



Agenda Item 2: Beginning of the implementation of national safety plans

**START-UP OF IMPLEMENTATION OF NATIONAL SAFETY PLANS IN SAM STATES
BASED ON THE SAM SAFETY PLAN (SAMSP)**

(Presented by the Secretariat)

SUMMARY	
This working paper presents information regarding the objectives, indicators and goals set forth in the SAMSP and a model structure of the State safety plan for its implementation.	
References	
<ul style="list-style-type: none">• Report of the Fifth Meeting of Air Navigation and Flight Safety Directors (AN&FS/5) of the SAM Region, Lima, Peru, 20-22 August 2018.• Report of the Sixteenth Meeting of Civil Aviation Authorities (RAAC/16) of the SAM Region, Lima, Peru, 6-7 December 2018.• SAM Safety Plan (SAMSP)	
<i>ICAO strategic objectives:</i>	<i>A – Safety</i>

1. Introduction

1.1 Pursuant to the goals set forth in the Declaration of Bogota, the SAM Region established a work team to develop the SAM safety plan (SAMSP).

1.2 During 2018, the designated work team held virtual meetings to analyse and develop the SAMSP. Once the content was agreed, the draft plan was submitted to the Sixteenth Meeting of Civil Aviation Authorities (RAAC/16) held in Lima, Peru, on 6-7 December 2018, which, through Conclusion 16/02, approved the SAMSP in its original version.

1.3 In order to insert new effective implementation (EI) values and accident rates for 2018, the SAMSP was updated to May 2019. The updated version of this plan is posted on the website of the ICAO South American Office.

1.4 The SAMSP establishes the safety management strategy of the South American (SAM) Region for the period 2020-2030. This plan falls within a preventive strategy to improve safety performance in the SAM Region. This safety preventive strategy is based on the implementation and operation by SAM States of the State safety programme (SSP), which deals systematically with risk management and effective implementation and continuous improvement of the eight (8) critical elements (CEs) of the safety oversight system.

1.5 One of the guidelines established in the SAMSP refers to the development and implementation of national safety plans. The strategic objectives, indicators and goals of the SAM Region, required for the development of said plans, are reviewed below.

2. SAM strategic objectives

2.1 In order to develop national safety plans, States shall take into account the following strategic objectives, goals and indicators:

Strategic objectives of the SAM Region

- ✓ Strengthening of State safety oversight capabilities;
- ✓ Effective implementation of the SSP;
- ✓ Continuous reduction of safety risks;
- ✓ Reduction of accident rates in all aviation segments;
- ✓ Enhancement of regional collaboration;
- ✓ Extended use of industry programmes; and
- ✓ Guaranteeing the appropriate infrastructure in air navigation services and aerodromes to support safe operations.

Performance indicators and goals regarding improvements in effective implementation (EI) and the safety oversight index (SOI)

	✓ % improvement in effective implementation (EI) ✓ Safety oversight index (SOI)					
States with effective implementation (EI):	2020	2022	2024	2026	2028	2030
below 65% Group 1	EI = 70 % SOI improvement	EI = 75 % SOI > 1	EI = 80 % SOI > 1	EI = 85 % SOI > 1	EI = 90 % SOI > 1	EI = 95 % SOI > 1
between 65 and 74.99% Group 2	EI = 75 % SOI improvement	EI = 80 % SOI > 1	EI = 85 % SOI > 1	EI = 90 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1
between 75 and 79.99 % Group 3	EI = 80 % SOI improvement	EI = 85 % SOI > 1	EI = 90 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1
above 80 % Group 4	EI = 85 % SOI improvement	EI = 90 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1	EI = 95 % SOI > 1

SSP implementation indicators and goals

	Goals	
Indicators for all States	2022	2025
% SSP implementation	Sustainable SSP (100%)	Effective SSP (100%)

Performance goals related to the reduction of regional accident rates

2.2 In order to reduce accident rates, the SAM Region is planning an annual reduction of 10% with respect to the moving average of the rates corresponding to the previous 5 years, both for accidents in scheduled commercial air transport and for runway excursion (RE) accidents with aeroplanes above 5 700 kg.

2.3 Based on the moving average, the regional goal for 2019 would be **1.89** for total accidents and **0.74** for RE. The values of future goals will be calculated year after year. The table below shows the performance of the SAM Region, the proposed goal (improvement) and the indicator for 2019.

ACCD Categories	Annual rates					Average rate	Goal 2019 (10% improvement)
	2014	2015	2016	2017	2018		
Total accidents	3.59	1.03	1.08	1.64	3.17	2.10	1.89
RE	0.51	0.51	1.05	1.05	1.05	0.83	0.74

2.4 For aviation sectors other than scheduled and non-scheduled commercial air transport, States will establish annual reduction rates (goals) based on the most critical risks in these sectors and on their safety management capabilities.

2.5 Regarding goals and indicators related to the objectives of increasing regional collaboration, expanding the use of industry programmes, and ensuring the appropriate basic infrastructure for air navigation services and airports to support safe operations, these goals and indicators are shown in **Appendix A** to this working paper.

Goals related to SMS implementation in service providers

2.6 Taking into account that States shall implement a sustainable SSP by 2022, the following goals for SMS implementation in service providers will be considered:

Service providers	2020	2021	2022
Recognised training organisations that are exposed to safety risks related to aircraft operations when providing their services	35 %	70 %	100 %
Aircraft or helicopter operators authorised to conduct international commercial air transport activities	35 %	70 %	100 %
Recognised maintenance organisations that offer services to aircraft or helicopter operators engaged in international commercial air transport	35 %	70 %	100 %
Entities responsible for type design or manufacturing of aircraft, engines or propellers	35 %	70 %	100 %
Air traffic service providers	35 %	70 %	100 %
Certified aerodrome operators	35 %	70 %	100 %

2.7 The indicator will be the percentage of progress achieved in 2020, 2021 and 2022 for each provider that has not yet implemented an SMS or is in the process of doing so.

3. Development and implementation of national safety plans

3.1 In order to achieve the objectives, indicators and goals set forth in the SAMSP, SAM States must start developing and implementing their national safety plans.

3.2 The national safety plans of the States shall include safety objectives, goals and indicators in line with the SAMSP, and shall also include initiatives to address the risks identified in their civil aviation system. The plan must identify and prioritise safety issues in the different aviation sectors (for example, commercial air transport, general aviation, agricultural aviation, aerial work aviation, helicopter operations, etc.). States shall implement the initiatives contained in their plans through safety management activities. **Appendix B** presents a model of the contents of the State safety plan.

3.3 In order to comply with Conclusion 16/02 of the Sixteenth Meeting of Civil Aviation Authorities (RAAC/16), in which the meeting approved the SAM safety plan (SAMSP), and taking into account that this plan requires SAM States to develop and implement the State safety plan, the following conclusion is submitted to the consideration of the Meeting:

Conclusion ANFS/6-0X: DEVELOPMENT AND IMPLEMENTATION OF STATE SAFETY PLANS

That SAM States start developing and implementing their national safety plans based on the SAMSP guidelines and in accordance with the following activities and deadlines:

- a) Presentation of the safety plans of SAM States to the ICAO South American Regional Office: **30 September 2019**
- b) Beginning of implementation of national safety plans of SAM States: **1 October 2019**

4. **Suggested action**

3.1 The Meeting is invited to:

- a) take note of the information contained in this working paper and in **Appendices A and B**; and
- b) if deemed appropriate, approve the draft conclusion presented in paragraph 3.3 of this working paper.

APPENDIX A

Goals and indicators related to the objective of increasing regional collaboration, expanding the use of industry programmes, and ensuring the appropriate infrastructure in air navigation services and airports to support safe operations

Objectives	Goals	Indicators
Increase regional collaboration	That, by 2020, States that have problems improving EI and SOI and implementing SSP, request the support of the SAM Office and the SRVSOP	<ul style="list-style-type: none"> ✓ Number of States that require assistance/support ✓ Number of States that actively request assistance ✓ Number of States that receive assistance ✓ Number of States that offer assistance
	That, by 2022, all States provide safety risk information, including their SSP SPIs, to ICAO, RASG-PA, SRVSOP and ARCM	<ul style="list-style-type: none"> ✓ Number of States that provide safety risk information to ICAO, RASG-PA, SRVSOP and ARCM ✓ Number of States that are sharing their SSP SPIs with ICAO, RASG-PA, SRVSOP and ARCM ✓ Number of States that send safety information to ICAO, RASG-PA, SRVSOP, ARCM and other States
	That, by 2022, all States that have effective safety oversight capabilities and an effective SSP actively lead the risk management activities of ICAO, RASG-PA, SRVSOP and ARCM	<ul style="list-style-type: none"> ✓ Number of States with effective safety oversight capabilities and an effective SSP leading the safety management activities of ICAO, RASG-PA, SRVSOP and ARCM
Expand the use of industry programmes	That, by 2020, all service providers use globally harmonised SPIs as part of their SMSs	<ul style="list-style-type: none"> ✓ Number of service providers that use globally harmonised metrics for their SPIs
	By 2022, increase the number of service providers that participate in the corresponding industry evaluation programmes recognised by ICAO	<ul style="list-style-type: none"> ✓ Number of service providers that participate in the corresponding industry evaluation programmes recognised by ICAO
Ensure the appropriate infrastructure in air navigation services and airports to support safe operations.	That, by 2022, all States implement basic air navigation and airport infrastructure	<ul style="list-style-type: none"> ✓ Number of States that have implemented basic air navigation and airport infrastructure

APPENDIX B

MODEL CONTENTS OF THE STATE SAFETY PLAN

CONTENTS

The State safety plan should contain at least the following sections:

1. Introduction
2. Purpose of the plan, including links to the regional safety plan (SAMSP) and the GASP
3. The strategic approach of the State to safety management in civil aviation, including safety objectives, goals and indicators
4. A description of safety risks and the initiatives to address them
5. A description of other safety issues, such as the challenges related to SSP implementation and the initiatives to address them
6. How will the State measure safety performance to monitor the implementation of the plan.

Guidance on the topics that a State could cover in each section is provided below.

1. Introduction

- a) provide an overview of the State safety plan;
- b) describe the structure of the plan (chapter, sections and content);
- c) describe the relationship between the plan and the SSP and the delivery of an effective safety oversight:
 - 1) if the State has not fully implemented the SSP, include a brief description of the aviation system of the State in terms of safety oversight, and describe the relationship between the plan and achieving an effective safety oversight.
- d) list the entities of the State that are responsible for the development, implementation and monitoring of the plan, such as the civil aviation authority (CAA) and the accident investigation authority (AIA);
- e) briefly describe the safety issues to be addressed by the plan;
- f) list the safety objectives and goals of the State:
 - 1) briefly describe the operational context of the State. This includes: common hazards or challenges (for example, surveying, meteorology, socio-political issues, etc.);
 - 2) the volume of air traffic in the State, as well as its expected growth or reduction; and
 - 3) the level of maturity of different aviation sectors, such as aerodromes, general aviation, helicopter operations (for example, the progress made in SMS implementation by the various service providers); and
- g) reaffirm the commitment of the State to aviation safety and to the provision of resources for safety-enhancement activities at national level, through a statement signed by the Director General of Civil Aviation or higher ranking official (for example, the Minister of Transport):

- 1) if such statement is already included in the SSP documentation, explain in the introduction that the SSP documentation contains the commitment of the State to aviation safety and to the provision of resources for the activities, and make reference to that document, if publicly available.

2. Purpose

- a) describe the purpose of the State safety plan;
- b) explain that the plan contains the strategic direction of the State regarding aviation safety management for a given period of time:
 - 1) define this period of time, for example 3, 5 or 10 years. Bear in mind that the title of the plan may contain a time interval, for example, if the time period was 3 years, the title of the document could be "2020-2022". According to the SAMSP, regional planning covers a 10-year period (2020-2030);
- c) present a clear link between the plan, the SAMSP and the latest edition of the GASP. This can be achieved by showing the link between the safety objectives and goals of the State and the objectives and goals of the SAMSP and the GASP;
- d) identify what other documents and plans have been considered and are applicable to this plan, for example the civil aviation master plan, the GANP, eANP, GASeP, etc., as applicable; and
- e) identify the State initiatives that will support safety enhancement at national level and at regional and international level.

3. State strategic approach to safety management

- a) Describe how the plan was developed and approved, including collaboration with different entities within the State, the industry, and other stakeholders:
 - 1) explain how the plan is managed, including review and update frequency (for example, the plan will be reviewed every year and will be updated at least every four years). This can also be covered in the SSP documentation;
 - 2) explain the need for a collaborative approach in order to identify safety issues and implement safety improvement initiatives to mitigate risks;
 - 3) explain the process used for identifying national safety risks and challenges.
- b) List the objectives, national safety indicators and goals (this can be done in a table format);
 - 1) explain how national safety objectives, goals and indicators are linked to the SAMSP (this can be done by making reference to the document);
 - 2) explain the objectives, national indicators and specific safety goals other than those described in the SAMSP, if applicable; and
- c) Identify State safety initiatives that may contribute to the achievement of national safety objectives:
 - 1) explain the link between national safety objectives and goals and the safety improvement initiatives to be undertaken by the State; and
 - 2) explain how national safety objectives and goals are related to regional or international initiatives. In such cases, describe the benefits derived from the harmonisation of the national strategy with the regional and international strategy.

4. Safety risks

- a) List the national high-risk categories (HRCs) selected for the plan:
 - 1) briefly explain which HRCs were selected and why they were given priority (for example, a specific accident category may be considered a main concern and be addressed as a safety risk in the plan due to the number of fatalities associated to its possible occurrence);
 - 2) describe the link between national HRCs and those listed in the GASP;
 - 3) address the GASP HRCs in the plan, if applicable;
 - 4) list the additional national HRCs; and
 - 5) list additional safety risk categories or emerging issues, as applicable;
- b) explain how were national safety risks identified. This may include:
 - 1) as part of the State analysis;
 - 2) derived from the regional analysis (for example, by the State itself, RASG-PA, SRVSOP and ARCM); and/or
 - 3) based on the safety risks described in the GASP and the SAMSP;
 - 4) national safety risks must cover the different aviation sectors (for example, commercial air transport aviation, general aviation, agricultural aviation, training aviation, helicopters, unmanned aircraft (UAs) etc.);
- c) describe a set of initiatives to mitigate risks associated to HRCs:
 - 1) list the initiatives planned or underway by the State to address all HRCs identified (and other matters, including emerging issues);
 - 2) identify those initiatives derived from the State roadmap, as applicable; and
- d) describe the taxonomy used to assess risk categories in the national safety risk identification process:
 - 1) it is recommended that use be made of the aviation occurrence categories of the CAST/ICAO common taxonomy team.

Note.- Additional information on the CICTT taxonomy can be found on the ICAO website at <https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy>

5. Other safety issues

- a) List and describe other safety issues (for example, organisational challenges) selected for the plan, including the reason for assigning them priority;
- b) Explain how they were identified, including, but not limited to, a data-based approach. This may include:
 - 1) as part of the State analysis;
 - 2) derived from the regional analysis;
 - 3) based on the organisational challenges described in the SAMSP; and/or
 - 4) based on USOAP data;

- c) explain how will the State implement actions related to these other safety issues/activities:
 - 1) for example, a State may lack a safety data collection and processing system (SDCPS) as part of its SSP; the plan may present this problem and briefly describe the course of action foreseen to address this deficiency. The plan may be useful to secure resources to help the State implement the listed initiatives; and
- d) describe a set of initiatives to address the other safety issues identified:
 - 1) list the initiatives planned or being implemented by the State to address all the safety issues identified; and
 - 2) identify those initiatives derived from the State roadmap, as applicable.

6. Monitoring of plan implementation

- a) Describe how are plan activities monitored;
 - b) Explain how are corrections and adjustments to the plan and its activities made and monitored (is there any independent review of the status of implementation?);
 - c) Describe how will the State monitor the implementation of the initiatives listed in the plan and how will it measure safety performance to ensure that the expected results are achieved;
 - d) Explain how will each national safety objective be measured and monitored to track performance:
 - 1) The indicators used for measuring safety performance must, in principle, be tracked based on SAMSP indicators;
 - e) Describe the means for providing stakeholders with updated and relevant information on the progress made in the achievement of national safety objectives and goals, as well as the status of implementation of the initiatives;
 - f) Include explanatory text to address the following situations:
 - 1) If the national safety objectives and goals are not met, indicate the causes to be addressed and presented to the relevant stakeholders; and
 - 2) If the State identifies critical issues, indicate if the State will take reasonable measures to mitigate safety risks as soon as possible, which will possibly lead to an earlier review of the plan; and
 - g) Adopt a standard approach to the provision of information at the regional level (for example, to inform ICAO, RASG-PA, SRVSOP and ARCM). This will allow the Region to receive information and assess safety risks using common methodologies.
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