



INTERNATIONAL CIVIL AVIATION ORGANIZATION

First Meeting of the Africa - Indian Ocean Aviation System Planning and Implementation Group (AASPG/1)

Libreville, Gabon, 3 - 7 November 2025

Agenda Item 4: Implementation of safety and air navigation goals, targets and indicators, including priorities set in the Regional Aviation Safety and Air Navigation Plans

4.4. AFI Airspace Monitoring

AFI RVSM Collision Risk Assessment Data

(Presented by ARMA)

SUMMARY	
This working paper presents the challenges encountered by the Agency in the production of a comprehensive and realistic risk assessment report.	
Action by the Meeting is as per Paragraph 3	
Strategic Objectives	A - Aviation Safety B – Air Navigation capacity and efficiency.
Reference:	ICAO Doc 9574 ICAO Doc 4444 Manual on the Assessment of Large Height Deviations (LHDs) based on an ATIS Safety Management System (SMS) for the AFI Region

1 INTRODUCTION

- 1.1 Collision Risk Assessment (CRA) is a report produced by inputting data into the Collision Risk Model. The required data ranges from aircraft flight hours, Large Height Deviations (LHDs) and aircraft height keeping capabilities, just to name a few. These parameters together with some constant values is what the Collision Risk Methodology applies to estimate the risk of collision in a given airspace.
- 1.2 The model is data driven and to ensure accuracy to the collision risk assessment, the data input needs to be verified against obvious errors, like entry and exit times discrepancies, correct classification of LHDs and accurate data on aircraft height keeping performance.

2. DISCUSSION

- 2.1. Credit is given to many of the States that consistently provide the ARMA office with monthly aircraft traffic flow data. However, emphasize is on the need to provide ARMA with aircraft incident data and resolutions to these occurrences. The contributing factor to lack of adequate data can be pointed towards nonresponse from National Programme Managers (NPM) to official letters or queries. It has been noted that the current National Program Managers list is outdated and needs to be updated as previously requested.
- 2.2. *Strategic Lateral Offset Procedure (SLOP)*: By distributing aircraft laterally, SLOP dramatically lowers the probability that two aircraft on adjacent flight levels will be in the same place at the same time. Collision risk assessments have shown that universal SLOP usage can significantly reduce the estimated risk of vertical collisions. SLOP acts as a vital risk mitigation measure for operational errors that cause an aircraft to deviate from its assigned flight level. Lateral offsets also reduce the risk of wake turbulence encounters, pilot or ATC errors, or when changing to an incorrect flight level or issuance of incorrect clearance. The States that are yet to implement Strategic Lateral Offset Procedure (SLOP) are encouraged to do so and seek assistance if required.
- 2.3. The evaluation of year 2024 data collection bears insignificant difference to the report of APIRG/27 & RASG-AFI/10 – WP/03D1. Hence ARMA has elected to approach 2025 data with an approach of Collision Risk Assessment (CRA) as per FIR. The support of this implementation group will ensure Nation Program Managers assist with data collection and verification. This will assist in improving participation in the AFI RVSM monitoring program, reduce the non-compliance reports from the other RMAs and get the AFI region closer to the Target Level of Safety (TLS).

3 ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) Note the information in this working paper;
 - b) Urge the States to update the NPM list;
 - c) Encourage and support those States that have not implemented SLOP to complete the exercise; and
 - d) Support the implementation of per FIR initiative as a vehicle to improve overall CRA.

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