



# ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

## Meeting of the Ad-hoc Group on Regional Management of Aeronautical Frequencies ICAO NACC Regional Office, 30 January to 03 February 2023

### Summary of Discussions

**Date** 30 January to 03 February 2023  
**Location** ICAO NACC Regional Office  
**Opening Ceremony** The meeting was attended by 6 delegates from 4 States/Territories and one International Organization from the CAR/SAM Regions. The list of participants is shown in **Attachment A**.

#### 1. References

1.1 State Letters Ref.: NT-N1-15; NE57-3; NT-N1-3 — E.OSG-NACC95559, dated 16 December 2022 and LT12/3-SA566, dated 12 December 2022 in accordance with Conclusion GREPECAS/20/05 “Creation of an Ad-hoc Group for the Development of a Regional Project for the Management of Aeronautical Frequencies.”

#### 2. Objectives

2.1 Follow up on the results of the Twentieth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/20), held in Salvador, Brazil, from 16 to 18 November 2022, in which Conclusion GREPECAS/20/05 was approved:

<b>CONCLUSION GREPECAS/20/05</b>		<b>CREATION OF AN AD-HOC GROUP FOR THE DEVELOPMENT OF A REGIONAL PROJECT FOR THE MANAGEMENT OF AERONAUTICAL FREQUENCIES</b>	
<b>What:</b>  That, taking into account the new service assignments in the use of frequencies in recent years have caused interference in the provision of air navigation services and with it a negative impact on operational safety, the Meeting approves the creation of an Ad hoc Group for the NAM/CAR and SAM Regions to develop a project aimed at the regional management of aeronautical frequencies, establishing its terms of reference for the project by 28 February 2023. Note: the activities to be developed within the project do not replicate the activities developed by the ICAO Frequency Spectrum Management Panel (FSMP).		<b>Expected impact:</b>  <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical	
<b>Why:</b>  The radio electromagnetic spectrum is a limited natural resource in which different actors compete for the allocation of different bandwidths to provide different services. Promote an integrated			

regional approach of all CAR and SAM States to protect the frequencies that are necessary for current and future aviation air navigation services before the ITU World Conferences.	
<b>When:</b> 28 February 2023.	<b>Status:</b> <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
<b>Who:</b> <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	CAR and SAM States, ICAO

2.2 The main objective of the meeting was to propose a project (**Attachment B** refers) to improve the timely and effective management of frequencies for aviation services in the NAM/CAR/SAM Regions to improve safety, and avoid interference and other problems related to the use of frequencies.

2.3 Previous discussions on aeronautical frequency management were considered as reference, and in accordance with:

- a) GREPECAS Conclusion GREPECAS/20/05, develop a project focused on the regional management of air frequencies.
- b) The need to update the information on aeronautical frequency assignment in the CAR/SAM Regions.
- c) the definition of the status of the regional frequency assignment
- d) the update of the procedure of the aviation frequency assignment for the CAR/SAM Regions.

2.3 In this work, issues of a specific nature for the CAR Region were also addressed, which will be developed through the management of the North American, Central American and Caribbean Working Group (NACC/WG) Aeronautical Frequency Management Task Force (NACC/WG/AFM TF), such as establishing a procedure for the assignment of coordination at the border of the CAR States with United States, and update the aeronautical frequency database to ensure that interference and allocation analyses integrate this data.

### **3. Introduction**

3.1 During the event, the challenges of the CAR and SAM Regions regarding the management of aeronautical frequencies were discussed, and the Meeting identified the need to:

- a) update the aeronautical frequency databases of the CAR and SAM Regions;
- b) update the aeronautical management procedures of both regions and standardize their regional use; and
- c) establish Points of contact (PoCs) with the States of both regions, area specialists who support aeronautical frequency management activities, to ensure the correct use of frequencies and contribute to providing the necessary recommendations for the use of the bands of the radio spectrum for future services.

3.2 The Meeting prepared a proposal for a project to be developed during 2023 and the first half of 2024.

3.3 As part of the Project proposal, the status of regional aviation frequencies for both regions will be updated and a process of analysis and evaluation of the information presented by the CAR/SAM States will be integrated to update the information of the current operating frequencies and improve future regional assignments. The analysis included in the draft Project will support decision-making in the future and the ordering of regional frequency management.

### **4. Meeting Outcomes**

4.1 The Regional Project proposal for frequency management in the CAR/SAM Regions will be submitted to GREPECAS for evaluation and it is expected to be approved during the Fifth Virtual Meeting of the GREPECAS Programme and Project Review Committee (PPCR) (PPRC/5) to be held from 11 to 12 April 2023. This project is aimed at:

- a) providing guidance to CAR and SAM States to manage frequency assignment;
- b) establishing updated databases in both regions available to States;
- c) establishing more expeditious mechanisms for coordination and socialization of topics of interest in this area; and
- d) developing mechanisms to analyse the use of frequencies for future aeronautical services.

### **5. Meeting Schedule and Activities**

5.1 The schedule of the meeting was from 9:00 to 14:00 hours.

## 6. Discussion

6.1 The Meeting shared experiences on air navigation services supported by aeronautical frequencies, including interference that may affect aeronautical communications; examples include interference caused by radio stations, by individuals, and implementation of services such as communications between transport fleets, among others.

6.2 The need to update the regional frequencies database was identified, creating a regional organization through:

- a) updating and maintaining the data of the operating frequencies;
- b) reviewing the operating parameters of the aeronautical frequencies in accordance with the service provided as established in Annex 10; and
- c) updating regional management mechanisms to support air navigation services.

6.3 States must implement a sector in their organizational structure to deal with aeronautical frequency management issues. The Organization, according to its structure, can establish a new area or establish specific responsibilities within the Communications, Navigation and Surveillance (CNS) areas of this activity.

6.4 The need for States to allocate human resources and training in this area, which is one of the most vulnerable in aviation and affected by the operation of other non-aeronautical services, was also identified.

6.5 The Meeting agreed that there is a need for States to establish management mechanisms for the radio spectrum assigned for aviation and their effective and efficient use, contributing to safety.

6.6 States' Civil Aviation authorities must maintain a close relationship with the national entities responsible for the management of the radio electric spectrum.

6.7 The use of the "Frequency Finder" application was discussed, recognizing that it is a support tool for States to carry out their frequency allocation analysis before sending the information to the NACC and SAM Regional Offices to update the regional databases.

6.8 The Meeting also discussed the need to provide guidelines to States of both regions on how to assign frequencies and the mechanisms for communication of information to the Regional Offices. The Secretariat indicated that the States are unaware of these mechanisms.

6.9 The documentation available from the Secretariat at: <https://www.icao.int/NACC/Pages/frequency.aspx> was reviewed and it was concluded that it would be reviewed, updated and made available to all States as part of the Project activities.

6.10 It was stressed that it is important that all States have a common working base, for which the creation of a working baseline is essential, which will serve as the beginning for regional reorganization. This is the first activity established within the Project.

6.11 During the meeting, the Secretariat mentioned information previously received from Startical (a company who works on service provision through Very High Frequency (VHF) regarding the launch of a constellation of satellites specifically designed for Air Traffic Management (ATM), which would provide VHF communications satellite-based services (voice and data) and Automatic Dependent Surveillance - Broadcast (ADS-B) with global coverage, key to reducing aircraft separation in remote oceanic and continental areas, thereby lowering separation standards, increasing efficiency and capacity, while reinforcing the level of security required. In addition, it will serve as a backup for the continental areas.

6.12 As part of this information, Startical recommended that States support agenda item 1.7 of the World Radiocommunication Conference (WRC-23) of the International Telecommunication Union (ITU) to approve the use of the VHF frequency band for satellite use, currently in aeronautical use for ground-based communications.

6.13 The Meeting recognized the proposed service as interesting and concluded that, once the use of this frequency band is approved for this service, there would be many companies that would develop in that area and that would be able to offer these and more services, which is a benefit for aviation. However, there is an urgent need to carry out a regional update, to establish the frequency management baseline to support the implementation of this and other future services for the regional benefit of aviation.

6.14 The Meeting developed the Project proposal in accordance with GREPECAS Conclusion GREPECAS/20/05, which has the following essential activities:

- a) carry out the necessary activities for the establishment of the Project at the regional level;
- b) update the information on aeronautical frequency assignment in the CAR/SAM Regions;
- c) establish/update the regional frequency assignment procedure;
- d) propose a regional training programme on aeronautical frequencies management of; and
- e) establish follow-up and evaluation mechanisms for ITU WRC topics.

6.15 The draft Project is found under **Appendix B** of this report.

6.16 In addition, the Meeting discussed the activities carried out to date by States with the support of the Regional Offices for the implementation of mitigating measures due to the implementation of 5G technology for the use of cellular service communications.

6.17 In this regard, the Meeting indicated that States of both regions would not be affected by this implementation, based on the information available at the moment, but that it was necessary for States to continue monitoring this implementation and other future implementations that could compromise the aviation services.

6.18 The importance of States of both regions having management, evaluation and analysis areas for the use of the radio electric spectrum was stressed once again.

**7. Outcomes/Recommendations**

7.1 The radio spectrum and the frequencies for aeronautical use within this spectrum are key to providing safe and efficient air traffic management. In this regard, it is essential that States of both the CAR and SAM Regions have regionally standardized and harmonized management mechanisms to ensure efficiency and effectiveness and promote the safety of air navigation services.

7.2 It is essential that States establish management mechanisms for the frequencies assigned for the use of aeronautical services, in order to protect and use them safely.

7.3 It is crucial that States assign human resource(s) and that they specialize, through training, the personnel that will be responsible for the management of the radio electric spectrum assigned to aviation, both for current and future services.

7.4 It is recommended that States support this Project initiative, the execution and follow-up of each of its activities, as well as assign personnel from their organizations for the development of this Project and related future projects, the latter due to the fact that mismanagement or misuse of aeronautical frequencies can be the cause of serious incidents and accidents in aviation, with incalculable human and material losses.

7.5 It is recommended that States establish a budget to develop the aeronautical frequency management area in each of their organizations.

**8. Accomplishment**

8.1 Project activities are expected to benefit States individually and regionally, on the basis of the project that has been established during the Ad Hoc Group meeting.

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North American, Central American and Caribbean Office (NACC)  
Oficina para Norteamérica, Centroamérica y Caribe (NACC)

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**Meeting of the Ad-hoc Group on Regional Management of Aeronautical Frequencies**  
**Reunión del Grupo Ad-hoc sobre Gestión Regional de las Frecuencias Aeronáuticas**  
ICAO NACC Regional Office, 30 January to 03 February 2023  
Oficina Regional NACC de la OACI, 30 de enero al 03 de febrero de 2023

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**LIST OF PARTICIPANTS / LISTA DE PARTICIPANTES**

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1. Ricardo Enrique Velásquez Aravena

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3. Elvis Antonio Collado Alcántara

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8. Mayda Alicia Ávila

**Grupo Ad-hoc sobre Gestión Regional de las Frecuencias Aeronáuticas**

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**LIST OF PARTICIPANTS / LISTA DE PARTICIPANTES**

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**PROJECT FOR THE CAR/SAM REGIONAL MANAGEMENT OF THE RADIO ELECTRIC SPECTRUM FOR AVIATION**

CAR Region	PROJECT DESCRIPTION (PD)	PD N° C	
<i>Programme</i>	Project Title	Start Date	End Date
<p>Improvements to the Regional Frequency Management</p> <p>(ICAO Programme Coordinators: <b>Mayda Avila</b>, Regional Officer, Communications, Navigation and Surveillance (CNS), NACC Office</p> <p><b>Francisco Almeida</b> Regional Office CNS, SAM Office</p>	<p align="center"><b>CAR/SAM REGIONAL MANAGEMENT OF THE RADIO ELECTRIC SPECTRUM FOR AVIATION</b></p> <p>Project Coordinators: - CAR: Emmanuel Jacques - SAM: To be defined</p> <p>Experts contributing to the Project: - Ricardo Enrique Velásquez Aravena (Chile) - Felix Jose Peralta Díaz (Dominican Republic) - Elvis Collado (Dominican Republic) - Emmanuel Joseph Jacques (Haiti) - Horacio Berretta Kramer (Uruguay) - Rodolfo Josué Rosales Calero (COCESNA)</p>	<p align="center">April 2023</p>	<p align="center">May 2024</p>
<p><b>Project Objectives</b></p>	<p>The main objective is to create a regional mechanism to ensure the correct and efficient management of frequencies for aviation services in the NAM/CAR/SAM Regions to improve safety throughout its operation to avoid interference and other frequency problems.</p>		
<p><b>Scope</b></p>	<p>Propose improvements that allow facing the challenges to safeguard the frequencies of the radio spectrum, necessary for current and future aeronautical services in the CAR/SAM Regions.</p>		
<p><b>Metrics</b></p>	<ul style="list-style-type: none"> <li>• Number of CAR and SAM States participating in the Project.</li> <li>• COM1, COM2 and COM3 listings update in the regions.</li> </ul>		
<p><b>Goals</b></p>	<ul style="list-style-type: none"> <li>• Update the information on aeronautical frequency assignment in the CAR/SAM Regions.</li> <li>• Establish/update the regional frequency assignment procedure.</li> <li>• Propose a regional training programme for the management of aeronautical frequencies.</li> <li>• Establish follow-up and evaluation mechanisms on World Radiocommunications Conference (WRC) of the International Telecommunication Union (ITU) issues.</li> <li>• Search for mechanisms that allow the application of procedures standardization.</li> </ul>		

CAR Region	PROJECT DESCRIPTION (PD)	PD N° C
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Involvement of the CAR and SAM States in the execution of the proposed activities.</li> <li>• Use of current meeting mechanisms.</li> <li>• Assignment of the necessary human resources by States for the development of the Project.</li> <li>• Review of the agenda presented for ITU WRC Conferences.</li> <li>• Dissemination of the information that affects the aeronautical frequencies to the CAR and SAM States.</li> </ul>	
<b>Justification</b>	<p>The radio spectrum is a scarce natural resource with a finite capacity whose demand is constantly growing.</p> <p>Aeronautical radio services are internationally recognized as the main users of radio frequencies, without which the operation of aircraft could not satisfy the global demand for safe, efficient and profitable transportation. ICAO's position aims to protect the aeronautical spectrum for all radio communication and radio navigation systems used for ground-based installations and on board aircraft.</p> <p>Civil aviation requirements continue to grow, demanding more navigation and communication facilities, thus creating increasing pressure on an already limited resource similarly to other non-aviation users with whom aviation shares the frequency spectrum resource. Consequently, civil aviation must develop and present its agreed policies and its quantified and qualified statements of radio frequency spectrum requirements, in order to ensure the continuous availability and access to the frequency spectrum resource and, ultimately, the continued viability of air navigation services worldwide.</p> <p>The management of the aeronautical frequency spectrum is required due to:</p> <ul style="list-style-type: none"> <li>• Scarce natural resource with finite capacity limits and increasing demand.</li> <li>• Spectrum management being a combination of administrative procedures and technical procedures.</li> <li>• Congestion imposes the need for frequency spectrum management.</li> <li>• The need to guarantee the efficient operation and without interferences of radio electric services, (for example, communications and radio navigation).</li> </ul> <p>Finally, the development of the Project will allow to:</p> <ul style="list-style-type: none"> <li>• Provide guidance to CAR and SAM States to manage frequency assignment.</li> <li>• Establish updated databases in both regions and available to the States.</li> <li>• Establish more expeditious mechanisms for coordination and socialization of topics of interest in this area.</li> <li>• Develop mechanisms for frequency use analysis for future aeronautical services.</li> </ul>	
<b>Related Projects</b>	Air Navigation Project	

Project Deliverables	Relationship with Regional Performance Objectives (RPO) and Aviation System Block Upgrades (ASBU) modules	Responsible	Implementation Status	Date		Comments
				Start	Finish	
<b>PROJECT FOR THE CAR/SAM REGIONAL MANAGEMENT OF THE RADIO ELECTRIC SPECTRUM FOR AVIATION</b>						
<b>Project Definition:</b>	<b>COMS, NAVS B0 and B1</b>			<b>30 January 2023</b>	<b>17 January 2023</b>	
Development of the Project Requirements		GREPECAS Ad-hoc Group		30 January 2023	3 February 2023	According to Conclusion GREPECAS/20/05
Communication of the report to States		ICAO NACC and SAM Offices		6 February 2023	24 February 2023	
Response by States		CAR and SAM States		20 February 2023	17 March 2023	
Request the Point of Contact (PoC) of each State		CAR and SAM States		20 February 2023	17 March 2023	
Presentation of the Project at the PPRC meeting		ICAO NACC and SAM Offices		6 February 2023	6 February 2023	
<b>Update information on aeronautical frequency assignment in the CAR/SAM Regions:</b>	<b>COMS, NAVS B0 and B1</b>			<b>7 February 2023</b>	<b>20 November 2023</b>	
Establish the information update requirements (according to Annex 10)		ICAO NACC and SAM Offices		7 February 2023	20 February 2023	
Develop an electronic format for filling in the information		ICAO NACC and SAM Offices		26 April 2023	9 May 2023	
Meeting of the Ad-hoc Group to review the proposal		GREPECAS Ad-hoc Group		10 May 2023	10 May 2023	
Send the request for information to States, in accordance with the defined criteria		ICAO NACC and SAM Offices		11 May 2023	24 May 2023	
Online meeting to explain the requested information		ICAO NACC and SAM Offices		5 June 2023	5 June 2023	

Project Deliverables	Relationship with Regional Performance Objectives (RPO) and Aviation System Block Upgrades (ASBU) modules	Responsible	Implementation Status	Date		Comments
				Start	Finish	
Response from States		CAR and SAM States		6 June 2023	17 July 2023	
Analysis of the information received		GREPECAS Ad-hoc Group <sup>1</sup>		18 July 2023	31 July 2023	Appointed by the States after the project is approved.
Submission of the report on the status of implementation of frequencies at the regional level		ICAO NACC and SAM Offices		1 August 2023	21 August 2023	
Response from States on the report		CAR and SAM States		22 August 2023	2 October 2023	
Development of the final report on the status of frequencies at the CAR and SAM regional level		GREPECAS Ad-hoc Group		3 October 2023	13 November 2023	
Presentation of the project at GREPECAS/21		ICAO NACC and SAM Offices		14 November 2023	20 November 2023	
<b>Establish/update the regional frequency assignment procedure:</b>	<b>COMS, NAVS B0 and B1</b>					
Review and update of the procedure in force at the NACC and SAM Offices.		ICAO NACC and SAM Offices		6 June 2023	6 June 2023	
Establish the criteria to cover both the CAR and SAM regions. (see the criteria for use and where the information will be placed on the Offices' web pages)		ICAO NACC and SAM Offices		7 June 2023	27 June 2023	
<b>Propose a regional training programme for the management of aeronautical frequencies:</b>	<b>COMS, NAVS B0 and B1</b>					

Project Deliverables	Relationship with Regional Performance Objectives (RPO) and Aviation System Block Upgrades (ASBU) modules	Responsible	Implementation Status	Date		Comments
				Start	Finish	
Review of the profile of personnel that manages aeronautical frequencies		GREPECAS Ad-hoc Group		7 February 2023	13 February 2023	
Search for training mechanism (verify the Training Centres, has cost)		GREPECAS Ad-hoc Group		14 February 2023	13 March 2023	
Submit a proposal to States		ICAO NACC and SAM Offices		26 April 2023	27 April 2023	
<b>Establish follow-up and evaluation mechanisms for ITU CMR issues:</b>	<b>COMS, NAVS B0 and B1</b>					
Verify the sector responsible from State exists		GREPECAS Ad-hoc Group		28 February 2024	30 March 2024	
Familiarise ICAO's position with States through ICAO Headquarters familiarization events		GREPECAS Ad-hoc Group		28 February 2024	30 March 2024	In accordance with the submission of the document "ICAO Position on WRC-27"
Submit the information with PoCs designated by States		GREPECAS Ad-hoc Group		28 February 2024	30 March 2024	

<sup>i</sup> GREPECAS Ad-hoc Group must be assigned by GREPECAS for project execution once it is approved.