International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
Fifth Meeting of the CNS Committee of the GREPECAS ATM/CNS Subgroup (CNS/COMM/5)
Lima, Peru, 13 to 17 November 2006

Agenda Item 1: Communication systems developments
1.3 Review of the ATN regional implementation plan.

STRATEGY TO IMPLEMENT ATN/AMHS SERVICE IN THE REGION

(Presented by the United States of America)

SUMMARY

The implementation of the Aeronautical Telecommunications Network's Air Traffic Service Message Handling System (ATN/AMHS) requires network management and policy coordination among States due to its highly automatic application and dynamic network. This paper conveys a recommended outline and issues that need to be addressed before the ATN/AMHS service can be implemented in the region.

1. Introduction

1.1 The ICAO Air Navigation Commission has adopted the ATN as a seamless global means of communication among Contracting States. The ATN/AMHS is gradually replacing the Aeronautical Fixed Telecommunication Network (AFTN) as a standard general-purpose communication system

2. Background

2.1. In the ATN/AMHS environment, States can communicate with one another directly without going through a transit center for messages to be stored and forwarded as in the existing AFTN service.

2.2. The Aeronautical Telecommunication Network Working Group N in the Aeronautical Communications Panel (ACP) should complete the Internet Protocol (IP) Standard and Recommended Practices (SARPs), edition 4 in 2007.

2.3. The ICAO Asia/Pacific region has adopted the use of X.25 network protocol as its sub-network for the ATN for AMHS service. The major backbone in this region (Australia, China, Fiji, India, Japan, Singapore and Thailand) will implement their respective service by 2008 according to the APANPIRG FASID.

2.4. The European Union is developing its implementation plan and has selected Internet Protocol (IP) as its sub-network.

2.5. The Binary Universal Form Representation (BUFR) coded message can only be distributed by AMHS.

2.6. AeroThai has been designated by ICAO Asia/Pacific Regional Office as the ATN Directory Service Regional Coordinator for AMHS addressing management and coordination with Eurocontrol.

2.7. Eurocontrol has been designated as the global ATN Directory Service Coordinator. It is also the European Union Regional ATN Directory Service Coordinator.

3. Discussion

3.1 The implementation of the ATN/AMHS service should have a strategy to address the following elements:

a) Regional Planning and policy: transition plan;

b) Policy and service definition: naming and addressing plan, routing policy, system integrity policy, directory service, and network management;

c) Interface control document: Router ICD, MTA ICD, BUFR coded generated system ICD;

d) Implementation document: address registration form, AFTN/AMHS operational procedure, and verification checklist;

e) Reference document: ATN router and AMHS descriptions;

f) Conformance document: test procedure and checklist; and

g) Establishment of a body to be the Regional ATN Directory Service Coordinator.

4. Recommendation

4.1 Contracting States are invited to review the US strategy for the implement of the ATN/AMHS in the CAR/SAM Region. It is recognized that implementation of ATN/AMHS in the region would require major development of the implementation related documents. The US welcomes the opportunity to work with committed Contracting States.

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