

**International Civil Aviation Organization**



**THE SIXTH MEETING OF AERONAUTICAL  
TELECOMMUNICATION NETWORK (ATN)  
IMPLEMENTATION CO-ORDINATION GROUP  
OF APANPIRG (ATNICG/6)**



Seoul, Republic of Korea, 16 - 20 May 2011

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**Agenda Item 4: Review States' ATN/AMHS Implementation Status, Transition and Operational Issues**

**REVIEW STATUS OF ATN/AMHS IMPLEMENTATION IN OTHER REGIONS**

(Presented by the Secretariat)

**SUMMARY**

This paper presents the status of ATN/AMHS implementation in other ICAO regions. Information provided is based on the proceedings of various regional meeting as reported in the reports. There is no further update received from the MID region since last meeting of ATNICG.

**1. INTRODUCTION**

1.1 Fifteenth Meeting of the Aeronautical Fixed Service Group (AFSG) of the ICAO European Air Navigation Planning Group (EANPG) was held from 11 to 15 April 2011 in Paris. The Group reviewed progress on matters concerning all the Aeronautical Fixed Services implementation in the region.

1.2 Sixth Workshop/Meeting of the ICAO South American Region Implementation Group (SAM/IG/6) was held in Lima, Peru from 18 to 22 October 2010. Meeting was attended by 56 participants from 10 States. Meeting discussed issues related to the implementation of ATN/AMHS in the region and stressed on early completion of implementation.

1.3 Seventeenth meeting of The AFI Planning and Implementation Regional Group (APIRG/17), held in Ouagadougou, Burkina Faso from 2 to 6 August 2010 was attended by 213 participants from 41 AFI States and 20 regional and international organizations. Meeting adopted a Conclusion which created AFI AMHS Implementation Task Force. This Task Force is expected to provide a platform for coordination on issues related to AMHS implementation.

## 2. DISCUSSION

### 2.1 EUR/NAT Region

#### 2.1.1 Publication of ICAO Documents:

Group was informed that ICAO *Manual on the ATN using Internet Protocol Suite (IPS) Standards and Protocol* (Doc 9896) and the *Manual on Detailed Technical Specifications for the ATN using ISO/OSI Standards and Protocols* (Doc 9880) were officially published in the second half of 2010 and that the *Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN)* (Doc 9705) and the Comprehensive ATN Manual (Doc 9739) were withdrawn.

#### 2.1.2 AMC

Meeting was informed that AMC was successfully performing the assigned task. AMC export files, AMHS MD Register and CAAS Table were being sent to ICAO HQ for publication since September 2009, but the export files had not been published. Group was informed about the proposal to have a focal point in each ICAO region to facilitate enhanced cooperation with the AMC. Group was also informed that certain functional improvements had been implemented in AMC in September 2010 to solve following three major issues.

- a) Modification of format of export files
- b) Modifications related to COM Charts; and
- c) Consistency checks

Group was also informed about the allocation of a multinational indicator EUSN to the Pan-European EGNOS Satellite Service Provider (ESSP) NOTAM Service.

#### 2.1.3 AMHS Addressing Change Guidance Document

New 'AMHS Addressing Change Guidance' document was presented to the meeting. Group agreed that the "Short term Procedures for Global AMHS Address Coordination" set in force globally by ICAO State Letter AN 7/49.1-09/34 dated 14 April 2009 along with the existing procedures would ensure that an AMHS addressing change would be performed with a minimum impact on the AMHS direct and indirect users and no additional procedures would be necessary.

The document will be made available both on ICAO EUR/NAT and AMC websites. Meeting through its decision AFSG 15/1 assigned a number of maintenance/operations tasks to the Operations Group with reference to Doc 7910 on Location Indicators. Decision also urged ICAO EUR/NAT Office to communicate to other Regional Offices a summary of the problem and request the relevant sub-groups/AMC Focal Points to work with OG to derive temporary 'default' addresses for their regions and that AFC Centers be made aware of the need to configure these in their CAAS tables.

#### 2.1.4 Emerging operational requirements

Group noted that operational requirements for AFS were evolving, particularly in connection with the following:

- a) Introduction of ATS Data Exchange Presentation (ADEXP) format by Central Flow Management Unit (CFMU) EUROCONTROL only
- b) Amendment 1 to PANS ATM Doc 4444 – FPL 2012 (15 November 2012)
- c) xNOTAM using XML (planned in 2012 – 2016); and
- d) XML based OPMET (planned in 2012/2013)

#### 2.1.5 AFTN upgrade

In addition the Group was informed that there was a new requirement from the Volcanic ash advisory centers to be able to transmit messages longer than the current 1800 character limit of AFTN. New requirements for XAFTN are:

- a) Capability for long messages (the length to defined)
- b) Extended line length (more than 69 characters); and
- c) Extended character set (ASCII with restrictions concerning some control characters)

The Group was of the view that the current AFTN/CIDIN/AMHS would be able to meet the evolving operational requirements and no other network/technology would be needed to accommodate them. It was also informed that AFTN message length was expanded within the EUR Region on bilateral agreement basis to accommodate text length of more than 1800 characters to enable ADEXP. The Group noted that the use of extended length messages as well as the full ASCII character set on bilateral basis was enabled by Annex 10. It was felt that a note could be introduced in Annex 10 to enable similar provisions for the use of the extended line length above 69 characters.

#### 2.1.6 Inter-regional AFTN routing change

Group noted that in the follow up to APANPIRG Conclusion 21/25, the EUR AFTN routing directory was updated to include the routing change between Japan and the Russian Federation to reflect the changes of UUUU-RJJJ and UHHH-RJJJ from 7 April 2011 at 1100 UTC.

#### 2.1.7 EUR AMHS COM Center Training Guidelines

Group was presented “EUR AMHS COM Centre Training Guidelines” document that was developed by the Planning Group (PG). It was noted that this document may be used by the ANSPs to refine, complement and modernize their existing training provisions and internal training process for COM center staff. Meeting, through its Decision AFSG 15/02 decided that ICAO EUR/NAT Office be invited to publish EUR AMHS COM Center Training Guidelines on ICAO EUR/NAT website and circulate this document to other Regional Offices for information and feedback.

### 2.1.8 NSAP

Group was presented a proposal to establish the EUR NSAP Address Registry in support of ATN/CPDLC implementation programme. NSAPs are registered within the avionics systems in order to allow aircrews to perform a first LOGON with any of the participating centers. Proposal was made to provide suitable guidance on NSAP in the documents.

### 2.1.9 Other Activities

Group was presented information on PENS, SWIM, SESAR etc. Group was invited to visit website <http://www.searju.eu/programme/workpackage/swim-connecting-atm-world-652> for comprehensive information on SEASAR SWIM activities.

### 2.1.10 Implementation Status

Status of ATN/AMHS implementation in the region as informed to the meeting is as follows:

- 2 States are operating AMHS.
- 7 States have started testing. Testing in varying stages.
- 5 States are now ready to start testing.
- 19 States are either acquiring a compliant system or have not declared a change.

Meeting also discussed the progress of Eurocontrol work on Directory Services Operational Concept.

### 2.1.11 OLDI/FMTP

Group was informed about the status of FMTP implementation in Europe.

### 2.1.12 Document Change

Meeting considered change proposals for a number of regional guidance document. This included the ICAO EUR AFS Security Guidelines (Doc 022R), ICAO EUR ATS Messaging Management Manual (Doc 021) etc.

## 2.2 SAM Region

Sixth Workshop/Meeting of the ICAO South American Region Implementation Group (SAM/IG/6) discussed issues connected with AMHS connectivity under Agenda Item 6 of the meeting.

### 2.2.1 Agenda Item 6

AMHS interconnection plan in the SAM region was discussed under Agenda Item 6 – *Assessment of operational requirements in order to determine the implementation of communications and surveillance capabilities improvement for en-route and terminal area operations*. The connectivity between Argentina – Paraguay, Argentina – Brazil, Brazil – Paraguay and Columbia – Peru have been planned on REDDIG (South American Digital Network) network with IPv4 protocol. The connectivity between MTAs is in various stages of completion. SAM/IG/6 observed that the implementation date had been shifted a number of times in the past and hence decided that the States should complete all coordination necessary co-ordinations to finish the tests and operational connections no later than end of December 2010. It was informed that the SAM/IG was of the

opinion that there was considerable delay in the implementation of MoUs signed (some of the MoUs had been drafted in 2009), mostly due to great dependence some States had on their system providers. SAM States were urged to take up with their system providers for urgent completion of the provision and following Conclusion SAM/IG/6-9 was adopted. Conclusion also insisted on training arrangements to train personnel in the interconnection tasks so that dependence on the supplier can be reduced. States that have not yet done so, far, were urged to complete the drafting and signing of the MoU.

### 2.2.2 Implementation of ATN network for SAM region

ATN for the SAM region proposes a mixed configuration of satellite and ground connectivities. Meeting decided to have a study conducted to establish the optimum network structure. Study is required to be completed and circulated for comments by 31 January 2011.

### 2.2.3 Digital Network

Meeting was informed that a study has been developed for the new SAM digital network. This network will support ATN in the region.

## 2.3 Western and Central African (WACAF) & Eastern and Southern African (ESAF) regions

2.3.1 APIRG/17, while reviewing the progress made in the implementation of ATN/AMHS in other regions, noted the requirement of AMHS implementation in AFI region without any delay and adopted Conclusion 17/17 creating AMHS Implementation Task Force to coordinate and plan for the implementation of AMHS in AFI. Conclusion reiterated that ICAO continues to strongly support States in the implementation of AMHS by organizing more relevant workshops and seminars.

2.3.2 To follow up on APIRG Conclusion 17/17, a Regional Workshop on ATS Message Handling System (AMHS) and the First Meeting of AFI AMHS Implementation Task Force is being held in ICAO ESAF Office from 17 to 20 May 2011. Invitation to the Workshop and the Meeting has already been issued through the ICAO ESAF Office State Letter dated 15 April 2011. First meeting of the Implementation Task Force, in addition to reviewing the Terms of Reference will also take up the description of AFI ATN topology, description of AMHS applications and develop future work programme.

## 3. ACTION REQUIRED BY THE MEETING

3.1 Meeting is invited to note the status of AMHS implementation in the other regions. Meeting may also note that the structure adopted to pursue implementation of ATN/AMHS in different ICAO regions differ widely. Where as in Europe, Aeronautical Fixed Services Group (AFSG) is coordinating the implementation of ATN/AMHS as a part of aeronautical fixed service, it was being dealt by the Implementation Groups in SAM region. The Implementation Group in SAM region is dealing with all the implementations in CNS/ATM.

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