



Agenda Item 6: Any other business

OPTIMI

(Presented by Portugal)

Summary	
This working paper presents the European intentions to expand the Oceanic Position Tracking Improvement and Monitoring functionalities to the CAR, SAM and AFI Atlantic airspace and invites SAT/FIT to identify activities to share technical and operational information, promote jointly global interoperability to enable a wide deployment of this functionality and eventually to perform flight trials to validate solutions for the downloading of safety critical data from the FDRs.	
References:	
<ul style="list-style-type: none">• ICAO High Level safety Conference 2010 – WP /25 – “Permanent Communication with Aircraft over Oceanic Areas”.• GREPECAS/16 - NE/19, 28 March – 1 April 2011, Punta Cana, Dominican Republic	
ICAO Strategic objectives	<i>A – Safety</i>

1. Background

1.1. The SESAR Joint Undertaking (Single European Sky ATM Research Joint Undertaking) is a European Community body in charge of all the development activities in Europe to deliver the new generation of Air Traffic Management systems and procedures under the Single European Sky framework.

1.2. In June 2009, as a consequence of the tragic loss in the Atlantic Ocean of Air France Flight 447, the European Commission requested the SESAR Joint Undertaking to take an action on the improvement of monitoring of air traffic in oceanic and remote low density airspace. Consequently, the SESAR Joint Undertaking launched OPTIMI (Oceanic Position Tracking Improvement and Monitoring Initiative) as a collaborative project with air navigation service providers, airlines, manufacturers, SATCOM providers and other entities involved in the aviation sector at the European Atlantic airspace.

1.3. In May 2010, initial conversations took place between the EC and Brazil to improve the mutual technical and operational cooperation on ATM matters. In August 2010, a Letter of Understanding was signed by DECEA and the SESAR Joint Undertaking, agreeing in particular on possible joint activities in those topics connected to OPTIMI.

1.4. During GREPECAS/16, March 2011, a paper was presented by Brazil with the support of the SESAR Joint Undertaking, showing the interest to establish an OPTIMI-like working arrangement focused on main traffic flows between the Europe - South America (EUR/SAM) oceanic routing areas. This would aim at GREPECAS welcomed the proposal and remitted it to SAT- FIT for discussing further developments.

2. Discussion

2.1. The new OPTIMI-like initiative will aim to integrate new technologies and procedures for the improvement of safety across the Atlantic. SAT/FIT is invited to discuss the practical aspects of the implementation of the OPTIMI recommended short term solution, which consists of the following:

1. Use of FANS 1/A based ADS-C periodic position reports with a 15 minutes period.
2. Use of FANS 1/A based ADS-C deviation alert on the following events:
 - a. Lateral deviation of 5NM from the nominal route.
 - b. Vertical deviation of 300ft above or below the nominal altitude.
 - c. Altitude change descent rate of 5000ft/min.
 - d. Deviation from nominal waypoint.

2.2. Besides the above, OPTIMI made some recommendations which will be formally transmitted to ICAO at a later stage. SAT/FIT is invited to discuss the practical aspects of jointly working on the following topics:

- a. Joint review, by OACCs and SAR facilities, of the protocols of notification and intervention in case of emergency to align them with the dispositions of ICAO Annex 12 Search and Rescue and ICAO Doc. 9731 International Aeronautical and Maritime Search and Rescue Manual.
- b. Exploring the use of any suitable incentive mechanism to encourage the installation of FANS1/A equipment and the use of ADS-C and CPDLC by Airlines and ANSPs.
- c. With a view to download FDR safety critical data when triggered by events, performing studies and eventually flight demonstrations regarding the volume of data downloaded the speed of data transmission, the triggering parameters of the downloading, and the most relevant parameters to be downloaded.
- d. Performing studies, and eventually flight demonstrations, on the use of a data repository for downloaded data storage and management either based on a central repository configuration or on a configuration of sequential repositories, together with the regulatory impact of these solutions.
- e. Performing studies, and eventually flight demonstrations, on other practical aspects of the operation such as the activation of ADS-C emergency mode, or the further standardization of phraseology for CPDLC messages.

3. Suggested action

3.1. The meeting is invited to:

- a. Take note of the information provided;
- b. Identify potential projects and partners; and
- c. Engage stakeholders to join an OPTIMI-like multi-lateral partnership that will be hastening the implementation of improving procedures and standards in the Region in this field.

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