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Third Meeting of Rapporteurs of the North American, Central American and Caribbean Working Group (NACC/WG/RAP/03)

(ICAO NACC Regional Office, from 24 to 27 March 2025)

Agenda Item 4: Review of GREPECAS CAR/SAM Projects, and coordinated NACC/WG planning with GREPECAS

IMPLEMENTATION OF CAR/SAM RANP VOLUME III AND CONCLUSIONS OF OTHER ACTIVITIES

(Presented by the Secretariat)

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EXECUTIVE SUMMARY			
This Paper provides information regarding the implementation of the CAR/SAM Regional			
Air Navigation Plan (RANP) Volume III and details the Conclusions agreed in the different			
Regional Meetings. Additionally, the Paper inform about upcoming activities and			
support projects.			
Strategic Objectives:	Air Navigation Capacity and Efficiency		
References:	CAR/SAM Regional Air Navigation Plan.		
	Final report of the Twentieth Meeting of the CAR/SAM Regional		
	Planning and Implementation Group (GREPECAS/20), Salvador,		
	Brazil, 15 – 18 November 2022		
	Final report of the Twenty-first Meeting of the Caribbean and		
	South American Regions Planning and Implementation Group		
	(GREPECAS/21), Santo Domingo, Dominican Republic, 13 to 17 November 2023.		
	Summary of Discussions – Second Implementation of Volume		
	III of the CAR/SAM Regions Air Navigation Plan (ANP) Workshop (CAR/SAM/ANP-VOLIII/2), Mexico City, Mexico, 13 to 15		
	February 2024.		
	Final report of the Ninth North American, Central American and		
	Caribbean Working Group Meeting (NACC/WG/9), Mexico City,		
	Mexico, 30 September to 4 October 2024.		
	Workshop on Global Air Navigation Plan Key Performance		
	Indicators (KPIs), Mexico City, Mexico, 28 to 31 October 2024.		
	Final report of the Twenty-second Meeting of the CAR/SAM		
	Regional Planning and Implementation Group (GREPECAS/22),		
	Lima, Peru, 20 to 22 November 2024.		

1. Introduction

1.1 The Regional Air Navigation Plan (RANP) provide for the planning and implementation of air navigation systems 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 ICAO Planning and Implementation Regional Groups (PIRGs) with the assistance of the ICAO Secretariat.

- The RANP represent the bridge between, on one side, the global provisions in the ICAO Standards and Recommended Practices (SARPs) and the Global Air Navigation Plan (GANP), and on the other side, the States' air navigation plans and implementation status. The GANP is an overarching framework that includes key aviation policy principles to assist ICAO Regions, sub-regions and States with the preparation of their regional and State air navigation plans and to support the establishment of air navigation priorities.
- 1.3 On 18 June 2014, the ICAO Council decided that the RANP should be published in three volumes. RANP Volume III contains dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the GANP. The RANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the RANP Volumes I and II. The amendment of Volume III would not require approval by the Council (approval of Part II is under the responsibility of the relevant PIRG).

2. Background

- 2.1 The GREPECAS/20 Meeting approved the initial version of the CAR/SAM RANP Volume III, with the mandate for the Secretariat to implement the programme for the management of the RANP Volume III and for States to develop data collection mechanisms for populating the tables of GANP Key Performance Indicators (KPIs).
- 2.2 The Secretariat continued with the development of activities to comply with the mandate of GREPECAS and organized several regional workshops to raise awareness about the RANP and the GANP KPIs.
- 2.3 GREPECAS/21 Meeting approved an updated version of the RANP Volume III, and reiterated the mandate to advance in the development of the RANP Volume III with the participation of all States and stakeholders, and to move towards the definitive implementation of the six-step approach to performance-based planning stipulated in the GANP, and to ensure cost-efficient and interoperable implementations, as well as the contribution of such planning to the socio-economic development objectives in each State.

3. Latest activities

- 3.1 Second Implementation of Volume III of the CAR/SAM Regions Air Navigation Plan (ANP) Workshop (CAR/SAM/ANP-VOLIII/2) https://www.icao.int/NACC/Pages/meetings-2024-anpv3.aspx
- 3.1.1 The CAR/SAM/ANP-VOLIII/2 Workshop was held at the ICAO NACC Regional Office, from 13 to 15 February 2024. The Workshop was attended by 26 delegates from 9 States/Territories and 2 International Organization from the NAM/CAR Regions.

- 3.1.2 Participants in the Workshop reviewed in detail the content of the RANP Volume III, including its tables and requirements. Working sessions were conducted to analyse the priorities and capabilities of the States and Air Navigation Service Providers to measure the GANP KPIs included in the RANP Volume III. Each NAM/CAR State and ANSPs participating in the Workshop identified the KPIs they were interested and their current capabilities to compile the data required for measuring.
- 3.1.3 The Secretariat, using the information and results provided by the participating States during the exercises conducted in the Workshop, developed a proposal of the KPIs to be used in the RANP Volume III processes, to be presented to the NACC/WG to start data collection and calculations.
- 3.2 Ninth North American, Central American and Caribbean Working Group Meeting (NACC/WG/9) https://www.icao.int/NACC/Pages/meetings-2024-naccwg9.aspx
- 3.2.1 The NACC/WG/9 was held at the ICAO NACC Regional Office, from 30 September to 4 October 2024.
- 3.2.2 Taking as a reference the results of the Second CAR Workshop for the Implementation of the CAR/SAM Air Navigation Plan Vol. III and the Follow-up Workshop on the preparation of Vol. III of the Regional Air Navigation Plan (RANP) for the SAM Region, through CONCLUSION NACC/WG/09/03 SUPPORT THE IMPLEMENTATION OF PERFORMANCE-BASED METRICS FOR THE NAM/CAR REGIONS, the NACC/WG/9 agreed to endorse the measurement of the following KPIs:

Capacity	Efficiency	Safety
KPI 06 En-route airspace capacity	KPI 01 Departure punctuality	KPI 23 Number of losses of separation in
KPI 09 Airport peak capacity	KPI 05 Actual en-route extension	flight (Variant 3)
	KPI 08 Additional time in terminal	
	airspace	

- 3.3 Workshop on Global Air Navigation Plan Key Performance Indicators (KPIs) https://www.icao.int/NACC/Pages/meetings-2024-ganpkpiw.aspx
- 3.3.1 The Workshop on Global Air Navigation Plan KPIs took place at the ICAO NACC Regional Office, and on-line, from 28 to 31 October 2025, facilitated by experts of the Brazilian Department of Airspace Control (DECEA) and Center of Air Navigation Management.
- 3.3.2 The workshop was attended by more than 100 participants in person and online, who received guidance for the establishment of an ATM performance system and detailed explanation for the calculation of each of the regionally agreed GANP KPIs. DECEA Performance Indicators Handbook was also shared with the Workshop and used as a reference.
- 3.3.3 This workshop was a crucial step in the ongoing efforts to enhance regional capacity and efficiency in air navigation, specifically within the CAR Region. This event also responds to an opportunity identified earlier at the Second CAR Workshop for the Implementation of the CAR/SAM Air Navigation Plan Volume III (CAR/SAM/ANP-VOLIII/2), specifically on the development of GANP KPIs. Performance indicators are a management tool that offers not only the possibility of identifying processes in air navigation that are not following the desired course, but also their improvement, while at the same time supporting the decision makers when the need arises to opt for a business course with continuous growth prospects.

- 3.4 Twenty-second Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/22) https://www.icao.int/NACC/Pages/meetings-2024-grp22.aspx
- 3.4.1 GREPECAS/22 reviewed the status of the CAR/SAM RANP, including the Volume III, following up the commitment from the previous GREPECAS Meetings. Conclusion GREPECAS/22/2, Progress on the Development of Volume III of the RANP, requested that the CAR/SAM States, in conjunction with ANSP and airports, with the participation of airlines and International Organizations, assisted by the Secretariat, populate the Tables of Volume III of the RANP CAR/SAM with the data of performance indicators KPIs, prioritizing and harmonizing the management of these indicators according to the progress of the Working Groups for the regional implementation of air navigation by GREPECAS/23
- 3.4.2 GREPECAS/22 had a working session to analyze the effective implementation of "Performance-based planning and KPI management of the Global Air Navigation Plan." The Meeting agreed with the following diagnosis of the working groups:
 - a) The provision of Regional Technical Guides that complement the information presented in the ICAO GANP portal is required, in order to have a harmonized methodology for developing KPIs. These guides should be the basis for the preparation of instruction manuals on this subject.
 - b) The formation of an Adhoc group within GREPECAS is required to consolidate the efforts of the administrations and to assist in processes for data collection, KPI calculations and management of air navigation performance.
 - c) The group should identify regional priorities, aligned with the ongoing air navigation rollout, and the resources required for harmonized progress on these tasks. At the same time, it must strengthen the integrated work of the industry, users, States, and ANSPs.
 - d) It was identified that benchmarking activities between administrations and/or ANSPs (on a voluntary basis), carried out at regional and interregional level, can boost the management of KPIs of CAR/SAM States.
 - e) The dissemination of the enacted KPIs must be improved, through appropriate tools (dashboards, etc.). Likewise, it is necessary to develop a Communications Plan.
- 3.4.3 Accordingly, the Meeting adopted the Decision GREPECAS/22/19, Activation of an Ad-Hoc Group for the Development of KPIs. This Decision mandates that, under the framework of GREPECAS Programme for the Strengthening of the Regional Plan (RANP) and National Plans (NANP) of the CAR/SAM, Project A1, and to work jointly with the regional implementation groups, the industry and stakeholders, an Ad-hoc Group is activated, which members are Bahamas, Brazil, Chile, Colombia, Cuba, Dominican Republic, Ecuador, Panama, Peru, Trinidad and Tobago, United States, IATA and IFATCA, for the development of Key Performance Indicators KPI of the GANP (KPI Adhoc Group KAHG) in order to strengthen the implementation of Volume III of the RANP CAR SAM, which results are to be presented at GREPECAS/23 with the following tasks:

- 1. prepare a regional CAR/SAM guidelines and standardized training material on the methodology of performance indicators, data collection and management and calculations;
- 2. formulate an Action Plan for the progressive implementation of KPIs, identifying priorities and resources required, harmonized with the progress of the implementation groups;
- 3. implement a Communications Plan and adequate means of dissemination (dashboards, etc.) of the KPIs; and
- 4. Formulate a regional and/or interregional initiative for KPIs benchmarking activities.
- 3.4.4 The objective of the Ad-Hoc Group is to promote performance-based planning aligned to the GANP, strengthen Volume III of the RANP CAR/SAM, and foster collaborative work with the implementation groups, Industry and stakeholders, to improve skills of States on the management of KPIs, so as to be prepared for the application of new indicators of the GANP 8th edition and the NANP template, starting in 2026.

4. Next steps

- 4.1 ICAO started a Global Project for the Implementation and Harmonization of RANPs Volume III. This Global Project was initiated by the SAM Office; therefore it benefits the CAR Region as well. The main objective/deliverable of this Global Project is to perform an analysis /study /benchmarking pertaining to the Air Navigation Plan, Volume III of different Regions, in order to consolidate and validate, with all concerned, a new Template for the ANP Vol III, using the CAR/SAM RANP Volume III as prototype. This Template will serve as the foundation to harmonize the implementation of the RANP Volume III in all ICAO Regions and would be proposed to the ICAO Council for approval with a proposed Roadmap for the transition of the different Regions to the new Template.
- 4.2 ICAO NACC has developed an implementation project to address the challenges identified in Section 3.4.2 of this Working Paper. The main objective of this project is to develop a regional guidance material to support the implementation of KPIs approved by GREPECAS in order to allow the population of the CAR/SAM RANP Volume III Tables. The alignment of the work of the CAR and SAM Regions is an expected outcome from this project.
- 4.3 Additionally, work is underway to implement a project for the regional calculation of air navigation performance using available ADS-B data.
- 4.4 ICAO NACC will continue working to provide guidance for key topics related to performance-based planning, like cost benefit analysis for air navigation services. Guidance and support to States will be provided, to enhance the capabilities for objective decision-making.

5. Conclusions

5.1 ICAO and States are investing significant resources to promote the implementation of the CAR/SAM RANP Volume III.

- 5.2 The expertise and involvement of the NACC/WG is critical to ensure the success of this initiative and the achievement of the expected outcomes of the CAR/SAM RANP Volume III.
- 5.3 The implementation the CAR/SAM RANP Volume III will promote the harmonization of performance metrics between the CAR and SAM Regions. This harmonization will have a positive effect in key air navigation implementation projects.
