



INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICA OFFICE
Twenty Third Meeting of the AFI Satellite Network Management Committee
(SNMC/23)
(Accra, Ghana, 15-19 February 2016)

Agenda Item 5: Review of the Conclusions /Decisions of APIRG/20 meeting

(Presented by the secretariat)

SUMMARY

The purpose of this paper is to review the Conclusions and Decisions of APIRG/20 meeting and their impact on SNMC.

Reference: Report of APIRG/20

1. Introduction

The Africa-Indian Ocean (AFI) Planning and Implementation Regional Group 20th Meeting (APIRG/20) was held, at **Hotel President**, Yamoussoukro, Cote d'Ivoire from 27th November to 2nd December 2015.

2. Discussion

2.1 The meeting examined the status of implementation of the AFI Air Navigation Plan (ANP) and noted effort made by AFI States to comply with the AFI Aeronautical Fixed Service (AFS-AFTN & ATS/DS) implementation plan with significant improvements, notably with the implementation of aeronautical satellite telecommunications networks.

2.2 The meeting identified the ATS/DS deficiencies reported in the AFI Region, in respect of international standards and recommended practices (SARPs) and requirements of the AFI Air Navigation Plan and confirmed that in the framework of the implementation of 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.

2.3 It was agreed that in order to improve the availability and Quality of Service, the AFI Region should implement Conclusion 19/25 of APIRG 19 which calls upon States to consider VoIP as an alternative to the current point to point based ATS/DS with respect to the reference to guidelines for the implementation of VoIP as ATN Ground Application provided in ICAO Manual for the ATN using IPS Standards and Protocols (Doc 9896) Part III (Guidance Section).

2.4 APIRG/20 meeting also reviewed the status of implementation of AFTN circuits, identified its deficiencies and encouraged State/Organizations to conduct the appropriate actions aiming to restoring the performance of the Aeronautical Fixed Services (ATS/DS-AFTN) with regard to these deficiencies.

2.5 The meeting examined the work conducted by the AFI ATS Message Handling System Task Force (AMHS/TF). In this regard the meeting reviewed the planning and implementation activities conducted by AFI States and noted the progress made in the implementation of AMHS in the Region. The meeting adopted the draft **AFI AMHS Manual** as well as the **AFI AMHS IP Infrastructure Test Guidelines** developed by the study group.

2.6 Trials on AMHS operation were reported to have been conducted in the region in particular by ATNS (South Africa) and by ASECNA. It was agreed that States/Organizations shall develop/revise their AMHS implementation plans and establish bilateral Memoranda of Understanding (MoUs) for the interconnection of AMHS systems and inform ICAO for the update of the AFI AMHS implementation table.

2.7 It was reported to the meeting that during these trials the limitation of the speed of the current ground/ground circuits was experienced. The meeting recalled on-going activities by VSAT network managers in order to modernize and conduct upgrade of their respective existing networks (AFISNET, CAFSAT, NAFISAT and SADC VSAT) as requested by APIRG. It was agreed to upgrade the VSAT Backbone to support the interconnection and operation of AMHS.

2.8 The meeting reviewed the status of implementation of VHF coverage and noted continuous efforts and initiatives undertaken by States and Organizations to increase the VHF coverage of the remote continental airspaces and ensure the reliability of the VSAT extended VHF stations.

Most of the AFI ANSPs have successfully implemented remote stations ensuring extended VHF coverage in their FIRs and some of them such as ASECNA and Roberts FIR are about to implement redundant VHF remote facilities to increase service availability. However some ANSPs were reported to be experiencing difficulties on the reliable operation of the new remote VHF stations, difficulties confirmed by the periodic survey conducted by IATA:

- NAMA (Nigeria) is experiencing lack of coverage in the center portion of the Kano FIR.
- RVA (DRC) encountered power supply hurdles that were programmed to be solved by the installation of solar cells and;
- ENANA (Angola) is facing many barriers related to power supplies, adapter interfacing the facilities on the ATCs desks, human factors affecting technical and operational staff.

2.9 The meeting was informed on the outcome of ITU WRC-15 in particular on the result of the deliberations on agenda item **9.1.5** calling upon Administrations in region 1 to ensure the safe operation on VSAT stations operating in the 3400-3600MHZ band to carry aeronautical and meteorological information in accordance with Resolution 154 (**WRC15 Rev.**) **WP 07** contains details on WRC-15 outcome.

2.10 The APIRG Meeting finalized the organization of APIRG activities under the new project oriented format. In this regard the activities of SNMC can be linked to those to be conducted within the APIRG Infrastructure and Information Management Sub Group (**IIM/SG**). Therefore the ADISNET Joint Technical Evaluation and Reengineering mechanism can be considered as an example of sub regional project approach in the area of Aeronautical Communication.

2.11 Conclusions of APIRG/20 meeting with impact on SNSMC work Programme are summarized at Appendix to this Working Paper while the whole CNS related conclusion are contained in APIRG/20 Report.

3. Action by the meeting

The meeting is invited to:

- a) Take note of the information here given above
- b) Plan and conduct under APIRG IIM/SG framework, the appropriate action aiming to clearing out the deficiencies identified by APIRG/20 meeting;
- c) Identify regional/sub regional projects to be conducted in order to enable the implementation of Aeronautical Communication and Surveillance services.

Appendix

APIRG/20 Conclusions with impact on SNMC

Conclusion 20/20: Restoration of the performance of AFS circuits

That States/ANSPs should as a matter of priority endeavor to restore the performance of Aeronautical Fixed Services (ATS/DS and AFTN) circuits.

Decision 20/21: Adoption of the AFI AMHS Manual and the AFI IP infrastructure test guidelines

That the AFI AMHS Manual and IP Infrastructure Test Guidelines are adopted as attached at Appendices 2.4-A and 2.4-B.

Conclusion 20/22: Implementation of AMHS

That States/ANSPs develop/revise their AMHS implementation plans and establish bilateral Memoranda of Understanding (MoUs) for the interconnection of AMHS systems and inform the ICAO Regional Offices for updates of the AFI AMHS implementation.

Conclusion 20/23: upgrade of VSAT backbone to support the interconnection and operation of AMHS

That, in order to eliminate the ground/ground limitation of the speed of the current circuits experienced during trials undertaken by ANSPs (ATNS, ASECNA), the current VSAT based ground/ground communication backbone be upgraded to support the interconnection and operation of AMHS.

Conclusion 20/26: Implementation and Interconnection of Surveillance Systems

That in the framework of the AFI surveillance implementation strategy, the ICAO Regional Offices facilitate States implementation of the AFI Surveillance Plans and interconnection of their surveillance systems in order to increase surveillance capability along the Area of Routing and provide seamless surveillance service.

Conclusion 20/29: Continued support to ICAO Position

That, in accordance with the ICAO spectrum strategy, policy Statements and related information as contained in the Handbook on Radio Frequency Spectrum Requirements for Civil Aviation (Doc 9718):

- a) States /Organizations continue to support ICAO position for WRC in particular on agenda item of high importance to the safe operation of aircraft by participation in the national and regional/sub regional preparatory Meetings for ITU WRC Meetings; and
- b) The Secretariat reinforce the coordination of the initiatives that will ensure the alignment of their national position with ICAO position for WRC.

Conclusion 20/30: Protection of C band spectrum

That in accordance with Resolution 154 (Rev. 154 WRC-12), States /Organizations take the appropriate measures in order to ensure the protection of the satellite C-band operated by the AFI VSAT networks:

- a) Registration of the aeronautical VSAT frequencies in the States register held by the national authorities of regulation of telecommunication; and
- b) Follow-up with the concerned authorities in the States to further register the frequencies in the ITU Master International Frequency Register (MIFR).

Conclusion 20/31: Reinforcement of the Capacity of AFI CNS Personnel

That in order to ensure an effective implementation of the APIRG identified projects:

- a) States /Organization should pursue their efforts in developing CNS personnel capacity building through consolidated training plans and programmes. In doing so, they should make optimum use of available expertise in the AFI Region; and
- b) ICAO should continue to support CNS personnel capacity building through workshops and seminars.

Conclusion 20/32: Coordination for air navigation service planning and implementation

That in the framework of its new structure and project based approach, APIRG should establish appropriate mechanisms to ensure efficient coordination of planning and implementation of air navigation services (AGA, AIM, ATM, CNS, SAR and MET).