



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

MANAGEMENT OF CONFIRMED NON-RVSM APPROVED AIRCRAFT

(Presented by the Monitoring Agency for Asia Region)

SUMMARY

This paper outlines ongoing efforts to manage non-RVSM approved aircraft operating within RVSM airspace, despite existing regional initiatives to address the issue. Following the adoption of relevant regional conclusions, MAAR has continued monitoring such operations and distributing verified aircraft lists to States for enforcement. The paper further highlights the actions taken by MAAR and States in response to aircraft with unverified or confirmed non-RVSM approval status. Lastly, MAAR encourages States to engage with aircraft operators regarding the improper use of the ‘W’ designator in flight plans and to consider proposing additional measures to strengthen the management of non-RVSM approved aircraft.

1. INTRODUCTION

1.1 According to ICAO Doc. 9574, Third Edition, paragraph 3.3.3 outlines the responsibilities of State authorities with regards to maintaining comprehensive records of RVSM approvals and providing them to their accredited Regional Monitoring Agency (RMA). Furthermore, paragraph 3.3.5 specifies that ATC clearances may be withheld for operations which are not in compliance with airspace requirements.

1.2 ICAO Annex 6, Part I, paragraph 7.2.10 states: “All States that are responsible for airspace where RVSM has been implemented, or that have issued RVSM approvals to operators within their State, shall establish provisions and procedures which ensure that appropriate action will be taken in respect of aircraft and operators found to be operating in RVSM airspace without a valid RVSM approval.”

1.3 As outlined in ICAO Doc 9937, RMAs are tasked with conducting regular compliance checks to verify that operators meet their State’s RVSM approval requirements. These checks are essential for maintaining the safety and integrity of RVSM airspace by identifying non-approved aircraft and operators.

2. DISCUSSION

2.1 At RASMAG/22 in 2017, the meeting addressed the increasing trend of non-RVSM approved aircraft operating as if RVSM-approved. In response, the group endorsed the need for proactive action by State authorities and RMAs, consistent with APANPIRG Conclusion 24/26, which urged Asia/Pacific States to deny RVSM airspace entry to aircraft confirmed as non-RVSM approved over a significant period or through intensive verification—unless a specific non-RVSM operation is

authorized. The meeting also emphasized the importance of stronger enforcement by States and greater authority for RMAs in managing this issue.

2.2 At APANPIRG/28, also held in 2017, the meeting adopted Conclusion APANPIRG/28/12 concerning the continued operations of Non-RVSM Approved Aircraft within RVSM airspace. The Conclusion stated:

That, due to the continuing problem of non-Reduced Vertical Separation Minimum (RVSM) aircraft operating inappropriately within the RVSM stratum on a long-term basis:

a) Asia/Pacific States should respond in a timely manner to Regional Monitoring Agency (RMA) recommendations; and

b) Asia/Pacific States and Administrations should enact policies, legislation (including appropriate enforcement actions), and procedures to ensure such non-approved aircraft are identified and refused entry into the RVSM stratum unless specifically exempted, or they have Air Traffic Control (ATC) approval, and

c) ICAO should survey Asia/Pacific States and Administrations to determine whether such policies, legislation and procedures to exclude non-RVSM aircraft have been implemented; and

d) RMAs should treat aircraft with an unverified RVSM approval status by its State of Approval for more than one month, starting from the first RMA notification, as a non-RVSM approved aircraft and that information provided to relevant State authorities for appropriate action; and

e) RMAs should be empowered by APANPIRG to have direct communication with concerned ministries/authorities if required in the event of inadequate action by the State.

2.3 In response to Conclusion APANPIRG/28/12, MAAR, in its role as an RMA, began distributing lists of non-RVSM approved aircraft to ANSP POCs, urging timely and appropriate enforcement measures against these identified aircraft.

2.4 These lists include aircraft whose RVSM approval status remains unverified by their State of Approval—therefore treated as non-approved—as well as aircraft officially confirmed as non-RVSM approved by either their State of Approval or the respective RMAs.

2.5 Aircraft that file 'W' in their flight plans but lack corresponding RVSM approval records in the RMA's database are referred to as 'rogue aircraft'. The initial list of such aircraft is first shared with the respective State CAAs or responsible RMAs for follow-up and verification.

2.6 RMAs routinely compile and update lists of non-RVSM-approved aircraft, including those operating within and outside their regions. Prior to finalizing these lists, RMAs conduct a comprehensive review and verification process to ensure the accuracy and validity of each identification.

2.7 The list of non-RVSM-approved aircraft is distributed to the ATS States via their designated ANSP POCs, with a copy provided to the respective State authorities, to facilitate appropriate actions as necessary.

2.8 Since 2017, a total of 13 aircraft registrations have been confirmed as non-RVSM approved and subsequently included in notifications sent by MAAR to the ATS States. These cases are summarized in **Table 1**. As of now, two aircraft (in red text) remain on the list as confirmed non-RVSM approved; the others were later verified and confirmed as RVSM approved by their respective States or RMAs.

Table 1: Confirmed Non-RVSM Approved Aircraft Distributed to ATS States

Date Distributed	Aircraft Registration	Aircraft Type	Designated RMA
07 AUG 2017	N929SP	CRJ1	NAARMO
07 AUG 2017	PKMYI	B738	AAMA
07 AUG 2017	N939TY	FA7X	NAARMO
07 AUG 2017	9QDLG	B733	ARMA
27 DEC 2017	N99FJ	B733	NAARMO
23 JAN 2018	URCIG	IL76	EURRMA
24 JUL 2018	N900JV	TBM9	NAARMO
24 JUL 2018	N910RW	TBM9	NAARMO
23 JAN 2020	N249JC	GLF3	NAARMO
23 JAN 2020	HL8336	B738	PARMO
12 MAR 2020	N320LV	GALX	NAARMO
28 MAY 2025	N788DP	B737	NAARMO
28 MAY 2025	N799JR	GLEX	NAARMO

2.9 In addition, MAAR identified 19 aircraft registrations with unverified RVSM approval status from their respective States of Approval or RMAs for over one month. These aircraft were included in notifications distributed to the ATS States for appropriate action, as detailed in **Table 2**. All 19 aircraft were subsequently confirmed as RVSM approved by the respective authorities and RMAs.

Table 2: Aircraft with Unverified RVSM Approval Status Distributed to ATS States

Date Distributed	Aircraft Registration	Aircraft Type	Designated RMA
10 MAY 2018	VTIDX	A320	MAAR
10 MAY 2018	VTFML	BE20	MAAR
10 MAY 2018	A5RGH	A319	MAAR
10 MAY 2018	9MAEO	A320	MAAR
10 MAY 2018	PKLUM	A320	AAMA
10 MAY 2018	N214OU	B77W	NAARMO
10 MAY 2018	PKLAS	A320	AAMA

Date Distributed	Aircraft Registration	Aircraft Type	Designated RMA
10 MAY 2018	PKLUY	A320	AAMA
10 MAY 2018	TFAAK	B744	NATCMA
28 AUG 2018	4RAND	A21N	MAAR
28 AUG 2018	4RANE	A21N	MAAR
04 OCT 2018	ETAVN	B77L	ARMA
15 NOV 2019	VTIJC	A20N	MAAR
15 NOV 2019	VTIJD	A20N	MAAR
15 NOV 2019	VTIJL	A20N	MAAR
15 NOV 2019	VTIJM	A20N	MAAR
15 NOV 2019	VTIJO	A20N	MAAR
12 FEB 2020	VTIHP	A320	MAAR
12 FEB 2020	9MRAI	A320	MAAR

2.10 As reported at RASMAG/27, MAAR informed the meeting that EUROCONTROL has implemented a program to address the issue of repeated rogue aircraft, which pose a risk to European airspace. Under this program, flight plans of aircraft that remain on the European Bulletin for more than 30 days from the initial listing date may be rejected by the flight planning system.

2.11 MAAR has also engaged with several ATS States that received lists of non-RVSM approved aircraft to better understand their approaches in managing such cases. Some States confirmed that they denied entry into RVSM airspace for the identified aircraft, while others permitted operations using a 2,000 ft vertical separation to reduce risk.

2.12 While these actions are commendable, MAAR acknowledges that denying access to RVSM airspace after an aircraft is already airborne may present operational challenges for ATC. It may also result in more significant impacts on aircraft operators, particularly due to disruption to scheduled operations. As a result, MAAR considers it more practical to address such cases earlier in the process—specifically during flight planning or flight permission stages.

2.13 To facilitate this proactive approach, MAAR has initiated coordination with the Flight Operations Licensing Division of CAA Thailand to explore additional measures. As this Division holds contact details for aircraft operators or agents requesting flight permissions, they have agreed to share this information with MAAR. This will enable MAAR to directly engage with operators or agents who have incorrectly filed ‘W’ in their flight plans, and advise them to follow proper procedures or consult their respective State authorities to obtain valid RVSM approvals.

2.14 MAAR respectfully encourages APAC States and RMAs to adopt a more proactive and coordinated approach in addressing both non-RVSM approved and confirmed non-RVSM approved aircraft. This includes appropriate engagement with aircraft operators to prevent the incorrect filing of ‘W’ for aircraft with unverified RVSM approvals. Strengthening such collaborative efforts will

contribute significantly to enhancing RVSM compliance and ensuring the continued safety and integrity of the airspace.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss any relevant matters as appropriate; and
- c) encourage States to engage with aircraft operators regarding the incorrect use of ‘W’ in flight plans, or propose actions to enhance the effective management of non-RVSM approved aircraft.

— END —