



Agenda Item 4: Review of the reports of ICGs and Status of implementation of the AFI CNS/ATM Plan

Status of implementation of the AFI CNS/ATM Plan

(Presented by the Secretariat)

SUMMARY

The purpose of this paper is to present to the meeting an exhaustive review of the status of implementation of the AFI CNS/ATM Plan.

Action required is at paragraph 3

Reference:

AFI CNS/ATM Implementation Plan, Doc 003  
APIRG/13 Report

1. Introduction

1.1 The AFI CNS/ATM Implementation plan was adopted by APIRG at its tenth meeting (Dakar, 3-7 June 1996) for presentation to the AFI/7 RAN. The AFI/7 RAN subsequently endorsed the plan.

1.2 The previous meetings of the CNS/ATM/IC Sub-group have updated the plan and reviewed its status of implementation through the work of the Implementation Coordination Groups (ICGs). However, there has never been a systematic review of the implementation of the AFI Plan.

1.3 This paper aims at filling the above gap and to provide a complete review of the status of implementation of the AFI CNS/ATM Plan in all the 10 areas of routing identified in the Region.

2. Discussion

2.1 The CNS/ATM planning targets for the AFI Region are listed in paragraph 2.1.4 of Doc. 003. The detailed objectives of each area of routing are derived from them.

2.2 This paper proposes to review the level of implementation of the planning targets based on the implementation in the 10 areas of routing.

2.3 For each objective, the level of implementation is determined by the number of States having implemented it over the total number of States comprising the area of routing.

(124 pages)

2.4 The results are presented in Appendix A to this paper. Appendix B, which is an updated version of Appendix F to Doc. 003, provides the detailed status of implementation in the 10 areas of routing.

## Analysis of the results

2.4.1 The third meeting of the Sub-group formulated a conclusion, which was adopted by APIRG as Conclusion 13/72 – Step by step approach in the CNS/ATM Implementation, giving an order of priority for implementation:

- a) VHF coverage;
- b) ACAS
- c) ATS/DS and AFTN circuits
- d) area control service; and
- e) 10-minute longitudinal separation.

2.4.2 The level of implementation of VHF coverage is generally above 70%, reflecting the on-going efforts in several States. This level can be further improved if the projects in FIRs Beira, Kinshasa, Lilongwe, Luanda and Lusaka are implemented (WP/3refers).

2.4.3 The level of implementation of the mandatory carriage of ACAS is documented in Appendix E to WP/3.

2.4.4 The level of implementation of ATS/DS circuits is very low, generally far below 50%. This situation should require the full attention of the concerned States and remedies be implemented.

2.4.5 Fifteen years after its adoption, the rationalized AFTN is still not fully implemented (60 to 70%). Four tributary centres remain completely isolated from the AFTN and 2 main circuits and 2 inter-regional circuits still remain to be implemented.

2.4.6 As a consequence of the lack of communications and other factors (staff, training, etc), there is a very low level of implementation of area control service throughout the continental AFI Region.

2.4.7 Finally, regarding 10-minute longitudinal separation, there has been a rather high degree of implementation.

2.4.8 Based on the priorities of APIRG Conclusion 13/72, it can be said that good results have been achieved in the implementation of VHF coverage and 10-minute longitudinal separation. However, the levels of implementation of ACAS, ATS/DS, AFTN and area control service are far from satisfactory.

2.4.9 Regarding the other components of CNS/ATM implementation, the AFI Region has not yet fully implemented WGS-84 (65%). Good progress has been noted in the introduction of GNSS-based RNAV procedures. ADS and CPDLC are just being introduced, mainly in the oceanic areas (AR-1 and AR-10).

## 3. Conclusion

3.1 The meeting is invited to:

- a) note the status of implementation of the AFI CNS/ATM Plan as provided in Appendices A and B;
- b) note the analysis done in para.2.4;
- c) review in detail Appendix B to update it; and
- d) make recommendations for the implementation of ATS/DS, AFTN and area control service.

- E N D -

## AFI CNS/ATM Objectives Implementation

Target Year	Objective	Percentage implementation – February 2003									
		AR1	AR2	AR3	AR4	AR5	AR6	AR7	AR8	AR9	AR10
	Number of AFI States	4	5	17	16	11	2	5	11	11	6
1999	Uniform application of 10 minutes longitudinal separation in the upper airspace	100	0	82	62	100	100	80	82	91	100
1999	Provision of area control service in upper airspaces	100	0	17	18	9	100	80	45	0	66
1999	Pursue the implementation of fixed RNAV routes contained in the AFI ANP*	100	NA	55	61		100	80	33	71	NA
1999	Implementation of WGS-84	100	60	70	62	72	100	60	63	72	83
1999	Data exchange between Flight Data Processing Systems in selected Air Traffic Control Centres	0	0	0	0	0	0	0	0	0	0
1999	Progressive introduction of Controller pilot data link communications (CPDLC) with full capacity in 2005	25	20	17	6	0	50	20	9	0	75
1999	Complete implementation of all AFTN circuits	75	40	64	62	72	100	80	82	63	83
1999	Complete implementation of all ATS/DS circuits	75	20	23	25	27	50	40	45	9	83
1999	Extension of VHF coverage at all operationally significant altitudes	75	40	76	75	100	100	80	72	90	100
1999	Progressive provision of SSR in selected airspaces*	NA	NA	66	0	66	100	80	50	0	NA
2000	Progressive reduction of lateral separation minima in selected airspaces from 100 NM to 50 NM (in RNP 10 environment)) as dictated by operational requirements	100	0	0	0	0	0	0	0	0	0
TBD	Progressive reduction of lateral separation minima in selected airspaces from 50 NM eventually to 30 or 25 NM (in RNP 5 environment) as dictated by operational requirements										
2000	Progressive introduction of Automatic Dependent Surveillance Service with full ground capability by 2005	25	20	17	6	0	50	20	9	0	75
2000	Continuation of introduction of Random RNAV routes in oceanic	0	0	NA	NA	NA	NA	NA	NA	NA	100

\* Requirement does not apply to all States in AR

Target Year	Objective	Percentage implementation – February 2003									
		AR1	AR2	AR3	AR4	AR5	AR6	AR7	AR8	AR9	AR10
	Number of AFI States	4	5	17	16	11	2	5	11	11	6
	airspace										
2000	Progressive introduction of random RNAV routes above FL 350 in continental airspace	NA	NA	0	0	0	0	0	0	0	NA
2000	Progressive introduction of GNSS-based procedures;	75	80	41	56	36	50	40	100	9	50
2000	Progressive introduction of RNP 5 in selected upper airspace	NA	NA	0	6	0	100		9	0	NA
2001	Progressive introduction of Longitudinal RNAV/RNP separation minima of 10 minutes and / or 80NM RNAV derived distance in selected airspace	0	0	0	0	0	0	0	0	0	16
2001	Progressive introduction of AIDC with completion by 2005	0	0	0	0	0	0	0	0	0	0
2002	Progressive Implementation of 1000 ft Vertical Separation Minima (RVSM) between FL290 and FL410 in selected airspace	100	NA	NA	NA	NA	100	40	NA	NA	NA





NA: not applicable

TBD: to be determined

**APPENDIX B**

**Status of implementation by States**

Legend:

	Target year
	WGS-84 aerodromes coordinates only implemented
	Implemented
	Not implemented

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI Region	10 min longitudinal separation using Mach Number technique																	
	Cape Verde																		
	Morocco																		
	Senegal																		
	Spain																		
AR-1	AFI Region	50NM lateral separation																	
	Cape Verde																		
	Morocco																		
	Senegal																		
	Spain																		
AR-1	AFI Region	30NM lateral separation (TBD)																	
	Cape Verde																		
	Morocco																		
	Senegal																		
	Spain																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI Region	Distance-based separation 80NM																	
	Cape Verde																		
	Morocco																		
	Senegal																		
	Spain																		
AR-1	AFI Region	RVSM																	
	Cape Verde																		
	Morocco																		
	Senegal																		
	Spain																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI Region	Extension of VHF coverage																	
	Brasil <sup>1</sup>																		
	Cape Verde																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		
AR-1	AFI REGION	DCPC (DATA)																	
	BRASIL <sup>1</sup>																		
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		
AR-1	AFI REGION	GRADUAL INTRODUCTION OF BOP BETWEEN AFTN MAIN CENTRES																	
	BRASIL <sup>1</sup>																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		

Note: 1: Outside AFI. Added for coordination.



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI REGION	RNP 5																	
	MOROCCO																		
	SPAIN																		
AR-1	AFI REGION	RNP 10																	
	CAPE VERDE																		
	SENEGAL																		
AR-1	AFI REGION	RNP 5																	
	CAPE VERDE																		
	SENEGAL																		
AR-1	AFI REGION	WGS-84																	
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI REGION	GNSS en-route																	
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		
AR-1	AFI REGION	GNSS TMA/NPA																	
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-1	AFI REGION	APR BPA																	
	BRASIL <sup>1</sup>																		
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		
AR-1	AFI REGION	ADS IN RNP AIRSPACE																	
	BRASIL <sup>1</sup>																		
	CAPE VERDE																		
	MOROCCO																		
	SENEGAL																		
	SPAIN																		

Note: 1: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	10 min longitudinal separation (TBD)																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION		RANDOM ROUTING																
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	EXTENSION OF VHF COVERAGE																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION	DCPC (DATA)																	
	ANGOLA																		
	ARGENTINA <sup>1</sup>																		
	BRASIL <sup>1</sup>																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	GRADUAL INTRODUCTION OF BOP BETWEEN AFTN MAIN CENTRES																	
	ARGENTINA <sup>1</sup>																		
	BRASIL <sup>1</sup>																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION	AFTN																	
	ARGENTINA																		
	SOUTH AFRICA																		
AR-2	AFI REGION	ATS/DS																	
	ARGENTINA <sup>1</sup>																		
	BRASIL <sup>1</sup>																		
	ANGOLA																		
	GHANA																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	RNP10																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION	WGS-84																	
	ANGOLA	Aerodromes only																	
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	GNSS EN-ROUTE																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION	GNSS TMA/NPA																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-2	AFI REGION	APR BPA																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		
AR-2	AFI REGION	ADS																	
	ANGOLA																		
	CAPE VERDE																		
	GHANA																		
	SENEGAL																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																					
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010		
AR-3	AFI REGION	FIXED RNAV ROUTES																			
	EGYPT																				
	KENYA																				
	LIBYA																				
	MADAGASCAR																				
	MAURITIUS																				
	SEYCHELLES																				
	SOMALIA																				
	SUDAN																				
	TANZANIA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	10 MIN LONGITUDINAL SEPARATION																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
	TANZANIA																			
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	LATERAL SEPARATION: PROGRESSIVE INTRODUCTION OF 30 NM / RNP 5 IN UPPER AIRSPACE (TBD)																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	INTRODUCTION OF RVSM BETWEEN FL 350 AND FL 390 (TBD)																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT (27/11/2003 > FL 290)																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	INTRODUCTION OF RVSM BETWEEN FL 290 AND FL 410 (TBD)																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT (27/11/2003)																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	AREA CONTROL SERVICE																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	GRADUAL IMPLEMENTATION OF RANDOM RNAV ABOVE FL 350 (TBD)																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI Region	VHF coverage extension																		
	Burundi																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	DCPC (DATA)																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	AFTN																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	ATS/DS																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
	TANZANIA																			
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-3	AFI REGION	GRADUAL INTRODUCTION OF BOP BETWEEN AFTN MAIN CENTRES																	
	EGYPT																		
	ETHIOPIA																		
	KENYA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	GRADUAL INTRODUCTION OF AIDC																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
SUDAN																				
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-3	AFI REGION	RNP 10																	
	AFI REGION	RNP 5																	
	BURUNDI	RNP 10																	
	COMOROS																		
	DJIBOUTI																		
	EGYPT																		
	ERITREA																		
	ETHIOPIA																		
	FRANCE (REUNION)																		
	KENYA																		
	LIBYA																		
	MADAGASCAR																		
	MAURITIUS																		
	RWANDA																		
	SEYCHELLES																		
	SOMALIA																		
	SUDAN																		
	TANZANIA																		
UGANDA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-3	AFI REGION	WGS-84																	
	BURUNDI	Aerodromes only																	
	COMOROS																		
	DJIBOUTI																		
	EGYPT																		
	ERITREA																		
	ETHIOPIA																		
	FRANCE (REUNION)																		
	KENYA																		
	LIBYA																		
	MADAGASCAR																		
	MAURITIUS																		
	RWANDA																		
	SEYCHELLES																		
	SOMALIA																		
	SUDAN																		
	TANZANIA																		
UGANDA																			



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	GNSS en-route																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	GNSS TMA/NPA																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-3	AFI REGION	GRADUAL INTRODUCTION OF ADS																		
	BURUNDI																			
	COMOROS																			
	DJIBOUTI																			
	EGYPT																			
	ERITREA																			
	ETHIOPIA																			
	FRANCE (REUNION)																			
	KENYA																			
	LIBYA																			
	MADAGASCAR																			
	MAURITIUS																			
	RWANDA																			
	SEYCHELLES																			
	SOMALIA																			
	SUDAN																			
TANZANIA																				
UGANDA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-3	AFI REGION	SSR IN SELECTED AIRSPACES																	
	EGYPT																		
	KENYA																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-3	AFI REGION	PROGRESSIVE INTRODUCTION OF COMPUTER ASSISTED CONFLICT DETECTION AND RESOLUTION																	
	BURUNDI																		
	COMOROS																		
	DJIBOUTI																		
	EGYPT																		
	ERITREA																		
	ETHIOPIA																		
	FRANCE (REUNION)																		
	KENYA																		
	LIBYA																		
	MADAGASCAR																		
	MAURITIUS																		
	RWANDA																		
	SEYCHELLES																		
	SOMALIA																		
	SUDAN																		
TANZANIA																			
UGANDA																			



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-4	AFI REGION	FIXED RNAV ROUTES																		
	ALGERIA																			
	ANGOLA																			
	BOTSWANA																			
	CAMEROON																			
	CENTRAL AFRICAN REPUBLIC																			
	CHAD																			
	CONGO																			
	D.R. OF CONGO																			
	LIBYA																			
	NIGER																			
	NIGERIA																			
	SOUTH AFRICA																			
TUNISIA																				

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	10 MIN LONGITUDINAL SEPARATION																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	AREA CONTROL IN UPPER AIRSPACE																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	LATERAL SEPARATION: GRADUAL INTRODUCTION OF 50 NM (TBD)																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	RVSM: BETWEEN FL 330 AND FL 370 (TBD)																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI Region	VHF coverage extension																	
	Algeria																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
	TUNISIA																		
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	DATA LINKS (DCPC)																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	AFTN CIRCUITS																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	ATS/DS CIRCUITS																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	INTRODUCTION OF BOPs BETWEEN AFTN MAIN CENTRES																	
	ALGERIA																		
	CONGO																		
	NIGER																		
	SOUTH AFRICA																		
	TUNISIA																		



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	GRADUAL INTRODUCTION OF AIDC																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	RNP 5																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	WGS-84																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	GNSS EN-ROUTE																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	GNSS TMA/NPA																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	ADS																	
	ALGERIA																		
	ANGOLA																		
	BOTSWANA																		
	CAMEROON																		
	CENTRAL AFRICAN REPUBLIC																		
	CHAD																		
	CONGO																		
	D.R. OF CONGO																		
	GABON																		
	LIBYA																		
	NAMIBIA																		
	NIGER																		
	NIGERIA																		
	SOUTH AFRICA																		
TUNISIA																			
ZAMBIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-4	AFI REGION	SSR RADAR IN EN ROUTE AIRSPACE OVER TMA'S																	
	ANGOLA: LUANDA																		
	CHAD: N'DJAMENA																		
	CONGO: BRAZZAVILLE																		
	D.R. OF CONGO: KINSHASA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	10 MIN LONGITUDINAL SEPARATION																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	AREA CONTROL SERVICE IN UPPER AIRSPACE																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	LATERAL SEPARATION OF 25 NM IN RNP 5 ENVIRONMENT (TBD)																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	RVSM BETWEEN FL 330 AND FL 370 (TBD)																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	RANDOM ROUTING ABOVE FL 350 (TBD)																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI Region	AFTN																	
	Congo																		
	Ghana																		
	NIGERIA																		
	ROBERTS FIR																		
AR-5	AFI REGION	VHF COVERAGE																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		
AR-5	AFI REGION	ATS/DS																	
	CONGO																		
	GHANA																		
	SAO TOME																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	PROGRESSIVE INTRODUCTION OF DCPC (DATA)																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		
AR-5	AFI REGION	GRADUAL INTRODUCTION OF ATN COMPATIBLE BOP BETWEEN AFTN MAIN CENTRES																	
	CONGO																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	VOR/DME (TMAS)																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		
AR-5	AFI REGION	RNP 5																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-5	AFI REGION	WGS-84																		
	BENIN																			
	CAMEROON																			
	CONGO																			
	CÔTE D'IVOIRE																			
	EQUATORIAL GUINEA																			
	GABON																			
	GHANA																			
	GUINEA																			
	LIBERIA																			
	NIGERIA																			
	SAO TOME																			
	SIERRA LEONE																			
	TOGO																			



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	GNSS EN-ROUTE																	
	BENIN																		
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	EQUATORIAL GUINEA																		
	GABON																		
	GHANA																		
	GUINEA																		
	LIBERIA																		
	NIGERIA																		
	SAO TOME																		
	SIERRA LEONE																		
	TOGO																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	GNSS TMA/NPA																	
	BENIN																		
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	EQUATORIAL GUINEA																		
	GABON																		
	GHANA																		
	GUINEA																		
	LIBERIA																		
	NIGERIA																		
	SAO TOME																		
	SIERRA LEONE																		
	TOGO																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-5	AFI REGION	SSR ALONG ABIDJAN/ACCRA/LAGOS																	
	CÔTE D'IVOIRE																		
	GHANA																		
	NIGERIA																		
AR-5	AFI REGION	ADS/CPDLC FULL GROUND CAPABILITY BY 2005																	
	CAMEROON																		
	CONGO																		
	CÔTE D'IVOIRE																		
	GABON																		
	GHANA																		
	NIGERIA																		
	ROBERTS FIR																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-6	AFI REGION	FIXED RNAV ROUTES																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>																		
	SPAIN																		
AR-6	AFI REGION	30NM LONGITUDINAL SEPARATION WITH RADAR SURVEILLANCE																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>	(10NM LONGITUDINAL SEPARATION WITH RADAR SURVEILLANCE)																	
	SPAIN	(10NM LONGITUDINAL SEPARATION WITH RADAR SURVEILLANCE)																	
AR-6	AFI REGION	25NM LATERAL SEPARATION WITH RADAR SURVEILLANCE																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>	(10NM LATERAL SEPARATION WITH RADAR SURVEILLANCE)																	
	SPAIN	(10NM LATERAL SEPARATION WITH RADAR SURVEILLANCE)																	

<b>AR-6</b>	<b>AFI REGION</b>	<b>RVSM</b>																		
	<b>MOROCCO</b>																			
	<b>PORTUGAL<sup>1</sup></b>																			
	<b>SPAIN</b>																			

Note: <sup>1</sup>: Outside AFI. Indicated for coordination

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-6	AFI Region	Gradual introduction of BOP between AFTN main centres																		
	Morocco																			
	PORTUGAL <sup>1</sup>																			
	SPAIN																			
AR-6	AFI REGION	DCPC (DATA)																		
	MOROCCO																			
	PORTUGAL <sup>1</sup>																			
	SPAIN																			

Note: 1- Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-6	AFI REGION	RNP 5																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>																		
	SPAIN																		
AR-6	AFI REGION	WGS-84																	
	MOROCCO																		
	SPAIN																		
AR-6	AFI REGION	GNSS en-route																	
	MOROCCO																		
	SPAIN																		
AR-6	AFI REGION	GNSS TMA/NPA																	
	MOROCCO																		
	SPAIN																		

Note: 1- Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-6	AFI REGION	ADS BPA																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>																		
	SPAIN																		
AR-6	AFI REGION	MODE S																	
	MOROCCO																		
	PORTUGAL <sup>1</sup>																		
	SPAIN																		

Note: 1- Outside AFI. Added for coordination.



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-7	AFI REGION	10 MIN LONGITUDINAL SEPARATION ALONG SPECIFIC ITINERARIES																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		
AR-7	AFI REGION	FIXED RNAV ROUTES																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		
AR-7	AFI REGION	Area control in upper airspace																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-7	AFI REGION	RVSM																		
	ALGERIA																			
	EGYPT																			
	LIBYA																			
	MOROCCO																			
	TUNISIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-7	AFI Region	Extension of VHF voice																		
	Algeria																			
	EGYPT																			
	LIBYA																			
	MOROCCO																			
	TUNISIA																			
AR-7	AFI REGION	DCPC (DATA)																		
	ALGERIA																			
	EGYPT																			
	LIBYA																			
	MOROCCO																			
	TUNISIA																			
AR-7	AFI REGION	GRADUAL INTRODUCTION OF ATN BETWEEN SELECTED ACCS																		
	ALGERIA																			
	EGYPT																			
	LIBYA																			
	MOROCCO																			
	TUNISIA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-7	AFI REGION	RNP 5 IN SELECTED UPPER AIRSPACES																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		
AR-7	AFI REGION	WGS-84																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		
AR-7	AFI REGION	GNSS en-route																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-7	AFI REGION	GNSS TMA/NPA																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-7	AFI REGION	SSR IN HIGH DENSITY AIRSPACES																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		
AR-7	AFI REGION	MODE S IN TMA TYPE 1																	
	ALGERIA																		
	EGYPT																		
	LIBYA																		
	MOROCCO																		
	TUNISIA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	10 MIN LONGITUDINAL SEPARATION																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	FIXED RNAV ROUTES																	
	ANGOLA	UM731; UM998																	
	BOTSWANA	UM731; UM998																	
	SOUTH AFRICA	UM731																	



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	ATC IN UPPER AIRSPACE																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-8	AFI REGION	LATERAL SEPARATION [TBD]																		
	ANGOLA																			
	BOTSWANA																			
	LESOTHO																			
	MALAWI																			
	MOZAMBIQUE																			
	NAMIBIA																			
	SOUTH AFRICA																			
	SWAZILAND																			
	TANZANIA																			
	ZAMBIA																			
	ZIMBABWE																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	RANDOM ROUTING INITIALLY ABOVE FL 350 [TBD]																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	RVSM INITIALLY BETWEEN FL 330 AND FL 370 [TBD]																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-8	AFI Region	Full VHF coverage																		
	Angola																			
	BOTSWANA																			
	LESOTHO																			
	MALAWI																			
	MOZAMBIQUE																			
	NAMIBIA																			
	SOUTH AFRICA																			
	SWAZILAND																			
	TANZANIA																			
	ZAMBIA																			
	ZIMBABWE																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	DCPC (DATA)																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	AIDC																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	GRADUAL INTRODUCTION OF BOP BETWEEN AFTN MAIN CENTRES																	
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-8	AFI REGION	VOR/DME (TMAS)																		
	ANGOLA																			
	BOTSWANA																			
	LESOTHO																			
	MALAWI																			
	MOZAMBIQUE																			
	NAMIBIA																			
	SOUTH AFRICA																			
	SWAZILAND																			
	TANZANIA																			
	ZAMBIA																			
	ZIMBABWE																			



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	RNP 10																	
	AFI REGION	RNP 5																	
	ANGOLA	RNP 5																	
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	WGS-84																	
	ANGOLA	Aerodromes only																	
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE- (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-8	AFI REGION	GNSS EN-ROUTE																		
	ANGOLA																			
	BOTSWANA																			
	LESOTHO																			
	MALAWI																			
	MOZAMBIQUE																			
	NAMIBIA																			
	SOUTH AFRICA																			
	SWAZILAND																			
	TANZANIA																			
	ZAMBIA																			
	ZIMBABWE																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE- (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	GNSS TMA/NPA																	
	ANGOLA																		
	BOTSWANA																		
	LESOTHO																		
	MALAWI																		
	MOZAMBIQUE																		
	NAMIBIA																		
	SOUTH AFRICA																		
	SWAZILAND																		
	TANZANIA																		
	ZAMBIA																		
	ZIMBABWE																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-8	AFI REGION	SSR COVERAGE (HIGH DENSITY AIRSPACES) MODE S IN TMA TYPE 1																	
	ANGOLA (LUANDA)																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-8	AFI REGION	ADS/CPDLC																		
	ANGOLA																			
	BOTSWANA																			
	LESOTHO																			
	MALAWI																			
	MOZAMBIQUE																			
	NAMIBIA																			
	SOUTH AFRICA																			
	SWAZILAND																			
	TANZANIA																			
	ZAMBIA																			
	ZIMBABWE																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	10 MIN LONGITUDINAL SEPARATION																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	FIXED RNAV ROUTES																	
	CHAD																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-9	AFI REGION	AREA CONTROL IN UPPER AIRSPACE																		
	BURKINA FASO																			
	CHAD																			
	ERITREA																			
	GAMBIA																			
	GUINEA BISSAU																			
	MALI																			
	MAURITANIA																			
	NIGER																			
	NIGERIA																			
	SENEGAL																			
	SUDAN																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-9	AFI REGION	LATERAL SEPARATION OF 25 NM IN RNP 5 ENVIRONMENT																		
	BURKINA FASO																			
	CHAD																			
	ERITREA																			
	GAMBIA																			
	GUINEA BISSAU																			
	MALI																			
	MAURITANIA																			
	NIGER																			
	NIGERIA																			
	SENEGAL																			
	SUDAN																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-9	AFI REGION	RVSM BETWEEN FL 330 AND FL 370																		
	BURKINA FASO																			
	CHAD																			
	ERITREA																			
	GAMBIA																			
	GUINEA BISSAU																			
	MALI																			
	MAURITANIA																			
	NIGER																			
	NIGERIA																			
	SENEGAL																			
	SUDAN																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-9	AFI Region	Extension of VHF coverage																		
	Burkina Faso																			
	Chad																			
	ERITREA																			
	GAMBIA																			
	GUINEA BISSAU																			
	MALI																			
	MAURITANIA																			
	NIGER																			
	NIGERIA																			
	SENEGAL																			
	SUDAN																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	DCPC (DATA)																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	AFTN																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-9	AFI REGION	ATS/DS																		
	BURKINA FASO																			
	CHAD																			
	ERITREA																			
	GAMBIA																			
	GUINEA BISSAU																			
	MALI																			
	MAURITANIA																			
	NIGER																			
	NIGERIA																			
	SENEGAL																			
	SUDAN																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	GRADUAL INTRODUCTION OF BOP BETWEEN AFTN MAIN CENTRES																	
	NIGER																		
	SENEGAL																		



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	RNP 10																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	EVOLUTION TO RNP 5																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	WGS-84																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	GNSS EN-ROUTE																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	GNSS TMA/NPA																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-9	AFI REGION	ADS/CPDLC																	
	BURKINA FASO																		
	CHAD																		
	ERITREA																		
	GAMBIA																		
	GUINEA BISSAU																		
	MALI																		
	MAURITANIA																		
	NIGER																		
	NIGERIA																		
	SENEGAL																		
	SUDAN																		
AR 9	AFI REGION	SSR N'DJAMENA SECTOR																	
	CHAD																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	10 MIN LONGITUDINAL SEPARATION																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1: Outside AFI. Indicated for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-10	AFI REGION	RANDOM ROUTING IN SELECTED PORTIONS OF THE AIRSPACE																		
	AUSTRALIA <sup>1</sup>																			
	MADAGASCAR																			
	MAURITIUS																			
	SOUTH AFRICA																			

Note: 1: Outside AFI. Added for coordination.



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	RNP ITINERARIES																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	ATC IN UPPER AIRSPACE																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	REDUCTION OF LATERAL SEPARATION TO 50 NM COINCIDING WITH RNP 10																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: <sup>1</sup>: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	ATM OBJECTIVE	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	RVSM ALONG SELECTED ITINERARIES BETWEEN FL 310 AND FL 370 EVOLVING TOWARDS FL 290/410 FROM 2005																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI Region	VHF coverage																	
	Comoros																		
	FRANCE (REUNION)																		
	MADAGASCAR																		
	MAURITIUS <sup>2</sup>																		
	SEYCHELLES <sup>1</sup>																		
	SOUTH AFRICA <sup>1</sup>																		
AR-10	AFI REGION	DCPC (DATA)																	
	AUSTRALIA <sup>3</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>3</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>3</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Notes: 1: Maximum technically possible range of 250 NM attained  
 2: Coverage extension in progress. To be completed in 2001.  
 3: Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (COMMUNICATIONS COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	AIDC																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1- Outside AFI. Added for coordination.

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	RNP 5 (COASTAL AND OCEANIC AREAS)																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	RNP 10 (OCEANIC AREAS)																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: 1- Outside AFI. Added for coordination.



AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-10	AFI REGION	WGS-84																		
	COMOROS																			
	FRANCE (REUNION)																			
	MADAGASCAR																			
	MAURITIUS																			
	SEYCHELLES																			
	SOUTH AFRICA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-10	AFI REGION	GNSS EN-ROUTE																		
	COMOROS																			
	FRANCE (REUNION)																			
	MADAGASCAR																			
	MAURITIUS																			
	SEYCHELLES																			
	SOUTH AFRICA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (NAVIGATION COMPONENTS)																				
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010	
AR-10	AFI REGION	GNSS TMA/NPA																		
	COMOROS																			
	FRANCE (REUNION)																			
	MADAGASCAR																			
	MAURITIUS																			
	SEYCHELLES																			
	SOUTH AFRICA																			

AFI AIR TRAFFIC MANAGEMENT SYSTEM IMPLEMENTATION BY STATE - (SURVEILLANCE COMPONENTS)																			
AREA OF ROUTING	REGIONS/STATES AFFECTED	SYSTEM COMPONENTS	1994	95	96	97	98	99	2000	1	2	3	4	5	6	7	8	9	2010
AR-10	AFI REGION	ADS																	
	AUSTRALIA <sup>1</sup>																		
	COMOROS																		
	FRANCE (REUNION)																		
	INDIA <sup>1</sup>																		
	MADAGASCAR																		
	MALDIVES <sup>1</sup>																		
	MAURITIUS																		
	SEYCHELLES																		
	SOUTH AFRICA																		

Note: <sup>1</sup> - Outside AFI. Added for coordination.