



ICAO

International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

ADS-B/OUT/M — WP/07
29/07/19

**Automatic Dependent Surveillance – Broadcast OUT Implementation Meeting for the
NAM/CAR Regions (ADS-B/OUT/M)
Ottawa, Canada, 21-23 August 2019**

Agenda Item 2: Update Status ADS-B Implementation for States

2.2 Update ADS-B Status implementation and regulation development by States

STATUS OF ADS-B IMPLEMENTATION IN FRENCH GUYANA

(Presented by French Guyana)

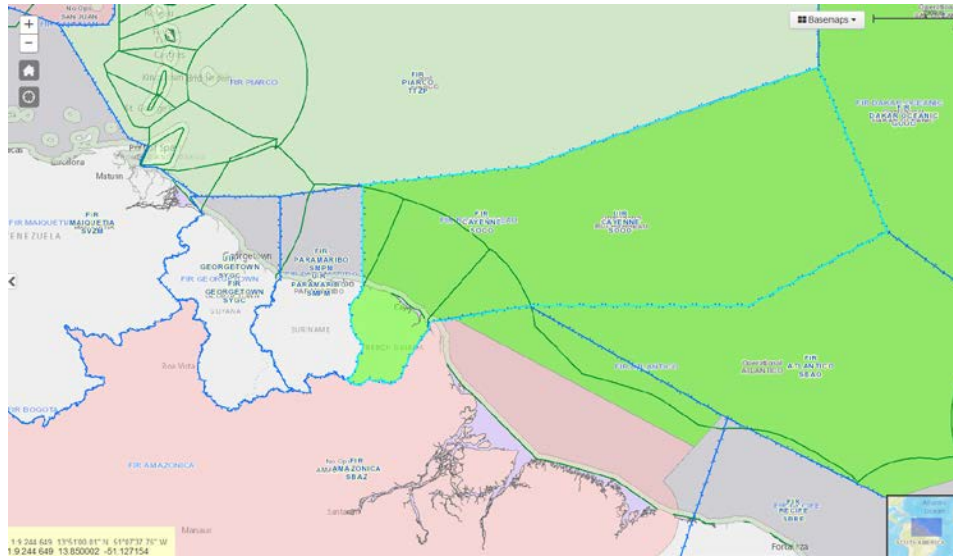
EXECUTIVE SUMMARY	
This Working Paper presents the status of ADS-B implementation in French Guyana.	
Action:	Suggested action is presented in Section 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
<i>References:</i>	<ul style="list-style-type: none">• Status of ADS-B implementation in the SAM Region - 20/04/2019 - SAM/IG/23-WP/18

1. Introduction

1.1. France has been involved in ADS-B for many years, and has started the deployment of ground stations in its overseas territories since 2007.

1.2. In the French Guyana's FIR, which covers a large Oceanic Airspace (1,383,199.17 km²), Air Traffic Controllers use Automatic Dependent Surveillance-Contract (ADS-C) technology to update the aircraft's position across the Atlantic Ocean every 14 minutes, at least. This implies that flights in this region comply with the ICAO recommendation of tracking oceanic flights every 15 minutes or less.

ADS-C coverage in neighbouring FIRs



Source: ICAO GIS website. “ADS-C by ICAO FIR” layer. Updated 14 March 2019

1.3. Most of French Guyana’s continental airspace (83,534 km²) is considered as a Non-Radar Airspace, as the coverage of the military radar is poor and the availability of the data is not satisfactory. Procedural Approach is conducted from Cayenne Tower.

1.4. The Geography of French Guyana makes it difficult to install and maintain radars compared to the ADS-B option.

1.5. There is no plan so far to use satellite-based ADS-B in French Guyana, except for SAR purposes (Aireon Alerts).

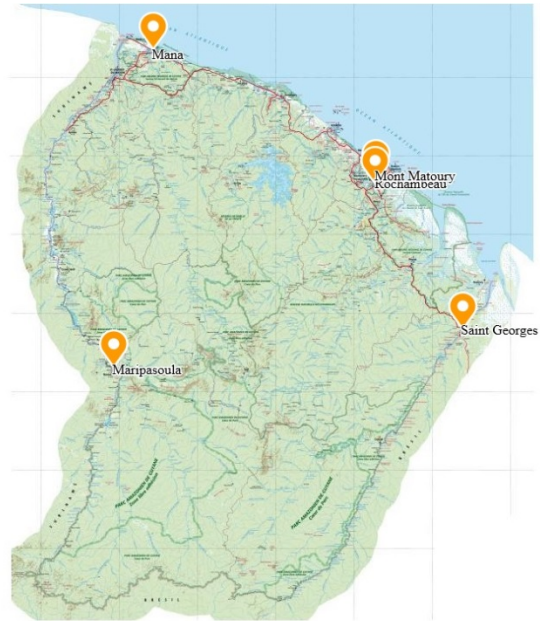
1.6. The main objective is to increase our surveillance capabilities for medium and short-haul flights which are not ADS-C equipped.

2. Implementation plan in French Guyana

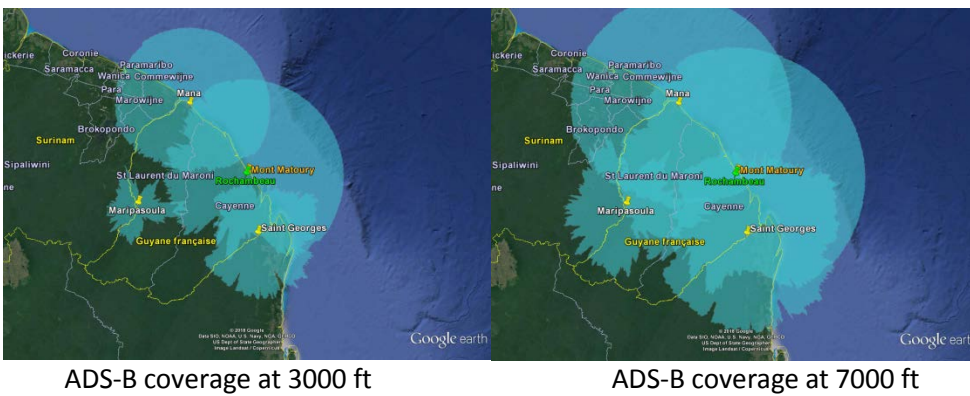
2.1. The decision to implement ADS-B ground stations was taken in 2016.

2.2. In 2016, DSNA signed a contract with THALES for the provision of an ADS-B Surveillance System.

2.3. The implementation of 5 ground stations is currently in progress and they are located as follows:



2.4. The figures below illustrate the simulated coverage of both, the current radar and the future ADS-B stations.



2.5. In 2018, DSNM signed a contract with OBS for the provision of an ADS-B Communications Network. This way, all the sites will be connected and will feed a Central Processing System. At the output, the CPS will feed data (in Asterix format) both into IRMA (the DSNM ATM System) and the AURORA ATM System.

2.6. As not all flights will be displayed (military, some general aviation aircraft, etc.), air traffic controllers will keep performing procedural control to separate aircraft, but their task will be easier, as they have a better representation of the air traffic situation. They will be able to provide better and more accurate traffic information, as most commercial flights will be displayed on ADS-B screens.

2.7. The ADS-B controller working position will be available at the end of this year.

3. Recommendation

3.1. Aircraft Operators flying through French Guyana sector and to French Guyana airports are invited to equip their fleet.

3.2. French Guyana is exploring opportunities to exchange ADS-B data with neighboring air navigation providers.

4. Suggested actions

4.1 The Meeting is invited to:

- a) note the information provided in this paper.