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Agenda Item 5: Other Business

**PROPOSED INITIATIVES TO IMPROVE INFORMATION SHARING AMONG THE EASTERN CARIBBEAN
REGIONS' AIR NAVIGATION SERVICE PROVIDERS AND STAKEHOLDERS**

(Presented by Trinidad and Tobago)

EXECUTIVE SUMMARY

This Paper discusses the proposed initiatives to be undertaken to enhance the collaboration, coordination and communication between the Trinidad and Tobago's Piarco Air Navigation Service Provider (ANSP), the Terminal Control Areas (TMAs) of States within the Eastern Caribbean, States and Territories whose airspaces are adjacent to the Piarco FIR; during strategic, pre-tactical and tactical ATFM phases.

Action:	The suggested actions are presented in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
<i>References:</i>	<ul style="list-style-type: none">• IP/02 NAM/CAR Air Navigation Implementation Working Group (ANI/WG)/Air Traffic Flow Management (ATFM) Implementation Task Force Meeting (ATFM/TF) On line, 17 to 19 May 2021• Third North American, Central American and Caribbean Working Group (NACC/WG) Air Traffic Flow Management (ATFM) Implementation Task Force Meeting ATFM/TF/3, Final Report, 17 to 19 May 2022• Seventh North American, Central American and Caribbean Working Group Meeting (NACC/WG/7) Final Report, 29 August to 1 September 2022• Procedures for Air Navigation Services, Air Traffic Management, Document 4444.• Manual on Collaborative Air Traffic Flow Management, Doc 9971.• CADENA Air Traffic Flow Management and Collaborative Decision-Making Procedures Manual.

1. Introduction

1.1 At the Third North American, Central American and Caribbean Working Group (NACC/WG) Air Traffic Flow Management Implementation Task Force (ATFM/TF) hybrid Meeting, held in Mexico City and online, during the period May 17 to 19 2022; the NACC/WG ATFM/TF approved the “ATFM Minimum Requirements for the Caribbean Region”, and agreed that these requirements would be presented to GREPECAS. Part of these minimum requirements stated that all Area Control Centres (ACCs) of the CAR Region must provide ATFM services appropriate to the level of air traffic and suitable to meet the objectives of multilateral agreements.

1.2 The minimum requirements also stated that Approach Control offices and Aerodrome Control Towers would establish Flow Management Positions/Operations if necessary or coordinate flow management functions with the ATFM unit serving the ACC that handles their upper airspace. These agreements can be included as addendums to the already existing ATS Letters of Agreements.

1.3 At the Seventh North American, Central American and Caribbean Working Group Meeting (NACC/WG/7), held in Mexico City, 29 August to 1 September 2022, the meeting agreed that, in order to ensure proper implementation and support for harmonized regional operations, the Secretariat would continue to develop the Proposal for Amendment, to include into the CAR/SAM Regions Air Navigation Plan, the minimum requirements for ATFM in the Car Region.

1.4 States also agreed to support the implementation and operation of ATFM in the CAR Region, to promoting decision-making from a regional perspective in order to collaborate to reduce the impact of Traffic Management Measures (TMMs) taken by any State/Territory or Air Navigation Service Provider (ANSP).

1.5 Trinidad and Tobago proposes a Collaborative Decision Making (CDM) process that would promote an efficient flow of information between the Piarco Air Traffic Control Centre (ACC), the Terminal Control Areas (TMAs) of States within the Eastern Caribbean States and Territories, and other key organisations and stakeholders, during periods where there are imbalances between demand and capacity, and/or during Air Traffic Management (ATM) contingencies.

1.6 Timely and accurate information, in near real time, especially during periods where system capacity may be reduced, improve situational awareness among all stakeholders, facilitates more enhanced decision making, and generally results in a higher quality of service to the airspace users.

2. Discussion

2.1 Air Traffic Flow Management (ATFM) forms a vital part of Air Traffic Management by allowing the utilization of the full capacity of the air traffic management (ATM) system while maintaining the highest levels of safety. ATFM and its applications should not be restricted to one State or FIR because of their far-reaching effects on the flow of traffic on neighbouring or adjacent FIRs. The Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) recognizes this important fact, stating that ATFM should be implemented based on a regional air navigation agreement or, when appropriate, a multilateral agreement.

2.2 The Collaborative Decision Making (CDM) process, through the interchange of pertinent near real-time aeronautical information throughout the Air Traffic Management Community, is the backbone of a robust collaborative ATFM system. The CDM process contributes significantly towards the safe, efficient and seamless operations, for the Airspace Users, Airspace Planners and all stakeholders.

2.3 Trinidad and Tobago continues to refine its ATFM/CDM and ATM Contingency procedures, and participates in the Regional CDM process, through the sharing of pertinent operational information with regional partners, in near real-time, through various forums such as:

- CANSO ATFM DATA Exchange Network for the Americas (CADENA) ATFM/CDM regional processes,
- Regional Eastern Caribbean Contingency and Emergency Response Team (CERT CAR),
- ICAO NACC Working Group ATFM Task Force,
- Strategic and Tactical CDM meetings with ATS providers from adjacent FIR's

2.4 Trinidad and Tobago currently exchanges operational information with the Air Traffic Management (ATM) community via the already established CADENA scheduled planning web-conferences, held twice weekly. Additionally, Trinidad and Tobago uploads the Piarco's ATFM Daily Plan (ADP) to the CADENA Operational Information System (OIS), which forms part of the Regional ATFM Daily Plan. Trinidad and Tobago also participates on unscheduled conferences that are convened by CADENA and/or the E/CAR contingency groups, during the Hurricane season, when Tropical Cyclones disrupts, or threaten to disrupt, aeronautical operations within the region.

2.5 Trinidad and Tobago's participation in such activities improves safety and efficiency of operations within the Piarco FIR, especially during periods of reduced system capacity, or during Air Traffic Management (ATM) Contingencies.

2.6 Trinidad and Tobago would like to collaborate with those ANSPs within the Eastern Caribbean States and Territories, and other agencies, to improve the exchange of pertinent operational aeronautical information within the region, during the Strategic, Pre-tactical and Tactical ATFM phases, and during ATM Contingencies.

2.7 It has been observed in the past, during periods of reduced system capacity that a lack of common harmonized ATFM procedures, strategic CDM discussion and common situational awareness has led to inefficiencies within the ATM system. Such inefficiencies may even affect safety. Traffic Management Measures (TMMs), implemented tactically by one ANSP within the E/CAR region, without prior timely and adequate discussion and inclusion among affected stakeholders, may, at times, have led to unnecessary increased workload in adjacent ANSPs and a lack of harmony in operations.

2.8 The ATM community within the E/CAR States and Territories should establish, and document, common, harmonized ATFM and CDM procedures among their ANSPs and regional stakeholders. These procedures should allow for the strategic, timely and accurate exchange of operational information, during situations of reduced capacity and contingencies.

2.9 These ATFM and CDM procedures should also promote common situational awareness, through timely coordination and collaboration among all regional ANSPs, airlines and relevant stakeholders.

2.10 Simple measures can be established and formalized in order to achieve an efficient CDM process among E/CAR partners.

2.11 Trinidad and Tobago proposes that these measures may include, but not be limited to, the following:

- The formation of an E/CAR ATFM/CDM Operational Group that should include Points-of-Contacts (PoCs.) from the various ANSPs within the region. When required, pertinent operational information can be shared within the group, in real-time, through mediums such as email, notifications via WhatsApp, web-conferencing, etc. Pertinent information can then be disseminated through the PoCs' individual organizations;
- The development of a Terms of Reference for the E/CAR ATFM/CDM Operational Group and work towards the creation of a E/CAR CDM Procedures Manual; (Please see the Appendix to this working paper for the proposed ToR);
- The implementation of an operational planning teleconference, initially once per week, for ANSPs to brief on any system constraint that may reduce, or have the potential to reduce, system capacity. Stakeholders can use this forum to discuss and agree upon measures to mitigate such constraints;
- Agree on a process to convene ad hoc conferences in the event of major unplanned outages, constraints, or severe weather, that may negatively impact system capacity;
- The establishment of a common platform through which operational information can be shared in real-time, therefore providing common situational awareness to all participating stakeholders. Trinidad and Tobago will look at the possibility of hosting an OIS page on the TTCAA website;
- E/CAR States and Territories should consider participation in the CADENA weekly and Hurricane Web-conferences. Participation by the E/CAR States and Territories in the CADENA process would greatly improve the interchange of pertinent information between all States and Territories within E/CAR and the regional ATM community. This participation can include E/CAR States' participation on the various CADENA planning web-conferences.

2.12 A past example of efficient and timely exchange of information between the ANSPs within the E/CAR States and other Regional and International stakeholders was during the La Soufriere Volcanic Eruption of April 2021. During this event, simple and effective strategies were established to disseminate critical information, in real time, to all regional stakeholders.

2.13 A Volcanic Contingency group was formed. This group included stakeholders from E/CAR ANSPs, Airlines, and various key agencies.

2.14 Information was shared via several scheduled and ad-hoc web-conferences, a WhatsApp group, the CADENA OIS, and emails. During the period, Trinidad and Tobago also added a dedicated page on the TTCAA website to provide regular updates, which included, but not limited to the following information:

- Volcanic ash movement advisories from the Volcanic Advisory Centre, Washington D.C. USA,
- Pilot Reports,
- SIGMETs,
- Affected airport Status, airport closures and expected opening times,
- Other pertinent information

2.15 The CDM processes established during this volcanic event facilitated the timely and efficient sharing of pertinent and critical information, in real time. The initiatives proved to be a huge operational benefit to all stakeholders.

3. Suggested Actions

3.1 The meeting is invited to:

- a) Note the information contained in this working paper;
- b) Request that E/CAR States and Territories appoint Point of Contacts who would form part of the proposed E/CAR ATFM/CDM Operational Group;
- c) Request that the E/CAR States and Territories consider the initial implementation of a weekly operational planning web-conference amongst E/CAR stakeholders;
- d) Urge States within E/CAR to collaborate towards the development of an Operational Information System (OIS) platform or use an already established OIS, in which to share pertinent operational information and therefore foster common situational awareness; and
- e) Encourage E/CAR States to participate in the CADENA ATFM/CDM process

APPENDIX
**PROPOSED INITIATIVES TO IMPROVE INFORMATION SHARING AMONG THE EASTERN CARIBBEAN
REGIONS' AIR NAVIGATION SERVICE PROVIDERS AND STAKEHOLDERS.**

PROPOSED EASTERN CARIBBEAN OPERATIONAL PLANNING TEAM TERMS OF REFERENCE

BACKGROUND

A proposal to establish the Eastern Caribbean (E/CAR) Operational Planning Team to enhance collaboration and coordination, during periods of reduced ATM system capacity and contingencies, will be presented at the Seventh Eastern Caribbean Civil Aviation Technical Group Meeting, to be held in Miami United States of America, 26 to 28 July 2023.

The regional Collaborative Decision Making (CDM) would promote a more efficient flow of information amongst all stakeholders during periods of reduced capacity within the Air Traffic Management (ATM) system, and during contingencies.

OBJECTIVES

The objectives of the E/CAR CDM Operational Planning Team are to:

- a) Continually review the effectiveness of ATFM/CDM capabilities and ATM contingency procedures within the Eastern Caribbean States and Territories within the Piarco FIR and make recommendations for improvements;
- b) Establish regional networks that promote common Situational Awareness and the exchange of pertinent operational information through agreed upon mechanisms;
- c) Develop and establish official partnership agreement that incorporate regional ATFM/CDM and ATM contingency procedures;
- d) Develop an Eastern Caribbean ATFM/CDM and Contingency Procedures Manual

MEMBERSHIP

The membership of the E/CAR CDM Operational Planning Team may comprise the following:

- a) Points of Contacts of ANSPs from States and Territories within and/or adjacent to the Piarco FIR;
- b) Representatives from the International Civil Aviation Organization NACC office;
- c) Members from Meteorological Organization;
- d) Members from other ANSPs or organizations, or entities at the discretion of the group.

WORKING METHODS

The E/CAR CDM Operational Planning Team will:

- a) Continually share pertinent information that reduces, or has the potential to reduce ATM system capacity. The information should be shared throughout the group at the earliest possible time via the available platforms, for example, emails, WhatsApp, web conferences,
- b) Provide operational information on scheduled or adhoc planning meetings,
- c) Convene meetings to collaborate among affected members all constraints that may negatively affect operations and agree on the solutions/measures to mitigate these constraints,
- d) Designate, as necessary, persons to work on specific activities that would improve the exchange of information and situational awareness amongst the group,
- e) Encourage a collaborative and harmonized approach to ATFM/CDM among States, Regions, in accordance with the appropriate ICAO standards and recommended practices, as well as the applicable Regional Air Navigational Agreements,
- f) Collaborate towards the development of an E/CAR ATFM/CDM and ATM Contingency Operational Manual,
- g) Collaborate to formalize all ATFM/CDM and ATM Contingency procedures through inclusion into the operational letters of agreements,
- h) Coordinate all work and processes with the International Civil Aviation Organization North America, Central America and Caribbean (NACC) office.