



**International Civil Aviation Organization**

CAR/SAM Regional Planning and Implementation Group (GREPECAS)

**Fourteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/14)**

(San Jose, Costa Rica, 16 to 20 April 2007)

GREPECAS/14-IP/19

29/03/07

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**Agenda Item 4: Evaluation of Air Navigation Planning and Implementation Deficiencies/ Problems in the CAR/SAM regions**

**4.2: Specific Air Navigation Planning and Implementation Deficiencies/ Problems in the CAR/SAM regions**

**RADAR AND AMS COMMUNICATIONS IN THE NORTHEAST OF CENTRAL AMERICA  
FIR**

(Presented by COCESNA)

**SUMMARY**

This informative paper presents the advances in implementation of radar service in the Northeast of Central America FIR in order to solve deficiencies detected in radar and AMS communications coverage.

**1. Introduction**

In the northeast area of Central America FIR it has been detected the need to provide radar services and improve air-ground communications in the vicinities of Kingston and La Havana FIR's.

Because of this need and based on the cooperative spirit between States and International Organizations, that is also promoted by ICAO, on October 13, 2005, COCESNA and Cayman Islands Airport Authority (CIAA) subscribed a Technical Cooperation Agreement for the use of certain facilities for the operation of communications and radar equipment.

**2. Radar and AMS Communications Project Activities**

Based on the Agreement before mentioned, a mayor Project was planned in which two phases were structured:

- First Phase: consisting in the implementation of a CAMSAT VSAT node and AMS communications, with the following equipment:
  1. Redundant VSAT node with Monitoring and Control administration.
  2. Redundant VHF AMS transceivers for the operative frequency.
  3. Single VHF AMS transceiver for 121.5 emergency frequency.
  4. HF receiver for AMS purposes.
  5. Indoor Equipment, VSAT Antenna

All activities were done by COCESNA personnel from the specifications, engineering to the final setup.

These systems are operational since May 2006.

- Second Phase: this phase has been divided in two parts:
  - Part 1: The Installation and operation of a temporary secondary monopulse radar by mid 2007
  - Part 2: The final installation and operation of a Mode S Radar by the end of 2008.

Part 1 of the second phase is already in process, in which:

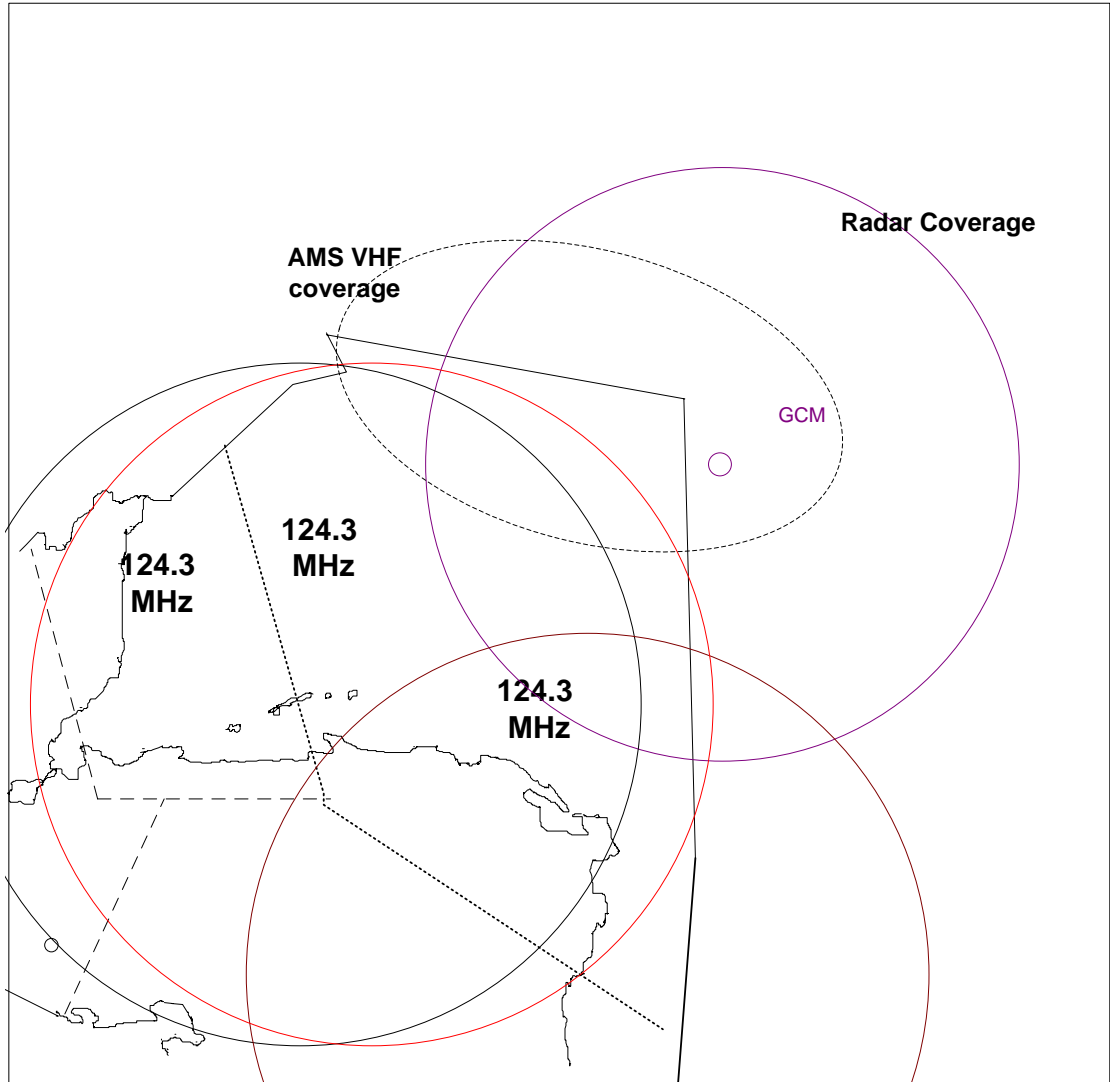
- Energy, grounding and protections will be finished by April 2007.
- The shelters and equipments are planned to be available on site by May 2007.
- Installation of temporary MSSR radar by June 2007, including integration tests and flight commissioning.
- Expected to be operative by July 2007. Figure No. 1 illustrates the theoretical radar coverage.

#### **4. Suggested Action**

The Meeting is invited to take note of the information presented in this informative paper.

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**Figure No. 1: Radar and AMS VHF Coverages**



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