



International Civil Aviation Organization

ICAO

**Twenty-Ninth Meeting of the Regional Airspace Safety
Monitoring Advisory Group (RASMAG/29)**

Bangkok, Thailand, 19 – 22 August 2024

Agenda Item 5: Airspace Safety Monitoring Activities/Requirements in the Asia/Pacific Region

PARMO RVSM LONG TERM HEIGHT MONITORING BURDEN

(Presented by PARMO)

SUMMARY

This information paper provides an assessment of the monitoring burden associated with the long-term height monitoring requirements for airframes for which PARMO is the responsible Regional Monitoring Agency (RMA).

1. INTRODUCTION

1.1 The Pacific Approvals Registry and Monitoring Organization (PARMO), a service provided by the U.S. Federal Aviation Administration's William J. Hughes Technical Center since 2001, serves as the Regional Monitoring Agency (RMA) for the airspace in the Pacific and a portion of Northeast Asia

1.2 To meet the ICAO Annex 6 Long Term Height Monitoring (LTHM) requirements, PARMO maintains a database of approvals and height monitoring history for aircraft registered within States under PARMO responsibility (Cook Islands, Fiji/Tonga, Kiribati, Marshal Islands, Micronesia (Federated States of), New Zealand, Republic of Korea, and Samoa).

1.3 This paper provides the PARMO monitoring burden based on the approvals contained within the PARMO approvals database as of 17 June 2024 and global monitoring data available as of June 2024. Along with the most current version of the Minimum Monitoring Requirements (MMR) table (as of 14 June 2024.)

2. DISCUSSION

2.1 To determine the current PARMO monitoring burden, first, the approvals for the States under PARMO responsibility are compiled. Then, each airframe currently having RVSM Approval is paired with the appropriate monitoring category from the MMR table. Any aircraft types missing from the current MMR table were assigned to Category 3. Next, each unique operator/aircraft type/monitoring group combination is compared against the collective monitoring data to determine whether any of the respective aircraft had been monitored within the last two years. Finally, the burden is tallied.

2.2 The total of number of unique airframes identified as having a full RVSM approval from a state of registry under PARMO responsibility as of 17 June 2024 was **583**, with a resultant monitoring burden of **124** and a total of **3** aircraft not successfully monitored within the past two years (or 1,000 flight hours, whichever interval was longer).

2.3 **Table 1** provides a summation by State of Registry of airframes that require monitoring due to having no successful monitoring record within two years as of 17 June 2024. For a more detailed list of the Monitoring Burden per State, see **Appendix A**.

Table 1 Summary of PARMO Monitoring Burden

	Total # of Approved Airframes	Resultant Monitoring Burden (# Airframes)	Total # of Airframes Not Monitored within two years as of 17 June 2024
Cook Islands	1	1	0
Fiji/Tonga	14	8	0
Kiribati	0	0	0
Marshal Islands	0	0	0
Micronesia	0	0	0
New Zealand	91	27	3
Republic of Korea	477	88	0
Samoa	0	0	0
Total	583	124	3

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information provided in the paper and **Appendix A**.

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APPENDIX A

State of Operator	Operator	MONGRP	MONCAT	Approved Aircraft Count	Resultant Monitoring Burden	Airframes not Monitored in 2yrs
Cook Islands	Air Rarotonga	C550-II	2	1	1	0
			Total	1	1	0

State of Operator	Operator	MONGRP	MONCAT	Approved Aircraft Count	Resultant Monitoring Burden	Airframes not Monitored in 2yrs
Fiji/Tonga	Air Pacific, Ltd.	A330	1	4	2	0
Fiji/Tonga	Air Pacific, Ltd.	A350	1	4	3	0
Fiji/Tonga	Air Pacific, Ltd.	B38M	1	5	2	0
Fiji/Tonga	Air Pacific, Ltd.	B737NX	1	1	1	0
			Total	14	8	0

State of Operator	Operator	MONGRP	MONCAT	Approved Aircraft Count	Resultant Monitoring Burden	Airframes not Monitored in 2yrs
New Zealand	AIRWORK FLIGHT OPERATIONS LTD	B737CL	1	1	1	0
New Zealand	Air Napier	C510	1	1	1	0
New Zealand	Air New Zealand, Ltd.	A20N	1	17	2	0
New Zealand	Air New Zealand, Ltd.	A320	1	17	2	0
New Zealand	Air New Zealand, Ltd.	B737NX	1	1	1	0
New Zealand	Air New Zealand, Ltd.	B773	1	9	2	0
New Zealand	Air New Zealand, Ltd.	B787	1	14	2	0
New Zealand	Air Ops Jet	C56X	1	1	1	0
New Zealand	Air Ops Jet Limited	F2TH	1	1	1	0
New Zealand	Airwork (New Zealand) Ltd.	B737CL	1	15	2	0
New Zealand	Distinction Hotels	PC24	1	1	1	1
New Zealand	GCH JET OPERATIONS LIMITED	CL604	1	1	1	0
New Zealand	JAK Air	LJ60	1	1	1	1
New Zealand	Pouakai Investments Limited	E50P	1	1	1	0
New Zealand	Skyline Aviation	C510	1	1	1	0
New Zealand	Skyline Aviation LTD	C510	1	1	1	0
New Zealand	Skyline Aviation LTD	C680	1	1	1	0
New Zealand	Skyline Aviation Limited	BE30	2	1	1	0
New Zealand	Skyline Aviation Limited	BE40	1	1	1	0
New Zealand	TASMAN AVIATION LTD.	BE30	2	1	1	1
New Zealand	Texel Air NZ	B737NX	1	4	2	0
			Total	91	27	3

Appendix A

State of Operator	Operator	MONGRP	MONCAT	Approved Aircraft Count	Resultant Monitoring Burden	Airframes not Monitored in 2yrs
Republic of Korea	Aero K	A320	1	5	2	0
Republic of Korea	Air Busan	A20N	1	6	2	0
Republic of Korea	Air Busan	A320	1	27	2	0
Republic of Korea	Air Inc.heon	B737NX	1	4	2	0
Republic of Korea	Air Seoul	A320	1	7	2	0
Republic of Korea	Airpremia Air	B39M	1	1	1	0
Republic of Korea	Airpremia Air	B787	1	4	2	0
Republic of Korea	Asiana Airlines	A20N	1	6	2	0
Republic of Korea	Asiana Airlines	A320	1	26	2	0
Republic of Korea	Asiana Airlines	A330	1	15	2	0
Republic of Korea	Asiana Airlines	A350	1	15	2	0
Republic of Korea	Asiana Airlines	A380	1	6	2	0
Republic of Korea	Asiana Airlines	B744-10	1	13	2	0
Republic of Korea	Asiana Airlines	B767	1	8	2	0
Republic of Korea	Asiana Airlines	B772	1	9	2	0
Republic of Korea	Eastar Jet	B38M	1	4	2	0
Republic of Korea	Eastar Jet	B737NX	1	30	2	0
Republic of Korea	FLY Gangwon	B737NX	1	1	1	0
Republic of Korea	Fly Gangwon	A330	1	1	1	0
Republic of Korea	Fly Gangwon	B737NX	1	2	2	0
Republic of Korea	Hanwha Chemical Corp.	B737NX	1	1	1	0
Republic of Korea	Hyundai Motor Co	GLF6	1	1	1	0
Republic of Korea	Hyundai Motors	B737NX	1	1	1	0
Republic of Korea	JEJU AIR	B737NX	1	3	2	0
Republic of Korea	Jeju Air	B38M	1	2	2	0
Republic of Korea	Jeju Air	B737NX	1	45	2	0
Republic of Korea	Jin Air Co., Ltd.	B38M	1	2	2	0
Republic of Korea	Jin Air Co., Ltd.	B737NX	1	21	2	0
Republic of Korea	Jin Air Co., Ltd.	B772	1	4	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	A20N	1	7	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	A330	1	29	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	A380	1	10	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B38M	1	5	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B737NX	1	19	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B744-10	1	5	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B748	1	17	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B772	1	20	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B773	1	29	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	B787	1	14	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	BCS1	1	10	2	0
Republic of Korea	Korean Air Lines Co., Ltd.	GLEX	1	1	1	0
Republic of Korea	Korean Air Lines Co., Ltd.	GLF6	1	1	1	0
Republic of Korea	LG Electronics Inc.	GLF6	1	1	1	0
Republic of Korea	SK Holdings Co. Ltd.	GLF5	1	1	1	0
Republic of Korea	SK Telecom	A320	1	1	1	0
Republic of Korea	T'Way Air Co. Ltd.	A330	1	3	2	0
Republic of Korea	T'Way Air Co. Ltd.	B38M	1	2	2	0
Republic of Korea	T'Way Air Co. Ltd.	B737NX	1	29	2	0
Republic of Korea	T'way Air	A330	1	1	1	0
Republic of Korea	T'way Air Co. Ltd.	B737NX	1	2	2	0
			Total	477	88	0
			Total	583	124	3

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