



- Agenda Item 2:** **Review of Air Navigation Matters**
2.2 **Air Navigation specific activities:**
2.2.2 **Communications, Navigation and Surveillance (CNS)**
 • ***Review of Radar Data Sharing Task Force Report***

RADAR DATA SHARING TASK FORCE REPORT

(Presented by the Rapporteur of the CNS Committee)

SUMMARY	
This report informs the meeting on the status of the radar data sharing task force assigned activities.	
References:	
• Twenty First Meeting of Directors of Civil Aviation of the Eastern Caribbean (21st E/CAR DCA), 11-14 February 2008, Tortola, British Virgin Islands • Thirtieth Eastern Caribbean Working Group Meeting (30-E/CARWG), 7-11 August 2006, Castries, Saint Lucia. • Third Eastern Caribbean Radar Sharing Task Force (E/CAR – RSTF/3), 18-19 October 2004, Port of Spain, Trinidad and Tobago. • Second North American, Central American and Caribbean Working Group Meeting (NACC/WG/2), 12 – 16 May 2008, Ocho Rios, Jamaica,	
<i>Strategic Objectives</i>	<i>This working paper is related to Strategic Objectives A and D.</i>

1. Introduction

1.1 The Eastern Caribbean Radar Sharing Task Force comprising members from Barbados, Eastern Caribbean Civil Aviation Authorities (ECCAA), France (Rapporteur), Saint Lucia and Trinidad and Tobago last met at the third E/CAR-RSTF/3 held in Trinidad and Tobago on 18-19 October 2004.

1.2 At the Thirtieth Eastern Caribbean Working Group (30 E/CAR WG) held on 7-11 August 2006 in Castries, Saint Lucia, France presented Information Paper/09 on Radar Developments in the E/CAR. The paper identified three radar data sharing projects currently in the E/CAR; two active and one in dormancy. The two active projects were radar remoting data from Martinique to Saint Lucia and the second was remoting radar data from Martinique to Trinidad and Tobago Piarco ACC. The third project was the implementation of the DACOTA seamless common radar image utilizing the radar data from Antigua, Barbados, French Antilles (combined Martinique and Guadeloupe radars), Trinidad and Tobago and Saint Maarten.

1.3 In IP/09 of the 30 E/CAR WG France stated that the implementation of a safety management system and quality assurance (ISO certification) for the E/CAR telecommunication network (medium of radar data exchange), and the problems created by permanent lack of flight plans are first priorities of action to be resolved. As a consequence, the common seamless image project was put in dormancy.

2. Radar remoting from Martinique to Saint Lucia

2.1 The CNS Committee report presented at the Twenty First Meeting of Directors of Civil Aviation of the Eastern Caribbean (21st E/CAR DCA) held on 11-14 February 2008 in Tortola, British Virgin Islands stated that the dedicated leased 64Kbps circuits for radar remoting between Martinique (combined radar image from Martinique and Guadeloupe's radars) and Saint Lucia (Hewanorra and George Charles), were installed on Martinique and St. Lucia. It was noted that while the lines and the equipment were installed, Saint Lucia has not been utilizing the remoted radar data. The LOA between Saint Lucia and the French Antilles (SNA/AG) provided for technical training but not ATC training. Saint Lucia is responsible for providing the appropriate ATC radar training. SNA/AG will support the system for one year from the date of the LOA and then Saint Lucia would assume the responsibility. Saint Lucia's technical staff was trained to support the equipment. The dedicated leased circuits are billed to Trinidad and Tobago.

2.2 Up to the time of writing this report the Rapporteur of the E/CAR WG CNS Committee did not have an updated status of the usage of the radar service in Saint Lucia.

3. Radar remoting from Martinique and Barbados to Trinidad and Tobago

3.1 The Letter of Agreement (LOA) for the remoting of radar from Martinique to Trinidad was signed by the French Antilles and Trinidad and Tobago on 4th October 2007. A dedicated leased 64Kbps circuit was implemented between Martinique and Trinidad. The circuit has been successfully tested end-to-end and radar data from the combined radars of Martinique and Guadeloupe was presented at Trinidad Piarco ACC on 10th June 2009 and continues to be displayed under pre-operational test conditions at the Piarco Area Control Centre. The routers to be installed in Martinique and Trinidad have been tested back-to-back and are scheduled for installation by mid November 2009. This installation will complete the Piarco/Martinique radar circuit.

3.2 A dedicated leased 64Kbps circuit is planned to be implemented by the third quarter of 2009 between Piarco, Trinidad and Guadeloupe. This circuit will serve as a backup to the Piarco, Trinidad/Martinique circuit for radar data. The LOA between Trinidad and Tobago and Barbados for the remoting of radar data from Barbados to Trinidad was signed on 17th November 2006. A dedicated leased 64kbps circuit was installed and tested. The routers are scheduled to be installed by mid November 2009. Discussion is on-going between the Civil Aviation Authorities of Barbados, Grantley Adams International Airport Inc. (GAIC), TTCAA and their respective Radar manufacturers on the details of connectivity to the Barbados radar system. GAIC is awaiting a design from Raytheon in order to split the radar data at the local facility: one feed will go to Piarco and the other feed to Barbados' ATC facility via a radio link.

4. Common seamless radar image

4.1 The status of the items stated in paragraph 1.3 above for the dormancy of this project is as follows:

- *The implementation of a safety management system and quality assurance (ISO certification) for the E/CAR telecommunication network (medium of radar data exchange).*

The Trinidad and Tobago Civil Aviation Regulations 2004, includes the requirement for Aerodrome Operators, Air Operators, Air Traffic Services Providers, and Aircraft Maintenance Organisations to implement a Quality Management System and Safety Management System. A committee has been established by the Trinidad and Tobago Civil Aviation Authority to analyse and define the requirements for implementing a safety management and quality assurance system. The end date for this project is anticipated to be 2010.

- *The permanent lack of flight plans*

The replacement of the Trinidad and Tobago AFTN System in October 2004 would have resolved the issues previously attributed to this problem.

5. Future radar exchange

5.1 The new ATM system procured by Trinidad and Tobago has the ability to accept multiple radar inputs (maximum of six inputs) and via its multi-radar tracker to produce one image. This fused image may be exported to interested States. In addition to combining the radar data of Trinidad and Tobago, Barbados and the French Antilles, it would be possible to add three more radar inputs. One such radar input for future consideration may be Venezuela.

6. Suggested action

6.1 The following actions are suggested:

- a) Saint Lucia to complete and update the information presented in section 2.1 of this paper;
- b) That the meeting:
 - i. take note of the information contained in this working paper;
 - ii. review the operational benefits for a common situational awareness in the E/CAR Region and define an action plan for the radar issues needed for this performance objective,
 - iii. agree to any other actions as deemed appropriate.