



International Civil Aviation Organization

**The Sixteenth Meeting of the Regional Airspace Safety Monitoring
Advisory Group (RASMAG/16)**

Bangkok, Thailand, 20 - 24 February 2012

Agenda Item 3: Reports from Asia/Pacific RMAs and EMAs

**ASSESSMENT OF AIRCRAFT OPERATING IN THE ASIA RVSM AIRSPACE
WITHOUT PROOF OF RVSM APPROVAL**

(Presented by Monitoring Agency for Asia Region)

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 2010 based on the updated RVSM approvals data received from State CAAs.

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 available RVSM approval records.

2. Discussion

- 2.1. The Traffic Sample Data (TSD) for the month of December 2010 was used in the assessment. **Table 1** contains a summary of TSD for BOB and WPAC/SCS airspace received by MAAR.

States	FIR Name	Status	Aircraft Registraion
Bangladesh	Dhaka	Received	Not Available
India	Chennai	Received	Available
	Delhi	Received	Not Available
	Kolkata	Received	Available
	Mumbai	Received	Not Available
Maldives	Male	Received	Available
Myanmar	Yangon	Received	Available
Nepal	Katmandu	Received	Not Available
Pakistan	Karachi	Received	Available
	Lahore	Not Received	Not Available
Sri Lanka	Colombo	Received	Available
Cambodia	Phnom Penh	Received	Available
China	Sanya	Received	Available
Hong Kong	Hong Kong	Received	Available
Lao PDR	Vientiane	Received	Not Available
Malaysia	Kuala Lumpur	Received	Not Available
	Kota Kinabalu	Received	Not Available
Philippines	Manila	Received	Not Available
Singapore	Singapore	Received	Available
Thailand	Bangkok	Received	Available
Vietnam	Hanoi	Received	Available
	Ho Chi Minh	Received	Available

Table 1: Summary of TSD Submission by WPAC/SCS 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 2011.

States	Status
Bangladesh	Received
India	Not Received
Maldives	Not Received
Myanmar	Not Received
Nepal	Not Received
Pakistan	Received
Sri Lanka	Not Received
Thailand	Received
Cambodia	Not Received
Hong Kong	Received
Lao PDR	Not Received
Malaysia	Received
Philippines	Received
Singapore	Received
Vietnam	Received

Table 3: Summary of RVSM Approval Data Submission

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

RMAs	Availability Period
AAMA	February 2012 Update
AFIRMA	February 2012 Update
CARSAAMA	February 2012 Update
China RMA	February 2012 Update
EurAsia	February 2012 Update
Eurocontrol	February 2012 Update
Japan RMA	February 2012 Update
MAAR	February 2012 Update
MIDRMA	January 2012 Update
NAARMO	January 2012 Update
PARMO	January 2012 Update

Table 3: RVSM Approval Data Source

3. Assessment of Airframe Operating Without Proof of RVSM Approval

- 3.1. **Appendix A** provides registration of aircraft operating in the RVSM airspace but no record of RVSM approval was found. The list includes aircraft registered under States within the Asia Region.
- 3.2. **Appendix B** provides registration of aircraft operating in the RVSM airspace but no record of RVSM approval was found. The list includes aircraft registered under States outside the Asia Region.
- 3.3. The assessment report in RASMAG/15 listed 231 aircraft without proof of RVSM approvals. After reviewing the December 2010 traffic sample data against the updated global RVSM approvals database, the list has decreased to 118 (a 51% decrease). **Table 4** and **Table 5** provide a summary of the number of aircraft that do not have proof of RVSM approvals by States for the Asia Region and other regions respectively.

States	Aircraft Count
Afghanistan	3
Bangladesh	1
Bhutan	2
Brunei	7
India	34
Indo	2
Myanmar	3
Nepal	2
Pakistan	4
Sri Lanka	10
Grand Total	68

Table 4: Number of aircraft with no proof of RVSM approvals in the Asia/Pacific Region

States	Aircraft Count
Armenia	21
Oman	22
Qatar	2
UAE	5
Grand Total	50

Table 5: Number of aircraft with no proof of RVSM approvals in non-Asia/Pacific Region

- 3.4. The provision of i) an individual update of RVSM Approval (F2/F3 Form), ii) an annual Update of RVSM Approvals and iii) traffic sample data that includes aircraft registration is important to allow an effective assessment.
- 3.5. In addition, at the APANPIRG/22, States were encouraged to provide flight plans showing RVSM approval to their RMA, on a monthly basis, to allow more frequent assessments. To date, the MAAR has received support from only a few States in this regard.

4. Actions by the Meeting

- 4.1. The meeting is invited to note the content of this paper.

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Appendix A

Summary of the assessment of aircraft operating in the WPAC/SCS and/or BOB RVSM airspace without proof of RVSM approval Based on Traffic Samples from December 2010 (Aircraft registered under States within the Asia/Pacific Region)

State	Operator Code	Operator Name	Aircraft Registration
Afghanistan	AFG	Ariana Afghan Airlines	YAFAY
Afghanistan	KBL	Kabul Air	YAKAC
Afghanistan	KBL	Kabul Air	YAKAN

State	Operator Code	Operator Name	Aircraft Registration
Bangladesh	UBD	United Airways (BD) Ltd	S2AEU

State	Operator Code	Operator Name	Aircraft Registration
Bhutan	DRK	Druk Air	A5RGF
Bhutan	DRK	Druk Air	A5RGG

State	Operator Code	Operator Name	Aircraft Registration
Brunei	RBA	Royal Brunei Airlines	V8BLD
Brunei	RBA	Royal Brunei Airlines	V8BLE
Brunei	RBA	Royal Brunei Airlines	V8BLF
Brunei	RBA	Royal Brunei Airlines	V8RBP
Brunei	RBA	Royal Brunei Airlines	V8RBR
Brunei	RBA	Royal Brunei Airlines	V8RBS
Brunei	RBA	Royal Brunei Airlines	V8RBT

State	Operator Code	Operator Name	Aircraft Registration
India	AIC	Indian Airlines Corporation	VTEDD
India	AIC	Indian Airlines Corporation	VTEDF
India	IAC	Indian Airlines Corporation	VTAYJ
India	IAC	Indian Airlines Corporation	VTBBD
India	IAC	Indian Airlines Corporation	VTDED
India	IAC	Indian Airlines Corporation	VTEDC
India	IAC	Indian Airlines Corporation	VTEDE
India	IAC	Indian Airlines Corporation	VTSCR
India	IAC	Indian Airlines Corporation	VTSCT
India	IAC	Indian Airlines Corporation	VTSCU
India	IAC	Indian Airlines Corporation	VTSCV
India	IAC	Indian Airlines Corporation	VTSCW
India	IAC	Indian Airlines Corporation	VTSCX
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGH

State	Operator Code	Operator Name	Aircraft Registration
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGI
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGL
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGS
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGT
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGU
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTIGX
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINI
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINK
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINL
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINO
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINP
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINR
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINS
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINU
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINV
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINX
India	IGO	Interglobe Aviation Private Ltd (Indigo)	VTINY
India	JAI	Jet Airways, M/S (India) Pvt Ltd	VTJEA
India	JLL	Jetlite (India) Ltd	VTJLB
India	JLL	Jetlite (India) Ltd	VTJLE

State	Operator Code	Operator Name	Aircraft Registration
Indonesia	IGA		PKJKM
Indonesia	IGA		PKRSS

State	Operator Code	Operator Name	Aircraft Registration
Myanmar	MMA	Myanmar Airways International Co. Ltd.	XYAGG
Myanmar	MMA	Myanmar Airways International Co. Ltd.	XYAGI
Myanmar	MMA	Myanmar Airways International Co. Ltd.	XYAGL

State	Operator Code	Operator Name	Aircraft Registration
Nepal	RNA	Royal Nepal Airlines Corp.	9NACA
Nepal	RNA	Royal Nepal Airlines Corp.	9NACB

State	Operator Code	Operator Name	Aircraft Registration
Pakistan	ABQ	Airblue Limited, M/S	APBJA
Pakistan	ABQ	Airblue Limited, M/S	APBJB
Pakistan	RAB	Rayyan Air Pvt Ltd	APBIB
Pakistan	RAB	Rayyan Air Pvt Ltd	APBIO

State	Operator Code	Operator Name	Aircraft Registration
Sri Lanka	ALK	Srilankan Airlines	4RABG
Sri Lanka	ALK	Srilankan Airlines	4RABH
Sri Lanka	ALK	Srilankan Airlines	4RABJ
Sri Lanka	ALK	Srilankan Airlines	4RABK
Sri Lanka	ALK	Srilankan Airlines	4RADE
Sri Lanka	ALK	Srilankan Airlines	4RADF
Sri Lanka	ALK	Srilankan Airlines	4RALG
Sri Lanka	EXV	Expo Aviation	4REXJ
Sri Lanka	MLR	Mihin Lanka (Pvt) Ltd	4RMRB
Sri Lanka	MLR	Mihin Lanka (Pvt) Ltd	4RMRC

Appendix B

**Summary of the assessment of aircraft operating in the WPAC/SCS and/or BOB RVSM
airspace without proof of RVSM approval Based on Traffic Samples from December
2010 (Aircraft registered under States outside the Asia/Pacific Region)**

State	Operator Code	Operator Name	Aircraft Registration
Armenia	ARQ	Ark Airways	EK76555
Armenia	ARQ	Ark Airways	EK76602
Armenia	ARQ	Ark Airways	EK76603
Armenia	ARQ	Ark Airways	EK76630
Armenia	ARQ	Ark Airways	EK76633
Armenia	ARQ	Ark Airways	EK76640
Armenia	ARQ	Ark Airways	EK76777
Armenia	PHY	Phoenix Avia	EK76442
Armenia	PHY	Phoenix Avia	EK76464
Armenia	PHY	Phoenix Avia	EK76787
Armenia	RLB	Reliable Unique Services Aviation	EK76111
Armenia	RLB	Reliable Unique Services Aviation	EK76425
Armenia	RLB	Reliable Unique Services Aviation	EK76485
Armenia	STH	South-Airlines	EK72101
Armenia	STH	South-Airlines	EK76717
Armenia	TRV	Taron-Avia LLC	EK76443
Armenia	TRV	Taron-Avia LLC	EK76643
Armenia	VBD	V Berd Avia	EK76592
Armenia	VTF	Veteran Avia	EK74798
Armenia	VTF	Veteran Avia	EK76381
Armenia	VTF	Veteran Avia	EK76812

State	Operator Code	Operator Name	Aircraft Registration
Oman	OMA	Oman Air	A40BA
Oman	OMA	Oman Air	A40BB
Oman	OMA	Oman Air	A40BC
Oman	OMA	Oman Air	A40BD
Oman	OMA	Oman Air	A40BE
Oman	OMA	Oman Air	A40BF
Oman	OMA	Oman Air	A40BG
Oman	OMA	Oman Air	A40BJ
Oman	OMA	Oman Air	A40BM
Oman	OMA	Oman Air	A40BN
Oman	OMA	Oman Air	A40BP
Oman	OMA	Oman Air	A40BR
Oman	OMA	Oman Air	A40BU
Oman	OMA	Oman Air	A40DA
Oman	OMA	Oman Air	A40DB
Oman	OMA	Oman Air	A40DC
Oman	OMA	Oman Air	A40DD
Oman	OMA	Oman Air	A40DE

State	Operator Code	Operator Name	Aircraft Registration
Oman	OMA	Oman Air	A40DF
Oman	OMA	Oman Air	A40OB
Oman	ORF	Oman Royal Flight	A40AA
Oman	ORF	Oman Royal Flight	A40AC

State	Operator Code	Operator Name	Aircraft Registration
Qatar	QTR	Qatar Airways Company	A7ABR
Qatar	QTR	Qatar Airways Company	A7ADO

State	Operator Code	Operator Name	Aircraft Registration
UAE	ABY	Air Arabia	A6ABF
UAE	ETD	Etihad Airways	A6EIM
UAE	ETD	Etihad Airways	A6EIN
UAE	ETD	Etihad Airways	A6ETB
UAE	UAE	Emirates	A6AEP