



INTERNATIONAL CIVIL AVIATION ORGANIZATION

(Mahe, Seychelles, 25- 26 March 2013)

Agenda Item 7: Matters arising

7.1. Review of Network Operation and Performance

Operation, maintenance and performance of Network

(Presented by ATNS)

SUMMARY

This paper summarizes the operation, maintenance and performance of the NAFISAT network.

Reference: Report - FRC call record

- Call records and data summary
- ATS/DS and AFTN success rate
- Interconnectivity between other Networks
- ATS/DS circuit availability
- AFTN circuit availability
- Network availability

1 INTRODUCTION: Operation and maintenance of the Network

1.1 The ATNS Fault Reporting Center continues to provide a 24 hrs service. The summary of the calls are given for the period of April 2012 to January 2013

2 Discussion

2.1 The successful maintenance of the system is achieved through the continuous commitment and assistance of the relevant States. The ongoing training of Engineers on the VSAT system and equipment has proven to be successful in

raising the skill level of the participating technical and engineering members in the NAFISAT region.

2.2 Occurrences reported to FRC:

Total: FRC = 92

	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
FRC	5	10	6	4	10	8	13	2	9	9	16		92
Corrective	4	10	6	4	10	8	12	1	7	8	13		83
Preventative	1	0	0	0	0	0	1	1	2	1	3		9

Corrective – 42

Preventative – 9

No Fault found – 23

External – 18

2.3 ATNS noted an increase in the occurrences reported to FRC and more specifically related to the IDU and MEMOTEC.

2.4 Latest release of RITE I units with the fail safe modification have been installed. These units have been proven to be of invaluable assistance when fault finding is performed. The RITE II units are scheduled to be installed from April 2013.

2.5 The obtaining of LOI's and VISAS has improved and difficulties were dealt with on an individual basis with the relevant States.

2.6 The clearance of equipment and spares has received great effort and support from the different States. Isolated instances were reported where it is still a lengthy process. These instances are discussed with the relevant States.

2.7 During the AFI VSAT managers meeting there was emphasis placed on the interconnectivity and seamless operation of VSAT networks in the AFI region.

As a result ATNS is closely monitoring and recording the interoperability between NAFISAT, SADC VSAT II and AFISNET.

			Availability
NAFISAT - SADC interconnectivity			99.99%
NAFISAT - AFISNET interconnectivity			99.99%

3. Performance of the Network

- 3.1 Data was collated from April 2012 to February 2013 and is presented to the meeting for information.
- 3.2 During SNMC 20 reference was made to a proposed performance reporting structure of VSAT networks on 4 different levels. Level one represents the space segment of the network, level 2 being the RF and related equipment, level 3 being the multiplexer or interfaces and level 4 being the end user equipment. This proposed document still needs to be circulated and ATNS will comment and contribute at first opportunity.

PRESENTATION

- 3.1.1 Calls recorded for 2012 period: These figures exclude the stats from August 2012 as a result of Statistical builder failure on the NMS.

Calls: 162316

- 3.1.2 Bytes transmitted: These figures exclude the stats from August 2012 as a result of Statistical builder failure on the NMS

Bytes: 848958624

- 3.1.3 Success Rate

Calls: 98.57%

Bytes: 93.65%

- 3.1.4 ATNS/DS circuit availability

ATS/DS CIRCUIT AVAILABILITY											
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
99.95	99.97	99.99	99.98	98.74	99.99	99.04	99.97	99.96	99.60	99.80	

Average = 99.73%

3.1.5 AFTN circuit availability

AFTN CIRCUIT AVAILABILITY											
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
99.96	99.98	100	100	98.94	99.99	97.95	99.97	99.89	99.68	99.98	

Average = 99.67%

3.1.6 Network availability

NETWORK AVAILABILITY											
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
99.99	100	100	100	99.20	100	99.04	99.98	99.99	99.88	99.98	

Average = 99.82%

4. Distribution of statistics

- 4.1 Distribution of statistics is done on a monthly basis.
- 4.2 Statistics are published on the ATNS website monthly for State Members to view.

5. ACTION TO BE TAKEN BY THE MEETING

- 5.1 The meeting is invited to note the above information. More information on specifics will be made available upon request.
- 5.2 A laminated fault reporting procedure is supplied to all stations where all contact details are indicated.

- 5.2 States are urged to report all NAFISAT network faults to the ATNS FRC on + 2711 9286477 or frc@atns.co.za and to copy to the Satellite manager ruip@atns.co.za.