



International Civil Aviation Organization

**The 18th Meeting of the Regional Airspace Safety Monitoring Advisory Group
(RASMAG/18)**

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

PARMO ASSESSMENT OF NON-RVSM APPROVED AIRCRAFT

(Presented by the United States)

SUMMARY

This paper presents an assessment of non-State-approved operators and aircraft type combinations using the RVSM airspace overseen by Pacific Approvals Registry and Monitoring Organization (PARMO) in the Pacific and a portion of North East Asia for the period of December 2012.

This paper relates to –

Strategic Objectives:

A: Safety – Enhance global civil aviation safety

Global Plan Initiatives:

- GPI-2 Reduced vertical separation minima
- GPI-9 Situational awareness
- GPI-16 Decision support systems and alerting systems
- GPI-21 Navigation systems

1. INTRODUCTION

The Pacific Approvals Registry and Monitoring Organization (PARMO), a service provided by the U.S. Federal Aviation Administration’s Technical Center, serves as the regional monitoring agency (RMA) for Pacific and for a portion of North East Asia airspace.

As part of the duties and responsibilities of an RMA (reference 1), the PARMO performs regular checks on the operator compliance with State approval requirements in Pacific and North East airspace where the RVSM is applied.

The purpose of this paper is to provide an assessment of operators who identified themselves as having State RVSM approval but for whom a record of RVSM approval was not found during the data collection period of December 2012.

2. DISCUSSION

2.1 Traffic Sample Data

2.1 The PARMO requests an annual one-month traffic movement sample in addition to all of the large height deviation reports from the ATS providers in Pacific and North East Asia airspace. Table 1 lists all of the Flight Information Regions (FIRs) in the Pacific and North East Asia airspace for which the PARMO is the responsible RMA, the corresponding State and the status of receipt of the requested data.

2.2 As indicated in **Table 1**, the traffic sample data (TSD) for December 2012 for Pacific and North East Asia airspace was received from all of the FIRs under PARMO responsibility.

| State | FIR Name | Status |
|-------------------|-----------|----------|
| Fiji | Nadi | Received |
| New Zealand | Auckland | Received |
| Republic of Korea | Incheon | Received |
| Tahiti | Tahiti | Received |
| United States | Oakland | Received |
| | Anchorage | Received |

Table 1: Summary of December 2012 Traffic Sample Data Received by the PARMO

Assessment of Non-State-Approved Operators Using Pacific and North East Asia Airspace

2.3 This section describes the process used to evaluate operator compliance with State approval requirements in Pacific and North East Asia airspace where the RVSM is applied. The assessment is carried out using the one-month samples of Pacific and North East Asia traffic movement data collected during December 2012.

2.4 All civil aircraft operations observed in each of the traffic samples listed in section 2 were compared against the collective approvals database from January 2013. The operator-aircraft combinations identified as asserting approval for operations in RVSM airspace (“/J”, “/K”, “/L”, “/Q” or “/W” in Field 10 of the ICAO flight plan) were cross-examined with the collective approvals database. Any of these operations for which an RVSM approval was not found was placed on a list for further examination and verification. The verification process involves the exploration of systematic reasons for removing entries from the list. These reasons include but are not limited to:

- lags in State notification of approval to the RMA
- lags in updates to the approvals database and the local copy of ICAO Doc8585
- mistakes and typographical errors in the original traffic data
- code-sharing and lease arrangements between airlines.

2.5 A total of 15 unique airframes from the 6 Pacific and North East Asia traffic movement samples remain on the list following the initial verification process. **Appendix A** of this report contains the detailed summary of these results.

2.6 At the Regional Monitoring Agency’s Seventh Coordination Group meeting recently held in Beijing, China, the Australian Airspace Monitoring Agency (AAMA) presented WP/99, *Identification of Non-Approved Airframes Operating With RVSM Approval Status* (reference 2), detailing the operators that were identified within the Australian FIRs to be flight planning with incorrect RVSM approval status. Several of the airframes listed in the tables in **Appendix A** of this paper are also identified in WP/99. An asterisk (*) has been placed next to these airframes.

2.7 Experience has shown that the primary systematic reason for failure to match operations and approvals is a delay in State notification of the 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.

Summary and Conclusions

2.8 PARMO has begun an initial examination into the non-state approved operators using Pacific and portions of North East Asia RVSM airspace based on traffic samples from December 2012. Further investigation into the operations identified in the study will be performed and the appropriate authorities will be contacted if evidence of RVSM approval status cannot be obtained.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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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.
2. "Identification of Non-Approved Airframes Operating With RVSM Approval Status," WP/99, The Seventh Meeting of the Regional Monitoring Agency Coordination Group (RMACG/7), Beijing, China, 28 May - 1 June 2012.

Appendix A
Summary of the Assessment of Non-State-Approved Operators Using Pacific and a Portion of North East Asia RVSM Airspace Based on December 2012 TSD

A1. Table A1 presents a summary of the operations in the December 2012 Auckland FIR traffic sample for which RVSM approvals were not found in the 31 January 2013 combined RVSM approvals database. There was one unique airframe accounting for 18 operations for which RVSM approvals were not found. The operator-airframe listed in Table A1, AVN-YJAV1, was also observed in the TSD from the Nadi FIR. Additionally, this same operator-aircraft combination was identified by the AAMA RMA in a similar traffic scrutiny activity and reported in WP/99 at RMA CG/7.

| State of Registry | Agency Name / Registration Number | Aircraft Type | Number of Observations in the Sample |
|--------------------------|--|----------------------|---|
| Vanuatu | Air Vanuatu (AVN)/ YJAV1* | B738 | 18 |

Table A1. Operations in the 2012 Auckland FIR TSD for Which RVSM Approvals Were Not Found

A2. Table A2 presents a summary of the operations in the December 2012 Incheon FIR traffic sample for which RVSM approvals were not found in the 31 January 2013 combined RVSM approvals database. There are 6 unique operator-aircraft type combinations accounting for 39 operations for which an RVSM approval was not found. The PARMO has not yet completed the investigation into these operations.

| State of Registry | Agency Name / Registration Number | Aircraft Type | Number of Observations in the Sample |
|--------------------------|--|----------------------|---|
| Russian Federation | Siberia Airlines (SBI) | A320 | 25 |
| Russian Federation | Vladivostok Air (VLK) | A320 | 7 |
| Russian Federation | Vladivostok Air (VLK) | T204 | 2 |
| Russian Federation | Volga-Dnepr (VDA) | A124 | 2 |
| Albania | Arberia Airways (ABW) | B744 | 2 |
| Albania | Arberia Airways (ABW) | B747 | 1 |

Table A2. Operations in the 2012 Incheon FIR TSD for Which RVSM Approvals Were Not Found

A3. Table A3 presents a summary of the operations in the December 2012 Nadi FIR traffic sample for which RVSM approvals were not found in the 31 January 2012 combined RVSM approvals database. There are 5 unique airframes accounting for 112 operations for which an RVSM approval was not found. The second entry in Table A3, FJA-DQPSB, was likely not operating within the RVSM flight levels 290-410 due to the fact that the manufacturer's specification for the aircraft type AT45 lists the service ceiling as roughly 25000 ft. However, the PARMO was unable to filter the data based on FL because flight level information was not included in the Auckland TSD. The operator aircraft listed in Table A3, AVN YJAV1, was also observed in the TSD from the Auckland FIR. As stated in paragraph A1 above, this same operator-aircraft combination was identified by the AAMA RMA in a similar traffic scrutiny activity and reported in WP/99 at RMA CG/7.

| State of Registry | Agency Name / Registration Number | Aircraft Type | Number of Observations in the Sample |
|-------------------|-----------------------------------|---------------|--------------------------------------|
| Vanuatu | Air Vanuatu (AVN)/ YJAV1* | B738 | 109 |
| Fiji | Fiji Airlines (FJA) /DQPSA | AT45 | 1 |
| United States | Polar Air Cargo (PAC) /N852GT | B748 | 1 |
| United States | N704MF | GLEX | 1 |

Table A3. Operations in the 2012 Nadi FIR TSD for Which RVSM Approvals Were Not Found

A4. Table A4 presents a summary of the operations in the December 2012 Oakland FIR traffic sample for which RVSM approvals were not found in the 31 January 2013 combined RVSM approvals database. There are 3 unique airframes accounting for 39 operations for which RVSM approvals were not found. The PARMO has not yet completed the investigation into these operations.

| State of Registry | Agency Name / Registration Number | Aircraft Type | Number of Observations in the Sample |
|-------------------|-----------------------------------|---------------|--------------------------------------|
| Peru | LAN Peru | B763 | 36 |
| China | Kunming Airlines Co., LTD | B738 | 2 |
| United States | N952DN | MD90 | 1 |

Table A4. Operations in the 2012 Oakland FIR TSD for Which RVSM Approvals Were Not Found

A5. Table A5 presents a summary of the operations in the December 2012 Tahiti FIR traffic sample for which RVSM approvals were not found in the 31 January 2013 combined RVSM approvals database. There are 2 unique operator-aircraft type combinations accounting for 13 operations for which RVSM approvals were not found. Because the ICAO Flight Plan Field 10 and flight level information were not included in the traffic sample data, some of the operations in Table A5 may not have filed any of the applicable RVSM equipment codes in Field 10 indicating RVSM approval or have been operating within RVSM flight levels. The operations associated with the operator-aircraft listed in Table A5 were likely not operating with the RVSM flight levels 290-410 due to the fact that the manufacturer's specification for the listed aircraft types AT452 and AT75 lists the service ceiling as roughly 25000 ft. Since the flight level information was not included in the Tahiti TSD, the PARMO was unable to filter the data based on flight level.

| State of Registry | Agency Name / Registration Number | Aircraft Type | Number of Observations in the Sample |
|-------------------|-----------------------------------|---------------|--------------------------------------|
| France | Air Tahiti (VTA) | AT45 | 12 |
| France | Air Tahiti (VTA) | AT75 | 1 |

Table A5. Operations in the 2012 Tahiti FIR TSD for Which RVSM Approvals Were Not Found