INTERNATIONAL CIVIL AVIATION ORGANIZATION
FOURTEENTH MEETING OF THE
AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP

(Yaounde, 23 - 27 June 2003)

Agenda Item 4.2: Review of the Report of the Sixth Meeting of the COM Sub-group

(Presented by the Secretariat)

SUMMARY

The report of the COM/SG/6 Meeting is presented for review by APIRG.

Action by the Group is at paragraph 3

References:

Report of the COM/SG/5 Meeting
APIRG/13 Report
Report of the COM/SG/6 Meeting

1. **Introduction**

1.1 The Fourth meeting of the Communications Sub-group (COM/SG/6) was held in Nairobi from 24 to 26 September 2002. It was attended by 38 participants from 18 States and 2 international organizations.

2. **Discussions**

2.1 **Election of a Chairman**

2.1.1 The Meeting re-elected Mr. Hamadi Benkhelifa of Tunisia as Chairman.

2.2 Terms of reference and work programme as defined by APIRG/13

2.2.1 Under this agenda item, the COM Sub-group noted its terms of reference and work programme as adopted by APIRG/13. Amendments to the work programme were agreed. These are shown in the future work programme of the Sub-group.

2.3 Follow up of APIRG Conclusions and Decisions related to aeronautical telecommunications

2.3.1 Under this Agenda Item, the Communications Sub-group reviewed progress made in the implementation of Conclusions and Decisions adopted by APIRG/13 when reviewing the Report of its last meeting (COM/SG/5).

2. 4 Aeronautical Fixed Service (AFS)

2.4.1 : Review of the Report of the ATN Planning Task Force

Critical analysis of the current AFTN

2.4.1.1 When completing its critical analysis of the current AFI AFTN, the Communications Sub-group put emphasis on the following aspects.

Implementation and operational status of the AFI AFTN

2.4.1.2 The Communications Sub-group identified the following main deficiencies and weaknesses, and proposed remedial actions accordingly :

a) Implementation status : Full implementation is still not achieved : three (3) main circuits (Algiers/Niamey, Brazzaville/Johannesburg(*), Brazzaville/Nairobi) and two (2) entry/exit circuits (Johannesburg/SAM and Johannesburg/ASIA-PAC) were not implemented, as well as the following tributary circuits: Addis Ababa/Asmara; Addis Ababa/Khartoum; Bissau/Dakar, Brazzaville/Luanda(*), Brazzaville/Sao Tome Bujumbura/Johannesburg and Johannesburg/Kigali.

b) Circuit availability: The requirement of 97% minimum (AFI/7 Rec. 9/3 refers) is not met by many circuits.

c) Transmission speed: The following AFTN main circuits and inter-regional circuits do not meet the requirement for a minimum transmission speed of 1200 bits/s (APIRG Conclusion 12/13 refers): *Addis Ababa/Nairobi,Addis Ababa/Niamey, Addis Ababa/Djeddah (AFI/MID),Alger/Casablanca, Cairo/Nairobi, Cairo/Tunis, Casablanca/Dakar, Johannesburg/Nairobi and Nairobi/Mumbai (AFI/ASIA-PAC)*

d) **Protocols:** Only 5 out of 10 main centres (50%) and 7(**)out of 20 main circuits are using bit-oriented protocols (X.25 or X.25 CIDIN), in compliance with the APIRG requirement for a progressive implementation of bit-oriented protocols (BOPs) at main AFTN centres in order to improve data integrity and prepare the migration towards ATN.

e) **Use of analogue technology :** The level of digitalization is rather low (only 29 out of a total of 65 circuits - 44,3% - are digital circuits), which limits the available and data processing possibilities. It was noted with appreciation that RTT circuits were no longer in use in the AFI Region for AFTN purpose.

f) **Transit times :** The requirement of 5 minutes maximum for high priority messages and 10 minutes maximum for other messages are not met most of the time.

g) Interconnection of satellite telecommunication networks : The existing sub-regional satellite telecommunication networks (AFISNET, SADC and CAFSAT networks) utilize different space segments.

h) Human factors : The meeting recognized that there are no systematic training programmes on technologies relating to aeronautical telecommunication equipment/systems.

Proposed remedial actions

2.4.1.3 Based on the analysis it carried out, the Communications Sub-group was of the view that improvements could be brought to the current AFI AFTN by resorting to the following measures where and when practicable.

(*) Now implemented.

(**) Of which 4 intra-regional circuits (i.e. 20%)

Implementation/Upgrading of the AFI AFTN

2.4.1.4 The Communications Sub-group called for an expeditious implementation of a minimum transmission speed of 1200 bits/s and bit-oriented protocols. The following draft Conclusions were formulated:

DRAFT CONCLUSION 6/1: UPGRADING OF THE TRANSMISSION SPEED AND PROTOCOLS OF AFTN MAIN CIRCUITS AND ENTRY/EXIT CIRCUITS

That, in order to improve AFTN efficiency, States concerned :

a) expedite the upgrading of AFTN main circuits and entry/exit circuits to a minimum of 1200 bits/s;

b) implement bit-oriented protocols; and

c) ensure data integrity.

DRAFT CONCLUSION 6/2: ORGANIZATION OF SEMINARS AND WORKSHOPS ON DATA TRANSMISSION CONCEPTS AND TECHNIQUES

That ICAO organize seminars/workshops on data transmission concepts and techniques utilized or to be utilized in the framework of the upgrading of the AFTN and its migration to the ATN.

Use of public data networks (PDN)/integrated service digital networks (ISDN)

2.4.1.5 The Communications Sub-group noted that some States had developed public data networks (PDNs) and integrated digital networks (ISDNs). It therefore suggested that recourse to such networks might be considered by States to *a)* overcome temporary disruption of dedicated circuits, *b)* when the traffic does not justify the use of dedicated, and *c)* when PDN performance, availability and cost-effectiveness are demonstrably equivalent or superior. The following Draft Conclusion was formulated accordingly:

DRAFT CONCLUSION 6/3: IMPLEMENTATION/UPGRADING OF AFTN MAIN CIRCUITS

That, for the implementation/upgrading of the links between the following AFTN main centers, States concerned consider the use of public data networks (PDNs) or integrated service data networks (ISDNs), when such networks are available and cost-effective. These are:

To implement:

- **Alger/Niamey**
- **Brazzaville/Nairobi**[1]
- **Brazzaville/Johannesburg**

To upgrade:

- **Addis Ababa/Nairobi**
- **Addis Ababa/Niamey**
- **Bombay/Nairobi**
- **Cairo/Nairobi**
- **Casablanca/Dakar**
- **Johannesburg/Nairobi**

2.4.1.6 In addition, the Communications Sub-group tasked the Secretariat to conduct a survey on the availability and usage costs of such services in the Region so as to ascertain the appropriateness and cost-effectiveness of the proposed PDN/ISDN solutions to improve Addis Ababa/Nairobi, Algiers/Niamey,

[1] A coordination meeting between Kenya and ASECNA was organized on 27 September 2002 in order to find out ways and means of implementing APIRG Conclusion 13/5 on the AFTN main circuit Brazzaville/Nairobi.

Bombay/Nairobi, Brazzaville/Nairobi, Cairo/Nairobi and Johannesburg/Nairobi. The following draft Decision was formulated:

DRAFT DECISION 6/4: SURVEY OF AVAILABILITY AND USAGE COST OF PUBLIC DATA NETWORKS (PDNS) AND INTEGRATED SERVICE DIGITAL NETWORKS (ISDNS)

That the Secretariat conduct a survey on the availability and usage costs of public data networks and integrated service digital networks in the Region.

Inclusion of the circuit Cairo/Tripoli in the AFTN configuration

2.4.1.7 The Communications Sub-group agreed to include in the AFI AFTN configuration the existing well performing Cairo/Tripoli implemented on a bilateral basis. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/5: ADDITION OF CAIRO/TRIPOLI CIRCUIT TO AFI AFTN PLAN

That the AFI AFTN Plan be amended to include the existing circuit between Cairo and Tripoli.

Development of AFTN implementation requirements

2.4.1.8 The Communications Sub-group defined criteria to be taken into account in implementing or assessing AFI rationalized AFTN circuits. These implementation requirements are contained in **Appendix A** to this paper. The Communications Sub-group also reiterated the necessity for States to establish AFTN transit time statistics on a regular basis. The following draft Conclusions were formulated:

DRAFT CONCLUSION 6/6: IMPLEMENTATION OF AFTN REQUIREMENTS

That:

a) in implementing their AFTN circuits in accordance with the AFI rationalized AFTN Plan, States take due account of requirements contained in *Appendix A to this paper*; and

b) the Secretariat provide States with all necessary indications for a better understanding of the various AFTN circuits implementation requirements referred to in a) here above.

DRAFT CONCLUSION 6/7: AFTN TRANSIT TIME STATISTICS

That in order to permit the assessment of AFTN performance on a regular basis, States establish quarterly transit time statistics for their AFTN centres on 23 January, April, July and October using the reporting format as per *Appendix B to this paper*.

Use of SADIS

2.4.1.9 The Communications Sub-group recognized that SADIS, the satellite distribution system for information relating to air navigation would be used as a supplementary means. In this connection, the Sub-group identified the need to implement SADIS 2-way stations at suitable locations in the AFI Region (e.g. Cairo, Dakar, Johannesburg and Nairobi), in order to avoid transmission delays due to VSAT double hop links for the forwarding of OPMET data directly to WAFC London, and eventually AIS data to European data banks. Close co-ordination between COM, ATS, AIS and MET experts was therefore

recommended to finalize the definition of the types of data to be exchanged through SADIS, and accordingly refine its configuration.

Use of Commercial Internet for non time-critical applications

2.4.1.10 The Communications Sub-group acknowledged that some AFTN dedicated circuits that had been specified in the AFI air navigation plan (ANP) had not been implemented for long periods of time mainly due to economical reasons, whilst commercial Internet services (ISPs) were available in States concerned. The Sub-group also took cognizance of an information paper prepared by the Secretariat, providing some background information on the history and principles of the Internet and suggesting a number of ways it can be used for aeronautical ground-ground data communications. It therefore agreed that, when and where their performance are satisfactory, States experiencing difficulties in implementing/maintaining facilities required in the AFI AFTN Plan should consider the use of commercial Internet services for non-time critical messages, subject to appropriate service level agreements to be negotiated with the ISPs. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/8: USE OF THE INTERNET

That States having difficulties to implement or maintain facilities required in the AFI AFTN Plan consider the use of the Internet when available, particularly for the exchange of non time-critical applications (e.g. flight regularity, administrative, etc.).

2.2 Description of the AFI ATN topology

Need for performance requirements for leased ATN services

2.2.4.1 The Communications Sub-group first acknowledged an increasing desirability of commercial provision of managed network services given un-sustainability of ad hoc development by States – which includes concerns relating to interoperability of separate network segments, backwards compatibility, accommodation of differences, communications efficiency and flexibility and cost-benefit. Hence the need to define performance and quality of service (QoS) criteria to be used by ATS providers and aircraft operators when leasing ATN services (at subnetwork or end-to-end levels) from communications service providers. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/9: PERFORMANCE CRITERIA FOR USE BY ATS PROVIDERS AND AIRCRAFT OPERATORS WHEN LEASING ATN SERVICES FROM COMMUNICATION SERVICE PROVIDERS

That ICAO develop performance criteria to be taken into consideration by air traffic services providers and aircraft operators when leasing ATN services (at sub-network or end-to-end levels) from communication service providers.

Draft of ATN routing architecture

2.2.2. The Communications Sub-group reviewed a draft of an initial Plan for the ATN routing architecture within the AFI Region, based on a comprehensive paper prepared by the Secretariat.

2.2.3 The Communications Sub-group then focused on a proposed representation scheme for the ATN Ground Portion Plan, noting that such a plan is described in terms of formatted tables in the other Regions (e.g. ASIA/PAC and CAR/SAM). Attention was directed to the following basic rules:

Requirements for Plan description

2.2.4 The Communications Sub-group acknowledged the need to :

- identify the purpose of the Plan document to provide an appropriate and accurate description of planned and implemented facilities, and a comprehensive view for management of the plan;

- identify the entities to be described (ATN networking topology: *domains* to include *routers* (intermediate systems and end systems), routers to interconnect networks and *interconnections*; and ATN *ground applications* (AMHS, AIDC)) taking into account their different properties (relationship with peer entities); and
- describe the acceptable entities and time order of implementation plan. For instance, at the time any interconnection installed, at both sides of interconnection, there has to be installed at least one router of compatible type; or prior to any ground application installation, there should be one router installed to route their message to other End System.

2.2.5 The Communications Sub-group agreed that, though it is hard to capture all these basic rules, it is essential to provide an ATN Implementation Plan as an effective management tool to make the Plan well managed.

Routing architecture and description of the ATN ground-ground network

2.2.6 The Communications Sub-group proposed an initial ATN routing architecture composed of a backbone network to concentrate ATN traffic at designated locations, and possibly support air-ground applications operating over the ATN, and ATN routing sub-regions around each backbone BIS connecting the routing domains to the backbone, these being subject to further refinements.

Transition Issues

2.2.7 The Communications Sub-group agreed that the implementation of the ATN within the AFI Region may require considerable planning for the transition of the AFTN, and that this area needs further work, which will necessitate accurate information about plans of the States for ATN ground-ground applications (ATS Inter-facility Data Communications and ATS Messages Handling System). The following draft Conclusions were formulated:

DRAFT CONCLUSION 6/10: TIMESCALE FOR THE IMPLEMENTATION OF AIDC

That the APIRG ATS/AIS/SAR Sub-group be requested to provide necessary information on the timescale for the implementation of ATS Inter-facility Data Communications (AIDC).

DRAFT CONCLUSION 6/11: INFORMATION ON STATES' PLANS FOR THE IMPLEMENTATION OF AMHS

That the Secretariat conduct a survey on States plans for the implementation of the AMHS application to be supported by the ATN.

Human resources

2.2.8 The Communications Sub-group acknowledged that there was lack of or insufficient training on aeronautical equipment and associated technologies. Suitable human resources and training programmes were therefore needed in order to ensure that a sufficient number of personnel is available and remain proficient in the skills necessary to operate and maintain communication facilities. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/12: COMMUNICATIONS HUMAN RESOURCES AND TRAINING – RELATED ISSUES

That human resources and training issues relating to the Communications field be taken into account by an APIRG appropriate body, in order to ensure that a sufficient number of personnel is available and remain proficient in the skills necessary to operate and maintain facilities.

Future work programme and composition

2.2.9 The Communications Sub-group adopted the future work programme and composition of the ATN Planning Task Force.

2.4.2 Review of performance and implementation of the aeronautical fixed telecommunication network (AFTN) in the AFI Region, identification of deficiencies and remedial action for their elimination.

Implementation status – Identification of deficiencies

2.4.2.4.1 The Communications Sub-group reviewed the performance and implementation status of the AFTN in the AFI Region, and identified deficiencies and remedial measures for their elimination. It also updated the list of AFTN deficiencies in the AFI Region to be considered under Agenda Item 5 of this meeting (**WP/13 refers**).

2.4.2.2 In addition, the Sub-group analyzed statistical data on AFI AFTN performance compiled by the Secretariat for the year 2002, showing efforts made/to be made by States in order to maintain/increase the availability rates of AFTN circuits.

2.4.3 Review of the implementation and performance of the Air Traffic Services Direct Speech (ATS/DS) network in the AFI Region, identification of deficiencies and remedial action for their elimination

Implementation status – Identification of deficiencies

2.4.3.1 The Communications Sub-group reviewed the implementation efforts since its last meeting (COM/SG/5, Dakar, 3-6 October 2000). It noted that 12 ATS/DS circuits have been implemented by 11 States, whilst 3 States have not implemented any of 10 required ATS/DS circuits. The Communications Sub-group also updated the list of ATS/DS deficiencies in the AFI Region to be considered under Agenda Item 5 of this meeting (**WP/13 refers**).

2.4.4 Use of VSAT technology to cater for AFS requirements

Communications between Accra, Brazzaville, Dakar Oceanic and Luanda FIRs

2.4.4.1 The Communications Sub-group discussed at length ways of improving/implementing AFS links (AFTN and ATS/DS) between Accra, Brazzaville and Luanda FIRs, by using VSAT technology as called for by APIRG. Views were particularly exchanged on proposals from ASECNA and IATA based on the extension of AFISNET or CAFSAT networks. In the absence of Angola, it was agreed that this issue could addressed by the planned ATS/COM coordination meeting to be held under the aegis of ICAO. The following draft Conclusion was formulated accordingly:

DRAFT CONCLUSION 6/16: ATS/COM COORDINATION MEETING BETWEEN ACCRA, BRAZZAVILLE, DAKAR OCEANIC, KINSHASA AND LUANDA FIRS

That:

a) ICAO organize an ATS/COM coordination meeting between Accra, Brazzaville, Dakar Oceanic, Kinshasa and Luanda FIRs, with all parties concerned; and

b) This meeting examine all proposed solutions, including those presented to COM/SG/6 meeting, to cater for AFS requirements between these FIRs.

Implementation status and development of VSAT networks

2.4.4.2 Algeria, South Africa (ATNS), Spain, Tunisia, ASECNA, IATA and the Secretariat presented the Communications Sub-group with updated information on the implementation status and plans for the development of AFISNET, SADC, CAFSAT, NAFISAT and EUROCONTROL VSAT networks.

- AFISNET network: its expansion to Algeria, Angola, France (Aix-en-Provence), Guinea Bissau and Sao Tome and Principe is under consideration or planned, and its digitalization in Ghana and Nigeria was in progress.
- SADC network: future developments include integration of a VSAT terminal to be installed in Bujumbura, technical aspects, institutional and governance issues, expansion of the current VSAT system and integration with other networks.
- ASECNA and ATNS informed the meeting of action undertaken to achieve the interconnection between AFISNET and SADC networks before the end of the year 2002, which includes the implementation of the AFTN main circuit Brazzaville/Johannesburg and a number of AFTN tributary circuits and ATS/DS circuits.
- CAFSAT network: major developments (integration of new nodes, sharing of surveillance data, transmission of GNSS data).
- NAFISAT project: following an informal ATM/CNS coordination meeting involving Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda, a working group[2] has been established under ICAO coordination and tasked with the drafting of a project document on the NAFISAT network called for by APIRG (Conclusion 13/15 refers). States identified by APIRG had agreed in principle to participate in this project. Following a meeting of participating States in early 2003, 9 States have confirmed their participation. .
- EUROCONTROL VSAT network: the Communications Sub-group was informed of the extension of EUROCONTROL VSAT network covering States within the Black Sea Area, including Malta, Tunisia and possibly Libya.

2.4.4.3 In addition, Algeria and Egypt submitted information papers on their plans for national VSAT networks; and Egypt informed the meeting of the implementation of a bilateral VSAT link between Asmara and Cairo.

ATS/DS VSAT DOUBLE HOP LINKS

2.4.4.4 The Communications Sub-group was apprised of the results from ATS/DS double hop link trials which were carried out by Las Palmas ACC (Spain) and Sal ACC (Cape Verde) on CAFSAT network, showing propagation times of 387 milliseconds (one hop) and 677 milliseconds (double hops).

2.4.4.5 Spain and ASECNA indicated that an operational double hop link was planned between Las Palmas (Spain) and Nouakchott (Mauritania) via Dakar (Senegal), using AFISNET and CAFSAT legs.

[2] The working group on NAFISAT is composed of Kenya, ICAO and IATA.

2. 5 Review of the implementation and performance of the Aeronautical mobile service (AMS)

Implementation status – Identification of deficiencies

2.5.1 The Communications Sub-group reviewed the implementation and performance of the aeronautical mobile service in the AFI Region, and updated the list of AMS deficiencies to be considered under Agenda Item 5 of this meeting (**WP/13 refers**).

Extension of VHF coverage

2.5.2 The Communications Sub-group acknowledged the efforts made by a number of States to extend VHF coverage on ATS routes using remote VHF stations, in accordance with AFI/7 Recommendation 5/12. It particularly noted recent achievements in the following FIRs: Antananarivo (2 remote stations); Dakar (2 remote stations), Mauritius (4 remote stations), Niamey (1 remote station). The Communications Sub-group also noted planned VHF relay stations in FIRs Beira, Brazzaville, Dakar Oceanic, Dar-es-Salaam, Entebbe, Luanda, Lusaka, Lilongwe, N'Djamena and Niamey, and recognized that significant progress and improved AMS services can be achieved if all projects are implemented.

2.5.4 The Communications Sub-group was of the view that the Secretariat should monitor the extension of VHF radio coverage in the Region, and coordinate the edition of a map thereof. For that purpose, States not having done so were therefore requested to provide the Secretariat with relevant information concerning their VHF stations, by indicating for each existing/planned station: the FIR, frequency, geographical coordinates, coverage range, implementation date, and FIR sector covered/to be covered. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/18 : EXTENSION OF VHF RADIO COVERAGE

That :

a) States which have not done so, communicate to relevant ICAO Regional Offices exhaustive data on their remote VHF stations implemented/to be implemented in accordance to AFI/7 Recommendation 5/12 (for each station : FIR, frequency, geographical coordinates, coverage range, implementation date, sector covered) ; and

b) The Secretariat coordinate the edition of a map on VHF coverage in the AFI Region.

Investigations on operators deficiency reports

2.5.5 The Communications Sub-group was informed of deficiency reports which the Secretariat receives at times from users, particularly the Flight Safety Unit of SAA, these being usually copied to the concerned CAA. It therefore encouraged States to investigate diligently and provide feedback to all addressees of such deficiency reports, and designate focal points to reply to users deficiency reports related to communications. States were also invited to issue a NOTAM whenever a given communication facility is not fully operational.

Results from the IFALPA survey on AMS communications

2.5.6 The Communications Sub-group was presented with the results of a one – year survey carried out by IFALPA on AMS communications (VHF, HF), compiled from 200 'Deficiency Forms'[3] (DFs) over

[3] The use of IFALPA DF by airline crews operating into and over AFI has made it possible to submit to ICAO and States the actual state of affairs when engaged in flying over Africa. The DF survey runs through the overflying phase, looking at serviceability of navigational aids, and whether, in case of unserviceability such unserviceability is NOTAMed, also looking at the quality of communications, to the approach phase taking into account approach and tower communications, approach aids serviceability, etc.

the period from October 2001 to September 2002. All received deficiency forms are processed at IFALPA and original forms are copied and sent to ICAO and IATA regional offices in Dakar and Nairobi, and are thus made available to all interested parties. The Sub-group encouraged and congratulated IFALPA for its initiative, a valuable contribution in monitoring AMS communications in the AFI Region. In substance, the results showed a definite improvement when comparing this year's survey with previous years, especially a relative reduction in the use of HF in certain FIR's.

2. 6 Aeronautical radio navigation service (ARNS)

Implementation status – Identification of deficiencies

2.6.1 Under this Agenda Item, the Communications Sub-group reviewed progress made in aeronautical radio navigation service (ARNS) since its last meeting (COM/SG/5) and APIRG/13, and updated the list of deficiencies in this field (**WP/13 refers).**

2. 7 Review of ICAO position and preparations for the ITU WRC - 2003

ICAO position

2.7.1 The Communications Sub-group reviewed the ICAO position[4] on critical issues for civil aviation to be discussed at the ITU World Radiocommunication Conference (WRC-2003) (Geneva, Switzerland 9 June - 4 July 2003). It noted that feedback received from States indicates full support the for the ICAO position, in accordance with APIRG Conclusion 13/23 and follow up action taken by the Secretariat.

ITU Plenipotentiary Conference 2002

2.7.3 The Communications Sub-group was briefed on ICAO proposals presented to the ITU Plenipotentiary Conference (Marrakech, September/October 2002), aimed at enhancing the role of UN observers at ITU Conferences. All AFI States have been urged to support the ICAO proposals and similar papers presented by regional telecommunications agencies (ATU, CEPT, CITEL).

AFI Regional Preparatory Group (RPG) meeting

2.7.4 The Communications Sub-group reviewed the Report of the AFI Regional Preparatory Group (RPG) seminar organized by ICAO from 18 to 19 April 2002 on the preparations for WRC-2003. The seminar aimed at familiarizing experts of the AFI Region with the ITU processes, the regional telecommunications organizations (ATU, CEPT, CITEL), the ICAO position, IATA spectrum protection activities, and new challenges facing the aeronautical community in terms of spectrum protection (ultra-wideband devices).

WRC-2003 focal points

2.7.5 The Communications Sub-group was apprised of a recommendation from the African Telecommunications Union (ATU) on the establishment of National Conference Preparatory Working Groups for WRC-2003 in States, and accordingly encouraged States to participate in those working groups and to designate focal points of contact for WRC-2003 matters[5].

2.7.6 The following draft Conclusions were adopted:

[4] The ICAO position adopted by the Council was distributed to States and international organizations under State letter E 3/5-01/79 dated 10 August 2001.

[5] A number of States have designated WRC-2003 focal points.

DRAFT CONCLUSION 6/20 : FOCAL POINTS OF CONTACT FOR ITU-WRC PREPARATION

That States, which have not done so yet, designate ITU WRC preparation focal points in their Administrations.

DRAFT CONCLUSION 6/21 : NEED FOR PERMANENT LIAISON WITH TELECOMMUNICATION REGULATORS

That civil aviation Administrations maintain constant liaison with telecommunication regulators to build bridges and facilitate WRC preparation.

DRAFT CONCLUSION 6/22 : SEMINARS ON RADIOFREQUENCY SPECTRUM REGULATIONS AND MANAGEMENT

That ICAO explore ways and means to implement issues addressed in ITU WRC-2000 regarding training and seminars on spectrum management and regulations.

DRAFT CONCLUSION 6/21 : NEED FOR PERMANENT LIAISON WITH TELECOMMUNICATION REGULATORS

That civil aviation Administrations maintain constant liaison with telecommunication regulators to build bridges and facilitate WRC preparation.

DRAFT CONCLUSION 6/22 : SEMINARS ON RADIOFREQUENCY SPECTRUM REGULATIONS AND MANAGEMENT

That ICAO explore ways and means to implement issues addressed in ITU WRC-2000 Resolution 20 regarding training and seminars on spectrum management and regulations.

2. 8 Future work programme and composition of the Communications Sub-group

2.8.1 Under this Agenda Item, the Communications Sub-group reviewed and updated its work programme and composition as per ***Appendix C*** to this paper. The following draft Decision was formulated:

DRAFT DECSION 6/23 : FUTURE WORK PROGRAMME AND COMPOSITION OF THE COMMUNICATIONS SUB-GROUP

That :

a) the future work programme and composition of the Communications Sub-group be as defined at *Appendix C to this paper* ; and

b) Sudan be a member of the Communications Sub-group.

2. 9 Any other business

2.9.1 Under this Agenda Item, the meeting noted the need for all AFI States to establish their procedures for the assignment of 24-bit aircraft addresses as called for by the Seventh AFI Regional Air Navigation Meeting (AFI/7), particularly in relation with ACAS II implementation requirements. The following draft Conclusion was formulated:

DRAFT CONCLUSION 6/24 : PROCEDURES FOR 24-BIT AIRCRAFT ADDRESS ASSIGNMENT

That those States, which have not already done so, establish, as a matter of urgency, procedures for the assignment of 24-bit aircraft addresses in accordance to AFI/7 Recommendation 11/2.

3. **Action by the APIRG**

3.1 The APIRG is invited to:

a) Note the report of the COM/SG/6 Meeting;

b) Review and adopt Draft Conclusions 6/1, 6/2, 6/3, 6/6, 6/8, 6/9, 6/10, 6/11, 6/12 6/16, 6/18, 6/20, 6/21, 6/22, 6/24 and Draft Decision 6/23.
