MIDRMA
MIDDLE EAST REGIONAL MONITORING AGENCY
الوكالة الإقليمية لرصد الحركة الجوية للشرق الأوسط

RVSM Implementation in MID Region

Third MID Regional Safety Summit

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Doha, Qatar

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Reduced Vertical Separation Minima (RVSM)

Reduced Vertical Separation Minima (RVSM) was introduced in the ICAO Middle East RVSM airspace on 27th November 2003, in compliance with ICAO Annex 11 and ICAO Doc 9574 provisions

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Reduced Vertical Separation Minima (RVSM)

According to ICAO Annex 11 where RVSM is applied, a programme shall be instituted, on a regional basis for monitoring the height-keeping performance of aircraft operating in order to ensure that the implementation and continued application of this vertical separation minimum meets the safety objectives.

13 RMAs in the world:

1. Africa and Indian Ocean Regional Monitoring Agency (ARMA)
2. Monitoring Agency for Asia Region (MAAR)
3. Australia Airspace Monitoring Agency (AAMA)
4. China Regional Monitoring Agency (China RMA)
5. Regional Monitoring Agency Eurasia (EURASIA RMA)
6. European Regional Monitoring Agency (EUR RMA)
7. Japan Airspace Safety Monitoring Agency (JASMA)
8. Middle East Regional Monitoring Agency (MIDRMA)
9. North American Approvals Registry and Monitoring Organization (NAARMO)
10. Pacific Approvals Registry and Monitoring Organization (PARMO)
11. Caribbean and South American Monitoring Agency (CARSAMMA)
12. South Atlantic Monitoring Agency (SATMA)
13. North Atlantic Central Monitoring Agency (NAT CMA)

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13 RMAs in the world:

The RMAs meet once a year under a group name Regional Monitoring Agencies Coordination Group (RMACG) the annual RMA meetings are essential for the success of the harmonization work being carried out by the group.

MIDRMA

The Middle East Regional Monitoring Agency (MIDRMA) has been established by MIDANPIRG 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.

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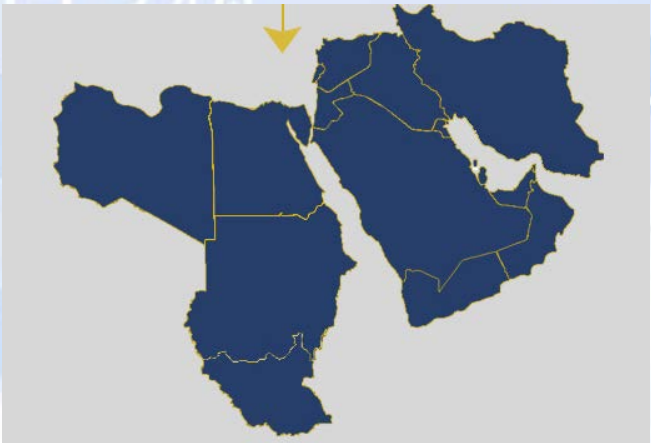
MIDRMA Member States

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) and advanced risk analysis software and tools.



Bahrain Egypt Iran Iraq Jordan Kuwait Lebanon Libya Oman Qatar KSA Sudan Syria UAE Yemen

MIDRMA – Objectives

The main objective of the MIDRMA is to ensure that the three key safety objectives as set out by MIDANPIRG, through Conclusion 12/16, continue to be met

MIDRMA - Objectives

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Objective 1:

The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of 2.5 x 10^{-9} fatal accidents per flight hour.

MIDRMA - Objectives

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Objective 2:

The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of 5 x 10^{-9} fatal accidents per flight hour.

MIDRMA - Objectives

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Objective 3:

Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

Difficulties

The MIDRMA identified a number of issues affecting the ICAO TLS;

1. Complying with the provisions of Annex 6 related to height keeping performance monitoring

The MIDRMA encountered difficulties with some MIDRMA Member States for complying with this provision:

a) **Some airline operators are reluctance to, or circumvention of the height monitoring.**
b) **Lack of awareness by airline operators to achieve their monitoring targets; and**
c) **Ineffective follow-up by the responsible Airworthiness Authorities to enforce the height monitoring requirements, according to ICAO Annex 6.**

Difficulties

2. Reporting Large Height Deviation (LHD)

- **The final conclusions of the data processed in all the previous SMRs have been severely limited by the continued NIL reporting of LHD from some members which does not support a high confidence in the SMRs results.**

- **To improve the level of reporting LHD, the MIDRMA developed an online reporting LHD tool and upload it in their official website and provided training and guidance materials to all MIDRMA Member States for the reporting method by using this tool.**

- **The MIDRMA observed the level of reporting LHD after the implementation of this tool improved by more than 70% which is acceptable now for calculating all the safety parameters for the SMR.**

Difficulties

3. The operations of military aircraft within the RVSM airspace

The MIDRMA continuously monitor the activities of the non-approved military cargo aircraft operating in the Middle East airspace and expects an increase in the number of violations to the RVSM airspace in the near future due to lack of awareness by the military authorities as they consider if the aircraft is capable to fly RVSM they can file "W" in their flight plans and operate in the RVSM airspace.

Recently, the Airworthiness Authorities in UAE, Qatar and Kuwait managed to certify their military cargo aircraft for RVSM operations, while the Airworthiness Authorities in Kuwait is still reviewing the certifications process of their military cargo aircraft.

MIDRMA Risk Analysis Software & Tools

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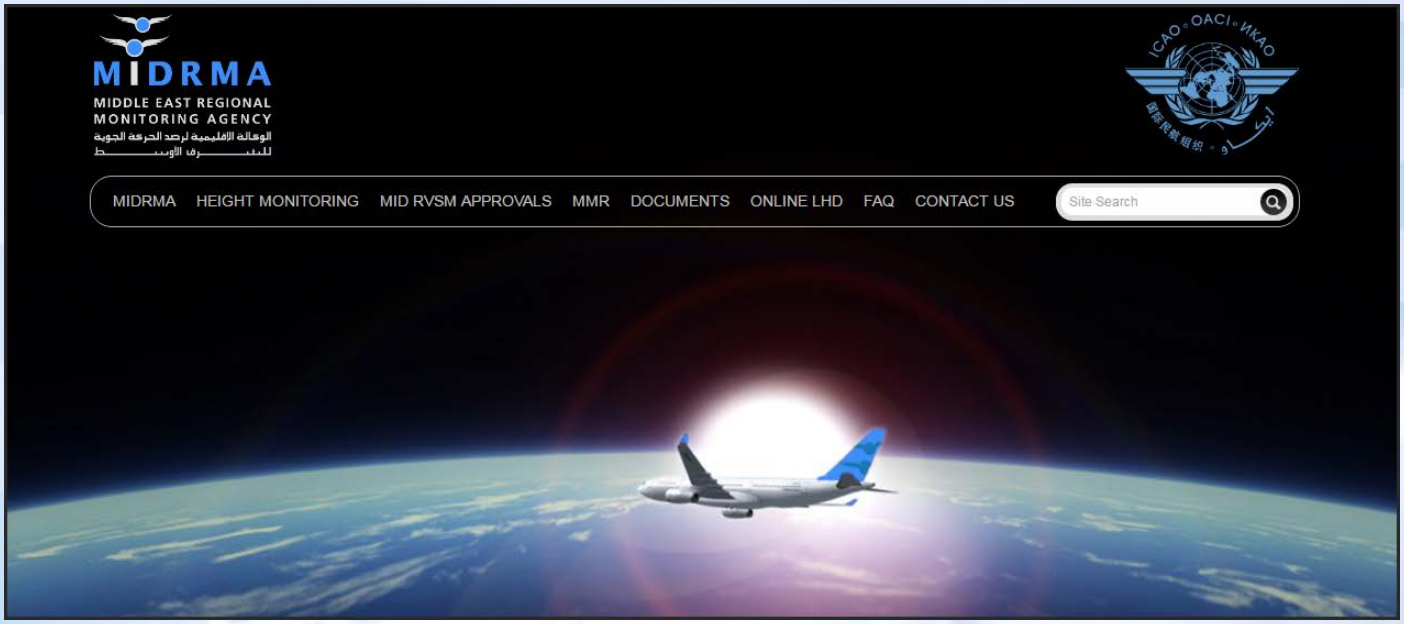
The MIDRMA has several tools to improve the monitoring of RVSM implementation such as:

- ✓ **Large Height Deviation (LHD) Online Reporting Tool;**
- ✓ **Collision Risk Analysis Software (MIDRAS)**
- ✓ **Online Auto Minimum Monitoring Tool; and**
- ✓ **Airspace Collision Risk Hot-Spot Analysis Software.**

MIDRMA - Website

States are invited to visit the MIDRMA website (midrma.com) for more information



www.midrma.com

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