



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Sixth Meeting of the APIRG Communications Sub-Group
(Nairobi, 24 - 26 September 2002)**

Agenda Item 4: Aeronautical Fixed Services

CAFSAT VSAT network status and development

(Presented by Spain)

Summary

**State of Art of CAFSAT VSAT in Canary Island and
aeronautical global services included for Interregional
Communications in EUR/AFI/SAM regions**

1.Canary Islands ACC Comm Facilities

The growth of communications and the new advantages of VSAT technologies oblige to an up-to-date study of the “state of art” for communications between OACI Areas . We all know that CAFSAT is emerging as a general purpose aeronautical network in the SAT Area and beyond. Some examples apart from AFTN/Voice requirements are :

Transmission of data to Norway from Canaries and Dakar EGNOS Reference Stations in the AFI EGNOS Test bed .

AFTN link between Brasilia and Madrid through a CAFSAT and REDAN (Aena Comm Network) bridge

ADS-RADAR Signal from Las Palmas to Cape Verde .

As far as Las Palmas is both a Supervisor node for the CAFSAT Network with global and hemispheric coverage, and a main node for the REDAN Network , it is easy to have in mind the benefits that we may expect from a link EUR-AFI-SAM for aeronautical purposes.

2. Canary Island CAFSAT VSAT Status

NODE A	NODE B	SERVICE	STATUS
ACC Canarias (AFI)	Recife (SAM)	AFTN	In Service
ACC Canarias (AFI)	Dakar (AFI)	ATS/DS AFTN EGNOS	In Service In Service In Service
ACC Canarias (AFI)	Sal Cape Verde (AFI)	ATS/DS AFTN ADS/RADAR	In Service In Service In Service
ACC Canarias (AFI)	Casablanca (AFI)	ATS/DS AMS AFTN Radar	On Installation On Installation On Installation On Installation
ACC Canarias (AFI)	Lisboa (EUR)	ATS/DS	On Installation
ACC Canarias (AFI)	Sta Maria(EUR)	ATS/DS	On Installation
ACC Canarias (AFI)	Fajo(EUR)	AFTN	On Installation

3. Future developments

In the near future the main issue is to reconfigure the VSAT in order to acquire best performance to the new services. In that sense some channels will be moved from Hemispheric to Global beam in order to permit the connections via hemispheric with new nodes. Also a high level of redundancy will be introduced in the system.

We are also about to start, in collaboration with Senegal, with the works for conclusion 17 of SAT10/TF1: *“pending the implementation of a proper circuit between Las Palmas and Nouadhibou, ASECNA and AENA (Spain) implement the agreed two-hop VSAT link between these centers”*.

4. Actions :

Spain will be opened to any request from AFI States to, on an agreement basis, help in the improvement of CNS/ATM services that may require an entrance point to EUR or SAM areas.