



International Civil Aviation Organization
Western and Central African Office

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
(APIRG)**

**Fourteenth Meeting of the Air Traffic Management/Aeronautical Information
Management/Search and Rescue Sub-Group (ATM/AIM/SAR SG/14)
(Dakar, Senegal, 11 to 14 May 2015)**

**Agenda Item 3: Status of implementation of the Sub-Group Work Programme and
related Task Forces/Working Groups as assigned by APIRG**

3.1 Air Traffic Management

**COORDINATION AND IMPLEMENTATION OF STRATEGIC LATERAL OFFSET
PROCEDURES (SLOP) (CIRCULAR 331 AN/192 AND DOC 4444 SECTION 16.5)**

(Presented by ARMA)

SUMMARY

This information paper discusses the implementation of Strategic Lateral Offset Procedures (SLOP) in the AFI Region together with the results of the implementation survey that was conducted to establish the number of FIR's that have officially implemented SLOP which is required for inter alia the annual RVSM quantitative Collision Risk Assessment for the reduction of risk. SLOP should be coordinated amongst the States involved. A recommended solution is proposed for those States struggling with the implementation process.

Action by the meeting is at **paragraph 3.**

REFERENCES

ICAO Circular 331

ICAO Doc 4444, Section 16.5

This information paper is related to ICAO Strategic Objectives: **A&B**

1. INTRODUCTION

1.1 A Survey evaluating the Implementation of Strategic Lateral Offset Procedures (SLOP) in the AFI Region was conducted by ARMA in order to establish the number of FIR's

that have officially published and implemented the procedure. The coordinated implementation and harmonisation of SLOP has certain safety benefits to aircraft operators where vertical collision risk is minimised and the possibility of encountering wake turbulence is also reduced.

1.2 SLOP reduces the risk of aircraft passing directly over each other, passing frequency, thus the possibility of a Large Height Deviation resulting in hull losses is minimised. Circular 331 presents the work that the SASP has completed in this regard.

1.3 SLOP when worked into the annual RVSM risk assessment reduces the estimated Total Vertical Risk. SLOP mitigates the increased risk created by the accuracy of GNSS navigation and thus passing aircraft directly over each other. Together with this any resultant height deviations due to wake turbulence is also reduced.

1.4 The meeting is informed that Circular 331 AN/192 *Implementation of Strategic Lateral Offset Procedures* has been approved by the Secretary General and published under his authority and should be read in conjunction with ICAO Doc 4444 section 16.5 and Annex 2, 3.6.2.1.1.

2. DISCUSSION

2.1 States were requested via State Letter Ref. ES AN 4/45 - 0945 to respond not later than 28 February 2013 as to the official status of SLOP within FIR's under their management.

2.2 The meeting should recall that the under-mentioned Conclusion was endorsed by the APIRG/17 meeting:

Conclusion 17/43: Implementation of Strategic Lateral Offsets (SLOP) in the AFI Region

That, AFI States implement SLOP within their areas of responsibility, by the AIRAC effective date of 30th November 2010, in line with provisions in PANS-ATM Doc 4444 Chapter 16 and the following guidance:

- a) **SLOP will be applied in those oceanic FIRs where fixed routes are established;**
- b) **SLOP will be applied in all areas of the continental AFI Region except in those areas where ATC separation is provided by surveillance, unless approved by the State; and**
- c) **SLOP will be applied in oceanic random routing areas (AORRA and IORRA) with effect from the target date of AIRAC date of 2 June 2011**

2.3 The AFI Regional Monitoring Agency (ARMA) has a requirement to establish the number (quantity) of AFI Flight Information Regions (FIR's) in which SLOP has been implemented, pursuant to the abovementioned APIRG Conclusion. The primary objective of collecting the information on implementation is to use the data in the AFI Reduced Vertical Separation Minimum (RVSM) Collision Risk Assessments. In addition, the information will be

used to assess the AFI States' status of implementation of the APIRG Conclusions. The recently released Circular 331 now adds further urgency to finalize the implementation and survey. Together with this the RVSM risk needs to be mitigated with all available tools. Aircraft operators are the primary beneficiaries.

2.4 The CRA is a quantitative risk assessment requiring quantities to calculate the various risks. If all FIRs do not apply SLOP the risk would be calculated as high however as soon as SLOP is introduced the risk is substantially reduced provided that it is used. ARMA is aware that even if a State has not officially implemented SLOP that en route traffic is most probably anyway applying the off-set however the assumption cannot be worked into the assessment. States should take note of Circular 331 Chapter 2 Note 2 and paragraph 2.6.

2.5 The ARMA has reviewed numerous safety events where the use of SLOP has minimized the risk of an incident/accident from taking place.

2.6 The results of the SLOP survey are presented as received from the various States that responded and are reflected in Table 1 hereunder and were current at the time of compiling this paper:

SLOP		SLOP	
FIR	Implemented	FIR	Implemented
Antananarivo	Yes	Beira	Processing
Brazzaville	Yes	Harare	Yes
<i>Cabo Verde</i>	<i>Yes</i>	Lusaka	Processing
<i>Dakar Oceanic</i>	<i>Yes</i>	Lilongwe	No
Dakar Terrestrial	Yes	Mauritius	No
N'djamena	Yes	Seychelles	Yes
Niamey	Yes	Dar Es Salaam	No
Gaborone	Processing	Windhoek	Processing
Cape Town	Yes	Luanda	No
Johannesburg	Yes	Kinshasa	No
Johannesburg Oceanic	Yes	Addis Ababa	No
Nairobi	Yes	Mogadishu	No
Entebbe	No	Asmara	No
Algiers	To be Confirmed	Khartoum	No
Tripoli	No	Kano	No
Roberts	Yes	Accra	No

Table 1

2.7 It is thus evident that there are still States/FIR's where the implementation process is still to take place. The States of Morocco, Tunisia and Egypt are still required to indicate their status towards establishing the overall status within AFI.

2.8 Further to the ARMA CRA requirement, it would be in the States best interests to ensure that the SLOP status is adequately documented in their AIPs for the information and application of all users as per Circular 331.

2.9 Taking the aforementioned into account the ARMA proposes that the outstanding States/Firs indicate as soon as practically possible the implementation status of SLOP within their area of jurisdiction. This can be accomplished within the discussion during the meeting proceedings.

2.10 During correspondence and dealings with States/ACC's it has become apparent that some States/ACC's might require assistance with the implementation process. It is therefore proposed to the meeting that consideration be given to schedule a SLOP workshop for this purpose.

2.11 The ARMA webpage under AFI RVSM Circulars has ARMA Circular 17, 18 and 19 which contain proposed texts for publication in the AIAP. Together with this, an IP has been made available to the meeting containing the same information.

3. ACTION BY THE MEETING

The meeting is invited to:

- a) note and review the contents of this working paper;
- b) urge States/FIR's that have not responded to the survey to indicate their SLOP status in the meeting or undertake to do so within a set reasonable time period; and
- c) discuss the merits of scheduling an ICAO SLOP workshop to assist States with the implementation process.

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