



International Civil Aviation Organization

ICAO

**Thirtieth Meeting of the Regional Airspace Safety Monitoring
Advisory Group (RASMAG/30)**

Bangkok, Thailand, 14 – 17 July 2025

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 a Reduced Vertical Separation Minimum approval record on file while using the airspace overseen by the Pacific Approvals Registry and Monitoring Agency in the Pacific and a portion of Northeast Asia where such an approval is required. Results for the traffic sample period of December 2024 compared to RVSM Approval records as of May 2025 are presented.

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 of applying this process for the period from December 2024 for RVSM airspace within the Pacific and for a portion of Northeast Asia airspace are presented.

2. DISCUSSION

2.1. To verify the RVSM approval status of the operations identified in the TSD, PARMO uses the Combined Approvals snapshot. The Combined Approvals snapshot contains the approval records provided by the ensemble of RMAs.

2.2. The PARMO requests an annual one-month TSD from the air traffic service (ATS) providers 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. *Traffic Data Source from each of the ATS in the Pacific and Northeast Asia airspace and the Month(s) of the TSD*

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

2.3. To verify the RVSM approval status of the operations identified in the TSD, PARMO uses the Combined Approvals snapshot. The Combined Approvals snapshot contains the approval records provided by the ensemble of RMAs.

2.4. All civil aircraft operations observed in each of the TSDs submitted to PARMO were compiled for operations within the RVSM airspace. A summary of unique operations is then produced. Contained within this summary are flights that are observed to maintain an RVSM flight level during flight and to indicate RVSM approval in their flight plans. For the analysis period December 2024, the count of operations was 93,838. Each individual airframe identified in the Traffic Sample was compared against the May 2025 Combined Approvals snapshot. The comparison produced a summary of aircraft that indicate RVSM approval in their filed flight plans but have no record of approval in the May 2025 database. Forty-five entries were identified as having no approval or an expired approval and required further analysis.

2.5. As shown in **Table 2**, out of the 45 aircraft which were identified for further analysis, 34 were found to be approved, ferried, or exported, while 8 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	State	Approved/Exported/ Canceled	Typos/Misfile	Unapproved
AAMA	Australia		2	
	Papua New Guinea	2		
CARSAMMA	Cayman Islands	1		
CHINA	China	4		
EURASIA	Kazakhstan	1		
MAAR	Philippines	1		
	Vietnam	1		
NAARMO	Canada	4		
	Mexico	3		
	United States	14	4	3
PARMO	Fiji		1	
	Republic of Korea	3	1	
	Total	34	8	3

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

- a) lag in State notification of approval to the RMA
- b) lags in updates to the RVSM approvals database
- c) mistakes and typographical errors in the original traffic data
- d) exported, deregistered, or changes to registration numbers after the analysis period.

2.7. **Table 3** provides details for the remaining 3 aircraft for which no approval could be found. It should be noted that, of the 3 aircraft identified, 1 aircraft (highlighted in **bold font**) appears in traffic scrutiny reports received from more than one region and repeats from the previous year's audit. The RVSM status of the operator is currently under review.

***Table 3.** RVSM operations within the PARMO traffic samples with no approval found*

RMA	State	Registration	ICAO AC Type	OPS
NAARMO	United States	N798SB	CL35	2
NAARMO	United States	N788DP	B737	4
NAARMO	United States	N910NM	F900	4

2.8. 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 highlighted by these results.

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

3. ACTION BY THE MEETING

3.1 The Meeting is invited to note and review the contents of the PARMO traffic scrutiny work presented in this paper.

— END —

References

1. International Convention on Civil Aviation (ICAO) Document 9937, *Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, International Civil Aviation Organization, Second Edition, July 2022, Montréal.