.5 x 10^{-9} fatal accidents per aircraft flight hour** has been met through application of an operational concept based on a structure of dual uni-directional RNP trunk routes with application of the semi-circular level allocation system as set out in Annex 2, Appendix 3;* *c) safety objectives for operational risk are satisfied through evaluation and mitigation measures associated with functional hazard assessments (FHA) carried out in conjunction with development and continued updating of national safety plans (NSP);*	**On-going**	

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
d) A regional monitoring agency, MECMA, has been established, staffed and equipped to perform the required safety-related tasks; *e) legal and regulatory measures have been taken by all States;* *f) guidance material for operations, airworthiness and air traffic management, including training, has been developed and issued;* *g) States within the MID RVSM Area have committed to complete all outstanding tasks in due time for implementation;* *h) operators have been given due notice through aeronautical information circulars (AIC) and AIP Supplements; and* *i) an awareness campaign has been developed and will be undertaken as a joint effort between States, ICAO and IATA*. * *Except Kabul and Baghdad FIRs.* ** The Task Force applied a value of 1.25 x 10^{-9} as system performance specification to ensure continued satisfaction of TLS at least until the end of the decade, taking into account projected traffic growth.		*Support from UAE will cease as from 1 June 2004*

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
CONCLUSION 8/24: DATA FOR SUSTAINED SAFETY ASSURANCE OF RNP AND RVSM WITHIN THE MID REGION *That, considering the on-going requirement for safety assurance related to RVSM and RNP operations within the Middle East Region,* *a) all States report data and incidents necessary for performing collision risk calculations required for sustained safe RVSM operations to MECMA. The data will include, but not necessarily be limited to:* *i) assigned altitude deviations of 300 ft or more (monthly);* *ii) total number of IFR movements (monthly);* *iii) average time per movement spent in the level band FL290 - FL410;* *iv) ATC/ATC coordination failures (monthly); and* *v) traffic data (as requested by MECMA);* *b) risk associated with operational procedures prevailing within the MID Region.*	**On-going**	*Note: Support from UAE will cease as from 1 June 2004*

Status of Conclusions/Decisions emanating from the MIDANPIR/8 meeting (Cairo 7 -11 September 2003)		
Conclusions/Decisions	**Status**	**Remarks**
c) monitoring States report navigational errors and traffic data in accordance with the Letter of Agreement concerning monitoring associated with RNP; *d) air operators maintain procedures for reporting of turbulence;* *e) States report data on approval of operators and aircraft for RVSM operations (monthly); and* *MECMA ensures that further processing and evaluation of this data within its Terms of Reference and identifies or develops methodologies for assessing*		

REPORT ON AGENDA ITEM 2: SAFETY AND MONITORING ASPECTS

2.1 Set-up of the Middle East Central Monitoring Agency

2.1.1 Under this agenda item the meeting was informed of the decision by the UAE to stop supporting solely the activities of the Middle East Central Monitoring Agency (MECMA) with effect from 1 June 2004. The concerns of the Air Navigation Commission and the ICAO Council over follow-up action(s) which was/were agreed upon for post-implementation monitoring was noted. The ICAO Secretary General has been requested by the Air Navigation Commission to take appropriate action on an early resolution of funding requirements for MECMA.

2.1.2 The meeting was informed that MIDANPIRG Member States have been approached over the issue and several ways and means are being explored to establish a self-funding mechanism for the MID Region which will take over the responsibilities of MECMA (Ref. AN 6/15.10.15 dated 11 February 2004- See **Appendix A** to the report). To that effect, the Task Force proposed the following options for consideration by MIDANPIRG Members and the respective DGCA Executives:

A) Continuous support from UAE

i) The UAE GCAA be requested to continue to maintain the database of State RVSM approvals on behalf of the region, until a regional mechanism has been established;

ii) The UAE GCAA be requested to consider the allocation of an Office at the GCAA Headquarters for the future activities of the Regional Monitoring Agency;

iii) Until, regional experience is gained, Mr. Riis Johansen, the Director of Air Navigation Services, from GCAA UAE be requested to act as team leader, with the support of RO/ATM Cairo in the new autonomous monitoring agency to be established for the MID Region

B) Proposed set-up of MID RMA (OPTION 1)

i) The activities of the Middle East Regional Monitoring Agency be carried out on a contractual basis. Funding be ensured through contributions from States and be calculated on the basis of the number of flights handled by each FIR. Amount of contributions for each member State will be revised once every 5 years;

ii) ICAO provides Secretariat services to the Agency and all MIDANPIRG Member States act as board members. IATA will contribute as observer to MIDANPIRG;

C) Proposed set-up of MID RMA (OPTION 2)

i) In case the above mechanism does not materialize, ICAO, with the support of MIDANPIRG Member States, explore the possibility of finding an alternative solution based on assessment to ICAO contribution formula.

D) Financial evaluation/implications based on MECMA experience

i) The agency will take over all activities related to the implementation/post-implementation of RVSM, RNP, and Safety Management Programmes in the MID Region;

ii) An estimate of the overall costs for the operation of the agency is at **Appendix B** to the report.

2.2 Monitoring requirements

2.2.1 System performance monitoring is necessary to ensure that implementation and continued operation of RVSM meets the safety objectives. Monitoring of aircraft height-keeping performance is demanding, particularly as regards estimation of aircraft altimetry system error (ASE). While discussion of height-keeping performance monitoring considers both the technical requirements for a monitoring system and the application of monitoring before and after RVSM implementation in an airspace, the need for obtaining sufficient data on ASE to permit calculation of the vertical overlap probability, Pz(1000), with the required level of confidence was highlighted.

2.2.2 The meeting recalled that the Middle East RVSM Task Force established the pre-implementation monitoring requirements applicable to the MID Region at its 4th meeting in March 2002. The requirements were aligned with those applied within the European Region, since calculation of Pz(1000) for the MID Region largely would be based on ASE measurements obtained in the EUR Region – but applied to the MID aircraft population (Beta-values) – it would be relevant to ensure that data, including type-grouping, was equivalent to that used in EUR. These requirements are summarised below:

2.2.2.1 Monitoring had to take place *after* airworthiness approval by the State of Registry.

2.2.2.2 Monitoring was required for at least two (2) aircraft per group type per operator for operators *with* previous RVSM experience.

2.2.2.3 Monitoring was required for at least three (3) aircraft per group type per operator for operators *without* previous RVSM experience.

2.2.2.4 For the European RVSM area, monitoring requirements were implicitly tied to the airworthiness approval and to a considerable degree based on the large amount of data being generated by the three HMUs.

2.2.3 European monitoring results, gained through the HMUs, have shown significant variations in height-keeping performance, not only within groups, but also for individual airframes. Furthermore, marginal or inadequate performance has been observed for a number of types – or groups of airframes within a given type. This has been the case for Avro RJ, AN72, AN124, E135, E145, FA50 and IL86.

2.2.4 For the most commonly used type in the MID Region, the A320, European results have shown that height-keeping performance was well within the parameters for most operators, while the A320 fleet of one particular operator showed marginal performance. This problem has now been remedied, but would have gone unnoticed, and constituted a latent risk in the airspace system, except for the monitoring programme.

2.2.5 Given the lack of monitoring assets within the MID Region, it essential that maximum benefit be derived from the knowledge about height-keeping performance gained through monitoring extra-regional monitoring assets and, given the variability mentioned in paragraph 2.2.2, above, MECMA has revised the table in accordance with its terms of reference to take into account the experience gained in other regions. The revised table is in line with the one agreed in the ICAO SASP and included in the (draft) ICAO RMA Handbook, but requires monitoring of all airframes of type groups having displayed marginal performance.

2.2.6 The objectives for aircraft height-keeping performance stated in Doc 9574 are applicable to both the pre- and post-implementation phases. In general, however, evidence of ASE stability would not normally be expected to be a product of the pre-implementation phase monitoring as this is a long-term consideration.

2.2.7 Post-implementation monitoring differs somewhat from the pre-implementation in background as well as objectives. The large amount of monitoring data has conferred an increased knowledge of the height-keeping performance of various aircraft type-groups. To the extent that data indicates consistency, this tends to reduce the need for monitoring. However, while this has led to re-categorisation of a number of type-groups, it does not support conclusions about stability over time.

2.2.8 Also, there is a continued requirement for *Initial Monitoring* as new operators are formed within the Region or extra-regional operators without RVSM experience wish to commence operations into MID RVSM airspace. Therefore, all new operators that intend to operate in the airspace were RVSM is applied are required to participate in the monitoring programme. **Appendix 2A, Table 1**, sets out the revised initial monitoring requirement.

2.2.9 Aircraft condition when subjected to monitoring.

For an HMU measurement to be used, the data must meet the following requirements:

i. Be positively identified and linked to an individual airframe that has been confirmed by the State Authority as having received RVSM approval.
This is achieved by matching the Mode S code record by the measurement system to that notified by the operator. In the case of aircraft not fitted with a Mode S transponder the Mode A code record shall be compared to that noted by the operator on the flight.

ii. All engineering/modification and maintenance work required to achieve RVSM airworthiness approval must be completed.
The date of the measurement is compared to the date that the operator stated the aircraft had been modified in accordance with the RVSM airworthiness requirements. Only measurements on or after this date are classed as valid.

iii. The data has been recorded correctly and passed through quality control checks.

2.2.10 Additionally, follow-on monitoring is required, partly to ensure that percentage rules continue to be observed for increasing fleets, and partly to provide assurance that height-keeping performance remains within MASPS over time. This is also referred to as ASE stability and on-going monitoring in accordance with **Appendix 2A, Table 1** to the report on Agenda Item 2 is required at least once every two years.

2.2.11 MID and non-MID operators having met the pre-implementation monitoring requirements for EUR, PAC or NAT for given fleet/type of aircraft were accepted as having satisfied the pre-implementation monitoring requirements for the MID Region.

2.2.12 Requirements for initial monitoring for new MID operators or MID operators increasing their fleets are set out in **Appendix 2A** to the report on Agenda Item 2.

2.2.13 Requirements for follow-on monitoring for MID operators are as detailed in **Appendix 2A** to the report on Agenda Item 2**.**

2.2.14 Documentation for monitoring, i.e. results, shall be provided to the RMA in the format specified in **Appendix 2B** to the report on Agenda Item 2 for all MID operators / airframes as well as for non-MID operators about whose approval status doubt exist.

2.2.15 Based on the foregoing, the meeting accordingly adopted the following Draft Conclusion:

DRAFT CONCLUSION 11/1- REQUIREMENTS FOR MONITORING

That,

*a) Operators having met the monitoring requirements as tabulated in **Appendix2A** for a given fleet/type of aircraft will be accepted as having satisfied the requirements for the Middle East Region. In case of Middle East operators, documentation for monitoring shall be provided to the Regional Monitoring Agency.*

b) For non-MID operators, about whose approval status doubt exist, documentation for monitoring shall be provided to the Regional Monitoring Agency.

c) The Regional Monitoring Agency will update the table in the light of data and experience gained in other Regions..

Note: IATA expressed strong objections over the requirements for monitoring to be carried out every two years to ensure ASE stability is satisfactory for sustained RVSM operations. It requested that it be changed to read" The need for operators to meet continuing airworthiness requirements associated with RVSM approval in order to remain valid". He reiterated that the MID Region should work within the framework of a global post-implementation strategy. This proposal was not endorsed by the meeting

2.3 Apparent False filings

2.3.1 One of MECMA's responsibilities is to "… provide the means for identifying non-RVSM approved operators using Middle East airspace where RVSM is applied; and notifying the appropriate State approval authority ...". This task is given to ensure that application of RVSM within MID RVSM airspace is limited to aircraft and operators actually having been granted the necessary approvals by their State authorities..Correspondingly, it should be noted that application of RVSM to an aircraft pair, where either or both aircraft do not hold the required approvals, constitutes a technical loss of separation. Consequently, checking of flight plans with letter **W** capability indicator in Item 10 against the approvals database is necessary to ensure the integrity of flight plan data upon which Middle East providers of air traffic services base their procedures.

2.3.2 Since RVSM was implemented on 27 November 2003, MECMA has received only one query concerning approval status of operators. This may be interpreted as being indicative of a faith in the correctness of flight data submitted by operators that unfortunately appears to be unwarranted.

2.3.3 The first indication that the system was being abused was detected soon after RVSM implementation and MECMA forwarded notification on non-RVSM status to Bahrain, Emirates, Jeddah and Tehran ACCs for Ariana Afghan Airlines (AFG) on 08 December 2003 concurrent with a non-compliance notice to the Afghan CAA. No reply has been received from the Afghan civil aviation authorities.

2.3.4 In the absence of queries from the States, MECMA has carried out a check of flight plans for flights within the Emirates FIR (OMAE) with the "W" capability indicator in Item 10 against the RVSM approvals registry. The survey encompasses 67,687 flights, of which 2,161 (3.19%) cannot be confirmed as being RVSM-approved based on the contents of the RVSM registry. This percentage is ten times higher than that obtained through a similar survey in the European Region after the first few months of RVSM operations and casts serious doubts on the safety assurance measures associated with MID RVSM. A list of the flights, for which the actual RVSM status is in doubt, is reproduced in **Appendix 2C** to the report on Agenda Item 2.

2.3.5 Table 1, below:

Cognisant RMA	Flights	Percentage
APARMO	17	0.03%
EURO	705	1.04%
MAAR	652	0.96%
MECMA	391	0.58%
NAARMO	281	0.42%
SATMA	1	0.00%
CARSAMMA	2	0.00%
Unknown	112	0.17%
Approved	65,526	96.81%
Totals	67,687	100.00%

Table 1. Summary of non-approved RVSM flight survey

2.3.6 Two explanations are possible:

d) The RVSM approvals registry is incomplete, resulting in flights being included in the list, although operator and aircraft actually are approved; or

e) Operators are erroneously filing flight plans with the RVSM qualifier “W” in item 10.

2.3.7 Notwithstanding repeated pleas from MECMA, provision of information to the approvals registry has been inadequate. It is, therefore, likely that some of the flights registered as being falsely filed as RVSM capable actually had the required approvals.

Table 2 contains the status of approvals for the MECMA-cognisant States according to the RVSM approvals database.

State	Initial Info Received	Update	Acft. on Register	RVSM Approved
Afghanistan	No	---	1	0
Bahrain	21/05/03	10/03/04	9	7
Qatar	07/07/02	21/12/03	32	32
Egypt	23/09/02	30/10/03	90	80
Iran	18/10/02	12/02/04	74	64
Iraq	No	---		
Jordan	06/07/02	31/08/03	25	21
Kuwait	24/07/02	22/02/04	26	26
Lebanon	27/06/02	11/09/03	10	9
Libya	No	---		
Oman	13/08/02	23/03/04	44	44
Saudi Arabia	09/07/03	30/08/03	169	150
Sudan	No	---		
Syria	25/07/02	29/09/03	24	14
UAE	15/05/02	31/03/04	106	85
Yemen	16/06/03	---	9	9

Table 2. Summary of approvals

2.3.8 It should be noted that 82% of the 2,161 flights being listed as having falsely filed flight plans as being RVSM compliant were operated by agencies registered in States cognizant to other RMAs. However, as MECMA is exchanging data with other RMAs on a regular basis, this type of discrepancies indicate a more widespread problem.

2.3.9 To ascertain the actual status of operators, MECMA has, within its terms of reference, made enquiries to a number of State authorities. The correspondence is summarised in Table 3, below:

Operator	**State**	**MECMA Query**	**Reply / Observation**
AFG	Afghanistan	08 December 2003	None
PIA	Pakistan	30 December 2003	Given dispensation by MAAR
KQA	Kenya	31 December 2003	KCAA has approved B737 aircraft
RSO	Pakistan	31 December 2003	None
BAH	Bahrain	05 January 2004	A9CBDF type is RJ85
CPN	Iran	05 January 2004	
EJO	UAE	05 January 2004	Approval mentioned in AOC
IRC	Iran	05 January 2004	F100 are approved
IRK	Iran	05 January 2004	T154 are approved
IRM	Iran	05 January 2004	A30B are approved
LAA	Libya	07 January 2004	None
SUD	Sudan	07 January 2004	None
CLX	Luxemburg	13 January 2004	Operated by approved SOO
AGN	Gabon	25 January 2004	None
DAH	Algeria	25 January 2004	None
SVK	Slovakia	25 January 2004	None
CSN	China	25 January 2004	None
KZR	Kazakhstan	25 January 2004	None
RNA	Nepal	25 January 2004	None
THJ	Thailand	25 January 2004	HSOGA & HSOGB are approved
HMS	Bulgaria	25 January 2004	Leased B733 approved for LAZ

Operator	State	MECMA Query	Reply / Observation
PHG	Kyrgyzstan	25 January 2004	None
RSO	Pakistan	12 April 2004	None
SAI	Pakistan	12 April 2004	None
KQA	Kenya	17 April 2004	None
PHG	Kyrgyzstan	17 April 2004	None
RNA	Nepal	17 April 2004	None
IRA	Iran	17 April 2004	None
SUD	Sudan	17 April 2004	None
AZH	Azerbaijan	17 April 2004	None
SVK	Slovakia	18 April 2004	None
CSN	China	18 April 2004	None
IRK	Iran	18 April 2004	None
ACU	Kenya	18 April 2004	None

Table 3. Summary of Enquiries

2.3.10 The survey of flight planning furthermore revealed a widespread lack of adherence to ICAO standards and procedures, manifested in:

- late filing of FPL
- no filing of FPL
- use of incorrect aircraft type designators
- incorrect procedures for filing of changes to FPL
- duplicate filing of FPL
- incorrect addressing of FPL

2.3.11 These deficiencies are hampering ATC units in carrying out their tasks of ensuring that correct separation minima are applied within RVSM airspace. From the information provided in paragraph 2.4, above, it is clear that serious questions exist with regards to the integrity of the basis upon which access to RVSM airspace is granted. As indicated in Table 2, MECMA is in the process of ascertaining the approval status of operators and aircraft. However, the effectiveness of this process hinges on several conditions:

2.3.12 To the extent that queries are not resolved with conclusive and positive responses, it is essential that flights by operators, for which doubt exists, be excluded from access to RVSM airspace.

2.3.13 The traffic sample of 67,687 flights was obtained from a single FIR (Emirates) and it is probable that other non-conformances exist for flights / operators not navigating within the surveyed airspace. To ensure compliance, traffic samples from all MID RVSM States will be required.

2.3.14 The Task Force accordingly adopted the following Draft Conclusions:

DRAFT CONCLUSION 11/2: - PROVISION OF UP-TO-DATE INFORMATION TO THE MID RVSM APPROVALS REGISTRY.

Considering the requirement for a correct and up-to-date registry of RVSM approvals of operators and aircraft in the on-going safety efforts related to RVSM operations within the Middle East Region; that States are reminded to provide regular updates to the regional database of operator and aircraft approvals.

DRAFT CONCLUSION 11/3-: - EXCLUSION FROM MID RVSM AIRSPACE OF AIRCRAFT AND OPERATORS NOT REGISTERED AS BEING RVSM APPROVED.

Considering the on-going requirement for safety assurance related to RVSM operations within the Middle East Region,

That:

a) Operators from the attached list, for whom MECMA has not received positive approval data by 15 May 2004, be excluded from MID RVSM airspace with immediate effect until approval status, supported by data from an approved monitoring service provider, has been received; and

b) MID RVSM provider States, States of Registry and adjacent RMAs be informed about the exclusion.

DRAFT CONCLUSION 11/4-: - REGION-WIDE TRAFFIC SAMPLE AS BASIS FOR FOLLOW-UP AGAINST INCORRECT FLIGHT PLAN FILING

That:

Considering the need to identify operators who are filing flight plans incorrectly indicating RVSM approval status, traffic samples from all MID RVSM States will be required as the basis for a survey and regulatory action against fraudulent filing of flight plans.

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Appendix 2A to the Report on Agenda Item 2

MIDDLE EAST RVSM MINIMUM MONITORING REQUIREMENTS

AS OF 01 MAY 2004

Initial Monitoring All operators that operate or intend to operate in airspace where RVSM is applied are required to participate in the RVSM monitoring program. The table of monitoring requirements shown below establishes requirements for initial RVSM monitoring, applicable to operators without previous RVSM status, intending to commence operations in MID RVSM airspace. In their application to the appropriate State authority for RVSM approval, operators must show a plan for meeting the applicable initial monitoring requirements.

Aircraft Status for Monitoring Aircraft engineering work required for the aircraft to receive RVSM airworthiness approval must be completed prior to the aircraft being monitored. Any exception to this rule will be co-ordinated with the State authority.

Follow-on Monitoring Monitoring is an on-going program that will be maintained after the initial RVSM approval process. A follow-on sampling program for additional operator aircraft shall ensure continued fulfilment of the percentage rules set out in Table 1. Additionally, monitoring shall be carried out every two years to ensure that ASE stability is satisfactory for sustained RVSM operations.

Monitoring of Airframes that are RVSM Compliant on Delivery If an operator adds new RVSM compliant airframes of a type for which it already has RVSM operational approval and has completed monitoring requirements for the type in accordance with the table below, the new airframes are not required to be monitored – except as targeted at a later date in the follow-on monitoring program. If an operator adds new RVSM compliant airframes of an aircraft type for which it has NOT previously received RVSM operational approval, then the operator should complete monitoring in accordance with the table below.

Applicability of European, North Atlantic and Asia/Pacific Monitoring Monitoring data obtained in conjunction with RVSM monitoring programmes from other regions can be used to meet Middle East monitoring requirements.

Update of Monitoring Requirements Table and Website As significant data is obtained, monitoring requirements for specific aircraft types may change. When the table is updated, States and operators will be informed by the Regional Monitoring Agency.

MONITORING IS REQUIRED IN ACCORDANCE WITH THIS CHART Monitoring prior to the issue of RVSM approval is not a requirement			
Category		Aircraft Type	Minimum Operator Monitoring For Each Aircraft Group
1	Group Approved: Data indicates compliance with the RVSM MASPS	[A30B, A306], [A312 (GE) A313(GE)], [A312 (PW) A313(PW)], A318, [A319, A320, A321], [A332, A333], [A342, A343], A345, A346 B712, [B721, B722], B732, [B733, B734, B735], B737(Cargo), [B736, B737/BBJ, B738/BBJ, B739], [B741, B742, B743], B74S, B744 (5" Probe), B744 (10" Probe), B752, B753, [B762, B763], B764, B772, B773 CL60(600/601), CL60(604), C560, [CRJ1, CRJ2], CRJ7, DC10, F100, GLF4, GLF5, LJ60, MD10, MD11, MD80 (All series), MD90, T154	10% or Two airframes from each fleet* of an operator to be monitored as soon as possible but not later than 6 months after the issue of RVSM approval and thereafter as directed by the RMA * Note. For the purposes of monitoring, aircraft within parenthesis [ ] may be considered as belonging to the same fleet. For example, an operator with six A332 and four A333 aircraft may monitor one A332 and one A333 or two A332 aircraft or two A333 aircraft.
2	Group Approved: Insufficient data on approved aircraft	Other group aircraft other than those listed above including: ASTR, B703, B731, BE20,BE40, C500, C25A, C25B, C525, C550**, C56X, C650, C750, CRJ9, [DC86, DC87], DC93, DC95, [E135, E145], F70, [F900, F900EX], FA20, FA10, GLF2(II), GLF(IIB), GLF3, GALX, GLEX, H25B(700), H25B(800), H25C, IL62, IL96, J328, L101, L29(2), L29(731), LJ31, [LJ35,LJ36], LJ45, LJ55, SBR1, T134, T204, P180, PRM1,YK42	60% of airframes from each fleet of an operator or individual monitoring, as soon as possible but not later than 6 months after the issue of RVSM approval and thereafter as directed by the RMA. ** Refer to aircraft group table for detail on C550 monitoring
3	Non-Group	Aircraft types other than those listed under categories 1 and 2, above.	100% of aircraft shall be monitored as soon as possible, but not later than 6 months after the issue of RVSM approval.

Table 1. MID-RVSM Monitoring Requirements

In order to achieve the operator-monitoring requirement, monitoring results from other regions may be used. An individual aircraft that has demonstrated satisfactory height-keeping performance through monitoring in another region will not require re-monitoring as part of the MID-RVSM monitoring programme.

Table 2. Pre Applied Monitoring Groups for Aircraft Certified under Group Approval Requirements

Monitoring Group	ICAO Type Designator	A/C Type	A/C Series
A124	A124	AN-124 RUSLAN	ALL SERIES
A300	A306 A30B	A300 A300	600, 600F, 600R, 620, 620R, 620RF B2-100, B2-200, B4-100, B4-100F, B4-120, B4-200, B4-200F, B4-220, C4-200
A310-GE	A310	A310	200, 200F,300, 300F
A310-PW	A310	A310	220, 220F,320
A318	A318	A318	ALL SERIES
A320	A319 A320 A321	A319 A320 A321	CJ , 110, 130 110, 210, 230 110, 130, 210, 230
A330	A332, A333	A330	200, 220, 240, 300, 320, 340
A340	A342, A343,	A340	210, 310
A345	A345	A340	540
A346	A346	A340	640
A3ST	A3ST	A300	600R ST BELUGA
AN72	AN72	AN-74, AN-72	ALL SERIES
ASTR	ASTR	1125 ASTRA	ALL SERIES
ASTR-SPX	ASTR	ASTR SPX	ALL SERIES
AVRO	RJ1H, RJ70, RJ85	AVRO	RJ70, RJ85, RJ100
B712	B712	B717	200
B727	B721 B722	B727	100, 100C, 100F,100QF, 200, 200F
B732	B732	B737	200, 200C
B737CL	B733 B734 B735	B737	300, 400, 500
B737NX	B736 B737 B738 B739	B737 B737 B737 B737	600 700, 700BBJ 800, BBJ2 900
B737C	B737	B737	700C
B747CL	B741 B742 B743	B747	100, 100B, 100F, 200B, 200C, 200F, 200SF, 300
B74S	B74S	B747	SR, SP
B744-5	B744	B747	400, 400D, 400F (With 5 inch Probes)
B744-10	B744	B747	400, 400D, 400F (With 10 inch Probes)
B752	B752	B757	200, 200PF
B753	B753	B757	300

Monitoring Group	ICAO Type Designator	A/C Type	A/C Series
B767	B762 B763	B767	200, 200EM, 200ER, 200ERM, 300, 300ER, 300ERF
B764	B764	B767	400ER
B772	B772	B777	200, 200ER, 300, 300ER
B773	B773	B777	300, 300ER
BE40	BE40	BEECHJET 400A	ALL SERIES
BE20	BE20	BEECH 200 -KINGAIR	ALL SERIES
C500	C500	500 CITATION, 500 CITATION I, 501 CITATION I SINGLE PILOT	ALL SERIES
C525	C525	525 CITATIONJET, 525 CITATIONJET I	ALL SERIES
C525-II	C25A	525A CITATIONJET II	ALL SERIES
C525 CJ3	C25B	CITATIONJET III	ALL SERIES
C550-552	C550	552 CITATION II	ALL SERIES
C550-B	C550	550 CITATION BRAVO	ALL SERIES
C550-II	C550	550 CITATION II, 551 CITATION II SINGLE PILOT	ALL SERIES
C550-SII	C550	S550 CITATION SUPER II	ALL SERIES
C560	C560	560 CITATION V, 560 CITATION V ULTRA, 560 CITATION V ULTRA ENCORE	ALL SERIES
C56X	C56X	560 CITATION EXCEL	ALL SERIES
C650	C650	650 CITATION III , 650 CITATION VI , 650 CITATION VII	ALL SERIES
C750	C750	750 CITATION X	ALL SERIES
CARJ	CRJ1, CRJ2	REGIONALJET	100, 200, 200ER, 200LR
CRJ-700	CRJ7	REGIONALJET	700
CRJ-900	CRJ9	REGIONALJET	900
CL600	CL60	CL-600 CL-601	CL-600-1A11 CL-600-2A12, CL-600-2B16
CL604	CL60	CL-604	CL-600-2B16
BD100	CL30	CHALLENGER 300	ALL SERIES
BD700	GL5T	GLOBAL 5000	ALL SERIES
CONC	CONC	CONCORDE	ALL SERIES
DC10	DC10	DC-10	10, 10F, 15, 30, 30F, 40, 40F
DC86-7	DC86, DC87	DC-8	62, 62F, 72, 72F
DC93	DC93	DC-9	30, 30F
DC95	DC95	DC-9	SERIES 51
E135-145	E135, E145	EMB-135, EMB-145	ALL SERIES
F100	F100	FOKKER 100	ALL SERIES

Monitoring Group	ICAO Type Designator	A/C Type	A/C Series
F2TH	F2TH	FALCON 2000	ALL SERIES
F70	F70	FOKKER 70	ALL SERIES
F900	F900	FALCON 900, FALCON 900EX	ALL SERIES
FA10	FA10	FALCON 10	ALL SERIES
FA20	FA20	FALCON 20 FALCON 200	ALL SERIES
FA50	FA50	FALCON 50, FALCON 50EX	ALL SERIES
GALX	GALX	1126 GALAXY	ALL SERIES
GLEX	GLEX	BD-700 GLOBAL EXPRESS	ALL SERIES
GLF2	GLF2	GULFSTREAM II (G-1159),	ALL SERIES
GLF2B	GLF2	GULFSTREAM IIB (G-1159B)	ALL SERIES
GLF3	GLF3	GULFSTREAM III (G-1159A)	ALL SERIES
GLF4	GLF4	GULFSTREAM IV (G-1159C)	ALL SERIES
GLF5	GLF5	GULFSTREAM V (G-1159D)	ALL SERIES
H25B-700	H25B	BAE 125 / HS125	700B
H25B-800	H25B	BAE 125 / HAWKER 800XP, BAE 125 / HAWKER 800, BAE 125 / HS125	ALL SERIES/A, B/800
H25C	H25C	BAE 125 / HAWKER 1000	A , B
IL86	IL86	IL-86	NO SERIES
IL96	IL96	IL-96	M , T, 300
J328	J328	328JET	ALL SERIES
L101	L101	L-1011 TRISTAR	1 (385-1), 40 (385-1), 50 (385-1), 100, 150 (385-1-14), 200, 250 (385-1-15), 500 (385-3)
L29B-2	L29B	L-1329 JETSTAR 2	ALL SERIES
L29B-731	L29B	L-1329 JETSTAR 731	ALL SERIES
LJ31	LJ31	LEARJET 31	NO SERIES, A
LJ35/6	LJ35 LJ36	LEARJET 35 LEARJET 36	NO SERIES, A
LJ40	LJ40	LEARJET 40	ALL SERIES
LJ45	LJ45	LEARJET 45	ALL SERIES
LJ55	LJ55	LEARJET 55	NO SERIES B, C
LJ60	LJ60	LEARJET 60	ALL SERIES
MD10	MD10	MD-10	ALL SERIES
MD11	MD11	MD-11	COMBI, ER, FREIGHTER, PASSENGER
MD80	MD81, MD82,	MD-80	81, 82, 83, 87, 88

Monitoring Group	ICAO Type Designator	A/C Type	A/C Series
	MD83, MD87, MD88		
MD90	MD90	MD-90	30, 30ER
P180	P180	P-180 AVANTI	ALL SERIES
PRM1	PRM1	PREMIER 1	ALL SERIES
T134	T134	TU-134	A, B
T154	T154	TU-154	A , B, M, S
T204	T204, T224, T234	TU-204, TU-224, TU-234	100, 100C, 120RR, 200, C
YK42	YK42	YAK-42	ALL SERIES

Note: This list is not considered exhaustive.

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MINIMUM INFORMATION FOR EACH MONITORED AIRCRAFT TO BE MAINTAINED IN ELECTRONIC FORM BY THE RMA

AIRCRAFT HEIGHT-KEEPING PERFORMANCE MONITORING DATA RECORD FORMAT

FIELD	FIELD IDENTIFIER	FIELD DATA TYPE	WIDTH	RANGE
1	Validity Indicator	Alphabetic	1	"C": Compliant "A": Aberrant "N": Non-Compliant
2	Date of Measurement (dd/mm/yyyy)	Date	8	e.g. 01/01/1996
3	Time of Measurement (hh:mm:ss)	Time	8	e.g. 12:00:00
4	Measuring Instrument	Alphanumeric	4	e.g. "HYQX" "G123"
5	Aircraft Mode "A" Identity (octal)	Alphanumeric	4	
6	Aircraft Mode "S" Address (hexadecimal)	Alphanumeric	6	
7	Aircraft Registration Number	Alphanumeric	10	
8	Flight Call Sign	Alphanumeric	7	
9	Operator	Alphabetic	3	
10	Aircraft Type	Alphanumeric	4	
11	Aircraft Mark/Series	Alphanumeric	6	
12	Flight Origin	Alphabetic	4	
13	Flight Destination	Alphabetic	4	
14	Mean Mode "C" Altitude During Measurement[1]	Numeric	5	0-99999 This field may be Null for GMS
15	Assigned Altitude at Time of Measurement[1]	Numeric	5	0-99999
16	Mean Estimated Geometric Height of Aircraft	Numeric	5	0-99999
17	SD of Estimated Geometric Height of Aircraft	Numeric	5	0-99999
18	Mean Geometric Height of Assigned Altitude	Numeric	5	0-99999
19	Estimated TVE	Numeric	4	0-9999
20	Minimum Estimated TVE*	Numeric	4	0-9999
21	Maximum Estimated TVE*	Numeric	4	0-9999
22	SD of Estimated TVE*	Numeric	4	0-9999
23	Estimated AAD	Numeric	4	0-9999
24	Minimum Estimated AAD*	Numeric	4	0-9999
25	Maximum Estimated AAD*	Numeric	4	0-9999
26	SD of Estimated AAD*	Numeric	4	0-9999
27	Estimated ASE	Numeric	4	0-9999
28	Minimum Estimated ASE*	Numeric	4	0-9999
29	Maximum Estimated ASE*	Numeric	4	0-9999
30	SD of Estimated ASE*	Numeric	4	0-9999
31	Indicator for Reliability of Geometric Height Measurement	Numeric	3	HMU: 0.0-1.0 GMU: 0.0-9.9
32	Indicator of Reliability of Met Data	Numeric	1	0.1
33	Aircraft Serial/Construction Number	Alphanumeric	12	e.g. 550-0848

* only when more than one data point is available

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Ident	Type	Flights	Operator	Country	Cat.	RMA	Action
RSO	B732	257	AERO ASIA	PAKISTAN	OPR	MAAR	Yes
RSO	DC95	191	AERO ASIA	PAKISTAN	OPR	MAAR	Yes
MD	P3	130	USAF	USA	MIL	NAARMO	
KQA	B763	104	KENYA AIRWAYS	KENYA	OPR	EURO	Yes
IRA	A320	100	IRAN AIR	IRAN	OPR	MECMA	Yes
SAI	T154	65	SHAHEEN AIR INT'L	PAKISTAN	OPR	MAAR	Yes
OMA	AT45	59	OMAN AIR	OMAN	OPR	MECMA	
PHG	B732	49	PHOENIX AVIATION	KYRGYSTAN	OPR	EURO	Yes
RNA	B752	49	ROYAL NEPAL AIRLINES	NEPAL	OPR	MAAR	Yes
SVK	B752	45	AIR SLOVAKIA	SLOVAKIA	OPR	EURO	Yes
RCH	B742	36	USAF	USA	MIL	NAARMO	
AZH	IL76	35	SKY WIND	AZERBAIJAN	OPR	EURO	Yes
CSN	B752	34	CHINA SOUTHERN	CHINA	OPR	MAAR	Yes
SUD	B752	28	SUDAN AIRWAYS	SUDAN	OPR	MECMA	Yes
SUD	A310	27	SUDAN AIRWAYS	SUDAN	OPR	MECMA	Yes
LYN	T134	26	ALTYN AIR	KYRGYSTAN	OPR	EURO	
DHX	SW4	21	DHL INT'L	BAHRAIN	OPR	MECMA	
RRR	L101	21	ASCOT	UK	MIL	EURO	
ETH	DC86	20	ETHIOPIAN AIRLINES	ETHIOPIA	OPR	EURO	
KZK	T154	20	AIR KAZAKHSTAN	KAZAKHSTAN	OPR	EURO	
SUD	A30B	20	SUDAN AIRWAYS	SUDAN	OPR	MECMA	Yes
THA	A332	18	THAI INTERNATIONAL	THAILAND	OPR	MAAR	
RRR	VC10	17	ASCOT	UK	MIL	EURO	
KACN135	E135	16			MIL		
FC	B190	15	FALCON CARGO		OPR		
DAO	B732	14	DAALLO AIRLINES	DJIBOUTI	OPR	EURO	
PGP	T154	14	PERM STATE AIR	RUSSIAN FED.	OPR	EURO	
IRM	T154	13	MAHAN AIR	IRAN	OPR	MECMA	
RCH	B741	13	USAF	USA	MIL	NAARMO	
A6OME	GLF4	12	HITECH FZE	UAE	PVT	MECMA	
DHX	A30B	12	DHL INT'L	BAHRAIN	OPR	MECMA	
JAF	B744	12	JETALLIANCE	AUSTRIA	OPR	EURO	
LAA	A320	12	LIBYAN ARAB AIRLINE	LIBYA	OPR	MECMA	
LTC	A320	12	LATCHARTER	LATVIA	OPR	EURO	
HXL	B752	11			OPR		
ACE	B703	10	RACE CARGO	GHANA	OPR	EURO	
BRZ	T154	10	SAMARA	RUSSIAN FED.	OPR	EURO	
CGK	IL76	10	CLICK AIRWAYS	KYRGYSTAN	OPR	EURO	
GMA	B737	10	GAMA AVIATION	UK	OPR	EURO	
AAS	B732	9	ASKARI AVIATION	PAKISTAN	OPR	MAAR	
FLM	B738	9	FLY AIR	TURKEY	OPR	EURO	
LIMO34	H25B	9			MIL		
RRR	C17	9	ASCOT	UK	MIL	EURO	

ADH	A30B	8	AIR ONE	ITALY	OPR	EURO	
RCH	B772	8	USAF	USA	MIL	NAARMO	
TUA	B733	8	TURKMENISTAN AIRLINES	TURKMENISTAN	OPR	EURO	
GGO	B732	7	AVIAL	GEORGIA	OPR	EURO	
KGL	T154	7	AIRCOMPANY KOGALYMAVIA	RUSSIAN FED.	OPR	EURO	
PIA	B772	7	PAKISTAN INT'L	PAKISTAN	OPR	MAAR	
TAK	T154	7			OPR		
TXC	IL76	7	TRANSAVIAEXPORT	BELARUS	OPR	EURO	
AAS	B742	6	ASKARI AVIATION	PAKISTAN	OPR	MAAR	
AEW	A320	6	AEROSVIT AIRLINES	UKRAINE	OPR	EURO	
AFG	A30B	6	ARIANA AFGHAN	AFGHANISTAN	OPR	MECMA	
AXK	DC93	6	AFRICAN EXPRESS	KENYA	OPR	EURO	
BRQ	IL76	6	EL-BURAQ AIR TRANSPORT	LIBYA	OPR	MECMA	
BTC	T154	6	BASHKIRIAN AIRLINES	RUSSIAN FED.	OPR	EURO	
CTM	A310	6	FRENCH A/F	FRANCE	MIL	EURO	
DMO	IL62	6	DOMODEDOVO AIRLINES	RUSSIAN FED.	OPR	EURO	
EEZ	B763	6	EUROFLY	ITALY	OPR	EURO	
IRC	AT72	6	IRAN ASSEMAN AIRLINES	IRAN	OPR	MECMA	
ISD	T134	6	ISD AVIA	UKRAINE	OPR	EURO	
RCH	MD11	6	USAF	USA	MIL	NAARMO	
DHX	CVLT	5	DHL INT'L	BAHRAIN	OPR	MECMA	
DJB	B733	5	DJIBOUTI AIRLINES	DJIBOUTI	OPR	EURO	
JAV	A320	5	JORDANIAN AVIATION	JORDAN	OPR	MECMA	
KIW	B752	5	ROYAL NEW ZEALAND A/F	NEW ZEALAND	MIL	APARMO	
MCC	IL76	5	AEROCOM	MOLDOVA	OPR	EURO	
OST	YK42	5	AIRLINE ALANIA	RUSSIAN FED.	OPR	EURO	
VTDHA	GLEX	5		INDIA	PVT		
AYZ	IL76	4	ATLANT - SOYUZ	RUSSIAN FED.	OPR	EURO	
CFC	C130	4	CANADIAN A/F	CANADA	MIL	NAARMO	
D3701	AN12	4			PVT		
DHX	A310	4	DHL INT'L	BAHRAIN	OPR	MECMA	
HZ103	GLF4	4	ROYAL SAUDI A/F	SAUDI ARABIA	MIL	MECMA	
IAX	L101	4	INT'L AIR SERVICES	LIBERIA	OPR	EURO	
IRK	B734	4	KISH AIR	IRAN	OPR	MECMA	Yes
JOL	T154	4	ATYRAU AUE JOLY	KAZAKHSTAN	OPR	EURO	
KAZ	T154	4			OPR		
KRT	IL62	4	KOKSHETAU AIRLINE	KAZAKHSTAN	OPR	EURO	
N215CX	C750	4	Balmoral Air Pty., Ltd.	USA	PVT	NAARMO	
N222CX	C750	4		USA	PVT	NAARMO	
N351BA	CRJ2	4	BOMBARDIER AEROSPACE CORP	USA	PVT	NAARMO	
N40HB	GLF4	4		USA	PVT	NAARMO	
PHOLI	F900	4		NETHERLANDS	PVT	EURO	
RBA	B752	4	ROYAL BRUNEI	BRUNEI	OPR	APARMO	
S6758	B737	4	USAF	USA	PVT	NAARMO	
S7125	B737	4	USAF	USA	PVT	NAARMO	
SUD	B722	4	SUDAN AIRWAYS	SUDAN	OPR	MECMA	Yes

SVK	B738	4	AIR SLOVAKIA	SLOVAKIA	OPR	EURO	
TCNOA	L29B	4		TURKEY	PVT	EURO	
TCW	B753	4	THOMAS COOK BELGIUM	BELGIUM	OPR	EURO	
IRK	F50	3	KISH AIR	IRAN	OPR	MECMA	Yes
ADH	L101	3	AIR ONE	ITALY	OPR	EURO	
AFG	B742	3	ARIANA AFGHAN	AFGHANISTAN	OPR	MECMA	
AIA	LJ60	3	AVIES	ESTONIA	OPR	EURO	
ALK	B744	3	SRI LANKAN	SRI LANKA	OPR	MAAR	
BGH	A320	3	BH AIR	BULGARIA	OPR	EURO	
BULG003	T154	3			PVT		
CGZPX	CL60	3		CANADA	PVT	NAARMO	
CNK	F900	3	SUNWEST HOME AVIATION	CANADA	OPR	NAARMO	
CTM	A319	3	FRENCH A/F	FRANCE	MIL	EURO	
D3179A	AN12	3			PVT		
DHX	B722	3	DHL INT'L	BAHRAIN	OPR	MECMA	
FLM	B734	3	FLY AIR	TURKEY	OPR	EURO	
FYG	C56X	3	FLYING SERVICE	BELGIUM	OPR	EURO	
HXL	B763	3			OPR		
P4JLI	B722	3		ARUBA	PVT	EURO	
PLF	T154	3	POLISH A/F	POLAND	MIL	EURO	
RMAF136	GLF3	3			MIL		
STH	AN12	3	SOUTH-AIRLINES	ARMENIA	OPR	EURO	
UAF	C130	3	EMIRATES A/F	UAE	MIL	MECMA	
VPBFF	GLF2	3	SHUKRA LTD	BERMUDA	PVT		
AAP	B732	2	AEROVISTA AIRLINES	KYRGYSTAN	OPR	EURO	
ACI	A320	2	AIR CALEDONIE INT'L	FRANCE	OPR	EURO	
AMV	A320	2	ACFT MAINTENANCE CO.	EGYPT	OPR	MECMA	
ASY	P3	2	ROYAL AUSTRALIAN A/F	AUSTRALIA	MIL	APARMO	
AWZ	IL76	2	AIRWEST	SUDAN	OPR	MECMA	
AYZ	T154	2	ATLANT - SOYUZ	RUSSIAN FED.	OPR	EURO	
AZA	B743	2	ALITALIA	ITALY	OPR	EURO	
AZV	IL76	2	ASOV-AVIA AIRCOMPANY	UKRAINE	OPR	EURO	
AZZ	IL76	2	AZZA TRANSPORT	SUDAN	OPR	MECMA	
BAH	B461	2	BAHRAIN AMIRI FLIGHT	BAHRAIN	PVT	MECMA	
BEC	B762	2	STATE AIRCOMPANY BERKUT	KAZAKHSTAN	OPR	EURO	
BIS	IL18	2	IRBIS	KAZAKHSTAN	OPR	EURO	
BRP	T154	2	AIRPORT BRATSK	RUSSIAN FED.	OPR	EURO	
CAX	DC86	2	CENTRAL AIR EXPRESS	CONGO	OPR	EURO	
CGRFO	LJ35	2		CANADA	PVT	NAARMO	
DAH	A321	2	ALGERIAN AIRLINES	ALGERIA	OPR	EURO	
EDW	B763	2	EDELWEISS AIR	USA	OPR	NAARMO	
ESK	B735	2	SKYEUROPE AIRLINES	SLOVAKIA	OPR	EURO	
ETH	C130	2	ETHIOPIAN AIRLINES	ETHIOPIA	OPR	EURO	
GMA	H25B	2	GAMA AVIATION	UK	OPR	EURO	
HL7576	GLEX	2		KOREA	PVT	APARMO	

HMS	B735	2	HEMUS AIR	BULGARIA	OPR	EURO	
HMS	B737	2	HEMUS AIR	BULGARIA	OPR	EURO	
HMS	T134	2	HEMUS AIR	BULGARIA	OPR	EURO	
HZ109	H25B	2	ROYAL SAUDI A/F	SAUDI ARABIA	MIL	MECMA	
I2020	FA50	2	ITALIAN A/F	ITALY	MIL	EURO	
I2026	FA50	2	ITALIAN A/F	ITALY	MIL	EURO	
IRL	GLF4	2	IRISH AIR CORPS	IRELAND	MIL	EURO	
KACN136	E135	2			MIL		
LAA	B703	2	LIBYAN ARAB AIRLINE	LIBYA	OPR	MECMA	
MVD	T154	2	KAVMINVODYAVIA	RUSSIAN FED.	OPR	EURO	
N173WF	C750	2	Elite Av. Inc.	USA	PVT	NAARMO	
N18RF	GLF5	2		USA	PVT	NAARMO	
N32NG	C750	2	Northrup Grumman Av., Inc.	USA	PVT	NAARMO	
N710A	H25B	2	ARAMCO Associated Co.	USA	PVT	NAARMO	
N885AR	GALX	2		USA	PVT	NAARMO	
N977CP	F2TH	2		USA	PVT	NAARMO	
NAF	GLF4	2	ROYAL NETHERLANDS A/F	NETHERLANDS	MIL	EURO	
OEGNI	LJ60	2		AUSTRIA	PVT	EURO	
PKYRI	AT72	2		INDONESIA	PVT	MAAR	
RCH	B744	2	USAF	USA	MIL	NAARMO	
RPK	AN12	2	ROYAL AIRLINES	PAKISTAN	OPR	MAAR	
RSE	B752	2	SNAS AVIATION	SAUDI ARABIA	OPR	MECMA	
S6864	B752	2	USAF	USA	PVT	NAARMO	
S6947	B737	2	USAF	USA	PVT	NAARMO	
TAF	A310	2	AEREA TRANSPORTES	COLOMBIA	OPR	CARSAMMA	
TAG	F900	2	TAG AVIATION USA	USA	OPR	NAARMO	
TJS	GLEX	2	TYROLEAN JET SERVICE	AUSTRIA	OPR	EURO	
TUAF003	GLF4	2	TURKISH A/F	TURKEY	MIL	EURO	
UAF	B350	2	EMIRATES A/F	UAE	MIL	MECMA	
UKR	B733	2	AIR UKRAINE	UKRAINE	OPR	EURO	
UKR	DC95	2	AIR UKRAINE	UKRAINE	OPR	EURO	
UZB	IL76	2	UZBEKISTAN AIRLINES	UZBEKISTAN	OPR	EURO	
VAR	AN12	2	AIR-VAN	ARMENIA	OPR	EURO	
VAR	AN72	2	AIR-VAN	ARMENIA	OPR	EURO	
VF320	A320	2			PVT		
VPBLM	F900	2		BERMUDA	PVT		
VPBOY	H25B	2		BERMUDA	PVT		
VPCHW	GALX	2		BERMUDA	PVT		
VPCIE	A319	2	AIR LUXOR, LDA	BERMUDA	PVT		
VPCLO	F900	2		BERMUDA	PVT		
VPCRS	GALX	2		BERMUDA	PVT		
VVJV740	B737	2	USAF	USA	MIL	NAARMO	
3DBOX	B742	1		SWAZILAND	PVT	EURO	
3DNED	B742	1		SWAZILAND	PVT	EURO	
9LLEF	B722	1		SIERRA LEONE	PVT	EURO	
A7MGK	TRIN	1		QATAR	PVT	MECMA	

AAP	AN12	1	AEROVISTA AIRLINES	KYRGYSTAN	OPR	EURO	
ACE	DC86	1	RACE CARGO	GHANA	OPR	EURO	
ADH	A320	1	AIR ONE	ITALY	OPR	EURO	
ADH	A321	1	AIR ONE	ITALY	OPR	EURO	
ADH	B752	1	AIR ONE	ITALY	OPR	EURO	
AFG	IL76	1	ARIANA AFGHAN	AFGHANISTAN	OPR	MECMA	
AHC	AN12	1	AZERBAIJAN CARGO	AZERBAIJAN	OPR	EURO	
ASE	IL62	1	AIRSTARS AIRWAY	RUSSIAN FED.	OPR	EURO	
ASY	C130	1	ROYAL AUSTRALIAN A/F	AUSTRALIA	MIL	APARMO	
ATU	IL76	1	ATLANT AEROBATICS	HUNGARY	OPR	EURO	
AZQ	AN12	1	SILK WAY	AZERBAIJAN	OPR	EURO	
BAH	GLF2	1	BAHRAIN AMIRI FLIGHT	BAHRAIN	PVT	MECMA	
BASH11	F16	1	USAF	USA	MIL	NAARMO	
BGK	AN12	1	BRITISH GULF INT'L, BISHKEK	KYRGYSTAN	OPR	EURO	
BIS	AN12	1	IRBIS	KAZAKHSTAN	OPR	EURO	
BIS	YK42	1	IRBIS	KAZAKHSTAN	OPR	EURO	
BJT	CL60	1	ACM AVIATION	USA	OPR	NAARMO	
BOB	CL60	1	BONAIR BUSINESS CHARTER	GERMANY	OPR	EURO	
CCA	B763	1	AIR CHINA	CHINA	OPR	MAAR	
CFC	C150	1	CANADIAN A/F	CANADA	MIL	NAARMO	
CGZDO	DH8B	1		CANADA	PVT	NAARMO	
CTM	DC86	1	FRENCH A/F	FRANCE	MIL	EURO	
CTM	FA50	1	FRENCH A/F	FRANCE	MIL	EURO	
D3189	B732	1			PVT		
DHX	AN12	1	DHL INT'L	BAHRAIN	OPR	MECMA	
DHX	F900	1	DHL INT'L	BAHRAIN	OPR	MECMA	
DJA	B737	1	ANTINEA AIRLINES	ALGERIA	OPR	EURO	
DJB	B737	1	DJIBOUTI AIRLINES	DJIBOUTI	OPR	EURO	
ESL	T134	1	EAST LINE AIRLINES	RUSSIAN FED.	OPR	EURO	
ETC	IL76	1	AFRICAN TRANSPORT	SUDAN	OPR	MECMA	
ETH	B703	1	ETHIOPIAN AIRLINES	ETHIOPIA	OPR	EURO	
EXV	B703	1	EXPO AVIATION	SRI LANKA	OPR	MAAR	
FC	F27	1	FALCON CARGO		OPR		
FLASH40	C130	1	USAF	USA	MIL	NAARMO	
FLC	H25B	1	FINFO FLIGHT INSPECTION	USA	OPR	NAARMO	
GGF	L101	1	GEORGIAN CARGO	GEORGIA	OPR	EURO	
GLIDE79	C130	1	USAF	USA	MIL	NAARMO	
GTS	IL76	1	GATS BISHKEK	KYRGYSTAN	OPR	EURO	
HZ105	H25B	1	ROYAL SAUDI A/F	SAUDI ARABIA	MIL	MECMA	
HZ106	LJ35	1	ROYAL SAUDI A/F	SAUDI ARABIA	MIL	MECMA	
I2021	FA50	1	ITALIAN A/F	ITALY	MIL	EURO	
I2026	F50	1	ITALIAN A/F	ITALY	MIL	EURO	
I2210	F900	1	ITALIAN A/F	ITALY	MIL	EURO	
IFC	WW24	1	INDIAN A/F	INDIA	MIL	MAAR	
ISF	C17	1	INT'L STABILIZATION A/F	UK	MIL	EURO	

JJT	H25B	1			OPR		
JUB	B732	1	JUBBA AIRWAYS	SOMALIA	OPR	EURO	
LAA	L101	1	LIBYAN ARAB AIRLINE	LIBYA	OPR	MECMA	
LFE	F900	1	LUXFLIGHT EXECUTIVE	LUXEMBOURG	OPR	EURO	
MCC	AN24	1	AEROCOM	MOLDOVA	OPR	EURO	
MKA	B752	1	MK AIRLINE	GHANA	OPR	EURO	
MSR	B703	1	EGYPT AIR	EGYPT	OPR	MECMA	
N1011N	B737	1	MELISSA NOUR JIHANE	USA	PVT	NAARMO	
N143KT	B407	1		USA	PVT	NAARMO	
N2189M	C130	1		USA	PVT	NAARMO	
N225MS	GLF2	1		USA	PVT	NAARMO	
N335FV	B752	1		USA	PVT	NAARMO	
N509QS	GLF5	1		USA	PVT	NAARMO	
N544NA	B752	1		USA	PVT	NAARMO	
N545NA	B752	1		USA	PVT	NAARMO	
N59101	A30B	1		USA	PVT	NAARMO	
N604WS	CL60	1		USA	PVT	NAARMO	
N8213G	C130	1		USA	PVT	NAARMO	
OAL	B732	1	OLYMPIC AIRWAYS	GREECE	OPR	EURO	
OEA	B743	1	ORIENT THAI AIRLINES	THAILAND	OPR	MAAR	
ORX	A306	1	ORBIT EKSPRES	TURKEY	OPR	EURO	
PAF	C130	1	PAKISTAN A/F	PAKISTAN	MIL	MAAR	
RBA	A320	1	ROYAL BRUNEI	BRUNEI	OPR	APARMO	
RCH	L101	1	USAF	USA	MIL	NAARMO	
RG539	C2	1	USAF	USA	MIL	NAARMO	
RIN	IL76	1	AIRLINE TRANSPORT	MOLDOVA	OPR	EURO	
RMF	C130	1	ROYAL MALAYSIAN A/F	MALAYSIA	OPR	MAAR	
RSF	C130	1	ROYAL SAUDI A/F	SAUDI ARABIA	MIL	MECMA	
RY140	B737	1			MIL		
S2ABE	A748	1		BANGLADESH	PVT	MAAR	
S6758	B733	1	USAF	USA	PVT	NAARMO	
S7029G	B752	1	USAF	USA	PVT	NAARMO	
S7033	GLF5	1	USAF	USA	PVT	NAARMO	
S7082	B752	1	USAF	USA	PVT	NAARMO	
SD1063	B741	1			PVT		
SD1077	B741	1			PVT		
SENEG01	B722	1		SENEGAL	PVT	SATMA	
SHAFT54	LJ35	1	USAF	USA	MIL	NAARMO	
SHAFT96	LJ35	1	USAF	USA	MIL	NAARMO	
SOV	YK42	1	SARATOV AVIATION	RUSSIAN FED.	OPR	EURO	
STPSR	FA50	1	GOVERNMENT OF SUDAN	SUDAN	PVT	MECMA	
TCSKE	B734	1		TURKEY	PVT	EURO	
THY	B763	1	TURKISH AIRLINES	TURKEY	OPR	EURO	
TLR	T154	1	AIR LIBYA TIBESTI	LIBYA	OPR	MECMA	
TOB	DC86	1	TOBRUK AIR	LIBYA	OPR	MECMA	

TOB	IL76	1	TOBRUK AIR	LIBYA	OPR	MECMA	
TUA	IL76	1	TURKMENISTAN AIRLINES	TURKMENISTAN	OPR	EURO	
TUAF004	C560	1	TURKISH A/F	TURKEY	MIL	EURO	
UDC	YK42	1	DONBASSAERO	UKRAINE	OPR	EURO	
UGN	T154	1	YUZHNAYA AIRCOMPANY	KAZAKHSTAN	OPR	EURO	
UN051W	F60	1	United Nations		MIL		
URP	AN24	1	ARP 410 AIRLINES	UKRAINE	OPR	EURO	
VDA	AN12	1	VOLGA-DNEPR	RUSSIAN FED.	OPR	EURO	
VHANE	C525	1		AUSTRALIA	PVT	APARMO	
VHHVM	C550	1	RELINE TRANSPORT PTY LIMITE	AUSTRALIA	PVT	APARMO	
VIM	T154	1	AIR VIA	BULGARIA	OPR	EURO	
VPBBJ	B737	1	PICTON LTD.	BERMUDA	PVT		
VTTTA	FA20	1	TATA ELECTRIC LOCOMOTIVE C	INDIA	PVT		
VVJR094	DC93	1	USAF	USA	MIL	NAARMO	
VVJV910	B737	1	USAF	USA	MIL	NAARMO	
XU100	L101	1			PVT		
ZAW	B703	1	Z-AIRWAYS & SERVICES	BANGLADESH	OPR	MAAR	
ZAW	DC86	1	Z-AIRWAYS & SERVICES	BANGLADESH	OPR	MAAR	
ZSDSA	ZZZZ	1		SOUTH AFRICA	PVT	EURO	
ZSJRA	C404	1		SOUTH AFRICA	PVT	EURO	
Total		2,161					

REPORT ON AGENDA ITEM 3: ATC OPERATIONS ASPECTS

3.1 Under this agenda item the meeting addressed the following issue:

- **Flight Plans**
  - o proper handling and addressee
  - o Letter **W** in item 10 to indicate RVSM status
  - o Limited capabilities of some FDPS systems outside of the MID Region chopping off characters beyond 7 or 8 figures, very often not indicating RVSM status
  - o Reliability/availability of AFTN circuits within the MID Region
  - o Need for flexibility by some ACCs to consider/accept aircraft although the flight plan has not been received due to delays/oversight at the level of AFTN centres
- **Coordination problems over the Red Sea**

Proper handling of flight plans

3.2 The meeting noted the concerns of the users regarding delays in the processing/transmission of flight plans and highlighted that there is an urgent need to ensure that flight plans are properly filed and transmitted over the AFTN. It was noted that most of the time the problem is related to human factors, where improper addressees are being typed or typing errors at the level of manual processing systems, resulting in rejection of the flight plan at the level of automated systems.

3.3 The meeting was also informed that some FDPS systems, outside the MID Region, cannot accept more than 7 to 8 characters in item 10 of the flight plan and RVSM status, letter **W** is often chopped off. This results in treating those flights as non-RVSM approved in the MID Region and aircraft are often instructed to descent below RVSM flight levels.

Reliability of AFTN systems

3.4 The meeting was informed that many flight plans do not reach their destinations. In addition to the need for using proper addressees, transmission delays/outages have also been noted. The need to carry out a survey on the reliability and serviceability of the AFTN system in the MID Region was highlighted.

Need for flexibility by some ACCs

3.5 IATA urged some ACCs to show more flexibility towards some regular flights which have not properly indicated their RVSM status in their flight plans or whose flight plan details have not been received. Apparently, these flights are systematically descended below FL290. IATA urged the concerned ACCs to verify the RVSM status of these flights prior to clearing them at lower non-economic levels. It was also highlighted that the problem is mainly due to processing and/or transmission delays rather than omissions at the level of operators. The meeting pointed out that procedures for the filing of flight plans are clearly indicated in the Procedures for Air Navigation Services, Air Traffic Management Doc.4444 and, unfortunately, because of security concerns some ACCs are obliged to strictly follow laid down procedures as per local instructions.

Uncoordinated flights over the Red Sea

3.6 The meeting expressed concerns that, up to now, problems concerning uncoordinated flights over the Red Sea are still not resolved. It was pointed out that the agreed procedures which were endorsed by MIDANPIRG/8 and the ICAO Council are systematically not being followed by some flights over-flying the Red Sea area, thus having a negative impact on the safety of aircraft in the region, in particular, within the Jeddah and Sanaá FIR. It was recalled that IATA has been requested to assist in ensuring that all operators are fully conversant with these procedures.

3.7 The meeting requested IATA and ICAO to assist in the process as this may result in a major disaster if remedial action is not taken and to inform all operators flying over the Red Sea area of the inherent risks of encountering flights at uncoordinated flight levels. Even the safe implementation of RVSM is being questioned in this environment.

REPORT ON AGENDA ITEM 4: PROGRAMME MANAGEMENT ISSUES

Interface issues

4.1 Under this agenda item the meeting noted that some interface issues with adjacent regions needs to be addressed, in particular, co-ordination with some CIS States and the AFI Region States, where RVSM will be implemented in 2005. The meeting was also informed that an interface meeting with the AFI Region will be organized in Nairobi by the end of November 2004.

Implementation of RVSM within the Baghdad and Kabul FIRs

4.2 The meeting recalled that the Task Force is also charged with the responsibility for the planning for the safe implementation of RVSM within Baghdad and Kabul FIRs. It was however pointed out that, unless a mechanism is established for carrying out the safety assessments for ensuring the safe implementation of RVSM within these FIRs, the matter is outside the purview of the Task Force. To this effect, the following options were proposed for consideration:

i) request for assistance to the FAA for carrying out the safety assessments; and/or

ii) request assistance through Eurocontrol.

4.3 It was agreed that a specific request for assistance will be made to the organizations concerned by the ICAO MID Regional Office.

REPORT ON AGENDA ITEM 5: ANY OTHER BUSINESS

Next RVSM Task Force meeting

5.1 It was pointed out that the next meeting of the RVSM Task Force will be organized most probably, after MIDANPIRG/9 meeting and, once the problem concerning the funding and hosting of the future activities of MID Regional Monitoring Agency is resolved.

Funding mechanism/hosting of the future activities of the MID Regional Monitoring Agency

5.2 The meeting pointed out that in the absence of a Regional Monitoring Agency, many regional activities regarding RVSM implementation/post-implementation, RNP/RNAV implementation strategy and establishment of safety management programmes may be delayed due to lack of regional expertise. Although it was recognized that it is a State responsibility to ensure that the target level of safety is not infringed, ICAO was requested to assist in finding a long-lasting solution to this problem.

5.3 The Regional Director ensured the meeting that he is exploring ways and means of finding a solution to the hosting, funding and management of the future activities of the MID Regional Monitoring Agency.

5.3.1 Urgent consultations are being held with the Chairman of MIDANPIRG and MIDANPIRG Member States over the issue. Informal contacts are being made with the FAA, Eurocontrol and other private consultants in order to set-up a viable regional project.

DUTIES AND RESPONSIBILITIES OF MECMA

The Middle East Central Monitoring Agency (MECMA) for RVSM implementation has the following duties and responsibilities:

a) to establish and maintain a central registry of State RVSM approvals of operators and aircraft using the Middle East Region airspace where RVSM will be applied;

b) to facilitate the transfer of approval data to and from other RVSM regional monitoring agencies;

c) to establish and maintain a data base containing the results of height-keeping performance monitoring and all altitude deviations of 300 ft or more within Middle East Region airspace, and to include in the database the results of MECMA requests to operators and States for information explaining the causes of observed large height deviations;

d) provide timely information on changes of monitoring status of aircraft type classifications to State authorities and operators;

e) to assume overall responsibility for

i) coordination of the Global Positioning System Monitoring System (GMS); and

ii) assessing compliance of operators and aircraft with RVSM height-keeping performance requirements

in conjunction with RVSM introduction in the Middle East Region;

f) to provide the means for identifying non-RVSM approved operators using Middle East airspace where RVSM is applied; and notifying the appropriate State approval authority; and

g) to conduct readiness assessments and safety assessments as an aid for the Middle East RVSM Task Force for decision making in preparation for RVSM implementation on a specified date.

h) to establish and maintain a database containing results of navigation error monitoring;

i) to prepare, each six months, reports setting out the results of navigation error monitoring for the preceding six-month period. These results shall be presented to the ICAO Middle East Office, Cairo, and States as part of their decision process related to safety management;

j) to conduct safety assessments as an aid for the Middle East RNP/RNAV Task Force for decision making in conjunction with expansion or changes to the RNP route structure within the Middle East Region;

k) to liaise with other Regional monitoring agencies and organisations to harmonise RNP implementation and upgrading.

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Appendix B to the Report

DRAFT

FINANCIAL IMPLICATIONS FOR THE ESTABLISHMENT AND MANAGEMENT OF A REGIONAL MONITORING AGENCY FOR THE MID REGION

1. The indicative figures below are forwarded by the UAE GCAA as basic funding requirements to sustain the continuous operation of MECMA.

2. UAE also provided the meeting with approximate costs to be incurred for the future implementation of RVSM within the Baghdad and Kabul FIRs.

3. These figures do not take into account additional expenses to be incurred for the in case a new monitoring agency is established at a different location.

COST EXTIMATE FOR ESTABLISHMENT OF A MIDDLE EAST REGIONAL MONITORING AGENCY

1.Objective: To support the implementation and safe use of RVSM, RNP/RNAV in a given airspace and assist States in the elaboration of safety management programmes

2. **Work programme:**

i) Establish and maintain a database of RVSM approvals

ii) Monitor aircraft height-keeping performance and the occurrence of large height deviations and report results appropriately

iii) Conduct safety and readiness assessments and report results appropriately

iv) Monitor operator compliance with State approval requirements after RVSM implementation

v) Initiate necessary remedial actions if RVSM requirements are not met;

vi) Carry out safety assessments for the safe implementation of RNP/RNAV in the region

vii) Advise States on remedial actions to be taken to as to meet the required levels of safety;

viii) Assist States in the implementation/ management programmes

Note: It should be noted that the prime responsibility for ensuring that the agreed safety levels are maintained rests with States

REF.	PROJECT	APPROXIMATE COSTS (USD)	REMARKS
1.	**Establishment/Management of the Middle East Regional Monitoring Agency (RMA)**	140,000 per year	20% to be added for administrative costs if managed from outside the framework of existing MECMA.
2.	**RNP/RNAV**	138,000	20% to be added for administrative costs if managed from outside the framework of existing MECMA
3.	**SMS**	140,000	Needs to be updated
4.	**RVSM Safety Case** Iraq Afghanistan	 110,000 110,000	 10% Administrative costs to be added

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MID RVSM TF/11
Appendix C to the Report

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