

1.2 Both groups have carried out multiple virtual meetings, technical analyses and inter-institutional coordination, consolidating proposals aimed at regional interoperability, efficient use of common infrastructure (such as REDDIG), and alignment with international standards applicable to cooperative surveillance.

2. Analysis

2.1 Regulatory component

2.1.1 The Ad Hoc Regulatory Group conducted a detailed survey of the actual status of ADS-B regulations in the SAM States, identifying considerable heterogeneity between regulatory frameworks. While some States are moving forward with progressive mandates (such as Brazil and Colombia), others are still in exploratory phases.

2.1.2 As part of the analysis, national regulations such as RAAC, Part 210 (Argentina), RAP 310 (Peru), and reference documents from ANAC (Argentina), DGAC (Peru) and DINACIA (Uruguay), among others, were evaluated. Likewise, opportunities were identified to build a proposal for a harmonized regional regulatory framework, based on the SRVSOP LARs, ICAO Annex 10, Vol. IV, Doc 4444, Circular 326, and standards, such as RTCA DO-260B/ED-102A.

2.1.3 The development of a regional regulatory guide was proposed, which contemplates:

- a) Minimum technical and operational requirements;
- b) Methods for declaring ADS-B capabilities in the flight plan;
- c) Policies on permitted technologies (1090ES, UAT, VDL-4); and
- d) Requirements for ground systems, interoperability and network security.

2.1.4 The importance of developing a comprehensive training programme aimed at inspectors, CNS technicians and operational personnel was also highlighted upon, with a focus on regulations, cooperative surveillance, ASTERIX protocol and ATS procedures.

2.2 Technical-operational component

2.2.1 SAM/IG has worked on the design of a progressive scheme for the deployment of ADS-B stations in the Region, considering:

- a) Survey of current coverage and projection of needs;
- b) Identification of REDDIG nodes for CAT021 testing and capture;
- c) Evaluation of technical and regulatory compatibility (avionics, protocols, local ATM capacity);
- d) Definition of regional key performance indicators (KPIs); and
- e) GNSS interference considerations and mitigation mechanisms.

2.2.2 Likewise, an integrated CNS architecture is proposed, which allows the connection of ADS-B, radar and multilateration sensors, through systems that support ASTERIX protocols (multitracking), guaranteeing redundancy and coverage in critical areas, especially border and remote areas.

2.3 **Coordination and upcoming regional activity**

2.3.1 As part of the regional consolidation process, it is proposed that a first face-to-face CNS/SUR Subgroup workshop is held at the SAM Regional Office in the third quarter of 2026, with the following objectives:

- a) Review the SAM ADS-B CONOPS document, incorporating agreed definitions on operational use, separation criteria, and surveillance scenarios;
- b) Validate regulatory advances and agree on common principles for regional regulation; and
- c) Exchange experiences on the integration of ADS-B, radar and MLAT sensors, in various operational contexts.

2.3.2 This activity will be aligned with Project RLA/06/901, Result 1.5, which aims to provide assistance for the implementation of surveillance systems in the Region.

3. **Expected deliverables**

3.1 As a result of the joint work of the Regulation and Technical Implementation Ad Hoc Groups, and within the framework of the proposed workshop, it is expected to obtain a series of key deliverables to strengthen the regional ADS-B surveillance strategy.

3.2 First, it is expected to have an updated and validated version of the SAM ADS-B CONOPS document, reflecting agreements reached on the operational use of cooperative monitoring, applicable separation criteria and specific scenarios for inland, remote and oceanic areas.

3.3 Likewise, progress will be made in the consolidation of common standardised and technical criteria, which will serve as a basis for future harmonised regional regulation. This input will be reflected in a draft technical and regulatory guideline, which will cover aspects such as equipment requirements, transmission protocols, methods of integration with ATM systems, information management and IT security considerations.

3.4 In addition, the experiences of States in the integration of sensors (ADS-B, radar, MLAT) and the different technical, organizational and regulatory approaches applied in recent years will be documented, with emphasis on those that have shown positive results in diverse operational environments.

3.5 A regional review of the current and projected surveillance coverage, considering not only the installed infrastructure, but also expansion plans, existing constraints, and opportunities for synergy through data sharing via REDDIG and other interconnected networks.

3.6 This package of deliverables will also include a preliminary comparative table of ADS-B regulations in force in the SAM States, prepared by the Ad Hoc Regulation Working Group, which synthesizes the existing regulations, the degree of implementation, and the mandates applicable in each State. This table is presented as **Appendix A** and will be submitted for review and validation by the States, in order to consolidate a common baseline on which to build future regulatory recommendations.

3.7 To facilitate the process of regulatory harmonization, the Group has proposed the Latin American Aeronautical Regulations (LAR) already in force as a preferential reference framework, avoiding the need to generate new duplicate provisions. This strategy seeks to facilitate regulatory adoption without generating unnecessary regulatory burdens, as happened in the past with the introduction of Mode S systems, RVSM or specific transponders.

3.8 The regulatory and technical body considered as a basis, includes a set of widely accepted international and regional documents, including:

- a) ICAO Annex 10, Volumes III and IV, SARPs (Aeronautical Telecommunications);
- b) SRVSOP LAR 210 (Aeronautical Telecommunications) and LAR 211 (Air Traffic Management);
- c) SRVSOP LAR 91 (Flight Rules and General Operation);
- d) ICAO Circular 326 (Evaluation of ADS-B surveillance and multilateration);
- e) Doc 4444 (PANS-ATM);
- f) Doc 9924 (Aeronautical Surveillance Manual, Appendix K);
- g) Doc 9869 (PBCS Manual) and Doc 9871 (Mode S Services and Extended Signals);
- h) Technical standards such as RTCA/DO-260B-C, DO-303, DO-318, ED-161, ED-126; and
- i) FAA (United States) mandates and implementation guides, and regulatory examples from the APAC and EUR regions.

3.9 The integration of these regulatory and technical frameworks will allow progress towards a harmonized regional regulation that guarantees a safe, efficient and interoperable implementation of the ADS-B system, in full alignment with the objectives established in the regional CONOPS and the ICAO GANP.

4. **Strategic Identification**

4.1 The planning and execution of this activity is fully aligned with the objectives defined in the Project RLA/06/901, in particular with Result 1.5, which prioritizes supporting States in the implementation of modern and cooperative surveillance systems, including technologies such as multilateration and ADS-B.

4.2 Within the framework of the 2035 SAM Regional Strategy, the initiative responds directly to the strategic objectives linked to the Operational Efficiency (1.1) and the Modernisation and integration of regional plans (4.2), both of which are essential to ensure a safe, coordinated and sustainable ATM system.

4.3 In addition, this activity is part of the priorities established in the ICAO Business Plan for the 2026–2028 Triennium, specifically in actions A1.5.3 ("Develop a common regional surveillance strategy") and A1.5.6 ("Promote the implementation of new technologies for surveillance"). Both lines aim to facilitate the technological transition, the adoption of global standards and the reduction of operational gaps between States.

5. **Planned resources**

5.1 To facilitate the effective implementation of the workshop and ensure a broad representation of States, the SAM Regional Office provides for the allocation of up to 20 fellowships, distributed in the format of two participants per State. These fellowships will cover the expenses related to attending the face-to-face event and are aimed at guaranteeing the participation of both specialists in technical surveillance and representatives of the regulatory and operations areas.

5.2 The development of the activity will have the technical support of the Project RLA/06/901 Secretariat, as well as with the participation of invited experts from IATA, national authorities and representatives of the industry. It will also seek to establish spaces for the exchange of experiences, presentation of practical cases, and demonstrations of technological solutions available in the market, in line with the needs identified in the Region.

5.3 The event will be hosted at the ICAO Regional Office in Lima, Peru, which will facilitate logistical coordination, the use of rooms equipped for parallel sessions, and the possibility of transmitting sessions virtually for remote participants or additional experts.

6. **Suggested actions**

6.1 The Meeting is invited to:

- a) take note of the consolidated progress in the regulatory and technical components of the regional ADS-B system;
- b) confirm the holding of the first CNS/SUR Subgroup workshop in the third quarter of 2026 at the SAM Regional Office;
- c) Invite States to participate actively by appointing experts in regulation, surveillance and ATM operation;
- d) Request States to validate or update the regulatory information included in the Regulation Working Group's preliminary comparative table; and
- e) Support the joint development of a regional guide for ADS-B regulation and implementation, as a reference document for the next steps to be taken.

APPENDIX A

COMPARATIVE TABLE OF ADS-B REGULATIONS BY STATE (PRELIMINARY VERSION)

STATE	TECHNICAL STANDARD / REGULATION IN FORCE	ADS-B DEPLOYMENT STATUS	MANDATE FOR AIRCRAFT	CNS REMARKS
Argentina	RAC Part 210 Resolution E25/2018	Ongoing implementation (operational test phase at FIR Ezeiza)	The exclusive use of ADS-B is not mandatory and not for all aircraft, only restricted category, agricultural purpose within the area identified as ADIZ.	In transition. Experimental use and with progressive CNS technical evaluation.
Brazil	ICA 63-19 (DECEA) + AIC N 16/22	ADS-B mandatory in the Amazon FIR since 2022	Yes, from January 2023 for IFR flights in certain areas	High harmonization with ICAO. Use in areas with low radar coverage. Transmission in 1090ES.
Chile	DAN 91 and AIC A20/21 DGAC	ADS-B operational in FIR Santiago. Use in Santiago TMA area	Not mandatory but recommended from 2023	CNS system in modernization. Link 1090ES approved. Expansion plan to the north and south.
Colombia	RAC 91 and Regulatory Circular CR-ATM-01	ADS-B mandatory in certain areas of the FIR Bogota from 2023	Yes, for aircraft operating on designated RNAV routes	High CNS/ATM integration. Online regulation with ICAO. ADS-B data used for minimum separation.
Ecuador	RAAC Part 91 and National AIP	Tests started at FIR Guayaquil since 2023	Not mandatory. Incentives for equipped aircraft	Limited CNS coverage. Full implementation is projected in 2025. Cooperation with USA and ICAO SAM.
Peru	RAP 310 National Air Navigation Plan	ADS-B in ground radar stations.	Not mandatory.	Gradual plan. CNS coordination for integration with secondary radar and multilateralism.

STATE	TECHNICAL STANDARD / REGULATION IN FORCE	ADS-B DEPLOYMENT STATUS	MANDATE FOR AIRCRAFT	CNS REMARKS
		Work is progressively being done on the ADS-B Implementation Plan throughout the FIR. It will begin with application in upper airspace.		
Paraguay	RAC 91 and AGA/ATM Technical Manual	No significant implementation	Not mandatory. Under evaluation	Limited CNS infrastructure. Brazilian radar coverage unit.
Uruguay	AIC and internal DINACIA documentation	ADS-B not yet mandatory. Technical study phase	Not required	Scarce CNS infrastructure en-route. Interest in regionalizing ADS-B surveillance.