



Agenda Item 3: Report on activities, deliverables and implementation progress of the GT Interop and Subgroups

PROGRESS IN THE IMPLEMENTATION OF ADS-B SURVEILLANCE IN THE SAM REGION (SG CNS/SUR)

(Prepared by the SG CNS/SUR)

SUMMARY

This working paper presents the progress achieved under Regional Project RLA/06/901 and the CNS/SUR Subgroup of GT INTEROP toward the harmonized implementation of Automatic Dependent Surveillance - Broadcast (ADS-B) in the SAM Region. It reports on the evolution of work initiated in 2025, the development and updating of the ADS-B Concept of Operations (CONOPS) for the SAM Region 2026-2036, technical and regulatory activities, monitoring and analysis of information provided by ADS-B sensors, exchange of surveillance data between States, and activities planned to continue this work during 2026. The paper proposes maintaining coordinated work between SG CNS/SUR, States and the corresponding ATM areas in order to consolidate the roadmap, strengthen interoperability and advance harmonized regional ADS-B implementation.

References:

- Regional Project RLA/06/901
- Final Report of SAM/IG/33
- SAM/IG/33-WP/3.1 - Consolidation of the regional strategy for ADS-B regulation, implementation and technical coordination in the SAM Region
- SAM/IG/33-WP/3.2 - Update of the ADS-B CONOPS
- SAM/IG/33-WP/3.4 - Strategic planning and technical deployment of ADS-B stations in the SAM Region
- GREPECAS/23-WP/8.7 - ADS-B CONOPS SAM Region 2026-2036
- Activities of the GT INTEROP CNS/SUR Subgroup

1. Background

1.1 Regional Project RLA/06/901 has been supporting the coordinated development of aeronautical surveillance capabilities in the SAM Region, promoting evolution toward an interoperable, resilient and performance-based infrastructure.

1.2 During SAM/IG/33, several lines of work related to ADS-B were presented, including the regional strategy for regulation, implementation and technical coordination, the update of the ADS-B CONOPS, and planning for the deployment of ground infrastructure.

1.3 In addition, during 2025 the Workshop on the collection, monitoring, analysis and use of information from ADS-B sensors (ADS-B CNS/SUR/1) was conducted, mainly for members of SG CNS/SUR, strengthening States capabilities to analyse quality parameters and indicators obtained from ADS-B sensors.

1.4 On this basis, work continued during 2026 to consolidate a regional strategy integrating the technical, operational and regulatory aspects of ADS-B and guiding its evolution over the 2026-2036 period.

2. Analysis

ADS-B CONOPS/Roadmap for the SAM Region

2.1 The development and updating of the ADS-B Concept of Operations is one of the main components of the work of SG CNS/SUR. The CONOPS provides a common framework to guide the evolution of ADS-B capabilities in the Region, taking into account ATM operational needs and the different levels of implementation in the States.

2.2 During 2026, progress was made in updating the ADS-B CONOPS for the SAM Region 2026-2036, which was presented within GREPECAS/23 and provides a long-term regional vision for the development and use of this technology. Following its presentation, this revision evolved into the Roadmap for the SAM Region.

2.3 The document should continue to evolve as operational, technical and regulatory requirements are consolidated and updated information on States surveillance capabilities becomes available.

ADS-B infrastructure and capabilities

2.4 SAM States have different levels of ADS-B implementation and operational use. It is therefore necessary to keep regional information on installed stations, coverage, availability, data processing and operational use up to date.

2.5 The information collected will make it possible to identify areas where coverage can be improved or complemented and to determine possible needs for additional infrastructure.

2.6 Regional analysis should also seek efficient use of existing infrastructure, avoiding unnecessary duplication and promoting cooperative solutions when technically and operationally feasible.

Monitoring and data quality

2.7 Activities conducted by SG CNS/SUR have placed particular emphasis on monitoring, analysis and use of information generated by ADS-B sensors.

2.8 The generation of quality and performance indicators will provide States with objective elements to assess system behaviour and will progressively facilitate the establishment of common regional criteria for monitoring ADS-B infrastructure.

Exchange of surveillance data

2.9 One area of particular interest to the Region is the exchange of ADS-B data between States and adjacent FIRs.

2.10 Use of information from sensors installed in neighbouring States can improve coverage in border areas, provide redundancy and strengthen the resilience of surveillance services.

2.11 This will require continued identification of operational needs, technical capabilities, exchange formats, available telecommunications infrastructure and the corresponding bilateral or multilateral coordination mechanisms.

2.12 The availability of REDDIG and the evolution of regional telecommunications infrastructure provide a favourable environment for continuing to analyse efficient and secure mechanisms for exchanging these data.

CNS/ATM coordination

2.13 ADS-B implementation should not be regarded exclusively as a technological activity. Its development should respond to clearly identified operational needs and be closely coordinated with ATM areas.

2.14 In particular, available surveillance capabilities can contribute to initiatives aimed at improving airspace efficiency and optimizing applicable separation minima, provided the corresponding technical, operational and safety requirements are met.

Activities planned for the remainder of 2026

2.15 During the coming months, SG CNS/SUR will continue working with States on the review and consolidation of the ADS-B CONOPS/Roadmap 2026-2036, updating information on infrastructure and coverage, and analysing the technical and regulatory aspects required for harmonized implementation.

2.16 Work will also continue to identify opportunities for ADS-B data exchange between adjacent FIRs and to define criteria for monitoring the quality and performance of surveillance data.

2.17 The results will enable regional planning to be updated and subsequent actions to be established in order to progress toward an interoperable and resilient regional surveillance environment.

3. Suggested actions

3.1 The Meeting is invited to:

- a) take note of the progress achieved in the activities of SG CNS/SUR;
- b) support continuation of work to consolidate the ADS-B Roadmap for the SAM Region 2026-2036;
- c) urge States to keep information on infrastructure, coverage, operational use and performance of their ADS-B systems up to date;
- d) support continuation of work aimed at establishing regional criteria for monitoring and analysing ADS-B data quality;
- e) promote the identification and development of opportunities for surveillance data exchange between States and adjacent FIRs, where technically and operationally appropriate; and
- f) request SG CNS/SUR to continue coordinating these activities with ATM areas and to present progress at future GT INTEROP and SAM/IG meetings.

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