

International Civil Aviation Organization

### Middle East Regional Monitoring Agency Board

Fourteenth Meeting (MIDRMA Board/14) (Khartoum, Sudan, 1 – 3 February 2016)

# Agenda Item 4: RVSM Monitoring and related Technical Issues

# MINIMUM MONITORING REQUIREMENT (MMR) ONLINE TOOL

(Presented by the MIDRMA)

#### **SUMMARY**

This paper presents the newly Minimum Monitoring Requirement Online Tool developed by the MIDRMA to keep the focal points appointed for Airworthiness/Flight Operations and all the airline operators registered in the ICAO Middle East Region always aware of their monitoring targets/requirements.

Action by the meeting is at paragraph 3.

#### REFERENCES

- MIDRMA Board/12 Report
- MIDRMA Board/13 Report

## 1. Introduction

- 1.1 Height-keeping performance of aircraft is a key element in ensuring safe operations in RVSM airspace. RVSM is a performance based operation requiring on going independent monitoring assuring that the aircraft population adheres to strict altimetry system requirements.
- 1.2 Height keeping performance of an aircraft is measured by equipment independent of the aircraft's altimetry system. The aircraft must be airborne and operating at an RVSM flight level for the performance to be measured. Currently, the certified height monitoring inspectors use external equipment brought on board the aircraft required to be checked which is a GPS-based Monitoring Units (GMUs) or has the height keeping performance of the aircraft to be measured by overflying ground-based measuring equipment, e.g., Height Monitoring Units (HMUs) or Aircraft Geometric Height Measuring Elements (AGHMEs).

## 2. DISCUSSION

2.1 In May 2011, ICAO Member States implemented a long-term RVSM monitoring policy requiring that aircraft operating within the RVSM airspace complete a re-occurring monitoring flight in order to maintain their RVSM approval status. Operators must complete a RVSM monitoring flight every two years (or 1,000 hours of flight whichever is greater) as per ICAO Annex 6 Part 1 Chapter 7.

- 2.2 Since the implantation of the long-term RVSM monitoring requirement, the MIDRMA took the initiative to issue the minimum monitoring requirement table for each MIDRMA Member State to ensure their RVSM approved aircraft are in compliance for height monitoring and to avoid violation of the RVSM airspace.
- 2.3 The MMR tables were issued by the MIDRMA twice a year or whenever requested by the concerned Airworthiness Authority, these tables incorporated in every MID RVSM Safety Monitoring Report, and in addition they were distributed to each Member State by email with a request to comply with these tables according to the expiry date for all the RVSM approved aircraft, failure to comply will result adding the noncompliant Member States in the ICAO Air Navigation Deficiency List.
- Due to the continuous changes in the MMR tables and the increased demand for height monitoring by airline operators registered in the ICAO Middle East Region and their urgent requests to know the height monitoring status of their fleet, the MIDRMA decided to develop a software to calculate the MMR for each airline operator approved to fly RVSM by the MIDRMA Member State and upload the software in the MIDRMA website as an online tool which can be used H24 by the Airworthiness/Flight Operations Authorities.
- 2.5 The accuracy of the generated MMR tables through the MMR online tool depend on the updated RVSM approval list received from each MIDRMA Member State at the beginning of each month or whenever an RVSM approval is granted, however the MIDRMA found some Member States are so late to update their RVSM approval list which can cause unknown approved aircraft operates within the RVSM airspace without knowing the approval status of this aircraft which can lead to a violation of RVSM airspace.
- 2.6 The idea of the MMR online tool is unique as it's only used by the MIDRMA and never been used by any other RMA in the world, currently the tool is available for use in the MIDRMA website and recently the MIDRMA added the "export feature "to the tool which allow the users to export the data directly from the site to excel sheet.

## 3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
  - a) urge States to send their RVSM approval list to the MIDRMA at the beginning of each month (even if there is no update available) or as soon as they grant/cancel RVSM approval);
  - b) encourage States to continuously monitor their MMR through the MMR online tool, follow-up with the noncompliant air operators for the conduct of height monitoring and withdraw RVSM approval for any noncompliant aircraft;
  - c) agree that the MIDRMA to stop issuing/distributing the MMR tables to all MIDRMA Member States as the tables are available online; and
  - d) propose any modification/enhancement to the MMR online tool.