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**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

MAAR ASSESSMENT OF NON-RVSM APPROVED AIRCRAFT

(Presented by the Monitoring Agency for Asia Region)

SUMMARY

This paper presents the result of an annual W-verification of flight plans for aircraft operating in the RVSM airspace of MAAR's designated States based on 2023 TSD and monthly Bangkok FIR FPLs, which yielded **27** aircraft that operated in RVSM airspace without valid RVSM approvals in RMAs' database (a slight increase from **24** aircraft from last year's audit). The paper also highlights the following points:

- No long-term repeated rogue aircraft appeared on the list this year.
- MAAR noticed an improvement in **India** and **Indonesia** for verifying the RVSM approval status of long-term repeated rogue aircraft, as these two States previously reported numerous repeated rogue aircraft but none this year.
- Most States under MAAR's responsibility submitted their 2023 annual RVSM approval snapshots to MAAR, except for **Bangladesh** and **Nepal**.

1. INTRODUCTION

1.1 As part of the Regional Monitoring Agency (RMA) duties and responsibilities, MAAR conducts an annual audit of aircraft transiting through RVSM airspace based on the Traffic Sample Data (TSD) for the period of December from 24 FIRs under MAAR's responsibility.

1.2 The purpose of this paper is to summarize the result of an annual audit of aircraft filing 'W' to operate in the RVSM airspace but has no valid RVSM approvals in RMAs' database (a.k.a. rogue aircraft). These include aircraft registrations with (1) no RVSM approvals record or (2) expired approvals in RMAs' databases.

2. DISCUSSION

2.1 The main data source for this paper is the 2023 TSD. MAAR received TSD from all States except Afghanistan, which has not submitted TSD to MAAR since 2021. The annual TSD format has been revised to include Items 10 and 18 of the Flight Plan; therefore, the 2023 TSD data set now includes an indication of whether 'W' was filed or not.

2.2 In addition to the annual audit based on TSD from 24 FIRs, MAAR also conducts monthly audits of flight plans (FPLs) from the Bangkok FIR. The monthly audit results (up to June 2024) are also included in the final result in this paper.

2.3 The TSD was compared against the current MAAR approval database and other RMAs' latest approval snapshots. Other RMAs' correspondence and monthly approval update are also used to update the final result.

Results

2.4 **Table 1** contains a summary of RVSM approval data submission from States. **Bangladesh** and **Nepal** were the only two States that did not submit their annual snapshots.

Table 1: Summary of RVSM Approval Data Submission from States

State of Operator	Submission
Afghanistan	F2, F3 and 2023 annual snapshot
Bangladesh	F2 and F3 only
Bhutan	F2, F3 and 2023 annual snapshot
Brunei Darussalam	F2, F3 and 2023 annual snapshot
Cambodia	F2, F3 and 2023 annual snapshot
China (Hong Kong)	F2, F3 and 2023 annual snapshot
China (Macau)	F2, F3 and 2023 annual snapshot
China (Taiwan)	F2, F3 and 2023 annual snapshot
India	F2, F3 and 2023 annual snapshot
Lao PDR	F2, F3 and 2023 annual snapshot
Malaysia	F2, F3 and 2023 annual snapshot
Maldives	F2, F3 and 2023 annual snapshot
Mongolia	F2, F3 and 2023 annual snapshot
Myanmar	F2, F3 and 2023 annual snapshot
Nepal	F2 and F3 only
Pakistan	F2, F3 and 2023 annual snapshot
Philippines	F2, F3 and 2023 annual snapshot
Singapore	F2, F3 and 2023 annual snapshot
Sri Lanka	F2, F3 and 2023 annual snapshot
Thailand	F2, F3 and 2023 annual snapshot
Viet Nam	F2, F3 and 2023 annual snapshot

2.5 **Table 2** provides a summary of the number of rogue aircraft by RMA and State compared with RASMAG/28.

Table 2: Number of Rogue Aircraft by State and RMA

RMA	State	No. of Registrations - RASMAG/29	No. from RASMAG/28
AAMA	Indonesia	0	13
	Australia	1	0
AAMA Total		1	13
ARMA	Tanzania	2	0
ARMA Total		2	0
China RMA	China	2	0
China RMA Total		2	0
EURRMA	Malta	1	0
	Lithuania	1	0
	Turkey	2	2
EURRMA Total		4	2
MIDRMA	Qatar	2	0
	Iran	1	0

RMA	State	No. of Registrations - RASMAG/29	No. from RASMAG/28
	United Arab Emirates	2	0
MIDRMA Total		5	0
NAARMO	United States	7	5
	Mexico	0	1
NAARMO Total		7	6
MAAR	Bangladesh	2	0
	Malaysia	0	1
	India	4	1
MAAR Total		6	2
Grand Total		27	24

2.6 **Table 3** lists the aircraft registrations operating in the RVSM airspace but no matching RVSM approval records based on 2023 TSD from 23 FIRs and June 2024 Bangkok FPL data.

Table 3: Aircraft Operating in the RVSM Airspace with Expired or no RVSM Approvals

RMA	State	Registration	Aircraft Type
AAMA	Australia	VHCLK	B733
ARMA	Tanzania	5HTCO	B763
		5HTCP	B39M
China RMA	China	B2473	B744
		B4026	B737
EURRMA	Turkey	TCLLS	B789
		TCLGM	A359
	Malta	9HVIQ	GL7T
	Lithuania	LYBLX	A321
MIDRMA	Qatar	A7BGA	B748
		A7BGB	B748
	Iran	EPMMU	A346
	United Arab Emirates	A6ANC	A320
		A6AND	A320
MAAR	Bangladesh	S2ALA	A333
		S2ALB	A333
	India	VTBXB	B38M
		VTBXG	B38M
		VTTQT	A20N
		VTTQU	A20N
NAARMO	United States	N194AA	B752
		N410F	FA8X
		N706GD	GA7C

RMA	State	Registration	Aircraft Type
		N743CK	B744
		N788DP	B737
		N799JR	GLEX
		N3771	B773

Overall Observations

2.7 The audit conducted this year identified a total of **27** aircraft, a result similar to the previous year's count of **24** aircraft. The detected aircraft were spread out across all regions, with less than half of them being under the APAC RMA's responsibility.

2.8 This year, no long-term repeated rogue aircraft appeared on the list. MAAR presented the result of the annual audit of rogue aircraft at the RMACG/19 Meeting in June 2024 and initially identified 3 Indonesian aircraft as repeated rogue aircraft. However, AAMA later confirmed valid RVSM approvals for these aircraft following the RMACG Meeting. Additionally, most RMAs verified that the majority of rogue aircraft identified from the TSD audit were indeed RVSM-approved. Consequently, the audit result reported at RMACG/19 with 57 aircraft were reduced to 27 aircraft reported for RASMAG/29.

States' Highlights

2.9 MAAR noticed an improvement in the State's coordination for verifying the RVSM approval status of long-term repeated rogue aircraft. **India** and **Indonesia**, previously reported as States with numerous repeated rogue aircraft, did not appear in this year's result. MAAR would like to express gratitude to the AAMA for their collaboration with DGCA Indonesia and appreciation to DGCA India for their prompt actions in working with MAAR.

2.10 Based on last year's administration with MAAR States, we discovered that some States had changed their Point of Contact (POC) for RVSM approval matters. However, the new POC was not aware of the procedure for submitting the F2 Form for new RVSM approval aircraft and the F3 Form for RVSM de-registration aircraft. Consequently, MAAR were not up to date with the latest RVSM approval database. MAAR would like to emphasize that all States should ensure that new POCs continuously update MAAR of any changes to RVSM approval records.

APANPIRG List of Deficiencies

2.11 As **Bangladesh and Nepal** failed to submit the 2023 annual RVSM approval snapshot, the MAAR would also like RASMAG to propose to APANPIRG to inform these **2 States** of failure to submit the annual RVSM approval snapshot this year, which may result in an inclusion in the APANPIRG List of Deficiencies in the ATM and Airspace Safety fields next year if the problem persists.

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) endorse the proposal outlined in 2.11.

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