



ICAO

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

WORKING PAPER

NACC/WG/10 — WP/08

04/09/25

**Tenth North American, Central American and Caribbean Working Group Meeting (NACC/WG/10)**

Tulum, Mexico, from 8 to 12 September 2025

**Agenda Item 5: NACC/WG Collaborative Task Forces Working Session**

**ADS-B IN CENTRAL AMERICA**

(Presented by COCESNA)

**EXECUTIVE SUMMARY**

This working paper includes the actions carried out by COCESNA and the States of Central America and Belize with the purpose of improving air traffic services in the different airspaces of the FIR of Central America, through the implementation of air ADS-B and the establishment of a regulation to ensure the equipment of aircraft with the required performance.

<b>Action:</b>	Suggested actions under item 2 of this working paper.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• NACCWG Surveillance Task Force Technical Meeting on Automatic Dependent Surveillance – Broadcasting (ADS-B) Work Plan ICAO NACC Regional Office, Mexico City, Mexico, 30 July – 1 August 2024</li></ul>

**1. Introduction**

1.1 COCESNA, as part of its strategic and investment planning, modernized the aeronautical surveillance systems with ADS-B reception capacity and updated the ATS Control Centers both Route (ACC CENAMER), Approach Control Centers (APP) and Control Towers (TWR) of the Central American countries, to integrate ADS-B messages considering the processing of versions 0, 1 and 2 of ADS-B, in addition to using and processing the latest versions of the ASTERIX CAT 021 surveillance data exchange format. In the new updates contracted for the Control Centers, it is possible to introduce improvements for the processing of information and ADS-B figures of merit, according to the criteria established in the ADS-B operational concepts, if applicable.

1.2 Land-based ADS-B receivers now provide an additional layer of surveillance that overlaps that provided by radars on the mainland where coverage exists. This information is used in the Control Centers for surveillance purposes and to monitor the capabilities of aircraft within the FIR of Central America.

1.3 In the Pacific Ocean space of the Central American FIR, where it is not possible to have ground-based radar and ADS-B coverage, COCESNA has contracted ADS-B Satellite data, with the purpose of improving surveillance and operational safety in said airspace, reducing LHDs in said airspace and reducing the separation of aircraft.

1.4 As part of the investment initiatives, a performance assurance system is maintained that allows monitoring the general performance of radar and ADS-B sensors in a periodic and automated manner, in addition to developing software that allows ADS-B data to monitor the ADS-B capabilities of avionics and perform statistical analysis of the figures of merit reported by the aircraft in ADS-B messages.

1.5 This system has made it possible to monitor since 2019, how the aircraft have been equipped with version 2 (DO-260B), mainly due to the mandate established by the United States as of January 1, 2020, a situation that has been beneficial in the Central American region. According to statistics and reports from member states, significant progress has been made in equipping aircraft with ADS-B for both commercial and general aviation. This information is published on the COCESNA website.

1.6 The Surveillance TF developed an analysis of the implementation status of the data from the surveillance systems, including Automatic Dependent Surveillance - Broadcasting (ADS-B). As part of this process, it was identified that Central America and all its Member States already have the operational implementation of ADS-B, both on the ground and satellite, making important recommendations that have been considered by COCESNA and its Member States, including the following:

***Recommendation No. 3 "States should take advantage of the surveillance capabilities currently existing on aircraft, primarily ADS-B, and adopt the mandatory use of ADS-B as a regulation. That the States that have the necessary ADS-B infrastructure ready for their operations, implement the necessary regulations to ensure their operations in the short term."***

1.7 Conclusion GREPECAS/20/30 Study on Operational Priorities for the Implementation of ADS-B and Aspects of the Use of ADS-B in ATC Units indicates that the Secretariat, in coordination with industry, should carry out a study on operational priorities for the implementation of ADS-B and on aspects of the use of ADS-B in ATC units. based on the technical guidance documentation available for the CAR/SAM Regions before GREPECAS/21, with the purpose of promoting the coherent and harmonized implementation of ADS-B in the CAR/SAM regions, within the framework of the ASUR module of the GANP, recognizing the priorities of airspace optimization and the provision of ATS services in the region.

1.8 or the operational use of ADS-B and to achieve all the current and future benefits and capabilities established in the World Air Navigation Plan to provide ATS services in radar and non-radar spaces, regulations have been established in the Central American region by the States of Belize, Costa Rica, Belize, El Salvador, Guatemala, Nicaragua, and COCESNA; for the purpose of equipping aircraft with ADS-B capability; promoted through a Working Group made up of specialists from each State and supported by the ICAO Regional Office and the monitoring group, created by resolution of the COCESNA Board of Directors. The publication of the regulation in Honduras is pending.

1.9 Progress and results will be reported at the next meetings.

**2. Suggested actions:**

2.1 The meeting is invited to

- a) The meeting is invited to take note of the information submitted;
- b) To industry and States, to continue in collaboration with the ADS-B regulatory initiative in Central America; or
- c) Any other activity required.