



WORKING PAPER

ASSEMBLY — 40TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 13: Audit Programmes – Continuous Monitoring Approach

**SAFETY PERFORMANCE OF THE SAM REGION WITHIN
THE USOAP – CMA FRAMEWORK**

(Presented by Peru, and sponsored by the following ICAO SAM States
and LACAC Member States)²

EXECUTIVE SUMMARY

The main initiatives taken to improve safety in the triennium are described in the 2020-2022 version of the Global Aviation Safety Plan (GASP), which provides the framework within which States, regions and industry can cooperate and collaborate in helping States to address safety operational and risk issues.

Accordingly, the SAM Region has updated its Safety Plan, outlining progress achieved to date and setting objectives, targets, indicators and evaluation metrics in order to continue the process of continuous safety improvement, while coordinating and integrating the various State and industry tiers, and ensuring implementation of the *No Country Left Behind* initiative.

Action: The Assembly is invited to:

- a) take note of the information herein;
- b) continue to support this type of regional initiative in which the Regional Offices must participate actively; and
- c) evaluate alternative means of measuring effective implementation so that results will be updated more timeously once States have implemented their action plans.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	Not applicable
<i>References:</i>	<ul style="list-style-type: none">• <i>SAM Region Safety Plan (SAMSP)</i>• <i>Global Aviation Safety Plan (GASP) 2020-2022 edition</i>

¹ Spanish version provided by Peru.

² Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Paraguay, Uruguay and Venezuela.

1. INTRODUCTION

1.1 At their thirteenth meeting (RAAC/13), held in Bogota, Colombia, from 4 to 6 December 2013, the Civil Aviation Authorities of South America declared that they were committed to achieving, among other things, targets in the following safety areas by 2016: safety oversight, accidents, runway excursion accidents, aerodrome certification and State Safety Programme (SSP) implementation.

1.2 On expiry of the Bogota declaration, the SAM Region set new targets, objectives and indicators and the ICAO South American Regional Office, on behalf of the States in the SAM Region and the international organizations involved, published in May 2019 the updated version of the SAM Region Safety Plan (SAMSP) which was approved at the sixteenth Meeting of Civil Aviation Authorities (RAAC/16), held in Lima, Peru, from 6 to 7 December 2018.

1.3 The objectives of SAMSP were formulated in accordance with objectives set in the Global Aviation Safety Plan (GASP), 2020-2022 edition.

1.4 The Plan considers the implementation of safety management based on three main priorities: improvement of effective implementation (EI) and of the safety oversight index (SOI) under the ICAO Universal Safety Oversight Audit Programme – Continuous Monitoring Approach (USOAP – CMA); implementation of the State Safety Programme (SSP); and reduction of accident rates in high-risk categories identified in the SAM Region.

2. EFFECTIVE IMPLEMENTATION

2.1 SAM Region results under the Universal Safety Oversight Audit Programme – Continuous Monitoring Approach (USOAP – CMA)

2.1.1 The results of USOAP – CMA activities indicate that, from November 2011 to May 2019, the current average effective implementation (EI) of the SAM Region is 80.60 %, which reflects an improvement in the average EI of 14.34 % in seven years or an annual average of 2.04 %; this EI improvement is greater than in the other regions of the world.

2.2 Analysis of accidents in the SAM Region involving aircraft of more than 5,700 kg in scheduled commercial air transport operations during the 2009-2018 period

2.2.1 The accident rate in the SAM Region involving aircraft of more than 5,700 kg in scheduled commercial air transport operations has fallen gradually since 2009 from 11.07 to 1.65 accidents per 1,000,000 departures, and the average in 2017 was well below the world rate of 2.42. Although the accident rate rose in 2018 from 1.64 (2017) to 3.17, which was higher than the world rate of 1.75, the diminution from 11.07 to 3.17 in these years implies a diminution in the average rate of accidents of 71.4 % of the average rate.

2.3 Analysis of runway excursion (RE) accidents in the SAM Region involving aircraft of more than 5,700 kg in scheduled air transport operations during the 2007-2018 period

2.3.1 The RE accident rates show a significant diminution from 2.74 in 2009 to 0.51 in 2015. Although it rose in 2016, 2017 and 2018 to 1.05, the rate has remained stable, and so the diminution from 2.74 to 1.05 in these years implies a diminution in the average rate of RE accidents of 61.6 % of the average rate.

2.4 SSP implementation

2.4.1 The SAM Office has formulated an SSP implementation pilot project for South American States. Most States are approaching the end of Phase II and are addressing some elements of Phase III. At least three States are expected to establish a sustainable SSP by December 2019.

2.5 Safety objectives of the SAM Region for the new triennium

2.5.1 Drawing on the ICAO objectives, the safety objectives set in the SAM SP are: to strengthen safety oversight capabilities of States; to implement the SSP effectively; to achieve a continuous reduction of safety risks; to reduce accident rates in all aviation segments; to increase regional collaboration; to expand the use of industry programmes; and to ensure the appropriate air navigation services and aerodrome infrastructure to support safe operations.

2.6 Performance targets for EI and SOI improvement and SSP implementation

2.6.1 In order to meet the SAM Region’s strategic objectives, the EI and SOI targets shown in the table below will be taken into consideration by SAM Region States in their respective safety plans. The targets, by group of States and by EI level at present and for 2022, are as follows:

Group	States with EI	2020	2022
Group 1	Less than 65%	EI=70% SOI improvement	EI=75%. SOI > 1
Group 2	Between 65 and 74.99%	EI=75% SOI improvement	EI=80%. SOI >1
Group 3	Between 75 and 79.99%	EI=80% SOI improvement	EI=85%. SOI >1
Group 4	More than 80%	EI=85% SOI improvement	EI=90%. SOI >1

2.6.2 In that connection, it is highly important that ICAO implement alternative mechanisms to measure EI, within the shortest time possible, once it has been informed of action plan implementation, in order to ensure real-time adjustment of EI data.

2.7 SSP implementation targets

2.7.1 SSP implementation targets have been set for 2022 and 2025 for all States equally, with sustainable SSP set at 100 % in 2022 and effective SSP at 100 % in 2025.

2.8 Performance targets related to accident rate reduction and alert levels

2.8.1 To manage the reduction of accident rates, the SAM Region has set an annual reduction of 10% in relation to the value obtained by the moving average of the previous five years’ rates, both for

scheduled commercial air transport accidents and runway excursion (RE) accidents involving aircraft of more than 5,700 kg.

2.8.2 For accidents involving aircraft of more or less than 5,700 kg and helicopters of more or less than 3,175 kg in all aviation sectors other than commercial air transport, States will establish the annual reduction rates (targets) in accordance with their safety oversight capabilities.

2.8.3 The alert levels for a new monitoring period (current year) will be based on performance in the previous period (previous five years) and the average and standard deviation values will be derived from the latter. Alert levels are illustrated in the safety indicator chart through three alert lines as follows: average + 1 SD; average + 2 SD; and average + 3 SD.

2.8.4 For the purposes of indicator control and monitoring, States will take specific action if: 1 point is above the third alert level; 2 consecutive points are above the second alert level; and 3 consecutive points are above the first alert level.

2.9 Targets relating to objectives set to increase regional collaboration, extend the use of industry programmes and ensure availability of basic infrastructure

2.9.1 Increase regional collaboration

Increase State collaboration at the regional level	By 2020, States facing difficulties in improving EI and SOI and in implementing the SSP will request support from the SAM Office and the SRVSOP.
	By 2022, all States will provide safety risk information, including the SPIs of their SSP, to ICAO, RASG-PA, SRVSOP and ARCM.
Extend the use of industry programmes	By 2020, all service providers will use globally harmonized SPIs as part of their SMS.
	By 2022, increase the number of service providers that participate in the corresponding industry assessment programmes recognized by ICAO.
Ensure availability of the appropriate air navigation service and airport infrastructure to support safe operations.	By 2022, all States will implement the basic air navigation and airport infrastructure

3. CONCLUSION

3.1 The SAM Region has updated its Safety Plan, outlining progress achieved to date and setting objectives, targets, indicators and evaluation metrics in order to continue the process of continuous safety improvement, coordinating and integrating the various State and industry tiers, and ensuring implementation of the No Country Left Behind initiative.