



International Civil Aviation Organization

MIDANPIRG ATM/SAR/AIS Sub-Group

**Twelfth Meeting (ATM/SAR/AIS SG/12)
(Cairo, Egypt, 21 – 24 November 2011)**

Agenda Item 5: RVSM Operations and Monitoring Activities in the MID Region

Outcome of the MID RVSM Scrutiny Group Second Meeting

(Presented by MIDRMA)

SUMMARY

The aim of this working paper is to brief the ATM/SAR/AIS SG meeting of the outcome of the MID RVSM Scrutiny Group Second Meeting.

Action by the meeting is at paragraph 3.

REFERENCES

- MID RVSM SMR 2010 (Final Version).
- MID RVSM SMR 2012 (Version 0.2)

1. INTRODUCTION

1.1 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 in which Reduced Vertical Separation Minimum has been implemented, MIDANPIRG/12 (Dec 12/14) approved the establishment of the MID RVSM Scrutiny Working to perform such reviews.

1.2 The MID RVSM Scrutiny Group is required to examine existing Altitude Deviation Reports and analyze events resulting in ADRs of 300 ft. or greater within the band FL290-FL410 in the involved airspaces, which is an essential element of the safety monitoring assessment. The events are usually the result of ATC loop errors, such as; flight crew errors in executing ATC clearances, controller errors in granting conflict-free clearances, instances where a controller fails to capture an inaccurate read-back of a clearance, level busts (overshoot or undershoot), turbulence, emergencies, errors in coordination, weather complications, or responses to a TCAS resolution advisory.

1.3 The Second Meeting of the MID RVSM Scrutiny Group convened on 26th September 2011 in Cairo ICAO Middle East office with representatives from 8 states (Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Saudi Arabia, and UAE) and was chaired by the MIDRMA.

2. DISCUSSION

2.1 The MIDRMA presented to the Scrutiny Group all Coordination Failure Reports (CFRs) and Altitude Deviation Reports (ADR) received from all MIDRMA member states during the period of 1st July 2010 until 31st August 2011. A total of 37 Altitude Deviation Reports and 534 CFRs were submitted by the MIDRMA members. The extreme majority of the CFRs were reports of the

transferring units fail to coordinate their traffic to the accepting units. The Scrutiny Group analyzed these reports and discussed their impact on the implementation of RVSM in the Middle East region and determined parameter values necessary for the collision risk estimation.

2.2 The MIDRMA raised their serious concern to the Scrutiny Group, concerning the lack of reporting Altitude Deviations and Coordination Failures by some of the MIDRMA member states, and also found it was unrealistic that a number of FIRs, that experience high volumes of traffic, continue to report NIL ADRs since 2007.

2.3 The ADR and CFR occurrences in the MID Region airspace are summarized as follows:

- a. Total number of ADRs received was 37 - deviation period = 14.92 minutes.
- b. Total number of CFRs received was 534 (50 were categorized as ADRs) – deviation period = 25.58 minutes.

Since July 2010 there have been a total of 40.5 minutes of Altitude Deviation occurrences.

2.4 The Scrutiny Group validated all essential ADRs and some CFRs which have a direct impact on the RVSM operations within the MID region. The following observations were addressed by the MIDRMA to all concerned states.

- 1- Bahrain scored the highest volume of traffic in the Middle East Region for the traffic sample data received for the SMR 2012. The airspace from North of the Qatari Peninsula to the North of Dammam continued to be the most congested and complex airspace in the Middle East Region. The waypoint BALUS, which is the FIR boundary point between Bahrain and Emirates FIRs, scored the highest volume of traffic, which makes it the busiest waypoint in the MID Region. Bahrain had already highlighted their serious concerns to the MIDRMA in the last SMR, regarding the need to establish a second FIR entry point, and another airway, to facilitate the transit of Westbound traffic entering the Bahrain FIR from the Emirates FIR, so as to reduce traffic congestion at BALUS, and to increase safety margins. The MIDRMA requested that Bahrain and Emirates find a quick solution that satisfies both parties, as soon as possible, to reduce the BALUS congestion, as the traffic level at this waypoint has reached an alarming level.

The vast majority of the CFRs received from Bahrain were concentrated at waypoints DETKO, RABAP, GIBUS, TAGSO and ULOVO. A considerable number of CFRs were also reported by Bahrain Southern sector, where a FLAS is implemented due to lack of Radar and VHF coverage. These CFRs required a careful review by Bahrain which has requested that solutions be found to reduce these CFRs, due to their serious impact on RVSM implementation.

- 2- The Scrutiny Group discussed one ADR and all the CFRs reported by Egypt, which were concentrated at waypoint DITAR which is an FIR boundary point between Cairo and Tripoli FIRs. Cairo ACC is still suffering a lot of problems with Tripoli ACC, and although there is radar coverage at this waypoint, it is still difficult to handle this traffic as there is often a lack of information on these flights inbound to the Cairo FIR.

The Egyptian representative advised also that no CFRs had been received against Khartoum and Larnaca FIRs for a long time, and requested that this issue be followed up with the Cairo ACC.

- 3- The I.R. of Iran representative reported that he is not happy with the ATC coordination problems with the Baghdad ACC, due to lack of adequate communication, and requested this be raised at the next ATM/SAR/AIS meeting. This issue is causing serious difficulties in handling traffic in Tehran ACC.

Tehran CFRs were concentrated at waypoint DARAX (common FIR boundary point with Emirates), DENDA (common FIR boundary point with Muscat) and JIWANI (common FIR boundary point with Karachi). The I.R. of Iran representative requested a review of the procedures for transferring traffic at these points with Muscat and Karachi ACCs, to reduce the amount of CFRs.

- 4- The CFRs reported by Amman ACC were concentrated at waypoint ZELAF (common FIR boundary point with Damascus). This point is one of the busiest points in the MID Region. As mentioned in the previous SMR, Damascus ACC is continuously transferring traffic to Amman ACC without coordination, or without revising already coordinated flight levels. Amman ACC is also facing a lot of problems at waypoint PASIP on Airway L200, where Baghdad ACC is transferring traffic without proper coordination or at flight levels that have not been approved by Amman ACC.

Jordan representatives were also not happy with Baghdad ACC coordination due to a lack of adequate communication links, which makes it very difficult, and sometimes even very dangerous to manage traffic inbound to their airspace from the Baghdad FIR. The issue of lack of adequate communication links with Baghdad ACC was already addressed to Iraq ATM in the previous report, but the problems still exist. The Scrutiny Group requests that the ICAO Middle East office intervene to address this issue to Iraq CAA. Direct communication lines should be available as soon as possible, and alternative suitable and reliable backup communication links with Amman, and all Baghdad FIR neighbors should also be established without delay.

- 5- Kuwait ACC sent CFRs for three months only, and all were regarding coordination failures with Baghdad ACC, due to the same communication problems suffered by the other FIRs surrounding the Baghdad FIR. Kuwait reported that they are very frustrated at the lack of adequate communication links with Baghdad ACC, and the continuous failures of the Baghdad radars, or the limited radar coverage, which causes an increase in the longitudinal separation minima required for aircraft entering Baghdad FIR, and an associated increase in the upstream controller's workload.
- 6- Lebanon is regularly sending CFRs and ADRs but always indicating NIL reports. Their representatives were questioned about the reasons for not receiving any CFR or ADR for more than four years and Lebanon representatives explained that they are not facing any problems with their neighboring FIRs, and they have a good system to prevent these failures from happening within the RVSM airspace.
- 7- The MIDRMA reported to the Scrutiny Group that Oman stopped sending CFRs and ADRs in April 2011. All the CFRs received before then were reflecting problems at waypoint JIWANI (the common FIR boundary point with Karachi) which was already addressed in the MID RVSM SMR 2010.
- 8- Syria is continuously sending CFRs and ADRs to the MIDRMA on a regular basis, but always with NIL reports. As there was no representative from Syria attending the Scrutiny Group meeting, it was not possible to discuss this issue, or the Amman ACC CFRs reported against Damascus.
- 9- All Jeddah/Riyadh ADRs and CFRs evaluated by the Scrutiny Group noted the continuous reporting of NIL ADRs for the SMR 2012 reporting period, which is reflecting an unrealistic picture of Jeddah/Riyadh FIRs which handle very busy traffic especially during the Haj period.

The majority of the CFRs reported by Riyadh/Jeddah ACCs were concentrated at waypoint SILKA which is the FIR boundary point between Cairo and Riyadh/Jeddah ACCs, Egypt representative reported the main reason of the CFRs reported against Cairo ACC at this waypoint was due to a lack of enough direct communication lines between ATCOs in both ACCs. The only available communication line is for the ATCAs use and it is not suitable for effective and quick coordination between ATCOs.

Egypt and KSA representatives agreed to work together to install a second direct line between the two ACCs as soon as possible.

- 10- For the second consecutive reporting period, the Emirates CFRs and ADRs were found to be the best reported in the MID Region, the Scrutiny Group found the majority of the CFRs reported by Emirates were due to the failure of their neighboring FIRs to pass estimates or flight level revisions at waypoints GITEX (FIR boundary waypoint with Bahrain), LALDO (FIR boundary waypoint with Tehran), SODEX (FIR boundary waypoint with Muscat).
- 11- Yemen stopped to send ADRs and CFRs for eight months, the MIDRMA failed to contact the focal point in Sana'a for long time to submit their reports but the MIDRMA managed with ICAO intervention to establish contact again with the concerned parties in Sana'a and was able to receive all the missing data from them.

The MIDRMA didn't receive any deviation reports of unknown traffic over the red sea during this SMR reporting period, as there was no representative from Yemen attending the Scrutiny Group meeting, it was not possible to discuss this issue and to confirm if the occurrences of these deviation is still existing or not.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) note the information contained in this working paper;
 - b) request Iraq CAA to fix their direct communication lines and provide an alternative suitable and reliable backup communication links with all their neighboring FIRs as soon as possible; and
 - c) urge all MID ATMs to work together to deliver a mechanism for reducing the number of coordination failures in the Middle East Region.