



International Civil Aviation Organisation Western and Central African Office Twelfth Meeting of the
FANS I/A Interoperability Team (SAT/FIT/ 12)

Paris, France, 05 - 06 June 2017

Agenda Item 3: *Review of ADS/CPLC programmes and implementation activities in
SAT FIRs*

**PROPOSAL FOR AMENDMENT OF THE REGIONAL SUPPLEMENTARY
PROCEDURES, AFI (Doc 7030/9)**

(Presented by the Secretariat)

SUMMARY

This paper presents amendment proposal to AFI Regional Supplementary Procedures Doc 7030 in order to mandate the use of ADS-C/CPDLC in the South Atlantic for Aircraft already equipped with FANS 1/A systems.

Reference:

SAT/19 meeting report

Action required: See *paragraph 3*

1. Introduction

- 1.1 It would be recalled that the SAT/19 meeting took note of the Safety Recommendation on Final Report of the AF 447 Accident that involve Air Navigation Services in South Atlantic.
- 1.2 The SAT/19 .

2 Discussion

- 2.1 The SAT/19 meeting took note of the Final Report of the AF 447 (F-GZCP) accident, occurred on June 01, 2009, published by Bureau d'Enquêtes et d'Analyses (BEA-France) on July 2012.
- 2.2 The BEA AF 447 Accident Final Report had addressed 41 Safety Recommendations to the DGAC, EASA, FAA, ICAO and to the Brazilian and Senegalese authorities related to flight recorders, certification, training and recurrent training of pilots, relief of the Captain, SAR and ATC, flight simulators, cockpit ergonomics, operational feedback and oversight of operators by the national oversight authority. Some of these Safety Recommendations involve ICAO, as well as Brazilian and Senegalese authorities, and they have an impact on the South Atlantic flight operations.
- 2.3 The SAT/19 meeting took note of three of the Safety Recommendation in Final Report of the AF 447 Accident that involves Air Navigation Services in South Atlantic.

a) BEA Final Report Item 4.3.4 Air Traffic Control

“The investigation showed that the use of HF as a means of communication between ground and airplane is limited. Link outages were frequent in this area, especially on the day of the accident. A simulation of the use of ADS-C and CPDLC functions showed that the loss of altitude would have generated an alert on the DAKAR controller’s screen. There are numerous areas in the world where

HF remains the only means of communication between ground and airplane, though more reliable means are available today”.

b) Consequently, the BEA recommends that:

“The Brazilian and Senegalese authorities make mandatory the utilization, by airplanes so equipped, of ADS-C and CPDLC functions in the zones in question”; [Recommendation FRAN-2012-037]

c) “ICAO requests the involved States to accelerate the operational implementation of air traffic control and communication systems that allow a permanent and reliable link to be made between ground and airplane in all of the areas where HF remains the only means of communication between the ground and airplanes”. [Recommendation FRAN-2012-038]

2.3 Regarding the BEA Final Report Item 4.3.4 Air Traffic Control, the SAT/19 meeting was of the opinion that the mandatory utilization of ADS-C/CPDLC by airplanes so equipped should not be made by Brazilian and Senegalese Authorities as indicated in the Safety Recommendation issued by BEA, taking into considerations that the airspace involved is over high seas.

2.4 SAT/19 meeting was of the opinion that the most suitable mechanism to establish the mentioned mandatory utilization of ADS-C/CPDLC would be an amendment to the Doc. 7030 – Regional Supplementary Procedures. Taking into consideration that this procedure is suitable for the whole South Atlantic, all SAT States analyzed and approved the application of this procedure and the convenience of presenting a Doc. 7030 amendment proposal.

2.5 In this regard, the SAT/19 meeting formulated the following conclusion:

Conclusion SAT19/08: AF 447 Accident Final Report

That:

Taking into consideration the Safety Recommendations from AF 447 Accident Final Report:

a) SAM and WACAF Offices coordinate the development of a Doc 7030 (Regional Supplementary Procedures) amendment proposal in order to mandate the use of ADS-C/CPDLC in the South Atlantic for Aircraft already equipped with FANS I/A systems.

2.6 The implementation of **Conclusion SAT19/08** was delayed due to challenges in coordination. The meeting is invited to note that ADS-C/CPDLC has been implemented by many FIRs in the SAT area after the adoption of Conclusion SAT19/08. Furthermore, the percentage of aircraft operating in the South Atlantic Oceanic airspace and which are equipped with ADS-C/CPDLC has increased significantly. The coordinated application and operation of ADS-C/CPDLC in the SAT area now will provide a very significant safety and efficient enhancements.

3. Action Required

The meeting is invited to:

- a) review the status of implementation of ADS-C/CPDLC and the significant safety and operational benefits attainable through a coordinated approach;

- b) Review and up-date the amendment proposal of Regional SUPPs Doc 7030 as **Appendix** to this working Paper.
- c) SAM and WACAF Offices coordinate the development of a Doc 7030 (Regional Supplementary Procedures) amendment proposal in order to mandate the use of ADS-C/CPDLC in the South Atlantic for Aircraft already equipped with FANS 1/A systems.
- d) Agree on any other follow-up action thereon.
