



International Civil Aviation Organization

North American, Central American and Caribbean Office (NACC)

**Seventh Central American Air Navigation Experts Working Group Meeting
(CA/ANE/WG/7)**

Ninth Central Caribbean Working Group Meeting (C/CAR/WG/9)

ICAO NACC Regional Office, Mexico City, Mexico, 5 to 9 March 2012

Agenda Item 3

Air Navigation Matters

3.2 Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) in Central America and the Central Caribbean

STATUS OF THE VHF COVERAGE IN THE NW SECTOR OF THE CURAÇAO FIR

(Presented by Curaçao)

SUMMARY	
This paper presents an analysis of the progress made in VHF communication coverage of the NW sector of the Curaçao FIR optimally. This in regard to the efforts made by ICAO for Curaçao to indicate the steps taken.	
References:	
• C/CAR/WG/08 Meeting Report	
<i>Strategic Objectives</i>	<i>This information paper is related to Strategic Objectives A and C.</i>

1. Introduction

1.1 During the C/CAR/WG8 meeting, Curaçao was tasked to improve the VHF communication in the NW sector of the TNCF FIR.

2. Working towards a solution

2.1 Curaçao investigated the possibility of using the Barahona site in Dominican Republic to improve the coverage. To obtain a transparent and professional assessment result, Curaçao contracted Park Air to assist with an engineer with the required extended VHF knowledge/experience for doing the expected assessment of the Barahona site and also that of our own high site. This theoretical coverage from the Barahona site proved inadequate.

2.2 The best option remained still from our own high site, since the theoretical coverage diagram indicated that Curaçao could cover the area. Curaçao then concentrated on installing adequate equipment to obtain the desired coverage. In trying to optimize the coverage in the NW part off the Curaçao FIR, Curaçao replaced the high gain transmitting/receiving antenna. The feeder was also replaced by an even better low loss coaxial cable. The interface equipment between the high site, where our main transmitting and receiving equipment are located and the operation site, proved to be the cause of bad signal transmission. This interface equipment could only and was also replaced when the voice communication switch was replaced with a brand new Digital voice communication switch.

2.3 The required move from the old analogue to a new digital voice communication switch was the main reason it took Curaçao more time than expected to replace the faulty interface equipment between the high and operational site. With all the installation now completed, major coverage improvements were obtained in the NW sector of Curaçao FIR.

2.4 A preliminary compilation of test results in that specific area (NW sector of Curaçao FIR) indicates good coverage. Further testing, if necessary, should be coordinated through the ICAO/NACC office.

3. Other improvements

3.1 To further increase air safety in the Curaçao airspace, NAATC contracted NAVCANADA to assist with the implementation of electronic strips with automatic conflict alert. Introduction of the electronic strips system is planned for the second half of this year and we expect this to improve our automation and reduce workload significantly at the Data position. NAATC expects the introduction of the electronic strips to also further improve coordination time and quality (mitigating LHD's) with adjacent FIR's.

3.2 Radar data sharing will also be pursued with Jamaica, Dominican Republic and Venezuela as soon as our AMHS project is finalized.

4. Suggested Action

4.1 The meeting is invited to take note of this information.