



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 TRAFFIC COMPLIANCE MONITORING

(Presented by PARMO)

SUMMARY

This information paper provides an assessment of operations without an approval record on file using the Reduced Vertical Separation Minimum (RVSM) airspace overseen by the Pacific Approvals Registry and Monitoring Agency (PARMO) in the Pacific and a portion of Northeast Asia. Auckland (New Zealand), Incheon (Republic of Korea), and Nadi (Fiji) supplied Traffic Sample Data (TSD) for December 2023. Tahiti (NTTT) supplied TSD for January 2024. Oakland (United States, ZAK) and Anchorage (United States, ZAN) supplied TSD for December 2023 and January 2024. RVSM Approval records up to June 2024 were used for the assessment.

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 As part of the duties of an RMA, outlined in ICAO Doc 9937 (Reference 1), the PARMO performs regular checks of the operator compliance with State approval requirements within the Pacific and Northeast Asia airspace. The purpose of these checks is to ensure the safety of the airspace by identifying non-approved operators and aircraft.

1.3 Through a systematic process of matching Traffic Sample Data (TSD) and airframe approval records, the PARMO identifies aircraft operating within RVSM airspace, FL290 to FL410, inclusive, without the mandatory approval. The results for the period from December 2023 to June 2024 for RVSM airspace within the Pacific and for a portion of Northeast Asia airspace are presented.

2. DISCUSSION

2.1 The PARMO requests an annual one-month TSD from the Air Traffic Service Providers (ATS) in the Pacific and Northeast Asia airspace. Table 1 lists the Traffic Data Source from each of the ATS in the Pacific and Northeast Asia airspace and the Month(s) of the TSD.

Table 1: List of Traffic Sample Data Received by PARMO

Traffic Data Source	Sample(s) Received
Auckland (New Zealand)	December 2023
Incheon (Republic of Korea)	December 2023
NADI (Fiji)	December 2023
Tahiti	January 2024
ZAN (Anchorage)	December 2023/January 2024
ZAK (Oakland)	December 2023/January 2024

2.2 To verify the RVSM approval status of the operations identified in the TSD, PARMO uses the Combined Approvals snapshot shared on the ICAO RMA KSN website. The Combined Approvals snapshot contains the approval records provided by the collective RMAs; an updated snapshot is shared to the ICAO RMA KSN monthly.

2.3 All civil aircraft operations observed in each of the TSD submitted to PARMO were compiled into one master traffic sample, consisting of **5,612** airframes and **75,242** operations. Each entry was compared against the Combined Approvals snapshots between December 2023 and June 2024, and a summary of unique operations produced. Contained within this summary are aircraft that indicate RVSM approval in their filed flight plans. The entries identified as having no approval or an expired approval require further analysis.

2.4 As shown in Table 2, out of the **12** aircraft which were identified for further analysis in the master traffic sample: **5** registrations were found to be approved, ferried, canceled or exported, while **4** were found to be misfiles or typographical errors in flight plan data, leaving **3** aircraft remaining as non-approved.

Table 2: Categorization of aircraft with suspected non-approved operations

RMA	December 2023 Traffic Samples	Approved/Exported/Canceled	Typos/Misfile	Unapproved
AAMA	Australia	1	2	
CARSAMMA	United Kingdom (Cayman Islands)			1
JASMA	Japan	1		
NAARMO	Mexico			1
	United States	1	2	1
PARMO	Republic of Korea	2		
	Total	5	4	3

2.5 The research process determines possible reasons for removing entries. These reasons include but are not limited to:

- lag in State notification of approval to the RMA
- lags in updates to the RVSM approvals database

- mistakes and typographical errors in the original traffic data
- exported, deregistered, or changes to registration numbers after the analysis period.

2.6 **Table 3** provides details for the remaining **3** aircraft for which no approval could be found. It should be noted, of the 3 aircraft identified, **1** aircraft appears in traffic scrutiny reports received from other RMAs and is highlighted in **bold** font.

Table 3: Confirmed non-approved RVSM operations within the PARMO master traffic sample.

RMA	State	Registration	OPR (ICAO Type)	OTS
	United Kingdom (Cayman Islands)	VPCYW	IGA(A319)	2
CARSAMMA	Mexico	XAASP	IGA(CL60)	3
NAARMO	United States	N788DP	IGA(B737)	2

2.7 Experience has shown that the primary reason for failure to match operations and approvals is a delay in State notification of the RVSM approval status of some operators to the appropriate RMA. Thus, the importance of timely notification by States of operator approval status to RMAs is emphasized by these results.

2.8 The PARMO has notified the pertinent RMAs and responsible States regarding the airframes detailed in this information paper and incorporated the feedback received.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note and review the contents of the PARMO traffic scrutiny work presented in this paper and
- b) provide any relevant updates on the records contained within the results.

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References

1. *Doc 9937 - Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, International Civil Aviation Organization, First Edition - 2010.

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