



**Tenth Meeting of the APIRG Air Traffic Services, Aeronautical
Information Services and Search and Rescue Sub-Group
[Dakar, Senegal 13 – 15 May 2009]**

- Agenda Item 2: Review of Special AFI RAN 08 Recommendations pertaining to ATS, AIS and SAR fields.**
Agenda Item 4: Review of the Report of the Fifteenth meeting of the RVSM Task Force.

SAFETY ASSESSMENTS AND REDUCED MINIMUM VERTICAL SEPARATION

(Presented by the Secretariat)

SUMMARY

This paper reviews the Special AFI RAN 08 Recommendations pertaining to Safety Assessments and Reduced Vertical Separation Minimum, and calls for the Sub-group's actions as appropriate.

References:

- ICAO Special AFI RAN 2008 Report.

1. Introduction

- 1.1. This presents the meeting with the Special AFI RAN 08 recommendations pertaining to Safety Assessments and Reduced Vertical Separation Minimum (RVSM).

2. Discussion

Safety Assessments and reduced vertical separation minimum (RVSM)

- 2.1. The meeting noted with satisfaction that RVSM had been safely and successfully implemented in the AFI Region on 25 September 2008 and recognized that this would serve to enhance efficiency, reduce workload and facilitate improved flight profiles resulting in fuel savings while at the same time reducing CO₂ emissions by allowing the use of more efficient flight levels and more direct routes.
- 2.2. The meeting noted that in the AFI Region, RVSM implementation planning had been conducted under the framework of a comprehensive plan known as the RVSM pre-implementation safety case (PISC) with the active participation of the AFI Regional Monitoring Agency (ARMA), supported by Air Traffic Navigation Services (ATNS) of South Africa, which managed the PISC and maintains the RVSM database as well as carry out other monitoring activities.
- 2.3. Considering the effectiveness of the comprehensive RVSM implementation plan incorporating safety management principles, the meeting agreed on the following recommendation:

Recommendation 6/6 — Operational safety assessment methodology

That APIRG adopt the ATM Performance Objective: Operational Safety Assessment Methodology as contained in the performance framework form in Appendix B to the Report on Agenda Item 6 (See **Appendix A**).

Establishment of a Tactical Action Group (TAG)

- 2.4. Noting the continuing communication difficulties in certain parts of the AFI Region, the meeting agreed to take advantage of the momentum gained through the implementation of RVSM and the work of the RVSM Task Force and its Project Management Team (PMT). In this respect, it was recalled that the PMT began tracking and promoting the investigative follow-up of errors and deviations brought to its attention, on a regular basis, as a result of its efforts to implement RVSM.
- 2.5. The meeting was informed that the PMT had also been working on these matters through weekly teleconferences organized by the ATM Section at ICAO Headquarters in Montreal, with representatives from several States and

international organizations with support from ICAO Headquarters as well as the ATM Regional Offices in Dakar and Nairobi. This weekly focus on deficiencies, errors and deviations had resulted in a decline in reported incidents and communications deficiencies.

- 2.6. The meeting agreed that the PMT should be renamed as the Tactical Action Group (TAG), with terms of reference and a work programme. It was agreed that the group, through its by-weekly teleconferences, should tactically address any deficiencies or operational errors identified. The meeting therefore agreed to the following recommendations:

Recommendation 6/7 – Establishment of a Tactical Action Group (TAG)

That:

- a) a Tactical Action Group be created in the AFI Region with the Terms of Reference and Work Programme outlined in Appendix C to the Report on Agenda Item 6 (see **Appendix B**); and
 - b) States as a matter of priority make all efforts to assist and comply with requests from the TAG group.
- 2.7. In the post-RVSM implementation period, it was noted that data would continue to be collected and analyzed in order to maintain the highest safety levels. States, Operators, other regional monitoring agencies and stakeholders would provide this data to ARMA. ARMA, on a yearly basis would report on the safety level of RVSM operations. In this context, the meeting recalled the importance of providing data to the ARMA for analyses and reporting and stressed the need for all States to meet their obligations in this respect.
- 2.8. The meeting agreed that in order for the AFI Region to meet its obligations toward continuous monitoring and regular assessment of the safety level in RVSM airspace, a structured approach should be implemented and agreed to the following recommendation:

Recommendation 6/8 – Reduced vertical separation minimum (RVSM) monitoring and follow-up activities

That AFI States support:

- a) the long-term submission of State RVSM operationally approved aircraft to the AFI Regional Monitoring Agency (ARMA);
 - b) provision of long-term support to the AFI height monitoring programme;
 - c) long-term collection of safety assessment data;
 - d) the availability of personnel to fulfil the role of RVSM National Programme Managers;
 - e) the establishment of the ARMA scrutiny group in 2009; and
 - f) measures to reduce the large number of horizontal incidents in the AFI Region.
- 6.1 The meeting noted that as required by the AFI RVSM safety policy, a Post Operational Safety Case (POSC) would be completed to ensure that all the PISC aspects had been met and that RVSM was meeting safety expectations.

3. Conclusion

- 3.1. The Sub-group is invited to:
- a) Note SP AFI RAN 2008 Recommendations contained in the paper;
 - b) Develop amendment proposals to its future workprogramme to assist APIRG in addressing these recommendations; and
 - c) Initiate follow-up action to be taken by APIRG on Recommendations 6/6 and 6/7.

-END-

ATM PERFORMANCE OBJECTIVES

OPERATIONAL SAFETY ASSESSMENT METHODOLOGY				
Benefits				
Environment	<ul style="list-style-type: none"> • reductions in fuel consumption 			
Efficiency	<ul style="list-style-type: none"> • ability of aircraft to conduct flight more closely to preferred trajectories • facilitate utilization of advanced technologies (e.g. improved altimetry systems) thereby increasing efficiency 			
Safety	<ul style="list-style-type: none"> • enhance safety by wider distribution of aircraft in a given airspace 			
Strategy Short term (2010) Medium term (2011 - 2015)				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AOM	En-route airspace <ul style="list-style-type: none"> • create a scrutiny group to monitor and analyze the safety of operations in the AFI region in a formal basis. The scrutiny group will utilize safety management principles outlined in Doc 9859 in order to analyze operational errors and deviations and propose mitigation measures to control them • that AFI States' use Safety Programmes and SMS methodologies in the control and mitigation of risks in the region • that a yearly CRA be conducted by the RMA for analysis by the scrutiny group. The CRA will be used as a relative reference from year to year. The initial acceptability of a collision risk to be determined by experts of the scrutiny group. Meeting the TLS of 2.5×10^{-9} fatal accidents per aircraft flying hour for technical risk be maintained as a requirement to continue with RVSM operations • the Scrutiny Group provide yearly report to APIRG about the status of operations safety in the region 	2009-....		
		2009		
		2009		
		ongoing		
linkage to GPIs	GPI/02: Support implementation of RVSM			

**TERMS OF REFERENCE AND WORK PROGRAMME OF THE
TACTICAL ACTION GROUP (TAG)**

Terms of reference

To carry out an ongoing safety assessment of operations in the AFI Region on a bi-weekly basis. The assessment will include all aspects related to the operational environment in the AFI airspace above FL290 including but not limited to ATC loop errors, communications problems, navigation and surveillance issues and any other item affecting the safety of operations. Meet twice yearly to coordinate activities and plan future goals.

Work Programme

Operational level of safety:

- a) review, on a bi-weekly basis, all error and deviation reports received from the AFI Region;
- b) investigate and, if necessary, propose corrective action to identified deficiencies;
- c) coordinate activities with and maintain a two-way communication bridge with the ARMA; and
- d) provide yearly feedback to APRIG about TAG activities.
