



International Civil Aviation Organization

**Middle East Air Navigation Planning and
Implementation Regional Group**

**Sixteenth Meeting (MIDANPIRG/16)
(Kuwait, 13 – 16 February 2017)**

Agenda Item 4.2: Air Navigation Safety related issues

RVSM OPERATIONS AND MONITORING ACTIVITIES IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the latest developments related to RVSM operations and safety monitoring activities in the MID Region, based on the outcome of the MIDRMA Board/14 meeting.

Action by the meeting is at paragraph 3.

REFERENCES

- ANSIG/2 Report
- MIDRMA Board/14 Report

1. INTRODUCTION

1.1 The Middle East Regional Monitoring Agency (MIDRMA) has been established in accordance with the provisions of ICAO Annex 11, to monitor the height-keeping performance of aircraft operating between FL290 and 410 inclusive, in order to ensure that the continued application of the vertical separation minimum meets the safety objectives. The MIDRMA is composed of the fifteen (15) MID States and is hosted in Bahrain, and staffed with three full time experts equipped with the latest GPS-based Monitoring Units (GMUs).

1.2 It is to be highlighted that the MIDRMA has currently several tools to improve the monitoring of RVSM implementation such as:

- Large Height Deviation (LHD) Online Reporting Tool;
- MID Collision Risk Assessment Software (MID RAS);
- Online Auto Minimum Monitoring Tool; and
- Airspace Collision Risk Hot-spot Analysis software

1.3 Details on the tools will be presented in the PPT/2. States are invited to visit the MIDRMA website (www.midrma.com) for more information, reports and tools related to the RVSM implementation.

1.4 The Fourteenth meeting of the Middle East Regional Monitoring Agency Board (MIDRMA Board/14) was held in Khartoum, Sudan, from 1 to 3 February 2016. The meeting was attended by a total of forty (40) participants from eight (8) States (Bahrain, Egypt, Iraq, Iran, Oman, Saudi Arabia, Sudan and UAE) and two (2) Organizations (CANSO and MIDRMA).

2. DISCUSSION

Revised Memorandum of Agreement (MOA)

2.1 The meeting may wish to recall that the revised version of the MIDRMA MOA was endorsed by MIDANPIRG/15 through Conclusion 15/3. The MOA has been signed by eleven (11) States. The ICAO MID Office will coordinate with Iraq, Libya, Syria and Yemen for the signature of the revised MIDRMA MOA.

Large Height Deviation (LHD) Reporting

2.2 The MIDRMA Board/14 meeting underlined that several FIRs with high volume of traffic continue to report NIL LHDs, which have a negative effect on the computed Targets Level of Safety (i.e.: not representative/realistic). It was highlighted that the level of reporting of LHDs is still far below expectation compared to the traffic volume, which is mainly due to the reporting culture of the air traffic controllers. In this respect, the meeting urged States to take necessary measures to ensure effective reporting of LHDs by air traffic controllers.

2.3 The MIDRMA Board/14 meeting reiterated MIDANPIRG/15 Conclusion 15/6, and encouraged States to develop a simplified LHD Template containing the minimum data necessary to trigger the process of reporting LHDs by the air traffic controllers.

2.4 The MIDRMA Board/14 meeting noted that the level of reporting of Iran and Iraq has been satisfactory since the last meeting. Accordingly, the meeting agreed that Iran and Iraq be removed from the MIDANPIRG list of air navigation deficiencies.

2.5 It is to be highlighted that most of the LHDs are related to coordination failures between adjacent ACCs. Accordingly, States were encouraged to implement AIDC/OLDI, which would improve significantly the coordination process and would reduce the amount of coordination failures, thus enhancing safety.

2.6 The meeting may wish to note that the MIDRMA LHD Online Reporting Tool is being used for the exchange and coordination of LHDs at the interface between the ICAO Asia Pacific and MID.

Height Keeping Monitoring Requirements

2.7 The MIDRMA Board/14 meeting noted that Lebanon has been fully complying with Annex 6 provisions and MIDRMA Minimum Monitoring Requirements (MMR) related to height keeping performance monitoring. The meeting agreed to remove Lebanon from the MIDANPIRG list of air navigation deficiencies for granting RVSM approvals to some aircraft without known height monitoring results.

2.8 The MIDRMA Board/14 meeting raised concern related to the status of the Libyan aircraft granted RVSM approval (based on the data received from the AFI RMA) without information or feedback from the State on the status of their height-keeping performance results. Accordingly, it was agreed that the MIDRMA would issue a warning to States and other RMAs regarding the status of the Libyan aircraft, if the situation would not be resolved. It is to be highlighted that the ICAO MID Office is communicating with Libya for the provision of information on the status of the Libyan aircraft and the process in place for granting RVSM approval. Accordingly, the issuance of the warning has been postponed awaiting the information from Libya.

2.9 The MIDRMA Board/14 meeting noted with concern that some State aircraft were filing “W” in their flight plans while they were not RVSM approved. Accordingly, the meeting urged States to implement necessary measures for granting RVSM approvals to their State aircraft.

2.10 The MIDRMA Board/14 meeting noted with concern the difficulties facing the MIDRMA when conducting GMU missions especially with the Customs (i.e. in some cases the Customs did not authorize the MIDRMA staff to enter the Country with the GMU Units). Accordingly, the meeting reiterated the MIDANPIRG/14 Conclusion 14/37, and urged States to take necessary measures to implement its provisions.

2.11 The ANSIG/2 meeting noted with appreciation that the MIDRMA managed to conduct GMU monitoring for 124 aircraft registered in the Middle East Region since MIDANPIRG/15. Thanks to the MIDRMA, the MID Region achieved the highest percentage of monitored aircraft in the world (94% of aircraft have known Height-Keeping Performance monitoring results).

2.12 The meeting may wish to recall that the RASG-MID/5 meeting was apprised of the MIDRMA activities related to the Minimum Monitoring Requirements (MMR). The meeting noted with appreciation that the MIDRMA developed an Auto Online MMR Tool to enable the Civil Aviation Authorities in the MID Region to check their MMR for each air operator under their responsibility and identify the aircraft that are non-compliant with the Annex 6 requirements for height-keeping performance. Accordingly, the meeting urged States to use the Auto Online Minimum Monitoring Requirements (MMR) Tool, available on the MIDRMA website.

Airspace Collision Risk Hot-spot Analysis Software

2.13 The MIDRMA Board/14 meeting noted with appreciation that the MIDRMA developed the Airspace Collision Risk Hot-spot Analysis Software to identify bottlenecks/hot-spots in the MID Region, to ensure that the risk of collision is maintained at an acceptable level of safety under certain traffic conditions. The software could be used for pre and post implementation analysis for any airspace. The software has the capability to analyse the data for a certain period of time, type of crossing and within flight levels blocks.

2.14 More details will be presented in PPT/2.

2.15 The meeting may wish to note that the MIDRMA tools could be used to support the ATFM implementation in the Region and the development process of ATS routes, as well as the implementation of ATM contingency measures/routes.

Development of the MID RVSM Safety Monitoring Report (SMR) 2016

2.16 The Draft MID RVSM SMR 2015 will be presented in WP/8.

2.17 The MIDRMA Board/14 meeting agreed that for the development of the MID RVSM SMR 2016, the Flight Plan/Traffic Data will be collected for the period **1 – 30 September 2016**.

2.18 It was reiterated that the required data must be submitted in the right format and in the formulated excel sheet designed for this purpose which is the only sheet recognized by the MID Risk Analysis Software (MIDRAS). Any data received in a different format, or in an excel sheet different from the one available on the MIDRMA website (www.midrma.com) will not be acceptable.

2.19 Based on the above, the MIDRMA Board/14 meeting agreed to the following Draft Conclusion:

Why	To expedite the development of the MID RVSM SMR 2016
What	State Letter/ Flight Plan/Traffic Data
Who	ICAO/State
When	August 2017/October 2017

DRAFT CONCLUSION 14/2: MID RVSM SMR 2016

That,

- a) *the FPL/traffic data for the period 1 – 30 September 2016 be used for the development of the MID RVSM Safety Monitoring Report (SMR 2016);*
- b) *only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; and*
- c) *the final version of the MID RVSM SMR 2016 be ready for presentation to and endorsement by MIDANPIRG/17.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) agree on the use of the MIDRMA tools for the assessing of traffic during the development process of ATS routes, ATFM implementation and contingency planning;
- b) agree to the Draft Conclusion in para 2.19;
- c) review and update the list of MIDRMA Board Member/Alternate and MIDRMA ATC and Airworthiness/Flight Operations Focal Points at **Appendix A**; and
- d) urge Sates to:
 - i. report LHDs and exchange information in a timely manner;
 - ii. provide necessary data to the MIDRMA as and when required;
 - iii. use the MMR tool to assure compliance with the provisions related to height keeping performance monitoring; and
 - iv. implement the provisions of the Conclusion 14/37 related to facilitating the MIDRMA GMU missions.

APPENDIX A

LIST OF MIDRMA BOARD MEMBERS/ALTERNATES AND FOCAL PONTS

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
BAHRAIN	Mr. Saleem Mohammed Hassan A/Director Air Navigation Civil Aviation Affairs P.O. Box 586 - BAHRAIN Fax: (973) 17 32 9977 Tel: (973) 17321116 Mobile: (973) 39608860 E-mail: saleemmh@caa.gov.bh	Mr. Abdullatif Ahmed Bucheeri Civil Aviation Affairs P.O. Box 586 – BAHRAIN Fax: (973) 17 32 9966 Tel: (973) 17 321118 Mobile: (973) 39456519 E-mail: aabdulrahman@caa.gov.bh	Mr. Ahmed Mohammed Bucheeri Head of Air Traffic Operation Civil Aviation Affairs P.O. Box 586 BAHRAIN Fax: (973) 17 329966 Tel: (973) 17 321158 Mobile: (973) 39522696 E-mail: a.ali@caa.gov.bh	Capt. Abdulla Al Saeedi Aircraft Operations Inspector Civil Aviation Affairs P.O. Box 586 BAHRAIN Tel: (973) 17 32 9940 E-mail: a.alsaedi@caa.gov.bh Eng. Abdulrazzqaq Abdulwahid Aircraft Registration Specialist Civil Aviation Affairs P.O. Box 586 BAHRAIN Tel: (973) 17 32 9031 E-mail: a.mohammed@caa.gov.bh
EGYPT	Mr. Hesham Abdel Fattah Ibrahim Head of Air Navigation Central Administration Egyptian Civil Aviation Authority Cairo Airport Road Cairo - EGYPT Mobile: (20100) 606 8185 Email: hesham.abdel-fatah@civilaviation.gov.eg	Mr. Ashraf Fathy Ghoneim Airworthiness (Avionics) Engineering Inspector Egyptian Civil Aviation Authority Cairo Airport Road Cairo - EGYPT Mobile: (20100) 6756 717 Email: ashraf.ghoneim@civilaviation.gov.eg ashraf.ghoneim@gmail.com	Mr. Amr Mohamed Amin Safety Manager National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Mobile: (20106)156 9762 Email: amro_1962@yahoo.com	Mr. Essam Salah Labib ATC Supervisor National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Mobile: (20122)338 477 Email: essamsalah@aol.com

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
IRAN	Mr. Mohammad Shahbazi Director General of Airworthiness Department I.R. Iran Civil Aviation Organization Tehran Mehrabad International Airport P.O. Box 13445-1798 Tehran - IRAN Fax: (9821) 66018659 Tel: (9821) 66073526 Mobile: (98 912) 4369921 E-mail: m-shahbazi@cao.ir	Mr. Mohammad Javad Taghvaey Flight Standard Deputy I.R. Iran Civil Aviation Organization Tehran Mehrabad International Airport P.O. Box 13445-1798 Tehran - IRAN Fax: (9821) Tel: (9821) Mobile: (98912) Email: taghvaey@cao.ir	Mr. Ebrahim Moradi General Director of ATS Iran Airports Company (IAC) Tehran – IRAN Fax: (98 21) Tel: (98 21) Mobile: (98912) Email: ebistar_moradi@yahoo.com	Mr. Majid Khademhosseini Airworthiness In charge (Avionic) Flight Standard Department (CAO) Tehran – IRAN Fax: (98) 21 660 25066 Tel: (98) 21 661 02123 Mobile: (98) 9122140530 E-mail: majid.khadem@gmail.com m-khademhossini@cao.ir
IRAQ	Mr. Ali Mohsin Hashim Director ATS Iraq Civil Aviation Authority Baghdad – Iraq Mobile: (964) 781 576 2525 Email: atc_iraqcaa@yahoo.com	Mr. Nabeel Sadek Safety and Quality Manager Iraq Civil Aviation Authority Baghdad – Iraq Mobile: (964) 770 421 2129 Email: nabeeldats@yahoo.com	Mr. Mohanad Ali Mohammed Air Traffic Controller Iraq Civil Aviation Authority Baghdad – Iraq Mobile: (964) 790 154 0690 Email: Mohanad.ali1986@yahoo.com	Mr. Nashat Nadhir Al-Ani Airworthiness Inspector Flight Safety Department Iraqi civil Aviation Authority IRAQ Mobile: (964) 780 859 0778 Email: nashaatnadhira@iraqcaa.com
JORDAN	Mr. Ahmad Awad Al-Natour Air Traffic Controller Civil Aviation Regulatory Commission Queen Alia Airport Amman - JORDAN Fax: (962-6) 4451 619 Tel: (962-6) 489 2282 Ext 3420 Mobile: (962) 799 970 098 E-mail: ahmad.natour@carc.gov.jo	Mr. Marwan Hani Ibrahim Al-Masri Air Traffic Control Officer/ATCO Civil Aviation Regulatory Commission Queen Alia Airport Mobile: (962) 795 990 890 Tel: (962-6) 445 1607 Fax: (962-6) 445 1667 Email: marwan.al-masri@carc.gov.jo	Mr. Ahmed Hisham Amireh Air Traffic Controller Civil Aviation Regulatory Commission P.O. Box 7547/11110 Amman-Jordan Fax: (962-6) 489 1266 Tel: (962-6) 489 2282 Ext 3420 Mobile: (962) 79 5079 688 E-mail: ahmad.amireh@carc.gov.jo	Eng. Majed Saltan Dmour Airworthiness Inspector Civil Aviation Regulatory Commission P.O. Box 7547/11110 Amman - JORDAN Fax: (962-6) 487 4710 Tel: (962-6) 489 2282 Ext 3733 Mobile: (962) 77 7413 263 E-mail: majeddmour@carc.gov.jo

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
KUWAIT	<p>Mr. Mansour F. Al Harbi Head of ACC & APP Division Air Navigation Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – Kuwait Kuwait</p> <p>Tel: (965) 24760463/24342476 Fax: (965) 24346221 Mobile: (965) 99739088 E-Mail: mf.alharbi@dgca.gov.kw</p>	<p>Mr. Fawzi M. Al Marshood ATC Radar Supervisor Air Navigation Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – Kuwait Kuwait</p> <p>Tel: (965) 24710268 Fax: (965) 24346221 Mobile: (965) 99700663 E-Mail: fm.almarshod@dgca.gov.kw</p>	<p>Mr. Faisal Adel A. Al Assousi First Radar Air Traffic Controller Air Navigation Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – Kuwait Kuwait</p> <p>Tel: (965) 24762994 Fax: (965) 24346221 Mobile: (965) 66464614 E-Mail: fa7a@hotmail.com</p>	<p>Hassan AL Shatti Airworthiness Inspector Aviation Safety Department, Directorate General of Civil Aviation, P.O. Box 17 – Safat, 13001 – Safat – Kuwait Kuwait</p> <p>Tel: (965) 161 / 2360 Fax: (965) 24346055 Mobile: (965) 99723243 E-Mail: ha.alshatti@dgca.gov.kw</p>
LEBANON	<p>Mr. Kamal Nassereddine Chief Air Navigation Department Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: (961-1) 629 023 Tel: (961-1) 628 178 Mobile: E-mail: atm@beirutairport.gov.lb</p>			
LIBYA				

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
OMAN	Eng. Hamad Ali Mohammed Al-Abri Director General of Air Navigation. Public Authority for Civil Aviation P.O. Box 1. P.C 111 SEEB Fax: (968) 24354506 Tel: (968) 24354866 Mobile: (968) 99350101 Email: h.alabri@paca.gov.om	Mr. Nasser Salim Al-Mazroui Chief of Muscat ACC Public Authority for Civil Aviation P.O. Box 1. P.C 111 SEEB Fax: (968) 24354506 Tel: (968) 24354939 Mobile: (968) 99340405 E-mail: n.almazroui@paca.gov.om	Mr. Nasser Salim Al'Tuweya. ATC Supervisor Public Authority for Civil Aviation P.O. Box 1. P.C 111 SEEB Fax: (968) 24354506 Tel: (968) 24519305 Mobile: (968) 95180233 E-mail: nass2008@paca.gov.om	Mr. Mohammed Ali Al-Shanfari Chief of Airworthiness. Public Authority for Civil Aviation E-mail: m.alshanfari@paca.gov.om ALTERNATE Capt. Mohammed Al-Bimani Flight Operations Inspector E-mail: m.albimani@paca.gov.om
QATAR	Mr. Ahmed Al Eshaq Director Air Navigation Civil Aviation Authority P.O. Box 73 Doha, QATAR Fax: (974-4) 4465 6554 Tel: (974-4) 4462 2300 Mobile: (974-55) 550 440 E-mail: ahmed@caa.gov.qa	Mr. Sameer Al Khalaf Head of Air Traffic Control Civil Aviation Authority P.O. Box 73 Doha, QATAR Fax: (974-4) 4465 6554 Tel: (974-4) 4465 6700 E-mail: sameer.alkhalaf@caa.gov.qa		Capt. Michael John Farrell Head of Flight OPS Section Civil Aviation Authority P.O. Box 73 Doha, QATAR Fax: (974-4) Tel: (974-4) Mobile: (974-70) E-mail: michael.farrell@caa.gov.qa
SAUDI ARABIA	Mr. Khalid Al Barakati Airspace Manager General Authority of Civil Aviation (GACA) P.O. Box 15441 Jeddah 21444 - SAUDI ARABIA Fax: (966-12) 6717717 Ext. 1807 Tel: (966-12) 6717717 Ext. 1808 Mobile: (966-50) 337 3395 E-mail: khaled1111alsharif@yahoo.com	Mr. Ibrahim Mohammed Basheikh Software Engineer Automation Engineering Branch General Authority of Civil Aviation P.O. Box 15441 Jeddah 21444 KINGDOM OF SAUDI ARABIA Fax: (966-12) 2671 9041 Tel: (966-12) 2671 7717, Ext. 1119 Mobile: (966) 50567 1231 Email: i_basheikh@hotmail.com		Mr. Ahmad Z. Garoot Aviation Safety Inspector Safety & Economic Regulation General Authority of Civil Aviation (GACA) P.O Box 887 Jeddah 21165 SAUDI ARABIA Fax: (966-12) 685 5745 Tel: (966-12) 685 5842 Mobile: (966-50) 554 4372 E-mail: agarout@gaca.gov.sa

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
SUDAN	Mr. Yasir Rabih Assistant ATM Manager Sudan Civil Aviation Authority Air Navigation Service P.O. Box 137 Code 11112 Khartoum - SUDAN Fax: (249-183) 770 534 Tel: (249-183) 770 534	Mr. Amin Mustafa Abdulgadir Sudan Civil Aviation Authority Air Navigation Service P.O. Box 137 Code 11112 Khartoum - SUDAN Fax: (249-183) 770 534 Tel: (249-183) 770 534	Mr. Yasir Rabih Assistant ATM Manager Sudan Civil Aviation Authority Air Navigation Service P.O. Box 137 Code 11112 Khartoum - SUDAN Fax: (249-183) 770 534 Tel: (249-183) 770 534	Mr. Ashraf Mohyeldin Siddig Senior Airworthiness Inspector Sudan Civil Aviation Authority Airworthiness Directorate P.O. Box 185 Code 11112 Khartoum - SUDAN Tel: (249-183) 77 9234 Mobile: (249) 91 230 1964 Email: ashraf@scaa.gov.sd
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) 4672 817 E-mail: ousafi@mail.sy	Mr. Fissal Dayoub ATC SCAA Damascus International Airport Fax: (963-11) 5400540 Tel: (963-11) 5400312 Mobile: (963) 3693807 E-mail: fdayoub@mail.sy		
UAE	Mr. Ahmed Al Jallaf Assistant Director General Air Navigation Services General Civil Aviation Authority Sheikh Zayed Air Navigation Centre P.O. Box 666 Abu Dhabi, UNITED ARAB EMIRATES Fax: (971-2) 599 6883 Tel: (971-2) 599 6888 Mobile: (971-50) 614 9065 E-mail: aljallaf@szc.gov.ae	Mr. Hamad Al Belushi Manager Air Traffic Management General Civil Aviation Authority Sheikh Zayed Air Navigation Centre P.O. Box 666 Abu Dhabi, UNITED ARAB EMIRATES Fax: +971 2 599 6836 Tel: +971 2 599 6830 Mobile: +971 50 616 4350 Email: hbelushi@szc.gcaa.ae	Mr. Faisal Al Khaja Senior Specialist Unit Operations General Civil Aviation Authority Sheikh Zayed Air Navigation Centre P.O. Box 666 Abu Dhabi, UNITED ARAB EMIRATES Fax: (971-2) 599 6836 Tel: (971-2) 599 6841 Mobile: (971-50) 642 4812 E-mail: fkhaja@szc.gov.ae	Capt. Anaziaz Zikir Sr. Inspector, Priv. & Spec Ops General Civil Aviation Authority Abu Dhabi, UNITED ARAB EMIRATES Tel: +971 4 2111 586 Mob: +971 50 6152931 Email: azzy@gcaa.ae

STATE	MIDRMA BOARD MEMBER	ALTERNATE	ATC FOCAL POINT	AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT
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: (967) 77 7241 375 E-mail: cama570@yahoo.com	Mr. Rasheed Shamsan Al Yousefi Chief of Sana'a ACC Air Navigation Sector Civil Aviation & Meteorology Authority P.O. Box 1042 Sana'a - YEMEN Fax: (967-1) 345 916 Tel: (967-1) 344 673 Mobile: (967) 77 0521343 Email: ras.shamsan@gmail.com		
MIDRMA	Middle East Regional Monitoring Agency P.O. Box 50468 – KINGDOM OF BAHRAIN Fax: (973) 17 32 9956 Tel: (973) 17 32 9054 Email: midrma@midrma.com			