



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

**Tenth Meeting/Workshop of ATM Authorities and Planners in the CAR/SAM Regions  
(AP/ATM/10)**

(Lima, Perú, from 10 to 14 May 2005)

**Agenda Item 2: Evaluation of RNP 10 Pre-Operational Implementation in the Santiago de Chile-Lima segment of parallel routes UL 780 and UL 302**

**Definite Operational Implementation of RNP 10  
in segment Santiago de Chile – Lima of routes UL 780 and UL 302.**

**(Paper presented by Chile)**

**Summary**

This working paper informs about the status of pre-operational implementation of RNP 10 on RNAV routes UL780 and UL302.

**1. Introduction**

1.1 On 22 January 2004, pre-operational implementation of RNP10 on RNAV routes UL780 and UL302 between Santiago, Chile and Lima began. Thus Chilean and Peruvian Administrations complied with the implementation program developed in conjunction with the International Air Transport Association (IATA) and NACC and SAM regional offices of ICAO.

1.2 Implementation of RNP 10 on RNAV routes UL780 y UL302 allows Santiago and Lima ACCs to use both routes independently, thanks to a lateral separation of 50 NM between the routes, and in this way obtain immediate benefits in terms of using optimum flight levels and reducing delays of aircraft flying the same flight level.

**2. Discussion**

2.1 During GREPECAS 10 a regional agreement was reached for the implementation of RNP 10 and parallel routes program.

2.2 During Meeting AP/ATM/2 meeting, Lima, Peru, May 2001, Chile and Peru identified the need to establish a program for the pre-operational implementation of RNP with a view to gaining experience in said implementation and in the associated approval procedures.

2.3 During Meeting/Workshop AP/ATM/6 (San José, Costa Rica, 29 September to 3 October 2003), the decision was made to proceed to the pre-operational implementation. Said decision was based, among other things, on the following parameters :

- a) The outcome of the pre-implementation safety assessment;
- b) Preparation of airspace users for RNP10 operations in appropriate airspace exceeds the 90% established for that purpose; and
- c) Preparation of involved States and ATS providers to conduct RNP10 operations.

2.4 During Meeting/workshop AP/ATM/9 (Lima, Peru, November 2004) by means of conclusion AP/ATM/9/14, the meeting considered convenient the definitive operational implementation of RNP10 in the Santiago de Chile /Lima segment of parallel routes UL780 and UL302.

2.5 During Meeting/workshop AP/ATM/8 by means of conclusion AP/ATM/8/16, the meeting considered necessary the collection of data of aircraft movement between 15 March and 14 April 2005 for the evaluation of parameters applied to the safety assessment on parallel routes.

### **3. Operational Aspects**

3.1 The Administrations of Chile and Peru agreed initially, and for a week, a flexible use of airspace declared RNP, intended for scheduled air carriers which were on the date of commencement of the program completing the RNP approval process. At present, the few non RNP approved aircraft use mainly direct routes, under radar control of Santiago ACC to and/or from the control handover points agreed with Lima ACC.

3.2 So far, no lateral deviation exceeding parameters allowed on RNAV UL780 and UL302 have been reported.

3.3 It was adopted the decision of establishing two new mandatory reporting points, INT **ISPEL** , coordinates **212519S/752246W** on route UL780, between INT LIVOR and SORTA and INT **ASEPU**, coordinates **211021S/743117W** on route UL302, between INT ELASA and IREMI. This measure is intended to reduce the time between position reports in the non radar airspace of both routes which at present are about 50 minutes of flight.

### **4. Conclusion**

4.1 Taking into account actions performed and operational advantages obtained in the pre-operational use of RNP 10 on parallel routes UL780 and UL302 between Santiago de Chile and Lima, the definitive implementation of RNP10 should be carried out once the outcome of the safety assessment carried out by CARSAMMAT of data compiled recently is obtained.

### **5. Action Suggested**

5.1 The meeting is invited to note the information contained in this working paper.

5.2 The States are urged to advance towards the establishment of RNAV routes necessary for CAR/SAM and NAAC regions, according to considerations on this subject of Meeting RAAC9 (18 / 20 April 2005) held in Santiago de Chile.