



RVSM/TF/2
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**INTERNATIONAL CIVIL AVIATION ORGANIZATION
ATM COMMITTEE OF THE GREPECAS ATM/CNS/ SUBGROUP**

**SECOND MEETING OF THE RVSM TASK FORCE
(San Jose dos Campos, Sao Paulo, Brazil, 8 to 12 July 2002)**

(Presented by Roberto Arca, RVSM/TF Rapporteur)

Agenda Item 2: Developing and updating the RVSM Task Force Terms of Reference as well as its Work Program and set up of three working groups in order to achieve the implementation objectives.

Summary

This working paper is presented to the Meeting in order to analyze the need of an RVSM guidance and reference document for those operational and management ATS personnel involved with the continuing ATC operations of FIRs/UIRs of an RVSM CAR/SAM regions scenario.

References:

- Third Meeting/workshop of Air Traffic Management Authorities and Planners, Lima, Peru. 20-24 May 2002.
- ATC Manual for RVSM in Europe- ASM.ET1.ST13.5000 2nd.edition.February 2001.

1. BACKGROUND

1.1 During the Third Meeting/workshop of Air Traffic Management Authorities and Planners it was recognized that RVSM implementation requires a restructuring of the airspace, RVSM gateways, the possible need for ATC sectorisation, the review of air routes and possible modifications to reach acceptable safety levels, and reversing the direction of traffic in levels 310, 350 and 390 are tasks to be carried out in a harmonious and coordinated manner within the CAR/SAM Regions and with adjacent regions.

1.2 The meeting also noted that a critical operational requirement could be flight plan processing and its planning. To a large extent, this task has been optimized with automated flight plan data processing systems, but not all participants in the programme have this tool available. The impact of RVSM implementation on ATFM must also be taken into account.

1.3 In the same way, the meeting was advised that appropriate consideration should be given to the possible modification of control room equipment in aspects such as short and medium-term conflict prediction warnings, radar data processing, scenario and air traffic simulators, software modifications, etc.

1.4 On the other hand, an RVSM training programme should be implemented for controllers, whereby proper training on standard and emergency operations, contingencies, adverse weather conditions for RVSM scenarios and specific phraseology is provided to ensure safe operation in RVSM environment.

1.5 The European Organization for the Safety of Air Navigation (EUROCONTROL) has published the *ATC Manual for a Reduced Vertical Separation Minimum (RVSM) in Europe - ASM.ET1.ST13.5000*.

2. DISCUSSION

2.1 The application of a reduced vertical separation minimum in the CAR/SAM regions airspace, represents a change of major significance to the operational environments of those FIRs/UIRs involved.

2.2 A careful planning in advance of the implementation of RVSM will ensure that benefits in terms of capacity and operating efficiency are optimized, and that controllers will be able to successfully cope with the magnitude of the change to their operational environments, thereby ensuring continued levels of safety.

2.3 To accomplish the aforementioned, it is necessary to develop an ATC Manual to serve as a guidance and reference document for those operational and management ATS personnel involved with the planning for the implementation of RVSM.

2.4 The ATC Manual will need to address those elements of the CAR/SAM ATM system which are impacted directly by, or have an impact on, RVSM implementation and application. As well, it will serve as a reference document for those personnel involved with the continuing ATC operations of FIRs/UIRs in an RVSM environment.

2.5 The Manual should describe the CAR/SAM regions RVSM airspace, RVSM transition airspace, provision of service to non- RVSM approved state aircraft, Flight planning requirements, Cruising levels appropriate to direction of flight, In flight contingencies procedures, actions to be taken in case of degradation of aircraft equipment, weather impact on RVSM operations, Inter-center co-ordination, Flight Data Processing Systems (FDPS) procedures, general ATC procedures, ATC phraseologies and relevant flight crew procedures associated with the application of RVSM (TCAS procedures e.g.), without supersede the relevant ICAO and national documents.

2.6 Despite all the aforementioned, the Manual should particular Air Traffic Management considerations as well as optimization of the ATS Route network if necessary, ATC sectorisation, ATM options for CAR/SAM transition areas, and suitable guidance for Inter-Center letters of agreement.

3. RECOMMENDATION

3.1 The Task Force is invited to:

- a) Analyze the information contained in this paper.
- b) If it is agreed that all or part of the information is necessary to be considered in an ATC Manual, invite the ATM and ATC Operations working group to study and analyze this paper and the European ATC Manual for RVSM as a guidance for the making-up of a ATC Manual for an RVSM CAR/SAM scenario.
- c) Request the ATM and ATC Operations working group to develop appropriate guidance on RVSM training programme, and invite them to get information on this matter from other RVSM regions.

Note: an electronic copy of the European ATC Manual will be submitted to the ATM and ATC Operations Chairman.

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