

# INTERNATIONAL CIVIL AVIATION ORGANIZATION



## SUMMARY OF RECOMMENDATIONS

### **First AFI Regional Workshop on AMHS**

(Nairobi, Kenya, 17 – 18 May 2011)

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## 1. Introduction

The First Regional Workshop on the AFI ATS Message Handling System (AFI/AMS/WS/1) took place at the ICAO Eastern and Southern Regional office, United Nations Office, Nairobi, Gigiri, Kenya from, 17 to 18 May 2011.

## 2. Objectives

The main objective of the workshop was to provide an overview of the AMHS concept, system level provisions, detailed technical specifications and AFTN/AMHS gateway specifications, based on the provisions contained in ICAO Annex 10, Aeronautical Telecommunications, Volume III, Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols (Doc 9880), and Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols (Doc 9896).

## 3. Attendance

The meeting was attended by 32 participants from twelve (12) Contracting States, two (02) Air Navigation Service Providers (ASECNA acting behalf AFI 17 Contracting States & ATNS) and an AMHS facilities manufacturer, namely AVITECH from Germany. A list of participants is provided at **Appendix A**.

## 4. Officers and Secretariat

**Mr. Francois-Xavier SALAMBANGA**, Regional Officer, Communications, Navigation and Surveillance (CNS) from the ICAO Regional Office for Western and Central Africa (Dakar), acted as Secretary of the AFI AMHS Implementation Workshop, and was assisted by **Mr. Prosper ZO'O MINTO'O**, Regional Officer, Communications, Navigation and Surveillance from the ICAO Eastern and Southern Africa Office, Secretary of the APIRG Communications, Navigation and Surveillance Sub-group (CNS/SG).

## 5. Working language

The meeting was conducted in English and the meeting documentation was issued in this language..

## 6. Opening

The meeting was opened by **Mr. Boitshoko SEKWATI**, Deputy Regional Director ESAF, Nairobi, on the behalf of the ICAO Regional Director for Eastern and southern Africa.

## 7. Agenda

The meeting adopted the following agenda:

### 1. Introduction

- 1.1 Overview
- 1.2 End systems providing the ATSMHS
- 1.3 Terminology

### 2. System Level Provisions

- 2.1 ATSMHS users
- 2.2 AMHS model
- 2.3 Organization of the AMHS
- 2.4 AMHS management domain configurations
- 2.5 Naming and addressing principles
- 2.6 AMHS routing and re-routing

2.7 AMHS traffic logging upon origination

**3. ATSMHS Specifications**

3.1 ATS message user agent specification

3.2 ATS message server specification

3.3 Parameters

3.4 Subsetting rules

**4. AFTN/AMHS Gateway Specifications**

4.1 General

4.2 AFTN/AMHS gateway components

4.3 General functions

4.4 AFTN to AMHS conversion

4.5 AMHS to AFTN conversion

**5. AMHS Implementation in the AFI Region**

**6. Any other business**

## 8. Recommendations

The following conclusions and decisions were formulated by AFI/FMG/2 meeting:

Number	Title
<b>Agenda Item 1</b>	<b>Introduction: Overview- End systems providing the ATSMHS- Terminology</b>
<b>Recommendation 1/01</b>	<p><b>Reinforcement of AFI Ground-Ground Communication medium capability to support the implementation of ATN</b></p> <p>That, considering the critical role of the satellite VSAT based networks to support ATN components in particular AMHS within AFI, Administration/Organizations reinforce the capability of current Networks (AFISNET, CAFSAT, NAFISAT, and SADC/2) to comply with the requirements of ATSMHS in accordance with the specifications provided by ICAO Doc 9880.</p>
<b>Agenda Item 2</b>	<b>System Level Provisions</b>
<b>Recommendation 1/02</b>	<p><b>Bilateral and Multilateral Agreement</b></p> <p>That in accordance with the provision of DOC 9880, States/Organizations develop models of bilateral and multilateral agreements aiming to ensure the compliance and the full interoperability of their AMHS facilities.</p>
<b>Agenda Item 3</b>	<b>ATSMHS Specifications</b>
<b>Recommendation 1/03</b>	<p><b>Need of reference technical specifications for the implementation of AMHS in AFI Region</b></p> <p>That in accordance with interoperability requirements for the implementation of Extended AMHS, AFI/AMHS/I/TF develop a draft referential technical specification taking into consideration the existence AMHS systems with the support of ICAO.</p>
<b>Recommendation 1/04</b>	<p><b>National and Regional Security Policy and Regulation</b></p> <p>That, the AFI/AMHS/I/TF should develop with the support of ICAO, guidelines for national and regional security policy and regulation for AMHS systems and applications.</p>
<b>Agenda Item 4</b>	<b>AFTN/AMHS Gateway Specifications</b>
<b>Recommendation 1/05</b>	<p><b>Survey of the status of implementation ATSMHS in AFI neighboring regions</b></p> <p>That, a survey of the status of implementation of AMHS in the AFI neighboring regions be conducted in order to align the implementation of cost effective AFTN AMHS Gateway capability aiming to ensure seamless Aeronautical Fixed Service during the AMHS transition period.</p>
<b>Agenda Item 5</b>	<b>AMHS Implementation in the AFI Region</b>
<b>Recommendation 1/06</b>	<p><b>Development of AFI Strategy for the Implementation of AMHS in the AFI Region</b></p> <p>That, in the spirit of APIRG Conclusion 17/16 (Implementation of AMHS) , active coordination should be maintained between States and all relevant stakeholders to develop the regional strategy of implementation of AMHS taking into consideration, the experience gained by the States/Organizations who have already implemented basic ATSMHS systems.</p>
<b>Recommendation 1/07</b>	<p><b>Need of training on AMHS for AFI technical personnel</b></p> <p>That ,</p> <ol style="list-style-type: none"> <li>States/Organizations should develop consolidated training plan for technical operational and maintenance personnel;</li> <li>ICAO should pursue its efforts in supporting the AFI States through training Regional Workshops and seminars on AMHS facilities and applications.</li> </ol>
<b>Recommendation 1/08</b>	<p><b>Integrity of software tools</b></p> <p>That:</p> <ol style="list-style-type: none"> <li>States should establish regulations and procedures to ensure integrity of the software tools being introduced in the management of civil aviation systems; and</li> <li>the Secretariat should coordinate the development of specifications and criteria for software integrity validation, in liaison with States, and report to the next meeting of the AFI AMHS TF</li> </ol>

**APPENDIX A**  
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