

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

**Second Meeting/workshop of Air Traffic Management (ATM) Authorities and Planners  
(Lima, Peru, 14 to 18 May 2001)**

**Agenda Item 1: Evaluation of the pre-operational trials and demonstrations in the RNAV routes UT 780 (Santiago- Lima/Miami), UT 795 and UT 799 (Sao Paulo-Rio de Janeiro/Miami).**

(Presented by the Secretariat)

**Summary**

This working paper contains some comments on the preliminary results of the pre-operational trials and demonstrations being carried out in routes UT 780, UT 795 and UT 799.

**References:**

- Report of the First Meeting/Workshop of ATM Authorities and Planners of the CAR/SAM Regions
- Reports submitted by the States involved in the pre-operational trials and demonstrations
- Project RLA/98/003 "Transition to the CNS/ATM Systems in the CAR/SAM Regions"

**1. Introduction**

1.1. In keeping with the plans developed by the CAR/SAM Regional Planning and Implementation Group (GREPECAS) and subsequently endorsed by the Third CAR/SAM RAN Meeting, the decision was made to conduct pre-operational trials and demonstrations for long-haul flights between city pairs. This would allow for a gradual introduction of CNS/ATM elements in the CAR/SAM Regions and the use of avionics already installed on aircraft, thus obtaining substantial flight time and fuel savings for users.

1.2. Within the framework of Project RLA/98/003 “Transition to the CNS/ATM Systems in the CAR/SAM Regions”, the First Meeting of Air Traffic Management (ATM) Authorities and Planners was held in Lima-Peru, on 18-21 July, 2000, where the decision was made to conduct pre-operational trials and demonstrations in RNAV routes UT 780 (Santiago de Chile-Lima/Miami) and UT 795/UT799 (Sao Paulo-Rio de Janeiro/Miami, Lima-Santiago/Miami and Sao Paulo-Rio de Janeiro/Miami).

1.3. In order to comply with the Implementation Programme for trials and demonstrations in the aforementioned routes, an Action Plan defining the prerequisites and activities under the responsibility of the parties involved (States, users, IATA and ICAO) was developed.

## 2. **Analysis**

2.1. In general, from the point of view of the Secretariat, no major problems were encountered during the implementation process, and after coordinating with the parties involved to overcome some difficulties, route UT 780 (Santiago-Lima/Miami) was implemented.

2.2. The implementation of routes UT 795/UT 799 (Sao Paulo-Rio de Janeiro/Miami) was postponed due to the need for further coordinations regarding certain airspaces of special use. Implementation finally occurred on 28 December 2000.

2.3. All the FIRs involved in route UT 780 exchanged the respective Appendices to the Letters of Agreement, whereby they agreed to apply 10-minute MNT and/or 80 NM RNAV longitudinal separation minima between aircraft on the same flight level.

2.4. With the exception of the Maiquetía FIR, all the other FIRs involved in routes UT 795/UT 799 included the application of 10-minute MNT and/or 80 NM RNAV longitudinal separation minima between aircraft flying at the same level as an Appendix to their corresponding Letters of Agreement. As indicated by the Venezuelan Administration, a 15-minute longitudinal separation minimum was maintained in the Maiquetía FIR due to lack of communication coverage.

2.5. In general, all the parties involved in routes UT 780 and UT 795/UT 799 have sent their regular reports and comments regarding the conduction of trials and demonstrations on the aforementioned routes.

2.6. An analysis of those reports revealed that not all the airlines that were initially interested in the conduction of such pre-operational trials and demonstrations used the routes in question, which, in the opinion of the administrations, is rather contradictory since only a few airlines have decided to use them.

2.7. One of the shortcomings reported by IATA and some administrations is that Standard Instrument Departure and Arrival (SID/STAR) Routes have not been established in order to incorporate or eliminate routes UT 780 and UT 795/UT 799 from intermediate airports.

3. **Conclusion**

3.1. According to the information provided by IATA and the States, pre-operational trials and demonstrations in route UT 780 have been conducted with no operational difficulties, and all the parties have taken the measures that had been identified to ensure its successful implementation, including the use of 10-minute MNT and/or 80 NM RNAV longitudinal separation minima.

3.2. As to RNAV route UT 795/UT799, reports have also been satisfactory, except that an agreement on a more flexible use of warning airspace W 1001 should be reached for full and efficient operation in these routes. This warning airspace affects the airspace of the Kingston, Port au Prince and Havana FIRs at daytime from Monday through Saturday, thus limiting the use of those routes.

3.3. On the other hand, the 10-minute and/or 80 NM RNAV separation could not be implemented in the Maiquetía FIR due to some difficulties with ground/air communications. Due to a “domino effect”, this hindered the efficient use of airspace, not only in the FIRs adjacent to the Maiquetía FIR, but also in the other FIRs involved.

4. **Suggested action**

4.1. The meeting is invited to take note of the information provided in this working paper with a view to:

- a. Exchanging points of view and the experience gained during this trial and demonstration process; and
- b. Taking relevant action to eliminate the shortcomings and deficiencies identified during this process, such as: the implementation of SIDs and STARs in those States that have not yet done so, to join the RNAV routes in question with the respective intermediate airports; the definitive and prompt implementation of the 10-minute MNT and/or 80 NM longitudinal separation on all ATS routes; and the more flexible use of warning airspace W 1001.