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

INFORMATION PAPER

MEVA/TMG/33 — IP/02
15/05/18

Thirty-third MEVA Technical Management Group Meeting (MEVA/TMG/33)
Willemstad, Curaçao, 29 – 31 May 2018

Agenda Item 2: **Operation and Performance of the MEVA III Network**
2.5 Surveillance data sharing

RADAR DATA AND VHF COMMUNICATIONS PROVISION FROM COCESNA TO JAMAICA

(Presented by COCESNA)

EXECUTIVE SUMMARY	
COCESNA present a review of the radar and communication information from Central America to Jamaica	
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency

1. Introduction

1.1 The international civil aviation convention, signed in Chicago on December 7th, 1944, approved by the signing countries of COCESNA, prescribes among its principles the area's safety development, supported on the understanding and cooperation among the states.

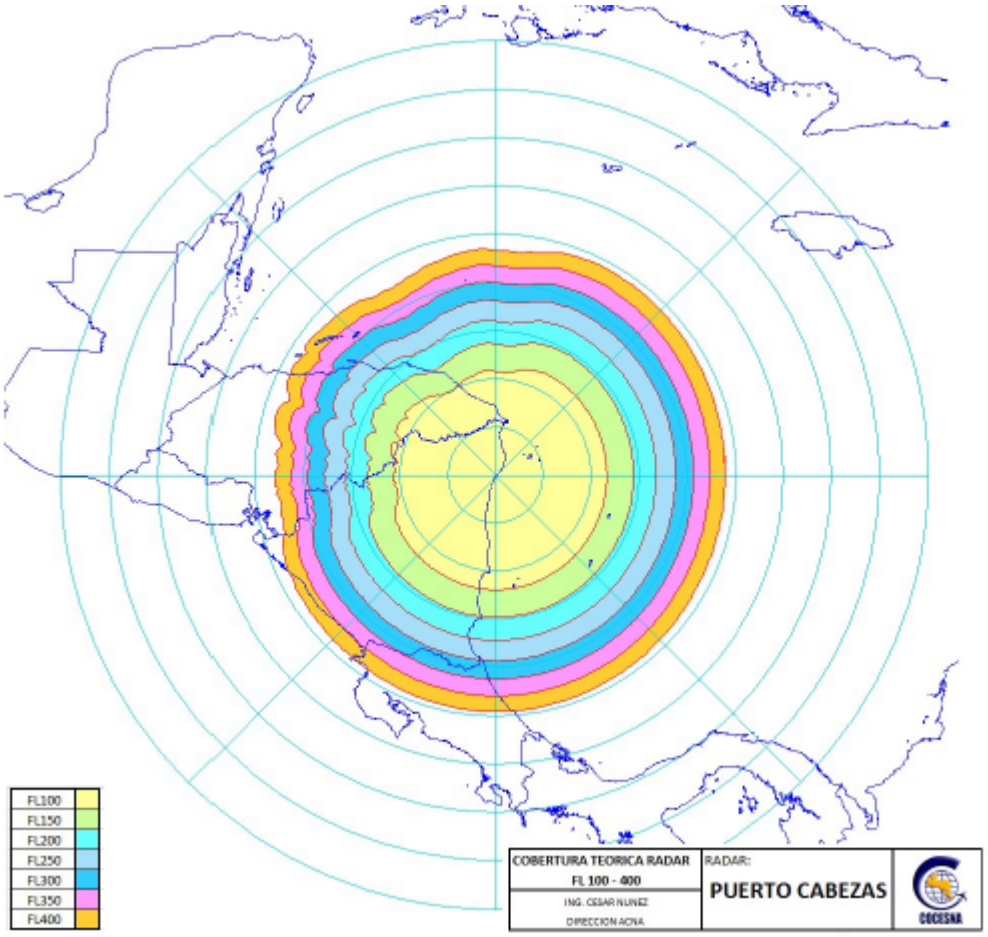
1.2 Conclusion 10/33 of the tenth GREPECAS meeting of the International Civil Aviation Organization (ICAO) considered the radar data exchange between institutions and countries interested in them.

1.3 The Jamaica CAA and COCESNA, recognize the need of this cooperation and manifest interest to implement those actions that will permit the strengthening of the air navigation services quality.

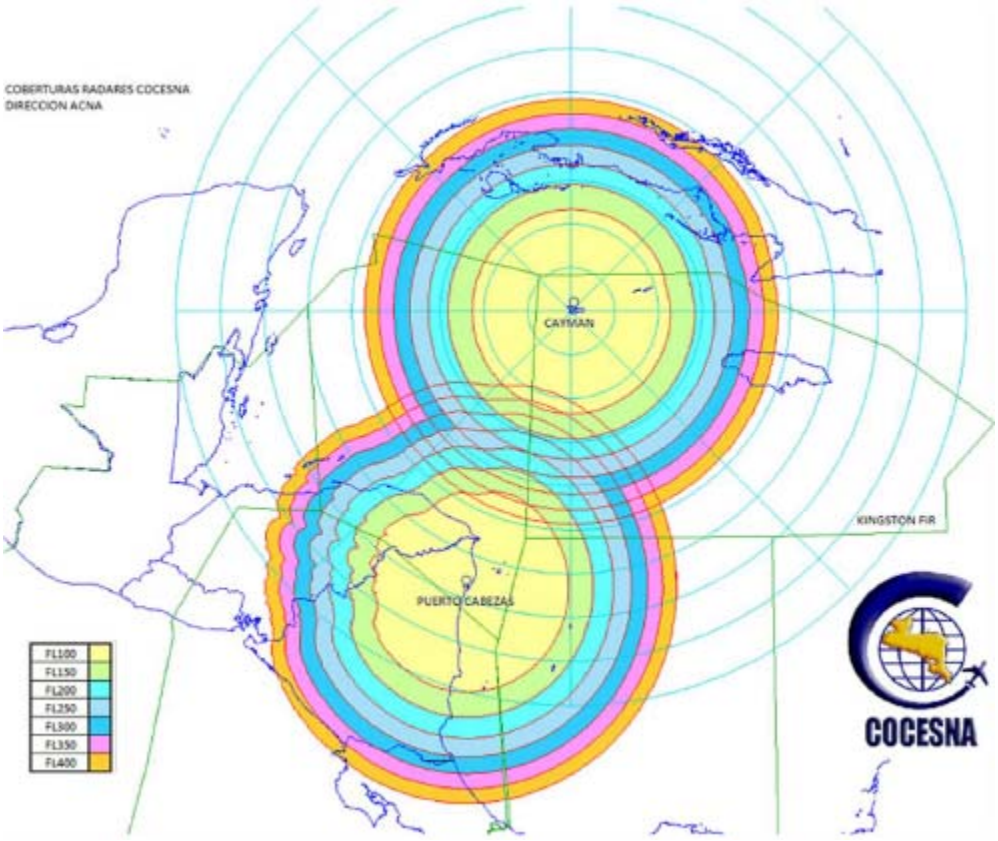
1.4 The Jamaica Civil Aviation Authority requested to COCESNA the provision of radar data from its site at Puerto Cabezas, Nicaragua, and supply, installation, commissioning and maintenance of AMS VHF Radio to be located at Puerto Cabezas.

1.5 With the provision of radar data of COCESNA's radar located at Puerto Cabezas, the Jamaica CAA increased radar coverage to the southern of the Kingston FIR.

1.6 Installation of an AMS VHF Radio at COCESNA's Puerto Cabezas facilities, will improve ground-to-air communications in the Kingston FIR, and will help to Jamaica CAA to solve some communications problems in the border between Jamaica and Panama FIR(s).



The Jamaica CAA has also manifested interest in getting the data of COCESNA's radar located in Grand Cayman.



2. Description of the solution

2.1 Grand Cayman and Puerto Cabezas radar data and VHF Radio audio and signalling from Puerto Cabezas, are being carried to Tegucigalpa, Honduras, via COCESNA's VSAT Network (RTVS), then, delivered to Kingston through the MEVA III Network.

2.2 Originally the radar data was delivered in the MEVA III station in Asterix format, interface RS232 / HDLC at a rate of 9.6 kbps, and the audio and signalling of the AMS VHF radio installed in Puerto Cabezas, was being supplied as E&M Type V interface in the Multiplexer Station (FAD) MEVA III of Kingston, Jamaica.

2.3 In order to transmit the radar data of both radars and vhf radio channel, a MEVA RS232/HDLC 64 kbps is being used, and cisco routers are being used to multiplex these channels. This configuration avoids double time of digitalization, optimizing the delay.

2.4 Both cases, the provision of radar data and AMS communications from Puerto Cabezas and Grand Cayman to Kingston involves double satellite hop.

3. Coordinations

3.1 The coordination with the MEVA service provider was made for the hardware implementation and configurations for enabling the communications between Kingston and Tegucigalpa, and MEVA enabled a RS232/HDLC channel of 64 kbps.

4. Tests

4.1 Once the equipment was installed and configured, operational tests are being carried out with Jamaica to evaluate the quality and coverage of the services.

4.2 Puerto Cabezas radar data was integrated to Jamaica system on March 27th 2018, and Grand Cayman data was integrated (for testing purposes) on May 3rd 2018. According to Jamaica the data is stable and accurate.

4.3 VHF Radio in Puerto Cabezas, operating in 124.0 MHz, was integrated on April 4th 2018, Jamaica is making operational tests of it.

— END —