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(NACC/DCA/10)**

Martinique, France, 21 to 23 June 2022

**Agenda Item 5: NAM/CAR Regional Safety/Air Navigation Implementation  
5.3 Air Navigation Implementation Matters**

**AIR NAVIGATION ACTIVITIES IN THE NAM/CAR REGIONS**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This working paper summarizes the air navigation activities carried out by the NACC Implementation Groups in the region during the last year, reassuming a lot of the Air navigation implementation matters and considering the States priorities post- COVID-19 pandemic.	
<b>Action:</b>	Suggested actions are presented in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• Sixth Meeting of the North American, Central American and Caribbean Working Group (NACC/WG/06) Online, 25 – 27 August 2021: <a href="https://bit.ly/3HiGJE6">https://bit.ly/3HiGJE6</a></li><li>• Nineteenth Meeting of the Regional Group for Planning and Execution of the Caribbean and South America (GREPECAS/19) Online, 27 – 29 October 2021: <a href="https://bit.ly/3xlbCii">https://bit.ly/3xlbCii</a></li></ul>

**1. Introduction**

1.1 Air navigation activities are coordinated by the ICAO NACC Regional Office through the Regional Implementation Task Forces of the NACC/WG. These groups are the regional implementation arm and also contribute to the execution of regional objectives through the development of the CAR/SAM Regional Planning and Execution Group (GREPECAS) projects. The detailed activities of these groups are available at the NACC/WG website in the ICAO NACC Regional Office website: <https://www.icao.int/nacc/Pages/default.aspx>

1.2 The Implementation Task Forces are made up of regional experts from all the NAM and CAR States who contribute with their knowledge and experience in carrying out activities for the benefit of the entire region and their own States.

1.3 The Regional Groups cover activities in the areas of Surveillance, Communications, Automation, Aeronautical Information, Search and Rescue, Air Traffic Management, Performance-Based Airspace Concept and Support for the Development of National Air Navigation Plans. Also, in recent years activities have been developed to integrate contingency actions and analysis of emerging technologies and cybersecurity into air navigation.

1.4 During the last two years, the implementation tasks were affected due to the COVID-19 pandemic, which limited the execution of the programmed activities in the different areas, but the virtual platform was used, developing a series of webinars aimed at strengthening knowledge in the different areas of air navigation.

## 2. Air Navigation Activities

2.1 **Air Traffic Flow Management (ATFM):** The NAM/CAR NACC Working Group ATFM Implementation Task Force (NACC/WG/ATFM/TF) maintains its activities, with monthly teleconferences to coordinate its work programme and monitor the behavior of the operations forecast in the CAR Region. The Third NACC/WG/ATFM/TF Meeting (NACC/WG/ATFM/TF/3) was held in a hybrid manner (in person at the ICAO NACC Regional Office and online) from 17 to 19 May 2022, where it was agreed to submit a proposal of minimum ATFM requirements for the CAR Region to GREPECAS, as well as to provide regional support for the determination of the capacity of the Air Traffic Control (ATC) sectors. Likewise, it was agreed to approve the use of the Civil Organization of Air Navigation Service Providers' (CANSO) ATFM Data Exchange Network for the Americas of the (CADENA) as a mechanism to facilitate data exchange and promote common situational awareness, considering this last element as vital for the safe, harmonized and efficient traffic flow in the CAR Region.

2.2 Similarly, the NACC/WG/ATFM/TF addressed the challenges for measuring ATFM performance in the NAM/CAR regions, agreeing to share its considerations with GREPECAS, as well as the importance of using automated tools to support measurement performance and provide more direct support with practical guidance on data collection and analysis mechanisms.

2.3 **Search and Rescue (SAR):** Support for the implementation of SAR services continues to be a relevant need in the CAR Region. Resource restrictions as a result of budget cuts due to COVID-19 have further affected the difficult situation of SAR services in our Region.

2.4 The change of key personnel in this area continues to be one of the main difficulties, as well as the lack of high-level attention to the signing of SAR agreements. At this point, the effort of the aeronautical authorities of Cuba and Mexico to finalize their SAR cooperation agreements is recognized. However, there are other key agreements that have not been possible to be finalized.

2.5 From 8 to 10 February 2022, a Virtual Workshop on the Global Aviation Distress and Safety System (GADSS) was held. 122 representatives of 23 States/Territories and 4 International Organizations of the NAM/CAR Regions participated in the workshop. The workshop closed with a request that participants used the information provided to ensure development, where necessary, of common national and regional procedures amongst the three main stakeholders (aircraft operators, air navigation service providers [ANSPs] and Rescue Coordination Centres [RCCs], both aeronautical and maritime) for the efficient management of the information received from Autonomous Distress Tracking (ADT) systems.

2.6 **ATS Contingencies Meeting:** from 20 to 22 April 2022, the Second NAM/CAR Regional Contingency and Emergency Planning and Response Meeting (NAM/CAR/CONT/2) was held in a hybrid manner. This meeting is part of a strategy established since 2017 by the ICAO NACC Regional Office to improve the resilience of the CAR Region air navigation system.

2.7 The lack of adequate planning and implementation of contingency procedures is the main limitation for several States/Territories and service providers, mainly in the CAR Region. The ICAO NACC Regional Office maintains actions to address this weakness, promoting the establishment, updating and publication of contingency procedures by air traffic service providers.

2.8 **ATS Inter-facility Data Communication (AIDC):** This group has been working on the implementation of the automated channels of the Air Traffic Control Centres in the region and on the implementation of measures to mitigate flight plan errors. During the last year, access to the BADA database for the CAR States, except Cuba, was coordinated with Eurocontrol.

2.9 Although the access and information provided by this database for the CAR region will support the updating and management of the database of the control centers, a large part of the States of the CAR region to date have not nominated their specialists responsible for this activity.

2.10 **Surveillance Task Group (SURV):** the Group has focused on the development of activities aimed at supporting the implementation of Automatic Dependent Surveillance – Broadcast (ADS-B). At the last GREPECAS meeting, the document “Operational Concept for the implementation of ADS-B” was approved, developed by the NAM/CAR specialists and adopted by all the States of the American continent.

2.11 Together with the Federal Aviation Administration (FAA) of the United States, webinars were provided to deal with the technical aspects of ADS-B to support the States in this implementation, and events were held with the industry to avoid neglecting the surveillance activities during the pandemic period.

2.12 **Implementation of the Air Navigation Plans of the Aviation System Block Upgrades (ASBU):** this group supports the tasks of development and implementation of the ASBU elements of the Global Air Navigation Plan, and supports the States in the development of their air navigation plans. Activities planned and delayed due to COVID-19 have restarted and will be aligned with the Electronic Air Navigation Plan (e-ANP), Volume III, development activities.

2.13 **Aeronautical Information Management (AIM):** For the AIM Regional Plan, the requirements of documents such as the sixth edition of the Global Air Navigation Plan (in digital format), the ASBU document, information on the Basic Building Blocks (BBB ), Annexes and Procedures for Air Navigation Services (PANS), mainly covering important aspects of AIM based on a data-centric approach.

2.14 In relation to the update of the AIM work plan, new activities have been incorporated, including all those related to AIM 2.0, contingency plans notice distributed by Notice to airmen (NOTAM) for NAM/CAR, and tasks related to the global NOTAM Campaign; such as the elimination of permanent NOTAM or as indicated by ICAO Doc 8126 - Aeronautical Information Services Manual, Seventh Edition.

2.15 In addition, regarding the AIM 2.0 Training Requirements (Official Documentation), several tasks related to the AIM 2.0 Training Requirements Official Documentation were carried out, the AIM TF has created and introduced the official training curriculum and standardized for basic training and guided specialized training of AIM personnel. The development of a Standardized Training Manual and Curriculum for AIM personnel is beneficial for the personnel performing their duties.

2.16 **Air Airspace Optimization/Performance-based Navigation (PBN):** The ICAO NACC Regional Office is actively engaged with organizations such as CANSO, IATA, and with our member States in the transformation of airspace modernization in the region.

2.17 This transformation is a complete collaboration between these groups, holding weekly meetings in addition to the larger group meetings. Ad hoc meetings are convened when necessary, including States participating in the current coordination process.

2.18 During the COVID-19 pandemic, alternative routes were planned, more efficient routes, these are some of the results:

### Airspace Optimization CAR Region

North American, Central American and Caribbean Working Group (NACC/WG)  
Air space Optimization Task Force

#### Results Track 1

Estimated 1-year savings of the 6 completed PASA Optimized Routes

KATL↔SPJC	<b>Savings</b>	
KATL↔SBGR	<b>Flight min:</b>	<b>13,126</b>
TTPP↔KMIA	<b>Fuel (lb):</b>	<b>2,583,088</b>
KIAH↔MMPR	<b>CO2 (kg):</b>	<b>3,702,477</b>
SAEZ ↔KATL	<b>Cost (\$):</b>	<b>2,107,410</b>
KATL ↔SAEZ		

2.19 **New voice and data communications network of the Caribbean Air Navigation Services Network (CANSNET):** The ATS Voice Link Improvements Technical Management Group (MEVA/TMG) is working on the CANSNET project, which has the objective of modernizing the regional communications network of the current MEVA. The project is in the phase of developing the terms of reference to proceed during 2023 to the project tender. To date, 14 States and Organizations belong to the MEVA network,

which is why we are at an important point for other States to join the network and benefit from the objectives of the regional network.

2.20 **In the Meteorology (MET) area, the main assistance activities have been:** Development of the prototype of the necessary forms to report, monitor and follow up on the implementation of the BBBs of the Meteorological Service for International Air Navigation, as part of the Table CAR/SAM Regional Dashboard.

2.21 With the support and experience obtained by Cuba, formulation of the project to assist CAR States in the implementation of Quality Management Systems (QMS) in compliance with ICAO SARPs.

2.22 Cooperation was also carried out with the Expert Team on Aviation Services (ET-AVI) of the World Meteorological Organization – Region IV: North America, Central America and the Caribbean, to develop common assistance activities for the main needs CAR in the MET area.

2.23 The Eastern Caribbean Task Forces – Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG), Eastern Caribbean Network Technical Group (E/CAR/NTG) and Ad hoc Radar Data Exchange Group Eastern Caribbean (E/CAR/DR) – reassessed their action plans during 2021, work plans were updated, new rapporteurs were appointed for some of the air navigation coordination groups. Works are proceeding as planned.

2.24 **Activities to face the new challenges of the region:** the ICAO NACC Regional Office, in collaboration with the NAM/CAR Organizations and States, has established the work plans to face the operations of remotely piloted aircraft and cybersecurity, for both aviation safety and air navigation.

### **3. Suggested actions**

3.1 States are invited to:

- a) take note of the information provided in this working paper;
- b) indicate to the ICAO NACC Regional Office your interest in joining and benefiting from what will become the CANSNET network, if you are not part of the Regional communications network yet;
- c) support the participation of your technical and operational personnel in the different task groups; and
- d) any other corresponding activity.