INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
EIGHTEENTH MEETING (APIRG/18)
Kampala, Uganda (27 – 30 March 2012)

Agenda Item 4.1: Review and Update of the List of Deficiencies in the Air Navigation Fields

DEFICIENCIES IN THE METEOROLOGY FIELD

(Presented by Secretariat)

SUMMARY
The list of deficiencies in the MET field as revised and updated by the Secretariat is presented herein. Action by the meeting is at paragraph 3.
REFRENCE(S): - APIRG/17 Report - MET/SG/10 Reports
Related ICAO Strategic Objective(s): **A and C**

1. INTRODUCTION

1.1 The list of deficiencies in the meteorological (MET) field was reviewed and updated based on the uniform methodology approved by Council for identification, assessing, tracking and reporting of deficiencies of air navigation systems. The review also took into account remedial action from States concerned and inclusion of additional deficiencies identified since APIRG/17 Meeting.

2. DISCUSSIONS

2.1 The MET/SG/10 meeting held in Dakar, Senegal, from 29 June to 1 July 2011 was pleased with the information provided by France on EUR METG/20 meeting. Indeed, during the said meeting, IATA expressed its deep appreciation on the significant increase of AFI OPMET data availability in the EUR region. The appreciation expressed by IATA was also extended to the two AFI IROGs and to the AFI States which contributed to the dramatic improvement of AFI OPMET data production and dissemination to the EUR region and therefore to SADIS.

3. ACTION BY THE MEETING

2.1 The meeting is invited to:

a) note the information in this paper;

b) review the list of deficiencies and actions thereon taken so far and decide on the safety impact and prioritization of each item of deficiency as well as on other factors according to the uniform methodology; and

c) adopt it for further action.

Appendix I: Deficiencies in the Meteorology Field

(REF. Air Navigation Plan - Africa-Indian Ocean region (Doc 7474)

Part IV - Meteorology (MET)

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
ANGOLA	Requirement to provide aerodrome forecasts (AFI FASID Table MET 1A)	Angola/Luanda 4 de Fevereiro Associated MET Office	TAFs from Luanda not regularly available	2003	Advice given by correspondence	Improve reliability of telecomm	INAMET and ENANA	As soon as possible	A
BURUNDI	Requirement to install automated system t for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Busumbura aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Burundi/ Bunjumbura International Airport	MET station located very far from the runway and among buildings	2006	Data observed not representative of weather conditions along the runway. Unreliable exchange of data to users	Install an automatic weather observing system with sensors appropriately located. Install a MET message distribution system.	Meteorological Services Department	2007	U
CAMEROON	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway at N'Djamena International Airport, intended for Category II (ILS) instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b) and Cameroon AIP	Cameroon, Douala International Airport	Airport fence damaged resulting in vandalism of visibility, RVR and cloud base height sensors. No RVR sensor at the touchdown zone	08/2010	Advice given during the mission	1. Repairs to the fence and replacement of visibility, RVR and height of cloud base sensors. 2. Installation of new sensors RVR area of the midpoint of the runway	ASECNA	1. Juin 2011 2. Décembre 2011	U

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CAMEROON	Requirement to provide meteorological information to aerodrome control tower, approach control unit and flight information centre in accordance with ICAO Annex 3, App. 9, para. 1.1, 1.2 and 1.3	Cameroon, Douala International Airport	Aerodrome Warning (AD WRNG) and wind shear (WS WRNG) reports issued by Douala Aerodrome MET Office do not reach ATS units and ADC-SA premises.	08/2010	Advice given during the mission	Display warning reports (AD WRNG and WS WRNG) in the premises of ADC- SA	ADC- SA and ASECNA	December 2011	U
	Requirement to report the information related to pre-eruption volcanic activity, or a cessation thereof and/or volcanic ash in the atmosphere and send this information as quickly as practicable to its associated Douala ACC, Brazzaville MWO and Toulouse VAAC: ICAO Annex 3, para. 3.6	Cameroon, Douala International Airport	No letter of agreement has been established between the CCAA, ASECNA and the Observatory of the Institute of Geological and Mining Research (IRGM) in order to collect and send information relating to volcanic eruptions to the Brazzaville MWO and Toulouse VAAC on time.	08/2010	Advice given during the Mission	Arrange for a letter of agreement to be signed between the CCAA, ASECNA and the Volcano Observatory of the Institute of Geological and Mining Research (IRGM)	CCAA, ASECNA, IRGM/ Volcano Observatory	December 2011	U
CAPE VERDE	Requirement to install automated system for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Sal aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Cape Verde/Sal International Airport.	Visibility data, RVR, cloud base height, air temperature, dew point and pressure are not provided by an automatic weather observing system at Sal International airport equipped with an ILS	09/2009	Advice given during CODEVMET Mission	Install an automated weather observing system with sensors appropriately located.	INMG/ ASA	2011	U

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CAPE VERDE	Requirements for Surface wind, RVR and air pressure displays relating to each sensor to be located in the meteorological station with corresponding displays in the appropriate air traffic services units. The displays in the meteorological station and in the air traffic services units to be related to the same sensors in accordance with ICAO Annex 3. para. 4.1.5 and App. 3 para. **4**.1.2.1, 4.3.3.1 and 4.7.1	Cape Verde/Sal International Airport	The meteorological parameters displayed in the control tower and those displayed in the aerodrome meteorological office and used for issuance of observation messages METAR, MET REPORT, SPECI and SPECIAL are from two different sources of observations: the Meteorological observation station and an automatic observing system under demonstration.	09/2009	Advice given during CODEVMET Mission	Use the same sensors for the measurement of meteorological parameters to be displayed in ATS units and the aeronautical meteorological station	INMG/ ASA	2011	U
	Requirements to use local routine and special reports MET REPORT and SPECIAL in the meteorological information used l' for ATIS in accordance with Annex 11, chap. 4, para. 4.3.6.1, g) and Annex 3, Chap. 4 para. 4.3.2 and 4.4.2	Cape Verde/Sal International Airport	Meteorological information used to issue ATIS are not the local routine and special reports MET REPORT and SPECIAL	09/2009	Advice given during CODEVMET Mission	Use local routine and special meteorological reports to issue ATIS information (ATIS voice and D-ATIS)	ASA INMG	2011	A
CHAD	Requirement to provide meteorological information to aerodrome control tower, approach control unit and flight information centre in accordance with ICAO Annex 3, App. 9, para. 1.1, 1.2 and 1.3	Chad, N'Djamena International Airport	Aerodrome Warning (AD WRNG) and wind shear (WS WRNG) reports are not displayed in the control tower and at the ATS units.	02/2010	Advice given during Sate Mission	Display warning reports (AD WRNG and WS WRNG) at the control tower and in the premises of the airport manager.	ASECNA	2011	U

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CHAD	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway at N'Djamena International Airport, intended for Category II (ILS) instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Chad, N'Djamena International Airport	Even though N'Djamena International Airport is intended for Category II (ILS) instrument approach and landing operations, RVR assessments are not provided at the mid-point of the runway.	02/2010	Advice given during Sate Mission	Install RVR sensor at the mid-point of the runway..	ASECNA	2010	A
	Requirement to collect, process and relay special air reports in accordance with Annex 3 Chapter 5, para 5.1, 5.2-b), 5.5, 5.8 and 5.9	Chad, N'Djamena International Airport	special aircraft observations and reports are not collected, processed and redistributed	02/2010	Advice given during Sate Mission	- Update and implement the provisions of the ATS/MET service agreement - Encourage ATS/MET/pilots coordination meetings	ADAC et ASECNA	2011	B
COMOROS	Requirement to install automated system for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Sal aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Comoros/ Prince Said Ibrahim International Airport of Moroni	Moroni International Airport equipped with a category II approach and landing operations instrument, is not using a proper automated equipment for measuring, assessing, monitoring and remotely indicating of MET parameters	09/ 2009	Advice given during Sate Mission	Install an automated aerodrome weather observing system with sensors and display located at required places for the provision of operational MET information	ASECNA	December 2010	U
	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway of Prince Said Ibrahim International Airport of Moroni, intended for Category II instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Comoros/ Prince Said Ibrahim International Airport of Moroni	Runway visual range (RVR) assessments are not representative of the touchdown zone and the mid-point of the runway intended for Category II instrument approach and landing operations	09/ 2009	Advice given during the mission	1°) Introduce manual assessment of RVR in accordance with ICAO Doc. 9328. Install RVR sensors at the touchdown zone and the mid-point of the runway	ASECNA	December 2010	U

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COMOROS	Requirement to provide aerodrome forecasts (TAF) in accordance with AFI FASID MET Table 1A	Comoros/ Prince Said Ibrahim International Airport of Moroni	Only three TAF are issued every day, the TAF expected at 16:00 is not issued	09/ 2009	Advice given during the mission	Issue four TAF every day	ASECNA	December 2010	U
CONGO	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway of Brazzaville International Airport, intended for Category II instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Congo, Brazzaville International Airport	Runway visual range (RVR) is not assessed at the mid-point of the runway of Brazzaville International Airport, intended for Category II instrument approach and landing operations	08/2008	Advice given during the mission	Install RVR sensor at the mid-point of the runway.	ASECNA	2009	U
	Requirement to provide VOLMET broadcast at Brazzaville International Airport (VOLMET), in accordance with ICAO Doc 7474 Volume II, Part V, Table ATS 2A**..**	Congo, Brazzaville International Airport	The VOLMET broadcast service is not operational	08/2008	Deficiency identify during ICAO WACAF mission	Re-establish the VOLMET broadcast service in the Brazzaville FIR	ASECNA	2009	U
	Requirement to collect, process and relay special air reports in accordance with Annex 3 Chapter 5, para 5.1, 5.2, 5.3.2, 5.4.1, 5.5, 5.7, 5.8 and 5.9	Congo, Brazzaville International Airport	Aircraft observation and reports are not collected, processed and relayed	08/2008	Advice given during the mission	Necessary arrangements between the MET authority and the appropriate ATS authority be made.	ANAC, ASECNA, Airlines	2009	U
	Requirement to provide Automatic Terminal Information Service (ATIS) in accordance with ICAO Doc 7474 Volume II, FASID AFI, Part III - Table AOP 1.	Congo, Brazzaville International Airport	The ATIS service is not implemented at Brazzaville International Airport	08/2008	Deficiency identify during ICAO WACAF mission	Install and implement an operational ATIS system	ASECNA	2009	B

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DJIBOUTI	Requirement to install automated system for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Sal aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Djibouti/ Djibouti International Airport	Djibouti International Airport equipped with a category II approach and landing operations instrument, is not using an automated equipment for measuring, assessing, monitoring and remotely indicating of MET parameters	09/ 2009	Advice given during the mission	Install an automated aerodrome weather observing system with sensors and display located at required places for the provision of operational MET information	AID-DPW	December 2010	U
	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway of Djibouti International Airport of Moroni, intended for Category II instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Djibouti/ Djibouti International Airport	Runway visual range (RVR) assessments are not representative of the touchdown zone and the mid-point of the runway intended for Category II instrument approach and landing operations	09/ 2009	Advice given during the mission	1°) Introduce manual assessment of RVR in accordance with ICAO Doc. 9328. Install RVR sensors at the touchdown zone and the mid-point of the runway	AID-DPW	December 2010	U
	Requirement to issue local routine and special reports in accordance with Annex 3, chap. 4, para. 4.3.1, 4.3.2 a) et 4.4.2 a)	Djibouti/ Djibouti International Airport	Local routine and special reports (MET REPORT) and SPECIAL) are not issued	09/ 2009	Advice given during the mission	Issue local routine and special reports (MET REPORT) and SPECIAL)	AID-DPW	June 2010	U

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DJIBOUTI	Requirement to issue aerodrome and wind shear warnings and wind shear alert in accordance with Annex 3, chap. 7, para. 7.3 et 7.4 et App. 6 Table A6-2 et A6-3	Djibouti/ Djibouti International Airport	Aerodrome and wind shear warnings (AD WRNG, WS WRNG) and wind shear alert are not issued at Djibouti International Airport	07/ 2009	Advice given during the mission	1. sensitize forecasters and observers on the issuance and dissemination of messages and WS WRNG AD WRNG 2. issue and disseminate WS WRNG and AD WRNG information and wind shear alert; 3. develop and enforce a letter of service agreement between the MET and ATS (TWR, CCR, Office of the runway, ..) in order inter alia to promote the regular routing of aircraft reports on wind shear at landing or take off, to assess RVR, etc. .. 4. consider the possibility of installing, after a survey with users, at Djibouti Airport, a wind shear detecting system	1. AID-DPW 2. AID-DPW 3. DACM et AID-DPW 4. DACM et AID-DPW	1. June 2010 2. June 2010 3. June 2010 End 2010	U U U A
	Requirement to provide flight documentation in accordance with AFI FASID Table MET 7 (Doc 7474 Volume II, FASID AFI)	Djibouti/ Djibouti International Airport	Flight documentation is provided from a public non-secured website ADDS	07/2009	Advice given during the mission	In the short term, a SADIS FTP service shall be accessed from the WAFC London to extract required data for the provision of flight documentation. Access procedures are described on the following Website http://www.icao.int/anb/sadisopsg/sadis%20ftp%20service%20v4.0.pdf In the medium term, install a SADIS VSAT station with the required SADIS workstation software:	AID-DPW	- SADIS FTP : avant fin juin 2010 -Station VSAT SADIS 2G : fin 2010	A

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THE GAMBIA	Requirement to provide runway visual range (RVR) for runway intended for non-precision or Category I approach and landing Operations (Annex 3, Chapter 4, para. 4.6.3. 4 a), 4.6.3.5 and Appendix 3, para.4.3.6.4).	The Gambia/ Banjul/ Yundum International Airport.	Runway visual range (RVR) is not assessed and reported during periods of reduced visibility.	30/07/2007	Reported by the State concerned from a survey questionnaire, advice given during State mission, further advice given during CODEVMET mission	**In the short term:** Training of MET personal for manual assessment and reporting of RVR, or **In the medium term:** Installation of a RVR measurement, assessment and reporting equipment recommended.	Civil Aviation Authority and MET, The Gambia.	2009 2012	U
	Requirement to report visibility along the runway in local routine and special reports: Annex 3, Appendix 3 para; 4.2.4.2.	The Gambia, Banjul/ Yundum International Airport.	MET station located very far from the runway and behind a tree.	07/2007	Data observed not representative of weather conditions along the runway. Advice given during State Mission and CODEVMET Project.	Install an automatic weather observing system with sensors appropriately located.	GCAA (Gambia Civil Aviation Authority).	2012	U
	Requirement to relay air reports: Annex 3 Chapter 5, para.5.8.	The Gambia, Banjul/ Yundum International Airport.	Aircraft observations and reports are not collected, processed and disseminated.	07/2007	Advice given during State Mission.	Necessary arrangements between the MET authority and the appropriate ATS authority be made.	GCAA (Gambia Civil Aviation Authority).	2010	B
	Requirement to measure and report wind direction and speed Annex 3 Chapter 4 para.4.6.11.	The Gambia, Banjul/ Yundum International Airport.	Wind direction and speed are estimated due to breaking of wire around the runway.	16/09/2009	Reported to CODEVMET Mission, advice given for immediat solution.	Short Term: Purchase wire and connect at the selected point to restore measurement and reading at MET and controlo Tower. Medium Term: Installation of automatic weather observing system.	GCAA and the National MET service of The Gambia.	11//2009 2012	U

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THE GAMBIA	Requirement to issue aerodrome warnings (AW) and wind shear warning Annex 3 Chapter 7 para.7.3, 7.4 App.6 Table A6.2 and A6.3.	The Gambia, Banjul/ Yundum International Airport.	No provision for issuance of AW.	16/09/ 2009	Deficiency assessed during CODEVMET mission, advice given.	Short term, write procedures for issuance of AD and implement immediately.	GCAA and MET The Gambia.	When required starting from 11/2009	U
	Requirement to issue trend forecasts as contained in AFI FASID Table MET 1 A.	The Gambia, Banjul/ Yundum International Airport.	No provision to issue trend forecast.	16/09/2 009	Deficiency assessed during CODEVMENT Project, advice given.	Writing required procedures to follow for issuance of Trend forecasts.	GCAA and the National MET Service of The Gambia	12/2009	A
	Requirement to provide MET Reports to ATS Units Annex 3 Chapter 10 para. 10.1.1.	The Gambia, Banjul/ Yundum International Airport.	Provision of MET reports to ATS Units deficient, messages carried by hand and no wind display at Control Tower.	16/09/2 009	Deficiency assessed during CODEVMET Project, advice given.	Repair the internal communication system and the wind measurement system. Medium Term Acquisition of new internal communication system.	GCAA and the National MET Servicee of The Gambia GCAA and MET	12/2009 2011	U

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GHANA	Requirement to disseminate SIGMET information in accordance with the provisions in the AFI FASID Table 2B.	Ghana, Accra Kotoka International Airport (KIA	SIGMET information issued by Accra MWO is not disseminated properly and the AMBEX procedures are not well known by the telecommunicatio n staff for the dissemination of OPMET information	March 2010	Advice given during State Mission and a new version of the AMBEX Scheme was provided	Disseminate SIGMET information in accordance with AMBEX scheme and AFI FASID Table 2B.	Ghana Met Service	12/2010	U

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GHANA	Requirement to provide meteorological parameters affecting landing and take-off operations including surface wind, visibility, runway visual range (RVR), height of cloud base, air and dew-point temperatures and atmospheric pressure from an integrated automatic system for acquisition, processing, dissemination and display in real time: ICAO Annex 3, Chap. 4, para. 4.1.5	Ghana, Accra Kotoka International Airport (KIA)	Surface wind, visibility, runway visual range (RVR), height of cloud base, air and dew-point temperatures and atmospheric pressure are not provided from an integrated automatic system for acquisition, processing, dissemination and display in real time at Accra International Airport	March 2010	Procurement for the purchase of an integrated automatic system underway (Letter N° PPA/CEO/ 436/10 of 22 February 2010 from the Public Procurement Authority)	Install an automatic integrated observing system on AKIA runway (ILS Cat 2) with sensors appropriately sited in accordance with the provision in ICAO Annex 3, Chap 4, para 4.1.5 and 4.6.3.1 and Appendix 3 para; 4.2.4.2	GMet (Ghana Meteorological Agency)	12/2010	U
	Requirement to provide runway visual range (RVR): Annex 3, Chapter 4, para. 4. 6 .3	Ghana, Accra Kotoka International Airport (KIA	Runway visual range (RVR) is not assessed and reported	March 2010	Advice given during State Mission	Install a RVR assessment and reporting system	GMet	12/2010	U
	Requirement to issue compliant local routine report (MET REPORT) and local special report (SPECIAL) in accordance with provisions in ICAO Annex 3, Table 3-1	Ghana, Accra Kotoka International Airport (KIA	MET REPORT and SPECIAL are not compliant with Annex 3, Table 3-1	March 2010	Advice given during the mission	Issue compliant local routine and special reports and display them at the MET Office and at all ATS units	GMet	12/2010	U
GUINEA	Requirement to install automated system for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Sal aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Republic of Guinea, Conakry International Airport.	Conakry International Airport equipped with a category II approach and landing operations instrument, is not using an automated equipment for measuring, assessing, monitoring and remote indicating of MET parameters	09/2009	Advice given during CODEVMET mission	Install an automatic integrated observing system on Conakry International Airport runway (ILS Cat 2) with sensors appropriately sited in accordance with the provision in ICAO Annex 3, Chap 4, para 4.1.5 and 4.6.3.1 and Appendix 3 para; 4.2.4.2	DNAC and DNM	December 2011	U

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GUINEA	Requirement to issue compliant local routine report (MET REPORT) and local special report (SPECIAL) in accordance with provisions in ICAO Annex 3, Table 3-1	Republic of Guinea, Conakry International Airport.	MET REPORT and SPECIAL are not compliant with Annex 3, Table 3-1	09/2009	Advice given during CODEVMET mission	Issue compliant local routine and special reports and display them at the MET Office and at all ATS units	DNM	Before December 2010	U
	Requirement to provide meteorological information to aerodrome control tower, approach control unit and flight information centre in accordance with ICAO Annex 3, App. 9, para. 1.1, 1.2 and 1.3	Republic of Guinea, Conakry International Airport.	Aerodrome Warning (AD WRNG) and wind shear (WS WRNG) reports are not displayed in the control tower and at the ATS units	09/2009	Advice given during CODEVMET mission	Display warning reports WRNG AD and WS WRNG in the existing system for display of weather information of the control tower of N'djamena.	DNM	Before December 2010	A
	Requirement to provide flight documentation in accordance with AFI FASID Table MET 7 (Doc 7474 Volume II, FASID AFI)	Republic of Guinea, Conakry Internationa l Airport..	Flight documentation is provided from a public non-secured website ADDS	09/2009	Advice given during CODEVMET mission	In the short term, a SADIS FTP service shall be accessed from the WAFC London to extract required data for the provision of flight documentation. Access procedures are described on the following Website http://www.icao.int/anb/sadisopsg/sadis%20ftp%20service%20v4.0.pdf In the medium term, install a SADIS VSAT station with the required SADIS workstation software:	DNAC, DNM, ANA, FIR Roberts, SOGEAC	- SADIS FTP before Decembre 2010 - VSAT SADIS before Decembre 2011	A
	Requirement to issue OPMET information from the following AOP aerodromes Kankan, Labé,	Republic of Guinea,	OPMET information from AOP aerodromes Kankan, Labé,	09/2009	Advice given	issue METAR and SPECI from AOP aerodromes	DNAC, DNM and ANA	Before December 2015	B

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	N'Nzérékoré in accordance with ICAO Doc 7474 Volume II, FASID AFI, Part III - Tableau AOP 1.	Conakry International Airport..	N'Nzérékoré is not issued 24h a day		during CODEVMET mission	Kankan, Labé and N'Nzérékoré			

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STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
GUINEA BISSAU	Requirement to measure and report wind in accordance with provisions contained in Annex 3, Chapter 4 para 4.6.1.1	Guinée Bissau, Osvaldo Vieira International Airport	The wind sensors are installed on the top of the control tower and wind information is not representative of the condition along the runway.	10/2009	Advice given during CODEVMET mission	Install wind sensors at the touch down zone	ASECNA MET Administration	2011	U
	Requirement to issue aerodrome warnings (AD WRNG) and Wind Shear warnings (WS WRNG) as contained in provisions of Annex 3 Chapter 7 para 7.3.1 and 7.4.1 and App. 6 Table A6.2, A6.3	Guinée Bissau, Osvaldo Vieira International Airport	AD WRNG and WS WRNG are not issued at Osvaldo Vieira International Airport	10/2009	Advice given during CODEVMET mission	**Short term**: Writing of procedures for issuance of AW and WS Warnings and implement immediately. **Medium term:** Acquisition of MET Radar and wind shear detection equipment	AAC, ASECNA, Administration MET	12/2009 2013	U
	Implementation of MET facilities and services AFI/7 Rec. 14/10	Guinée Bissau, Osvaldo Vieira International Airport	Lack of personnel to ensure proper provision of MET services to aviation	10/2009	Advice given during CODEVMET mission	Provide sufficient number of MET personnel	ASECNA et MET	2011	A
	Requirement to issue aerodrome forecasts (TAF) at Osvaldo Vieira International Airport:Annex 3 Chap. 9, para 9.13a)	Guinée Bissau, Osvaldo Vieira International Airport	TAF of Bissau issued by Dakar aerodrome meteorological Office in accordance with a bilateral agreement resulting in a lack of qualified MET personnel	1995 et 10/2009	Advice given during CODEVMET mission	Provide sufficient number of MET personnel	ASECNA , ACC, ENAG and MET	2012	A
LESOTHO	Implementation of MET facilities and services AFI/7 Rec. 14/10	Lesotho/Maseru/Moshoeshoe	Anemometer on RWY 04 has been unserviceable for many months	2003	Advice given through mission	Install a new sensor with displays at appropriate ATC and MET positions	Lesotho	As soon as possible but not later than 2007	A

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
LIBERIA	Requirement to re-establish the Meteorological Watch Office (MWO) of Robertsfield in accordance with Annex 3, Chap. 3, para. 3.4.1 and ICAO Doc 7474, Volume II, AFI FASID Table MET 1B.	Liberia/ Robertsfield International Airport.	The meteorological watch office (MWO) has not been re-established and the Liberian Administration has not arranged for another contracting State to provide SIGMET.	10/2009	Advice given during the mission and a draft Agreement provided for the issuance of SIGMET by an adjacent MWO	Reach an agreement with the nearest MWO for the provision of meteorological watch services including SIGMET for an interim period of time. Re-establish the MWO in the medium term	LCAA and MET Authority	-Short term: End November 2009 -Medium term: 2012	U
	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway of Robertsfield International Airport intended for Category II instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Liberia/ Robertsfield International Airport.	Runway visual range (RVR) is not assessed and reported during periods of reduced visibility.	10/2009	Advice given during the mission.	**In the short term:** Training of MET personal for manual assessment and reporting of RVR, and **In the medium term:** Installation of a RVR measurement, assessment and reporting equipment recommended.	LCAA, Meteorological Authority and RIA	-Short term: November 2009 -Medium term: 2012	U
	Requirement to provide appropriate sensors of the automated system for measuring, assessing, monitoring and remote indicating visibility, runway visual range (RVR) and height of cloud base at the required in accordance with Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1 and App. 3 para; 4.2.4.2	Liberia/ Robertsfield International Airport.	Except the wind sensor, the other required sensors of the automatic weather observing system, are not installed to support approach, landing and take-off operations.	10/2009	Advice given during the mission.	Install the required sensors of the automatic weather observing system at appropriate location	LCAA, Meteorological Authority and RIA	End of April 2010	U

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
LIBERIA	Requirement to provide briefing, consultation and flight documentation to flight crew members and/or other flight operations personnel in accordance with Annex 3, Chap. 3, para. 3.3.2 d) and Chap. 9, para. 9.3	Liberia/ Robertsfield International Airport.	Briefing, consultation and flight documentation are not provided to flight crew members and/or other flight operations personnel.	10/2009	A draft statement on the re-establishment of the AMO and the MWO established.	Provide briefing, consultation and flight documentation to flight crew members and other flight operations personnel, and equip the AMO and the future MWO with a high speed Internet access and required MET systems listed in Annex 3 Chap. 9 para. 9.1.3 h) and i). The AMO/MWO should be installed in a suitable room having a direct access to the AIS Office itself having direct access to the apron	LCAA, MET Authority, RIA and RFIR	End of April 2011	A
	Requirement to collect, processed and disseminated aircraft observations and reports (AIREP) in accordance with Annex 3, para. 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8 and 5.9	Liberia/ Robertsfield International Airport.	Aircraft observations and reports (AIREP) are not collected, processed and disseminated at Roberts MWO.	10/2009	Advice given during the Mission.	Develop and implement a service agreement for air traffic services, aeronautic information services and aeronautical MET services at Robertsfield International Airport in accordance with ICAO DOC 9377; Initiate regular meetings between the MET authorities, ATS units and appropriate local airlines.	LCAA, RFIR, RIA	February 2010	A
	Requirement to provide reliable data source for the preparation of aviation weather forecasts in accordance with Annex 3, Chap. 9, para. 9.1.3 c), e), g), h) and i).	Liberia/ Robertsfield International Airport.	Reliable data sources are not available for the preparation of aviation weather forecasts such as SIGMET, aerodrome warnings, Trend forecast, TAFs, flight documentation, etc..	10/2009	Advice given during the Mission.	Supply the meteorological information to operators and flight crew members in accordance with the provisions contained in ICAO Annex 3, Chap. 9, para. 9.1.3 c), e), g), h) and i).	LCAA, MET Authority and RIA	2010	B
	Requirement to use forecasts issued by the WAFCs in the preparation of flight documentation, whenever these forecasts cover the intended flight path in respect of time, altitude and geographical extent, .. in accordance with Annex 3, App. 2, para. 2.1.1	Liberia/ Robertsfield International Airport.	The Roberts AMO does not receive any WAFS products for the provision of flight documentation.	10/2009	Advice given during the Mission.	Short Term: Use SADIS FTP service. Access procedures are described on the following Website: http://www.icao.int/anb/sadisopsg/SADIS%20FTP%20Service%20V4.0.pdf Medium Term: Provide AMO/MWO with SADIS 2G VSAT equipment and compliant SADIS workstation	MET Authority and RIA	11//2009 2012	B

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
						software in accordance with SADISOPSG/9 conclusion 9/15 and SADISOPSG/10 conclusion 10/4..			

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
MAURITANIA	Requirements for safety oversight in the area of meteorological service for air navigation in Islamic Republic of Mauritania, (USOAP, 2008)	Islamic Republic of Mauritania, Nouakchott, Nouadhibou, Atar, Nema and Zoueratt Airports	ANAC has not established and implemented a system to ensure effective safety oversight of MET services providers. In addition, inspection procedures applicable to ensure effective implementation of safety oversight system as well as verification checklists and inspection schedules are not yet developed (*corrective action planned in November 2010*)	02/2011	Advice given during the Mission.	Recruit MET inspectors to monitor operational requirements	ANAC	November 2011	U
	Requirement to implement MET service for air navigation in three aerodromes listed in AFI Plan (AFI FASID MET Table 1A).	Islamic Republic of Mauritania, Nouakchott, Nouadhibou, Atar, Nema and Zoueratt Airports	FASID MET Table 1A of the AFI Air Navigation Plan, is not implemented in three aerodromes listed in the plan: Atar, Nema and Zoueratt	02/2011	Advice given during the Mission.	Develop human and material resources necessary for the issuance and dissemination of OPMET from three aerodromes (Atar, Nema and Zoueratt).	ANAC/ ONM/	August 2012	B
	Requirement to establish and implement from 15 November 2012, a properly organized quality system comprising procedures, processes and resources necessary to provide for the quality management of the meteorological information to be supplied to the users (ICAO Annex 3, para 2.2.3.)	Islamic Republic of Mauritania, Nouakchott, Nouadhibou, Atar, Nema and Zoueratt Airports	The quality management system (QMS) for MET service is not yet implemented by ANAC, the National Meteorological Office (ONM) and ASECNA	02/2011	Advice given during the Mission.	Train local trainers in QMS and implement the QMS before November 15, 2012	ANAC (oversight) ONM (Service provider) ASECNA (Service provider)	November 2012	U

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
MAURITANIA	Requirement to provide runway visual range (RVR) assessments at the touchdown and the mid-point zones of the runway at Nouakchott International Airport, intended for Category II (ILS) instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b) and Mauritania AIP	Islamic Republic of Mauritania, Nouakchott	RVR is not provided at the midpoint zone of the runway intended for operations in Nouakchott approach and instrument landing in Category II (ILS) in accordance with AIP Mauritania (GQNN AD 2.19 of 06/05/2010).	02/2011	Advice given during the Mission.	Install a system for assessing RVR in the midpoint zone of the at Nouakchott runway.	ASECNA	Before November 2011	A
NIGER	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway at Niamey International Airport, intended for Category II (ILS) instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Niger, Niamey International Airport	Even though NiameyInternational Airport is intended for Category II (ILS) instrument approach and landing operations, RVR assessments are not provided at the mid-point of the runway..	03/2010	Advice given during Sate Mission	Install RVR sensor at the mid-point of Niamey runway.	ASECNA	Before December 2010	A
	Requirement to collect, process and relay special air reports in accordance with Annex 3 Chapter 5, para 5.1, 5.2-b), 5.5, 5.8 and 5.9.	Niger, Niamey International Airport	special aircraft observations and reports are not collected, processed and redistributed	03/2010	Advice given during Sate Mission	- Update and implement the provisions of the ATS/MET service agreement - Encourage ATS/MET/pilots coordination meetings	DAC and ASECNA	Before December 2010	B

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for implementation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
NIGERIA	Requirement to provide measurement of MET elements representative of conditions prevailing on the Runmay – Annex 3, Appendix 3 – Part 4 observing and reporting of MET element	Nigeria / Kano MA	Observing and reporting of MET elements deficient, Site of measurement about 2 kms from touchdown zone	25/09/09	Advice given by CODE VMET Phase 1 mission	Relocation of site of measurement of MET elements at a distance of 120 m or less from touchdown zone install an automatic observing system already available (NIMET Source)	NIMET NCAA and NAMA	2010 2010	U
	Requirement to measure and report RVR for runway intended for category II instrument approach and landing operations – Annex 3 Chapter 4 – Para. 4.6.3.4, 4.6.3.5 – appendix 3 – Para 4.3.6.4.	Nigeria / Kano MA	RVR not measured and reported for runway intended for category II instrument approach and landing operations	25/09/09	Advice given by CODE VMET – Phase I mission	**Short term:** Manuel measurement and reporting as immediate solution **Medium term :** install automatic observing system which is available	NIMET and NAMA	2010	U
	Requirement to assess and report wind shear in accordance with Annex 3 chapter 7 para. 7.4.1 and relevant provisions contained in low level wind shear Manuel 9817	Nigeria / Kano M.A.	Kano Airport affected by WS, no system of detection except for information received from pilots	25/09/09	Advice given by CODE VMET Phase I mission	NIMET, NAMA and NCAA to study possibility of installing WS detection system	NIMET NAMA and NCAA	2011	U
	Requirement to use WAFS products for flight documentation as in provisions contained in Annex 3 Chapter 9 para 9.1.3 9.1.6 and 9.3.1	Nigeria/ Kano AM	Use of other non WAFS products for coverage of flights departing Kano	25/09/2009	Advice given during CODE VMET Phase I mission	NIMET and NAMA to provide a SADIS station to Kano MET centre	NIMET and NAMA	2012	A
DEMOCRATI	Requirement to arrange that selected volcano observatory of Goma, observes: a) significant pre-eruption volcanic activity, or a cessation thereof;	Democratic Republic of Congo (DRC),	Volcanic activity information are not provided to air navigation units because of the lack of communication means between	09/ 2009	Advice given during	Improve communication means between	Goma Observatory /	Before December 2011	U

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for implementation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
	b) a volcanic eruption, or a cessation thereof; and/or c) volcanic ash in the atmosphere and send this information as quickly as practicable to its associated ACC, MWO and VAAC: ICAO Annex 3, para. 3.6	Volcano Observatory of Goma.	the observatory and MWO, ACC and FIC		Sate Mission	Goma and Djili	METELSAT/ RVA		
	Requirement to install automated system for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure at Djili aerodrome with a runway intended for Category II instrument approach and landing operations in accordance with ICAO Annex 3, Chap 4, para. 4.1.5 and 4.6.3.1	Democratic Republic of Congo (DRC), N'Djili International Airport.	Except the wind sensor, the other required sensors of the automatic weather observing system, are not installed to support approach, landing and take-off operations.	09/ 2009	Advice given during Sate Mission	Install an automatic weather observing system with sensors appropriately located. Install a MET message distribution system..	METELSAT/ RVA	Before december 2010	U

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for implementation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
DEMOCRATIC REPUBLIC OF CONGO	Requirement to issue aerodrome and wind shear warnings and wind shear alert in accordance with Annex 3, chap. 7, para. 7.3 et 7.4 et App. 6 Table A6-2 et A6-33	DRC, N'Djili International Airport.	Aerodrome and wind shear warnings (AD WRNG, WS WRNG) and wind shear alert are not issued at N'Djili International Airport	09/2009	Advice given during Sate Mission	1. issue and disseminate WS WRNG and AD WRNG information and wind shear alert; 2. develop and enforce a letter of service agreement between the MET and ATS (TWR, CCR, Office of the runway, ..) in order inter alia to promote the regular routing of aircraft reports on wind shear at landing or take off, to assess RVR, etc. .. 3. consider the possibility of installing, after a survey with users, at Djibouti Airport, a wind shear detecting system	METELSAT/ RVA	Before March 2010	U
	Requirements to use local routine and special reports MET REPORT and SPECIAL in the meteorological information used forATIS in accordance with Annex 11, chap. 4, para. 4.3.6.1, g) and Annex 3, Chap. 4 para. 4.3.2 and 4.4.2	DRC, N'Djili International Airport	Meteorological information used to issue ATIS are not the local routine and special reports MET REPORT and SPECIAL	09/2009	Advice given during Sate Mission	Use local routine and special meteorological reports to issue ATIS information (ATIS voice and D-ATIS)	METTELSAT RVA	July 2010	A
SAO TOME	Requirement to issue aerodrome and wind shear warnings and wind shear alert in accordance with Annex 3, chap. 7, para. 7.3 and 7.4 and App. 6 Table A6-2 and A6-33	Sao Tome, and Principe, Sao Tome International Airport (STIA).	Aerodrome and wind shear warnings (AD WRNG, WS WRNG) and wind shear alert are not issued at Sao Tome International Airport	09/ 2009	Advice given during CODEVMET Mission	1. issue and disseminate WS WRNG and AD WRNG information and wind shear alert; 2. develop and enforce a letter of service agreement between the MET and ATS (TWR, CCR, Office of the runway, ..) in order inter alia to promote the regular routing of aircraft reports on wind shear at landing or take off, to assess RVR, etc. .. 3. consider the possibility of installing, after a survey with users, at Djibouti Airport, a wind shear detecting system	INM, ENASA	Before June 2010	U
	Requirement to issue local routine and special reports in accordance with Annex 3, chap. 4, para. 4.3.1, 4.3.2 a) and 4.4.2 a)	Sao Tome, and Principe, (STIA).	Local routine and special reports (MET REPORT) and SPECIAL) are not issued	09/ 2009	Advice given during CODEVMET Mission	Issue local routine and special reports (MET REPORT) and SPECIAL)	INM/ ENASA	Before december 2010	A

	Identification		Deficiencies				Corrective action		
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for implementation**	**Priority for action**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
	Requirements to issue METAR, SPECI(when warranted) and TAF on 24h basis for Sao Tome International Airport: FASID AFI, Tableau MET 1A	Sao Tome, and Principe, (STIA).	METAR and SPECI are not issued on 24h basis	09/2009	Advice given during CODEVMET Mission	Issue METAR and SPECI on 24h basis	INM et ENASA	Before June 2010	A

	Identification		Deficiencies			Corrective action			
STATE	**Requirements**	**Facilities or Services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**executive Executing body**	**Target date for implementation**	**Priority**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SAO TOME	Requirement to provide flight documentation in accordance with AFI FASID Table MET 7 (Doc 7474 Volume II, FASID AFI)	Sao Tome, and Principe, Sao Tome International Airport..	Flight documentation is provided from a public non-secured website ADDS	09/2009	Advice given during CODEVMET Mission	In the short term, a SADIS FTP service shall be accessed from the WAFC London to extract required data for the provision of flight documentation. Access procedures are described on the following Website http://www.icao.int/anb/sadisopsg/sadis%20ftp%20service%20v4.0.pdf In the medium term, install a SADIS VSAT station with the required SADIS workstation software:	INM/ ENASA	Before December 2010	B
SÉNÉGAL	Requirement to provide runway visual range (RVR) assessments at the touchdown zone and the mid-point of the runway of Dakar International Airport, intended for Category II instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b)	Senegal/ Leopold Sedar Senghor International Airport or Dakar	Runway visual range (RVR) assessments are not representative of the touchdown zone and the mid-point of the runway intended for Category II instrument approach and landing operations	02/ 2009	Deficiency identified during ICAO WACAF visit	Install RVR sensor at the mid-point of the runway	AID-DPW	December 2010	U
	Requirement to collect, process and relay air reports in accordance with Annex 3 Chapter 5, para 5.1, 5.2, 5.3.2, 5.4.1, 5.5, 5.7, 5.8 and 5.9	Senegal/ Leopold Sedar Senghor International Airport or Dakar	Aircraft observation and reports are not collected, processed and relayed	02/2009	Deficiency identified during ICAO WACAF visit	Necessary arrangements between the MET authority and the appropriate ATS authority be made.	ANACS and ASECNA	December 2009	B

	Identification		Deficiencies			Corrective action			
STATE	**Requirements**	**Facilities or Services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**executive Executing body**	**Target date for implemen-tation**	**Priority**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	Requirement to report visibility along the runway in local routine and special reports in accordance with Annex 3, Appendix 3 para; 4.2.4.2	Senegal/ Leopold Sedar Senghor International Airport or Dakar	Many obstacles (2 control towers, airlines hangars, etc ...) around the visibility estimation platform of the aeronautical meteorological station (SMA), does not allow for estimation of visibility along the runway .	02/2009	Deficiency identified during ICAO WACAF visit	Install visibility sensors along the runway Or Relocate the SMA at a location enabling the observer to estimate the visibility along the entire length of the runway.	ASECNA	June 2010	A

	Identification		Deficiencies			Corrective action			
ETAT STATE	**Requirements**	**Facilities or Services**	**description of deficiencyy**	**First reported**	**Comments on deficiency**	**Description of corrective action**	**executive Executing body**	**Target date for implementation**	**Priority**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SÉNÉGAL	Requirement to provide Automatic Terminal Information Service (ATIS) in accordance with ICAO Doc 7474 Volume II, FASID AFI, Part III - Tableau AOP 1.	Senegal/ Leopold Sedar Senghor International Airport or Dakar	The ATIS service is not implemented at Brazzaville International Airport	02/2009	Deficiency identified during ICAO WACAF visit	Install and implement an operational ATIS system	ASECNA	June 2010	A
SIERRA LEONE	Requirement to measure and report wind in accordance with provisions contained in Annex 3, Chapter 4 para 4.6.1.1.	Sierra Leone/ Freetown Lungi Airport	Wind measurement system old and deficient	1994	Advice given during mission CODEVMET Phase I 10/2009	Installation of new wind measurement equipment	SLAA and MET Department	2010	U
	Requirement to measure and report RVR for runway intended for Category II instrument approach and landing operations	Sierra Leone/ Freetown Lungi Airport	In case of reduced visibility RVR not measured and reported	29/09/ 2009	Advice given during mission CODEVMET Phase I	**Short term :** manual measurement **Long term :** Installation of RVR measurement, assessment and reporting equipment	MET Department and SLAA	10/2009 2013	U
	Requirement to issue aerodrome warnings (AW) and Wind Shear warnings (WS) as contained in provisions of Annex 3 Chapter 7 para 7.3.1 and 7.4.1 and App. 6 Table A6.2, A6.3	Sierra Leone/ Freetown Lungi Airport	AW and WS are not issued at Lungi Airport	29/09/ 2009	Advice given during mission CODEVMET Phase I	**Short term**: Writing of procedures for issuance of AW and WS Warnings and implement immediately. **Medium term:** Acquisition of MET Radar and wind shear detection equipment	MET Department and SLAA	11/2009 2013	U
	Requirement to observe and report MET elements in accordance with Annex 3, para 4.6	Sierra Leone/ Freetown Lungi Airport	Not in compliance with recommended practices on observing and reporting of MET elements	29/09/ 2009	Advice given during mission CODEVMET Phase I	Relocate measurement site and acquire automated observing system	MET Department SLAA and SLCA	2012	A
	Requirement to provide MET information to ATS units Annex 3 Chapter 10 para 10.1.5 Appendix 9 para 1.1.a)	Sierra Leone/ Freetown Lungi Airport	MET messages MET report, METAR, SPECIAL are hand carried to control TWR Lack of commu-nication system	29/09/ 2009	Deficiency reported during mission CODEVMET Phase I	Repair the communication system and install reliable display system to ATS	SLAA Roberts FIR and MET Department	2010 2012	A
	Requirement to implement MET facilities and services AFI/7 Rec. 10/14	Sierra Leone/ Freetown Lungi Airport	Insufficient number of forecasters and observers at Lungi MET centre	29/09/ 2009	Deficiency assessed during mission CODEVMET Phase I	Provide MET centre with required number of qualified personnel	MET Department SLAA Roberts FIR	2012	A

			Deficiencies			Corrective action			
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for imple-mentation**	**Priority for action**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
SIERRA LEONE	Requirement to use qualify WAFS products for flight documentation in accordance with provision contained in Annex 3 Chapter 9 para 9.1.3, 9.1.6 and 9.3.1 and FASID Table MET7	Sierra Leone/ Freetown Lungi Airport	No SADIS station at Lungi Airport	29/09/ 2009	Deficiency assessed during mission CODEVMET Phase I	**Short Term:** Use SADIS FTP to acquire WAFS data Acquisition of SADIS station	MET Department SLAA Roberts FIR SLAA MET Roberts FIR	10/2009 2012	A
SOMALIA	Situation unknown	FIR Mogadishu							
SWAZILAND	Requirement to provide MET reports to ATS Units (Annex 3, Chapter 10, para 10.1.1)	Swaziland/Manzini Matsapha Airport Associated MET Office	Provision of MET reports to ATS units deficient. No wind displays in control tower	2004	Advice was given on mission	Install a display system for MET data and information at ATS units	DCA and MET Department	As soon as possible	U
TOGO	Requirement to provide meteorological information to ATS units and airport managers in accordance with ICAO Annex 3, App. 9, para. 1.1, 1.2 and 1.3	Togo, Lomé International Airport	Aerodrome and wind shear warnings (AD WRNG and WS WRNG) reports are not displayed at ATS units and at SALT.	08/2010	Advice given during the mission	Display the warning reports AD WRNG and WS WRNG at ATS units and at the SALT premises	ASECNA and SALT	December June 2010	U
	Requirement to provide runway visual range (RVR) assessments at the touchdown and the mid-point zones of the runway at Lomé International Airport, intended for Category II (ILS) instrument approach and landing operations in accordance with Annex 3, Chap. 4, para. 4.6.3.4 b) and Togo AIP	Togo, Lomé International Airport	Although the runway in Lomé is equipped with a Category II ILS, RVR measurements are not provided at the midpoint zone of the runway. In addition, the existing RVR and cloud base height sensors, are not operational	08/2010	Advice given during the mission	Install RVR assessment system at the mid point zone of Lomé runway; And repair existing RVR and cloud base height sensors.	ASECNA	Before December 2011 Before June 2011	A U

	Identification		Deficiencies			Corrective Action			
STATE	**Requirements**	**Facilities or services**	**Description of Deficiency**	**Date first reported**	**Comments on deficiency**	**Description of corrective action**	**Executing body**	**Target date for implementation**	**Priority for action**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
TOGO	Requirement to report and issue surface wind observation period averaging in accordance with Annex 3, App. 3 para. 4.1.3.1	Togo, Lomé International Airport	The direct reading of wind at the control tower, provides instantaneous observations of wind and the average speed and wind direction over periods of 10 minutes and 2 minutes	08/2010	Advice given during the mission	Arrange for the calibration of the wind direct display systems in order that the period of surface wind observations averaging is 2 minutes on the displays of the control tower and for MET REPORT/SPECIAL messages, and 10mn in METAR/SPECI	ASECNA	Before June 2011	U
ZAMBIA	1)Implementation of MET facilities and services (Annex 3, para 4.1.6)	Zambia/Lusaka International Airport	Inadequate level of equipment maintenance	2002 and missions of 2004 and 2007	Equipment remain unserviceable for a long time due to lack of spare parts	Provide financial resources including use of air navigation charges which currently is not fully available to the MET Department.	Zambia MET Department and NACL	As soon as possible	U
	2)Requirement to provide MET reports to ATS Units (Annex 3, Chapter 10, para 10.1.1)	Zambia/Lusaka Meteorological Office	Provision of MET reports to ATS Units deficient	2002 and missions of 2004 and 2007	Advice given during mission by correspondence	Install display system of MET data to ATS units	MET Department	As soon as possible	U
	3)Requirement to provide meteorological data and forecasts in form of flight documentation (Annex 3, Chapter 3, para 3.3.2).	Zambia/Lusaka Meteorological Office	Provision of MET reports to ATS Units deficient	2002 and missions of 2004 and 2007	Advice given during mission and by correspondence	Install appropriate telecomms equipment to receive OPMET information and appoint adequate trained personnel	MET Department	As soon as possible	U
	4) Requirements for SIGMET information (Annex 3 para 3.4.2 b, c, d and add para. 7.1.1	Zambia/Lusaka Meteorological watch office (MWO)	SIGMET not issued	2007	Advice given on mission	Immediately provide training and issue SIGMET	MET Department	As soon as possible	U

EXPLANATORY NOTES FOR APPENDICES ON DEFICIENCIES

Requirement identified at a given meeting through a recommendation; name of the meeting and the related recommendation number

Name of the State or States involved and/or the name of the facilities such as name of airport, FIR, ACC, TWR, etc.

1. Brief description of the deficiency :

2. Date deficiency was first reported :

3. Comments.

4. Brief description of the corrective actions to be undertaken.

5. Identification of the executing body.

6. Target date for completion of the corrective action.

7. Priority and classification.

8. Target date for implementation.

9. Priority for Action.
10.

"U" priority = **Urgent** requirements having a **direct** impact on **safety** and requiring i**mmediate** corrective actions.

Urgent requirements consisting of any physical, configuration, material, performance, personnel or procedures specifications, the application of which is urgently required for air navigation safety.

"A" priority = **Top priority** requirements **necessary** for air navigation **safety**.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

"B" priority = **Intermediate** requirements **necessary** for air navigation **regularity**.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.