



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 4: *System performance monitoring and maintenance*

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Interoperability requirements between Dakar and Sal ATS systems

(Presented by ASECNA SENEGAL)

SUMMARY

This working paper introduces some actions undertaken by Dakar and Sal ACCs so as to achieve automatic coordination.

1. INTRODUCTION

The noticed growth of traffic between Dakar and Sal ACCs mainly along the EUR/SAM corridor generates a huge number of traffic to be coordinated and remains the main factor of LHD occurrence.

With the lack of automation, the only mean of coordination is vocal which increases ATC workload. Therefore, a technical meeting was held in SAL in December 2016 in order to reach ways and means to realize the automatic coordination.

2. DISCUSSION

2-1. Dakar ATS system

Dakar is using TOPSKY, an ATS system developed by THALES. This system allows either AIDC or OLDI. For the time being, only AIDC is used for coordination with Abidjan.

2-2. SAL ATM system

Sal is equipped with an ATS system developed by INDRA. This system is only OLDI capable and is used for coordination with Canarias and Santa Maria. Voice coordination is only used with Dakar.

2.3 Interoperability between Dakar and Sal ATS Systems

To connect the two systems, one solution may be the activation of OLDI between the two ATC centres. Sal is using the X25 Protocol for OLDI while Dakar is using IP protocol.

2-4 Coordination

When triggering OLDI and without any rejection, the following messages are generated:

- **ABI** for notification
- **ACT** for coordination
- **LAM** for lack of logical acknowledgement

In case of Flight level or estimates change after automatic coordination, vocal means would be used for revision.

2-5 Advantages, disadvantages and recommendations

2-5.1 Advantages

- Automation and standardisation of coordination
- Significant reduction of LHDs
- Reception of FPL data with the ABI, even if FPL was not received
- Reduction of errors risks and misunderstanding that may occur during voice coordination
- Reduction of ATC workload

2-5.2 Disadvantages

In case of specific events or significant data change, voice communications give more information for situation awareness.

2-5.3 Recommendations

Technical issues should be carried on to take advantages of AIDC/OLDI opportunities, in order to implement interoperability between neighbouring ATC centres, for a total automatic coordination.

3. ACTION BY THE MEETING

The meeting is invited to:

- take notes of the information provided in this WP;
- encourage ATC centres to implement automatic coordination.

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