



**INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICA OFFICE**

**Fifth Meeting of the Central Atlantic FIR Satellite Network (CAFSAT) Management Committee
(CNMC/5)
(Abidjan, Côte d'Ivoire, 1-2 June 2014)**

**Agenda Item 4: interconnection and interoperability of CAFSAT with its neighboring networks
(AFISNET, REDDIG)**

(Presented by the secretariat)

SUMMARY

The purpose of this paper is to inform the meeting of the status of the interconnection between CAFSAT with other VSAT networks.

Reference: Report of CNMC/04

Related ICAO Strategic Objectives: **A: Safety; B: Air Navigation Capacity and Efficiency**

Related ASBU Bloc 0 Modules, Performance Improvement Aerials and Applications:

B0-FRTO/PIA3-PBN En Route Trajectories; B0-FICE/PIA2-AIDC; B0-DATM/PIA2-AIM; B0-TBO/PIA4-Datalink; B0-AMET/PIA2-MET

Action by the meeting see paragraph 3

1. Introduction

In order to realize the implementation of AFI, EUR, SAM and CAR planned Aeronautical Fixed Service (ATS-DS & AFTN) CAFSAT was to be interconnected with its neighboring networks (AFISNET, REDDIG). This interconnection is aiming to ensure a seamless interoperation for the provision of ground/ground communication service.

Main CAFSAT nodes are located in a transition area between, the western part of AFI region, the eastern SAM region and the southern EUR region.

The network interconnection with its neighbors had to ensure:

- Full operational applications and systems interoperability through the networks;
- End to end continuity of AFS;
- Required Quality of AFS in line with ICAO SARPs (Annex X, DOC 4444...);
- Smooth and continuous integration of CNS new components (implementation of ATN to support ground/ground application such as AIDC, AMHS)

To comply with these requirements a close coordination of interconnection operations was necessary. In this framework many regional meetings called for such coordinating operation for the integration of regional sub networks (See WP06).

2. Discussion

2.1-Integration between CAFSAT and AFISNET, - Integration between CAFSAT and REDDIG

The two Networks are integrated thanks to the installation of a CAFSAT Network in Nouakchott and the installation of an AFISNET node in Las Palmas. The integrated network supports ATS/DS and AFTN services with available capability to support others ATN applications.

During SAT17 meetings (Las Palmas 2012), it was confirmed through Conclusion SAT17/09, the need to establish ATS/DS circuits by double hop between Abidjan and Recife and to replace the international direct dialing (IDD) telephone calls currently used by some ACCs in CAR/SAM Region.

2.2 On April 2013, the secretariat received through the ICAO Regional office of Mexico, a request from PIARCO (Trinidad and Tobago) looking for a more cost effective solution to provide communication for coordination with SAL, Santa Maria and Dakar, which are currently provided through the public telecom Providers.

The request indicated also that for this same purpose France is working with Trinidad for their communication in Cayenne (French Guyana). The request indicated that several options were evaluated and discarded including a double satellite hop, due to its delay.

2.3 During the last CNMC/4 the Secretariat reported on the coordination activities undertaken by the ICAO Regional Offices of Dakar, Lima and Mexico for the implementation of air traffic coordination required communication involving Abidjan, Recife, Dakar, Cayenne, Piarco, Sal and Santa Maria. The Meeting noted that a low pace of progression was made since then and encouraged the concerned stakeholders to take the opportunity to have side coordination meetings in order to make tangible proposal to clear out these deficiencies. ASECNA, Brazil, Cape Verde, and Trinidad & Tobago held a meeting in this regard.

2.4 During year 2014 the Secretariat coordinated at their request arrangements between ASECNA and respectively, French Guyana, Brazil and Trinidad & Tobago for the installation of AFISNET earth stations in order to ensure the availability of ATS/DS between SAT concerned ACCs including the Abidjan/Recife circuit

Since then the secretariat has been coordinating with stakeholders and with the concerned Regional Offices in order to support the implementation of these circuits.

3. Action by the meeting

The meeting is invited to:

- a) Take note of the information given above
- b) Encourage concerned Sates/Organizations to realize/complete the interconnection process between CAFSAT and the neighboring networks in order to complete the remaining interconnection required for ATM operation.;
- c) Pursue their collaboration when modernizing their respective networks components in order to build a harmonized interregional network provided with the capability to support the forthcoming CNS applications.
