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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**

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

(San José, Costa Rica, 29 September-3 October 2003)

**Agenda Item 1: Review of the RNAV routes Implementation Programme**  
**Agenda Item 2: Action Plan for RNP Implementation in the CAR/SAM Regions**

**Terms of Reference of RNAV/RNP/TF**

(Presented by the Secretariat)

**Summary**

This Information Paper presents the Terms of Reference of RNAV/RNP/TF.

**1. Introduction**

1.1 The **Appendix A** to this Information Paper shows the Terms of Reference of RNAV/RNP/TF.

**2. Suggested Action**

2.1 That the Meeting takes note of the information provided in this Information Paper.

## **APPENDIX A**

### **RNAV/RNP TASK FORCE (RNAV/RNP/TF)**

#### **1. Terms of Reference**

- a) Develop an RNAV Route Network;
- b) Develop Required Navigation Performance (RNP) guidance material and implementation programme for the CAR/SAM Regions. and
- c) Carry out specific studies in order to develop, from the operational point of view, guidance material so that the States/Territories/International Organizations of the CAR/SAM Regions may use in the implementation of RNAV procedures in terminal areas.

#### **2. Work Programme**

##### **RNAV MATTERS**

- a) Review in detail the impact that the proposed RNAV routes would have in:
  - i) The current conventional routes and RNAV (international and domestic);
  - ii) The aircraft fleet operating in conventional routes and non-RNAV equipped;
  - iii) The prohibited, restricted and dangerous areas;
  - iv) The TMAs, mainly in those in which the proposed RNAV routes start/end;
  - v) How does the proposed routes network affect the provision of Air Traffic Services.
- b) Identify those routes which might be eliminated from the CAR/SAM ANP, Basic Volume, due to:
  - i) Poor utilization and/or
  - ii) Substitution by the implementation of a new RNAV route.
- c) Develop the RNAV Routes Plan in order to prepare the corresponding proposals for amendment to the Basic CAR/SAM ANP.

##### **RNP MATTERS**

- a) Carry out an analysis on the aspects which could affect RNP implementation, such as:
  - i) The flexible use of airspace (forbidden, restricted and special use airspace) and civil/military coordination;
  - ii) Optimization of the current structure of the routes network;

- iii) The lowest level usable in RNP 10 airspace
  - iv) Surveillance and communication coverage in certain FIRs;
  - v) The current navigation capacity of the aircraft fleet;
  - vi) Mixed operations (RNP and non-RNP aircraft) in a same airspace;
  - vii) Status of implementation of the WGS 84 Geodetic System in the CAR/SAM Regions;
  - viii) Harmonization of the geographical coordinates in the boundaries of the FIRs;
  - ix) Integrity of the aeronautical data base for air navigation;
  - x) Link SIDs/STARs with en-route flight;
  - xi) Harmonized ATM procedures;
  - xii) Contingency Procedures.
  - xiii) Other points that the Task Force may deem appropriate.
- b) Study and propose an RNP implementation strategy in which the more appropriate delimitation for the RNP airspace is established, such as: implementation selecting fixed ATS routes, by area or airspace blocks; and
- c) Study the need to update the ATM evolution tables.

#### **RNAV MATTERS IN TMAs**

- a) To review the available documentation on RNAV implementation in Terminal areas in a worldwide level;
- b) Examine, from the operational point of view, the current airspace structure and determine its deficiencies and possible benefits that might generate a new structure, enabling the most efficient use of new technologies, automation, and capacities of the flight systems;
- c) Examine institutional aspects involved in a multinational environment
- d) Examine technical and operational aspects
- e) Evaluate different alternatives and strategies that might satisfy the new requirements of international civil aviation in the CAR/SAM Regions environment
- f) Prepare a draft airspace strategic plan for the CAR/SAM Regions to be examined by the ATM Committee

### **3. Composition of the Task Force**

Brazil\*, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, France, Haiti, Panama, Trinidad and Tobago, United States, Venezuela, COCESNA, IATA, IFATCA and SITA.

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