

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Ninth Informal Meeting for the Improvement of Air Traffic Services
over the South Atlantic (SAT/9 Meeting)**

(Lima, Peru 6 to 10 November 2000)

Agenda Item 3: Review of the Report of the SAT Task Force Meeting

Review of ATS Route Network

(Presented by South Africa)

Summary

There is a requirement for the establishment of Random Routing Areas particularly where Long-Range, East-West-East Flights are conducted in low density environments – This paper intends to trigger the establishment of a Random Routing Area in the South Atlantic as proposed in the AFI CNS/ATM System implementation plan (Doc 003).

1. Introduction

- 1.1 In 1993 the states and airlines concerned with the provision of services within the South Indian Ocean met in order to rationalize the relevant airspace and at the same time, to arrange for the implementation of the most appropriate procedures for the volume of traffic with due consideration for the CNS/ATM system concept.
- 1.2 The volume and quality of traffic, extremely light and sophisticated, dictated the implementation of an area where Random Routing would become the standard procedure. Subsequently the Indian Ocean Random Routing Area (IORRA) was established down to 45° South.
- 1.3 A subsequent extension to the IORRA further South to 60° together with the expansion of the then Perth, now Melbourne and Johannesburg Oceanic Regions, allowed for a single flight saving of 50 minutes flying and 13 tonnes of fuel for a single flight between Melbourne and Johannesburg, which incidentally turned below 50° South.

2. General

2.1 Currently there are on average 13 flights airborne at any one time over the far South Atlantic Region, demarcated as ICAO Routing Area – AR 2, between South Africa and the South American Continent. This information being gained by means of a five week survey conducted over the period 1 August to 3 September.

2.2 Paper trials, using only two types of aircraft on various city pair routes indicate general savings of between 400 and 3350 Kgs of fuel per flight should random routing be permitted, as opposed to the current fixed routes.

Therefore, assuming an average of 1875 Kgs per flight, the resultant calculation would mean a saving of 1,267,500 Kgs of fuel for the industry per annum.

(Best case = 2 264 600 Kgs)

(Worst case = 270 400 Kgs)

2.2 Costs associated with time saving e.g. Airframe, human resources and goodwill etc., are excluded from the calculations at this stage.

2.3 The traffic between the continents transiting the most southern Atlantic Oceanic Airspace rarely pose a conflict.

2.4 The aircraft currently transiting the South Atlantic below 20°S are appropriately equipped for random operations to RNP 10 Standards which is not considered as an unrealistic requirement.

2.5 AFI CNS/ATM implementation Plan (Doc 003) has identified the need for random routing along the (AFI / NAT/ SAM) Interface (Extract attached Appendix A)

2.6 Attached as Appendix B, is a representation of the Indian Ocean Random Routing Area (IORRA) and a proposal of what a similar area could look like over the South Atlantic Ocean South of the major transit routes.

3. This paper was previously presented to the SAT 7 meeting at which the meeting accepted a recommendation that ICAO LIM office coordinate a workshop with provisional date of March 1999 however, this workshop has not yet been convened.

4. **Action by Meeting**

4.1 The meeting is invited to:

- a) Again note the programme of activities as documented in the AFI CNS/ATM implementation plan as it relates to the SAM region; and
- b) Again request the assistance of ICAO (SAM/AFI) in formulating a task force, comprising the affected states, in order to establish the definition and applicable procedures needed, for the establishment of a random routing area south of 10° South and, furthermore, to co-ordinate trial implementation: and
- c) To monitor the results and co-ordinate full implementation on completion of successful trials.