



**WORKING PAPER**

RASG-PA ESC/39 — WP/09  
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**Thirty Ninth Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (ESC/39)**

Mexico, Mexico, 29 to 30 May 2024

**Agenda Item 3: RASG-PA GREPECAS Coordination**

**SAFETY PERFORMANCE MEASUREMENT OF AIR NAVIGATION SERVICES (ANS) IN THE CAR/SAM REGIONS**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
<p>This Working Paper emphasize the need for collaboration and exchange of information between the GREPECAS and the RASG-PA, proposing specific safety related data for ANS performance to be collected by the RASG-PA. Additionally, the paper suggest the RASG-PA to encourage States to include, into their State Safety Programme (SSP) safety performance framework, safety performance indicators to reflect Air Traffic Management (ATM) safety performance.</p>	
<b>Action:</b>	Suggested actions are included in Section 5.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Air Navigation Capacity and Efficiency</li> </ul>
<i>References:</i>	<ul style="list-style-type: none"> <li>• Annex 19 – Safety Management</li> <li>• ICAO Global Air Navigation Plan (GANP)</li> <li>• ICAO Global Safety Plan (GASP)</li> <li>• CAR/SAM Air Navigation Plan</li> <li>• Final report of the Third GREPECAS–RASG-PA Joint Meeting and the Twenty-first Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/21), Santo Domingo, Dominican Republic, 14 to 17 November 2023.</li> <li>• Summary of discussions Second CAR Workshop for the Implementation of the CAR/SAM Air Navigation Plan Volume III, (CAR/SAM/ANP-VOLIII/2), Mexico City, Mexico, 13 to 15 February 2024</li> </ul>

**1. Introduction**

1.1 The evolution of the global air navigation system, as detailed in the ICAO Global Air Navigation Plan (GANP), requires the development of several performance areas, including capacity and efficiency, with safety as an integral ingredient.

1.2 It is widely accepted that the transition from an implementation-oriented to a performance-based air navigation environment can provide significant benefits to enhance the global aviation system.

1.3 To benefit from these changes, the CAR/SAM Regions must promote the development of a performance-oriented planning framework to include the aviation system block upgrades into the CAR/SAM Regions air navigation system.

## **2. Background**

2.1 The Regional Air Navigation Plan (RANP) provides for the planning and implementation of ANS within a specified area, in accordance with the agreed global and regional planning framework. They are developed to meet those needs of specific areas not covered in the worldwide provisions. The development and maintenance of the RANP is undertaken by the corresponding ICAO Planning and Implementation Regional Group (PIRG) with the assistance of the ICAO Secretariat.

2.2 On 18 June 2014, the ICAO Council decided that the regional Air Navigation Plans (ANPs) should be published in three volumes.

2.3 The RANP Volume III contains a series of tables to collect information regarding regional air navigation performance to support the performance-planning framework of the RANP.

## **3. Discussion**

3.1 During the GREPECAS/21 Meeting (Third GREPECAS–RASG-PA Joint Meeting (RASG-PA/GREPECAS/3) held in Santo Domingo, Dominican Republic, from 15 to 17 November 2023, a Working Session on the Key Performance Indicators (KPIs) of the RASG-PA and GREPECAS was conducted, to discuss the sharing of information required for monitor the implementation of the GANP.

3.2 Among the results of said working session, some conclusions and required actions need to be highlighted for the purpose of this Working Paper:

- Clarification of needs: The safety indicators contained in the GASP are not necessarily sufficient or fully reflect the safety information needs of GREPECAS. The same thing happens with the air navigation indicators in the GASP.
  - o *Required action: Each group should identify the indicators required by the other area.*
- Specialization and responsibilities: There is a consensus that safety indicators should be measured by RASG-PA, and air navigation indicators should be measured by GREPECAS.

- *Required action: Based on the list of indicators prepared by each group, the other group will compile and share the information necessary to feed each of the indicators according to their area of specialty.*
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- Indicators and metrics harmonization: It is crucial to harmonize the metrics used in the indicators of both plans to avoid duplication of efforts, improve efficiency in data collection, and facilitate the work of information exchange between both groups.
  - *Required action: The indicators should adjust to the common taxonomy recognized in each specialty area.*
- Limitations related to data collection: The required information to feed certain indicators depends on the data provided by States. Some States have a lack of adequate capacity and processes for data collection and management.
  - *Required action: During the preparation of the list of indicators, those indicators for which data are available should be initially considered.*
  - *Required action: It is essential to promote the SSP implementation process to allow the strengthening of States' capacities for the safety management and air navigation data.*

3.3 The ICAO NACC Regional Office organized the Second CAR Workshop for the Implementation of the CAR/SAM Air Navigation Plan Volume III (CAR/SAM/ANP-VOLIII/2), which was held in Mexico City, Mexico, from 13 to 15 February 2024. One of the objectives of the workshop was to continue with the management process of performance indicators approved in Table **spell out** PMP III-3 – List of KPI by Performance Objective and Performance Area of the CAR/SAM Regions.

3.4 Following the results of the Working Session for the Key Performance Indicators (KPIs) of the RASG-PA and GREPECAS, participants in the workshop reviewed the **GANP** safety related indicators and made the following recommendations:

- GREPECAS should request RASG-PA to collect the following data regarding safety to be included in the CAR/SAM ANP Volume III:

Key Performance Ambition (KPA)	Consider data collection of	Performance Objective	GANP Key Performance Indicator Number
Safety	Incidents	Maintain or Improve Safety	KPI20
Safety	Incidents	Maintain or Improve Safety	KPI21
Safety	Incidents	Maintain or Improve Safety	KPI22
Safety	Incidents	Maintain or Improve Safety	KPI23

- For KPI23 Number of Aircraft proximity (AIRPROX)/ Traffic Alert and Collision Avoidance System (TCAS) alert/loss of separation/near midair collisions/Midair Collisions (MAC), participants considered necessary for ANS purposes to gather data related to Variant 3 (loss of separation) considering this variant was more oriented to measure ATM safety performance.

#### **4. Conclusions**

4.1 The RASP-PA has a significant experience with performance measurement and decision-making based on data.

4.2 The GREPECAS is starting this path, with the implementation of the RANP Volume III. The support of the RASG-PA to GREPECAS on safety performance measurement will have a positive impact in the provision of ANS in the CAR/SAM Regions.

4.3 The more viable way to ensure ANS safety related data is collected at State level is to promote the integration of the GANP Safety Performance Ambition KPIs into the SSPs safety performance framework, to be translated into the ATS Providers Safety Management Systems (SMS) Acceptable Level of Safety Performance requirements.

#### **5. Suggested Actions**

5.1 The Meeting is invited to:

- a) request RASG-PA to collect data for the safety performance indicators from the GANP, as detailed in Section 3.4 of this Working Paper, and share the information with GREPECAS to support the RANP Volume III; and
- b) encourage States to include, into their SSP's safety performance framework, the GANP KPI 23 (Number of AIRPROX/TCAS alert/loss of separation/near midair collisions/ MAC), Variant 3: loss of separation.