



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

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Eighth North American, Central American and Caribbean Working Group Meeting (NACC/WG/8)
Mexico City, 29 August - 1 September 2023

- Agenda Item 3: Follow-up of NACC/WG 2022-2023 Action Plan**
3.5 NACC/WG progress in technology: Air Traffic Services Inter-facility Data Communication (AIDC), SURV, Communication Management (COMM), and Aeronautical Frequencies (FRE)

PROGRESS REPORT ON SURVEILLANCE TASK FORCE WORK PROGRAMME

(Presented by United States)

EXECUTIVE SUMMARY	
This working paper presents an update on the developments of the Surveillance Task Force (Surv TF) to include a status update on surveillance implementation across the ICAO NACC Member States.	
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">• N/A

1. Introduction

1.1 The Surveillance Task Force (Surv/TF) has continued to work based on the previously presented and approved Terms of Reference (ToRs). Additionally, the Surv TF has coordinated to update its action plan in order to identify more effective ways to further harmonize implementation of surveillance systems, methods of data analysis, and ensure continued improvement in airspace safety across the region.

1.2 This working paper provides an overview of the items that have been accomplished by the Surv TF, and future work that will be taken on to ensure continued alignment with GREPECAS and ICAO GANP.

2 Discussion

2.1 On 17-21 July 2023, Members of States and Territories of the ICAO NAM/CAR/SAM Regions met at the ICAO NACC offices in Mexico City to participate in a workshop aimed at supporting the review, development, and eventual implementation of an Automatic Dependent Surveillance – Broadcast (ADS-B) regulation.

2.2 The meeting was held in a hybrid format to allow for increased participation by those representatives that could not attend the meeting in person. A total of 73 representatives across 26 countries participated in the event.

2.3 As part of the event, the group developed a list of twelve (12) recommendations which can be found in **Appendix A** of this working paper. Additionally, the meeting report can be found on the ICAO NACC meeting website (see Meeting on the Development of the operational regulation of the implementation of ADS-B).

2.4 Additionally, the Surv TF worked with the ICAO NACC CNS Regional Officer to issue a State Letter (see NT-NE57-1-E.OSG-NACC96041) requesting information on existing Airborne Collision Avoidance System (ACAS) regulations. This information is being used to better understand what, if any, steps need to be taken to better harmonize requirements across the region. A list of the responses received to date can be found in **Appendix B** of this working paper.

2.5 Finally, the Surv TF Rapporteur has reviewed the ICAO Global Air Navigation Plan (GANP) Aviation System Block Upgrades (ASBU) elements in an effort to ensure alignment with existing work group initiatives. Based on the review, the Surv TF will plan to be working on the following:

- a) Finalize the list of ACAS regulations for the region and identify any operational incompatibility issues.
- b) Monitor and discuss utilization of new technologies (e.g., Space-Based ADS-B and VHF communications) to further improve on airspace efficiency.
- c) Coordinate with the Airspace Task Force working group to identify surveillance related tasks geared at assisting implementation of milestones/goals.

3 Suggested actions

3.1 The meeting participants are invited to:

- a) review and comment on the recommendations outlined in Appendix A of this working paper; and
- b) discuss any other issues it may deem appropriate.

3.2 The Surv TF considers the topic of ADS-B to be complete and recommends transitioning the implementation work to the airspace implementation Regional Officer.

APPENDIX A
ICAO NAM/CAR/SAM ADS-B Regulatory Workshop Recommendations

Recommendation 1	The implementation of ADS-B is a project, which as such must have specific development objectives and goals. Considering that ADS-B supports the provision of Air Traffic Services and operational applications, it is necessary that these objectives are clear to all project participants.
Recommendation 2	In the State, a multidisciplinary group shall be created that integrates the technical, operational, safety, and other administrative, financial, and legislative requirements from the beginning of the project.
Recommendation 3	The integration in the project of all the interested parties; in this regard, it is important that an analysis of who and why should be integrated into the project be carried out. The stakeholders may vary from State to State and therefore an analysis by the State is necessary to include everyone within the implementation project.
Recommendation 4	Establishment of a clear leadership for the development of the project, also indicating the role and responsibilities of each one of those involved in the development of the implementation.
Recommendation 5	Create a project development roadmap, indicating the clear involvement of each of the participants, as well as their roles and responsibilities and the development schedule.
Recommendation 6	Carry out an ADS-B coverage analysis that allows the identification of the scope of the implementation on the ground to fulfil the objectives of the project.
Recommendation 7	Integrate the analysis of other technical requirements for the operation of ADS-B stations, such as communications, energy, security, cybersecurity, maintenance logistics, among others that may vary according to the implementation, implementation site, and terrain characteristics.
Recommendation 8	For the definition of the technical/operational criteria, the integration requirements between the different ground systems, technical characteristics, integration protocols, verification, validation and certification criteria of the data must be taken into account before its processing in the ATC Control Centre and criteria for monitoring the data during its presentation at the control positions, to ensure the quality of the information.
Recommendation 9	Having statistics of the avionics version of the commercial and general fleet, and including the military part is important to define the implementation requirements. In the different presentations provided by the States, a clear and high percentage of aircraft capable of version 2 (DO-260B) was identified. In this sense, the States should benefit from this advantage and direct their implementation and the development of the legislation using as a minimum requirement that the aircraft be equipped with this version.
Recommendation 10	The ADS-B implementation process must integrate a clear identification of the implementation benefits and accompany them with a measurement process that ensures measurement data before and after the ADS-B implementation.
Recommendation 11	Other information must also be integrated into the ADS-B implementation process, such as risk analysis, feasibility analysis, benefit analysis, safety analysis, financial and human resources, among others, that provide information that is integrated into the project, to ensure its success. A follow-up mechanism for the implementation of the project must also be implemented to allow the activities to be adjusted according to the development of the project.
Recommendation 12	Finally, the development of legislation is a process that must be carried out from the beginning of the development of the project, taking into account all the factors listed above, incorporating the different interested parties and establishing correct communication mechanisms that allow the establishment of clear regulations for all.

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APPENDIX B
ICAO NACC Member State ACAS Regulations

State	ACAS REGULATION
Antigua and Barbuda	<p>The Regulations for Flight Safety in Section 7.1.6.7 speaks to the requirement for ACASII. As an example, for Antigua and Barbuda it could be found at this link; http://www.eccaa.aero/images/stories/docs/anu/Antigua%20and%20Barbuda%20-%20The%20Civil%20Aviation%20(Flight%20Safety)%20Regulations,%202019.pdf</p> <p>For the CNS Regulations Chapter 4 of Annex 10 Volume IV was transposed into regulations. These can be found at this link: http://www.eccaa.aero/index.php?option=com_content&view=article&id=194&Itemid=100</p>
Bahamas	
Barbados	
Belize	
Canada	<p>Part VII Subpart 702.46, 703.70, 704.70, 705.83 https://laws-lois.justice.gc.ca/eng/regulations/sor-96-433/</p>
Costa Rica	<p>RAC 02 Section 02.221. https://www.dgac.go.cr/wp-content/uploads/2017/06/ca12_17-USE-OF-ACAS-TCAS.pdf</p>
Cuba	https://www.iacc.gob.cu/regulaciones-aeronauticas-cubanas-rac/
Dominica	
Dominican Republic	RAD 121.356, Page 114 (PDF page 130)
El Salvador	RAC 02.221 and 02.617
Grenada	File attached
Guatemala	RAC 02.617 (see RAC 02 Second Edition Revision 002)
Haiti	No TCAS 7.1 regulation
Honduras	RAC 02.650
Jamaica	Information about Centro America States attached.
Mexico	<p>Regulation NOM-069-SCT3-2019. https://www.dof.gob.mx/nota_detalle.php?codigo=5664826&fecha=20/09/2022#gsc.tab=0</p>
Nicaragua	INAC RTA-2, AD-A 3.1 and AD-A 3.2
Saint Kitts and Nevis	
Saint Lucia	

State	ACAS REGULATION
Saint Vincent and the Grenadines	
Trinidad and Tobago	<p>Regarding the above subject, the Trinidad and Tobago Civil Aviation Regulations (TTCAR) No. 7, Regulation 71 (Pg. no. 1156), Airborne Collision Avoidance System provide guidance as to the regulations Trinidad and Tobago adopt. The link is as follows:</p> <p>1 (legalaffairs.gov.tt)</p> <p>Trinidad and Tobago conform to ACAS II by utilizing TTCAR No. 7, Regulation 71 of the Trinidad and Tobago Civil Aviation Act 11 of 2001, amended by 17 of 2003.</p> <p>Regulation 71 directs operators to conform to ICAO ANNEX 10 Volume IV.</p>
United States	14 CFR 135.180, 91.221, and 121.356