



International Civil Aviation Organization

Tenth Meeting of the APIRG Air Traffic Services, Aeronautical Information Services and Search and Rescue Sub-Group

[Dakar, Senegal 12 – 15 May 2009]

Agenda Item 3: Review of outstanding Conclusions and Decisions of APIRG, as well as those of the ATS/AIS/SG/9

Implementation of Strategic Lateral Offset Procedures in the AFI Region

(Presented by the International Air Transport Association)

Summary

ATS/AIS/SAR/SG/8 (2005) Meeting had developed an amendment proposal to the ICAO Regional Supplementary Procedures – Doc 7030 – AFI Region, containing relevant provisions for RVSM implementation, including the application of SLOP procedures in the AFI Region, which was reviewed by APIRG/15 Meeting (2005). With the implementation of RVSM operations in September 2008, SLOP procedures are now overdue in the Region.

This working paper calls for formal introduction of SLOP procedures on a regional basis, in accordance with ICAO PANS ATM, Doc 4444, and recommends that AFI States publish SLOP procedures in their aeronautical information publications (AIPs). This measure will enhance safety by reducing the risk of collision in case of loss of vertical separation.

References:

- ICAO Annex 2 and Doc 4444 - PANS-ATM.
- APIRG/15 Report.
- ATS/AIS/SAR/SG/8 Report.

1. Introduction

1.1 ICAO has developed guidance material for strategic lateral offset procedures (SLOP), which are contained in ICAO Doc 4444 – PANS/ATM, Paragraph 15.2.4. Annex 2, 3.6.2.1.1, requires authorization for the application of strategic lateral offsets from the appropriate ATS authority responsible for the airspace concerned. Such procedures, which are particularly relevant in an RVSM environment, have already been implemented in other Regions, including in some AFI FIRs (EUR/SAM Corridor).

2. Discussion

2.1 The Eighth Meeting of APIRG ATS/AIS/SAR Sub-group ((Dakar, Senegal, August 2005) had developed an amendment proposal to the Regional Supplementary Procedures – Doc.7030/4 – AFI Region (Serial No. ESAF–S 04/1 – AFI RAC/1), containing relevant provisions for RVSM implementation, including the application of SLOP procedures in the AFI Region. The APIRG/15 Meeting (Nairobi, Kenya, September 2005) reviewed the proposed amendment, the implementation of which was pending the completion of a satisfactory RVSM pre-implementation safety case (PISC) and its review by the Air Navigation Commission (ANC) (Decision 15/77 refers). Since then, the following can be noted:

- A satisfactory PISC was developed and submitted to ANC review in June 2008.
- RVSM operations have been implemented in the AFI Region on 25 September 2008.
- Indications are that some operators apparently apply SLOP as part of their operational procedures in the AFI Region, without an appropriate regulatory framework.

2.2 In view of the above, the meeting may wish to recognize the need to forthwith establish the application of SLOP procedures on a regional basis in accordance with ICAO guidelines, as a means of enhancing safety while reducing the risk of collision in case of loss of vertical separation, especially in an RVSM environment.

2.3 ICAO Doc 4444, Paragraph 15.2.4 provisions on strategic lateral offset procedures are shown in **Appendix A**.

2.4 However, the meeting's attention is drawn to the fact that the air-to-air frequency 126.9 MHz is proposed to ensure consistency with the IATA In-Flight Broadcast Procedure (IFBP) reflected in most of States/FIRs' ATS contingency plans; instead of the ICAO Doc 4444 air-to-air frequency 123.45 MHz for SLOP. This fact shall be notified in AFI States' AIPs, Part 1 (GEN), as a 'significant difference' to the PANS-ATM as described under Annex 15, 4.1.2-c. Also, ICAO should be requested to process an amendment proposal to Doc 7030 - Regional Supplementary Procedures, to reflect the use of the air-to-air frequency 126.9 MHz for SLOP.

3. Conclusion

3.1. The meeting is invited to request:

- 1) That AFI States:
 - a. Authorize the application of special procedures for strategic lateral offsets in Oceanic Controlled Area (OCA) and remote continental airspace within AFI Region;
 - b. Publish in their AIPs the special procedures for strategic lateral offsets, as contained in ICAO Doc 4444 – PANS/ATM, Paragraph 15.2.4, for applicability as from 27 August 2009 (AIRAC); together with the use of the air-to-air frequency 126.9 MHz instead of 123.45 MHz, as a 'significant difference' to the PANS-ATM as described under ICAO Annex 15, 4.1.2-c; and
- 2) That ICAO process an amendment proposal to Doc 7030 – Regional Supplementary Procedures, in order to reflect the use of the air-to-air frequency 126.9 MHz for SLOP, unless otherwise advised.

Appendix A**Special procedures for strategic lateral offsets in Oceanic Controlled Area (OCA) and remote continental airspace within AFI Region**

Note. — The following incorporates lateral offset procedures for both the mitigation of the increasing lateral overlap probability due to increased navigation accuracy, and wake turbulence encounters.

1. The use of highly accurate navigation systems (such as the global navigation satellite system (GNSS)) by an increasing proportion of the aircraft population has had the effect of reducing the magnitude of lateral deviations from the route centre line and consequently increasing the probability of a collision should a loss of vertical separation between aircraft on the same route occur.
2. The application of lateral offsets to provide lateral spacing between aircraft, in accordance with the procedures specified in 3 and 4, can be used to mitigate the effect of this reduction in random lateral deviations, thereby improving overall system safety.

Implementation considerations for ATS authorities

3. The application of lateral offsets requires authorization from the ATS authority responsible for the airspace concerned. The following considerations shall be taken into account by the ATS authority when planning authorization of the use of strategic lateral offsets in a particular airspace:

- a) Strategic lateral offsets shall only be authorized in en-route oceanic or remote continental airspace. Where part of the airspace in question is within radar coverage, transiting aircraft should normally be allowed to initiate or continue offset tracking.
- b) Strategic lateral offsets may be authorized for the following types of routes (including where routes or route systems intersect):
 - 1) Uni-directional and bi-directional routes; and
 - 2) Parallel route systems where the spacing between route centre lines is not less than 55.5km (30 NM).
- c) In some instances it may be necessary to impose restrictions on the use of strategic lateral offsets, e.g. where their application may be inappropriate for reasons related to obstacle clearance.
- d) These offset procedures should be implemented on a regional basis after coordination between all States involved.
- e) The routes or airspace where application of strategic lateral offsets is authorized, and the procedures to be followed by pilots, shall be promulgated in aeronautical information publications (AIPs).
- f) Air traffic controllers shall be made aware of the airspace within which strategic lateral offsets are authorized.

Lateral offset procedures to be applied by pilots

4. In the application of strategic lateral offsets, pilots should take the following points into consideration:
 - a) Offsets shall only be applied in airspace where this has been approved by the appropriate ATS authority.
 - b) Offsets shall be applied only by aircraft with automatic offset tracking capability.
 - c) The decision to apply a strategic lateral offset is the responsibility of the flight crew.
 - d) The offset shall be established at a distance of one or two nautical miles to the right of the centre line relative to the direction of flight.
 - e) The strategic lateral offset procedure has been designed to include offsets to mitigate the effects of wake turbulence of preceding aircraft. If wake turbulence needs to be avoided, one of the three available options (centreline, 1 NM or 2 NM right offset) shall be used.
 - f) In airspace where the use of lateral offsets has been authorized, pilots are not required to inform air traffic control (ATC) that an offset is being applied.
 - g) Aircraft transiting areas of radar coverage in airspace where offset tracking is permitted may initiate or continue an offset.
5. Pilots may, if necessary, contact other aircraft on the air-to-air frequency 126.9 MHz, unless otherwise advised, to coordinate offsets.