



## INTERNATIONAL CIVIL AVIATION ORGANIZATION

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP  
THIRTEENTH MEETING (APIRG/13)**  
(Sal, Cape Verde, 25-29 June 2001)**Agenda Item 4: Air Navigation issues  
CNS/ATM Planning/Implementation****4.7:- Satellite voice/data communication – CAFSAT network**

(Presented by Spain)

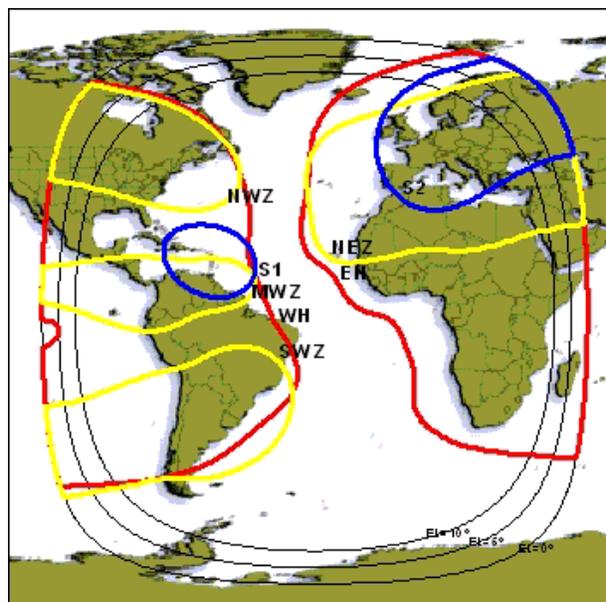
**SUMMARY**

Presentation and state of art of VSAT CAFSAT Network in EUR/SAM Corridor.

**1. BACKGROUND**

The ICAO AFI/7 RAN Meeting approved the Recommendation 9/2 (AFI/7 WP/129), that strongly support the use of VSAT technology to improve the ATS/DS circuits and AFTN links between adjacent FIRs in the AFI Region. Such Recommendation has being produced also by other Regions, and there are several Task Forces working on the subject. The document presented here makes references to two different Regions; the EUR/SAM corridor, for which this Task Force was created and the SAM Region. The direct links between FIRs in the EUR/SAM corridor were/are based in leased PSTN circuits. Those circuits are expensive and their quality and reliability are in most cases inappropriate. The FIRs involved in the study for a VSAT solution are those where are included in the EUR/SAM corridor. The FIRs of Lisbon, Santa Maria, Casablanca, Sal, Dakar and Recife form this corridor

- In CAFSAT network:
  - Satellite: IS-801 (328,5° E)
  - Brazil links: global beam
  - Rest: EH beam
  - C Band



In order to cover all operational requirements (AFTN,ATS) the initial band width Occupancy for Hemispheric/Global Segment in Cafsat Network is shown in the table

	<i>Total Global</i>	<i>Used Global</i>	<i>Total Hemi</i>	<i>Used Hemi</i>
Casablanca			128	123.2
Dakar	64	23.2	64	56
Sal				53.6
Recife	64	30.4		
Lisboa			128	118.4
Canarias	64	15.2	128	120.8
Sta. María			128	76.8

## 2. Status of CAFSAT Network

- Dakar, Canarias and Sal nodes are operational since November 2000.
- Dakar/Las Palmas ATS/DS channel is out of service for a configuration problem
- Brazil (Recife) plans to operate on May 2001
- Morocco plans to operate on third quarter of 2001
- Portugal (Sta. Maria and Lisbon) will operate from end of 2001

## 3. Conclusions

Cafsat Network is “owned” by all EUR/SAM corridor members and although it was designed for operational requirements, it has been discovered as a multifunctional comm. support for a lot of other purposes (now studying ADS/Radar sharing, technical supervision,...). In that sense, in the last SAT9/TF1 held in Lisbon the technical Working group concluded that interoperability between REDDIG and CAFSAT would be recommended and invited other states to join this project in order to improve communications and CNS implementation in a major area. For a deeper information a presentation about CAFSAT is annexed.

## 4. Actions by the meeting

The meeting is invited to:

- a) Take notice of this information
- b) Promote the use of the VSAT technology
- c) Promote the interconnection of the existing VSAT networks