International Civil Aviation Organization
Twenty-Fifth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/25)
Video Teleconference, 27 – 30 October 2020

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

PARMO RVSM LONG TERM HEIGHT MONITORING BURDEN

(Presented by USA/PARMO)

SUMMARY

This 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). PARMO approvals and global monitoring records as of 02 June 2020 were used to assess the monitoring burden.

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 North East 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). This paper provides the PARMO monitoring burden based on the approvals contained within the NAARMO approvals database and global monitoring data available as of **02 June 2020**.

2. DISCUSSION

2.1 The PARMO approvals database as of 02 June 2020 was examined to determine the current PARMO monitoring burden. First, the approvals for the countries under PARMO responsibility were compiled. Then, each airframe having a current full approval was paired with the appropriate monitoring category by applying the most current version of the Minimum Monitoring Requirements (MMR) table (as of June 2019). Any aircraft types missing from the current MMR table were assigned to Category 3.

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 02 June 2020 was **549**, with a resultant monitoring burden of **101** and a total of **11** aircraft not successfully monitored within the past two years (or 1,000 flight hours, whichever interval was longer). **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 02 June 2020. For a more detailed list of the Monitoring Burden per State, see Appendix A.

Table 1. Summary of PARMO monitoring burden

State	Total # of Approved Airframes	Resultant Monitoring Burden (# Airframes)	Total # of Airframes Not Monitored within two years as of 02/06/2020
Cook Islands	1	1	0
Fiji/Tonga	13	6	0
Kiribati	0	0	0
Marshal Islands	0	0	0
Micronesia	0	0	0
New Zealand	87	24	8
Republic of Korea	488	70	3
Samoa	0	0	0
NAARMO Total	**549**	**101**	**11**

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information provided in the paper and Appendix A; and

b) consider the potential impact of the estimated remaining burden

— END —

APPENDIX A

Monitoring Burden per State

State	OpName	Mon Group	Mon Cat	Fleet By Operator and MonGrp	MMR Mon Goal	Total Mon	Count MMR Goal Not Met
NC	IGA	C550-II	2	1	1	1	1
				1	**1**	**1**	**1**

Total Aircraft	**1**

Monitoring Burden	**1**
Not Monitored Based on MMR Cat Requirements	**0**

State	OpName	Mon Group	Mon Cat	Fleet By Operator and MonGrp	MMR Mon Goal	Total Mon	Count MMR Goal Not Met
NF	FJI	A330	1	6	**2**	6	**0**
NF	FJI	A350	2	1	**1**	1	**0**
NF	FJI	B737NX	1	5	**2**	5	**0**
NF	IGA	A350	2	1	**1**	1	**0**
				13	**6**	**11**	**0**

Total Aircraft	**13**

Monitoring Burden	**6**
Not Monitored Based on MMR Cat Requirements	**0**

State	OpName	Mon Group	Mon Cat	Fleet By Operator and MonGrp	MMR Mon Goal	Total Mon	Count MMR Goal Not Met
NZ	ANZ	A320	1	34	2	6	**0**
NZ	ANZ	B737CL	1	1	1	1	**0**
NZ	ANZ	B767	1	1	1	1	**0**
NZ	ANZ	B772	1	9	2	9	**0**
NZ	ANZ	B773	1	7	2	7	**0**
NZ	ANZ	B787	1	12	2	12	**0**

NZ	AWK	B737CL	1	10	2	7	**0**
NZ	IGA	B737CL	1	2	2	0	**2**
NZ	IGA	B787	1	1	1	1	**0**
NZ	IGA	BE30	2	2	1	1	**0**
NZ	IGA	BE40	1	1	1	0	**1**
NZ	IGA	C510	1	2	2	0	**2**
NZ	IGA	C680	1	1	1	0	**1**
NZ	IGA	CL604	1	1	1	1	**0**
NZ	IGA	F2TH	2	1	1	1	**0**
NZ	IGA	LJ60	1	1	1	0	**1**
NZ	SKN	C510	1	1	1	0	**1**
				87	**24**	**47**	**8**

Total Aircraft	**87**

Monitoring Burden	**24**
Not Monitored Based on MMR Cat Requirements	**8**

State	OpName	Mon Group	Mon Cat	Fleet By Operator and MonGrp	MMR Mon Goal	Total Mon	Count MMR Goal Not Met
RK	AAR	A320	1	27	2	24	**0**
RK	AAR	A330	1	15	2	15	**0**
RK	AAR	A350	2	11	7	11	**0**
RK	AAR	A380	1	6	2	6	**0**
RK	AAR	B744-10	1	14	2	13	**0**
RK	AAR	B767	1	8	2	7	**0**
RK	AAR	B772	1	9	2	9	**0**
RK	ABL	A320	1	27	2	26	**0**
RK	AIH	B737CL	1	2	2	0	**2**
RK	AIH	B767	1	1	1	1	**0**
RK	APV	E135-145	1	1	1	1	**0**
RK	ASV	A320	1	6	2	6	**0**

RK	ESR	B737NX	1	26	2	26	**0**
RK	FGW	B737NX	1	3	2	1	**1**
RK	IGA	A320	1	1	1	1	**0**
RK	IGA	B737NX	1	2	2	2	**0**
RK	IGA	C525	1	1	1	1	**0**
RK	IGA	GLEX	1	1	1	1	**0**
RK	IGA	GLF5	1	1	1	1	**0**
RK	IGA	GLF6	2	2	1	2	**0**
RK	JJA	B737NX	1	48	2	48	**0**
RK	JNA	B737NX	1	24	2	24	**0**
RK	JNA	B772	1	4	2	4	**0**
RK	KAL	A330	1	29	2	29	**0**
RK	KAL	A380	1	10	2	10	**0**
RK	KAL	B737NX	1	33	2	32	**0**
RK	KAL	B744-10	1	12	2	11	**0**
RK	KAL	B748	1	17	2	17	**0**
RK	KAL	B772	1	26	2	26	**0**
RK	KAL	B773	1	30	2	30	**0**
RK	KAL	B787	1	10	2	10	**0**
RK	KAL	BCS1	2	10	6	8	**0**
RK	KAL	GLEX	1	1	1	1	**0**
RK	KAL	GLF6	2	1	1	1	**0**
RK	TWB	B737NX	1	29	2	28	**0**
			Total	**448**	**70**	**433**	**3**
			Grand Total	**549**	**101**	**492**	**11**

Total Aircraft	**448**

Monitoring Burden	**70**
Not Monitored Based on MMR Cat Requirements	**3**