



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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Virtual Workshop on Aeronautical Frequency Management
for WACAF, 4-5 December 2025

**Aeronautical frequency interference management
process in Côte d'Ivoire**

5 December 2025



*Virtual Workshop on Aeronautical Frequency Management for the WACAF Region, 4-5
December 2025*

Session 4: National Interference Management Practices

AERONAUTICAL FREQUENCY INTERFERENCE MANAGEMENT PROCESS IN CÔTE D'IVOIRE

Presented by the Civil Aviation Authority of Côte d'Ivoire (ANAC)

Sommaire

01 Introduction

02 Impacts of Aeronautical Frequency Interference on Flight Safety

03 State of play of aeronautical frequency interference in Côte d'Ivoire

04 Flight safety and interference management: Côte d'Ivoire's response

05 Conclusion



01

INTRODUCTION

Civil Aviation System
of Côte d'Ivoire

Interference
management is a
priority



1. Introduction



1.1 Civil Aviation System of Côte d'Ivoire

Hierarchical supervision
in charge of civil aviation



Ministry of Transportation



Accident Investigation Office

Administration of
Civil aviation



ANAC (National Civil Aviation Authority)



Service Providers



Air navigation service providers



Aerodrome operators



National airlines



Maintenance organizations



Aviation Service Providers



International airlines serving the country



Light Aviation & Drones



Training Organizations

1. Introduction

1.2 Civil Aviation System (continued)



ANAC is the guarantor of civil aviation safety and security in Côte d'Ivoire.

Key figures 2024



1

International Airport



2 535 451

Passengers (2024)



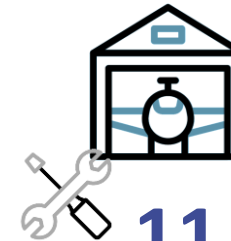
21

International airlines serving the country



7

aerodromes open to public air traffic (including 6 receiving domestic flights)



11

Local aircraft maintenance organizations



6

Ivorian airlines

1. Introduction

1.2 Why is interference management a priority for ANAC Côte d'Ivoire?



Ensuring aviation safety and security

- ✓ Radio communications are essential for aircraft separation and coordination of operations.



Prevent operational risks

- ✓ Jamming can lead to loss of communication, delays and incidents.



Compliance with international standards (ICAO)

- ✓ Compliance with performance and frequency availability requirements.



Maintaining the trust of users and partners

- ✓ Proactive interference management and fast and efficient handling of interference cases increase the reliability of the civil aviation system

02

Impacts of Aeronautical Frequency Interference



2. Impacts of Aeronautical Frequency Interference

2.1 AERONAUTICAL COMMUNICATIONS (118-136.975 MHz)

Hazard: Loss of communication between pilots and air traffic controllers, essential for navigation and flight safety



Compromised transmission of critical information

- ✓ Flight instructions, trajectory changes, weather conditions not transmitted.



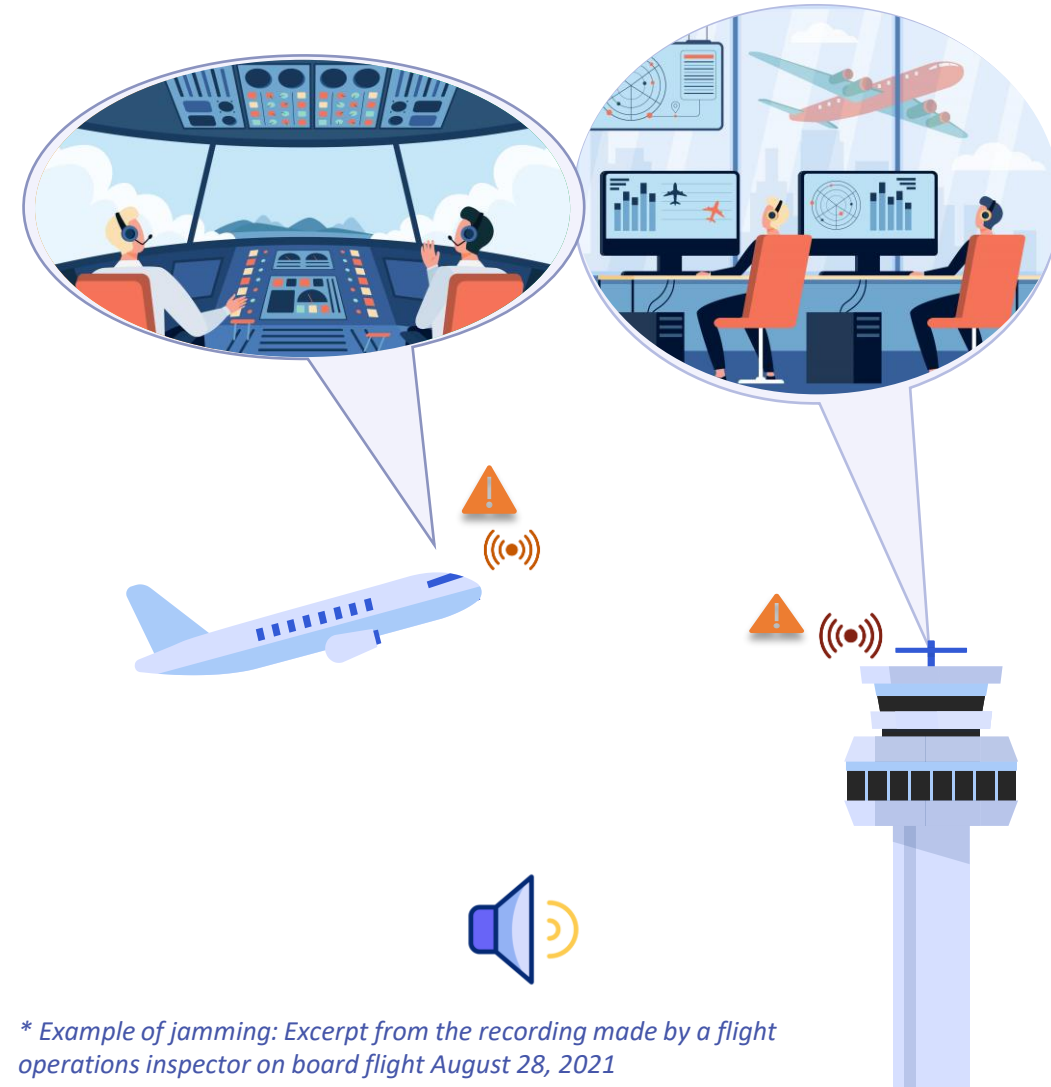
Airports without radar

- ✓ Air-ot-ground VHF communications are the only way to locate, guide and separate aircraft.



Major impact

- ✓ Disruptions on domestic and international flights.




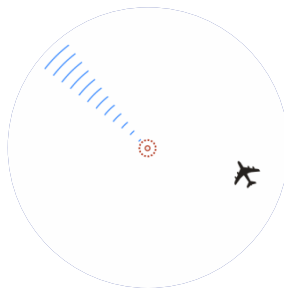
2. Impacts of Aeronautical Frequency Interference

2.2 ON NAVIGATION SYSTEMS

VOR navigation equipment (108-117.95 MHz)

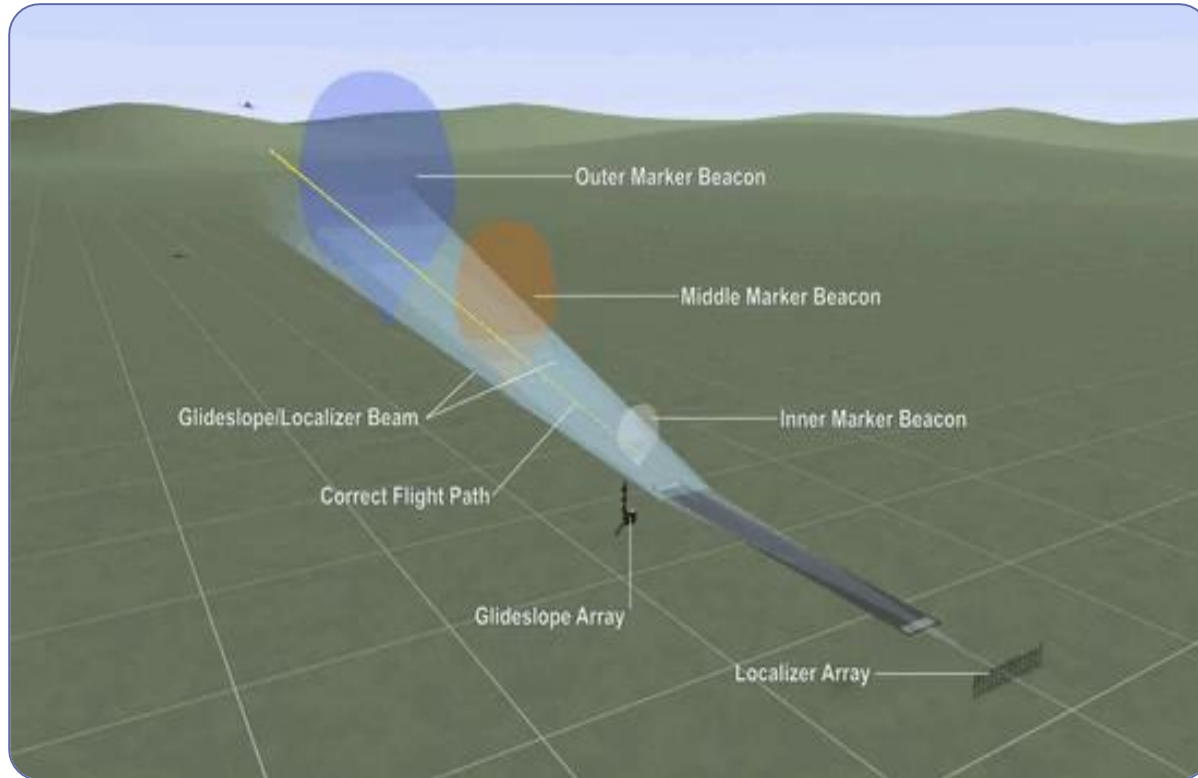
Danger: Error Aircraft Positioning / Approximate Air Navigation / Inappropriate Air Route

 **Potential consequences:** Collision in mid-air, overflight of a prohibited, regulated or dangerous area (firing zones, industrial zones)



2. Impacts of Aeronautical Frequency Interference

2.2 ON NAVIGATION SYSTEMS



Instrument Landing System - ILS (108-111.975 MHz)

Danger: Incorrect final landing path

Potential consequences: accidents (runway excursion, long landing, collision)

03

State of play of aeronautical frequency interference

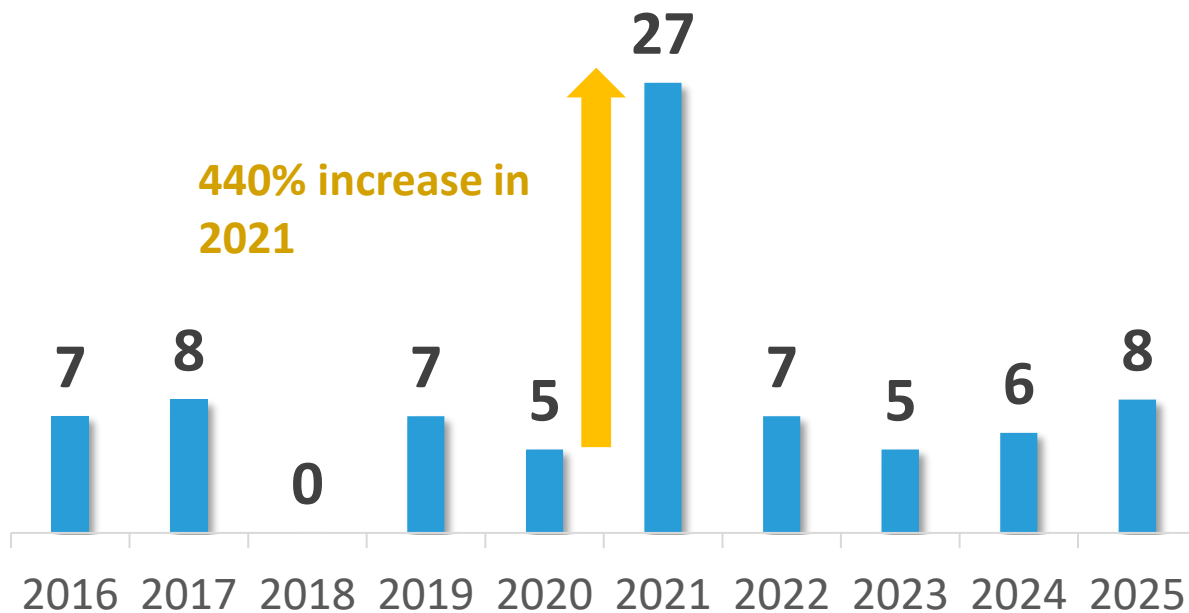
The case of Côte
d'Ivoire



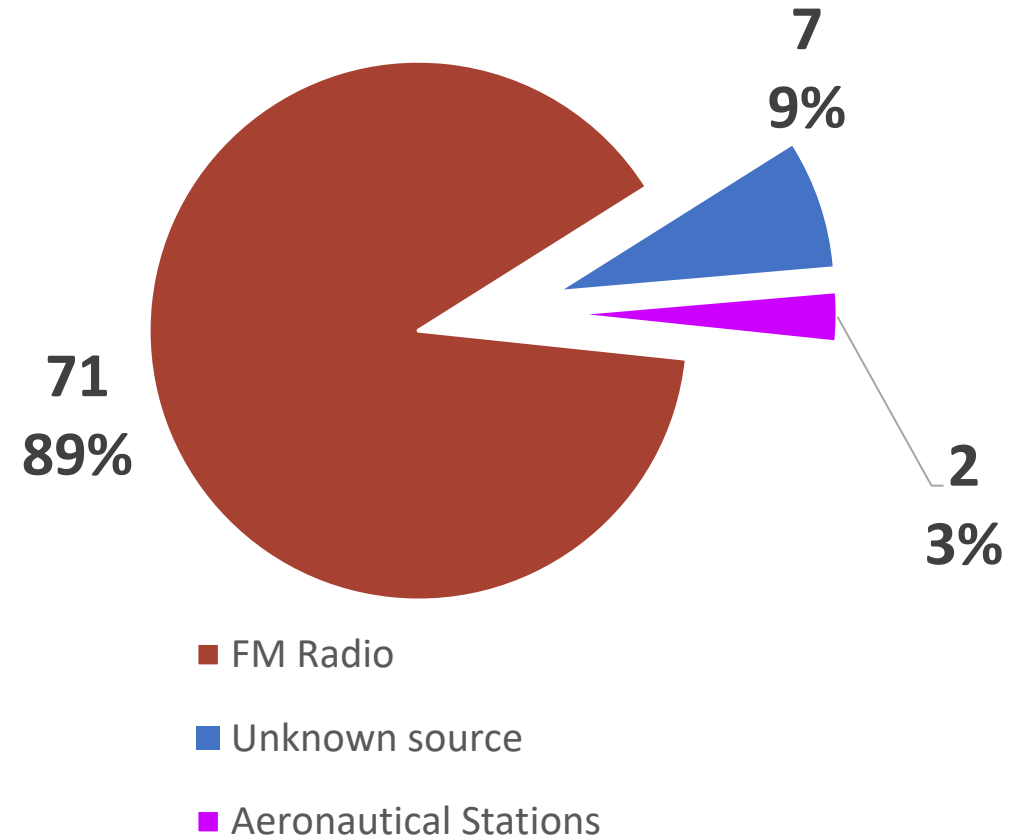
3. Inventory of aeronautical frequency interference

3.1 Trends and Origins of Aeronautical Frequency Interference (2016–2025)

Number of notifications of aeronautical frequency interference from 2016 to November 2025



Entities causing interference to aeronautical frequencies *



* After the interference is raised by the Ivorian Agency for the Management of Frequencies AIGF

3. Inventory of aeronautical frequency interference

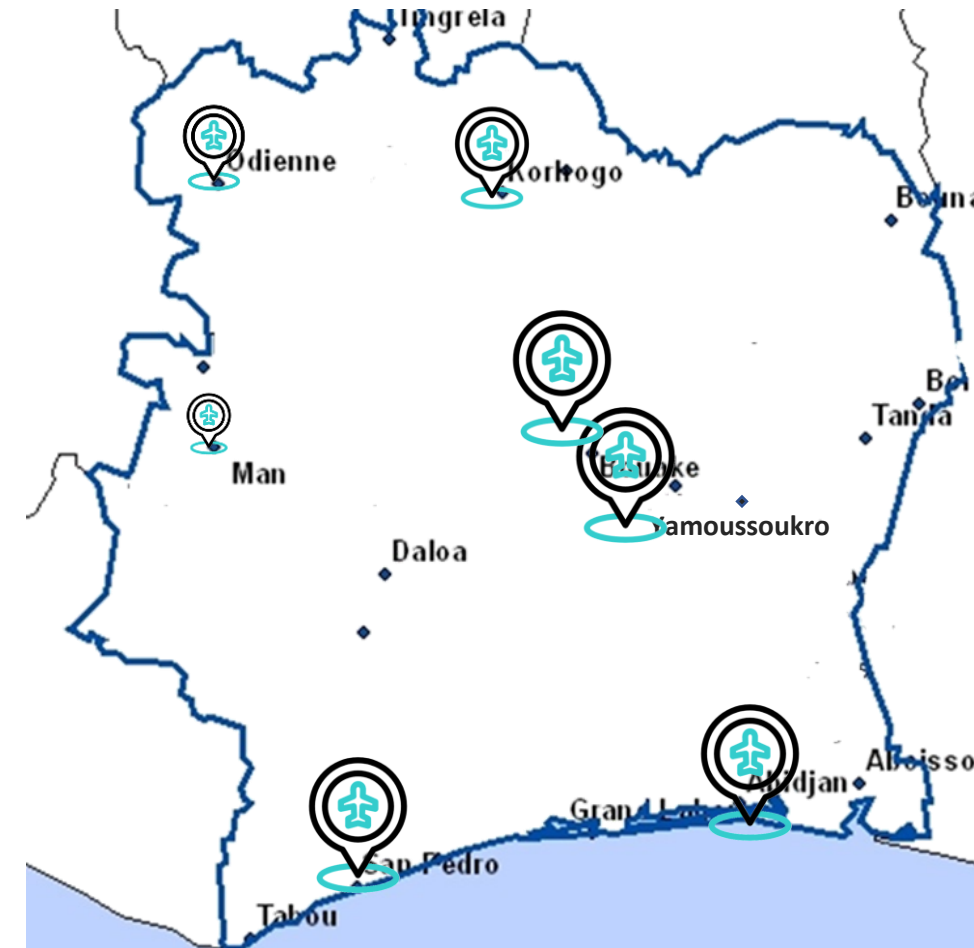
3.2 Geographic analysis of interference and impacted flights

Impact on:

- Airports** : international , domestic
- International flights**: Landing, take-off, overflight
- Domestic flights**:
 - ✓ Commercial operations of national airlines
 - ✓ Flights to oil and gas platforms
 - ✓ Flights to mining sites....



Location of notified interference



3. Inventory of aeronautical frequency interference

3.3 a worrying state of affairs, a question of ensuring flight safety: Côte d'Ivoire's response



04

Flight safety and
interference
management: Côte
d'Ivoire's response



AERONAUTICAL FREQUENCY INTERFERENCE STRATEGY

(COLLABORATION BETWEEN ANAC AND THE IVORIAN AGENCY FOR FREQUENCY MANAGEMENT (AIGF))



Two (2) major axes

Axis 1

Interference prevention

Axis 2

Detecting and resolving jamming issues

4. Flight safety and interference management: Côte d'Ivoire's response

AERONAUTICAL FREQUENCY INTERFERENCE STRATEGY – AXIS 1

Axis 1
Interference prevention

- 1** Strengthening the regulatory framework for the management of the aeronautical spectrum, including:
 - Systematic integration of the latest amendments to volumes 1 to 6 of Annex 10
 - National requirements for the maintenance of CNS equipment
 - Guide and Procedures for the Assignment of Aeronautical Frequencies
 - Mechanisms for dealing with interference incidents (guide and procedure)
- 2** Aeronautical frequency assignment process with systematic ICAO/AIGF coordination and use of Frequency Finder.
- 3** Implementation of the Anac–AICF MoU and participation in National Frequency Allocation Commissions (CAFs) and Interference
- 4** Systematic verification of aircraft, CNS equipment and qualifications during ANAC inspections



4. Flight safety and interference management: Côte d'Ivoire's response

AERONAUTICAL FREQUENCY INTERFERENCE STRATEGY – AXIS 2

2

Detection and resolution of interference occurrences

1

Notification of any interference incident to ANAC

2

Urgent coordination with the AIGF



3

Emergency investigation of jamming files by the national Frequency Spectrum authority AIGF: search and identification of the source of the interference

4

Implementation of urgent corrective actions by the relevant parties, depending on the nature of the interfering source, in coordination with the High Authority for Audiovisual Communication (HACA) or other assignee

4. Flight safety and interference management: Côte d'Ivoire's response

NATIONAL ACTION PLAN FOR THE PREVENTION AND TREATMENT OF INTERFERENCE TO THE AERONAUTICAL BAND



Context

- ✓ 2021: Sharp increase in interference compromising the security of aeronautical communications (main cause: FM radios)
- ✓ January 2022: High-level meeting between authorities (ANAC, AIGF*, HACA**) to develop an action plan
- ✓ National Plan: Prevent and Address FM Interference to Ensure Reliable Air Communications



Objectives and management

- ✓ Reducing FM interference to ensure secure aeronautical communications
- ✓ Establish an effective framework for detecting, preventing and resolving incidents
- ✓ Steering provided by the Jamming Commission, responsible for coordination and monitoring



Concrete actions, tangible results

- ✓ **Key actions**
- ✓ Enforcement Measures: Penalties for Harmful Interference to Deter Recidivism
- ✓ Awareness-raising: Campaigns and forums to strengthen stakeholder compliance
- ✓ Monitoring: Rapid detection and real-time response
- ✓ **Results**
- ✓ Reduced incidents: Significant reduction in jamming, enhanced security
- ✓ Increased coordination: National Jamming Commission for monitoring and compliance
- ✓ Continuous adaptation: Scalable strategies for a reliable radio environment

05

Conclusion



5. Conclusion

- Côte d'Ivoire has established an effective process to reduce interference to aeronautical frequencies, ensuring secure communications. This success is based on close coordination with the Ivorian Agency for Spectrum Management (AIGF) and awareness-raising among the various stakeholders.
- Continued efforts are needed to maintain these results and ensure a radio environment that complies with international standards

Thank You

