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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 3: Review of the issues related with RVSM Implementation in the CAR/SAM
Regions**

**Terms of Reference of RVSM/TF and contributory bodies
ATC/WG; OPS/AIR/WG and SAM/WG**

(Presented by the Secretariat)

Summary

This Information Paper presents the Terms of Reference of RVSM/TF and contributory bodies: ATC/WG; OPS/AIR/WG and SAM/WG.

1. Introduction

1.1 The **Appendix A, B, C and D** to this Information Paper shows the Terms of Reference of RVSM/TF and contributory bodies ATC/WG; OPS/AIR/WG and SAM/WG.

2. Suggested Action

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

APPENDIX A

TERMS OF REFERENCE OF THE RVSM TASK FORCE

1. **Terms of Reference**

- a) To develop a strategic, benefits-driven implementation plan (based on cost benefit studies), in concert with airspace users, for RVSM operations within airspace of the CAR/SAM Regions, ensuring intra and inter regional harmonization;
- b) To implement RVSM in the CAR/SAM Regions in accordance with the operational concept developed by the States/Organizations in the RVSM TF;
- c) To consider amendments to RVSM guidance material that may be proposed by States and International Organizations;

2. **Work Programme**

Is shown in Appendix E to this part of the Report

3. **Composition of the Task Force**

Brazil, Colombia, France, Haiti, Paraguay, Panama, Peru, Trinidad and Tobago, United States, Uruguay (Roberto Arca*), Venezuela, ARINC, COCESNA, IATA, IFATCA, IFALPA and SITA

* Rapporteur

APPENDIX B

TERMS OF REFERENCE OF THE RVSM/TF WORK GROUPS

ATC Operations Work Group (ATC/WG)

The ATC/WG is responsible for addressing all matters relating to air traffic services within the RVSM and transition airspace, to include the following:

- a) To develop a CAR/SAM RVSM Operational Concept;
- b) To identify exclusionary RVSM airspace;
- c) To identify RVSM transition airspace
- d) To develop the procedures for all facets of RVSM operations, including:
 - RVSM operations within and between exclusionary and transition airspace;
 - RVSM operations between FIRs and ATC service providers;
 - Weather deviation procedures;
 - Turbulence mitigation procedures;
 - Necessary contingency procedures;
 - Procedures for discontinuing the use of RVSM for temporary periods;
 - Procedures for the accommodation of non-approved civil aircraft, including emergency and humanitarian flights and ferry and maintenance, if appropriate;
 - Procedures for the accommodation of non-approved State aircraft;
 - Procedures for providing RVSM status information to controllers at the operational position, including any necessary changes to existing Flight Data Processing (FDP) systems.
- e) To consider controller workload issues and identify the need for simulations;
- f) To assist States and Organizations with airspace changes;
- g) To recommend and develop RVSM training material and methods for ATC staff;
- h) To provide to the States common aeronautical information publications and AIP supplements related to RVSM implementation;
- i) To develop necessary changes to regional documentation;
- j) To develop ATC procedures for switchover day and to determine if a cell should be created to assist States, Organizations and Operators during the switchover;
- k) To provide appropriate material to the RVSM web site administrator;
- l) To assist the SAM/WG with developing a mechanism for receiving, collating, and analyzing information concerning operational errors;
- m) To track the progress of the States in implementing ATC-related RVSM tasks, and to report this progress regularly to the RVSM Task Force;
- n) To accomplish other tasks as directed by the full RVSM Task Force.

APPENDIX C

TERMS OF REFERENCE OF THE RVSM/TF WORK GROUPS

Aircraft Operations and Airworthiness Work Group (OPS/AIR/WG)

The OPS/AIR/WG is responsible for addressing pilot operations, airworthiness, and aircraft approval issues, and:

- a) To harmonize policy on operations and airworthiness issues related to RVSM;
- b) To develop and harmonize guidance related to the implementation of RVSM and co-ordinate on issues which may arise in the application of the RVSM Minimum Aircraft System Performance Specifications (MASPS);
- c) To initiate necessary action to amend aeronautical charts to reflect navigational requirements related to RVSM;
- d) To develop policy for use of Airborne Collision Avoidance System (ACAS) as it relates to RVSM;
- e) To review monitoring data prior to implementation and after implementation;
- f) To track the progress of the States under the task lists and to report States' progress to RVSM TF;
- g) To provide material for the RVSM web site administrator;
- h) To accomplish other tasks as directed by the full RVSM Task Force

APPENDIX D

TERMS OF REFERENCE OF THE RVSM/TF WORK GROUPS

Safety and airspace monitoring work group (SAM/WG)

The SAM/WG is responsible for mathematical and statistical analysis to assist with the maintenance and on going monitoring of safety through the assessment of collision risk for the CAR/SAM Regions RVSM and other tasks as agreed with RVSM Task force. The main tasks of the SAM/WG are:

- a) To develop a monitoring program to ensure that the quantity and quality of data are collected to allow an assessment of vertical collision risk;
- b) To review existing mathematical and statistical techniques to assure their appropriateness for the CAR/SAM regions;
- c) To ensure the transferability of aircraft data collected from other airspace regions;
- d) To support the assessment of the safety of RVSM prior to and during the Verification and Operational Trials by the production of collision risk assessments based on altitude deviation incidents and altitude monitoring data to determine whether the TLS is being met;
- e) To devise suitable methodologies for incorporating the effects of projected traffic increases and system changes on occupancy and collision risk in the future environment;
- f) To identify those elements which are critical in the assessment of collision risk and suggest areas where improvements might be effective in reducing risk;
- g) To establish a policy for investigating those errors that may jeopardize satisfaction of the Target Level of Safety (TLS);
- h) To estimate periodically the vertical occupancies (traffic densities, passing frequencies, etc.) to support ongoing monitoring of the target level of safety;
- i) To perform periodically other data collections (e.g. ASE stability) in order to ensure that the parameter values used in the mathematical collision risk models remain current;
- j) To track the progress of the States under the task lists and to report States' progress to RVSM TF;
- k) To accomplish other tasks as directed by the full RVSM Task Force;
- l) To provide material for the RVSM web site administrator.