



**EIGHTH MEETING OF THE FANS I/A INTEROPERABILITY TEAM (SAT/FIT/8)
(Dakar, Senegal, 15-16 July 2013)**

Agenda Item 4 : System performance monitoring and maintenance

Analysis of the FANS services in the EUR/SAM Corridor
(Presented by Spain)

SUMMARY

This paper presents to SAT the data required to be submitted to the CRFA for the analysis of the FANS services in the EUR/SAM corridor

1. INTRODUCTION

On the conclusion SAT-FIT7-6 for the establishment of the “Central FANS Reporting Agency (CFRA)”, a request was established for the support of the member States to be provided to SATMA in order to meet and perform the CFRA functions.

For the year 2012, and referred to the Canarias Airspace, SATMA has prepared the “Analysis of FANS services in the EUR/SAM corridor” based on records from the ADS/CPDLC System of the Canarias FIR (SACCAN).

2. CFRA MISSION

Main CFRA activities related with the data collection are.

- Guarantee performance and inter-operability
- Investigate problems
- Share lessons learned

In order to achieve the CFRA mission, all Stakeholders should be actively involved in the problem reporting and resolution process.

It's essential that all aircraft operators in the region have the opportunity to become involved in the process.

The problem identification and resolution process consist of a data collection phase, followed by problem analysis and coordination with affected parties to identify a resolution, and recommendation of procedures to mitigate the problem.

3. DATA COLLECTION: PERFORMANCE DATA AND PROBLEM REPORTING

Periodic data collection from the different ANSPs is needed for FANS services performance analysis of the EUR/SAM Corridor. A list with the proposed data needed for this purpose is attached to this WP as **Appendix A**.

On the other hand, timely reporting of problems from both ANSPs and Operators in the region is the most efficient way to improve the operational capability within the EUR/SAM corridor.

Under the terms of reference of the CFRA, FIT States members are requested to provide SATMA with support to perform CFRA functions; In that sense, periodic delivery of required information regarding ADS/CPDLC performance and incidents should be a formal compromise for CFRA Monitored States.

To achieve these functions, stakeholders are encouraged to submit problem reports to the CFRA in a timely manner. Appendix B of the SATFIT8-WP/06 “CFRA ToR modification and Incident Reporting Form” presents an Incident Reporting Form that can be used for that purpose.

Finally, an example of a detected problem has been attached to this WP as **Appendix B**. Following the previously mentioned problem identification and resolution process, this problem once identified, should be solved within reason attending the corresponding recommendations.

4. DISCUSSION

According with the SAT-FIT7-6 conclusion, SATMA presents to the meeting a draft document with the data needed for a best performance of the FANS services analysis. This document is attached to this WP as **Appendix A**.

The “Analysis of FANS services in the EUR/SAM corridor (Canarias Airspace) 2012 Report” is attached to this WP as **Appendix C** as well.

5. ACTION BY THE MEETING

The SAT/18 Meeting is invited to:

- a) Analyse and discuss the proposed data to be send to the CFRA and the format to be established
- b) To decide the scheduled periods for the data collection
- c) To comment the “Analysis of FANS services in the EUR/SAM corridor 2012 Report”

APPENDIX A**DATA TO BE COLLECTED AND PROVIDED TO THE CFRA
(Monthly base)****1. Traffic data**

- a) Number of connected flights
- b) Percentage referred to total number of flights in the EUR/SAM corridor
- c) Number of flights with CPDLC connection (Monthly average)
- d) Number of different aircraft (aircraft registration) connecting to ADS (Monthly average)

2. Downlink (air to ground) messages delays**3. Percentage of connected flights for the most significant airlines****4. The percentage utilization value per data link media used for air-to-ground communications**

- a) Satellite Link
- b) VHF link

5. The cumulative percentage values per FOM

APPENDIX B

CPDLC CONNECTION PROBLEMS DETECTED IN THE DATA ANALYSIS

SACCAN FANS data analysis has shown that a significant number of times, uplink CPDLC connect requests from Canarias are replied by aircraft with a CPDLC disconnect request message notifying the aircraft is CPDLC connected to another ATS authority. This means that Canarias is neither the current data authority nor the authorized next data authority for the concerned aircraft when it receives the CPDLC connect request and, therefore, the request is rejected.

For instance, 32 occurrences were detected in February 2013 (17 times the current ATC data authorities were EUR/SAM Corridor Centers (Sal, Dakar and Atlantico), the other 15 times the current ATC data authority was another adjacent center). Some of these cases led to the impossibility of having a timely CPDLC connection between Canarias and the involved aircraft and they seem to evince that, sometimes, CPDLC connection terminations when aircraft leave an airspace, where data link services are being provided, are not being properly managed.

To minimize the occurrence of such situations it is important to follow bilateral agreements about data link transfers, or even review them if needed, in order to ensure an appropriate CPDLC connection with the next center during transfers.

APPENDIX C

**ANALYSIS OF FANS SERVICES IN THE EUR/SAM CORRIDOR
(CANARIAS AIRSPACE)
2012 REPORT**

(PLEASE SEE APPENDIX C IN NEXT PDF DOCUMENT)



Analysis of FANS
Services in the EUR/S