



# ICAO

## INTERNATIONAL CIVIL AVIATION ORGANIZATION

### Twenty-Third Meeting of the AFI Planning and Implementation Regional Group (APIRG/23)

#### Agenda Item 3: RVSM Airspace Safety

#### Implementation of an operational supervision center at ASECNA

*(Presented by ASECNA)*

#### SUMMARY

This working paper presents the actions underway within the Agency for the implementation, on behalf of the Member States, of an operational supervision centre in charge of monitoring the performance parameters of the means of communication, navigation, surveillance and air traffic management in order to facilitate the deployment of performance-based communication and surveillance (PBCS), performance-based navigation (PBN), airspace capacity management and air traffic flow management through ATFM, SWIM and will ensure that the performance of each system is at all times in line with the required performance levels set and, if not, will enable the necessary decisions to be taken quickly and efficiently.

#### Action by the Meeting :

- a) Take note of the initiative of ASECNA Member States to implement a supervision centre to monitor the operational performance of the various CNS/ATM systems deployed to improve flight safety;
- b) Take note of the willingness of the ASECNA Member States to strengthen collaboration and the sharing of the data collected between this supervisory centre and ARMA and the other air navigation service providers in the region.

**Strategic Objectives**

**A, C, E**

## 1 INTRODUCTION

1.1 As part of the continuous improvement of the provision of air navigation services to users, ASECNA, in accordance with the air traffic management strategy adopted by the Member States: the strategic orientation plan resulting from the Regional Air Navigation Plan, the region's ATFM and SWIM roadmaps, has implemented CNS/ATM systems, some of which are technologically advanced :

- the air traffic control automation system, TOPSKY, which can integrate several sensors;
- Controller Pilot Data Link Communications (CPDLC);

- ATS InterFacility Data Communications (AIDC);
- surveillance means: ADS-B terrestrial, space-based ADS-B, secondary radar;
- performance-based navigation (PBN);
- AIXM database;
- electronic AIP (eAIP);
- the automated NOTAMS production system and pre-flight information bulletins (PIB);

1.2 Also as part of this air traffic management strategy in the Member States, other systems are being deployed: SBAS, SWIM, meteorological warnings, ATFM, PBCS performance-based surveillance and communication and ASEPS separation minima facilitated by the deployment of satellite ADS-B, which enables global airspace surveillance.

1.3 In order to guarantee the quality of the services provided and to ensure in real time that the requirements and operating parameters of the various systems and the required performance defined for the means of navigation, communication and surveillance are respected at all times, it is necessary to ensure the monitoring of these systems through an operational supervision centre at central level.

## **2. DISCUSSION**

2.1 The successful conduct of the various operations in ASECNA airspace based on the various CNS/ATM systems deployed can only be guaranteed by setting up a continuous surveillance programme through a system for collecting and monitoring the required navigation, communications, surveillance and air traffic management performance to ensure compliance with the specifications and levels of Required Performance RNP, RNAV, RCP and RSP adopted in the AFI region.

2.2 On the other hand, it should be noted that only compliance with the RCP communications and RSP surveillance performance levels of the PBCS concept will allow the application of ASEPS separation minima, which will lead to a reduction in separation standards and an increase in airspace capacity.

2.3 To be able to accommodate the continuing growth in air traffic and to continue to respond effectively to user needs, it is therefore necessary to set up a mechanism for centralised operational supervision of the performance of the CNS/ATM systems that have been implemented. The system currently being implemented is an operational supervision centre with the following main tasks:

- Centralised supervision of the automated air traffic management system;
- centralised management of flight plans;
- traffic flow and capacity management;
- performance monitoring of the PBCS communication and surveillance means;
- centralised compilation of RVSM data and transmission to ARMA;
- the management of exception and alert situations in the context of SAR operations.

2.4 This supervision centre will enable ASECNA to have a centralised global view of air navigation operations throughout the airspace and, in the event of malfunctions, to implement coordinated and appropriate corrective actions as quickly as possible.

### **3 ACTION BY THE MEETING**

3.1 The meeting is invited to take note of :

- a) the initiative of ASECNA Member States to implement a supervision centre to monitor the operational performance of the various CNS/ATM systems deployed to improve flight safety;
- b) the willingness of the ASECNA Member States to strengthen collaboration and the sharing of the data collected between this supervisory centre and ARMA and the other air navigation service providers in the region.