



Agenda Item 4: Follow-up to the implementation of regional safety and air navigation priorities

STATUS OF IMPLEMENTATION OF SAFETY IMPROVEMENTS

(Presented by the Secretariat)

SUMMARY

This working paper (WP) presents updated information on the status of implementation of safety improvements related to:

- ✓ safety oversight;
- ✓ accidents;
- ✓ runway excursions;
- ✓ aerodrome certification; and
- ✓ State safety programme (SSP) / Safety management system (SMS)

REFERENCES

- Report of the Fourth meeting of Air Navigation and Safety Directors of the SAM Region (Lima, Peru, 2-4 October 2017)
- ICAO *Global aviation safety plan (GASP)* (Doc 10004, 2017-2019)

ICAO strategic objectives:

A – Safety

1 Background

1.1 The Civil Aviation Authorities of South America, at its Thirteenth meeting (RAAC/13) held in Bogota, Colombia, on 4-6 December 2013, declared their commitment to attain, *inter alia*, the goals of the following safety areas by 2016: safety oversight, accidents, runway excursions, aerodrome certification, and State safety programme (SSP) / safety management system (SMS).

1.2 Upon reaching the deadline of the Declaration of Bogota in December 2016, the SAM Region continued working in the attainment of safety goals, the performance of which is analysed below:

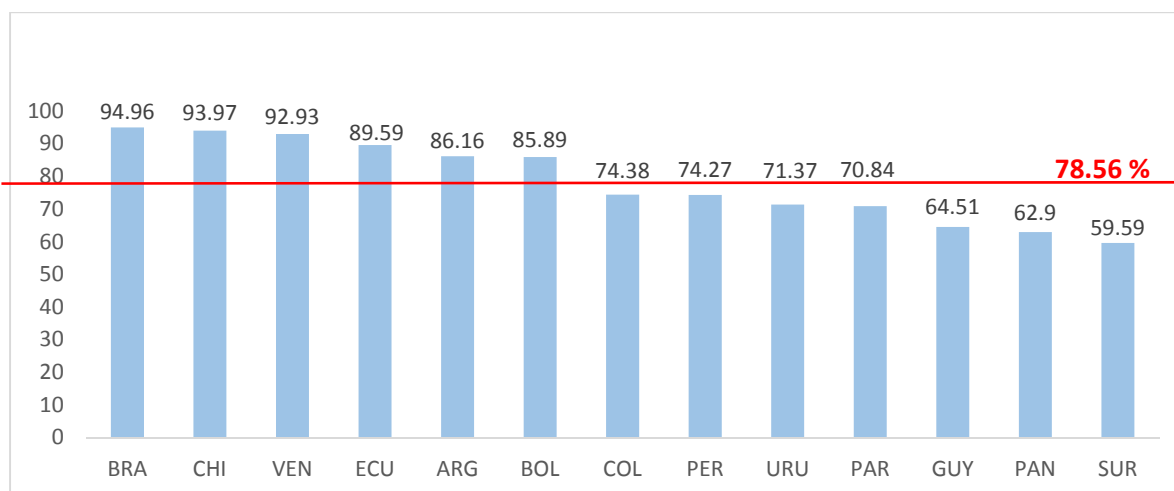
2 Follow-up to the goals

Safety: The goal established in the Declaration of Bogota was to reach 80% effective implementation (EI) in the SAM Region.

2.1 From November 2011 to November 2017, ICAO has held 4 CMA audits, 14 coordinated validation missions (ICVMs), 4 off-site monitoring activities and one (1) integrated validation activity (IVA) in the SAM Region. During this period of time, the 13 States that were subject to an USOAP CMA activity showed significant improvements in effective implementation (EI) of the standards and recommended practices (SARPs) contained in the Annexes to the Convention on International Civil Aviation.

2.2 According to the results obtained, as shown in **Table 1 – Status of SAM States according to the USOAP CMA (November 2011 – November 2017)**, the average for the SAM Region increased from 66.28% to **78.56%** (+12.28%) from November 2011 to November 2017, still needing to improve **1.44%** in order to attain the goal established in the Declaration of Bogota (**80%**). With this average of +12.28, the SAM Region is improving its EI at an annual rate of **1.75%**.

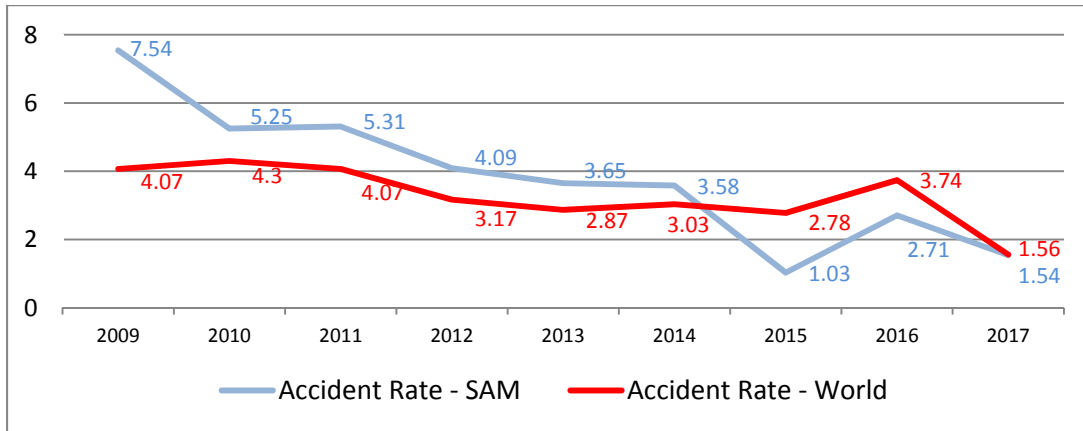
**Status of SAM States according to the USOAP CMA
(November 2011 – November 2017)**



Accidents: The goal established in the Declaration of Bogota was to reduce the gap between the accident rate of the SAM Region and the global accident rate by 50%.

2.3 According to **Table 2 – Rate of accidents in scheduled commercial air transport operations with aircraft of more than 5 7000 kg**, which is based on ICAO iSTARS-3 data, the rate of accidents in South American for scheduled commercial air transport operations with aircraft of more than 5 700 kg has been gradually decreasing since 2009, reaching a rate of **1.03** accidents per 1,000,000 departures in 2015, way below the global rate of **2.78**. Despite the above, the SAM Region had a significant increase in the number of events in 2016, raising the rate of accidents from **1.03** accidents in 2015 to **2.71** in 2016. However, this rate remained below the global rate of **3.74** for second consecutive year. As of November 2017, it may be noted that both the global rate and the SAM rate decreased with respect to 2016, the rate for the SAM Region being **1.54**, placing the Region slightly below the global rate of **1.56**. Accordingly, the goal of the Declaration of Bogota continues being met.

Table 2 – Rate of accidents in scheduled commercial air transport operations with aircraft of more than 5 7000 kg

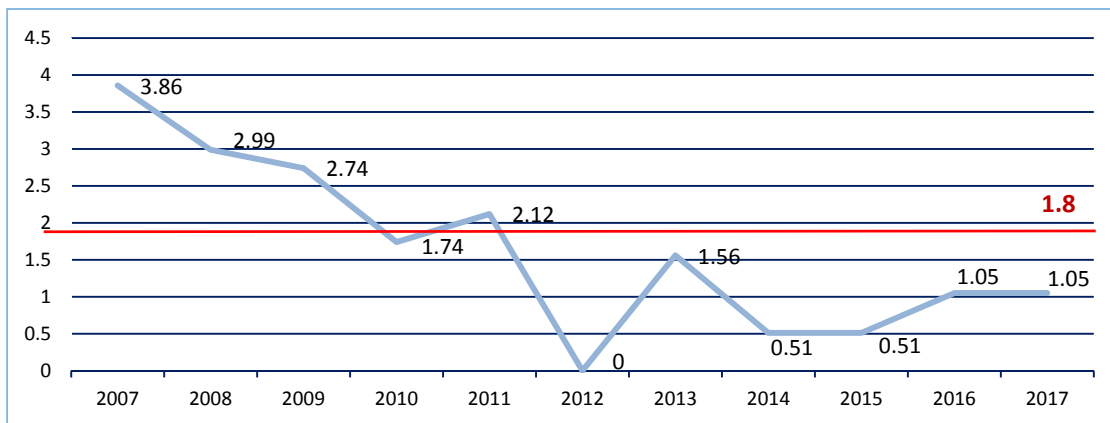


Runway excursions: The goal established in the Declaration of Bogota was to reduce the rate of runway excursions by 20% with respect to the average rate of the SAM Region (2007-2012).

2.4 The average rate of runway excursions between 2007 and 2012 was 2.24 accidents per million departures. The 20% reduction established as a goal represents 1.8 accidents per million departures.

2.5 The information provided by the ICAO iSTARS-3 application, contained in **Table 3 – Rate of accidents in the SAM Region due to runway excursions (RE)**, shows that the rate of accidents due to REs has been gradually dropping since 2007, except in 2011 and 2013. In 2016, the rate increased slightly and has remained stable during 2017. Accordingly, the goal set in the Declaration of Bogota continues to be met.

Table 3 – Rate of accidents in the SAM Region due to runway excursions (REs)



Aerodrome certification

2.4.1 The goal established in the Declaration of Bogota for AGA was to reach 20% of aerodromes certified by the end of 2016. So far, 26% of all international aerodromes are reported as certified. Nevertheless, at the Third Meeting of Air Navigation and Flight Safety Directors (AN&FS3), the States highlighted that the regional goal of 20% of aerodromes certified was too broad and did not indicate the specific contribution of each State to this goal. A State with several international aerodromes could by itself attain the regional goal, while other States could simply not take any action and still the goal would be achieved.

2.4.2 It should be noted that for a State to demonstrate full compliance with the certification requirement during USOAP CMA activities, it must have certified all the aerodromes used for international operations.

2.4.3 To this end, an analysis has been conducted to show the contribution of States to the certification goal, and the weight of their contribution to the regional goal. A detail of this analysis is presented in **Appendix B** to this working paper.

State safety programme (SSP) / safety management system (SMS)

2.6 The goals established in the Declaration of Bogota for SSP and SMS are as follows:

- *67% of SSP implementation; and*
- *100% capacity to oversee the SMS of service providers.*

2.7 Starting in 2013, the SAM Office established the SSP implementation meeting, which, at its fifth meeting held in Lima, Peru on 7-11 November 2016, reviewed the level of implementation of the SSP in SAM States.

2.8 At said meeting, some States showed more progress than others, which led to the decision to implement the programme starting with the first element of the first SSP implementation phase, and to seek a mechanism for all States to move ahead at the same time. In this regard, Bolivia, Chile, Ecuador, Panama, Peru, and Venezuela expressed their intention to participate in a pilot project for SSP implementation until the end of 2018. Subsequently, Colombia, Guyana, and Uruguay joined the pilot project, totalling nine (9) States.

2.9 The pilot project was launched on 16 March 2017, with the six (6) initial States.

2.10 The project consists of the four SSP implementation phases set forth in Doc 9859, Third edition. **Appendix B** presents the progress made by States and the list of elements submitted to the SAM Office regarding implementation Phase 1.

2.11 Once the SAM States have implemented the SSP, the SMS will be measured in each of them.

3. Suggested action

3.1 The Meeting is invited to:

- a) take note of the information presented in this working paper;
- b) review and comment on:
 - ✓ the performance of indicators; and
 - ✓ the status of implementation of safety performance goals.

- END -

APPENDIX A

Aerodrome certification status per State

Country	No. of aerodromes according CAR/SAM ANP Vol. II	Share in the regional percentage	Certified aerodromes	Certified aerodromes	Contribution to the goal of the Declaration
			RAAC14	RAAC15	
Argentina	16	15.38%	0	0	0.00%
Bolivia	3	2.88%	3	3	2.88%
Brasil	29	27.88%	4	17	16.35%
Chile	8	7.69%	0	1	0.96%
Colombia	11	10.58%	0	0	0.00%
Ecuador	4	3.85%	2	2	1.92%
French Guiana	1	0.96%	0	0	0.00%
Guyana	2	1.92%	2	2	1.92%
Panama	6	5.77%	0	0	0.00%
Paraguay	2	1.92%	0	0	0.00%
Peru	8	7.69%	1	1	0.96%
Suriname	1	0.96%	0	0	0.00%
Uruguay	2	1.92%	0	0	0.00%
Venezuela	11	10.58%	0	1	0.96%
Total	104	100%	12	27	25.96%

Conditions and circumstances under which the State may intervene with safety deviations	29-Dec-2017												
Provisions to prevent use or disclosure of safety data for purposes other than safety improvement;	29-Dec-2017												
Provisions to protect the sources of information obtained from voluntary/confidential reporting systems	31-May-2018												
SSP Element 2.1 (ii)	29-Dec-2017												
Develop harmonized regulations that require SMS implementation	29-Dec-2017												
SSP Element 3.2 (i)	Tue 1/30/18												
Establish safety data collection and exchange systems	29-Dec-2017												
Establish high-consequence State safety performance indicators and target / alert levels	30-Jan-2018												
PHASE/STAGE 4	28-Dec-2018	ARG	BOL	CHI	COL	ECU	GUY	PAN	PAR	PER	URU	VEN	
SSP Element 2.2	30-Nov-2018												
Review and agree upon the service provider’s safety performance indicators.	30-Nov-2018												
SSP Element 3.1 (ii)	30-Nov-2018												
Incorporate the service provider’s SMS and safety performance indicators into the routine surveillance programme.	30-Nov-2018												
SSP Element 3.2 (ii)	28-Dec-2018												
Implement voluntary/confidential safety reporting systems	31-May-2018												
Establish lower consequence safety/quality indicators with target/alert level monitoring as appropriate	30-Nov-2018												
Promote safety information exchange with and amongst service providers and other States	28-Dec-2018												
SSP Element 3.3	28-Dec-2018												
Prioritize inspections and audits based on the analysis of safety risk or quality data where applicable.	28-Dec-2018												
SSP Element 3.1 (iii)	28-Dec-2018												
Establish an internal review mechanism covering the SSP to assure continuing effectiveness and improvement.	28-Dec-2018												
SSP Element 4.1	28-Dec-2018												
Internal communication and dissemination of safety information	28-Dec-2018												
SSP Element 4.2	28-Dec-2018												
External communication and dissemination of safety information	28-Dec-2018												

Uptaded: 19/11/2017

X: Activity completed

X: Project delivered and in progress

X: Date due and activity not delivered