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Agenda Item 3 CNS Developments
3.3 Follow-up Activities for the Implementation of Ground-Ground Communications

AERONAUTICAL FIX TELECOMMUNICATIONS NETWORK SERVICE UPGRADE BETWEEN FEDERAL AVIATION ADMINISTRATION AND VENEZUELA CIVIL AVIATION AUTHORITY

(Presented by the United States of America)

SUMMARY

This paper presents the Federal Aviation Administration recommendation to upgrade the current AFTN service between FAA and Caracas, Venezuela. This upgrade will greatly improve the reliability and availability of AFTN services with the Caribbean and South America.

1. Background

1.1 The current FAA AFTN switch has reached end of life on most of its hardware components. Most, if not all, of the parts are no longer supported by the vendor and there are a limited number of spare parts available. The FAA initiated a project in 2003 to replace the legacy AFTN Switch with a new AFTN switch. The new AFTN switch was deployed at the National Network Control Centers (NNCC) located at Atlanta, Georgia and Salt Lake City, Utah. This new AFTN switch supports only X.25 and TCP/IP protocols.

2. Current Situation

2.1 At this moment the FAA is migrating all of its users from the Legacy AFTN switch to the new AFTN Switch. We are expecting to finish this migration in August 2008. However, the interface with Caracas AFTN switch is currently defined as an Asynchronous interface. This legacy protocol is not supported with the new FAA AFTN switch. This is the only interface that uses this legacy protocol with the U.S. in the Caribbean and South America Regions.

3. Proposed Options

3.1 The FAA encourages this group to look at the following options to upgrade the current AFTN interface with Caracas, Venezuela. We understand that other factors might impede the implementation of any of these options. However, urgent attention should be given in upgrading this interface because it is critical for the availability of AFTN services in the CAR/SAM regions.

3.1.1 The proposed options are

1. Upgrade to X.25.
2. Upgrade to TCP/IP.
3. Use a X.25 Packet Assembler/Disassembler (PAD) to convert from Asynchronous to X.25. This option adds another point of failure in the interface and it should be considered as a last option.

4. Recommendation

4.1 The Meeting is invited to take into consideration the options presented in this paper to upgrade the current AFTN interface with Caracas, Venezuela.

4.2 The FAA recommendation is option 1.

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