



# ICAO

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North American, Central American and Caribbean Office

INFORMATION PAPER

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## North American, Central American and Caribbean (NACC) States Civil Aviation Authorities Directors General Virtual Meeting on COVID-19 Aviation Recovery and Restart

14 April 2021

### Agenda Item 4: Relevant Safety, Security and Air Navigation Implementation Matters

#### MATTERS RELATED TO AIR NAVIGATION SERVICES, INCLUDING GREPECAS IMPROVEMENTS

(Presented by Secretariat)

##### EXECUTIVE SUMMARY

This Information Paper presents a summary of the activities carried out in the different air navigation areas during 2020 and the first quarter of 2021, as well as the agreements established during the GREPECAS Programmes and Projects Review Committee (PPRC) Second Virtual Meeting (ePPRC/02) and the Evaluation for CAR/SAM Planning and Implementation Regional Group (GREPECAS) Projects Updates meeting with respect to air navigation activities.

This Information Paper is complemented with the priorities of the NAM/CAR Regions presented in IP/06.

<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>• GREPECAS Programmes and Projects Review Committee (PPRC) Second Virtual Meeting (ePPRC/02), Online, 30 October 2020</li><li>• Evaluation for CAR/SAM Planning and Implementation Regional Group (GREPECAS) Projects Updates Teleconference, Online, 18 November 2020</li></ul>

### 1. Introduction

1.1 During 2020, even in the midst of activities to support the States in their recovery process due to the COVID-19 pandemic, the air navigation area of the NACC Regional Office carried out a series of activities to support the States in the processes of operation and maintenance of air navigation systems and services, as well as another series of activities to strengthen the knowledge of the State personnel in their continuous operations, carried out remotely during the pandemic.

1.2 As part of the activities for the execution of GREPECAS projects, a series of virtual meetings were also held:

- In October 2020: the GREPECAS Programmes and Projects Review Committee (PPRC) Second Virtual Meeting (ePPRC/02) invited the Member States of the Committee to evaluate the current level of performance and benefit of GREPECAS work, to identify new implementation needs and to present/propose new projects or tasks so the Group results satisfy the current and future needs of the States, according to the new priorities.
- In November 2020: the Evaluation for CAR/SAM Planning and Implementation Regional Group (GREPECAS) Projects Updates Teleconference invited the GREPECAS Members to evaluate the status of the current projects, to determine their continuity in order to adapt them to the new CAR/SAM regional context.

## **2. Activities Carried out in the Air Navigation Areas**

2.1 The following is a summary of the activities carried out by the NACC Regional Office during 2020. The activities were oriented towards the development of previously established work, activities to support the States and strengthening the capacities of the State personnel.

2.2 Aerodromes and Ground Aids (AGA): Under this area, the results achieved during said period are listed below:

- a) The number of certified aerodromes in the CAR Region increased to 61% from a total of 145 international aerodromes by the end of 2020.
- b) Assistance to the Eastern Caribbean Civil Aviation Authority (ECCAA) was provided under the ICAO Programme for Aviation Volunteers (IPAV) for a reorganization of the institution, regulations development, creation of a unit responsible for aerodromes and safety standards, as well as the classification of 3 groups of 12 international airports in the Eastern Caribbean area to begin with the certification process.
- c) Several virtual events were carried out in the AGA area on Runway Safety Team (RSF) implementation and the new Runway Conditions reporting (GRF) format prior to the application date (November 2021)

2.3 Air Traffic Management (ATM): An agreement for the optimization of the Air Traffic Services (ATS) route network of the CAR/SAM Regions was made, analysing 25 proposals for this optimization project, involving 10 States and 13 Flight Information Regions (FIRs) from the CAR/SAM Regions. Two sets of publication dates were agreed in this part in order to meet the operational requirements: the first set of route publishing took place on 25 March 2021 for its entry into force on 20 May 2021 and the second group will be published on 22 April 2021 and will enter into force on 17 June 2021. This work will have a very positive impact on the Region by making the analysed routes more efficient.

2.4 In the ATM area, the following activities were carried out:

- a) Agreement for the implementation of the Measurement Indicators for the region (Key Performance Indicator (KPI)) for the Air Traffic Flow Management (ATFM) area.
- b) Collaboration for the regional harmonization of ATM contingency procedures.
- c) Implementation of 40NM longitudinal Global Navigation Satellite System (GNSS) separation in the Port-au-Prince FIR.
- d) Testing of direct routes and preferred routes by users in the CAR Region.

2.5 In the area of Search and Rescue (SAR), work was carried out on continuous support for the signing of SAR letters of agreement. In this sense, it is important to indicate that support is required at the highest level and prioritize this issue, since in many cases, the steps taken do not achieve the set goals and their development is slow or null.

2.6 In the Aeronautical Information Management (AIM) area, the following activities were carried out:

- a) CAR AIM Collaborative Plan implementation
- b) 2021 AIM Work Plan update
- c) Transition Status to AIM and System wide information management (SWIM) (AIM 2.0) implementation
- d) Global AIM Notice Distributed by Means of Telecommunication (NOTAM) Campaign 2021
- e) AIM Contingency Plan – NOTAM among NAM/CAR States
- f) AIM 2.0 Training requirements- Official documentation
- g) Review of the Procedures for Air Navigation Services (PANS) AIM Data Sets
- h) Cartography deficiencies (Procedures Area Navigation (RNAV) - Required Navigation Performance (RNP) - Circ 353).

2.7 Under the Communications, Navigation and Surveillance (CNS) field, the following activities were carried out:

- a) Development of guidance material to support States on CNS maintenance during the pandemic.
- b) The activities of the ICAO Council Aviation Recovery Taskforce (CART) Report and the input of all States' designated Points of Contact (PoCs) into the COVID-19 Response and Recovery Implementation Centre (CRRIC) platform. In this regard, over 40 individual workshops were held with each one of the States of the region in order to support them with data management in the CRRIC platform.
- c) An "Improvements to the Air Traffic Service (ATS) Voice Link (MEVA) Workshop" was held for State Members to cover maintenance activities, failure management, communication channels maintenance among others to ensure that even in the midst of the COVID-19 pandemic, said channels will comply with their availability requirements at 99.9%.

- d) In 2020 the 1st phase of the Project of the new CAR Region telecommunications network was developed. This project is aimed at renewing the MEVA communications network and turn it into a modern telecommunications network with the required technical capacity to support the current and future services of the region. During this first phase, the Request for Information (RFI) process concluded, which objective was to explore worldwide technologies which could be used in the new regional telecommunications network. Ten worldwide companies participated in this process.
- e) Work was carried out concerning emerging technologies. COVID-19 further increased the use of these new technologies; one of them is the Remote piloted aircraft system - Unmanned aircraft systems (RPAS)/(UAS), which evolved to provide a series of services. The ICAO NACC Regional Office started working since 2020 to support States for the development or update of legislation concerning said technology.
- f) Innovation of technology and implementation of new systems in the region have improved situation awareness on regional operations, but this technological progress brings about new challenges, one of which is cyberattacks. The ICAO NACC Regional Office started a Project jointly with the industry in order to support States with the implementation of cybersecurity. To-date, two workshops have been held (December 2020 and February 2021), and within the Project, it is foreseen to support punctually each one of the States in line with their operations during 2021.

2.8 With regard to the Meteorology (MET) field, the following activities were carried out:

- a) The most relevant activities to address ICAO Weather Information Exchange Model (IWXXM) implementation in the CAR Region:
  - IWXXM interoperability testing on the Air Traffic Services (ATS) Aeronautical Message Handling System (AMHS) between Cuba and United States, led by the Improvements to the Air Traffic Service (ATS) Voice Link (MEVA) Working Group in support of the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) activities.
  - Dissemination of: 1) Guidelines for the implementation of the Operational Meteorological (OPMET) information data Exchange in IWXXM format; 2) MET Plan and Roadmap in System-wide Information Management (SWIM).
  - NAM/CAR/SAM Webinar on IWXXM implementation, held in 2020.
  - To be held: Workshop on the Operational meteorological (OPMET) International Bank of Brasilia (virtual, 13 to 14 April 2021), to contribute with the implementation of OPMET messages in IWXXM format (Amendment 78 to Annex 3) and to show the new functionalities available in the International Data Bank.

- b) Within the Systemic Assistance Program (SAP) framework, and to help States improve the effective implementation of the Standards and Recommended Practices (SARPs) contained in Annex 3 of the Chicago Convention, the MET programme is operating based on the following objectives:
- Promote the implementation of meteorological services for international air navigation, what is included in the electronic Air Navigation Plans (e-ANPs) and in the reference frameworks of the Basic Building Blocks (BBBs) and Aviation System Block Upgrade (ASBU).
  - Ensure the continuous and coherent development of the MET component of the NAM and CAR/SAM e-ANPs and their harmonized implementation with the adjacent regions.
  - Develop effective methods to determine the implementation status of Blocks 0 and 1 elements of the ASBU and BBBs that allow to monitor the performance of MET services with an annual cyclical periodicity.
  - Improve States' capacity for the safety oversight of MET service suppliers.
  - Identify and support the resolution of air navigation deficiencies in MET services.
- c) To develop the MET Programme, a series of webinars titled “Regional Seminar on the foundational cores of Meteorological Service for International Air Navigation and its evolution”; these webinars will take place on: 21 May 2021, 20 August 2021 and 22 October 2021.

2.9 The NACC Regional Office encourages Member States to continue their efforts to ensure the efficient and effective implementation of international standards and recommended practices, particularly those contained in Amendment 79 to ICAO Annex 3, and to comply with the requirements of the World Meteorological Organization and ICAO related to the qualification and competence of aeronautical meteorology personnel, and the implementation of a Quality Management System (QMS) duly organized for the provision of aeronautical meteorological services. Likewise, States are invited to review the MET component of their national air navigation plans, to ensure alignment with the Global Air Navigation Plan (GANP) Sixth edition and to respond proactively to mitigate, as far as possible, the impacts of the COVID-19 pandemic on the provision of aeronautical meteorological services.

### **3. Work carried out in GREPECAS**

3.1 To evaluate the status or continuity of a project, a Project evaluation guide was provided for the Coordinators to take into account the following points in their analysis and evaluation:

- a) identify the need to continue the projects;
- b) prioritize project tasks;
- c) prioritize the allocation of resources;
- d) identify the need for new projects;
- e) identify actions to mitigate obstacles to achieving the proposed objectives; and
- f) ensure that projects are consistent and aligned with the Global Air Navigation Plan (GANP) and the GREPECAS Terms of Reference (ToRs)

3.2 It was established that each project should have determined an update/modification to the projects in its area, noting that the main objectives of the project review were:

- a) Update the information, determining if it is *Valid* or *Obsolete*
- b) Decide whether the Project continues or is closed
- c) Launch new projects is *Feasible* or *Not Feasible*

3.3 It was determined that the Projects were duly reviewed mainly by the Coordinators of the Secretariat and, in some cases, with the participation of the Coordinators of the States, said evaluation was carried out based on:

- a) Objectives and Scope
- b) Description/Activities
- c) Quality
- d) Cost
- e) Calendar, Program, milestones, terms
- f) Risk
- g) Results, products, deliverable results
- h) Human resources
- i) Responsibilities
- j) Resources: experts and budget
- k) Metrics/Indicators

3.4 In response to the results of the Evaluation for CAR/SAM Planning and Implementation Regional Group (GREPECAS) Projects Updates Meeting, the following results were obtained:

- a) Projects in the AGA area: Project F is maintained, which corresponds to Aerodrome Certification and Safety, Aerodrome Planning with some modifications, and Airport Collaborative Decision Making (A-CDM) will be added to this project.
- b) Project in the area of ATM: The ATM and Performance Based Navigation (PBN) projects are still considered relevant and will be maintained, but trying that the projects are reviewed to remove the routine activities carried out by the Regional Offices and focus on the specific activities of the Project.
- c) Project in the CNS area: Projects C (Automation and Situational Understanding) and D (Ground-Ground/Air-Ground communications infrastructure) established to meet the implementation of CNS/ATM systems (applications) and the necessary CNS infrastructure, and that will continue to be implemented are ATS

- Inter-Facility Data Communications (AIDC), Automatic Dependent Surveillance - broadcasting (ADS-B) and the update of the regional communications network.
- d) Project in the AIM area: the projects on the QMS and Electronic Terrain and Obstacle Data (e-TOD) are terminated, replacing them with the “AIM Collaborative Plan Project”, which integrates the 21 steps for the implementation of the ICAO AIM Roadmap for the transition and a direct link will be associated to the AIM tracking website (AIM Tracking) that is in the design process.
  - e) Project in the MET area: the Projects should be replaced by a follow-up project of the implementations that are pending in the MET Programme, in which the preparation of en-route meteorological phenomena-related information that may affect safety of homogeneous Significant meteorological information (SIGMET) aircraft operation or that of the implementation of the IWXXM and the preparation of meteorological messages for their exchange in a SWIM environment are to be integrated.

#### **4. Conclusion**

4.1 Despite the limitations and restrictions imposed by the pandemic, several activities and goals in air navigation have been met, and ICAO continues to invite States to support the activities of the different air navigation areas and Task Forces in the region; as well the activities to be carried out within the different GREPECAS projects.