



International Civil Aviation Organization
South American Office
**Sixteenth Meeting on the improvement of Air Traffic Services
over the South Atlantic (SAT/16)**
Recife, Brazil, 4 to 6 May 2011

Agenda Item 3. 2: Performance Based Navigation (PBN) in the South Atlantic

Implementation of RNP 4 in the EUR/SAM Corridor

(Presented by Secretariat)

Summary

<p>This paper presents the ICAO relevant provisions pertaining to the implementation of RNP 4. It also reports on the process of the implementation of RNP 4 with 30/30 NM longitudinal/lateral separation in the South Atlantic as envisioned by the SAT Group.</p>
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<p>References:</p>

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| <ul style="list-style-type: none">• SAT/14 Meeting Report• SP AFI RAN 2008 Report• SAT14TF1 Meeting Report• APIRG 17 report• Annex 11• PANS-ATM Doc 4444• Doc 9613 |
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1. Introduction

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1.1. ICAO provisions on requirements for PBN implementation and operations are contained in Annex 11 – Air Traffic Services, PBN Manual (Doc 9613), PANS-ATM Doc 4444

1.2. ICAO Assembly Resolution A36-23 called States to expedite implementation of RNAV and RNP operations (where required) for en route according to established timelines and intermediate milestones.

1.3. The SP AFI RAN meeting, then APIRG adopted a regional PBN implementation plan which set the target for RNP 4 implementation in oceanic airspace as short term (2008-2012).

1.4. It has to be noted that EUR/SAM Corridor is constituted of tracks where 30NM lateral separation will be most successfully applied, taking into account the growth of the traffic, the preparedness of ANSPs and operators, and the growth of the number of RNP 4 approved aircraft.

2. Discussion

2.1 The SAT14 meeting which was held in Montevideo, Uruguay, from 7 to 9 May 2008 noting the unexpected increase of the air traffic flows indicated that the implementation of RNP4 along the EUR-SAM Corridor should be considered by the SAT Group as a relevant target.

2.2. Thereafter, the SAT14/TF1 meeting held in Sal, Cape Verde, from 10 to 12 June 2009 considered the issue and recalled the benefits expected from the implementation of RNP4 with 30/30 NM longitudinal/lateral separation, in the EUR-SAM Corridor.

2.3 However, the meeting deemed necessary that a study/assessment be conducted on the transition from the current RNP10 with 10 minutes longitudinal spacing and 50NM lateral spacing to RNP4 30/30 NM in order to assess the safety of the operations as well as the expected economical advantages and adopted the following conclusion:

Conclusion SAT14TF1/11: Implementation of RNP/4 in the EUR/SAM Corridor

That EUR/SAM Corridor States and ANSPs

- 1. Agree on a need for a RNP 4-30/30NM implementation strategy, using available guidance material;**
- 2. Develop a transition plan from the current RNP10 with 10 minutes longitudinal spacing and 50NM lateral spacing; and**
- 3. Adopt an ADS-C updating rate consistent with RNP4 operations**

2.4 No follow-up action was taken for this conclusion and SAT 15 meeting (Lisbon, Portugal, 19-21 May 2010) putting the stress on the preliminary implementation of ADS-C/CPDLC, did not consider the issue. Yet, the traffic within the EUR/SAM corridor continues growing (2004- 2009:10.6 %), making the implementation in that area of RNP4 more and more relevant.

2.5 It is to be recalled and emphasized that the implementation of ADS-C/ CPDLC is a prerequisite for RNP 4 operations. In this regard, the status of implementation of ADS-C/CPDLC systems in the EUR/SAM corridor is as follows:

- Canarias: fully operational
- Cape Verde: would be ready for full implementation by September 2011.
- Brazil: fully operational.
- Senegal: fully operational.

2.6 With the all above in mind, the meeting may wish to consider that the terms of conclusion SAT14TF1/11 are still valid. Assuming that the implementation of RNP4 in the EUR/SAM corridor is deemed relevant by all parties, it is still necessary to develop a strategy for the transition from RNP10 to RNP4 comprising, inter alia, the required safety assessment and the operational procedures to be put in place.

2.7 Likewise, it is to be recalled that operators should equip their fleet flying in the EUR/SAM corridor with ADS-C / CPDLC and RNP4 avionics, and obtain approval from their State of registry.

3. Action by the meeting

1.5. 3.1 The meeting is invited to:

- 1) Note the information provided in this paper;
- 2) Agree on a need for a RNP 4-30/30NM implementation in the EUR/SAM corridor
- 3) Urge operators to equip their aircraft with ADS-C/CPDLC and RNP 4 avionics for oceanic airspace operations and obtain approval from the States of Registry,
- 4) Agree to task the SAT Study Group on the improvement of the airspace structure in the EUR/SAM corridor (IAS/SG) to carry out a study on the transition to RNP4 and report to the next SAT meeting.