



**TWENTIETH MEETING OF THE AFRICA-INDIAN OCEAN PLANNING AND
IMPLEMENTATION REGIONAL GROUP (APIRG/20)**

(Yamoussoukro, Cote d'Ivoire, 30 November - 2 December 2015)

Item 2: Performance Framework for Regional Air Navigation Planning and implementation

2.4: : Communications, Navigation et Surveillance (CNS)

**Implementation of AFISNET nodes in Cayenne, Piarco and Recife in support of the improvement of
the Air Navigation Safety in the EUR/SAM corridor**

(Presented by ASECNA)

SUMMARY	
This paper is to inform the meeting about the implementation of Implementation of AFISNET nodes in Cayenne, Piarco and Recife in support of the improvement of the Air Navigation Safety in the EUR/SAM corridor.	
REFERENCES: CNMC/3 Conclusion 3/6: Communication Requirement between Abidjan, Cayenne, Dakar, Piarco, Recife, Sal and Santa Maria	
<i>Strategic objectives</i>	This working paper relates to the Strategic Objective (s) A, B and E .

1. Introduction:

1.1 The seventeenth SAT meeting, held from 18-20 April, 2012, encouraged concerned States/Organizations to realize or complete the interconnection process between neighboring networks in order to implement the remaining interconnection required for ATM operation and pursue their collaboration when modernizing their respective networks components in order to build an harmonized interregional network provided with the capability to support the forthcoming CNS applications.

1.2 During the SAT/18 meeting, held in Dakar, 15- 19 July, 2013, ASECNA proposed technical architecture to achieve this interconnection and the CNMC/3 meeting adopted the conclusion 3/6:

Conclusion 3/6 : *Communication Requirement between Abidjan, Cayenne, Dakar, Piarco, Recife, Sal and Santa Maria*

That;

- a) *In order to ensure a sustainable Aeronautical Fixed Service between ATCs, Atlantico FIR (Brazil), Sal FIR (Cape Verde), Dakar FIR (Cote d'Ivoire, Senegal), Cayenne FIR (French Guyana), Santa Maria FIR (Portugal), and Piarco FIR (Trinidad & Tobago) envisage the establishment of direct links based on the existing satellite VSAT networks (AFISNET and CAFSAT) and conduct case by case technical analysis taking into consideration the cost effectiveness of the possible solutions.*
- b) *SAT Secretariat to coordinate technical meetings (including teleconferences and e-meetings) for collaborative decision making and report to next CNMC meeting*

From 2014, ASECNA coordinated with the French Guyana, Trinidad and Tobago and Brazil and proposed to deploy AFISNET VSAT stations nodes in Cayenne, Piarco and Brazil.

2. Discussions

2.1 In order to implement this conclusion, ASECNA proposed an architecture to meet the ICAO communications requirements based on one hop satellite link and coordinated with DGAC (French Guyana), Trinidad and Tobago Civil Aviation Authority (TTCAA) and Brazil. All the parties agreed with the architecture which allows ensuring the adequate coordination of the increasing traffic between the various centers and to backup the single CAFSAT link between Recife and Dakar.

2.2 The implementation of Piarco and Cayenne AFISNET nodes has been completed since August, 2015 and the links are fully operational, supporting ATS/DS service between Dakar and Cayenne and Dakar and between Piarco. The implementation of Recife AFISNET node is currently ongoing. The table below summarize the progress status :

Node I	Node II	Planned Services	Observations
Dakar	Cayenne	ATS/DS, AIDC	Fully operational since august 2015
	Piarco		
Dakar	Recife	ATS/DS AMHS AIDC	Implementation on going,
Abidjan		ATS/DS, AIDC	Implementation on going,
Las Palmas			Backup for REDDIG-2 VSAT link
Cayenne			Backup for REDDIG-2 VSAT link
Piarco			Backup for REDDIG-2 VSAT link

2.3 This extension of AFISNET to the SAM region solves deficiencies the Aeronautical Fixed Services impacting the two regions and improves the ATM provision between AFI and SAM regions. It is an opportunity to build an interregional circuit, with the capability to support the forthcoming CNS applications (AMHS and AIDC), in accordance with Required Communication Performance (Doc 9869).

3. Action by the meeting

The meeting is invited to:

- Take note of the information provided above, including the interconnection of AFISNET to REDDIG II in the SAM region and the implementation of reliable aeronautical fixed services between **Piarco**, **Cayenne** and **Dakar**;
- Note the opportunity of an interregional circuit between AFI and SAM regions, with the capability to support the forthcoming CNS applications (AMHS and AIDC), in accordance with Required Communication Performance (Doc 9869) ;
- Encourage ASECNA to complete the interconnection with the implementation of an AFISNET node in Recife to provide reliable AFS between Abidjan and Recife and between Dakar and Recife.
