**Fourth Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/4) Meeting**
Saint George's, Grenada, 6 - 7 September 2018

---

**Agenda Item 3:**     **Air Navigation Matters**

**3.2**     **Follow-up on the implementation of the NAM/CAR Regional Performance Based air Navigation Implementation Plan (RPBANIP) Air Navigation Targets and Block-0 status in the Eastern Caribbean**

**TRINIDAD AND TOBAGO ATFM/CDM PROGRESS REPORT**

(Presented by Trinidad and Tobago)

| EXECUTIVE SUMMARY | |
|---|---|
| This working paper presents an update on the progress of Trinidad and Tobago's ATFM/CDM development. The paper discusses the following: <br> • ATFM and CDM measures currently in place, <br> • Additional measures CDM measures that the TTCAA ANS is developing through the sharing of operational information via web-based interface. and <br> • The updating of operational LoAs to reflect ATFM and CDM processes | |
| **Action:** | The suggested action is presented in Section 3. |
| *Strategic Objectives:* | • Safety <br> • Air Navigation Capacity and Efficiency <br> • Security & Facilitation <br> • Economic Development of Air Transport <br> • Environmental Protection |
| *References:* | • E/CAR/CATG/3 – WP/21 - 19 to 21 October 2016 <br> • Report on 8th E/CAR/CATG ATM Committee Follow-up Teleconference – Reconvened – May 10th 2018 <br> • Report on 1st E/CAR/CATG ATFM Follow-up Meeting – November 14 2016 |

**1.     Introduction**

1.1     This paper discusses the status of Trinidad and Tobago's ATFM/CDM implementation, the intended enhanced collaboration and coordination between the Piarco ANSP and regional and local stakeholders; and Terminal Control Areas that are situated within the Piarco FIR, and adjacent FIRs.

**2.        Discussion**

2.1        Trinidad and Tobago continues to share pertinent operational information through the scheduled weekly Caribbean Telecon hosted by the Federal Aviation Administration (FAA) and the weekly operational web-conference that is hosted by the CANSO ATFM Data Exchange Network for the Americas (CADENA).

2.2        Trinidad and Tobago also shares operational information on a daily basis via the Operational Information System (OIS) established by CADENA.

2.3        Trinidad and Tobago attended and  participated in the ICAO Second Basic Training on Air Traffic Flow Management, in Santo Domingo, Dominican Republic, June 5 – 8, 2018

2.4        On December 01, 2016, Trinidad and Tobago, together with the E/CAR TMAs, established a CDM process whereby operational information was updated daily by all E/CAR States on an excel template, called the "E/CAR Operational Information System",  via the google sheets application. All States and stakeholders who received a link to the E/CAR OIS would have either read or read/write access.

2.5        All E/CAR States were required to establish an official Gmail account for this purpose. It was agreed that the Gmail account would consist of the four letter ICAO designator for the State, e.g. ABCD@gmail.com

2.6        The E/CAR OIS was officially discontinued on the April 6th 2017 in order to revise the format and procedures related to its dissemination. It was envisaged that the E/CAR OIS would be replaced by the more updated OIS that would be part of the Trinidad and Tobago web-based ATFM tools, discussed later in this paper.

2.7        Trinidad and Tobago, through its contracted service provider, has completed the installation of ATFM/CDM hardware and software tools. These tools are accessed through a web-based interface. The following are some of the capabilities provided by these tools:

   a.   Demand Capacity Balancer (DCB) which provides the ability for Trinidad and Tobago to view and balance demand and capacity at airports, sectors, and airspaces;
   b.   Aircraft Situation Display (ASD) providing CDM partners with a live view of all flights available to the ATFM suite through a variety of feeds including (ASTERIX and FAA Traffic Flow Management Data). The ASD, through various layers on a Geographic Information System (GIS) map, also display weather information from various website sources, such as: Global Weather and National Oceanic and Atmospheric Administration (NOAA);
   c.   Collaborative Decision Making (CDM) Shared Board allowing all CDM partners to have either read only or read-write privileges with the system.

2.8        Trinidad and Tobago continues to provide refresher training to Air Traffic Control Staff on the afore-mentioned ATFM tools.

2.9        E/CAR Terminal Control Areas (TMAs) within the Piarco FIR, will be provided with web-based read/write access to the aircraft situational display ASD and CDM tools, and will receive the required training to update the OIS with pertinent operational information.

2.10       TTCAA stakeholder/CDM partners would also receive, either read or read/write access to the CDM tools and receive the required training.

2.11       The information inserted on the Piarco OIS will constitute the ATFM Daily Plan (ADP) for the Piarco FIR and E/CAR

2.12       Trinidad and Tobago would also use the ADP published on the Piarco shareboard/OIS to update the regional CADENA OIS.

2.13       It is anticipated that shared access to the ASD and CDM tools will increase common situational awareness and enhance the decision making capabilities among all stakeholders.  It is envisioned that the automated CDM process will improve the overall ATM system operational efficiency and predictability.

2.14       Trinidad and Tobago is also currently working to update the Operational Letters of Agreements (LoAs) with the Terminal Control Areas to include ATFM/CDM processes. A Draft ATFM/CDM LoA between Piarco and the E/CAR States was presented at the E/CAR/CATG/3 meeting and during the 7th E/CAR/CATG ATM Committee Follow-up Meeting.

2.15       Trinidad and Tobago presented to the E/CAR TMAs, during the 8th E/CAR/CATG ATM Committee web-meeting – 03 May 2018, the Piarco ATFM web-based tools that they would be able to access once provided with the necessary credentials.

2.16       The ATFM implementation project leader from Trinidad and Tobago will arrange to provide the necessary training to the TMAs, on these ATFM tools, via the google meetings web-platform.

2.17       Sector Capacities have been determined for all sectors within the Piarco UTA/CTA, with the exception of the Oceanic sector. Airport Acceptance (AAR) and Departure rates (ADR) were determined for Piarco Airport Runway 10. Trinidad and Tobago is currently working to determine the AAR and ADR for A.N.R. Robinson Airport.

2.18       In order to collaboratively maintain a safe and efficient flow of traffic into the E/CAR TMAs and airports, Trinidad and Tobago would like to request that the E/CAR TMAs submit their respective AARs and ADRs at a date to be agreed upon by the relevant parties concerned.

**3.** **Suggested Action**

3.1 The meeting is invited to:

a) Note the information contained in this paper

b) Urge States, within the Eastern Caribbean Region to participate in activities related to the harmonised development of ATFM/CDM within the Eastern Caribbean, such as:

i. Participation in ATFM/CDM equipment training
ii. Updating of operational LoAs to include ATFM/CDM procedures
iii. Submission of airspace capacities, AARs, and ADRs to Trinidad and Tobago; and,

c) Discuss any relevant matters as appropriate.

— END —