INTERNATIONAL CIVIL AVIATION ORGANIZATION

WESTERN AND CENTRAL AFRICAN OFFICE

**Sixth Meeting of the APIRG Communications, Navigation
and Surveillance Sub-group (CNS/SG/6)**

Dakar, Senegal, 18–22 May 2015

<u>**Agenda Item 4:**</u>   **Aeronautical Fixed Service (AFS)**

 4.1   **Review of the status of implementation of AFS (ATS/DS – AFTN/AMHS) in AFI
Region, identification of deficiencies and remedial action**

(Presented by Secretariat)

SUMMARY
This working paper reviews the status of implementation of the Air Traffic Service Direct Speech (ATS/DS – AFTN/AMHS) in the AFI Region, identification of deficiencies and remedial action.
Action by the meeting is at paragraph 3.

RERENCE:
Annex 10- Aeronautical Telecommunications (Volumes 1, 2 and 3)
Annex 11- Air Traffic Services
Doc 8259 - Manual on the Planning and Engineering of the Aeronautical Fixed
       Telecommunication Network
Doc 9880 - Manual on Detailed Technical Specifications for the Aeronautical Telecommunication
       Network (ATN) using ISO/OSI Standards and Protocols
Doc 9896 - Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol
       Suite (IPS) Standards and Protocols
Doc 9702 - Report of the Seventh Africa-Indian-Ocean Regional Air Navigation Meeting (RAN/AFI/7)
RAN &APIRG   - Meeting Reports
Note: References can be downloaded from **www.icao.int/wacaf**.

Related **ICAO Strategic Objectives**: **A**: *Safety; B: Air Navigation Capacity and Efficiency*
Related **ICAO ASBU Performance Improvement Areas and Block0 Modules**: **PIA1 (***B0-FICE***); PIA2 (***B0-DATM, B0-AMET* **) PIA3 (***B0-FRTO, B0-NOPS, B0-ASEP, B0-OPFL, B0-SNET***);**

1.   **Introduction**

1.1   The requirements for ATS/DS are contained in the AFI Air Navigation Plan (ANP), FASID Table CNS 1D (ATS/DS Plan).   ATS/DS circuits have been implemented in accordance with the AFI Rationalized Plan, with digital circuits.

2   **Discussion**

ATS /DS implementation status and performance
Status of implementation
2.1   Examining the status of implementation of the AFI Plan it can be noted effort made by AFI States to comply with the AFI ATS/DS plan.

ATS/DS circuits availability

2.2   Significant improvements are noted, notably with the implementation of aeronautical satellite telecommunications networks.

2.3   The non- availability of ATS/DS encountered from time to time results from the obsolescence of some VSAT technologies. In the AFI region the ATS/DS Network is based on point to point circuits and the absence of an ATS voice switching and signalling system does not facilitate the automation of backup links for ATS/DS. However, the backup service is generally provided by Sat phone or public switch lines.

The assessment of the availability of ATS/DS is not standardized by ICAO. The data collected during the informal meetings show a good pace of availability.

However some implemented circuits need to be improved/restored.

ATS/DS deficiencies in the AFI Region

2.4.   The **Appendix** to this working paper contain the ATS/DS deficiencies reported in the AFI Region, in respect of international standards and recommended practices (SARPs) and requirements in the air navigation plan (ANP).

2.5 In the framework of the implementation ATN Ground/Ground application the emerging IP based technology is reaching its status of maturity trials on Voice over IP (**VoIP**) have been conducted successfully in AFI neighboring regions.

In order to improve the availability and Quality of Service the AFI Region should consider the VoIP as an alternative to the current point to point based ATS/DS. The reference to guidelines for the implementation of VoIP as ATN Ground Application is contained in ICAO Manual for the ATN using IPS Standards and Protocols (**Doc 9896**) **Part III** (Guidance Section).

ATS Message Handling System (AMHS) in the AFI Region

2.6   The **Appendix3** to this working paper provides the Status of implementation of ATS message Handling System (AMHS) in AFI Region

3.   Action by the meeting

3.1   The meeting is invited to:

a) take note of the information provided in this working paper;

b) review the AFS deficiencies shown at **Appendix2**;

c) review the planning and implementation activities by AFI States and note the progress made in the implementation of AMHS in the AFI Region as reflected in the table attached in **Appendix3**, including the availability of the AFI AMHS Manual and IP Infrastructure Test Guidelines developed by the study group tasked by the AFI/AMHS/TF 2nd meeting.

d) request States/Organizations concerned to indicate their plans to implement remedial action;

e) Encourage States to consider VoIP as an alternative to the current point to point based ATS/DS and conduct coordinated trials on VoIP accordingly prior to implementation.

End