



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

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Fourth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/4)
Miami, United States, 21 – 24 August 2018

**Cuestión 4 del
Orden del Día:**

Seguimiento, evaluación de desempeño y monitoreo del Plan de Implementación de Navegación Aérea Basado en la Performance para la Región CAR

4.1 Informes de avance de los Grupos de Tarea del ANI/WG

AUTOMATIC DEPENDENT SURVEILLANCE – BROADCAST (ADS-B) PROGRESS

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This paper presents updated information on the ADS-B implementation progress in the NAM/CAR Regions and some important information of the SAM Region that affects the NAM/CAR Regions.	
Action:	Suggested actions are presented in Section 3.
<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">• Workshop/Seminar for ADS B implementation, Lima, Peru, 13 to 16 November 2017.

1. Introduction

1.1 As a result of the Automation and Improved ATM Situational Awareness Programme, follow-up was made on the ADS-B Regional implementation progress, implementation of radar data in the Region and seek to encourage States to share surveillance data (secondary radar, ADS.B, Multilateration (MLAT))

1.2 During the meeting, the compliance by different airlines regarding their avionics related to the ADS-B implementation was discussed. FAA maintains a database of ADS-B avionics solutions provided by commercial aircraft manufacturers and Aviation in general. http://www.faa.gov/nextgen/equipadsb/adsb_ready.

1.3 The FAA publishes the equipment levels of ADS-B OUT by type of link (1090ES, UAT, dual) and industrial segment (GA, air company, etc.) that show the amount of equipped aircraft to comply with the ADS-B requirements found in the following link: <http://www.faa.gov/nextgen/equipadsb/levels>. Both links contain information of interest and use by the different States.

1.1 Participants indicated the need to have the data in respect to the capacity of the fleets of airlines that travel to their States. For this reason, ICAO is coordinating with NAV Canada, FAA, IATA and AIREON the possibility to share this information with the States.

1.5 The Meeting identified the need for and ADS-B vision that allows States to include the update of national plans in the short, medium, and long term, taking into account the following factors: requirements of the surveillance infrastructure, their own operational needs, user needs and interconnection requirements with the adjacent States. Integration of all stakeholders benefits the regional implementation.

1.6 States should ensure that at the time of managing their projects, integrate their feasibility and risk analysis to the aeronautical and operational infrastructure with each of the adjacent FIRs with which they have operational interaction in common, aiming to ensure standardization harmonization and efficiency of its coordination.

1.7 States should ensure that the investments that will make in the forthcoming years contemplate and provide broad coverage to their current and future needs, minimizing the risk of having to make new investments in a short term that were not contemplated.

1.8 Sharing radar data is to encourage safety of the Region. The Meeting requested that States share the information of their surveillance systems with the adjacent States to conduct coverage studies and overlapping of surveillance data that allow them to have backup information in the coordination areas of the air traffic operations between FIRs.

1.9 The ICAO NACC Regional Office is working in provide orientation and recommendations to the States of the Region, aiming that each State carry out and integration or data sharing analysis of/with the adjacent State (bilaterally).

1.10 It is necessary that States develop in parallel to the ADS-B implementation, the necessary regulation for its operation. The regulator may need to change the wording in the ATS regulations to allow the use both, of the ADS-B, as well as the radar.

1.11 Regulatory entities (DGACs) will need to certify aircraft and Airlines. On the other hand, the technical and maintenance staff of the airlines, as well as the Air Navigation Service Providers (ANSP) will need to develop and maintain new systems and procedures.

1.12 A series of activities that are being supported by the SNAM/CAR Surveillance Task Force. The summary of the discussion can be found at the following link:
<https://www.icao.int/SAM/Documents/2017-ADSB/Sumario%20de%20discusion%20ADS%20B.pdf>

2. Analysis

2.1 The improvement of the Situational Awareness of the Region depends on the fact that among the ATM control centres have the same information that at the same time allow them to take decisions based on data.

2.2 The implementation of surveillance data based on the radar infrastructure, ADS-B or any other facility improves safety and facilitates the implementation of other functionalities, such as: AIDC, PBN implementation, among others that support the efficient coordination of the operations and the secure management of air space.

2.3 The identification of coverage problems and airspaces in which there is not surveillance data, represent a concern for States and the Region. In this sense, it is important that States work in a more collaborative way, seeking systems' standardization and harmonization to facilitate the necessary agreement letters so that implementation can be made in an effective way and in a short term.

3. Suggested Actions:

3.1 The Meeting is invited to:

- a) Take note of the information presented in this paper;
- b) States that have not yet sent their surveillance infrastructure updated data to the ICAO NACC Regional Office, shall submit it by **30 October 2018**; and
- c) States to participate in the ADS-B Meeting of the NAM/CAR/SAM Regions to be held in November 2018.