



ICAO

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

WORKING PAPER

E/CAR/NTG/9 & E/CAR/RD/7 — WP/08
04/07/20

**Ninth Eastern Caribbean Network Technical Group (E/CAR/NTG/9) and
Seventh Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/7) Meetings**
On-line, 14 and 15 July 2020

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

MODERNIZATION OF THE FWI ATM SYSTEM

(Presented by France)

EXECUTIVE SUMMARY	
This paper presents the modernization of the FWI ATM system and its consequences.	
Action:	Suggested actions are presented in Section 3.
Strategic Objectives:	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
References:	<ul style="list-style-type: none">• 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

1. Introduction

1.1 The FWI ATM system is based on the use of 2 systems: IRMA (radar display) and SIGMA (Flight Plan system).

1.2 The surveillance in FWI is based on the use of two monopulse secondary radars (Thalès RSM970 MSSR in Guadeloupe and Martinique) and on one multi radar tracker (MRT, called DACOTA based on Martinique).

1.3 In 2015, France gave IRMA to several member States of the E/CAR AFS network. The purpose of this donation was to test a radar display system to write specifications and then acquire a modern system.

2. Replacement

2.1 France plans the modernization of the overseas ATM systems. These heterogeneous systems (IRMA and SIGMA) will be replaced by a single system. The new system will be realized by the Canadian company ADACEL.

2.2 Guadeloupe will be in operation in 2021 and Martinique in 2022.

2.3 New features:

- Electronic flight strips.
- Automatic coordination: between Martinique and Guadeloupe and opportunity to do AIDC with other ANSP.

2.4 A second MRT DACOTA is installed in Guadeloupe. It will be in operation in 2021.

3. Consequences

3.1 From 2021:

- Data of the FWI radars, format UDP/IP, will be available.
- Data of the Guadeloupe MRT, DACOTA, will be available

3.2 From 2022:

- IRMA will not be used anymore by FWI. Any Assistance on IRMA will not be possible.
- Radar data format will be UDP/IP.
- MAC LLC radar data format will be discontinued.
- The FWI MRTs, DACOTA, will use format UDP/IP.

3.3 All IRMA installed in the East Caribbean islands use the MAC LLC format. From 2022, these IRMA will not be able to display DACOTA and French radar data.

3.4 Automatic coordination, AIDC, with Trinidad & Tobago and Barbados systems could be used from 2022.

4. Suggested actions

4.1 The Meeting is invited to:

- a) take in consideration the end of IRMA exploitation from 2022;
- b) take in consideration the opportunity to use UDP/IP format of the French MSSR and MRT from 2021; and
- c) take in consideration the opportunity to do AIDC with FWI from 2022.