



Agenda Item 5

Air Navigation Matters

5.5 Other Air Navigation Matters

PIARCO FLIGHT INFORMATION REGION (FIR)

(Presented by Trinidad and Tobago)

SUMMARY	
This paper informs on CNS/ATM enhancements for the benefit of PIARCO FIR Users.	
References:	
• Thirty-First Eastern Caribbean Working Group Meeting (E/CAR/WG/31), St. John's, Antigua and Barbuda, 5 to 8 October 2009. • Twenty First Meeting of Directors of Civil Aviation of the Eastern Caribbean (21st E/CAR DCA), Tortola, British Virgin Islands 11 to 14 February 2008.	
STRATEGIC OBJECTIVES	THIS WORKING PAPER IS RELATED TO STRATEGIC OBJECTIVES D.

1. Introduction

1.1 Trinidad and Tobago signed a contract with the successful bidder on 16th July 2007 for a turn-key project for a new state of the art ATM system. The Air Traffic Management Automation (ATM) System is a central system that would integrate all information/data necessary to perform safely and effectively air traffic management functions, including airspace management, air traffic flow management, air traffic services at the appropriate level of automation as recommended by ICAO; and to support control operations of Piarco Area Control Centre, Approach and Tower. The system comes complete with a new Mode S MSSR/PSR radar, electronic flight strips and integrates the most advanced flight data processing (FDP), surveillance data processing (SDP), data link processing (DLP) and displays available today.

1.2 The ATM system has the capability of processing and displaying data from the following sources/sensors PSR/SSR/MSSR/ADS-B/ADS-C/TIS-B and MLAT. The main phase of the Modernization project which includes all new ATM equipment in a new Area Control Centre and Control Tower buildings is anticipated to be realized and fully operational (ALL PERSONNEL TRAINED) within the second quarter of 2011.

2. Discussion

2.1 The first phase of the project encompassed replacing the old VCCS in the ACC and Tower with new VCCS accessible via touchscreens, replacing the Trinidad and Tobago radar and installing BARCO displays to display radar DATA information and replacing the old voice recorders.

2.2 The project to utilize the Radar data from the combined radars of Martinique and Guadeloupe is underway and the image is currently displayed under pre-operational test conditions at the Piarco Area Control Centre. Refurbishment of the Trinidad high site and installation of the new Trinidad and Tobago radar were completed and the radar was successfully flight checked on November 12-13, 2009. In due course the radar inputs (Trinidad and Tobago, Barbados and the French Antilles) will be fused resulting in a seamless Enroute Surveillance System covering all the airspace west of 057°W in the Piarco FIR. This phase of the project initially projected to be completed by the end of the third quarter of 2008 is now anticipated to be operational by the end of the second quarter of 2010.

2.3 The ATM system has the capability of processing and displaying data from multiple sources/sensors. The main phase of the Modernization project which includes all new ATM equipage in a new Area Control Centre and Control Tower buildings is anticipated to be realized and fully operational within the second quarter of 2011 (all personnel trained).

2.4 The decision to implement ADS in the Piarco FIR was re-affirmed at the SUR/TF/3 Meeting, 10-11 September 2009, Mexico City, Mexico. ADS-B trials are planned not before 2015 within the FIR. ADS-C pre operational trials in the oceanic airspace are scheduled to coincide with the commissioning of the new ATM system in the new air navigation facilities at Piarco.

2.5 For the Region this means that it would be possible for States to benefit from the surveillance initiatives in that the seamless image from multiple sources could be exported on a viable medium to any state or territory.

2.6 To mitigate against congestion on the existing ACC and Approach frequencies, Trinidad and Tobago signed contracts to implement seven air/ground (VHF mobile) frequencies. In keeping with the TTCAA ATM modernization plan three new VHF frequencies; 126.5 MHz, 133.1 MHz and 124.0 MHz. The total replacement of the equipment for the existing A3-123.7 MHz and A7-125.4 MHz, one new frequency was added for Terminal Control (119.55MHz) and the other (119.0 MHz) for an extended range radio for Piarco Terminal/Approach and this to be installed at high sites located at Trinidad, Tobago. The ATC frequencies will be located at high sites Antigua, Barbados, Saint Lucia, Trinidad and Tobago.

2.7 The first phase of the project is expected to be completed within the last quarter of 2009 and the second phase by the second quarter of 2010.

3. Suggested action

3.1 The Meeting is invited to take note of the information contained in this paper.