



**INTERNATIONAL CIVIL AVIATION ORGANIZATION  
EASTERN AND SOUTHERN AFRICAN OFFICE**

**ATM/CNS Coordination Meeting between Angola, Botswana, Congo, Côte d'Ivoire, D. R. Congo, Gabon, Ghana, Namibia, Nigeria, Sao Tome & Principe, Senegal, South Africa, Zambia and Zimbabwe (Luanda, 24 – 26 November 2003)**

**Agenda Item 2: Communications, Navigation and Surveillance (CNS)**

**2.2 Aeronautical Fixed Service**

(Presented by the Secretariat)

**Summary**

This paper reviews the status of implementation of AFS facilities affecting the implementation of ATS services in the area under consideration by the meeting.

**1. Introduction**

1.1 This paper reviews the status of implementation of AFS facilities in support ATS units in the area under consideration by the meeting and identifies solutions for the elimination of deficiencies.

**2. Discussions**

**ATS Direct Speech Circuits (ATS/DS)**

2.1 Most of the ATS/DS requirements for the FIRs adjacent to Luanda FIR have been implemented. The status of implementation of ATS/DS circuits is shown in **Appendix A**. Nevertheless, D. R. Congo and Sao Tome and Principe have to make more implementation efforts. Angola should speed up implementation of the ATS/DS Luanda/Brasilia and Luanda/Dakar. South Africa has recently commissioned CAFSAT VSAT station in order to implement ATS/DS circuits Johannesburg/Brasilia and Johannesburg/Ezeiza and the AFTN circuit Johannesburg/Buenos Aires. Implementation of the various VSAT networks under consideration in the States (AFISNET and SADC-VSAT) will assist in implementation of the circuits not yet implemented.

2.2 Although the VSAT circuits are reliable, States should implement contingency measures by assigning public switched telephone network (PSTN) numbers to ATS units, which should be exchanged among all concerned and included in the letters of procedures/agreement.

## Aeronautical Fixed Telecommunication Network (AFTN)

2.3 The AFTN requirements for the States concerned has been implemented through VSAT networks (AFISNET and SADC-VSAT); the status of implementation of AFTN is shown in **Appendix B**. Angola and Congo have to make more efforts to implement the AFTN circuit Brazzaville /Luanda. Congo and Kenya have to speed up the implementation of the main AFTN circuit Brazzaville/Nairobi. Sao Tome and Congo have to coordinate the implementation of the AFTN circuit Brazzaville/Sao Tome.

2.4 The performance of the AFTN can be evaluated from availability and transmit time statistics. The Regional Offices (Dakar and Nairobi) do not receive availability and transmit time statistics from all States. The following States in the ESAF region do not provide regularly the AFTN performance charts: Namibia, South Africa and Zambia. Implementation of VSAT networks (AFISNET and SADC VSAT) has improved communications in the AFI region remarkably.

2.5 Following the implementation of the entry/exit point Johannesburg/Brisbane, a proposal for amendment of routing of messages has been sent to Angola and Democratic Republic of Congo. Other States concerned are Kenya, Madagascar, Mauritius, Mozambique and Tanzania.

## VSAT networks

2.6 Recommendation 9/2 of AFI/7 is explicit on the use of VSAT technology for aeronautical needs.

### **Recommendation 9/2: Use of VSAT Technology**

**That the VSAT technology, or other reliable communications means be considered in the process of implementing, or improving, the reliability of the AFS networks in the AFI Region.**

2.7 Existing networks in the AFI region:

AFISNET: For the Central and Western African Region.

CAFSAT: For the communications between the AFI region and South American Region.

SADC-VSAT: For the Southern African Region.

NAFISAT: For the North Eastern African Region. It is still under consideration.

2.8 There is a need of integration and interoperability between the VSAT networks in the AFI Region. Interoperability between AFISNET, VSAT and SADC VSAT networks has improved the AFTN circuits Johannesburg/Brazzaville, Johannesburg/Antananarivo and Johannesburg/Dakar.

2.9 In order to improve or to implement AFS links ( AFTN and ATS/DS ) between Accra, Brazzaville, Dakar oceanic and Luanda FIRs, the COM/SG/6 meeting discussed on proposals from ASECNA and IATA based on the extension of AFISNET or CAFSAT networks. Due to the absence of Angola, it was agreed that this issue be discussed by an ATS/COM coordination meeting. Therefore this meeting is invited to discuss this issue.

2.10 Coordination related to the implementation of AFTN circuit Johannesburg/Buenos Aires has continued after commissioning of CAFSAT VSAT at Johannesburg.

### **3. Action by the meeting**

3.1 The meeting is invited to:

- a) note the information provided herein;
- b) review the extension of AFISNET or CAFSAT networks in the Region considered by the meeting
- c) urge concerned States to make more implementation efforts.

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