

RVSM Minimum Monitoring Requirements (MMR) (WEBINAR)

04 November 2020



RVSM Minimum Monitoring Requirement (MMR)



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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)



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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.
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- 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



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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 MIDDLE EAST REGIONAL MONITORING AGENCY
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MIDRMA HEIGHT MONITORING MID RVSM APPROVALS **MMR** DOCUMENTS ONLINE LHD FAQ CONTACT US

MINIMUM MONITORING REQUIREMENT (MMR) MMR as of 2020-10-04 State RVSM Approvals

Minimum Monitoring Requirement (MMR) MONITORING REQUIREMENTS TABLE

Select List Columns for more filtering options

State List Operator List ICAO Type List Monitoring Group List

Select State Select Operator Select ICAO Type Select Monitoring Group

Check Box to display ACFT Required Height Monitoring Show Valid

MIDRMA Auto Online MMR Tool

MMR as of 2020-10-04

State RVSM Approvals

- The auto online MMR tool has filtering options such as ;

- Member State
- Airlines Operator
- ICAO Aircraft Type
- Monitoring Group
- ACFT required Monitoring
- Show Valid

Select List Columns for more filtering options

State List	Operator List	ICAO Type List	Monitoring Group List
Select State	Select Operator	Select ICAO Type	Select Monitoring Group
Select State	Select Operator	Select ICAO Type	Select Monitoring Group
Bahrain	Aeromedical Evacuation	A20N	A20N
Egypt	Afriqiyah Airways	A20N	A306
Iran	AIR AMBULANCE	A21N	A30B
Iraq	Air Arabia	A306	A310-GE
Jordan	Air Arabia Abu Dhabi	A30B	A318
Kuwait	AIR ARABIA Egypt	A310	A320
Lebanon	AIR CAIRO	A318	A330
Libya	Al Haya Airlines	A319	A340
Oman	Al Jaber Aviation	A320	A345
Qatar	Al-Atheer Est.	A321	A346
KSA	ALEXANDRIA AIRLINES	A330	A350
Sudan	ALFA Airlines SD	A332	A35K
Syria	ALKAN AIR	A333	A380
UAE	ALMASRIA UNIVERSAL AIRLINES	A334	AVRO
Yemen	Alpha Star Aviation Services	A338	B737C
	AMC	A340	B737CL
	Arab Wings	A342	B737MAX
	ATA Air	A343	B737NX
	Aviation Horizon Ltd.	A345	B744-10

MIDRMA Auto Online MMR Tool

ASE - Altimetry System Error



Seq	Operator	Registration	ICAO Type	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	Valid
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	Valid
7	Iraq Gate	YIBAI	CRJ2	7981	CARJ	hx728829	N/A	N/A	Expiring Soon!
8	Iraq Gate	YIBAK	CRJ2	7973	CARJ	hx72882B	07/12/2018	07/12/2020	Expiring Soon!
9	Iraq Gate	YIASB	H25B	258504	H25B-800	hx728662	N/A	N/A	Expired +46 Days
10	Iraqi Airways	YIARA	A320	5115	A320	hx728641	09/10/2019	09/10/2021	Valid
11	Iraqi Airways	YIARB	A320	5290	A320	hx728642	13/01/2020	13/01/2022	Valid

- The filtered data can be exported to Excel sheet.

Thank You



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End