



ICAO

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**WESTERN AND CENTRAL AFRICA OFFICE**

**Twenty-fourth Meeting on the Improvement of Air Traffic Services over the South Atlantic (SAT/24)**

**Luanda, Angola, 5-7 June 2019**

**Agenda Item 3: Airspace Structure and ATM Operational Improvements**

**3.4.2 EUR/SAM Corridor Airspace Concept Implementation Team (ESCIT) Report**

*(Presented by ENAIRE)*

<b>SUMMARY</b>
EUR/SAM Corridor Airspace Concept Implementation Team (ESCIT) Report
<p><b>Related ICAO Strategic Objective(s):</b>            The working paper relates to the Air Navigation Capacity and Efficiency Strategic Objective of ICAO.</p>

**1. Introduction**

1.1 ESCIT efforts are bound to implement PBCS concept in the EUR/SAM Corridor, establishing clear objectives and goals to be targeted not only by EUR/SAM States, but by all SAT States in a close future. The two main conclusions related to PBCS, followed by ESCIT group were:

*Conc.SAT/23/06: Implement reduced separation minima in the Region via PBCS, That:*

*All SAT Region States will conduct an analysis to determine needs and enhancements necessary to implement PBCS in the SAT Region and to identify appropriate airspace for implementation of reduced separation minima*

*All SAT States shall agree to phased in approach of reduce separation in appropriate SAT Region airspace (PH1–EURSAM Corridor) and identify required components to implement reduced separation minima in EUR/SAM corridor*

*In coordination with the ICAO NAT Region identify and develop specific areas required for PBCS implementation and propose to acquire PBCS guidance documents and materials, (ANSP requirements, RMA requirements, Operator*

*requirements and State requirements), implementation plan, lessons-learnt, business case and best practices from the NAT Region*

*Review and assess implementation requirements and tasks at SAT 24. Provide guidance concerning additional activities necessary to facilitate PBCS implementation in the Sat Region.*

Concl. 23/14: *Development of ToR for investigation on RCP and RSP, That :*

*The joint Technical team expands its work program to include the development of Terms of Reference for the investigation into the current systems to establish performance baseline (Transaction time, Continuity, Availability and Integrity) in preparation of the implementation and operation of RCP and RSP*

## 2. DISCUSSION

### 2.1 EUR/SAM States.

2.1.1 ENAIRE, as nominee leader, held a teleconference (April 2019) with ESCIT group, asking States to comment their PBCS National Plan Status, regarding the three key steps proposed by ENAIRE and established in point 2.4.9 of SAT23 Report:

*2.4.9 The three key steps for implementation of the EUR/SAM airspace project regarding “5 minutes LSM based on RSP/RCP/RNP10” are:*

*EUR/SAM\_1.1: Doc4444 5.4.2.9 “Longitudinal Sep. Minima in National Regulations;*

*EUR/SAM\_1.2: RNP10/RSP180/RCP240 (ANSP Requirements & Operators Requirements);*

*EUR/SAM\_1.3: Evaluation of ADS-C/CPDLC Ground Systems (RCP/RSP) for DLink Mandate.*

### 2.1.2 Resume of teleconference minutes:

#### Spain

- PBCS Doc4444 amendments already included in the National normative.
- Although SACTA-FANS already incorporates RSP/RCP specifications, a legislative internal Certification as System to provide Reduced Separation is compulsory and demanded by the National Spanish Safety regulator (AESA). This is in process
- Operators PBCS certification procedure already published by National Regulator. Main operators already certified

#### Brasil/Cape Verde

- A first meeting about FANS-RSP/RCP for reduced longitudinal separation took place in early April between some Portuguese-language spoken States.
- A second meeting is to be prepared.
- Urged to publish Operators PBCS certification procedure
- Cape Verde also attend to that group so it's to think that both FIRs will move in a similar margin
- Brasil was asked to present/send a paper in SAT24 with estimation and status for FANS –RSP/RCP in Atlántico FIR.

## ASECNA

- ASECNA commented the progress in the use of FANS, but appointed about the difficulties to find a proper way to measure the RSP/RCP performance for a flying aircraft.
- It was proposed that ENAIRE send to ASECNA information regarding SACTA basic specifications so the Ground system may analyse, in real time, the RSP performance of the aircraft (Document sent by ENAIRE May 16<sup>th</sup>).
- Urged to publish Operators PBCS certification procedure
- The Post-monitoring tasks would be covered by the Monitoring Agency, as ARMA suggested later.

## RMAs (ARMA/SATMA)

- ARMA raised the need of PBCS monitoring issues will be responsibility of existing RMAs.
- SATMA exposed that all Monitoring Agencies will meet (RMACG14.Las Palmas.17-21June) to discuss about global PBCS monitoring, as ICAO has determined that already existing RVSM Monitoring Agencies extend their responsibilities to PBCS. That includes a Database for PBCS certified aircraft (to be issued by States) and monitoring studies about PBCS behaviour (as done with RVSM nowadays).

SAT23 Report (2.4.1-2.4-19) collects all actions presented by ESCIT for the consecution of PBCS in the corridor, with the collaboration of ASECNA surveys (2.4.24-2.4.26). SAT23 conclusions must be in line with ACM/1 as:

*1.1 The meeting acknowledged the good work and achievements of the SAT and NAT working groups in ensuring safety and efficiency of operations. It was recognized that the Atlantic airspace is a homogeneous area with similar issues and solutions due to the inherent nature of oceanic airspace. After the discussion on the areas of work and the associated prioritization, the meeting participants identified the following priority topics for potential joint projects aiming at further harmonization and seamless operations:*

- a) Contingency plans harmonization;*
- b) Performance based (PBCS/PBN) separation minima implementation; and*
- c) SB ADS-B implementation.*

*The following topics for potential joint projects were agreed as second priority projects:*

- d) AIDC/AMHS implementation;*
- e) Harmonisation of NAT and SAT CONOPS elements to the extent possible;*
- f) assignment of flight levels; and*
- g) HF COM issues (an urgent safety issue but the scope is limited to SAT).*

*1.2 The meeting agreed that the ICAO Regional Offices (ROs) would further **coordinate and identify co-leads for each of the 3 joint priority projects. Project co-leads would be one from the SAT and another from the NAT.** It was agreed that the United Kingdom would co-lead the project on contingency plans and draft their proposals in coordination with ICAO for further coordination by e-mail.*

This Point 1.3 -identify co-leads, key for this external expertise- should be easily solved as SAT has already nominated working groups and leaders for some of the matters (ENAIRES for ESCIT-PBCS, ASECNA&ATNS for Contingency Plans, ASECNA for assignment of Flight Levels,...-).

## **2.2 Operational Procedures in PBCS**

2.2.1 It was settled - (2.4.17) of SAT23 Report- that the implementation of 5-minutes LSM in the EUR SAM corridor will bring new operational scenarios for ATCs. Aspects has to be considered, as the challenge of managing flight levels occupied by both PBCS certificated and PBCS non-certificated aircraft, or the way for application (time/distance) of different separation minima. Consequently, procedures will be established regarding the assignment of flight levels and separations.

2.2.2 Even the on time introduction of RNP4 proposed by ASECNA has to be properly evaluated.

2.2.3 At that time, in SAT23, ENAIRES recommended (2.4.18-SAT23 Report) the creation of the “Operational Procedures Task Force” to work in parallel to other project activities in order to promptly address procedural issues related to PBC implementation. Now, to be in line with FIT/SAT structure proposal included in a WPXX, this studies would be addressed by the new group.

2.2.4 Regarding the *Concl. 23/14 Development of ToR for investigation on RCP and RSP*, it is to have into account that, recently, CNMC included FANS and RCP/RSP as areas of study.

## **2.3 ADS-B**

2.3.1 During ACM/1 it was highlighted the importance of ADS-B. Moreover, was one of the prior matters to be addressed in collaboration by NAT and SAT.

2.3.2 Several SAT States has already presented plans –in fact, contracts- for a medium term implementation. Good news, taking into account that the European Commission Regulation n° 1207/2011 establishes that all European operators must be ADS-B equipped in a very short term. That means that a huge percentage of EUR/SAM corridor traffic will be equipped by this time, although it is for sure that the initial implementation target date will be delayed, mainly because ADS-B has no a Data Link Communication system adhered, as ADS-C has with CPDLC and because any new tool needs a time of maturation.

2.2.3 Anyway, the fact is that both surveillance systems –ADS-C and ADS-B- will coexist in the future, and we have to realize that the major part of our work in next years will focus on this coexistence. SAT meetings should stick to that future and adequate groups and structures to the new challenges.

## **3. Actions Required**

3.1 The SAT Group is invited to:

- 1) **Urge ICAO Secretariat to establish NAT and SAT co-leads in priority matters agreed in ACM/1**
- 2) **Urge EUR/SAM States to upgrade their systems to comply with steps EUR/SAM\_1.1; EUR/SAM\_1.2 and EUR/SAM\_1.3 of ESCIT project approved in SAT23:**
- 3) **Adequate SAT/FIT/CNMC structures to main goals and projects to achieve by SAT in the medium term.**