



*International Civil Aviation Organization*

**The Twentieth Meeting of the Regional Airspace Safety Monitoring  
Advisory Group (RASMAG/20)**

Bangkok, Thailand, 26-29 May 2015

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

**MAAR ASSESSMENT OF NON-RVSM APPROVED AIRCRAFT**

(Presented by Thailand)

**SUMMARY**

This paper presents an assessment of aircraft operating in the WPAC/SCS and/or BOB RVSM airspace without proof of RVSM approval for the period of December 2014 based on the RVSM approvals data received from State CAAs and other RMAs.

**1. INTRODUCTION**

1.1 As part of the Regional Monitoring Agency (RMA) duties and responsibilities, MAAR conducts an assessment on aircraft compliance with State approval requirements in Asia airspace where the RVSM is applied.

1.2 The purpose of this paper is to provide an assessment of aircraft operating within the RVSM airspace with no RVSM approval records available.

**2. DISCUSSION**

2.1 The Traffic Sample Data (TSD) for the month of December 2014 was used in the assessment. **Table 1** contains a summary of TSD from States under MAAR's responsibility.

States	FIR Name	Status	Aircraft Registration
Afghanistan	Kabul	Received	Available
Bangladesh	Dhaka	Received	Available
Cambodia	Phnom Penh	Received	Available
China	Sanya	Received	Available
	Hong Kong	Received	Available
	Taipei	Received	Available
India	Chennai	Received	Available
	Delhi	Received	Available
	Kolkata	Received	Available
	Mumbai	Received	Available
Lao PDR	Vientiane	Received	Available

States	FIR Name	Status	Aircraft Registration
Malaysia	Kuala Lumpur	Received	Available
	Kota Kinabalu	Received	Available
Maldives	Male	Received	Available
Mongolia	Ulaanbaatar	Received	Available
Myanmar	Yangon	Received	Available
Nepal	Katmandu	Received	Available
Pakistan	Karachi	Received	Available
	Lahore	Received	Available
Philippines	Manila	Received	Available
Singapore	Singapore	Received	Available
Sri Lanka	Colombo	Received	Available
Thailand	Bangkok	Received	Available
Vietnam	Hanoi	Received	Not Available
	Ho Chi Minh	Received	Available

**Table 1:** Summary of TSD Submission by States

2.2 States in Asia region are requested to provide an annual update of RVSM approvals to RMAs according to APANPIRG Conclusion 20/22.

2.3 **Table 2** contains a summary of RVSM Approval Data submission as an annual update for Period ending 2014.

State of Operator	Status
Afghanistan	Received
Bangladesh	Received
Bhutan	Received
Brunei Darussalam	Received
Cambodia	Received
China (Hong Kong)	Received
China (Macau)	Received
China (Taiwan)	Received
India	Not Received
Lao People's Democratic Republic	Received
Malaysia	Received
Maldives	Received
Mongolia	Received
Myanmar	Received
Nepal	Received
Pakistan	Received
Philippines	Not Received
Singapore	Received

State of Operator	Status
Sri Lanka	Received
Thailand	Received
Viet Nam	Received

**Table 2:** Summary of RVSM Approval Data Submission

2.4 The RMA approvals database information used in the comparison is provided in **Table 3**.

RMA	Availability Period
AAMA	As of March 2015
ARMA	As of February 2015
CARSAMMA	As of December 2014
CHINA RMA	As of March 2015
RMA EURASIA	As of February 2015
EURRMA	As of March 2015
JASMA	As of February 2015
MAAR	As of April 2014
MIDRMA	As of February 2015
NAARMO	As of February 2015
PARMO	As of December 2014
Combined Snapshot	As of April 2015

**Table 3:** RVSM Approval Data Source

2.5 From the airspace policing exercise, MAAR found a total number of 234 aircraft registrations operating within the RVSM airspace without proof of valid RVSM Approval, with 1 aircraft confirmed as non-RVSM approved. 32 of 234 rogue airframes were detected in previous flight plans. From this rogue aircraft list, there were 9 State/Military aircraft operating within the airspace where RVSM approvals are yet to be confirmed.

2.6 **Table 4** provides a summary of the number of aircraft registrations found operating without proof of RVSM approval by RMA/State.

RMA	State	Total
AAMA	Australia	1
	Indonesia	48
<b>AAMA Total</b>		<b>49</b>
ARMA	Equatorial Guinea	1
	Kenya	1
	Libyan Arab Jamahiriya	1
	South Africa	1
<b>ARMA Total</b>		<b>4</b>
CARSAMMA	Brazil	2
<b>CARSAMMA Total</b>		<b>2</b>
China RMA	China	5
<b>China RMA Total</b>		<b>5</b>
EURASIA RMA	Russian Federation	3
	Uzbekistan	2
<b>EURASIA RMA Total</b>		<b>5</b>
EURRMA	Belarus	2
	Germany	1

<b>RMA</b>	<b>State</b>	<b>Total</b>
	Isle of Man	1
	Slovakia	1
	Sweden	1
	Ukraine	2
<b>EURRMA Total</b>		<b>8</b>
<b>MAAR</b>	Afghanistan	1
	India	73
	Malaysia	7
	Myanmar	2
	Pakistan	1
	Philippines	3
	Thailand	10
	Viet Nam	3
<b>MAAR Total</b>		<b>100</b>
<b>MIDRMA</b>	Egypt	1
	Iran (Islamic Republic of)	1
	Oman	1
	Qatar	1
	Saudi Arabia	4
	United Arab Emirates	14
	Yemen	1
<b>MIDRMA Total</b>		<b>23</b>
<b>NAARMO</b>	Canada	2
	United States	17
<b>NAARMO Total</b>		<b>19</b>
<b>NATCMA</b>	Bermuda	14
	Ireland	5
<b>NATCMA Total</b>		<b>19</b>
<b>Grand Total</b>		<b>234</b>

**Table 4:** Number of aircraft operating without proof of RVSM approval by RMA/State

2.7 **Appendix A** provides aircraft registrations operating in the RVSM airspace with expired or no record of RVSM approval.

### 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

4

- a) note the information presented in this working paper;
- b) cross-check the aircraft identified in **Appendix A** against their respective approvals database and confirm their approval status; and
- c) discuss any relevant matters as appropriate.

.....

**Appendix A: aircraft registrations operating in the RVSM airspace with expired or no proof of RVSM approvals.**

*Notes:*

- The \* indicates the airframe which also appeared during the period of September 2014 - October 2014.
- The \*\* indicates the airframe which also appeared during the period of July 2014 - October 2014.
- Aircraft registrations in **red** are confirmed non-RVSM approved aircraft.
- **Shaded rows** are State/Military aircraft.

RMA	State	Registration	AC Type
AAMA	Australia	VHFIX	B350
	Indonesia	PKAFZ	A320
		PKCLA *	B738
		PKCLF	B738
		PKCLO	B738
		PKCMF	B738
		PKGfQ *	B738
		PKGLL	A320
		PKGLX **	A320
		PKGLZ	A320
		PKGnK *	B738
		PKGnL *	B738
		PKGnN	B738
		PKGnU	B738
		PKGPW	A333
		PKGQA	A320
		PKGQC	A320
		PKGQD	A320
		PKGQE	A320
		PKGQF	A320
		PKGQH	A320
		PKHIC	B77W
		PKHPH	A332
		PKLDF	B738
		PKLGI	B738
		PKLJQ	B738
		PKLJR	B738
		PKLJS	B738
		PKLJT	B739
		PKLJU	B738
		PKLJV	B738
		PKLKM	B739
		PKLKO	B734
		PKLKP	B738
		PKLKQ	B738
		PKLKR	A320

RMA	State	Registration	AC Type
		PKLKZ	B738
		PKLOF	B739
		PKLOG	B738
		PKLOH	B738
		PKLOP	B738
		PKLPI	B738
		PKLQM	B738
		PKMYI	B733
		PKTFS **	E135
		PKTNR	F70
		PKTXN	B735
		PKTZC	B733
		PKYGH	B733
ARMA	Equatorial Guinea	3CLLU	B763
	Kenya	5YKZC **	B788
	Libyan Arab Jamahiriya	5AWLA	A319
	South Africa	ZSPEL	B773
CARSAMMA	Brazil	PRKEB	B763
		PRLCY	E135
China RMA	China	B2093	A332
		B5829	B737
		B8026	FA7X
		B8082	GLF4
		B9609	A320
EURASIA RMA	Russian Federation	RF76686	IL76
		RF94270	IL78
		RF94274	IL76
	Uzbekistan	UK76004	B763
		URWRD	A321
EURRMA	Belarus	EW383TH	IL76
		EW78836	IL76
	Germany	DAAAN	A319
	Isle of Man	MMARI	CL60
	Slovakia	OMGEX	B738
	Sweden	SERJR	B737
	Ukraine	URCMB	IL76
		URCMC	IL76
MAAR	Afghanistan	URCMK	A320
	India	VTABG	H25B
		VTABN	H25B
		VTAJI	E50P
		VTAML *	E135
		VTANS	B788
		VT AOP **	E190
		VTASM	(blank)
		VTATB	A320

RMA	State	Registration	AC Type
		VTATF	A320
		VTAVG	PC12
		VTAVH *	F2TH
		VTBAF	B200
		VTBRS	GLF5
		VTDBA *	GL5T
		VTFTL	H25B
		VTGOD	A320
		VTGOM	A320
		VTGON	A320
		VTGOO	A320
		VTGOP	A320
		VTGOQ	A320
		VTGOR	A320
		VTIAP **	A320
		VTIAQ	A320
		VTIAR *	A320
		VTIAS	A320
		VTIAX	A320
		VTIAY	A320
		VTICA	H25B
		VTIDA	A320
		VTIDB	A320
		VTIDD	A320
		VTIGF	A320
		VTJIU	B739
		VTJJA	B738
		VTJKK	B350
		VTJLI	B739
		VTJSB	GLEX
		VTJSE **	CL30
		VTJSG	P180
		VTJSI	E135
		VTJSS	C56X
		VTJSY	GLEX
		VTJUA	CL30
		VTKBN	PRM1
		VTKJB **	GL5T
		VTLBR	E190
		VTLSR	E170
		VTLVR	E190
		VTMAM	LJ60
		VTPSA	C525
		VTRED	A320
		VTRGX	FA7X
		VTRVL *	F2TH

RMA	State	Registration	AC Type
		VTSDJ	BE20
		VTSTNG	GLEX
		VTSTNP **	GALX
		VTSSF	PRM1
		VTSSN	H25B
		VTTAB	A320
		VTTAX	C25A
		VTTRI	LJ45
		VTTSK	E50P
		VTTTB	A320
		VTTTC	A320
		VTUDR	H25B
		VTVAH	F2TH
		VTVID	C525
		VTVKR	F2TH
		VTWAG	A320
		VTWAH	A320
		VTXLD	B738
		VTZST *	CL60
	Malaysia	9MAJX	A320
		9MAXC	A320
		9MFSF	B738
		9MTGA	B722
		9MXXW	A333
		9MXXX	A333
		9MXXY	A333
	Myanmar	XYAGS **	A320
		XYAGW **	CRJ2
	Pakistan	APPRA	BE4A
	Philippines	RPC4102	A320
		RPC4103	A320
		RPC9919	A321
	Thailand	HSBBM *	A320
		HSDBR	B738
		HSLTM **	B739
		HSPPH **	A320
		HSSLC	B350
		HSTBN	A333
		HSTFP	B744
		HSTGV	B744
		HSTYR **	A319
		HSTYS **	B738
	Viet Nam	VNA391	A321
		VNA542	F70
		VNB444	A340
MIDRMA	Egypt	SUMBZ	A30B



<b>RMA</b>	<b>State</b>	<b>Registration</b>	<b>AC Type</b>
	<b>Iran (Islamic Republic of)</b>	EPMMC	A343
	<b>Oman</b>	A4ODI	A333
	<b>Qatar</b>	A7AYY	A333
	<b>Saudi Arabia</b>	HZAI4 **	B748
		HZAK23	B77W
		HZAK24	B773
		HZAQL	A333
	<b>United Arab Emirates</b>	A6AGP	A332
		A6AKQ	A332
		A6AOD	A320
		A6BAK	A332
		A6EEY *	A388
		A6EEZ **	A388
		A6ENT **	B77W
		A6FDB	B738
		A6FDD	B738
		A6FEO	B738
		A6FEP	B738
		A6FIL	A320
		A6FKY	A332
		A6FLH	GLF4
	<b>Yemen</b>	7OADB	A320
<b>NAARMO</b>	<b>Canada</b>	CFIVC	B77W
		CFNNU **	B77W
	<b>United States</b>	N106EC	E135
		N175AG	A319
		N176AG	A319
		N216A	B772
		N280GD *	G280
		N3916Y	GLF4
		N533LM	GLEX
		N562GX	GLEX
		N6311	A320
		N666ZW	GLF4
		N717MK	GL5T
		N7820L	B737
		N846TM	B738
		N847TM	B737
		N888FJ	CL60
		N898JS	E135
		N979PG	B763
<b>NATCMA</b>	<b>Bermuda</b>	VPBEK	A319
		VPBGE	B77W
		VPBTB **	GLF4
		VQBBD	A319
		VQBGB	B77W

RMA	State	Registration	AC Type
		VQBGC	B77W
		VQBGD	B77W
		VQBGO	B77W
		VQBMU	B763
		VQBOO	B752
		VQBQO	A332
		VQBRA	B763
		VQBSZ	B763
		VQBXX	B763
	<b>Ireland</b>	EIBDU	B763
		EIFGD	A320
		EILNM	B788
		EIULA	B763
		EIXIC	B744