INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Fourth Meeting of the APIRG Communications, Navigation and Surveillance Sub-group
(Dakar, Senegal, 25-29 July 2011)**

Agenda Item 3:   **Follow-up of APIRG/17 and CNS/SG/3 conclusions and decisions**

REVIEW ON ACTION TAKEN ON APIRG/17 AND CNS/SG/3

CONCLUSIONS AND DECISIONS

(Presented by the Secretariat)

SUMMARY
This working paper reviews the action taken on CNS/SG/3 conclusions and decisions as endorsed by APIRG/17, as well as other relevant conclusions and decisions from APIRG/17.
Action by the meeting is at paragraph 2.
Reference :   APIRG/17, Report   Note: Reference can be downloaded from **www.icao.int**
Related ICAO Strategic Objective A: Safety and C: Environmental Protection and Sustainable Development of Air Transport.

1.   INTRODUCTION

1.1   The **Appendix** to this working paper presents the the status of implementation of CNS/SG/3 conclusions and decisions as endorsed by APIRG/17, as well as other relevant conclusions and decisions from APIRG/17, for consideration by the Sub-group.

2.   CONCLUSION

2.1   The meeting is invited to:

1)   note the action taken on CNS/SG/3 conclusions and decisions as endorsed by APIRG/17, and on other relevant conclusions and decisions from APIRG/17 as presented in this working paper; and

2)   request States and organizations to update the meeting on progress made in implementing these conclusions and decisions.

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APPENDIX

Follow up on APIRG/17 conclusions and decisions in the CNS field

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
DECISION 17/12:	PARTICIPATION OF MEMBERS AT CNS/ SG MEETINGS	That, all States and Organizations which are members of the CNS sub-group should participate in sub-group meetings/teleconferences.	Increased participation in Sub-group activities	
CONCLUSION 17/13:	AFTN PERFORMANCE	That, D.R. Congo, Congo, Ghana and Nigeria should endeavour to improve the Accra/Kano and Brazzaville/Kinshasa circuits as soon as possible but not later than the end of December 2010.	Improved coordination between concerned FIRs	Implementation in progress. States to report status.
CONCLUSION 17/14:	AFTN MONTHLY STATISTICAL DATA	That, States which have not done so, follow up on and implement Recommendation 9/4 of AFI/7 (Performance of AFTN Circuits) and Decision 16/12 of APIRG/16 (Follow up of the performances of the aeronautical fixed service) by forwarding to the Regional Offices the AFTN Monthly Statistics (missing flight plans status, transit time statistics).	Statistical data submitted by all AFTN centres to support performance assessments	Implementation in progress. States to report status.
CONCLUSION 17/15:	DEVELOPMENT OF AN AFTN DATABASE	That: a) States provide AFTN centers with statistics software for the automation of AFTN data collection; and b) ICAO develop a secured data base to facilitate web-based electronic compilation of AFTN statistical data collection and monitoring.	Timely submission of, and access to, statistical data facilitated Improved monitoring of AFTN performance	Implementation in progress. States to report status.
CONCLUSION 17/16:	IMPLEMENTATION OF AMHS	That, when implementing AMHS as part of Aeronautical Telecommunication Network (ATN) system, AFI States and	Coordinated implementation of AMHS in the Region	Implementation in progress. States to report status.

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
		Organizations adopt a cooperative approach based on a regional coordination to ensure the continuity of AFS during the transition period between AFTN and full AMHS operations.		
CONCLUSION 17/17:	CREATION OF AN AMHS IMPLEMENTATION TASK FORCE	That: a) A task force be formed with Terms of Reference as at Appendix 3.3A to this report in order to coordinate and plan for the implementation of AMHS in AFI; and b) ICAO continue to strongly support States in the implementation of AMHS by organizing more relevant workshops and seminars in AFI region.	Regional implementation strategy developed and adopted by APIRG Aviation personnel familiarized with AMHS technology and procedures	Implemented
CONCLUSION 17/18:	IMPLEMENTATION OF ATS/DS CIRCUITS	That, concerned States and Organizations take appropriate action and implement the outstanding AFI ANP ATS/DS Circuits. In doing so, the guidelines developed by ICAO for the implementation of VSAT should be taken into consideration and ensure: a) Harmonized networks avoiding the multiplication of sub-networks and technology; and b) Cost effective networks by sharing existing networks interconnection capability.	Full connectivity and improved coordination between ATS units	Implementation in progress. States to report status.
CONCLUSION 17/19:	ACTIVATION OF AFS CIRCUITS	That: a) DRC, Ethiopia, Eritrea, Rwanda and Burundi endeavour to activate the following circuits which have been	Activation of Addis Ababa/ Asmara, Kinshasa/Kigali and Bujumbura/	Implementation in progress. States to report status.

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
		implemented through NAFISAT/SADC/2 Networks in order to improve flights coordination: • Addis Ababa/Asmara, • Kinshasa/Kigali; and • Bujumbura/ Kinshasa. b) ICAO facilitate the necessary arrangements as required.	Kinshasa circuits Improved ATS coordination and flight safety	
DECISION 17/20:	NEED FOR AN ATS-VOICE NUMBERING PLAN FOR AFI	That, in accordance with ICAO manual on ATS ground-ground voice switching and signaling (Doc 9804, Chapter 2 Section 2.3): a) A technical study for the development of a global ATS voice numbering plan for the AFI Region be conducted to ensure inter regional interconnection and interoperability of Voice Communication Switching Systems (VCSS) and; b) The work programme of the CNS/SG be amended accordingly.	Numbering plan developed for ATS voice communications	Implementation in progress. States to report status.
CONCLUSION 17/21:	AFISNET NETWORK	That, AFISNET States/Organizations pursue their effort in implementing the various conclusions of the previous relevant meetings (Conclusion 16/07 of SNMC/16; Recommendation 6/18 of SP AFI RAN; Conclusion 17/02 of SNMC/17; Conclusions of the Joint Technical Team) to modernize the network by evaluating and re-engineering AFISNET.	Sustainable network meeting performance requirements	Implementation in progress. States to report status.
CONCLUSION 17/ 22:	REGULAR MEETINGS BETWEEN VSAT	That, in order to ensure interoperability between VSAT Networks AFI States	Integrated /consolidated SAT network	Implemented. AFI VSAT/1 held in June

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
	NETWORK MANAGERS	should implement Recommendation 6/19 of SP AFI RAN 2008 calling for regular meetings to be held by VSAT Managers under the coordination of ICAO Regional Offices.		2011.
CONCLUSION 17/23:	BACK UP-SYSTEMS FOR AFS	That, States provide suitable backup systems for AFS (ATS/DS and AFTN) based on available conventional and emerging technologies (satellite, fiber optics etc.), and install and/or enhance their backup systems using: a) Satellite telephone voice and/or data facilities; b) Public switched telephone network ; c) Secured internet; and d) Voice over Internet Protocol (VoIP).	Continuity of services	Implementation in progress. States to report status..
CONCLUSION 17/24:	SUBMISSION OF COM LISTS	That, States that have not done so, submit their updated COM lists to the ICAO Regional Offices. The submitted lists should have the aeronautical coordinates provided in WGS-84 format.	AFI COM lists completed Efficient frequency assignment planning and management	Implementation in progress. States to report status.
Conclusion 17/25:	IMPLEMENTATION OF CPDLC	That, States implement CPDLC procedures for en-route operations in their managed oceanic and remote continental airspace.	Increased use of data link communications Improved air-ground communications in FIRs	Implementation in progress. States to report status.
CONCLUSION 17/26:	IMPLEMENTATION OF RCP CONCEPT	That a) States take the advantage of RCP concept stated in ICAO Doc 9869 to improve the provision of aeronautical mobile service (AMS) meeting service level agreements; and b) ICAO support the implementation of the	Efficient ATS communications Aviation personnel familiarized with RCP concept	Not implemented. Global Operational Data Link Document (GOLD) finalized.

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
		RCP concept through Regional Seminars and Workshops		
CONCLUSION 17/27:	ELIMINATION OF AERONAUTICAL RADIONAVIGATION SERVICE (ARNS) DEFICIENCIES	That, States take urgent action to eliminate the current outstanding aeronautical radionavigation service (ARNS) deficiencies as identified in Appendix 4.1D to the report.	Increased compliance with Air navigation plan requirements	States to report status.
CONCLUSION 17/28:	NEED FOR A HIGH LEVEL MEETING ON AFI GNSS STRATEGY	That, in order to assist AFI States in making an informed decision on the regional strategy for the introduction of GNSS applications, AFCAC organize as a matter of urgency a high level meeting in coordination with ICAO, ASECNA, IATA, AFRAA and other relevant stakeholders.	High level meeting held Consistency in AFI GNSS Strategy	AFCAC/AU meeting held in November 2010.
CONCLUSION 17/29:	NEED FOR AN INDEPENDENT COST-BENEFIT ANALYSIS	That, considering the lack of consensus between stakeholders on available cost-benefit analyses related to SBAS implementation in the AFI Region, a cost benefit analysis based on objective assumptions should be performed by independent experts, and submitted to the high level meeting to be organized by AFCAC on AFI GNSS strategy, for consideration.	Independent SBAS cost-benefit analysis completed	Terms of reference developed.
DECISION 17/30:	COORDINATION OF TRAFFIC DATA FOR AERONAUTICAL STUDIES	That, APIRG bodies should closely coordinate their work with the AFI Traffic Forecasting group (TFG) to ensure that accurate and reliable traffic data are made available for aeronautical studies conducted in the AFI Region, including CNS/ATM related Cost Benefit Analysis (CBA).	Common and reliable data source used for aeronautical studies in the Region	APIRG bodies notified
CONCLUSION 17/31:	IMPLEMENTATION OF ADS-C	That, States implement ADS-C Procedures for en-route	Improved situational	Implementation in progress.

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
		operations in their managed oceanic and remote continental airspace.	awareness for en-route operations	States to report status..
DECISION 17/32:	DEVELOPMENT OF AFI SURVEILLANCE STRATEGY	That, in order to finalize the development of AFI Surveillance Strategy, the Terms of Reference, work programme and composition of the AFI Surveillance Task Force be amended as shown in Appendix 3.3D to this report.	AFI Surveillance Strategy finalized	Implemented
CONCLUSION 17/33:	DATA COLLECTION FOR AERODROME AND TMA CATEGORIZATION	That, no later than 31 December 2010, States which have not yet done so, compile and submit the relevant data concerning their managed aerodromes and Terminal Areas (TMAs) in order to facilitate the work of the CNS sub-group on their categorization. To this effect, States should ensure that close coordination is carried out between civilian and military stakeholders.	Aeronautical surveillance requirements established based on categorization of AFI TMAs and aerodromes	Implementation in progress. States to report status.
CONCLUSION 17/34:	ICAO POSITION FOR THE ITU WRC-2012	That, States and Air Navigation Service Providers (ANSPS): a) Continue their efforts on implementation of the relevant elements of ICAO Assembly Resolution A32-13 and in particular, participate in the preparatory work of the ITU and the ATU for WRC; and b) Continue to assign high priority to the tasks relating to the protection and availability of Radio frequency spectrum allocated to aeronautical services and in particular, actively participate in the relevant activities of the ITU-R and ATU.	Support to ICAO position for ITU WRC-12	Implementation in progress. States to report status.
CONCLUSION 17/35:	DELETION OF	That, States with footnotes at	Footnotes deleted	Implementation

Conclusions/Decisions	Title of Conclusions/ Decisions	Text of Conclusions/Decisions	Deliverable/ Intended Outcome	Status of implementation
	FOOTNOTES 5.330, 5.362B AND 5.362C	5.330, 5.362B and 5.362C be urged to contact their spectrum regulators to delete theses footnotes	from ITU Radio Regulations	in progress. States to report status.
CONCLUSION 17/36:	REGISTRATION OF OPERATIONAL FREQUENCIES	That, States which have not formally registered their operational frequencies take the necessary steps to register their operational frequencies with their Telecommunication Regulatory Authorities.	All aeronautical frequencies duly registered	Implementation in progress. States to report status.
DECISION 17/37:	FOLLOW –UP OF AFI/FMG ACTION PLAN	That: a) The following States should follow up on ITU WRC-12 Agenda items and report to AFI/FMG: • South Africa: Agenda item 1.7; • Ghana: Agenda item 1.3; • Kenya: Agenda item 1.4; and b) The AFI/FMG rapporteur (ASECNA) coordinate and follows up the AFI/FMG action plan and report to the CNS Sub-group.	Reports submitted to AFI/FMG and CNS/SG	Implemented by Ghana, Kenya and South Africa
CONCLUSION 17/38:	NON-APPLICATION OF CHARGES FOR THE UTILIZATION OF AERONAUTICAL FREQUENCY SPECTRUM	That, AFI States refrain from subjecting Air Navigation Service Providers to charges for the utilization of Aeronautical Frequency Spectrum, including aeronautical communications supported by VSAT Stations	AFI ANSPs exonerated from Radio Regulators' charges	States notified of the conclusion.
DECISION 17/39:	**D COMPOSITION OF THE CNS SUB-GROUP**	**composition of the CNS Sub-group be adopted as shown at Appendix 3.3F to this report.**	CNS/SG work programme addressed and report submitted to APIRG/18	Implemented
CONCLUSION 17/40:	CNS PERFORMANCE OBJECTIVES	That, the CNS performance objectives and performance framework form developed by ICAO SP AFI RAN (2008) be amended as shown at Appendix 3.3G to this report.	Regional/national performance objectives updated.	Implemented.

Appendix

TERMS OF REFERENCE, FUTURE WORK PROGRAMME AND COMPOSITION OF THE COMMUNICATIONS, NAVIGATION AND SURVEILLANCE SUB-GROUP (CNS/SG)

1.   TERMS OF REFERENCE

a)   Ensure the continuing and coherent development of the AFI Regional Air Navigation Plan in the fields of aeronautical communications, navigation and surveillance (CNS), including the development of CNS elements of the AFI CNS/ATM Implementation Plan in the light of new developments, in harmony with the ICAO Global Air Navigation Plan (Doc 9750) and the plans for adjacent regions;

b)   Identify, review and monitor deficiencies that impede or affect the provision of efficient aeronautical telecommunications and recommend appropriate corrective action;

c)   Prepare, as necessary, CNS/ATM cost/benefit analyses for the implementation options of C, N an S elements; and

d)   Study, as necessary, institutional arrangements for the implementation of C, N and S systems in the AFI Region.

2.   WORK PROGRAMME

Item	Global Plan Initiatives	Task description	Priority	Target date
		Communications		
1.	GPI-22	Follow up and monitor the implementation of VHF coverage in the AFI region in accordance with AFI/7 Rec. 5/12.	A	APIRG/18
2.	GPI-22	Update the AFI AFTN routing directory	A	APIRG/18
3.	GPI-22	In coordination with the ATS/AIS/SAR Sub-group, participate in the development of a communication infrastructure to support an AFI Central AIS Database (AFI CAD)	A	Continuing
4.	GPI-17 GPI-22	Follow-up the implementation of suitable communication bit-oriented protocols to improve AFTN performance and to facilitate the introduction of ATN applications.	A	APIRG/18
5.	GPI-17	Monitor the development, and coordinate the implementation of guidance material for service level agreements between air navigations service providers and ATN service providers	A	APIRG/18
6.	GPI-17	Review and update, if needed, the ICAO Register of AMHS managing domains and addressing information pertaining to AFI.	A	Continuing
		Navigation		
7.	GPI-21	Analyze and review the Report of the AFI GNSS Implementation Task Force.	A	Continuing
8.	GPI-21	Follow up and monitor the implementation of Phase 1 of the AFI GNSS Strategy.	A	Continuing
		Surveillance		
9.	GPI -9	Analyze and review CNS aspects of the report of the	A	APIRG/18

Item	Global Plan Initiatives	Task description	Priority	Target date
		Aeronautical Surveillance Implementation Task Force.		
		Communications, Navigation and Surveillance – General matters		
10.	GPI -9 GPI-17 GPI-21 GPI-22	Analyze, review and monitor the implementation and operation of aeronautical communications, navigation and surveillance (CNS) systems, identify CNS deficiencies and propose measures for their elimination, as required	A	Continuing
11.	GPI -9 GPI-17 GPI-21 GPI-22	Give further consideration, as necessary, to the concept of multinational ICAO AFI air navigation facility/service addressed in the AFI/7 Report under Agenda Item 14 (AFI/7, Conclusion 10/6c).	C	Continuing
12.	GPI -9 GPI-17 GPI-21 GPI-22	In co-ordination with the ATS/AIS/SAR Sub-group, continue the evolutionary and harmonized development of the AFI CNS/ATM Systems Implementation Plan (AFI/7 Concl. 13/1).	A	Continuing
15.	GPI -9 GPI-17 GPI-21 GPI-22	In co-ordination with the ATS/AIS/SAR Sub-group, develop, as necessary, comprehensive business cases for competing CNS/ATM elements implementation options for the routing areas.	B	Continuing
16.	GPI -9 GPI-17 GPI-21 GPI-22	Co-ordinate plans developed by States, international organizations, airlines and industry for the implementation of the regional CNS/ATM systems implementation plan; and monitor CNS/ATM systems research and development, trials and demonstrations within the AFI Region and information from other regions.	B	Continuing
17.	GPI -9 GPI-17 GPI-21 GPI-22	Maintain current the database on CNS elements of CNS/ATM planning and implementation in the AFI Region.	B	Continuing
18.	GPI -9 GPI-17 GPI-21 GPI-22	Coordinate the implementation of ICAO Global Plan Initiatives pertaining to CNS and develop associated regional performance objectives.	A	Continuous
		Aeronautical Spectrum		
19.	GPI-23	Coordinate regional activities aimed at promoting ICAO position for ITU-WRC meetings, and improving aeronautical spectrum management and control in the Region.	A	Continuing

Priority:

A: High priority tasks on which work should be speeded up;
B: Medium priority tasks, on which work should be undertaken as soon as possible, but without detriment to priority A tasks; and
C: Lesser priority tasks, on which work should be undertaken as time and resources permit, but without

detriment to priority A and B tasks.

3. COMPOSITION:

Algeria, Angola, Cameroon, Congo, Côte d'Ivoire, D.R. of Congo, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Kenya, Malawi, Mali, Mauritius, Morocco, Niger, Nigeria, Senegal, South Africa, Spain, Sudan, Tanzania, Tunisia, Zambia, ACAC, ASECNA, IATA, and IFALPA.

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