



INTERNATIONAL CIVIL AVIATION ORGANIZATION

WESTERN AND CENTRAL AFRICA OFFICE

**Twenty-Third Meeting on the Improvement of Air Traffic Services over the South Atlantic
(SAT/23)**

Durban, South Africa, 6-8 June 2018

Agenda Item 3: Communications, navigation and surveillance (CNS) (by the CNS Working Group)

SPACE BASED ADS-B IMPLEMENTATION ACTIVITIES IN ASECNA AREA

(Presented by the ASECNA)

| SUMMARY |
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| This working paper reports on ASECNA activities regarding the Space based Automatic Dependent Surveillance – Broadcast (ADS-B) surveillance |
| REFERENCE(S): <ul style="list-style-type: none">• Terms of Reference of SAT /CNS GROUP• SAT 21 - Conclusion 21/17• SAT 22 - Conclusion 22/09 |
| Related ICAO Strategic Objective(s): A & B |

1. INTRODUCTION

1.1 The implementation of the automatic dependent surveillance-contract (ADS-C) and controller pilot data link communications (CPDLC) by the ANSPs, in the SAT region improved the air navigation service.

1.2 However, there are great opportunities for, and advantages in, considering Space based Automatic Dependent Surveillance – Broadcast (ADS-B) technology.

1.3 This working paper reports on ASECNA activities regarding the Space based Automatic Dependent Surveillance – Broadcast (ADS-B) surveillance.

2. DISCUSSION



2.1. With regard to the development on going related to Space based Automatic Dependent Surveillance – Broadcast (ADS-B), including Radio frequency protection, and potential safety, operational and efficiency benefits, ASECNA considered this technology could improve significantly, the air navigation services provision over ocean and non-surveilled continental area.

2.2. So, in December 2014, ASECNA entered into Memorandum of Agreement with AIREON to establish a framework to create a collaborative relationship regarding the deployment of Space based Automatic Dependent Surveillance – Broadcast (ADS-B) surveillance.

2.3. With regard the assessment related to technical, operational, economics and regulatory feasibility, ASECNA and AIREON decided to continue the cooperation regarding the future implementation of space based ADS-B.

2.4. In January 2018, ASECNA and AIREON entered in agreement to scope and implement the use of Data Services by ASECNA in four phases, the successful completion of a Project Phase being a condition precedent for the Parties to commence the next Project Phase.

2.5. Currently, while waiting for the implementation of the MPLS line and the Service Delivery Point (SDP) ongoing, ASECNA is already receiving the ADS-B data for monitoring, testing and trials via a VPN connection to AIREON System.

3. ACTION BY THE MEETING:

The meeting is invited to:

- take note of the information provided in this working paper;
- consider the opportunity of Space Based Automatic Dependent Surveillance – Broadcast (ADS-B) surveillance, to improve the Air Navigation service in the SAT region

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