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- Agenda Item 2: Review of air navigation matters**
2.3 Air navigation specific activities:
2.3.2 Communications, Navigation and Surveillance (CNS)

SURVEILLANCE STATUS IN JAMAICA

(Presented by Jamaica)

SUMMARY

This document presents guidelines on the status of Surveillance in Jamaica's airspace. Including plans to enter into radar sharing with adjacent States and implantation of newer technologies such as ADS-B.

1. Introduction

1.1 Jamaica presently has three (3) co-located Primary and Secondary Radars that provides coverage to 90 percent of the flight Information region (FIR). These radars were installed in the year 2000 and are quickly heading towards their end of life. In many instances when attempts are made to repair faulty components they have been reported as being "beyond economic repair" or "out of production".

1.2 In planning our transition for replacement of these systems, the JCAA is pursuing two (2) key strategies.

- a) Data sharing with adjacent FIRs.
- b) Testing newer technologies with a view to implementation.

STRATEGY 1 – Data Sharing

1.3 On November 7, 2008 Jamaica signed a Letter of Agreement with Cuba to share Secondary Radar Data as well as conduct automated radar hands off via ATS Inter-facility ground-ground Data Communication (AIDC).

1.4 To this point both States have exchanged technical points of contacts and have begun the process of reviewing the protocols and formats of the other's surveillance data. The next step in the Action Plan calls for exchange of one radar feed at 9600 bps (Serial) via the MEVA II VSAT Network, in a pre-operational environment. Due to the nature of the format testing a date for pre-operational use of the shared facility cannot at this point be confirmed.

1.5 The terms of the data sharing is that the provision of the data will be on a reciprocal basis free of charge with the MEVA II communication charge equally shared between both sides or assumed by the party receiving the radar data. We hope to have this sharing in a test mode in the very near future.

1.6 As mentioned previously our radars give us 90 percent coverage of the FIR with the western and south western section of the FIR being the most difficult area to cover. In this regard COCESNA has been approached to get feeds from their Cayman and Puerto Cabeza radars. However, as this would not be on a reciprocal basis a cost benefit analysis is needed to justify the expense not only associated with the MEVA II communication charge but also installation and monthly maintenance fees.

1.7 We have also contacted Colombia for a possible feed from their San Andres radar head. It is envisioned that communication for this link would be done via the Colombia VSAT Network of which Jamaica has a terminal used for voice communication with Barranquilla or eventually by the MEVA II / REDDIG interconnection.

STRATEGY 2 – Testing New Technologies

1.8 In March 2009 Jamaica signed a contract with one of the leading ADS-B manufacturers to conduct trials in the Jamaican airspace beginning with a single ground station. These trials, which are scheduled to begin by the end of May 2009, will be used as a test bed to determine aircraft transponder equipage statistics as well as coverage patterns. The results of these trials will determine the next step in the provision of surveillance service -- be it replacement of the PSR/MSSR radar heads or implementation of MSSR mode S, ADS-B or MLAT; or whichever combination.

1.9 Regardless of the direction chosen, Jamaica is very much interested in partnering with its neighbours to leverage a bi-lateral or multi-lateral position as well take advantage of regional economies of scale.

2. Suggested Actions

2.1 The meeting is invited to:

- a) Take note of the information contained in this working paper; and,
- b) collaborate on developing a regional strategy on implementing surveillance coverage.