



AP/ATM/5
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**International Civil Aviation Organization
UNDP/ICAO Regional Project RLA/98/003
Transition to the CNS/ATM Systems in the CAR and SAM Regions**

**Fifth Meeting/workshop of Air Traffic Management (ATM) Authorities and
Planners for RVSM, RNAV routes and RNP implementation in the CAR and SAM Regions
(AP/ATM/5 RVSM-RNAV-RNP)**

(Panama, Panama, 18 to 20 June 2003)

Agenda Item 1: Review of the RNAV route implementation programme

(Presented by Mexico)

Summary

This working paper presents a proposal of balanced RNAV routes to link different CAR/SAM cities/airports with HOU/DAL/LAX (USA), so as to avoid possible congestion at entry/exit points and reduce the spacing between routes within the MMFR FIR (Mexico).

1. Introduction

1.1 At the AP/ATM/4 meeting, the participating States, organizations and users were provided with a list of RNAV trajectories proposed by the RNAV/RNP Task Force, with the purpose of obtaining the comments of the parties involved and proceeding to their updating,, for consideration during the implementation of RNAV routes in the CAR/SAM Regions.

2. Analysis

2.1 As the meeting is well aware, there is a significant air traffic flow between different cities of South America and Central America, and between these and HOU, DAL, and LAX, located in the United States of America (USA). Consequently, there could be a future saturation of gateways in our FIR in the airspace under the jurisdiction of Mexico. There could also be a reduction of lateral spacing between routes, which would increase the complexity of air traffic control if consideration is not given during

implementation to the need to maintain a balanced number of RNAV paths to interconnect points in the SAM/CAR/NAM Regions.

2.2 As may be seen from the aforementioned list of RNAV trajectories, the intention is to connect the airports of SJO/MGA/TGU/SAP/BZE/SAL/GUA/LIM with HOU and DAL, and, on the other hand, LIM/SAO/RIO/SAL/SCL with LAX. In the future, there may be more requests in this sense.

2.3 In order to avoid the indiscriminate use of direct routes, it is quite likely that a strategic system of regional/main routes fed by other trunks and that meets the overall needs of users and the ATS, will need to be established.

3. **Proposed RNAV path structure**

3.1 The attached diagram presents a proposal for a strategic structure of regional routes from/to HOU, DAL and LAX and their interconnection with various CAR/SAM cities identified to date. It is suggested that these trajectories be fed by trunk RNAV routes, enabling their future use from additional points within the CAR/SAM Regions. In the attached structure, the points of origin of the proposed routes must be in South America (SAM) to enable connection with other trunk routes. Likewise, it is proposed that the current UL344 be extended from ACA to GDL, HMO, PPE towards LAX, as another means of reaching that place, which represents a change to the Regional Air Navigation Plan Vol. I Basic.

4. **Suggested action**

4.1 The meeting is invited to take note of and analyse this proposal, and, if applicable, include it in the RNAV route implementation programme for the CAR/SAM Regions.

