



Agenda Item 5:

Collision risk assessment and LHD

g) Actions to harmonize/standardize RMAs procedures related to LHD, LLD and LLE calculation

Analysis of collision risk assessment methodologies in the EUR/SAM corridor

(Prepared by SAT SOG)

SUMMARY

This paper aims to analyze the collision risk assessment methodologies used by the Regional Monitoring Agencies (RMAs) in the EUR/SAM Corridor.

REFERENCES

- SAT-24 meeting
- ACM 2 meeting
- ACM-s meeting

1. Background

1.1 The safety of air traffic is of paramount importance, and the implementation of robust risk assessment methodologies is essential to ensure it. In the EUR/SAM Corridor, the RMAs are responsible for monitoring and assessing air traffic in the region. This study analyses the collision risk assessment methodologies the Regional Monitoring Agencies (RMAs) use in the EUR/SAM Corridor.

1.2 By conducting the survey and collecting data samples, SAT SOG identified that just one RMA calculates lateral and longitudinal deviations. This study aims to analyse the collision risk assessment methodologies used in the SAT region and propose a solution to address any discrepancies.

2. Analysis

2.1 The analysis identified that SATMA is the only RMA that calculates lateral and longitudinal deviations, while all RMAs calculate vertical deviation. To analyse SATMA's context, we received the document "Description of the methodology for the collision risk assessment in the EUR/SAM Corridor". The document was shared with other RMAs. However, it is necessary to investigate how the methodology is implemented and what resources are required for its execution.

2.2 Upon consulting CARSAMMA, it was found that an Ad-Hoc group in Brazil focused on implementing lateral deviation calculation due to the implementation of PBCS. As part of its work, CARSAMMA has developed, as provided in the Manual on Monitoring the Application of Performance-based Horizontal Separation Minima (Doc 10063), a prototype of the form (F7) for collecting **Large lateral deviation (LLD) and Large Longitudinal Error (LLE)**.

2.3 The aforementioned form was sent to FIR SBAO for testing. Between January and February 2023, the RMA received 04 reports of occurrences in the South Atlantic regarding lateral deviation (LLD), as follows:

- a) 01 horizontal deviation on December 30, 2022, from TAP059 flight;
- b) 01 horizontal deviation on January 24, 2023, from AZU8750 flight; and
- c) 02 horizontal deviations on February 01, 2023, from AZU8753 and TAP073 flights.

2.4 Receiving these reports highlights the need to promote a methodology for assessing collision risks among the RMAs of the SAT Region.

2.5 Therefore, SAT SOG proposes the establishment of an Ad-Hoc group to evaluate the feasibility of disseminating knowledge on the collision risk assessment methodology used by SATMA in the EUR/SAM Corridor. This group should also consider the feasibility of a workshop to promote the implementation of this calculation in the other RMAs.

2.6 By adopting a standardized methodology, we can ensure consistent and accurate assessment of collision risks in the region. It applies not only to the calculation but also to the exchange of information among the RMAs of the SAT Region. The proposal ensures that all regional RMAs use the same methodology to assess collision risks.

3. Action by the meeting

3.1 The meeting is invited to:

- a) take into account the information presented in this paper;
- b) approve the creation of an Ad-hoc group; and
- c) provide direction as deemed necessary.