



INTERNATIONAL CIVIL AVIATION ORGANIZATION
EASTERN AND SOUTHERN OFFICE

First Meeting of the AFI VSAT Networks Managers (AFI VSAT/1)
(Kwa-Zulu Natal, South Africa, 13 to 15 June 2011)

Agenda Item 2c: Operations: Aeronautical Fixed Services

AMHS IMPLEMENTATION

(Presented by ATNS)

SUMMARY

The working paper discusses the provisions made for the implementation of AMHS in the NAFISAT and SADC VSAT II networks

REFERENCE(S)

- **ATN/TF/2 (Dakar, 5 - 6 April 2005)**

1. INTRODUCTION

1.1. This working paper discusses the provisions made for the implementation of AMHS in the NAFISAT and SADC VSAT II networks. The discussion is divided into two main topics:

1.1.1. The Transmission of AMHS message data.

1.1.2 End-User AMHS Terminals.

2. DISCUSSION

2.1. Transmission of AMHS message data

2.1.1. When ATNS planned the NAFISAT and SADC VSAT II networks provision was made on both networks for ATN circuits, for transmission of AMHS data. The diagram in Attachment A shows a graphical representation of ATN data communication circuit requirements within NAFISAT) and SADC VSAT II regions. The connectivity requirements were based on the recommendations of the AFI ATN Task Force.

2.1.2. Conclusion 2/2 of the ATN/TF/2: AFI ATN routing architecture also recommended that the ATN network be based on X.25 routing protocol. This has subsequently been replaced and current planning is based on an Internet Protocol (IP) suite.

2.1.3. IP applications can be accommodated on the present NAFISAT and SADC VSAT II networks. Further testing and optimization are planned to expand the IP capacity of both networks in order to accommodate the trend towards IP applications.

2.1.4. The NAFISAT and SADC VSAT II networks can also accommodate the interconnection of ATS Inter-facility Data Communication (AIDC) applications if and where required.

2.2. Provision of End-User AMHS Terminals

2.2.1. As part of the NAFISAT and SADC VSAT II networks, ATNS has provided Copperchase AFTN terminals to a number of States that did not have compatible AFTN terminals at the time.

2.2.2. The AFTN software on the Copperchase terminals is not compatible with the planned 2012 Flight Plan changes and will have to be upgraded. ATNS is presently conducting feasibility studies to establish the most feasible solution. i.e. to upgrade the Copperchase software or provide alternative AFTN software that will be compatible with the 2012 FPL format. The alternative software that is presently being considered can also be upgraded to basic AMHS. This upgrade will require TCP/IP which can be accommodated on the NAFISAT and SADC VSAT II VSAT networks. ATNS is planning to conduct operational tests and evaluation before final implementation.

2.3. Additional information will be available after completion of the required feasibility studies and tests.

3. CONCLUSION

3.1 The meeting is invited to:

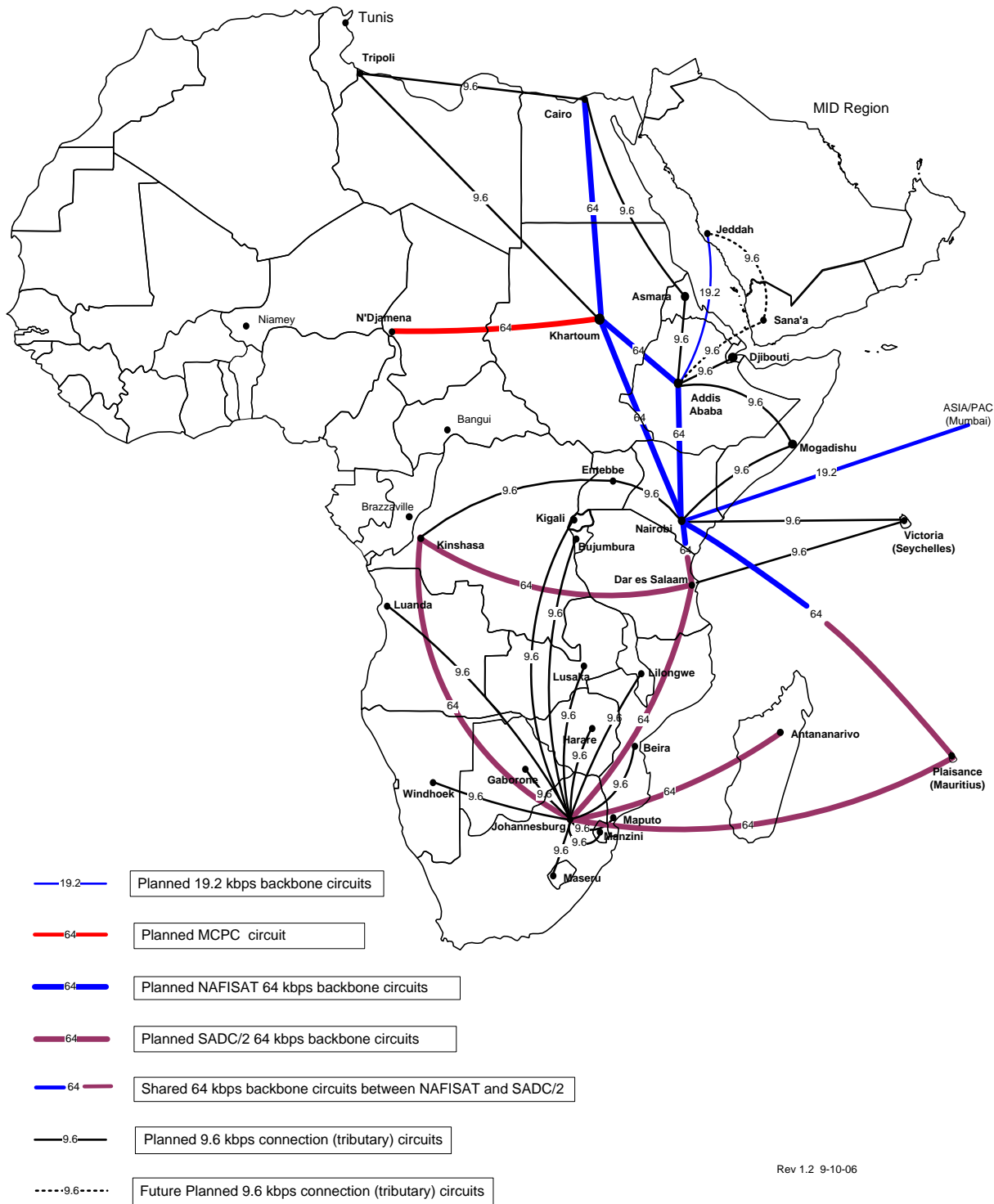
- a) Note the information provided in this working paper.
- b) Take the information into account during discussions.

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Attachments :

- 1) Appendix A

ATNS VSAT NETWORK NAFISAT and SADC/2 - ATN Connectivity



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