



INTERNATIONAL CIVIL AVIATION ORGANIZATION
SIXTH MEETING OF THE APIRG COMMUNICATIONS SUB-GROUP
(COM/SG/6)

(Nairobi, 24 - 26 September 2002)

Agenda Item 4: Aeronautical Fixed Service (AFS)

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

(Presented by the Secretariat)

Summary

This paper reviews the implementation of the ATS/DS circuits plan, discusses the performance of the network and identifies the deficiencies

Action by the meeting is at paragraph 3

Reference:

COM/SG/5 Report
APIRG/13 Report

1. Introduction

1.1 At its last meeting, the COM/SG noted that there was little progress in the implementation of ATS/DS circuits since APIRG/12. This paper reviews the implementation efforts since COM/SG/5 (Dakar, 3-6 October 2000) and highlights the maintenance problems affecting a large number of circuits.

2. Discussions

2.1 A review of the implementation of ATS/DS circuits since COM/SG/5 reveals that 12 circuits have been implemented, though 3 of them are affected by maintenance problems. They are:

- Abidjan/Robertsfield
- Accra/Brazzaville (maintenance)
- Accra/Lome (maintenance)
- Addis Ababa/Khartoum
- Dakar/Robertsfield
- Djibouti/Asmara
- Djibouti/Mogadishu
- Entebbe/Khartoum
- Entebbe/Kigali
- Kano/Brazzaville
- Lagos/Libreville
- Libreville/Malabo

2.2 There are 205 ATS/DS circuits required in the AFI ANP . The total number of non-implemented circuits is 54, or 26.6% of the required circuits.

2.3 **Appendix A** to this paper shows the status of implementation and operation of ATS/DS circuits.

2.4 The States which have not implemented any ATS/DS circuits are:

- Burundi: 0/4;
- Guinea-Bissau: 0/3;
- Sao tome & Principe: 0/3

2.5 The States which have implemented all their required ATS/DS circuits are:

- Benin
- Cape Verde
- France (Réunion)
- Lesotho
- Malawi
- Mauritius
- Morocco
- Namibia
- Nigeria
- Sierra Leone ; and
- Tunisia

2.6 Several VSAT solutions are being considered by States to implement AFS requirements (AFISNET, SADC and NAFISAT). The States concerned should be encouraged to implement these systems as soon as possible. Meanwhile, as recommended by APIRG/12 Conclusion 12/15, satellite telephone or PSTN could be used to satisfy the requirements.

Identification of deficiencies

2.7 Using the data in **Appendix A**, the list of deficiencies regarding ATS/DS circuits has been updated and is shown in **Appendix B** to this paper.

2.8 The main remark concerns the lack of reliability of many circuits implemented on the AFISNET VSAT network, which concerns ASECNA States, Nigeria and Ghana. There has been a dramatic rise in the number of circuits affected by maintenance problems on the AFISNET. States concerned should be requested to urgently improve the maintenance of these circuits before further degradation.

3. Action by the COM Sub-Group

3.1 The COM Sub-Group is invited to:

- a) note the information provided herein;
- b) to review and update Appendices A and B; and
- c) adopt a conclusion on the maintenance of VSAT networks.

**TABLE CNS 1D - ATS DIRECT SPEECH CIRCUITS PLAN/
TABLEAU CNS 1D - CIRCUITS ATS EN PHONIE DIRECTE**

EXPLANATION OF THE TABLE

Column 1:	Terminal I:	State and ATS centres to be considered are sequenced in alphabetical order.
Column 2:	Terminal II:	Stations to be connected in alphabetical order.
Column 3:	Type : "A"	indicates a requirement for direct-speech communications capable of establishment in less than 15 seconds (to be used principally for the exchange of updated flight plan data with adjacent units and for co-ordination between air traffic controllers).
	"d"	indicates a requirement for communications which effectively provide for immediate access between controllers (to be used principally for transfer of control between radar controllers).
Column 4:	Status of implementation:	
	NI:	Not implemented
	D:	Implemented with deficiency
	OP:	Implemented and operates satisfactorily
Column 5:	Remarks	

EXPLICATION DU TABLEAU

Colonne 1 :	Terminal I	États et centres ATS à prendre en considération énumérés en ordre alphabétique.
Colonne 2 :	Terminal II:	Les stations qui doivent être reliées sont classées, en ordre alphabétique.
Colonne 3 :	Type : "A"	Indique un besoin de communications en phonie directe pouvant être établies en moins de 15 secondes (ces communications servent principalement à l'échange de données actualisées de plan de vol avec les organes voisins ainsi qu'à la coordination entre contrôleurs de la circulation aérienne).
	"d"	indique un besoin de communications instantanées, assurant un accès immédiat entre contrôleurs (principalement pour le transfert de contrôle entre contrôleurs radar).
Colonne 4 :	État de mise en oeuvre:	
	NI:	Non mis en oeuvre
	D:	Mis en oeuvre mais déficient
	OP:	Mis en oeuvre et fonctionne correctement
Colonne 5:	Remarques	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations	
Terminal I Terminal I	Terminal II Terminal II	Type Type			
1	2	3	4	5	
ALGERIA ALGER ACC-FIC	BARCELONA	A	OP	To implement VSAT To be improved To implement LTF circuit	
	CASABLANCA	A	OP		
	DAKAR	A	D		
	MARSEILLE	A	OP		
	NIAMEY	A	D		
	TRIPOLI	A	NI		
	TUNIS	A	OP		
ANGOLA LUANDA APP-FIC	ACCRA	A	NI	. SADC VSAT implemented “	
	BRASILIA	A	NI		
	BRAZZAVILLE	A	NI		
	GABORONE	A	OP		
	JOHANNESBURG	A	OP		
	KINSHASA	A	OP		
	LUSAKA	A	OP		
	WINDHOEK	A	OP		
BENIN COTONOU	ACCRA	A	D	To improve maintenance To improve maintenance To improve maintenance	
	LAGOS	A	D		
	LOME	A	D		
BOTSWANA GABORONE ACC	FRANCISTOWN	A	OP	To be deleted from Plan.	
	HARARE	A	OP		
	JOHANNESBURG	A	OP		
	LUANDA	A	OP		
	LUSAKA	A	OP		
	WINDHOEK	A	OP		
	FRANCISTOWN TWR	BULAWAYO	A		NI
	GABORONE	A	OP		
BURKINA FASO BOBO DIOULASSO	ABIDJAN	A	OP		
	ACCRA	A	NI		
	BAMAKO	A	OP		
	OUAGADOUGOU	A	OP		
	OUAGADOUGOU	ABIDJAN	A		OP
		ACCRA	A		NI
		BAMAKO	A		OP
		BOBO DIOULASSO	A		OP
		NIAMEY	A		OP
		NIAMTOUGOU	A		NI

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
BURUNDI BUJUMBURA APP	DAR-ES-SALAAM	A	NI	VSAT being implemented
	GOMA	A	NI	To implement VSAT in
	KIGALI	A	NI	Kigali
	KINSHASA	A	NI	To implement VSAT in Bujumbura
CAMEROON DOUALA APP	BATA	A	NI	
	BRAZZAVILLE	A	OP	
	KANO	A	D	To improve maintenance
	LAGOS	A	D	To improve maintenance
	LIBREVILLE	A	D	To improve maintenance
	MALABO	A	D	To improve maintenance
	N'DJAMENA	A	D	To improve maintenance
CAPE VERDE SAL ACC	DAKAR	A	OP	
	LAS PALMAS	A	OP	
	SANTA MARIA	A	OP	
CENTRAL AFRICAN REPUBLIC BANGUI APP	BRAZZAVILLE	A	OP	
	GBADOLITE	A	NI	
	N'DJAMENA	A	OP	
CHAD N'DJAMENA APP/FIC	BANGUI	A	OP	
	BRAZZAVILLE	A	OP	
	DOUALA	A	D	To improve maintenance
	GAROUA	A	NI	
	KANO	A	D	To improve maintenance
	KHARTOUM	A	NI	To implement LTF circuit
	MAIDUGURI	A	D	To improve maintenance
	NIAMEY	A	D	To improve maintenance
	TRIPOLI	A	NI	To implement LTF circuit
COMOROS DZAOUDZI APP	ANTANANARIVO	A	NI	To implement LTF
	MORONI APP	ANTANANARIVO	A	OP

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
CONGO BRAZZAVILLE APP-FIC	ACCRA BANGUI DOUALA KANO KHARTOUM KINSHASA LIBREVILLE LUANDA N'DJAMENA SAO TOME	A A A A A d A A A A	OP OP OP OP NI OP OP NI OP NI	
COTE D'IVOIRE ABIDJAN APP	ACCRA BAMAKO BOBO DIULASSO DAKAR NIAMEY OUAGADOUGOU ROBERTSFIELD	d A A A A A A	D OP OP D OP OP OP	To improve maintenance To improve maintenance
DJIBOUTI DJIBOUTI APP	ADDIS ABABA ADEN ASMARA DIRE DAWA HARGHEISA MOGADISHU SANA'A	A A A A A A A	OP NI OP NI NI OP OP	should be deleted from Plan

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
D.R of CONGO BUKAVU GBADOLITE GOMA LUBUMBASHI KINSHASA	KIGALI	A	NI	
	BANGUI	A	NI	
	BUJUMBURA KIGALI	A A	NI NI	
	NDOLA	A	NI	
	BRAZZAVILLE	d	OP	
	BUJUMBURA	A	NI	
	DAR-ES-SALAAM	A	OP	
	ENTEBBE KHARTOUM KIGALI	A A A	NI NI NI	
	LUANDA	A	OP	
	LUSAKA	A	OP	
EGYPT CAIRO ACC	AMMAN	A	OP	
	ATHENS	A	OP	
	BEIRUT	A	OP	
	JEDDAH	A	OP	
	KHARTOUM	A	NI	
	NICOSIA	A	OP	
	TEL AVIV	A	OP	
	TRIPOLI	A	OP	
EQUATORIAL GUINEA BATA APP MALABO APP	DOUALA	A	NI	
	LIBREVILLE	A	NI	
	MALABO	A	NI	
	BATA	A	NI	
	DOUALA LIBREVILLE	A A	OP OP	Implemented via Douala
ERITREA ASMARA ACC	ADDIS ABABA	A	NI	
	DJIBOUTI	A	OP	
	JEDDAH	A	OP	
	KHARTOUM	A	OP	
	SANA'A	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
ETHIOPIA ADDIS ABABA ACC/FIC	ASMARA DJIBOUTI JEDDAH KHARTOUM MOGADISHU NAIROBI SANA'A	A A A A A A A	NI OP OP OP OP OP OP	
DIRE DAWA TWR	DJIBOUTI	A	NI	
FRANCE (REUNION) SAINT-DENIS APP	ANTANANARIVO MAURITIUS	A A	OP OP	
GABON LIBREVILLE ACC	ACCRA BATA BRAZZAVILLE DOUALA KANO LAGOS MALABO SAO TOME	A A A A A A A A	OP NI OP D OP D OP NI	 To improve maintenance To improve maintenance Implemented via Douala VSAT being considered
GAMBIA BANJUL APP	BISSAU DAKAR	A A	NI OP	 VSAT being considered
GHANA ACCRA APP/FIC	ABIDJAN BOBO DIULASSO BRAZZAVILLE COTONOU KANO LAGOS LIBREVILLE LOME LUANDA NIAMEY NIAMTOUGOU OUAGADOUGOU SAO TOME	d A A A A d A A A A A A A	D NI D D OP OP D D NI D NI NI NI	 To improve maintenance To improve maintenance To improve maintenance To improve maintenance To improve maintenance To improve maintenance VSAT being considered

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
GUINEA CONAKRY APP	BISSAU FREETOWN ROBERTSFIELD	A A A	NI OP D	
GUINEA-BISSAU BISSAU APP	BANJUL CONAKRY DAKAR	A A A	NI NI NI	
KENYA MOMBASA APP NAIROBI ACC	DAR-ES-SALAAM KILIMANJARO NAIROBI ADDIS ABABA DAR-ES-SALAAM ENTEBBE KHARTOUM KILIMANJARO MOGADISHU MOMBASA SEYCHELLES	d A d A A A A d A d A	NI NI OP OP OP OP OP OP OP OP OP	PSTN PSTN PSTN
LESOTHO MASERU APP	BLOEMFONTEIN	A	OP	to be replaced by Maseru/Johannesburg
LIBERIA ROBERTSFIELD ACC/FIC	ABIDJAN BAMAKO CONAKRY DAKAR FREETOWN	A A A A A	OP NI OP OP OP	To implement LTF circuit The earth station in Freetown has been restored
LIBYAN ARAB JAMAHIRIA BENGHAZI APP TRIPOLI ACC/FIC	ATHENS MALTA ALGIERS CAIRO KHARTOUM MALTA N'DJAMENA NIAMEY TUNIS	A A A A A A A A A	OP OP NI OP NI OP NI NI OP	To implement LTF circuit

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
MADAGASCAR ANTANANARIVO ACC/FIC	BEIRA DAR-ES-SALAAM DZAOUDZI JOHANNESBURG MAURITIUS MORONI SAINT-DENIS SEYCHELLES	A A A A A A A A	NI NI NI NI OP OP OP OP	
MALAWI LILONGWE ACC/FIC	BEIRA DAR-ES-SALAAM HARARE LUSAKA	A A A A	OP OP OP OP	
MALI BAMAKO APP GAO APP MOPTI (TWR)	ABIDJAN BOBO DIOULASSO DAKAR GAO MOPTI OUAGADOUGOU ROBERTSFIELD BAMAKO MOPTI NIAMEY GAO BABAKO	A A A A A A A A A A A A	OP OP OP NI NI OP NI NI NI NI NI NI	To implement LTF circuit
MAURITANIA NOUADHIBOU APP NOUAKCHOTT APP	DAKAR LAS PALMAS NOUAKCHOTT DAKAR NOUADHIBOU	A A A A A	OP NI OP OP OP	VSAT being considered
MAURITIUS MAURITIUS ACC/FIR	ANTANANARIVO BOMBAY COCOS JOHANNESBURG PERTH SAINT-DENIS SEYCHELLES	A A A A A A A	OP OP OP OP OP OP OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
MOROCCO CASABLANCA ACC/FIC	ALGER DAKAR LAS PALMAS LISBOA SEVILLA VILLA CISNEROS	A A A A A A	OP OP OP OP OP OP	
MOZAMBIQUE BEIRA ACC/FIC	ANTANANARIVO DAR-ES-SALAAM HARARE LILONGWE LUSAKA MAPUTO	A A A A A A	NI OP OP OP OP OP	VSAT being implemented VSAT implemented
MAPUTO APP	BEIRA DURBAN JOHANNESBURG MANZINI	A A A A	OP OP OP OP	to be deleted from Plan
NAMIBIA WINDHOEK ACC/FIC	BLOEMFONTEIN CAPETOWN GABORONE JOHANNESBURG LUANDA	A A A A A	OP OP OP OP OP	to be deleted from Plan
NIGER NIAMEY ACC/FIC	ABIDJAN ACCRA ALGER DAKAR GAO KANO N'DJAMENA OUAGADOUGOU TRIPOLI	A A A A A A A A A	OP D D D NI OP D OP NI	To improve maintenance To improve maintenance To improve maintenance

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
NIGERIA				
KANO	ACCRA	A	OP	
ACC/FIC	BRAZZAVILLE	A	OP	
	DOUALA	A	D	To improve maintenance
	LAGOS	A	D	
	LIBREVILLE	A	OP	
	MAIDUGURI	A	D	To improve maintenance
	N'DJAMENA	A	OP	
	NIAMEY	A	OP	
LAGOS	ACCRA	A	D	To improve maintenance
ACC/FIC	COTONOU	A	D	
	DOUALA	A	D	
	KANO	A	D	
	LIBREVILLE	A	D	
MAIDUGURI	KANO	A	D	To improve maintenance
APP	N'DJAMENA	A	D	To improve maintenance
RWANDA				
KIGALI	BUJUMBURA	A	NI	
APP	BUKAVU	A	NI	
	DAR-ES-SALAAM	A	NI	To implement VSAT
	ENTEBBE	A	OP	PSTN
	GOMA	A	NI	
	KINSHASA	A	NI	To implement VSAT
SAO TOME AND PRINCIPE				
SAO TOME	ACCRA	A	NI	
TWR	BRAZZAVILLE	A	NI	
	LIBREVILLE	A	NI	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
SENEGAL DAKAR ACC/FIC	ABIDJAN ALGER BAMAKO BANJUL BISSAU CASABLANCA FREETOWN LAS PALMAS NIAMEY NOUADHIBOU NOUAKCHOTT RECIFE ROBERTSFIELD ROCHAMBEAU SAL	A A A A A A A A A A A A A A A	D NI OP OP NI OP OP OP D OP OP OP OP OP OP	To improve maintenance PSTN in use
SEYCHELLES SEYCHELLES APP	ANTANANARIVO BOMBAY DAR-ES-SALAAM MAURITIUS MOGADISHU NAIROBI	A A A A A A	OP OP NI OP OP OP	To implement LTF circuit
SIERRA LEONE FREETOWN APP	DAKAR CONAKRY ROBERTSFIELD	A d d	OP OP OP	
SOMALIA MOGADISHU ACC/FIC	ADDIS ABABA BOMBAY DJIBOUTI NAIROBI SANA'A SEYCHELLES	A A A A A A	OP OP OP OP OP OP	
HARGEISA APP	DJIBOUTI	A	NI	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
SOUTH AFRICA BLOEMFONTEIN	CAPETOWN	A	OP	Requirements to be confirmed
	DURBAN	A	OP	
	JOHANNESBURG	A	OP	
	MASERU	A	OP	
	PORT ELIZABETH	A	OP	
	WINDHOEK	A	OP	
CAPETOWN	BLOEMFONTEIN	A	OP	Requirements to be confirmed
	JOHANNESBURG	A	OP	
	PORT ELIZABETH	A	OP	
	WINDHOEK	A	OP	
DURBAN	BLOEMFONTEIN	A	OP	Requirements to be confirmed
	JOHANNESBURG	A	OP	
	MANZINI	A	NI	
	MAPUTO	A	OP	
	PORT ELIZABETH	A	OP	
JOHANNESBURG	ANTANANARIVO	A	NI	Additional requirements identified
	BEIRA	A	OP	
	BLOEMFONTEIN	A	OP	
	BRASILIA	A	NI	
	CAPETOWN	A	OP	
	DURBAN	A	OP	
	EZEIZA	A	NI	
	GABORONE	A	OP	
	HARARE	A	OP	
	LUANDA	A	OP	
	MANZINI	A	OP	
	MAPUTO	A	OP	
	MAURITIUS	A	OP	
	PERTH	A	OP	
	PORT ELIZABETH	A	OP	
	WINDHOEK	A	OP	
PORT ELIZABETH	BLOEMFONTEIN	A	OP	Requirements to be confirmed
	CAPETOWN	A	OP	
	DURBAN	A	OP	
	JOHANNESBURG	A	OP	
PORT ELIZABETH	DURBAN	A	OP	
	JOHANNESBURG	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
SPAIN LAS PALMAS	CASABLANCA DAKAR LISBOA NOUADHIBOU SAL SANTA MARIA	A A A A A A	OP OP OP NI OP OP	
SUDAN KHARTOUM	ADDIS ABABA ASMARA BRAZZAVILLE CAIRO ENTEBBE JEDDAH KINSHASA NAIROBI N'DJAMENA TRIPOLI	A A A A A A A A A A	OP OP NI NI NI NI NI OP NI NI	PSTN
SWAZILAND MANZINI	DURBAN JOHANNESBURG MAPUTO	A A A	NI OP OP	Requirement to be confirmed
TOGO LOME NIAMTOUGOU	ACCRA COTONOU NIAMTOUGOU ACCRA LOME OUAGADOUGOU	A A A A A A	D OP OP NI OP NI	To improve maintenance
TUNISIA TUNIS	ALGER MALTA MARSEILLE ROMA TRIPOLI	A A A A A	OP OP OP OP OP	
UGANDA ENTEBBE	DAR-ES-SALAAM KHARTOUM KIGALI KINSHASA NAIROBI	A A A A A	OP OP OP NI OP	PSTN via Sat phone PSTN PSTN

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
UNITED REPUBLIC OF TANZANIA DAR-ES-SALAAM ACC/FIC	ANTANANARIVO	A	NI	Awaiting interconnecton ASECNA/SADC VSAT VSAT implemented VSAT being implemented VSAT being implemented VSAT implemented PSTN PSTN
	BEIRA	A	OP	
	BUJUMBURA	A	NI	
	ENTEBBE	A	OP	
	KIGALI	A	NI	
	KILIMANJARO	A	OP	
	KINSHASA	A	OP	
	LILONGWE	d	OP	
	LUSAKA	A	OP	
	MOMBASA	A	NI	
	NAIROBI	A	OP	
	SEYCHELLES	A	NI	
	ZANZIBAR	A	OP	
		A		
KILIMANJARO APP	DAR-ES-SALAAM MOMBASA NAIROBI	A A	OP NI NI	
ZANZIBAR	DAR-ES-SALAAM		OP	
WESTERN SAHARA EL AIOUN	LAS PALMAS	A	OP	
DAKHLA	NOUADHIBOU	A	OP	
ZAMBIA LUSAKA	BEIRA DAR-ES-SALAAM	A A	OP OP	
	GABORONE HARARE KINSHASA LILONGWE LUANDA NDOLA	A A A A A A	OP OP OP OP OP OP	
NDOLA	LUBUMBASHI LUSAKA	A A	NI OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
ZIMBABWE				
BULAWAYO	FRANCISTOWN	A	NI	to be deleted from Plan
	HARARE	A	OP	
HARARE	BEIRA	A	OP	
	BULAWAYO	A	OP	
	GABORONE	A	OP	
	JOHANNESBURG	A	OP	
	LILONGWE	A	OP	
	LUSAKA	A	OP	

APPENDIX B

LIST OF ATS/DS DEFICIENCIES

Deficiencies ATSDS

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Algeria</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Algiers ACC-FIC	Circuit Algiers/Niamey	1998	To be improved	VSAT planned	Algeria, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Algiers ACC-FIC	Circuit Algiers/Tripoli			Implement LTF circuit	Algeria, Libya		
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Algiers ACC-FIC	Circuit Algiers/Dakar	1998	PSTN in use	VSAT planned	Algeria, ASECNA		A
<i>Angola</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Accra	1998	Inmarsat phone used from Luanda. Inmarsat Phone also available in Accra	To implement VSAT	Angola, Ghana		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Brasilia	1998	Not implemented	Implement circuit	Angola, Brazil		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Brazzaville	1998	PSTN used via Inmarsat	To implement VSAT circuit	Angola, ASECNA		A
<i>Benin</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Cotonou APP	Circuit Cotonou/Accra	2002	To improve maintenance		ASECNA, Ghana		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Cotonou APP	Circuit Cotonou/Lagos	2002	To improve maintenance		ASECNA, Ghana		A

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Cotonou APP	Circuit Cotonou/Lome	2002	To improve maintenance		ASECNA		A
<i>Botswana</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Francistown TWR	Circuit Francistown/Bulawayo	2002	Not implemented	Implement circuit	Botswana		A
<i>Burkina Faso</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Ouagadougou APP	Circuit Ouagadougou/Niamtougou	2002	Not implemented	Implement LTF	ASECNA, Togo		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bobo Dioulasso	Circuit Bobo Dioulasso/Accra	1998	PSTN in use	To implement LTF circuit	ASECNA, Ghana	2002	A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Ouagadougou APP	Circuit Ouagadougou/Accra	1998	PSTN in use	To implement LTF circuit using existing VSATs in Accra and Ougadougou	ASECNA, Ghana	2002	A
<i>Burundi</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Goma	1998	Not implemented		Burundi, DR Congo		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Kigali	2002	Not implemented	VSAT under consideration	Burundi, Rwanda		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Kinshasa	1998	Not implemented	VSAT under consideration	Burundi, DR Congo		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Dar es Salaam	1998	Not implemented	VSAT under consideration	Burundi, Tanzania		U

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Cameroon</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Bata	1998	Not implemented	To implement LTF circuit	ASECNA		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Ndjamena	2002	Lack of availability	To improve maintenance	ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Malabo	2002	Lack of availability	To improve maintenance	ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Doula/Kano	2002	Lack of availability	To improve maintenance	ASECNA, Nigeria		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Lagos	2002	Lack of availability	To improve maintenance	ASECNA, Nigeria		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Libreville	2002	Lack of availability	To improve maintenance	ASECNA		U
<i>Central African Republic</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bangui APP	Circuit Bangui/Gbadolite	1998	Not implemented	Implement LTF circuit	ASECNA, DR Congo		U
<i>Chad</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Khartoum	1998	Not implemented	VSAT NAFISAT in project	ASECNA, Sudan		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Tripoli	1998	Not implemented	VSAT NAFISAT in project	ASECNA, Libya		U

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Maiduguri	2002	Lack of availability	Improve maintenance	ASECNA, Nigeria		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Kano	2002	Lack of availability	Improve maintenance	ASECNA, Nigeria		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Garoua	2002	Not implemented	Implement facility	ASECNA, Cameroon		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Douala	2002	Lack of availability	Improve maintenance	ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Niamey	2002	Lack of availability	Improve maintenance	ASECNA		U
<i>Comoros</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dzaoudzi APP	Circuit Dzaoudzi/Antananarivo	1996	Not implemented	To implement LTF circuit	ASECNA, Comoros		A
<i>Congo</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Khartoum	1998		VSAT to be installed	ASECNA, Sudan		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Luanda	1998	PSTN used via Inmarsat phone	To implement LTF circuit	Angola, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Sao Tome	1998		VSAT to be installed	ASECNA, Sao Tome & Principe		U

Côte d'Ivoire

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Abidjan APP	Circuit Abidjan/Accra	2002		To improve maintenance	ASECNA, Ghana		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Abidjan APP	Circuit Abidjan/Dakar	2002		To improve maintenance	ASECNA, Ghana		U
<i>Dem. Rep. of Congo</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Khartoum	1996	Inmarsat phone available at Kinshasa	VSAT NAFISAT in project	DR Congo, Sudan		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Gbadolite TWR	Circuit Gbadolite/Bangui	2002	Not implemented	Implement circuit	DR Congo, ASECNA		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Kigali	1996	Not implemented	VSAT SADC operational in Kinshasa, also in project in Rwanda	DR Congo, Rwanda		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Entebbe	1996	Not implemented	VSAT NAFISAT in project	DR Congo, Uganda		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Bujumbura	2002	Not implemented	VSAT in project	DR Congo, Burundi		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lubumbashi APP	Circuit Lubumbashi/Ndola	1997	Inmarsat phone available at Lubumbashi	Implement LTF circuit	DR Congo, Zambia		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Goma APP	Circuit Goma/Kigali	1998	Not implemented	Implement circuit	DR Congo, Rwanda		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Goma APP	Circuit Goma/Bujumbura	1998	Not implemented	Implement circuit	DR Congo, Burundi		U

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bukavu TWR	Circuit Bukavu/Kigali	1996	Not implemented	Implement circuit	DR Congo, Rwanda		A
<i>Djibouti</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Djibouti APP	Circuit Djibouti/Dire Dawa	1996	Not implemented	To implement LTF circuit	Djibouti, Ethiopia	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Djibouti APP	Circuit Djibouti/Hargeisa	1996	Not implemented	To implement LTF circuit	Djibouti, Somalia	28/11/2002	U
<i>Egypt</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Cairo ACC	Circuit Cairo/Khartoum	1996	Not implemented	To implement LTF circuit. VSAT NAFISAT under in project.	Egypt, Sudan		U
<i>Equatorial Guinea</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata APP	Circuit Bata/Douala	1996	Not implemented	To implement LTF circuit	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata APP	Circuit Bata/Libreville	1996	Not implemented	Mettre en oeuvre un circuit LTF	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata & Malabo APP	Circuit Bata/Malabo	2002	Not implemented	To implement LTF circuit	ASECNA	28/11/2002	U
<i>Eritrea</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Asmara ACC	Circuit Asmara/AddisAbaba	1998	This circuit haas been disconnected	To be restored	Eritrea, Ethiopia	28/11/2002	U
<i>Ethiopia</i>									

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Addis Ababa ACC/FIC	Circuit Addis Ababa/Asmara	1998	This circuit has been disconnected	To be restored	Ethiopia, Eritrea	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dire Dawa TWR	Circuit Dire Dawa/Djibouti	1996	Not implemented	Implement LTF circuit	Ethiopia, Djibouti	28/11/2002	U
<i>Gabon</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Douala	2002		To improve maintenance	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Lagos	2002		To improve maintenance	ASECNA, Nigeria	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Sao Tome	1996	Not implemented	VSAT being considered	ASECNA, Sao Tome & Principe	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Bata	1996	Not implemented	To implement LTF circuit	ASECNA	28/11/2002	U
<i>Gambia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Banjul APP	Circuit Banjul/Bissau	1996	Not implemented	VSAT being considered	Gambia/Guinea Bissau	28/11/2002	U
<i>Ghana</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Brazzaville	1998		To improve maintenance	Ghana, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Sao tome	1996	Not implemented	VSAT planned	Ghana, Sao Tome & Principe		U

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Ougadougou	1998	PSTN in use	Implement LTF circuit using existing VSATs in Accra and Ouagadougou	Ghana, ASECNA		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Niamtougou	2002	Not implemented	Implement LTF circuit	Ghana, Togo		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Niamey	2002		To improve maintenance	Ghana, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Luanda	1998	Inmarsat phone used from Luanda. Inmarsat also available in Accra	To implement LTF circuit	Ghana, Angola		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Lome	2002		To improve maintenance	Ghana, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Cotonou	2002		To improve maintenance	Ghana, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Bobo Dioulasso	1998	PSTN in use	VSAT planned at Bobo Dioulasso	Ghana, ASECNA		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Abidjan	2002		To improve maintenance	Ghana, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Libreville	2002		To improve maintenance	Ghana, ASECNA	28/11/2002	U
<i>Guinea</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Conakry APP	Circuit Conakry/Bissau	1996	Not implemented	Implement LTF circuit	Guinea, Guinea Bissau		U

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Conakry APP	Circuit Conakry/Roberstfield	2002		Improve maintenance	Guinea, Liberia		U
<i>Guinea Bissau</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	Circuit Bissau/Conakry	1996	Not implemented	Implement LTF circuit	Guinea, Guinea Bissau		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	Circuit Bissau/Dakar	1996	Not implemented	Implement LTF circuit	ASECNA, Guinea Bissau		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	Circuit Bissau/Banjul	1996	Not implemented	Implement LTF circuit	Gambia, Guinea Bissau		U
<i>Kenya</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Mombasa APP	Circuit Mombasa/Dar es Salaam	1996	Not implemented	Implement LTF circuit	Kenya, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Mombasa APP	Circuit Mombasa/Kilimanjaro	1996	Not implemented	Implement LTF circuit	Kenya, Tanzania		U
<i>Liberia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Roberts ACC/FIC	Circuit Robertsfield/Bamako	2002	Not implemented	Implement LTF circuit	Liberia, ASECNA		A
<i>Libya</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	Circuit Tripoli/N'Djamena	1998	Not implemented	VSAT NAFISAT in project	Libya, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	Circuit Tripoli/Algiers	1998	Not implemented	Implement LTF circuit	Libya, Algeria		U

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	Circuit Tripoli/Khartoum	1998	Not implemented	VSAT NAFISAT in project	Libya, Sudan		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	Circuit Tripoli/Niamey	1998	Not implemented	Implement LTF circuit	Libya, ASECNA		U
<i>Madagascar</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Antananarivo ACC/FIC	Circuit Antananarivo/Johannesburg	1996	Not implemented	Interconnection VSAT ASECNA & SADC	ASECNA, South Africa		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Antananarivo ACC/FIC	Circuit Antananarivo/Dzaoudzi	1996	Not implemented	Implement LTF circuit	ASECNA, Comoros		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Antananarivo ACC/FIC	Circuit Antananarivo/Beira	1996	Not implemented	Interconnection VSAT ASECNA & SADC	ASECNA, Mozambique		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Antananarivo ACC/FIC	Circuit Antananarivo/Dares Salaam	1996	Not implemented	Interconnection VSAT ASECNA & SADC	ASECNA, Tanzania		U
<i>Mali</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bamako APP	Circuit Bamako/Gao	1996	Not implemented	Implement LTF circuit	Mali		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bamako APP	Circuit Bamako/Mopti	1996	Not implemented	Implement LTF circuit	Mali		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bamako APP	Circuit Bamako/Robertsfield	2002	Not implemented	Implement LTF circuit	Mali, Liberia		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Gao APP	Circuit Gao/Mopti	2002	Not implemented	Implement LTF circuit	Mali		B

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Gao APP	Circuit Gao/Niamey	1996	Not implemented	Implement LTF circuit	Mali, ASECNA		B
<i>Mauritania</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Nouadhibou APP	Circuit Nouadhibou/Las Palmas	1996	Not implemented	VSAT being considered	ASECNA, Spain		U
<i>Mozambique</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Beira ACC/FIC	Crcuit Beira/Antananarivo	1996	Not implemented	Interconnection VSAT ASECNA & SADC	Mozambique, ASECNA		U
<i>Niger</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	Circuit Niamey/Accra	2002	Unreliable	To improve maintenance	ASECNA, Ghana	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	Circuit Niamey/Algiers	1998	Unreliable	To improve maintenance	ASECNA, Algeria	28/11/202	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	Circuit Niamey/Dakar	2002	Unreliable	To improve maintenance	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	niamey ACC/FIC	Circuit Niamey/Gao	2002	Not implemented	Implement LTF circuit	ASECNA, Mali		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	Circuit Niamey/N'Djamena	2002	Unreliable	To improve maintenance	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	Circuit Niamey/Tripoli	1998	Not implemented	Implement LTF circuit	ASECNA, Libya		U

Nigeria

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	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kano ACC/FIC	Circuit Kano/Lagos	2002	Unreliable	Improve maintenance	Nigeria	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Maiduguri APP	Circuit Maiduguri/N'Djamena	2002	Unreliable	Improve maintenance	Nigeria, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lagos ACC	Circuit Lagos/Libreville	2002	Unreliable	Improve maintenance	Nigeria, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lagos ACC	Circuit Lagos/Douala	2002	Unreliable	Improve maintenance	Nigeria, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lagos ACC	Circuit Lagos/Cotonou	2002	Unreliable	Improve maintenance	Nigeria, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kano ACC/FIC	Circuit Kano/Maiduguri	2002	Unreliable	Improve maintenance	Nigeria	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kano ACC/FIC	Circuit Kano/Douala	2002	Unreliable	Improve maintenance	Nigeria, ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lagos ACC	Circuit Lagos/Accra	2002	Unreliable	Improve maintenance	Nigeria, Ghana	28/11/2002	U
<i>Rwanda</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	Circuit Kigali Dar Salaam	1996	Not implemented	VSAT SADC operational in Dar es Salaam, also being considered in Kigali	Rwanda, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	Circuit Kigali/Goma	1996	Not implemented	Implement circuit	Rwanda, DR Congo		A

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	Circuit Kigali/Bujumbura	2002	Not implemented	VSAT in consideration	Rwanda, Burundi		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	Circuit Kigali/Kinshasa	1996	Not implemented	VSAT SADC operational in Kinshasa, also in project in Kigali	Rwanda, DR Congo		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	Circuit Kigali/Bukavu	1996	Not implemented	Implement circuit	Rwanda, DR Congo		A
<i>Sao Tome & Principe</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Sao Tome TWR	Circuit Sao Tome/Accra	1998	VSAT planned	VSAT to be installed	Sao Tome & Principe, Ghana		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Sao Tome TWR	Circuit Sao Tome/Brazzaville	1998	VSAT planned	VSAT to be installed	Sao Tome & Principe, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Sao Tome TWR	Circuit Sao Tome/Libreville	1998	HF in use. VSAT being considered	Implement the circuit	Sao Tome & Principe, ASECNA		U
<i>Senegal</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dakar ACC/FIC	Circuit Dakar/Niamey	2002	Unreliable	Improve maintenance	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dakar ACC/FIC	Circuit Dakar/Algiers	1998	PSTN in use	VSAT planned	ASECNA, Algeria		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dakar ACC/FIC	Circuit Dakar/Abidjan	2002	Unreliable	Improve maintenance	ASECNA	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dakar ACC/FIC	Circuit Dakar/Bissau	1998	Not implemented	Implement LTF circuit	ASECNA, Guinea Bissau		U

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Seychelles</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Seychelles ACC/FIC	Circuit Seychelles/Dar es Salaam	1998	Not implemented	Implement LTF circuit	Seychelles, Tanzania		U
<i>Somalia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Hargeisa APP	Circuit Hargeisa/Djibouti	1998	Not implemented	Implement LTF circuit	Somalia, Djibouti		U
<i>South Africa</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Johannesburg ACC/FIC	Circuit Johannesburg/Antananarivo	1996	Not implemented	Interconnection VSAT ASECNA & SADC	South Africa, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Johannesburg ACC/FIC	Circuit Johannesburg/Brasilia	1998	Not implemented	Implement LTF circuit	South Africa, Brasil		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Johannesburg ACC/FIC	Circuit Johannesburg/Ezeiza	1998	Not implemented	Implement LTF circuit	South Africa, Argentina		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Durban APP	Circuit Durban/Manzini	2002	Requirement to be confirmed	Implement LTF circuit	South Africa, Swaziland		A
<i>Spain (Canary Is.)</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Las Palmas ACC/FIC	Circuit Las Palmas/Nouadhibou	1996	Not implemented	VSAT being considered	Spain, ASECNA		U
<i>Sudan</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Tripoli	1996	Not implemented	VSAT NAFISAT in project	Sudan, Libya		U

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Jeddah	1996	Not implemented	VSAT NAFISAT in project	Sudan, Saudi Arabia		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Cairo	1996	Not implemented	VSAT NAFISAT in project	Egypt, Sudan		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Brazzaville	1996	Not implemented	VSAT to be installed	Sudan, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/N'djamena	1996	Not implemented	VSAT NAFISAT in project	Sudan, ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Kinshasa	1996	Not implemented	VSAT NAFISAT in project	Sudan, DR Congo		U
<i>Swaziland</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Manzini APP	Circuit Manzini/Durban	2002	Requirement to be confirmed	Implement LTF circuit	Swaziland, South Africa		A
<i>Tanzania</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kilimanjaro APP	Circuit Kilimanjaro/Mombasa	1996	Coordination through Nairobi	Implement circuit	Kenya, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kilimanjaro APP	Circuit Kilimanjaro/Nairobi	2002	Not implemented	Implement circuit	Kenya, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dar es Salaam ACC/FIC	Circuit Dar es Salaam/Seychelles	2002	Not implemented	Implement circuit	Tanzania, Seychelles		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dar es Salaam ACC/FIC	Circuit Dar es Salaam/Mombasa	2000	Coordination through Nairobi	Implement circuit	Kenya, Tanzania		U

<i>StateName</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dar es Salaam ACC/FIC	Circuit Dar es Salaam/Kigali	1996	Not implemented	To implement VSAT circuit	Rwanda, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dar es Salaam ACC/FIC	Circuit Dar es Salaam/Bujumbura	1996	Not implemented	VSAT being implemented	Burundi, Tanzania		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dar es Salaam ACC/FIC	Circuit Dar es Salaam/Antananarivo	1996	Not implemented	To be implemented through interconnection of ASECNA and SADC VSAT networks	ASECNA, Tanzania		U
<i>Togo</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lome APP	Circuit Lome/Accra	2002	Unreliable	Improve maintenance	ASECNA, Ghana	28/11/2002	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Lome APP	Circuit Lome/Niamtougou	2002	Not implemented	Implement LTF circuit	Togo		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamtougou TWR	Circuit Niamtougou/Accra	1996	Not implemented	Implement LTF circuit	Togo, Ghana		B
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamtougou TWR	Circuit Niamtougou/Ouagadougou	2002	Not implemented	Implement LTF circuit	Togo, ASECNA		B
<i>Uganda</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Entebbe ACC/FIC	Circuit Entebbe/Kinshasa	1996	Not implemented	VSAT NAFISAT in project	DR Congo, Uganda		U
<i>Zambia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Ndola APP	Circuit Ndola/Lubumbashi	2002	Not implemented	Implement LTF circuit	Zambia, DR Congo		A

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<i>Zimbabwe</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bulawayo TWR	Circuit Bulawayo/Francistown	2002	proposal for deletion with States	Implement LTF circuit	Zimbabwe, Botswana		A