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INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

National Frequency Management Practices – State of Gabon

Virtual Workshop on Aeronautical Frequency Management for the WACAF Region, from 4 to 5 December 2025

Atelier virtuel sur la gestion des fréquences aéronautiques – Région WACAF 4 au 5 décembre 2025

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ANAC Gabon / Gabon CAA

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OVERVIEW

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01

INTRODUCTION

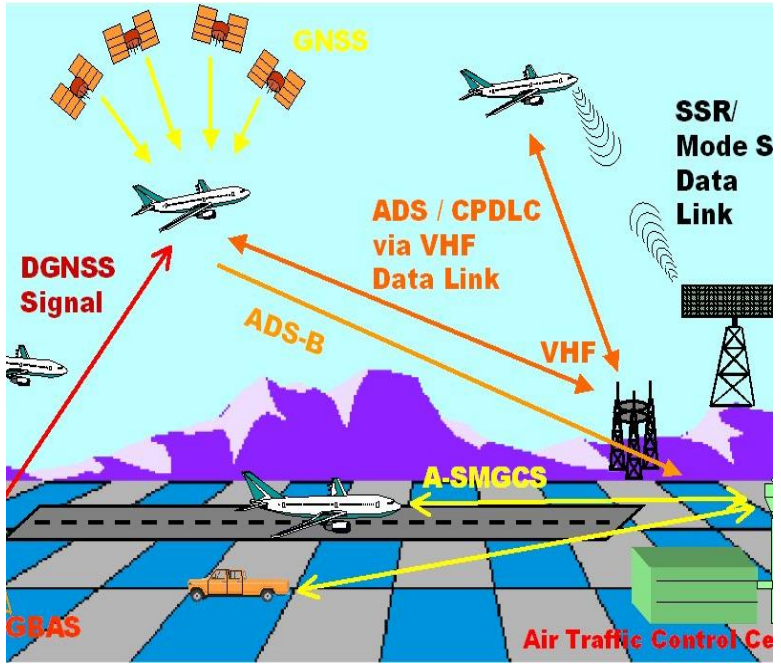
1.INTRODUCTION

VHF/HF voice communications are essential for the safety and efficiency of air traffic.

They allow the transmission of clearances, safety information and coordination between aircraft and air traffic control.

The effectiveness of these aeronautical means of communication requires:

- **Guarantee the availability and reliability of systems;**
- **Ensure operational coverage of VHF/HF systems;**
- **Identify and correct anomalies (interference, failures, clarity of messages).**



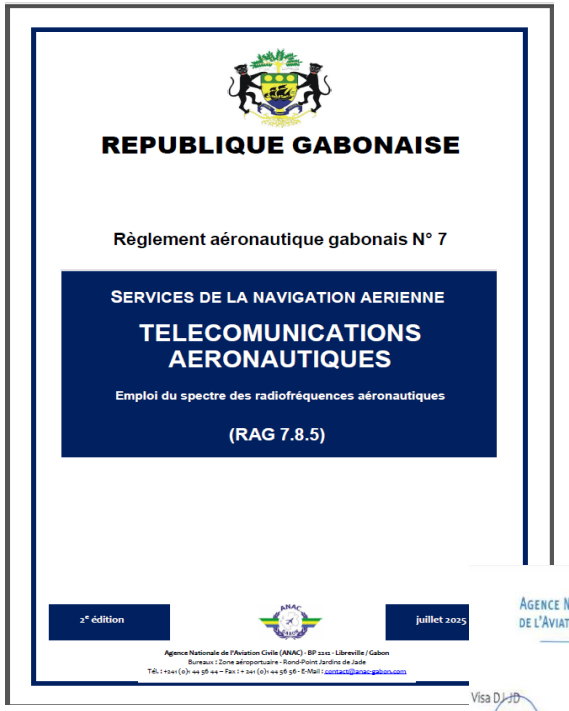
02

CADRE REGLEMENTAIRE

2. REGULATORY FRAMEWORK

Aviation Regulations of Gabon

- **RAG 7.8.3** : Aeronautical telecommunications systems.
- **RAG 7.8.5** : Use of the aeronautical radio frequency spectrum.
- Decision n°039/2014/ANAC/DE-ED setting the acceptable level of safety performance to be achieved during the provision of air traffic services in the Gabonese Republic.
- Decision n°020/2022/ANAC/DG/DE on the Environment and the means of maintenance of Communication, Navigation and Surveillance (CNS) systems



REPUBLIQUE GABONAISE

Règlement aéronautique gabonais N° 7

SERVICES DE LA NAVIGATION AERIENNE

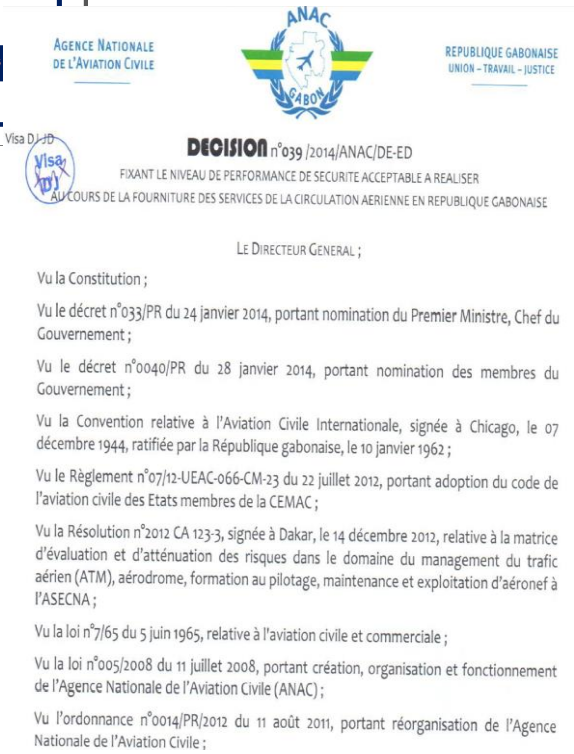
TELECOMUNICATIONS AERONAUTIQUES

Emploi du spectre des radiofréquences aéronautiques

(RAG 7.8.5)

2e édition

juillet 2025



AGENCE NATIONALE DE L'AVIATION CIVILE

REPUBLIQUE GABONAISE
UNION – TRAVAIL – JUSTICE

Visa DJ/JD

DECISION n°039 /2014/ANAC/DE-ED

FIXANT LE NIVEAU DE PERFORMANCE DE SECURITE ACCEPTABLE A REALISER AU COURS DE LA FOURNITURE DES SERVICES DE LA CIRCULATION AERIENNE EN REPUBLIQUE GABONAISE

LE DIRECTEUR GENERAL ;

Vu la Constitution ;

Vu le décret n°033/PR du 24 janvier 2014, portant nomination du Premier Ministre, Chef du Gouvernement ;

Vu le décret n°0040/PR du 28 janvier 2014, portant nomination des membres du Gouvernement ;

Vu la Convention relative à l'Aviation Civile Internationale, signée à Chicago, le 07 décembre 1944, ratifiée par la République gabonaise, le 10 janvier 1962 ;

Vu le Règlement n°07/12-UEAC-066-CM-23 du 22 juillet 2012, portant adoption du code de l'aviation civile des Etats membres de la CEMAC ;

Vu la Résolution n°2012 CA 123-3, signée à Dakar, le 14 décembre 2012, relative à la matrice d'évaluation et d'atténuation des risques dans le domaine du management du trafic aérien (ATM), aérodrome, formation au pilotage, maintenance et exploitation d'aéronef à l'ASECNA ;

Vu la loi n°7/65 du 5 juin 1965, relative à l'aviation civile et commerciale ;

Vu la loi n°005/2008 du 11 juillet 2008, portant création, organisation et fonctionnement de l'Agence Nationale de l'Aviation Civile (ANAC) ;

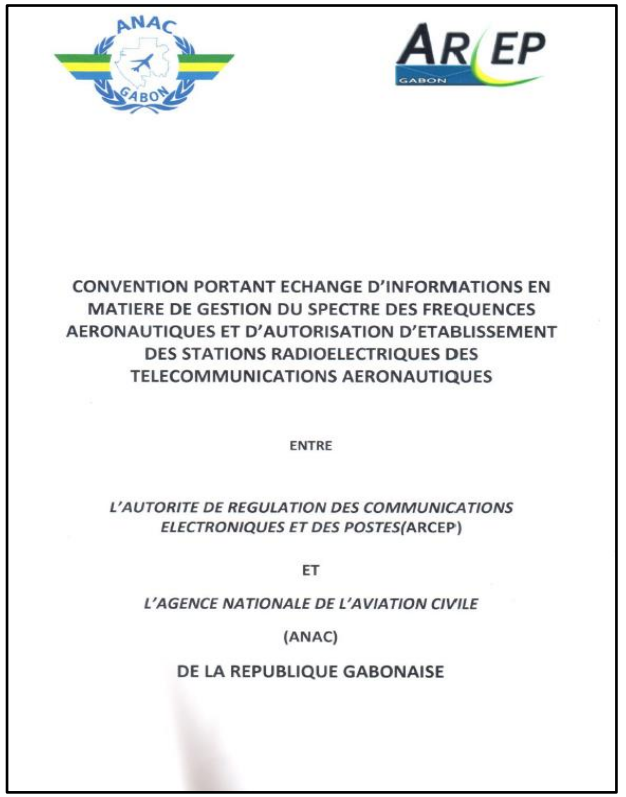
Vu l'ordonnance n°0014/PR/2012 du 11 août 2011, portant réorganisation de l'Agence Nationale de l'Aviation Civile ;

2. REGULATORY FRAMEWORK

Convention / MoU ANAC – ARCEP

Convention ANAC – ARCEP

- ✓Exchange of information on spectrum management;
- ✓Combating harmful interference;
- ✓National and international frequency coordination.



CONVENTION PORTANT ECHANGE D'INFORMATIONS EN MATIERE DE GESTION DU SPECTRE DES FREQUENCES AERONAUTIQUES ET D'AUTORISATION D'ETABLISSEMENT DES STATIONS RADIOELECTRIQUES DES TELECOMMUNICATIONS AERONAUTIQUES

ENTRE

L'AUTORITE DE REGULATION DES COMMUNICATIONS ELECTRONIQUES ET DES POSTES(ARCEP)

ET

L'AGENCE NATIONALE DE L'AVIATION CIVILE

(ANAC)

DE LA REPUBLIQUE GABONAISE

03

GABON VHF/HF COMMUNICATION FREQUENCIES

3. GABON VHF/HF COMMUNICATION FREQUENCIES

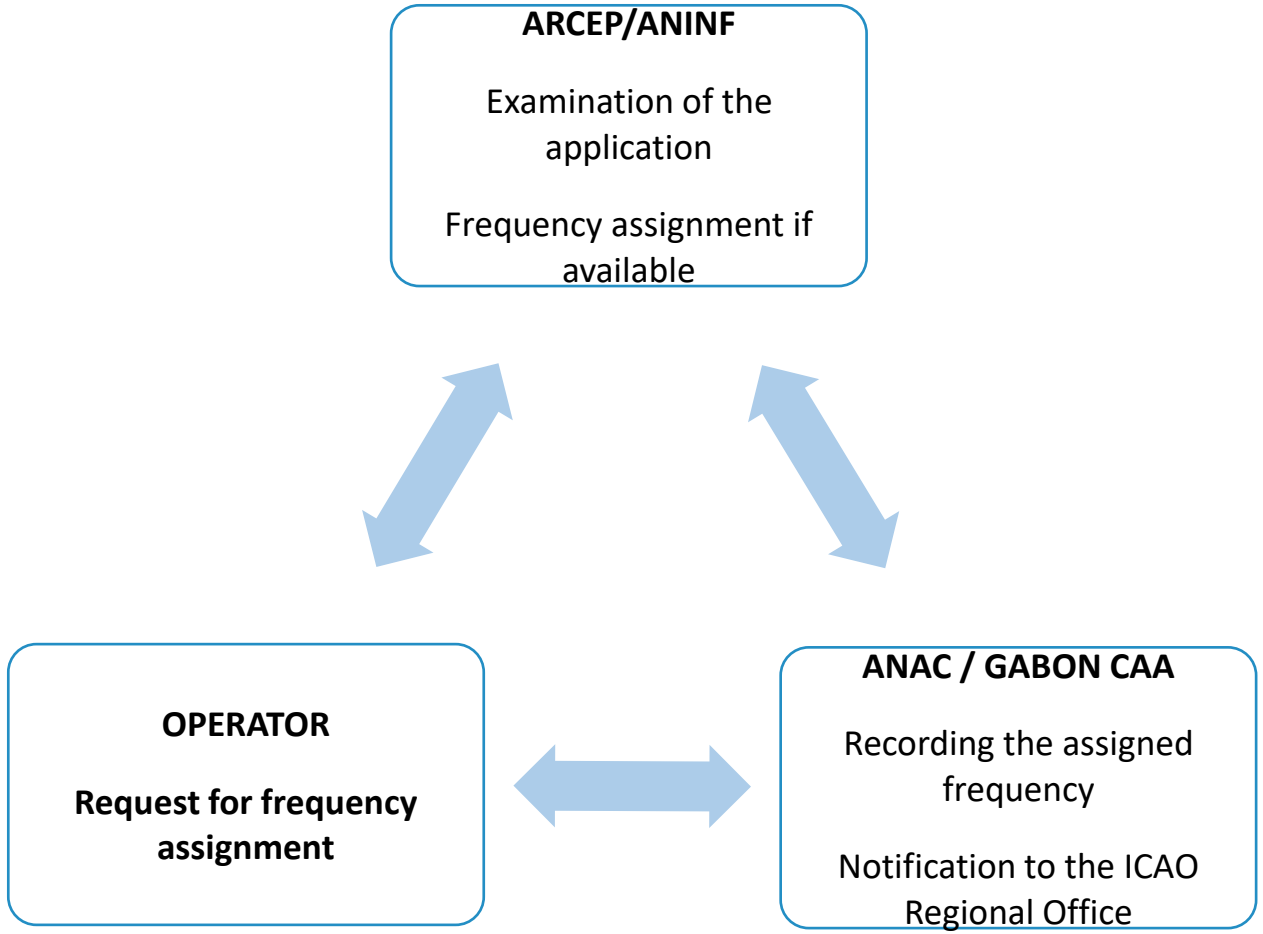
Aeronautical frequency assignment process in Gabon

Actors

- **ARCEP** :
  - ✓ Assignee of aeronautical frequencies,
  - ✓ Updating the National Table of Frequency Distribution and notification to the ITU;
- **ANINF :**
  - ✓ Assignment, Control and Monitoring of VHF Stations ;
- **ANAC** :
  - ✓ Registration of assigned frequencies in the database, Coordination of the handling of interference incidents with ARCEP/ANINF and notification to ICAO/WACAF;
- **OPERATEURS :**
  - ✓ Requesting entity.

3. GABON'S VHF/HF COMMUNICATION FREQUENCIES

Aeronautical frequency assignment process in Gabon



3. GABON'S VHF/HF COMMUNICATION FREQUENCIES

Aeronautical frequency assignment process in Gabon

Frequency assignments are made for the implementation of the following services:

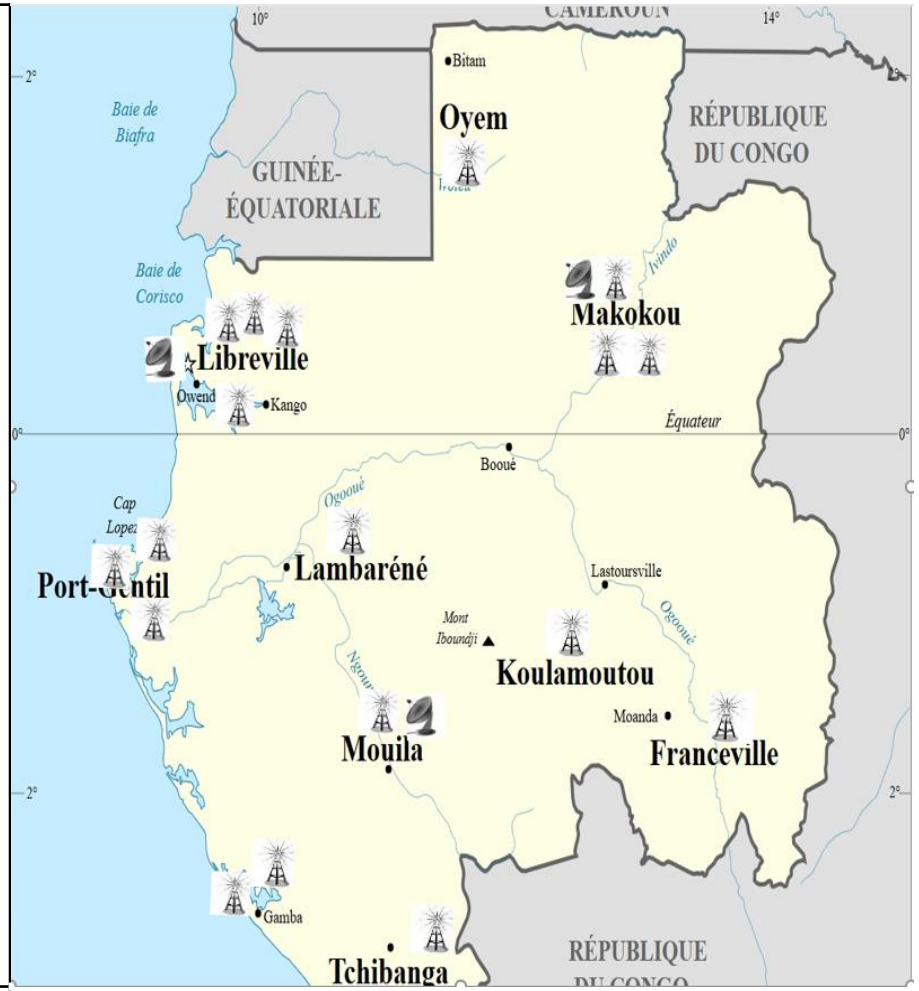
Aerodromes	Approach	En route	Other Functions
AS : Surface Communications	APP: Approach Control	ACC : Area Control Center	AOC: Aeronautical Operational Control BC diffusion (ground)
AFIS : Aerodrome Flight Information Service		FIS : Flight Information Service	
TWR : Control tower	APP : Approach Control		

3. GABON'S VHF/HF COMMUNICATION FREQUENCIES

Aeronautical frequency assignment process in Gabon

Number of VHF Stations by Service

AS	1
AFIS	6
TOUR/APP	5
ACC	2
FIS	1
AOC	8



3. FREQUENCES DE COMMUNICATIONS VHF/HF DU GABON

VHF-HF (Air-to-ground) Frequency Database

LOCALISATION	FONCTION	FREQUENCE	CODE SITE	COORDONNEES LAT.	NS	COORDONNEES LONG.	WE	REMARQUE	SERVICE
COMMUNICATION HF/VHF AIR-SOL									
LIBREVILLE REP ASECNA	VHF TWR	118.7 MHz	FOOL	0°27'48.26"	N	9°24'50.43"	E	P : 50 W	APP/TWR - COMM
	VHF CCR	126.5 MHz		0°27'48.26"	N	9°24'50.43"	E	P : 50 W	APP/ENR - COMM
PORT-GENTIL REP ASECNA	VHF TWR	118.3 MHz	FOOG	0°43'08.22"	S	8°45'14.78"	E	P : 25 W	APP/TWR - COMM
	VHF DEPORTEE CCR LBV	126.5 MHz						CCR	APP/ENR - COMM
FRANCEVILLE REP ASECNA	VHF TWR	118.2 MHz	FOON	1°39'13.18"	S	13°25'52.02"	E	P : 50 W	APP/TWR - COMM
OYEM DAANG	VHF TWR	118.4 MHz	FOGO	1°32'17.11"	N	11°34'40.52"	E	P : 50 W	AFIS - COMM
KOULAMOUTOU DAANG	VHF TWR	122.75 MHz	FOGK	1°10'55.56"	S	12°26'32.97"	E		AFIS - COMM
LAMBARENE DAANG	VHF TWR	118.6 MHz	FOGR	0°42'11.84"	S	10°14'36.51"	E	P : 50 W	AFIS - COMM
TCHIBANGA DAANG	VHF TWR	124.9 MHz	FOOT	2°53'15.23"	S	10°57'23.87"	E		AFIS - COMM
MAKOKOU DAANG	VHF TWR	118.5 MHz	FOOK	0°34'50.92"	N	12°53'20.59"	E	P : 50 W	AFIS - COMM
	VHF DEPORTEE CCR LBV	126.5 MHz							APP/ENR - COMM
	VHF DEPORTEE CIV BZA	128.9 MHz		0°34'50.92"	N	12°53'20.59"	E	CIV - BZA	AFIS - COMM
MOUILA DAANG	VHF TWR	122.5 MHz	FOGM	1°50'46.99"	S	11°03'15.56"	E		AFIS - COMM
	VHF DEPORTEE CCR LBV	126.5 MHz							APP/ENR - COMM

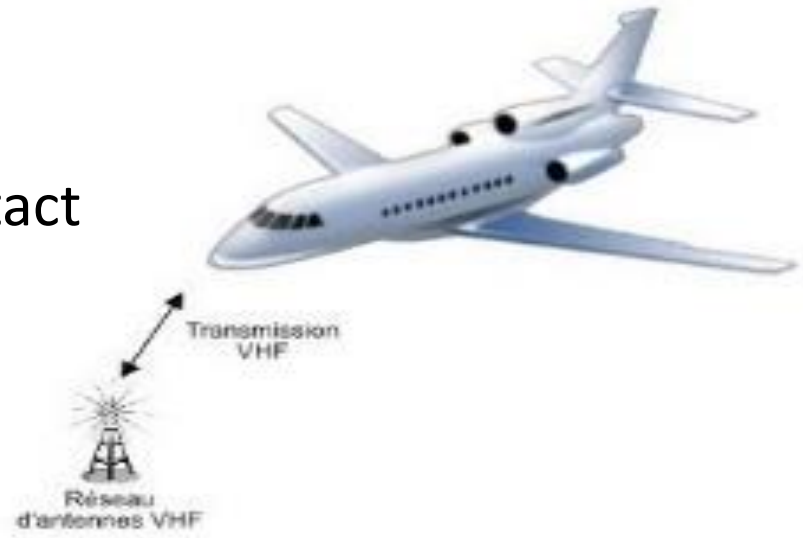
04

METHOD AND MONITORING OF VHF/HF PERFORMANCE

4. METHOD AND MONITORING OF VHF/HF PERFORMANCE

4.1 VHF/HF System Performance (Key Indicators)

- Equipment availability (in-service/out-of-service);
- Operational coverage (transmit power);
- Number and type of anomalies (interference, contact failures, message clarity).



4. METHOD AND MONITORING OF VHF/HF PERFORMANCE

4.2 Data sources

- Airline notifications (safety events);
- Reports from air navigation service providers (e.g. quarterly activity report);
- ANAC Audits/Inspections.
- Exploitation of NOTAMs and AIP SUPs.

4. METHOD AND MONITORING OF VHF/HF PERFORMANCE

4.3 Monitoring of equipment performance: Operation of NOTAMs/ SUP AIP

- **Key indicators:**
  - Availability
  - Reliability

- **Method :**
  - Measure the downtime of VHF equipment through the publication of AIP NOTAM/SUP Out of service

- **Tools :**
  - National VHF_HF Database - List of Frequencies
  - Quarterly monitoring table (e.g. VHF_HF monitoring) - Excel file

4. METHOD AND MONITORING OF VHF/HF PERFORMANCE

4.3 Monitoring of equipment performance: Operation of NOTAMs/ SUP AIP

Date	Aerodromes	TYPE de panne	Numero du NOTAM	Equipements	frequences	date de debut	date de fin	Type de NOTAM	Numero de remplacemen	Durée du NOTAM
29/04/2025	FOGM	AFIS NOT AVBL	B0084/25	VHF TWR	122.5 MHZ	29/04/2025	27/07/2025	N		90 jours
08/09/2025	FOOO	A/G FAC U/S	A0876/25	ACC DEPORTED AT PRINCIPE	126,5 MHz	08/09/2025	08/09/2025	N		10h00
25/11/2025	FOGR	AFIS UNSERVICEABLE	B0257/25	VHF TWR	118.6 MHz	25/11/2025	03/12/2025	N		9 jours

NOTAM | AIP SUP | DISPONIBILITE HF-VHF | +

4. METHOD AND MONITORING OF VHF/HF PERFORMANCE

4.3 Equipment Performance Monitoring: Operation of NOTAMs/ SUP AIP

SITE	EQUIPEMENTS NAV/COM	Janvier	Fevrier	Mars	Trim. (en heures)	TD= (durée de fonct réelle/durée requise) %	Avril	Mai	Juin	Trim. (e heures
		31	28	31	2160	100%	30	31	30	2184
LIBREVILLE	118,7 MHz VHF TWR	31	28	31	2160	100,00%	30	31	30	2184
	126,5 MHz VHF CCR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF CCR	0	0	0	0	0,00%	0	0	0	0
	6559 KHz HF CCR	0	0	0	0	0,00%	0	0	0	0
PORT-GENTIL	118,3 MHz VHF TWR	31	28	31	2160	100,00%	30	31	30	2184
	126,5 MHz VHF DEPORTEE CCR LBV	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
FRANCEVILLE	118,2 MHz VHF TWR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Oyem	118,4 MHz TWR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Makokou	118,5 MHz TWR	31	28	31	2160	100,00%	30	31	30	2184
	126,5 MHz VHF DEPORTEE CCR LBV	0	0	0	0	0,00%	0	0	0	0
	128,9 MHz VHF DEPORTEE CIV BRAZZA	0	0	0	0	0,00%	0	0	0	0
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Tchibanga	124,9 MHz TWR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Lambaréné	118,6 MHz TWR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Mouila	122,5 MHz TWR	31	28	31	2160	100,00%	28	0	0	672
	126,5 MHz VHF DEPORTEE CCR LBV	0	0	0	0	0,00%	0	0	0	0
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Koulamoutou	122,75 MHz TWR	31	28	31	2160	100,00%	30	31	30	2184
	8903 KHz HF TWR	31	28	31	2160	100,00%	30	31	30	2184
Principe	126,5 MHz VHF DEPORTEE CCR LBV	31	28	31	2160	100,00%	30	31	30	2184

04

LIMITATIONS AND CHALLENGES

4. LIMITATIONS AND CHALLENGES

Frequency assignment process	Equipment performance monitoring
• Inadequacy of the regulatory framework; • Lack of Frequency Finder (FF) software for aeronautical frequency assignment	• Limited real-time data; • Delays in the publication of NOTAMs/AIP SUPs; • Lack of systematic notifications of anomalies in the operation of voice communications; • Dependence on activity reports.

05

RECOMMENDATIONS

5. RECOMMENDATIONS

- Develop real-time monitoring software solutions (interference, coverage);
- Popularize, as soon as possible, the ICAO Frequency Finder Frequency Management tool;
- Increase awareness-raising and seminars on the management of the aeronautical frequency spectrum;
- Encourage States to systematically notify deficiencies to ICAO Regional Offices-Example of a Notification Form;
- Provide for assistance missions in States for the management of the frequency spectrum (MoU framework, regulatory texts, frequency databases, frequency management tool, frequency assignment and interference management procedures).

06

CONCLUSION

6. CONCLUSION

- VHF/HF frequency monitoring is a pillar of aviation safety.
- Although Gabon has a monitoring methodology, the modernization of monitoring tools and the digitalization of processes are necessary to anticipate failures and improve the reliability of services.
- WACAF is invited to support the establishment of robust national mechanisms to improve the availability and quality of aeronautical communications.

Thank You

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