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Item 2: Review of Air Navigation matters
2.3.2: Communications, Navigation and Surveillance (CNS)

CURRENT STATUS OF THE FEDERAL AVIATION ADMINISTRATION TELECOMMUNICATIONS PROGRAMS

(Presented by the United States)

This Paper presents information on the current status of the Federal Aviation Administration (FAA) National Airspace Data Interchange (NADIN) Message Switch Network (MSN), Air Traffic Services (ATS) Message Handling System (AMHS) Programs.

1. Introduction

1.1 The Federal Aviation Administration is reorganizing its telecommunication resources to streamline and make a more efficient use of assets. This Information Paper presents a synopsis of the current status of the FAA's NADIN MSN and AMHS Programs.

2. NADIN MSN Rehost

2.1 The NADIN MSN is the FAA interface for the world-wide Aeronautical Fixed Telecommunications Network (AFTN) used for interchange of aircraft movement flight plans, weather, and NOTAM messages between the U.S. and other nations. The NADIN MSN is an essential part of the AFTN and provides communications not only between the United States and its connected foreign partners, but also between foreign countries as a pass through data service in accordance with ICAO agreements.

2.2 The FAA developed a fully functional replacement of the NADIN I Switches. This newer system is called NADIN MSN Rehost (NMR) and it supports X.25 and TCP/IP. The FAA plan is to decommission the legacy equipment by June 2009. . The NMR System has connectivity into the X.25 network thereby supporting the ability of the current X.25 users to be switched seamlessly off the legacy system and over to the NMR System. The user migration from the Legacy to NMR started in early 2008 and it is scheduled to be completed in June 2009.

2.3 The FAA has been working closely with some of the CAR/SAM members in upgrading their legacy interfaces to X.25. St Marteen recently upgraded their interface with their implementation of their new AFTN Switch. Panama is in the process to implement a replacement to their unsupported X.25 PAD. Venezuela is working with the FAA in upgrading their legacy asynchronous interface to X.25

2.4 In addition, the NMR System will provide AFTN services over IP-based solutions utilizing the FTI IP network. This will enable new users to connect to NADIN via IP, and allow existing X.25 users to migrate to the IP services. The NMR system also enables AFTN traffic to be sent from an X.25-based user to an IP-based user, and vice versa.

2.5 The NADIN Program Office updated the Request For Service (RFS) form that is used for collecting technical information required for testing the equipment to include TCP/IP protocol. This document is available to all Regional Members States.

3. AMHS Implementation

3.1 FAA has an ATS Message Handling System (AMHS) installed in Salt Lake City, Utah, which has been operational since 2005. For the long-term solution FAA is working closely with all Regions and will enhance AMHS in the NADIN Network to support OSI for upper layers and TCP-IP using RFC 1006 for lower layers in the fall of 2009.

3.2 The intent of this project is to integrate the AMHS Gateway function into the NADIN-I Message Switch Network (MSN) Rehost (NMR) system in accordance with the ICAO Standards and Recommended Practices (SARPS), Doc. 9896, Edition 2, Sub-Volume III for Ground-to-Ground Applications. This AMHS Gateway function will be added to, and become part of, the NMR software and will operate logically as another front-end process.

4. Conclusion

4.1 The FAA is actively involved in the CAR/SAM Region and supports the proliferation of new technology that can improve the existing telecommunication systems in support of Air Traffic Services.

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