

ICAO Middle East Region

RVSM Minimum

Monitoring
Requirements (MMR)

(WEBINAR)

04 November 2020



RVSM Minimum Monitoring Requirement (MMR)



Annex 6
to the Convention on
International Civil Aviation

Operation of Aircraft

Part I International Commercial Air Transport — Aeroplanes As per ICAO Annex 6 Part 1 Chapter 7 Para. 7.2.7 the following standard endorsed.

7.2.7 The State of the Operator that has issued an RVSM approval to an operator shall establish a requirement which ensures that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.

Note.— Monitoring data from any regional monitoring programme established in accordance with Annex 11, 3.3.5.2, may be used to satisfy the requirement.

RVSM Height Monitoring Requirement (MMR)



It is not normally necessary to monitor all airframes within a monitoring group providing an adequate sample is available and the performance of the group is within the specified parameters. The Minimum Monitoring Requirements (MMR) Tables lists the aircraft types which are eligible for RVSM approval under the group provisions and the groups to which they belong. The MMR table is available on the MIDRMA website and is reviewed periodically.

Monitoring Categories Classifications



Category I

- Aircraft which demonstrate long-term stable ASE
- Fewer airframes of each operator need to be monitored

Category II

- Aircraft which have yet to demonstrate stable ASE
- Not enough data has been collected for evaluation
- More airframes of each operator need to be monitored

Category III

- Non-group aircraft, experimental or test aircraft
- All airframes of each operator need to be monitored

RVSM Monitoring Groups and MMR Tables



Category 1

CATEGORY		GROUP DESCRIPTOR	MINIMUM MONITORING REQUIREMENTS		
1	GROUP APPROVED: DATA INDICATES COMPLIANCE WITH THE RVSM MASPS	A124, A30B, A306, A310-GE, A310-PW, A318, A320, A330, A340, A345, A346, A380, A3ST, AVRO, B712, B727, B737C, B737CL, B737NX, B747CL, B74S, B744-5, B744-10, B748, B752, B753, B764, B767, B772, B773, B787, BD100, BE40, C25A, C25B, C510, C525, C560, C56X, C650, C680, C750, CARJ, CL600, CL604, CL605, CRJ7, CRJ9, DC10, E135-145, E170-190, E50P, E55P, F100, F900, FA7X, GALX, GLEX, GL5T, GLF4, GLF5, H25B-800, J328, LJ40, LJ45, LJ60, MD10, MD11, MD80, MD90, PC12, PRM1, T154	Operators of aircraft types contained in this category shall have a minimum of 2 airframes monitored every 2 years or 1,000 flight hours, whichever is longer calculated from the date of the last successful height monitoring. Operators with fleets consisting of aircraft from more than one Monitoring Group shall meet this requirement for each group in the fleet. In the event that an operator has a single airframe from a Group, then that aircraft shall be monitored every 2 years or 1,000 flight hours, whichever is longer calculated from the date of the last successful height monitoring.		

- MMR table shows the aircraft types and series that are grouped together for operator monitoring purposes.
- Aims to reduce monitoring burden on operators by reducing the frequency of required monitoring for Monitoring Groups where possible.
- As significant data is obtained, monitoring requirements for specific aircraft types may change.
- The updated table is always available in MIDRMA website www.midrma.com
- All operators that operate or intend to operate in RVSM airspace are required to participate in the RVSM monitoring program.

RVSM Monitoring Groups and MMR Tables



Category 2

2 GROUP APPROVED:

INSUFFICIENT DATA ON APPROVED AIRCRAFT

Other group aircraft other than those listed above including:

A148, A158, A20N, A337, A339, A350, A35K, AC90, AC95, AJ27, AN72, ASTR, ASTR-SPX, B701, B703, B731, B732, B37M, B38M, B39M, B744-LCF, B78X, BCS1, BE20, BE30, C25C, C441, C500, C550-B, C550-II, C550-SII, C700, CRJ10, D328, DC85, DC86-87, DC91, DC93, DC94, DC95, EPIC, E120, E45X, EA50, E545-550, E290, E295, F2TH, F70, FA10, FA20, FA50, G150, G280, GL7T, GLF2, GLF2B, GLF3, GLF6, GLF7, H25B-700, H25B-750, H25C, HA4T, HDJT, IL62, IL76, IL86, IL96, L101, L29B-2, L29B-731, LJ23, LJ24, LJ25, LJ28, LJ31, LJ35-36, LJ55, MC21, MU30, P180, P180-II, PAY4, PC24, SB20, SBR1, SBR2, SF50, SU95, T134, T204, T334, TBM, WW24, YK42

Operators of aircraft types contained in this category shall have a minimum of 60% of airframes monitored every 2 years or 1,000 flight hours, whichever is longer calculated from the date of the last successful height monitoring, (the number of airframes to be monitored shall be rounded up to the nearest whole integer). Operators with fleets consisting of aircraft from more than one Monitoring Group shall meet this requirement for each Group in the fleet.

- All new Monitoring Groups to be initially placed in Category II
 - More airframes in each operator's fleet will be required to be monitored.
 - More data will be collected to ensure proper ASE performance.
- If an aircraft is not listed in group, contact the MIDRMA for clarification.

RVSM Monitoring Groups and MMR Tables



Category 3

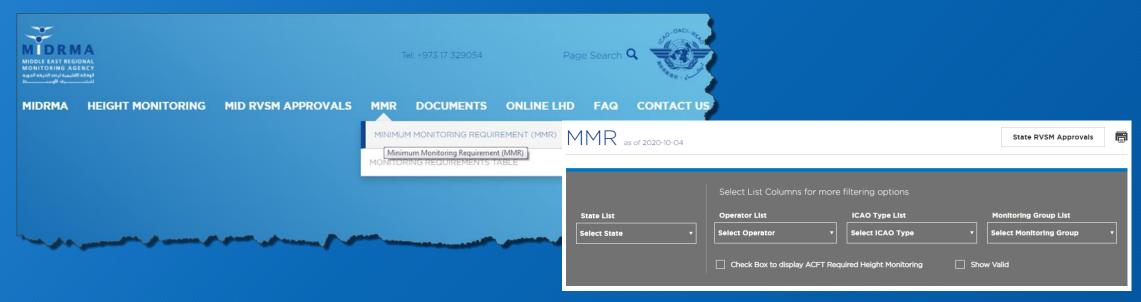
• Shows the aircraft types and series that are Non-Group aircraft (i.e., Not certified under approval requirements) for operator monitoring purposes.

3	NON-GROUP	Aircraft types for which no generic compliance method exists: A225, AN12, AN26, B190, B462, B463, B74S-SOFIA, BA11, BE9L, GSPN, H25A, L29A, M-55, PAY3, R721, R722, SJ30, STAR	Operators of aircraft types contained in this category shall have 100% of airframes monitored every 2 years or 1,000 flight hours., whichever is longer calculated from the date of the last successful height monitoring.
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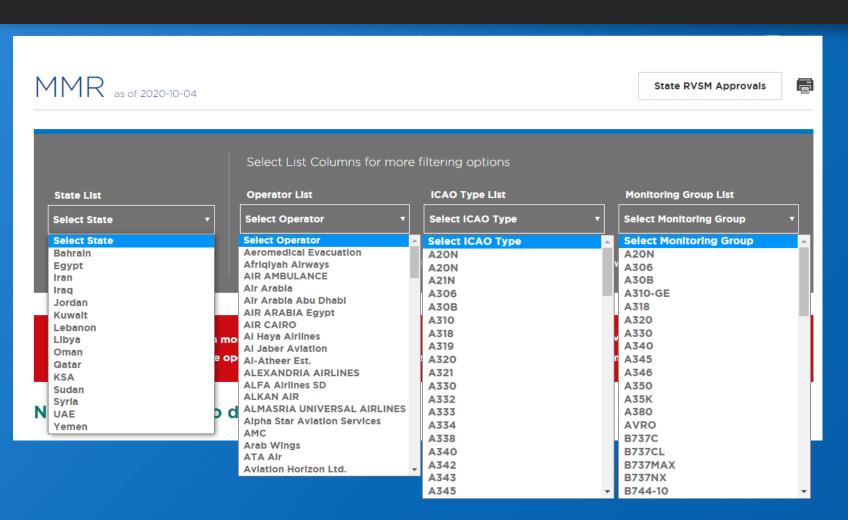
MIDRMA Auto Online MMR Tool



Based on the defined aircraft-type groups and categories listed in the MMR tables, The MIDRMA developed an Auto Online MMR Tool to enable the Civil Aviation Authorities in the MID Region to check their MMR for each airline operator under their responsibility and identify the aircraft that are non-compliant with the Annex 6 requirements for height-keeping performance, and is available on the MIDRMA website (www.midrma.com).



MIDRMA Auto Online MMR Tool





- The auto online MMR tool has filtering options such as;
 - Member State
 - Airlines Operator
 - ICAO Aircraft Type
 - Monitoring Group
 - ACFT required Monitoring
 - Show Valid

MIDRMA Auto Online MMR Tool



ASE -	ASE - Altimetry System Error									
Seq	Operator	Registration	ІСАО Туре	MSN	Aircraft Monitoring Group	Hex Mode S	Last Monitoring Date	Monitoring Valid Until	Height Monitoring Compliant	
1	Al Haya Airlines	YIBAR	CRJ2	7421	CARJ	hx728832	27/01/2020	27/01/2022	Valid	
2	FLy Baghdad	YIAQL	B737	35789	B737NX	hx72862C	23/03/2019	23/03/2021	Valid	
3	Fly Baghdad	YIBAF	B737	35064	B737NX	hx728826	22/09/2019	22/09/2021	Valld	
4	Fly Baghdad	YIBAN	B737	32412	B737NX	hx72882E	N/A	N/A	Covered	
5	Fly Baghdad	YIBAH	CRJ2	7984	CARJ	hx728828	10/12/2018	10/12/2020	Expiring Soon!	
6	Iraq Gate	YIBAG	CRJ2	7958	CARJ	hx728827	23/09/2019	23/09/2021	Valld	
7	Iraq Gate	YIBAI	CRJ2	7981	CARJ	hx728829	N/A	N/A	Expiring Soon!	

CARJ

A320

H25B-800

258504

5115

hx72882B

hx728662

hx728641

07/12/2018

09/10/2019

13/01/2020

07/12/2020

09/10/2021

13/01/2022__ Valid

Iraq Gate

Iraqi Airways

Iraqi Airways

YIBAK

YIASB

YIARA

H25B

A320

• The filtered data can be exported to Excel sheet.

Expiring Soon!

Valld

Expired +46 Days

Thank You



End