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WORKING PAPER

E/CAR/CATG/10 — WP/06  
07/08/26

**Tenth Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/10)**  
Fort-de-France, Martinique, 15 to 17 July 2026

**Agenda Item 4: Follow-up of the activities of the E/CAR/CATG**  
**4.5 Progress report of the Communications Navigation and Surveillance (CNS) Committee**

**Modernization of the FWI ATM system (Developments / Updates)**

(Presented by France)

| EXECUTIVE SUMMARY                                                                                             |                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| This Working Paper presents the modernization of the French West Indies (FWI) ATM system and its consequences |                                                                                                                                                                                                                                                                          |
| <b>Action:</b>                                                                                                | The suggested actions are presented in section 4                                                                                                                                                                                                                         |
| <i>Strategic Objectives:</i>                                                                                  | <ul style="list-style-type: none"><li>• Every Flight is Safe and Secure</li><li>• Aviation is Environmentally Sustainable</li><li>• Aviation Delivers Seamless, Accessible, and Reliable Mobility for All</li><li>• No Country Left Behind</li></ul>                     |
| <i>References:</i>                                                                                            | <ul style="list-style-type: none"><li>• Final Report of the Twelfth Eastern Caribbean Network Technical Group (E/CAR/NTG/12) Meeting and Tenth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/10) Meeting, Miami, United States, 24-25 July 2023.</li></ul> |

**1. Introduction**

1.1 Until 2025, the French West Indies (FWI) Air Traffic Management (ATM) system relied on two distinct platforms:

- IRMA (Air Traffic Monitoring system), and
- SIGMA (Flight Plan Processing system).

1.2 The surveillance within the FWI region is based on:

- Two monopulse secondary surveillance radars (Thales RSM970 MSSR), located in Guadeloupe and Martinique, and
- A Multi-Radar Tracker (MRT), known as DACOTA, hosted in Martinique.

1.3 In 2015 France provided several IRMA Air Traffic Monitoring systems to Member States of the E/CAR AFS network. The objective of this initiative was to:

- Evaluate radar display capabilities,
- Support the development of technical specifications, and
- Facilitate the subsequent acquisition of a modernized system.

## **2. System Replacement**

2.1 France has initiated a comprehensive modernization program for its overseas ATM systems.

2.2 The existing heterogeneous systems (IRMA and SIGMA) are being replaced by a single, integrated solution under the SEAFLIGHT (6F) project.

2.3 At the core of this new architecture lies the Aurora ATM system, developed by ADACEL, which incorporates both approach and tower control functionalities. Each controller working position is equipped with three displays:

- Airspace situation display,
- Electronic flight strip system, and
- General information display (meteorological data, ATIS, etc.).

2.4 The 6F system, developed by the Canadian company ADACEL, became operational in Martinique on May 24, 2025.

2.5 This implementation represents the first deployment in France of an integrated approach and tower system featuring electronic flight strips.

2.6 Training and operational readiness:

- 12 maintenance engineers have been fully trained,
- 23 air traffic controllers have completed operational training,
- A 3D simulation platform is now available, significantly reducing training duration and enhancing proficiency.

2.7 Key new functionalities include:

- Electronic flight strips,
- Automated coordination between Martinique and Guadeloupe,
- Capability to implement AIDC (ATS Interfacility Data Communication) with other ANSPs.

2.8 A second MRT (DACOTA) system has been installed in Guadeloupe, with operational commissioning planned for 2025.

2.9 In parallel, a study is currently underway to assess the deployment of an equivalent system, ARTAS:

- In the medium term, ARTAS may replace DACOTA,
- A phased approach is envisaged, with Martinique transitioning to ARTAS at a later stage.

2.10 Radar infrastructure upgrades:

- The Martinique radar has been upgraded to Mode S capability and was commissioned in 2025,
- Data transmission has been migrated in Martinique to the UDP/IP protocol, MAC/LLC format is still distributed to PIARCO.
- The Guadeloupe radar will undergo the same upgrade in June 2025.

### **3. Consequences**

3.1 From 2021

- FWI radar data has been made available in UDP/IP format for internal use.

3.2 From 2026

- The IRMA system is no longer in use in Martinique (remaining operational only in Guadeloupe),
- The MAC LLC radar data format is discontinued for Martinique but remain available for PIARCO until further notice: upgrade is on study with PIARCO and will be done when PIARCO is ready and after several testing
- FWI MRT systems (DACOTA) operate exclusively in UDP/IP format.

3.3 All IRMA systems deployed across the Eastern Caribbean region rely on the MAC LLC format. Therefore, from 2026 onward, these systems will no longer be capable of displaying French radar data or DACOTA outputs.

3.4 From 2026 - 2027, automatic coordination via AIDC may be tested with regional ANSPs, including:

- Trinidad and Tobago,
- Barbados,
- Saint Lucia, and others.

3.5 The Letter of Agreement (LoA) regarding radar data exchange between TTCAA and SNA (France), signed in 2018, should be reviewed and updated to reflect the new operational and technical environment.

**4. Suggested Actions**

4.1 The meeting is invited to:

- a) Take note of the planned phase-out of IRMA systems and MAC LLC format by 2026,
- b) Consider the opportunity to adopt UDP/IP-based data exchange with French MSSR and MRT systems from 2026,
- c) Consider the implementation of AIDC coordination with the FWI region from 2026.
- d) suggest the update of the corresponding letters of agreement.
- e) Suggest any other action deemed necessary.

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