



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

WESTERN AND CENTRAL AFRICA OFFICE

Twenty-fourth Meeting on the improvement of Air Traffic Services over the South Atlantic (SAT/24)

Luanda, Angola, 3-7 June 2019

Agenda Item 4 : *Communications, Navigation and Surveillance (CNS)*

4.3 Improvement of the CNS systems in the SAT Region (AMHS, AIDC, ADS-C&B)

(Presented by the Secretariat)

SUMMARY

This paper presents initiatives on the improvement of CNS systems by SAT ANSPs

Reference: SAT/23 meeting report

Action required: *See paragraph 3*

1. Introduction

- 1.1 The SAT/23 Meeting held in Durban, South Africa, from 06 to 08 June 2018 identified areas of improvement of CNS systems.
- 1.2 The meeting identified operational needs for the implementation of Aeronautical Fixed Service (AFS) and encouraged members to plan and implement the identified ground/ground links.

2 Discussion

- 2.1 The SAT/23 meeting under its **Conclusion 23/11: Interconnection of AMHS system, Conclusion 23/12: Implementation of AIDC between SAT ATCs and Decision 23/13: Coordination of the implementation of AMHS and AIDC** paved the way for the expedition of the improvement of the ATN ground segment across the SAT Region. Since then, initiatives have been taken to implement these Conclusions & Decision.

The AFI North West Area (ANWA) Technical Group initiative

- 2.3 In the framework of inter-regional cooperation for the improvement of Communications, Navigation, Surveillance and Air Traffic Management (CNS/ATM) infrastructure and systems in the AFI North West Area (ANWA), ENAIRE, the Spanish Air Navigation Service Provider, arranged a call conference on 21st January 2019 ASECNA, ANSP for Mauritania and Senegal, ICAO WACAF Office, Secretariat.

2.4 The call conference meeting identified the following initial areas for improvements:

- **Aeronautical Mobile Service:** Sharing, amongst ACCs, of locations of extended VHF Air/Ground radio communications stations frequencies aimed at enhancing aeronautical mobile service
- **Aeronautical Fixed Service:**
 - ✓ Implementation of modern ATS Ground Voice Network (AGVN) protocols and evolution to Voice over IP (VoIP).
 - ✓ Evolution of information transport backbone networks (AFISNET, CAFSAT) supporting IP services.
 - ✓ Interconnection of IP networks & systems.
 - ✓ Implementation of AIDC/OLDI services for ATS coordination.
 - ✓ Implementation of AMHS services as a migration from AFTN.
- **Surveillance data sharing**

2.5 The conference agreed on the proposal by ENAIRE to create a Technical Working Group (TWG) to improve CNS/ATM (Communications, Navigation, and Surveillance) in the ‘AFI North West Area’ including air space of Canary FIR, SAL (Cabo Verde) FIR, and Dakar FIRs (Mauritania & Senegal).

2.6 This ANWA TWG will be managed in the framework of the SAT Group activities under the ICAO umbrella and therefore, the ICAO WACAF Office was tasked to liaise with Cabo Verde to join this ANWA TECH WG. Unfortunately, all attempts of liaison with the known contact details in Cabo Verde were unsuccessful.

Further actions were identified and some of them conducted:

- Generation by ENAIRE of a PowerPoint presentation collecting the major objectives and fixing the scope of the AFI North West Area TWG and comment/ completion by the other ANWA TECH WG members.
- A face-to-face meeting to identify and discuss concrete projects to cover the identified areas of improvements with the identification of focal points in each affected Organization. ENAIRE offers Gran Canarias ACC location as the venue for this meeting. Unfortunately, this meeting was not held due to calendar and budgetary constraints.
- The Secretariat reported the initiative to the Atlantic Coordination meeting held in Paris on 31st January 2019.

The AIDC Interconnection between Abidjan and Accra ACCs

2.7 Identified by a coordination meeting under the auspices of ICAO, held in Lomé, Togo from 2 to 4 May 2016 between ASECNA, GCAA (Ghana), NAMA (Nigeria), the Roberts FIR, the need of AIDC operation between Abidjan and Accra ATCs was made recently effective thanks to the cooperation between the two ANSPs who succeed in interconnecting recently the two ATM systems.

The lessons learnt from this exercise will enable a more efficient organization of the interconnection

AMHS/AIDC Interconnection between Dakar and Recife ATCs

2.8 This interconnection was identified years ago and although the SAT CNS WG held many teleconference on 2016 and 2017, the interconnection was not possible due to a delay in finalizing the installation in the Dakar center.

During the Atlantic Coordination meeting in Paris (31st January 2019) a side meeting between ASECNA and the ICAO Regional Offices of Dakar and Lima planned to go ahead with effective implementation and the exercise is ongoing.

IATA initiative for AMHS/AIDC Interconnection between Casablanca and Nouakchott ACCs

2.9 During the Workshop on Aviation Infrastructure Gap Analysis for Africa held in Abuja, Nigeria from 19 to 21 March 2019, a side meeting between the ICAO WACAF Office and the IATA Manager Safety and Flight Operations-ATM Infrastructure for West and Central Africa to discuss on the way for ICAO to facilitate the AIDC interconnection between Casablanca and the Nouakchott ACCs.

IATA reported to have initiated discussion with both sides and wishes the SAT Secretariat to facilitate the planning and implementation of the project.

A formal request is awaited from IATA in order to liaise with stakeholders and resume the process.

2.10 Although SAT/23 meeting clearly identified circuits and tentative dates for full implementation, it appears that the percentage of effective implementation is low. It will be recommendable to identify the hurdles encountered by ANSPs in order to clear them out and effectively implement the identified circuits.

3. Action Required

The meeting is invited to:

- a) To note the information given above
- b) Up-date the status of implementation of CNS systems (Appendix A and B)
- c) Identify the hurdles encountered in planning and implementing the improvement of CNS systems;
- d) Revise the deadlines for the implementation of the identified links
- e) Agree on any other follow-up action thereon.