

**International Civil Aviation Organization  
UNDP/ICAO Regional Project RLA/98/003  
Transition to the CNS/ATM Systems in the CAR and SAM Regions**

**Third Meeting/Workshop of Air Traffic Management (ATM) Authorities and Planners  
(Lima, Peru, 20.24 May 2002)**

**Agenda Item 3: Analysis of the Action Plan for the Implementation of RNP 10 pre-operational Trials and Demonstrations Programme in UT (UL) 780 and its parallel route.**

**Implementation of a parallel route to RNAV route UT780 in order to begin pre-operational trials and demonstrations of an RNP 10/50NM spacing between route centre lines**

(Presented by Chile)

**Summary**

This working paper proposes RNAV route UL302 as the parallel route to RNAV UT780 in the Antofagasta and Santiago FIR.

**1 Introduction**

1.1 In conclusion 2/3 of the Second Meeting/Workshop of ATM Authorities and Planners (AP/ATM/2) held in Lima, Peru, on 14-18 May, 2001, it was decided to select a parallel route to RNAV route UT780 in order to begin RNAV pre-operational trials and demonstrations using an **RNP 10/50 NM** spacing value between route centre lines.

1.2 The meeting also established in conclusion 2/1 that the process of amendment to the CAR/SAM Basic Air Navigation Plan, which will enable the implementation of RNAV route UT780 with its definitive designator UL 780, should include the elimination from said Plan of the Ventanas (VTN) VOR/DME – Salinas (SLS) VOR/DME segment of route UL 312.

**2 Analysis**

2.1 The implementation of RNAV route UL780, together with the elimination of the Ventanas (VTN) VOR/DME - Salinas (SLS) VOR/DME segment in Peru, turns the oceanic airspace between the Lima, Antofagasta and Santiago FIRs into an adequate scenario for the RNP 10 pre-operational trial and demonstration programme. The new structure of this airspace places RNAV route UL 302 parallel to UL

780, with a **50 NM** separation minimum between their respective centre lines, starting from the ATEDA and SULNA intersections, respectively, and without any other routes interfering in their trajectories.

2.2 At present, RNAV routes UT780 and UL302 concentrate approximately 84% of the 12,109 operations recorded in the oceanic sector between Santiago-Lima-Miami during 2001. Since its creation, route UT780 has been used mainly by commercial airlines flying to North American and Caribbean destinations, 3,650 operations having been recorded in 2001. RNAV route UL302 recorded 6,698 operations.

2.3 The incorporation of this CNS element into RNAV route UL 302 will allow it to function independently, increasing the efficiency and capacity of this airspace and contributing to reduce the complexity and work load of ATCs. Consequently, users of this RNAV route, mainly between Santiago and Lima, will obtain greater operational and economic benefits.

2.4 There are no problems with air-ground communications in these RNAV routes, which are direct pilot-controller communications in VHF/ER frequencies, under the responsibility of the Santiago Area Control Centre.

2.5 The radar service provided by the Santiago radar covers about 80% of these routes. This surveillance has allowed us to assess the navigation accuracy in current RNAV routes over the past four (4) years, when more than 46,000 operations were recorded, which is equivalent to a flying time of over 76,000 hours. ATC observations have confirmed the absence of lateral deviations by the entire fleet of aircraft using these routes.

2.6 The current navigation precision level of the fleet of aircraft using these RNAV routes is achieved without any RNP specification.

### 3 **Suggested action**

3.1 The meeting is invited to take note of the information provided in this working paper.