



International Civil Aviation Organization

## ICAO Twenty-Seventh Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/27)

Video Teleconference, 22 – 25 August 2022

### 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 audit of aircraft operating in the RVSM airspace under MAAR's responsibility. The audit was based on 2021 TSD and monthly Bangkok FIR FPLs, which yielded **21** aircraft that operated in RVSM airspace without valid RVSM approvals in RMAs' database (increased from **19** aircraft from last year's audit). The paper also highlights the following points:

- There is no long-term repeated rogue aircraft appears on the list this year, which is the first in RASMAG's history for States under MAAR's responsibility.
- The minor increase in rogue aircraft on this paper is most likely due to a higher number of rogue aircraft generated by the monthly Bangkok FPL-based audit than in prior years.
- All 21 States under MAAR's responsibility already adopted the new F2 Form and filled in RSP180/RCP240 Approval fields.

## 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 2021 TSD is used as the main data source for this paper. There is no TSD submitted by Afghanistan this year since the Kabul ACC has suspended its ATS service since August 2021. The annual TSD format has been revised to include Items 10 and 18 of the Flight Plan; therefore, the 2021 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 2022) 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. Lao PDR did not submit any data. Brunei Darussalam and Mongolia submitted F2 and F3 but not their annual snapshots.

State of Operator	Submission
Afghanistan	F2, F3 and 2021 annual snapshot
Bangladesh	F2, F3 and 2021 annual snapshot
Bhutan	F2, F3 and 2021 annual snapshot
Brunei Darussalam	F2 and F3 only
Cambodia	F2, F3 and 2021 annual snapshot
China (Hong Kong)	F2, F3 and 2021 annual snapshot
China (Macau)	F2, F3 and 2021 annual snapshot
China (Taiwan)	F2, F3 and 2021 annual snapshot
India	F2, F3 and 2021 annual snapshot
Lao PDR	No data submission
Malaysia	F2, F3 and 2021 annual snapshot
Maldives	F2, F3 and 2021 annual snapshot
Mongolia	F2 and F3 only
Myanmar	F2, F3 and 2021 annual snapshot
Nepal	F2, F3 and 2021 annual snapshot
Pakistan	F2, F3 and 2021 annual snapshot
Philippines	F2, F3 and 2021 annual snapshot
Singapore	F2, F3 and 2021 annual snapshot
Sri Lanka	F2, F3 and 2021 annual snapshot
Thailand	F2, F3 and 2021 annual snapshot
Viet Nam	F2, F3 and 2021 annual snapshot

**Table 1:** Summary of RVSM approval data submission from States

2.5 In accordance with RASMAG/25 Task List by the action item 25/1, “*RMAs to check that all States to adopt the new F2 Form and States to explicitly check YES or NO in field 15 (RSP180 Approval) and field 18 (RCP240 Approval)*”. MAAR would like to inform the meeting that **Myanmar and Viet Nam** already adopted the new F2 Form which included PBCS approvals information since these two States were identified that they had not adopted the new F2 Form during the RASMAG/26. Therefore, MAAR can confirm the meeting that all 21 States under MAAR’s responsibility already adopted the new F2 Form and identified RSP180/RCP240 Approval on the form.

2.6 **Table 2** provides a summary of the number of rogue aircraft by RMA and State compared with RASMAG/26.

RMA	State	No. of Registrations - RASMAG/27	No. from RASMAG/26
AAMA	Indonesia	4	4
	Australia	1	1
<b>AAMA Total</b>		<b>5</b>	<b>5</b>
ARMA	Kenya	1	0
<b>ARMA Total</b>		<b>1</b>	<b>0</b>
CARSAMMA	Cayman Islands	2	0

RMA	State	No. of Registrations - RASMAG/27	No. from RASMAG/26
<b>CARSAMMA Total</b>		<b>2</b>	<b>0</b>
RMA Eurasia	Kyrgyzstan	1	0
	Kazakhstan	2	0
<b>RMA Eurasia Total</b>		<b>3</b>	<b>0</b>
EURRMA	Ireland	1	0
<b>EURRMA Total</b>		<b>1</b>	<b>0</b>
NAARMO	United States	3	0
<b>NAARMO Total</b>		<b>3</b>	<b>0</b>
PARMO	Fiji	1	0
<b>PARMO Total</b>		<b>1</b>	<b>0</b>
MAAR	Malaysia	1	2
	Mongolia	3	0
	Philippines	1	0
	India	0	12
<b>MAAR Total</b>		<b>5</b>	<b>14</b>
<b>Grand Total</b>		<b>21</b>	<b>19</b>

**Table 2:** Number of Rogue Aircraft by State and RMA

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**Table 3** lists the individual registrations of rogue aircraft, where:

- **bold case** indicates aircraft found from the December 2021 TSD;
- *italic case* indicates aircraft found from Bangkok FIR's FPLs; and
- \* indicates aircraft with expired RVSM approvals.

RMA	State	Registration	Aircraft Type
AAMA	Indonesia	<i>PKGNA</i>	B738
		<i>PKAZN</i>	A320
		<i>PKLKR</i>	B738
		<i>PKPWC</i>	A320
	Australia	<i>VHSEQ</i>	C510
ARMA	Kenya	<i>5YCKD</i>	B732
CARSAMMA	Cayman Islands	<b>VPCEI</b>	CL60
		<b>VPCTV</b>	F2TH
RMA Eurasia	Kyrgyzstan	<b>EX47003</b>	B744
	Kazakhstan	<i>EIKGC</i>	A21N
		<i>EIKGF</i>	A21N
EURRMA	Ireland	<i>OEIWW</i>	A320
MAAR	Malaysia	<i>9MLRF</i>	B38M
	Mongolia	JU1199*	A319
		JU1800*	E145
		JU1802*	E145
	Philippines	<i>RPC8911</i>	BE20
NAARMO	United States	<b>N550AU</b>	GLF5
		<i>N685SC</i>	CL60
		<i>N977JH</i>	C680
PARMO	Fiji	<i>DQLIH</i>	BE30

**Table 3:** Aircraft operating in the RVSM airspace with expired or no RVSM approvals

Overall Observations

2.8 Although this year's audit yielded **21** aircraft, a minor rise from **19** aircraft from the previous year, the majority of the aircraft were detected during the Bangkok FPL-based audit. Only **4** out of **21** aircraft from the 2021 TSD were found. Furthermore, there is no long-term repeated rogue aircraft appears on the list this year, which is the first in RASMAG's history (for States under MAAR's responsibility).

2.9 MAAR presented the result of an annual audit of rogue aircraft to the Virtual RMACG/17 Meeting Part I in April 2022. The audit yielded **25** aircraft and **15** of which were detected from the 2021 TSD. Due to the efforts of all RMAs and the State response, **11** aircraft were confirmed RVSM approved following the RMACG Meeting. Thus, there are **4** aircraft remain to be confirmed as stated in this paper.

2.10 Since the travel restrictions had been relaxed in Thailand, the number of flights has increased approximately 23% from the previous year. Therefore, the monthly Bangkok FPL-based audit generates a higher number of rogue aircraft than in previous years.

States' Highlights

2.11 MAAR observed an improvement in India's responsiveness regarding the RVSM approval status of aircraft. According to RASMAG/26, the majority of rogue aircraft were Indian aircraft. However, no Indian aircraft were identified this year – this reflects a major achievement from the DGCA of India.

2.12 MAAR would also like to encourage States to update their Point of Contact (POC) for RVSM Approval matters (F1 Form) when States' POCs have been replaced. Without timely notifications, such changes would result in lapses in communication between MAAR and the States.

APANPIRG List of Deficiencies

2.13 Due to **Brunei Darussalam**'s failure to submit the annual RVSM approval snapshot for **2 years in a row**, the MAAR would like RASMAG to propose to APANPIRG to include **Brunei Darussalam** on the APANPIRG List of Deficiencies in the ATM and Airspace Safety fields for failure to verify RVSM approval status (under "Non-Provision of Safety Related Data by States").

2.14 As **Mongolia and Lao PDR** failed to submit the 2021 annual RVSM approval snapshot, the MAAR would also like RASMAG to propose to APANPIRG to inform these **2 States** of the non-compliance status in regard 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 2.13 and 2.14.

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