



ICAO

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

WORKING PAPER

E/CAR/NTG/8 & E/CAR/RD/6 — WP/11  
17/08/18

**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**  
**4.2 Surveillance Sharing Update: Antigua and Barbuda, Barbados, Sint Maarten and Trinidad and Tobago**

**MODERNIZATION OF THE FWI ATM SYSTEM**

(Presented by SNA AG - FRANCE)

<b>EXECUTIVE SUMMARY</b>	
This paper presents the modernization of the FWI ATM system and its consequences.	
<b>Action:</b>	The suggested actions are presented in Section 3.
<b>Strategic Objectives:</b>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Security &amp; Facilitation</li></ul>
<b>References:</b>	<ul style="list-style-type: none"><li>• Seventh Eastern Caribbean Network Technical Group (E/CAR/NTG/7) and Fifth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/5) Basseterre, St. Kitts and Nevis, 17 – 18 October 2016.</li></ul>

**1. Introduction**

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

1.2 The surveillance in FWI is based on the use of two (2) monopulse secondary radars (Thalès RSM970 MSSR in Guadeloupe and Martinique) and on one (1) multi radar tracker (MRT, called DACOTA based on Martinique).

## **2. Replacement**

2.1 SNA AG 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 2020 and Martinique in 2021.

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 will be installed in Guadeloupe. It will be in operation in 2020.

## **3. Consequences**

3.1 From 2021:

- IRMA will not be used anymore by FWI. Any Assistance on IRMA will be possible.
- Radar data format will be UDP/IP.
- MAC LLC radar data format will no longer exploited.
- The FWI MRT, DACOTA, will use format UDP/IP.

3.2 All IRMA installed in the East Caribbean islands use the MAC LLC format. From 2021, these IRMA will not be able to display nor DACOTA and French radar data nor TTCAA MRT.

3.3 Automatic coordination, AIDC, with Trinidad & Tobago and Barbados systems could be used from 2021.

## **4 Suggested actions**

4.1 The meeting is invited to:

- a) Take in consideration the end of IRMA exploitation from 2021;
- 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 2021.