SEVENTH MEETINGS OF THE SAT IMPLEMENTATION MANAGEMENT GROUP (SAT IMG/7)
AND
SAT SAFETY OVERSIGHT GROUP (SAT SOG/7)

Dakar, 6-10 April 2026

Agenda Item 3: Airspace and ATS Route improvements

Unified And Standardized Aeronautical Information Circular (AIC) for PBCS implementation in EUR/SAM Corridor.

*(Presented by **ESCIT**)*

SUMMARY	
This working paper aims to develop a unified and standardized format for the Aeronautical Information Circulars (AICs) related to Performance Based Communication and Surveillance (PBCS) across all SAT States, ensuring consistency, harmonization, and alignment with ICAO provisions for global implementation. Action by the Meeting note the need for a harmonized and standardized structure for PBCS related AICs across SAT States.	
Strategic Objectives	Support ICAO's Strategic Objectives on Safety and Air Navigation Capacity and Efficiency by promoting harmonized, standardized and globally consistent AIC formats for PBCS implementation across the EUR/SAM Corridor, enhancing operator understanding, facilitating coordinated implementation, and reinforcing interoperability among SAT States.

1 INTRODUCTION

1.1 Following the recommendations made by IATA and the SAT IMG during their latest meeting, the ESCIT States have agreed to issue a unified Aeronautical Information Circular (AIC) for PBCS implementation. This coordinated approach aims to ensure that information provided to all users operating within the EUR/SAM Corridor is clearer, more consistent, and easier to interpret.

2. DISCUSSION

2.1. A proposal is presented for the States along the EUR/SAM Corridor, based on the AIC structure used by Brazil, for each State to adapt it according to its own operational circumstances. This reference format

provides a clear and well-organized framework that can support greater consistency in the presentation of PBCS related information across the Corridor. (See Appendix A)

2.2 A standardized format would not only assist operators in understanding and meeting PBCS requirements but also simplify future updates, enabling States to maintain coherence with evolving ICAO documentation and guidance material.

3 ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the need for a harmonized and standardized structure for PBCS related AICs across SAT States.
b) consider the DECEA AIC (November 2025) as a reference model for developing such a structure; and
c) support the development of a unified format to enhance consistency, facilitate operator understanding, and promote global interoperability in accordance with ICAO provisions.

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APPENDIX A — Proposed PBCS AIC Format for EUR-SAM Corridor States

This document is only a draft, intended to facilitate and harmonize general sections and criteria.

Each State must update and insert the information they deem relevant.

Each Member State is encouraged to review the draft thoroughly before publication, and to share it with adjacent States for coordination and confirmation.

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AIC – ANSP [To be completed]

Implementation of PBCS in the [To be completed] FIR Aeronautical Information Circular (AIC)

Subject: Implementation of the Performance Based Communication and Surveillance (PBCS) concept in the [To be completed] Flight Information Region [To be completed] (FIR)
Publication date: [To be completed]
Reference: [To be completed]

1. PURPOSE

The purpose of this Aeronautical Information Circular (AIC) is to inform airspace users about [To be completed] planning for the implementation of the Performance Based Communication and Surveillance (PBCS) concept, with the aim of reducing horizontal separation minima in the [To be completed] Flight Information Region [To be completed] (EUR/SAM CORRIDOR).

2. BACKGROUND

The PBCS concept, established by the International Civil Aviation Organization (ICAO) in Document 9869 – PBCS Manual, applies to air traffic control services and defines technical operational parameters enabling the use of the different communication and surveillance technologies available in aviation, based on their performance levels.

The PBCS concept is aligned with the Performance Based Navigation (PBN) framework. While PBN is based on Required Navigation Performance (RNP) and Area Navigation (RNAV) specifications, PBCS introduces the criteria of Required Communication Performance (RCP) and Required Surveillance Performance (RSP).

Compliance with PBCS requirements will support the evolution of air traffic management (ATM) operations, facilitate the application of new standards and procedures, and make possible the reduction of horizontal separation minima currently applied in remote regions.

This concept provides a framework in which all stakeholders (regulatory authorities, air navigation service providers, operators, communication service providers and manufacturers) continuously collaborate to optimize the use of airspace.

3. TECHNOLOGIES INVOLVED

The technologies used within the PBCS framework are Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance – Contract (ADSC).

In the PBCS context, aircraft navigation capability (RNP) plays a relevant role, as it determines the feasible reduction of horizontal separation minima and, consequently, the benefits achievable.

4. CURRENT SCENARIO IN THE [To be completed] FIR*

**(Optional; each State may decide whether this section is relevant to include.)*

The [To be completed] ACC provides air traffic control, flight information, and alerting services within the [To be completed] FIR, using CPDLC and HF communications, as well as ADSC aircraft surveillance [To be completed] (In part of the [To be completed] FIR, near the equatorial region, there is a set of airways that channel traffic between Europe and South America in both directions, known as the EUR/SAM Corridor.)

The separation minima currently applied limit airspace capacity and flexibility, as well as the efficient use of routes.

Current separation minima:

- Longitudinal separation: [To be completed]
- Lateral separation: [To be completed]

5. REQUIREMENTS AND BENEFITS

To operate in accordance with the PBCS concept, the ATC system, data link systems, airborne systems and operators must continuously meet the functional, safety and performance requirements established in communication and surveillance system specifications, as set out in ICAO Document 9869 – PBCS Manual.

Performance requirements are defined in terms of RCP (Required Communication Performance) and RSP (Required Surveillance Performance), indicating the levels of reliability, availability, latency and integrity of communications and surveillance.

Navigation requirements are defined in terms of RNP (Required Navigation Performance), indicating the level of accuracy, integrity, continuity and functionality of navigation systems.

NOTE: Detailed information regarding PBCS eligibility and operational use will be published through specific regulation.

The implementation of the PBCS concept will allow:

- Reduction of separation minima and increased capacity, route optimization and allocation of flight levels according to performance.
- Increased flexibility and adaptability in the presence of weather, enabling dynamic traffic adjustments.
- Reduction in fuel consumption, emissions and operational costs.
- Maintenance of safety levels through ATS system monitoring and alerts.
- Operation of aircraft with different performance levels without the need for airspace segregation.

6. IMPLEMENTATION PHASES (To be completed by the State)

The reduction of horizontal separation between aircraft meeting the required communication, navigation and surveillance criteria will be implemented in the [To be completed] FIR (EUR/SAM CORRIDOR) in three phases, as follows:

6.1 Phase 1 – From November 2026

- Application of [To be completed] separation (lateral and longitudinal).
- If at least one aircraft lacks PBCS/PBN capability: 10 minutes / 80 NM (longitudinal) and 50 NM (lateral).

6.2 Phase 2 – From March 2027 [To be completed]

- Application of 30 NM (longitudinal) and 23 NM (lateral) separations.
- If an aircraft, even declaring PBCS, is not RNP 4 (RNP 10 only): (50NM) 5 minutes (longitudinal) and 50 NM (lateral).

- If at least one aircraft lacks PBCS/PBN capability: 10 minutes / 80 NM (longitudinal) and 50 NM (lateral).

6.3 Phase 3 – From October 2027

Implementation of longitudinal distance-based separation using ADSC in the Climb and Descent Procedure (CDP).

NOTE: ADSC distance based longitudinal separation minima will apply when an aircraft flying on the same route is cleared to climb or descend through the level of another aircraft.

7. SUMMARY TABLES (To be completed by the State)

Table 1 – Separation Minima by Implementation Phase

Phase	Longitudinal Separation	Lateral Separation	Conditions
Phase 1 (Nov 2026)	(…)	50 NM	Applies to PBCS/PBN capable aircraft

Phase 1 Exception	(…)	50 NM	If any aircraft lacks PBCS/PBN
Phase 2 (Mar 2027)	(…)	23 NM	Aircraft with PBCS + RNP 4
Phase 2 Exception	(…)	50 NM	If any aircraft has only RNP 10
Phase 3 (Oct 2027)	ADSC distance based (CDP)	—	Applies during climb/descents on the same route

Table 2 – Operational Scenarios under the PBCS Concept

Scenario	Technical Conditions (minimum)	Separation Applied
Both aircraft PBCS + RNP 4	CPDLC + ADSC + RNP 4	30 NM (long.) / 23 NM (lat.)
One aircraft non PBCS/PBN	Missing CPDLC, ADSC or RNP	10 min / 80 NM (long.) / 50 NM (lat.)
One aircraft PBCS but only RNP 10	CPDLC + ADSC + RNP 10	5 min (long.) / 50 NM (lat.)
CDP on same route	ADSC distance-based separation	ADSC distance minima during climb/descent

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