



**INTERNATIONAL CIVIL AVIATION ORGANIZATION  
WESTERN AND CENTRAL AFRICAN OFFICE  
Seventeenth Meeting on the improvement of Air Traffic Services  
over the South Atlantic (SAT/17)  
Las Palmas, Canarias, 18 to 20 April 2012**

**Agenda item 3: Communications, Navigation and Surveillance (CNS)**

**3.2 Review of AFS Performance**

*(Presented by the Secretariat)*

**SUMMARY**

The WP presents to the meeting the performance of the Aeronautical Fixed Service in the SAT area.

**REFER:** Reports of SAT16, SAT/FIT/6 Meetings  
Report CNMC 1 meeting; ; Report of SP AFI/RAN meeting, Report of APIRG 17  
DOC. 7474 (Rec. LIM/AFI; RAN/AFI7;RAN/AFI/6)

**Action By the Meeting:** See paragraph 3

**1. Introduction**

1.1 The Aeronautical Fixed Service (ATS/DS, AFTN) in SAT area is supported by the CAFSAT Network which is a trans-regional network comprising the AFI, EUR, and SAM areas. The AFS performance is related to the performance of this Network. Since its implementation, it has been filling the gaps previously noted and it remains a support available for the implementation of CNS/ATM systems and in particular for the ground components of the ATN (AMHS, Surveillance data Exchange...).

**2. Discussion**

**2.1 Performance of AFS on CAFSAT network**

The AFS data collected on CAFSAT here presented is based on the data transmitted by some SAT Centers in particular Abidjan, Dakar, Nouakchott through ASECNA and Casablanca and does not cover all the links of the Network. However the portion here considered can be representative of the network main circuit's performance.

**2.1.1 ATS/DS**

The diagrams of availability for year 2011 of the main **ATS/DS** circuits for Nouakchott and Dakar centres are presented in **Appendix A**. It can be noted that service availability has been satisfactory in general, during this period and for the first two months of year 2012. Although the means of investigation is subjective due to lack of standardized guidance for ATS/DS quality measurement, it can be noted that the average availability rate is above 97.5%.

### 2.1.2 AFTN

For the AFTN operations, the behavior of the network is satisfactory in general along year 2011 except dysfunctions encountered between Dakar and Johannesburg in March 2011 and between Nouakchott and Casablanca in September 2011. A sample of AFTN data statistics for Dakar and Nouakchott COM centers for year 2010/2011 is presented in **Appendix B**. The average rate of availability is above 97% as required in the AFI Air Navigation Plan (*AFI/7 Recommendation 9/3*).

### 2.1.3 AFS Performance Data collection process

The issue of the collection of statistic Data of Aeronautical Fixed Service remains a major concern to the Secretariat because some States still do not submit the necessary information in due time. This issue raised up by relevant conclusions of regional meetings such as APIRG was brought to the attention of SAT members and a commitment was taken under conclusion 16/14 of SAT/16:

#### Conclusion SAT/16/14: Regular Evaluation of AFS performance

*That:*

*SAT States forward the monthly availability of AFS (AFTN & ATS/DS) to the respective ICAO Regional Offices for compilation and analysis starting from first of June 2011 or commence the delivery of such information as soon as possible thereafter, while advising the relevant ICAO office of the intended date on which delivery of the information will commence.*

This mechanism would be useful for an easier collection compilation and analysis of the data as well as it will ensure the development of the web based data collection centre called upon by the AFI Region (*APIRG Conclusion 17/15*) to enable States to key in directly the AFTN statistic data for compilation and analysis.

**2.1.3.3** As stated during previous meetings, the current mechanism of collection of the statistic data for AFS does not seem to be the suitable methodology to easily provide the Regional Offices with the row material for analysis.

It would be advisable that the SAT State develop an electronic data based tool and adopt a suitable methodology for the validation of the integrity of the data in accordance with SARPs stated in Annex X Volume III Chap 8.

These functionalities should be taken into consideration when purchasing the AFS new facilities and accordingly be integrated in the technical specifications.

### 3. Actions by the meeting

3.1 The meeting is invited to:

- a) Note the information provided in the present WP;
- b) Maintain and consolidated AFS Performance
- c) Consider the way to develop and implement an electronic tool for the collection and analysis of AFS performance statistics Data in view to improve AFS within SAT States

.... END ....



## Appendix B

### Years 2010/2011 Availability of AFTN circuits on Dakar COM Center

|         | Year 2011 |      |      |     |       |      |     |       |       |      |      |     | Year 2012 |       |     |
|---------|-----------|------|------|-----|-------|------|-----|-------|-------|------|------|-----|-----------|-------|-----|
| Service | AFTN      |      |      |     |       |      |     |       |       |      |      |     |           |       |     |
| Centres | Jan       | Feb  | Mar  | Ap  | May   | Jun  | Jul | Aug   | Sept  | Oct  | Nov  | Dec | Jan       | Feb   | Mar |
| SAL     | 100       | 100  | 99,9 | 100 | 100   | 100  | 100 | 100   | 98.7  | 100  | 97.5 |     | 99.81     | 99.87 |     |
| RIO     | 99.3      | 99.7 | 99.1 | 100 | 99.53 | 99.5 | 96  | 98.96 | 98.95 | 99.9 | 97.6 |     | 99,91     | 100   |     |
| LAS     | 100       | 100  | 100  | 100 | 99.36 | 100  | 100 | 100   | 98.72 | 99,9 | 99.1 |     | 99.91     | 100   |     |
| JOB     | 100       | 100  | 86.6 | 100 | 100   | 100  | 100 | 100   | 99,66 | 100  | 100  |     | 99.91     | 100   |     |
| CAS     | 100       | 100  | 99.9 | 100 | 99    | 99,9 | 100 | 99.51 | 99,64 | 100  | 100  |     | 99.91     | 100   |     |

### Yearly availability of ATS/DS circuits on Nouakchott COM Centre

|         | Year 2011 |     |     |      |     |     |     |     |       |     |     |     | Year 2012 |     |     |
|---------|-----------|-----|-----|------|-----|-----|-----|-----|-------|-----|-----|-----|-----------|-----|-----|
| Service | AFTN      |     |     |      |     |     |     |     |       |     |     |     |           |     |     |
| Centres | Jan       | Feb | Mar | Ap   | May | Jun | Jul | Aug | Sept  | Oct | Nov | Dec | Jan       | Feb | Mar |
| CAS     | 100       | 100 | 100 | 99.1 | 100 | 100 | 100 | 100 | 63.00 | 99  | 100 | 100 | 100       | 100 | 100 |
| LAS *   | No        | No  | No  | No   | No  | No  | No  | No  | No    | No  | No  | No  | No        | No  | No  |

\*: Circuit available but Not Operating: ASECNA and AENA to coordinate