



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

WESTERN AND CENTRAL AFRICA OFFICE

Twenty-Fourth Meeting on the Improvement of Air Traffic Services over the South Atlantic (SAT/24)

Luanda, Angola, 05-07 June 2019

Agenda Item 3: *Air Traffic Management (ATM)*

**3.4.4 Improving access to Optimum flight levels
in the EUR/SAM Corridor**

(Presented by ASECNA - SENEGAL.)

SUMMARY
This paper deals with some of the causes of the unavailability of optimum flight levels for many long haul traffic crossing Dakar Oceanic FIR / UIR and suggests a mitigation action.
REFERENCE(S) : Decision SAT/23/02
Related ICAO Strategic Objective(s) : Assessment of air traffic services provision, determination of causes to inefficient operations and implementation of mitigation action in the EUR-SAM Corridor

1. INTRODUCTION

With the continuous growth of air traffic along the EUR-SAM, airspace capacity is becoming a major issue.

An efficient accompaniment of this growth constitutes a key element to meet the demand of optimum flight levels, for long-haul flights in the EUR/SAM Corridor. This policy should be reflected both in the development of the operating systems and procedures. So far, it is relevant to find ways and means to improve flight trajectories and to optimize ATS routes network.

2. DISCUSSION

2-1 With the implementation of RNP10 that is still in force, traffic operating in the EUR/SAM Corridor is still longitudinally spaced with ten (10) minutes separation, using the Mach number technic. Commercial aircraft generally fly between FL310 and FL390, and with their weight decreasing in time, they usually request higher flight levels. That's what happens in Dakar Oceanic airspace which is located half-way for traffic flying from Europe to South America and vice versa.

2.2 In 2018, 52% of the fleet used random routing (west of UN741) whereas 47% were flying along the EUR/SAM corridor routes. Most of the airlines are using the same software which allocate them the same tracks (random routing or ATS routes) taking advantage to the most favourable meteorological conditions. Aircraft departing from Europe to South America (vice versa) have the same slot and the same performance. They are vertically stacked in flight levels; so they cannot always have their optimum requested flight level due to lack of minimum longitudinal separation. The software should take into account these factors and propose alternative tracks.

2-3 RNP4 implementation in the EUR / SAM corridor with 5 minutes longitudinal separation will improve airspace capacity accommodating thus more traffic at their optimum flight levels. Indeed, 30 NM lateral separation will enable to perform more flexible ATS routes.

2.4 In summary, it can be stated that the main reasons why some flights don't get their optimum required flight level are:

- Track allocation by the software used by the airlines which doesn't take into account the time slot and
- The application of 10 minutes longitudinal separation in the corridor.

3. ACTION BY THE MEETING

The meeting is invited to:

- take note of the information provided in this working paper and;
- take into consideration the proposal contained in this paper, mainly on 2.2 with the aim of reaching a successful solution to improve flight efficiency and Flight Level occupancy in the EUR-SAM Corridor.

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