

INTERNATIONAL CIVIL AVIATION ORGANIZATION



SUMMARY OF DISCUSSIONS

Thirteenth Meeting of the AFI Satellite Network (AFISNET) Management Committee

(SNMC/13)

(Libreville, Gabon, 13 – 16 January 2004)

Prepared by ICAO WACAF Office

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TABLE OF CONTENTS

I – HISTORY OF THE MEETING 2

II – REPORT ON DISCUSSIONS 6

III- APPENDICES 11

I - HISTORY OF THE MEETING

Introduction

1.1. The meeting was held in the Conference Room of Hotel NOVOTEL Rapontchombo, Libreville from 13 to 16 January 2004, at the kind invitation of ASECNA, Gabon.

Objectives

1.2. The main objectives of the meeting were to assess the performance of AFISNET satellite network, review the implementation status of the Short-Term (six-month) Enhancement Programme adopted at the coordination meeting on the network sustainability convened by ICAO Regional Office, Dakar in May 2003, coordinate preparations for the migration to Intelsat satellite IS [10-02@359](#) degrees East as called for by the Fourteenth Meeting of the AFI Planning and Implementation Regional Group (APIRG, Yaounde, Cameroon, 23 – 27 June 2003) under its Conclusion 14/12, and analyze the Report on the AEROSATCOM Project Evaluation Mission carried out by European Union consultants in July/August 2003, and decide on corrective measures to be taken subsequently in order to improve efficiency of aeronautical communications supported by AFISNET and enhance safety of aircraft operations.

Attendance

1.3. The meeting was attended by 36 participants from 4 States France, Gabon, Ghana, Nigeria, ASECNA representing 15 States, Roberts FIR representing 3 States and 4 AFISNET network suppliers: Intelcan (Canada), Alcatel Space (France), Coris and SEEE (France). A list of participants is attached to this summary of discussions (Appendix 8).

Officers and Secretariat

1.4. The meeting elected Mr. Hilaire Tchicaya, Aeronautical Telecommunications Manager, ASECNA Headquarters as Chairman and Mr. Santigui Bangura, Deputy Secretary General, Roberts FIR as Vice-Chairman. They were assisted by Mr. Prosper Zo'o Minto'o, Technical Regional Officer, Communications, Navigation and Surveillance from the western and central African Office of ICAO, as Coordinator.

Working language

1.5. The discussions were conducted in English and French and the meeting documentation was issued in English language. Translation service was graciously provided by the Coordinator, Mr. P. Zo'o Minto'o.

Opening

1.6. After the welcome address by Mr. Pascal Oyougou, ASECNA Representative in Gabon, the meeting was opened by Mr. Dieudonné Mfoubou Moudhouma, Secretary General of the Ministry of Transport and Civil Aviation of the Republic of Gabon. On behalf of the Honourable Minister of State, Mrs. Paulette Missambo, Minister of Transport and Civil Aviation of the Republic of Gabon, he welcomed the participants to the meeting and emphasized the increasing importance of satellite technology in support to modern communications, navigation and surveillance systems. He therefore encouraged the meeting to carry out an in-depth analysis of AFISNET network administration, management, performance, maintenance policies and technology along with its ability to fully present and future air navigation communications requirements. Mr. D. Mfoubou also highlighted Gabon and ASECNA's commitment to the improvement of air navigation services through a cooperative approach. Mr. Jean Pierre Obiang-Zuè-Beyeme, Secretary General of Civil

Aviation, Gabon was also present.

Agenda

1.7. The meeting adopted the following agenda:

Item 1 : Opening remarks and introduction

Item 2 : Follow up of SNMC/12 Conclusions

Item 3 : Assessment of AFISNET operations :

- Analysis of operational and technical statistics from FIRs
- Network performance

Item 4 : AFISNET short - term enhancement programme status

Item 5 : AFISNET migration issues

Item 6 : AFISNET optimisation and extension

Item 7 : Review of the Report on the EU Project Evaluation Mission of July/August 2003

Item 8 : Presentations by contractors

Item 9 : Any other business

Conclusions

1.8. The following conclusions were formulated by SNMC/13 meeting:.

Number	Title
AGENDA ITEM 2	FOLLOW UP OF SNMC/12 CONCLUSIONS
Conclusion 13/1	Implementation of SNMC/12 Conclusions That AFISNET member States and Organizations concerned implement SNMC/12 Conclusions 12/1, 12/3, 12/6, 12/9 and 12/10.
Conclusion 13/2	Approval of the new SNMC Form of Agreement That the ICAO Regional Office coordinate the signing of the new SNMC Form of Agreement with the concerned parties no later than 28 February 2004, and that copy of the duly signed Form of Agreement be sent to all parties.

AGENDA ITEM 3	REVIEW OF AFISNET OPERATIONAL AND STATISTICAL DATA
Conclusion 13/3	<p>Development of common monitoring and reporting tools</p> <p>That:</p> <ul style="list-style-type: none"> a) in cooperation with suppliers, AFISNET member States and Organizations develop a common monitoring and reporting tool with the capability for automatic generation and later transmission of vital network statistics to the adjacent network COM centers; and b) the monitoring forms submitted to SNMC/13 by ASECNA (See Appendices 1 to 7) be adopted for use by all AFISNET stations.
Conclusion 13/4	<p>Technical audit of the network</p> <p>That:</p> <ul style="list-style-type: none"> a) a technical audit of all AFISNET stations be carried out before June 2004; and b) the terms of reference of the technical audit referred to in <i>a)</i> above be drafted by ASECNA and circulated to all SNMC members through the ICAO Regional Office for their inputs.
Conclusion 13/5	<p>Establishment of an SNMC Technical Working Group</p> <p>That a Technical Working Group composed of designated specialists be established to assist the SNMC in addressing technical matters relating to network performance monitoring, administration, maintenance, modernization, appropriate technology, expansion, etc.</p>
AGENDA ITEM 4	IMPLEMENTATION OF THE SHORT TERM ENHANCEMENT PROGRAMME (STEP)
Conclusion 13/6	<p>Meeting of the Programme Management Team</p> <p>That ICAO arrange for a meeting of AFISNET Short-Term Enhancement Programme (STEP) Management Team preferably in the first week of March 2004, in order to establish the necessary ground work for the programme implementation, including funding arrangements.</p>
AGENDA ITEM 5	AFISNET MIGRATION ISSUES
Conclusion 13/7	<p>Migration to INTELSAT satellite IS 10-02@359°East - Technical preparatory meeting</p> <p>That :</p> <ul style="list-style-type: none"> a) as a matter of urgency, AFISNET member States and Organizations identify all the areas to be affected by the planned network migration to INTELSAT IS

	<p>10-02@359°East in accordance with APIRG Conclusion 14/12; and</p> <p>b) a meeting of the SNMC Technical Working Group (TWG) be organized by the ICAO Regional Office in Dakar in the last week of February 2004, in order to discuss all technical issues to be addressed in preparation for the migration to ensure timely implementation of a coordinated transition plan.</p>
AGENDA ITEM 6	NETWORK OPTIMIZATION AND EXPANSION
Conclusion 13/8	<p>Bandwidth requirements</p> <p>That, in view of AFISNET optimization and expansion, member States and Organizations undertake an exhaustive inventory of their bandwidth requirements taking into consideration existing and planned services (international and domestic services), including to the extent possible applications such as transfer of radar, ADS or GNSS data, for submission to the SNMC Technical Working Group meeting to be held in February 2004.</p>
AGENDA ITEM 7	REVIEW OF THE REPORT ON AEROSATCOM PROJECT EVALUATION
Conclusion 13/9	<p>Feed back to the European Commission</p> <p>That, after analyzing the Report of the AEROSATCOM Project Evaluation Mission carried out by EU consultants in July/August 2003 in Ghana, Nigeria and Senegal (ASECNA), the Administrations/Organizations concerned provide the European Union with their comments on issues of common interest through the ICAO Regional Office.</p>
Conclusion 13/10	<p>Network sustainability/evolution</p> <p>That, in order to ensure the sustainability of AFISNET network, the planning for migration to newer and more modern technology be undertaken from 2004 taking due account of the Report on the Evaluation Mission carried out by EU consultants in 2003. Proposals in this respect will be developed in cooperation with the Industry and presented to the next SNMC annual meeting (SNMC/14).</p>
AGENDA ITEM 9	ANY OTHER BUSINESS
Conclusion 13/11	<p>SNMC Coordination</p> <p>That GCAA, Ghana act as Coordinator of SNMC activities, with the assistance of ICAO.</p>
Conclusion 13/12	<p>Date and venue of the next meeting</p> <p>That GCAA, Ghana will host the next SNMC annual meeting (SNMC/14) in Accra. The date of the meeting will be coordinated in due course and communicated to all AFISNET members and suppliers.</p>

II - REPORT ON DISCUSSIONS

AGENDA ITEM 2: FOLLOW UP OF SNMC/12 CONCLUSIONS

2.1 The meeting reviewed the implementation status of conclusions from the Twelfth Meeting of the AFI Satellite Network Management Committee (SNMC/12) held in Conakry, Guinea in December 2002. It noted that four of these conclusions were still valid and therefore formulated the following conclusions:

Conclusion 13/1: Implementation of SNMC/12 Conclusions

That AFISNET member States and Organizations concerned implement SNMC/12 Conclusions 12/1, 12/3, 12/6, 12/9 and 12/10.

Conclusion 13/2: Approval of the new SNMC Form of Agreement

That the ICAO Regional Office coordinate the signing of the new SNMC Form of Agreement with the concerned parties no later than 28 February 2004, and that copy of the duly signed Form of Agreement be sent to all parties.

AGENDA ITEM 3: REVIEW OF AFISNET OPERATIONAL AND STATISTICAL DATA

Network performance and maintenance

2.2 The meeting reviewed statistical data on the network availability provided by Ghana, GCAA, Nigeria, NAMA and ASECNA, and expressed concerns about the continuous degradation of performance throughout the year 2003, confirming the need for urgent measures. In this respect, concerned administrations and organizations were exhorted to implement the short-term enhancement programme (STEP), which had been agreed upon in May 2003 at the coordination meeting on the network sustainability organized by the ICAO Regional Office.

2.3 Furthermore, the meeting adopted a set of aeronautical communications monitoring forms prepared by ASECNA for use by all AFISNET stations, as a means of harmonizing performance assessment and maintenance methodologies.

Technical audit of the network

2.4 Considering the very low availability rate and persistent failure of AFISNET circuits, the meeting re-iterated the need for a joint technical audit of the entire network to be conducted in the first half of 2004, with the main objectives to carry out an in-depth analysis of the network weaknesses and identify all the corrective measures to be implemented for the network to provide high performance links fully compliant to ANP requirements for aeronautical communications.

2.5 The following conclusions were formulated:

Conclusion 13/3: Development of common monitoring and reporting tools

That:

- c) in cooperation with suppliers, AFISNET member States and Organizations develop a common monitoring and reporting tool with the capability for automatic generation and later transmission of vital network statistics to the adjacent network COM centers; and
- d) the monitoring forms submitted to SNMC/13 by ASECNA (*See Appendices 1 to 7*) be adopted for use by all AFISNET stations.

Conclusion 13/4: Technical audit of the network

That:

- c) a technical audit of all AFISNET stations be carried out before June 2004; and
- d) the terms of reference of the technical audit referred to in *a)* above be drafted by ASECNA and circulated to all SNMC members through the ICAO Regional Office for their inputs.

Conclusion 13/5: Establishment of an SNMC Technical Working Group

That a Technical Working Group composed of designated specialists be established to assist the SNMC in addressing technical matters relating to network performance monitoring, administration, maintenance, modernization, appropriate technology, expansion, etc.

AGENDA ITEM 4: IMPLEMENTATION OF THE SHORT TERM ENHANCEMENT PROGRAMME (STEP)

2.6 The meeting noted that no significant progress had been achieved so far by AFISNET members in the implementation of the Short-Term Enhancement Programme (STEP) adopted at the coordination meeting on the sustainability of AFISNET network in May 2003, and called for a meeting of the Programme Management Team in the first quarter 2004. The following conclusion was formulated accordingly:

Conclusion 13/6: Meeting of the Programme Management Team

That ICAO arrange for a meeting of AFISNET Short-Term Enhancement Programme (STEP) Management Team preferably in the first week of March 2004, in order to establish the necessary ground work for the programme implementation, including funding arrangements.

AGENDA ITEM 5: AFISNET MIGRATION ISSUES

2.7 The meeting discussed at length the consolidation of aeronautical services through the migration of sub-regional VSAT networks from their operated satellites to INTELSAT satellite IS 10-02@359° East as recommended by the AFI Planning and Implementation Regional Group (APIRG) under its Conclusion 14/12. The meeting was of the opinion that, due to the complex nature of the project, there was a need for an urgent preparatory meeting of the established SNMC Technical Working Group (TWG) dedicated to satellite migration, to be organized preferably in the last week of February 2004 under ICAO coordination, prior to the meeting of AFISNET Management Committee (STEP Management Team). In this respect, AFISNET member States and Organizations were requested to identify all the areas likely to be affected by the migration to IS 10-02. The following conclusion was formulated:

Conclusion 13/7: Migration to INTELSAT satellite IS 10-02@359°East - Technical preparatory meeting

That :

- c) as a matter of urgency, AFISNET member States and Organizations identify all the areas to be affected by the planned network migration to INTELSAT IS 10-02@359°East in accordance with APIRG Conclusion 14/12; and
- d) a meeting of the SNMC Technical Working Group (TWG) be organized by the ICAO Regional Office in Dakar in the last week of February 2004, in order to discuss all technical issues to be addressed in preparation for the migration to ensure timely implementation of a coordinated transition plan.

AGENDA ITEM 6: NETWORK OPTIMIZATION AND EXPANSION

2.8 The meeting was presented with proposals developed by ASECNA for the optimization and expansion of AFISNET based on AFTN, ATS/DS, GTS and maintenance requirements (including planned services) in terms of carriers and bandwidths. Proposals from ASECNA also included the network oversight and supervision. It was agreed that these proposals should be further analyzed by the AFISNET Technical Working Group. The following conclusion was formulated:

Conclusion 13/8: Bandwidth requirements

That, in view of AFISNET optimization and expansion, member States and Organizations undertake an exhaustive inventory of their bandwidth requirements taking into consideration existing and planned services (international and domestic services), including to the extent possible applications such as transfer of radar, ADS or GNSS data, for submission to the SNMC Technical Working Group meeting to be held in February 2004.

AGENDA ITEM 7: REVIEW OF THE REPORT ON AEROSATCOM PROJECT EVALUATION

2.9 The meeting reviewed the report on the evaluation mission carried out by the European Union (EU) in July/August 2003 in Ghana, Nigeria and Senegal (ASECNA Headquarters, ICAO Regional Office). It was noted that the evaluation mission, which took place almost 10 years after the network commissioning, did cover only 3 out of 9 international earth stations. Critical issues such as network maintainability and ageing technology were discussed at length. The meeting therefore requested the ICAO Regional Office to forward comments on issues of common interest to EU, whereas comments on specific issues pertaining to individual States/Organizations will be sent to EU directly by the concerned administrations. The following conclusions were formulated:

Conclusion 13/9: Feed back to the European Commission

That, after analyzing the Report of the AEROSATCOM Project Evaluation Mission carried out by EU consultants in July/August 2003 in Ghana, Nigeria and Senegal (ASECNA), the Administrations/Organizations concerned provide the European Union with their comments on issues of common interest through the ICAO Regional Office.

Conclusion 13/10: Network sustainability/evolution

That, in order to ensure the sustainability of AFISNET network, the planning for migration to newer and more modern technology be undertaken from 2004 taking due account of the Report on the Evaluation Mission carried out by EU consultants in 2003. Proposals in this respect will be developed in cooperation with the Industry and presented to the next SNMC annual meeting (SNMC/14).

AGENDA ITEM 8: PRESENTATIONS BY CONTRACTORS

The meeting was presented with projects developed by INTELSCAN in the field of CNS/ATM. Subsequent questions and answers helped participants to have a better knowledge of the company's activities.

AGENDA ITEM 9: ANY OTHER BUSINESS

2.10 The meeting welcomed Ghana's offer to host the next SNMC plenary meeting in Accra. It also discussed the appropriateness of assigning AFISNET coordination duties and responsibilities to members, with the assistance of ICAO Regional taking into consideration the workload involved. It was agreed that Ghana will discharge that function from the year 2004 until the next SNMC meeting. The following conclusions were formulated:

Conclusion 13/11: SNMC Coordination

That GCAA, Ghana act as Coordinator of SNMC activities, with the assistance of ICAO.

Conclusion 13/12: Date and venue of the next meeting

That GCAA, Ghana will host the next SNMC plenary meeting (SNMC/14) in Accra. The date of the meeting will be coordinated in due course and communicated to all AFISNET members and suppliers.

APPENDICES

APPENDIX 7

OVERSIGHT OF AERONAUTICAL TELECOMMUNICATIONS FACILITIES PROCEDURE:

Procedures for the oversight of aeronautical telecommunications means, include the following actions to be taken :

By each administration, organisation and air traffic service provider:

- to create a coordination committee and organise operational monitoring of aeronautical telecommunications facilities, in order to:
 - analyse operational and maintenance problems occurring in COM centres and decide on corrective actions to be implemented;
 - ensure that these corrective actions are properly implemented by centres; and
 - meet on a regular basis to discuss any matters aimed at improving communications efficiency.

Between administrations, organisations and air traffic service providers

- to designate and exchange information on their focal contact persons to coordinate joint efforts to improve aeronautical telecommunications quality of service, giving their names, office/mobile telephones, fax numbers, AFTN addresses and electronic mail addresses;
- to promote and develop exchange of operational and maintenance personnel programmes between adjacent centres;
- to coordinate the implementation of the following common procedures for the detection and analysis of failures affecting :
 - AFTN links :
 - ✓ exchange of daily and monthly operational statistics of availability
 - ✓ ensure that verification of transmission channels is performed in accordance with ICAO Annex 10 recommendation 4.4.9.3.1
 - ✓ exchange of information on the number of Tx/Rx messages between adjacent centres, every six hours,
 - ATS/DS links
 - ✓ perform hourly check of ATS/DS links
 - ✓ establish daily and monthly statistics of availability
 - ✓ exchange of ATS/DS availability statistics on a weekly and monthly basis

**THIRTEENTH SNMC MEETING
(SNMC/13)
Libreville, Gabon, 13 – 16 January 2004**

List of Participants

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