GTE/16 — IP/02 01/08/16

# Sixteenth Scrutiny Working Group Meeting (GTE/16)

Mexico City, Mexico, 5-9 September 2016

Agenda Item 1: Review of Previous CARSAMMA and Scrutiny Group Meeting Conclusions and Recommendations

### NON-APPROVED AIRCRAFT OPERATING WITH RVSM APPROVAL STATUS

(Presented by CARSAMMA)

EXECUTIVE SUMMARY					
This Information Paper intends to describe the work processes and procedures developed by CARSAMMA for identifying non-approved aircraft operating with Reduced Vertical Separation Minimum (RVSM) approval status in December 2015.					
Strategic Objectives:	<ul><li>Safety</li><li>Air Navigation Capacity and Efficiency</li></ul>				
References:	<ul> <li>Doc 9574 — Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive AN/934</li> <li>Doc 9937 — Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive AN/477</li> </ul>				

## 1. Introduction

- 1.1 In October 2015, the Caribbean and South American Monitoring Agency (CARSAMMA) began to develop its work for identifying the non-approved aircraft that would operate with RVSM approval status in December 2015 as proposed in the last Regional Monitoring Agency (RMA) Coordination Group Meeting.
- 1.2 In order to reach two objectives: Identify the non-approved aircraft operating with RVSM approval status and be able to estimate the vertical collision risk existing in the CAR/SAM Regions, CARSAMMA promoted a collect data on aircraft movement in RVSM airspace between 1 and 31 December 2015.
- 1.3 All the steps taken will be described in the following paragraphs. It is important to note that the participation of the ICAO Regional Offices from Mexico and Lima throughout the whole process was fundamental for the success of this mentioned work.

### 2. Discussion

- 2.1 As a result of CARSAMMA request, ICAO Regional Offices in Lima and in Mexico sent to the States a letter in English or Spanish (depending on the State) inviting them to participate of the data collection between 1 and 31 December 2015 and informing the reasons of it.
- 2.2 Only some States sent the forms before the deadline and once again, up to April, CARSAMMA kept on receiving them. In total, the Agency received the forms from 31 Flight Information Regions (FIRs) (out of 34). Another letter was issued by the ICAO Regional Offices in Lima and Mexico in order to remind the States about the data collection.
- 2.3 After having received the forms, CARSAMMA cleaned up them in order to remove unusable records and correct typographical errors. Aircraft records were found that are not on the data banks of the RMA.
- 2.4 The following step was to contact the Civil Aviation Authorities (CAA) for getting to know which aircraft were RVSM approved or not. As usual, some of the CAAs have not answered CARSAMMA's messages until the closure of this Information paper. However, CARSAMMA will keep on looking for the answers about the status of all aircraft found without RVSM approval during its investigation.

Table 1 below shows the summary of CARSAMMA's work concerning this theme:

STATE	FIR	DELIVERY DATE	DELIVERY FLIGHTS	NO RVSM	% NO RVSM
ARGENTINA	CORDOBA SACU	15/02/16	6058	7	0.1155
	EZEIZA SAEU	15/02/16	11862	6	0.0506
	MENDOZA SAMV	15/02/16	3574	32	0.8954
	RESISTENCIA SARU	15/02/16	3858	26	0.6739
	COMODORO SAVU	15/02/16	2063	20	0.9695
BOLÍVIA	LAPAZ SLLF	19/04/16	3117	35	1.1229
BRASIL	ATLANTICO SBAO	13/01/16	2699	2	0.0741
	AMAZONICA SBAZ	18/01/16	3672	3	0.0817
	BRASILIA SBBR	15/02/16	34097	22	0.0645
	CURITIBA SBCW	15/02/16	17694	12	0.0678
	RECIFE SBRE	03/03/16	8164	1	0.0122
CHILE	PUNTA ARENAS SCCZ	25/01/16	600	0	0.0000
	SANTIAGO SCEZ	25/01/16	7709	0	0.0000
	ANTOFAGASTA SCFZ	25/01/16	127	0	0.0000
	PASCUA SCIZ	25/01/16	190	0	0.0000

	PUERTO MONTT SCTZ	25/01/16	1542	0	0.0000
COLOMBIA	BARRANQUILLA SKEC	29/02/16	18	0	0.0000
	BOGOTA SKED	29/02/16	5954	0	0.0000
ECUADOR	GUAYAQUIL SEFG	15/02/16	7096	17	0.2396
GUYANA	GEORGETOWN SYGC	03/03/16	2466	0	0.0000
FRENCH GUYANA	CAYENNE SOOO	-	-	-	-
PANAMA	PANAMA MPZL	24/02/16	18053	0	0.0000
PARAGUAY	ASUNCION SGFA	21/01/16	1925	2	0.1039
PERU	LIMA SPIM	15/02/16	15391	8	0.0520
SURINAM	PARAMARIBO SMPM	02/03/16	1784	0	0.0000
URUGUAY	MONTEVIDEO SUEO	-	-	-	-
VENEZUELA	MAIQUETIA SVZM	25/02/16	3675	1	0.0272
NETHERLANDS ANTILLES	CURACAO TNCF	05/01/16	7122	0	0.0000
CENTRAL AMERICA	CENAMER MHTG	24/02/16	13480	0	0.0000
CUBA	HABANA MUFH	16/02/16	20562	0	0.0000
HAITI	PORT AU PRINCE MTEG	13/01/16	3586	0	0.0000
JAMAICA	KINGSTON MKJK	-	-	-	-
DOMINICAN REPUBLIC	SANTO DOMINGO MDCS	15/02/16	8301	1	0.0120
TRINIDAD & TOBAGO	PIARCO TTZP	23/02/16	4484	0	0.0000
TOTAL			220923	195	0.000883

TABLE 1
Graphic 1 below shows the amount of non-approved aircraft that operated in each FIR in alert levels based on standard deviation:

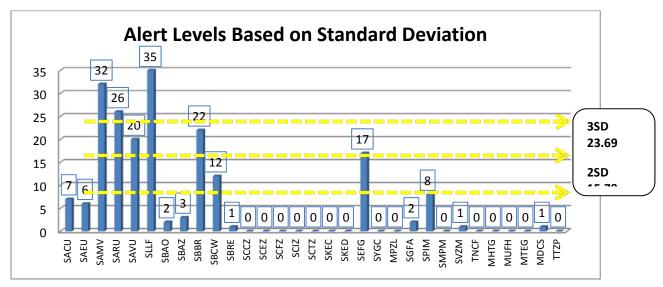
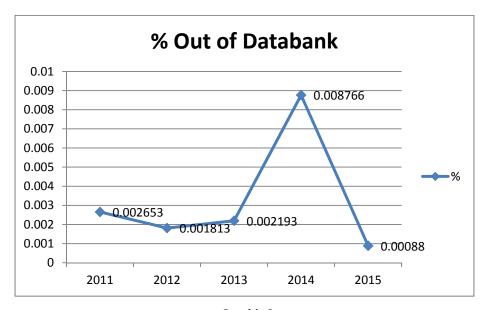


Table 2 and Graphic 2 below demonstrate a comparison among the years:

		2011	2012	2013	2014	2015
FIR that sent movements	Σ	21	11	25	33	31
Total of Flights	Σ	220833	151117	257160	338441	220923
Out of Database	Σ	586	274	564	2967	195
% Out of Database	Σ	0.002653	0.001813	0.002193	0.008766	0.000883

Table 2



**Graphic 2** 

# 3. Conclusions

- 3.1 The meeting is invited to:
  - a) note and review the contents of this information paper; and
  - b) share experiences and express opinions concerning CARSAMMA's actions in this matter.