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

WORKING PAPER

E/CAR/NTG/8 & E/CAR/RD/6 — WP/13
28/08/18

Eighth Eastern Caribbean Network Technical Group (E/CAR/NTG/8) and Sixth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/6)
Saint George's, Grenada, 3 - 5 September 2018

Agenda Item 4: **Surveillance Sharing Activities**
4.3 Automatic Dependent Surveillance – Broadcast (ADS-B)/Multilateration (MLAT) Developments

SURVEILLANCE/ADS-B/MLAT DEVELOPMENTS/UPDATES

(Presented by Barbados)

EXECUTIVE SUMMARY	
This paper serves to update the meeting of the work done in Barbados in the areas of ADS-B and Multilateration (MLAT).	
Action:	The suggested actions are presented in Section 3.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency •
References:	• Seventh Eastern Caribbean Network Technical Group (E/CAR/NTG/7) and Fifth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/5) Meetings. •

1. Introduction

1.1 Barbados embarked on a project to replace its aging MSSR system and provide greater safety and efficiency in its airspace through the use of more modern technologies that would facilitate automation in Management of Air traffic.

1.2 Specific objectives include:

- Replacement of the aging MSSR
- Improving low level coverage provided by the exiting MSSR
- Providing the ability to monitor for Runway incursions by identifying all vehicles and their location in the Airfield
- Providing the ability to fully cover in Barbados Airspace using Multilateration

- Provide coverage of approximately 250 N using ADS-B.
- Provide the facility to receive and share Surveillance data in keeping with Regional Civil Aviation and ICAO objectives subject to the appropriate agreements.
- Provide enhancements including a more modern Flight data Processor system
- Introduce safety features such as safety nets (Short, and Medium term conflict Alerts and trajectory prediction)
- Provide greater automation with the introduction of Electronic flight strip processing

2. Project status

2.1 There have been several challenges resulting in delays to this project. The most current being the unavailability of a mast on the eastern coast which is required for completion. Currently the status is as follows:

- Surface movement system: Installed and Active.
- Wide Area Multilateration and ADS-B: four (4) out of seven planned sites installed and Active. A provisional mast has been put in place to facilitate Activation of the remaining sites

2.2 The supplier is expected to recommence installation and software customization and additional training activities in mid- September. The system is expected to be fully installed with Site acceptance testing currently scheduled to complete around the end of October. The system will operate in Shadow mode until transition. Issues to be addressed include:

- Coordination of the Interface of AIDC feature with Trinidad.
- Testing and verification of the Surveillance feed to Trinidad
- Addressing the issues of the necessary Letters of Agreement

3. Suggested actions

3.1. The Meeting is invited to:

Take note of the current status and upcoming requirements and agree to any other actions as deemed appropriate.

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