



*International Civil Aviation Organization*

**Middle East Regional Monitoring Agency Board**

**Sixteenth Meeting (MIDRMA Board/16)**  
*(Amman, Jordan, 14 – 16 January 2020)*

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**Agenda Item 4: RVSM Monitoring and related Technical Issues**

**MID RVSM SAFETY PROTOCOL**

*(Presented by MIDRMA)*

**SUMMARY**

The aim of this working paper is to develop and agree in a procedure to monitor and trace activities by the concerned Air Traffic Control Units (ATCUs) to overcome risk in RVSM implementation within the ICAO Middle East airspace.

**REFERENCES**

- MID RVSM SMR 2017
- MID RVSM SMR 2018
- ICAO Doc 9937

**1. INTRODUCTION**

1.1 One of the most important tasks assigned to the Regional Monitoring Agency is to monitor the risk trend of collision associated with RVSM and comparing this risk to the agreed RVSM safety goals by conducting the safety assessment which takes into account all factors influence the collision risk within the airspace where RVSM is applied. RMAs need to establish the means for collecting and organizing the pertinent data and other information that is needed to adequately assess all the relevant airspace factors.

1.2 Experience has shown that Large Height Deviations (LHDs) have had significant influence on the outcome of safety assessments of RVSM implementation. RMAs play a key role in the collection and processing of reports of such occurrences.

**2. DISCUSSION**

2.1 The primary sources of reports of LHDs are the ATC units providing air traffic control services in the airspace where RVSM is applied. The information available to these units, in the form of voice reports through the use of ATS surveillance systems such as radar, ADS-B, provides the basis for identifying LHDs. ATC units must report such events to the concerned RMA on a regular basis or as agreed regionally. It is the responsibility of the RMA to collect this information and to provide periodic reports of observed height deviations to the appropriate PIRG and/or its subsidiary bodies, in accordance with procedures prescribed by the PIRG.

- 2.2 The main causes of Large Height Deviation occurrences identified as follows:
- a) An error in the altimetry or automatic altitude control system of an aircraft;
  - b) Turbulence and other weather-related phenomena;
  - c) The crew not following established contingency procedures during an emergency descent by an aircraft;
  - d) The response to airborne collision avoidance system (ACAS) resolution advisories;
  - e) Not following an ATC clearance, resulting in flight at an incorrect flight level;
  - f) An error in issuing an ATC clearance, resulting in flight at an incorrect flight level; and
  - g) Coordination errors between adjacent ATC units in the transfer of control responsibility for an aircraft, resulting in flight at an incorrect flight level.

2.3 It is very important for the MIDRMA to review and assess very carefully all LHD reports received from all member states and from all the ATCUs neighboring the Middle East region to evaluate their effects in RVSM implementation.

2.4 The MIDRMA noticed during the past four years there are LHD reports repeatedly occurring without finding solutions to overcome the reasons of filing these reports, while these LHDs might have severe effects in RVSM implementation and despite these reports pointed out by MIDRMA to the concerned member states, these LHDs remained open and sometimes can have serious impact in calculating the overall operational risk.

2.5 The MIDRMA developed a procedure to trace LHD reports continuously filed by certain ATCU in the same area/location which seriously affects the overall operational risk and can cause failure to meet the ICAO TLS.

2.6 A name has been given to this procedure “MID RVSM Safety Protocol” which represent an urgent need by the concerned ATCUs to rectify and find practical and workable solutions to overcome serious threat to RVSM implementation this procedure summarized as follows:

MID RVSM Safety Protocol Procedure:

- 1- MIDRMA presents evidence concerning the safety case which required immediate attention consisting of the following:
  - a) Valid LHD reports including all archived reports for the same case, and or
  - b) Overall Operational Risk results.
- 2- Name the responsible ATCUs to overcome the risk effecting RVSM implementation.
- 3- Effects of the occurrence to RVSM implementation.
- 4- Review and evaluate all the above and agree in opening the MID RVSM Safety Protocol.
- 5- Decide a time frame and a working schedule to present a plan for closing the MID RVSM Safety Protocol.

- 6- MIDRMA supervise all concerned parties responsible for closing the MID RVSM Safety Protocol and shall keep them informed of their success/failure in meeting the time frame or complying with the working schedule.
- 7- MIDRMA shall inform ICAO MID Office and MIDRMA Board Chairman with the progress of closing of the MID RVSM Safety Protocol whenever it is deemed necessary.
- 8- Closing the MID RVSM Safety Protocol must be approved by MIDRMA after consulting the MIDRMA Board Chairman and the ICAO MID Office and shall reflect the closing process and the enhancement achieved in the MID RVSM Safety Monitoring Report.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this working paper; and
- b) review and modify as necessary to agree the MID RVSM Safety Protocol Procedure in para. 2.6.

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