



International Civil Aviation Organization

North American, Central American and Caribbean Office (NACC)

Fourth Eastern Caribbean Network Technical Group and Second Eastern Caribbean Radar Data Sharing Adhoc Group Meetings

(E/CAR/NTG/4- E/CAR/RD/2)

Martinique, French Antilles, France, 17 to 18 June 2013

Agenda Item 2: E/CAR AFS Network
2.2 – Implementation of AMHS and AISS/ Central FDP Systems

IMPLEMENTATION OF AMHS CIRCUIT PIARCO- ATLANTA

(Presented by United States)

SUMMARY

This Working Paper presents the status of implementation of AMHS in the Eastern and Central Caribbean region.

References:

- ICAO/FAA Workshop/Meeting on the Follow-up to the Implementation of the ATS Message Handling System (AMHS) in the NAM/CAR Regions and ATN Meeting (Miami, Florida 11-13 April 2012)

Strategic Objectives

This information paper is related to Strategic Objectives:

- A. Safety – Enhance global civil aviation safety*
- C. Environmental Protection and Sustainable Development of Air Transport*

1. Introduction

1.1 The last AMHS workshop/meeting was hosted by the United States/FAA in coordination with ICAO in Miami, FL on 11-13 April 2012. The workshop provided participants with a forum to exchange experiences, guidance on implementation of AMHS as well as implementation activities and schedule updates. Since then the pace of implementation of AMHS systems in the region has increased. Currently the FAA is working with 6 CAAs toward the implementation of the circuits for interconnecting their AMHS system.

2. Discussion

2.1 The FAA is working with the CAA's of the Dominican Republic, St Maarten, Curaçao, Trinidad and Tobago, COCESNA, and Turks and Caicos to migrate their AFTN connections to AMHS. The status of the various AMHS Implementation Projects is as follow:

- Dominican Republic: The initial phase of the Interoperability Testing was performed through a VPN over the Internet. Subsequent phases were performed over a MEVA II 64kbps IP circuit. Interoperability Testing is almost completed; the project is entering the Cutover Phase.
- St Maarten: Interoperability Testing is pending the implementation of a MEVA II 64kbps IP circuit.
- Curaçao: Interoperability Testing is pending the implementation of a MEVA II 64kbps IP circuit.
- Trinidad and Tobago: Interoperability Testing is pending the definition of the physical interface for the FAA 64kbps IP circuit between the E/CAR AIFSS router in San Juan CERAP and Atlanta NEMC.
- Turks and Caicos: The initial phase of the Interoperability Testing will be performed through a VPN over the Internet. Subsequent phases will be performed over a 64kbps IP circuit between Grand Turks ATCT and Atlanta NEMC. Currently Turks and Caicos and the vendor are redesigning TCIAA's AMHS System (MTA and User-Agents).
- COCESNA: The initial phase of the Interoperability Testing will be performed through a VPN over the Internet. Subsequent phases will be performed over a MEVA II 64kbps IP circuit.
- Jamaica: The initial phase of the Interoperability testing will be initiated soon.

2.2 Interfaces Types. Currently the International User Portal (IUP) at the Atlanta NEMC is configured to accept serial interfaces (RS-232 or EIA-530) at various bit rates. As outlined in the Regional AMHS Plan, the minimum defined bit rate for an AMHS circuit is 64kbps.

2.3 AMHS in MEVA III. The requirements present in the MEVA III Tender Package are such that all serial circuits can be easily transitioned to the MEVA III network, and allow for other interfaces to be implemented.

2.4 As 1st AMHS connection is nearing operational cutover, some technical challenges needed to be resolved, and a few lessons were learned. The most important of these lessons are:

- The Documentation Exchange phase is crucial to understand the scope of the effort, the configurations of both AMHS systems, and the connectivity between them.
- VPN connections do not necessarily remain “up” from one test session to the other.

2.5 The next ICAO/FAA AMHS workshop is tentatively scheduled for September 2013 in Dominican Republic. The Members are encouraged to attend as we will go over the lessons learned in more details, and we'll plan future connections.

3 Conclusion

3.1 The AMHS circuit implementation is being implemented with several States, including Trinidad and Tobago and the next AMHS Workshop/Meeting is being scheduled for September 2013.

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