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Ref: ES AN 4/44 – 0856

15 December 2003

Subject: Strategy/Action Plan for Implementation of Reduced Vertical Separation Minima (RVSM) in the Africa-Indian Ocean (AFI) Region

Sir/Madam,

I have the honour to draw your attention to APIRG/14 meeting held in Yaounde, Cameroon, from 23 to 27 June 2003. APIRG/14 Conclusion 14/21 *inter alia* advocated as follows:

Conclusion 14/21: Implementation of RVSM in the AFI Region

That:

- a) the RVSM implementation Task Force finalize the development of a comprehensive implementation strategy/action plan taking into consideration work so far done and those of the experts groups (RGSP Panel, NATSPG, EUROCONTROL, SAT meeting and MECMA) taking into account the material at Appendix F as soon as possible and not later than 31 December 2003;
- b) the implementation strategy/action plan be circulated to States and International Organizations for comments which should be received not later than 31 March 2004;
- c) States do their utmost to implement RVSM in selected airspaces, as per plan by AIRAC cycle date of January 2005 concurrently with the CAR/SAM Region; and
- d) a coordination meeting be convened in September 2004 to take a go - no/go decision for the implementation of RVSM.

In view of the above, your attention is drawn to conclusion 14/21 where you are required to provide your comments on the attached Strategy/Action Plan for Implementation of Reduced Vertical Separation Minima in the Africa-Indian Ocean Region.

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I would be grateful if you could send your replies as soon as possible but not later than **31 March 2004**.

Accept, Sir/Madam, the assurances of my highest consideration.



Lot Mollel
Regional Director

Attachment: Strategy/Action Plan for Implementation of RVSM in AFI Region.

**STRATEGY/ACTION PLAN FOR IMPLEMENTATION
OF REDUCED VERTICAL SEPARATION MINIMA
IN THE AFRICA-INDIAN OCEAN REGION**

22 NOVEMBER 2003

Prepared by the APIRG RVSM Implementation Task Force

AFI STRATEGY/ACTION PLAN FOR RVSM IMPLEMENTATION

EXECUTIVE SUMMARY

1 INTRODUCTION

It will be recalled that the Air Navigation Commission in approving APIRG Conclusion 13/85 relating to initial implementation of RVSM in the AFI Region, recommended that the Commission, prior to determination of a Target implementation date, make an Implementation Strategy available for approval. APIRG 14 mandated the AFI RVSM Task Force to develop a strategy for the implementation of RVSM in the AFI Region.

2 OBJECTIVES

To implement RVSM in the AFI Region the following objectives must be achieved:

- Develop an AFI RVSM Implementation Plan;
- Develop an AFI RVSM Implementation Program

3 RVSM IMPLEMENTATION PLAN

An AFI RVSM Implementation Plan shall be developed to set out the scope of the work needed to safely implement RVSM at the earliest realistic date, in an efficient manner and taking into account RVSM plans in adjacent Regions. Work completed by the AFI RVSM Task Force (ARTF) will be incorporated in the AFI Plan (See Appendix A)

4 RVSM PROGRAM MANAGEMENT

Successful and timely implementation of RVSM will be dependent on the establishment of a Program Office to manage the RVSM Program and appointment of dedicated staff with the required expertise. The Program Office will act as the AFI RVSM Implementation focal point, report to the ARTF and provide guidance to National Program Managers, who will in-turn report to the Program Office. (See Attachment B).

5 RVSM Program Management Plan

The AFI RVSM Task Force (ARTF) should direct the development of an RVSM Program Plan to implement the RVSM Plan. This should be accomplished in consultation with

National Program Managers and other RVSM stakeholders. The Program Office shall develop a detailed Program Management Plan, which will provide a baseline and communication tool against which to monitor the cost, schedule and performance aspects of the RVSM Program. (See *Attachment B*)

5.1 National RVSM Program Manager (NPM)

States shall appoint National RVSM Program Manager. These managers will be responsible for the day-to-day management of the National RVSM Program, coordinate RVSM activities at national level and provide required inputs to the Program Office.

5.2 RVSM Program Structure

The RVSM Program will include many stakeholder activities up to and including the implementation of RVSM, as well as activities following implementation. Identified activities should be developed into a Work Schedule. The Work Schedule can be summarized into five sub-programs. (See *Appendix B.*)

5.2.1 Sub-Program 1 - RVSM Program Management.

The main deliverable is the RVSM Plan and full Stakeholder commitment to the implementation of RVSM at the agreed date. It includes program management activities throughout the required period, in particular progress monitoring and progress/status reports to States and the ARTF.

5.2.2 Sub-Program 2 - Aircraft Operations and Airworthiness

To ensure timely RVSM approvals for Aircraft Operations and Airworthiness by States, technical, operational and regulatory directives shall be available for airspace users. It will also assist and monitor the approval process. Aircraft height-keeping accuracy must be verified through the operation of a height-monitoring infrastructure system. The monitoring program will provide the technical data to confirm that safety objectives are met.

5.2.3 Sub-Program 3 – Air Traffic Management (ATM)

This sub-program will ensure that all ATS provider units are well prepared and ready for the introduction of RVSM on the agreed date. Tasks should be identified to allow States to make airspace restructuring, introduce RVSM Procedures. Modify ATC systems, provide ATC Training and resolve legislative issues, etc.

5.2.4 Sub-Program 4 - RVSM Safety Assurance

RVSM safety assurance constitutes the safety assessments necessary prior to implementation, just after implementation and at the end of the RVSM Program to

ensure that the agreed safety objectives are met. This includes amongst others the development of an agreed RVSM safety policy, and identifies the possible need for States to prepare RVSM safety cases.

5.2.5 Sub-Program 5 - Regional Monitoring Agency (RMA)

It is recognised that there is a requirement for monitoring of aircraft height keeping performance as part of RVSM implementation program. An AFI Regional Monitoring Agency needs to be established by the AFI RVSM Task Force to provide Safety Oversight Services in connection with implementation and continued safe use of RVSM within the designated airspace.

6 RVSM Program Schedule

A schedule for all the activities must be developed in conjunction with the various stakeholders and, in particular, the RVSM National Program Managers (NPM). The schedule will serve as the benchmark against which the program progress will be assessed. (See *Attachment C*)

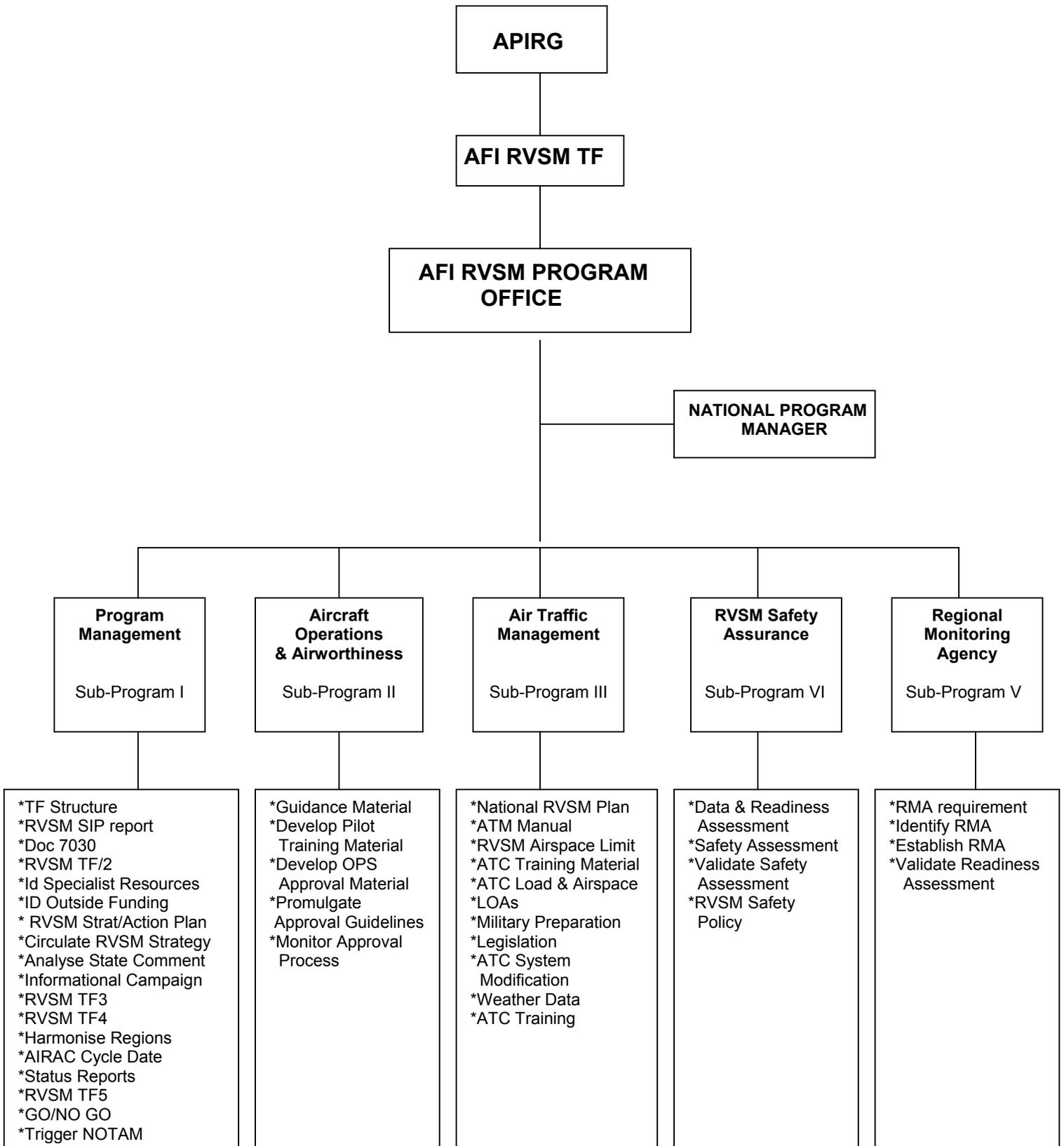
7 AFI RVSM COST

It is the responsibility of stakeholders to identify and gain approval for their own budget and resource requirements.

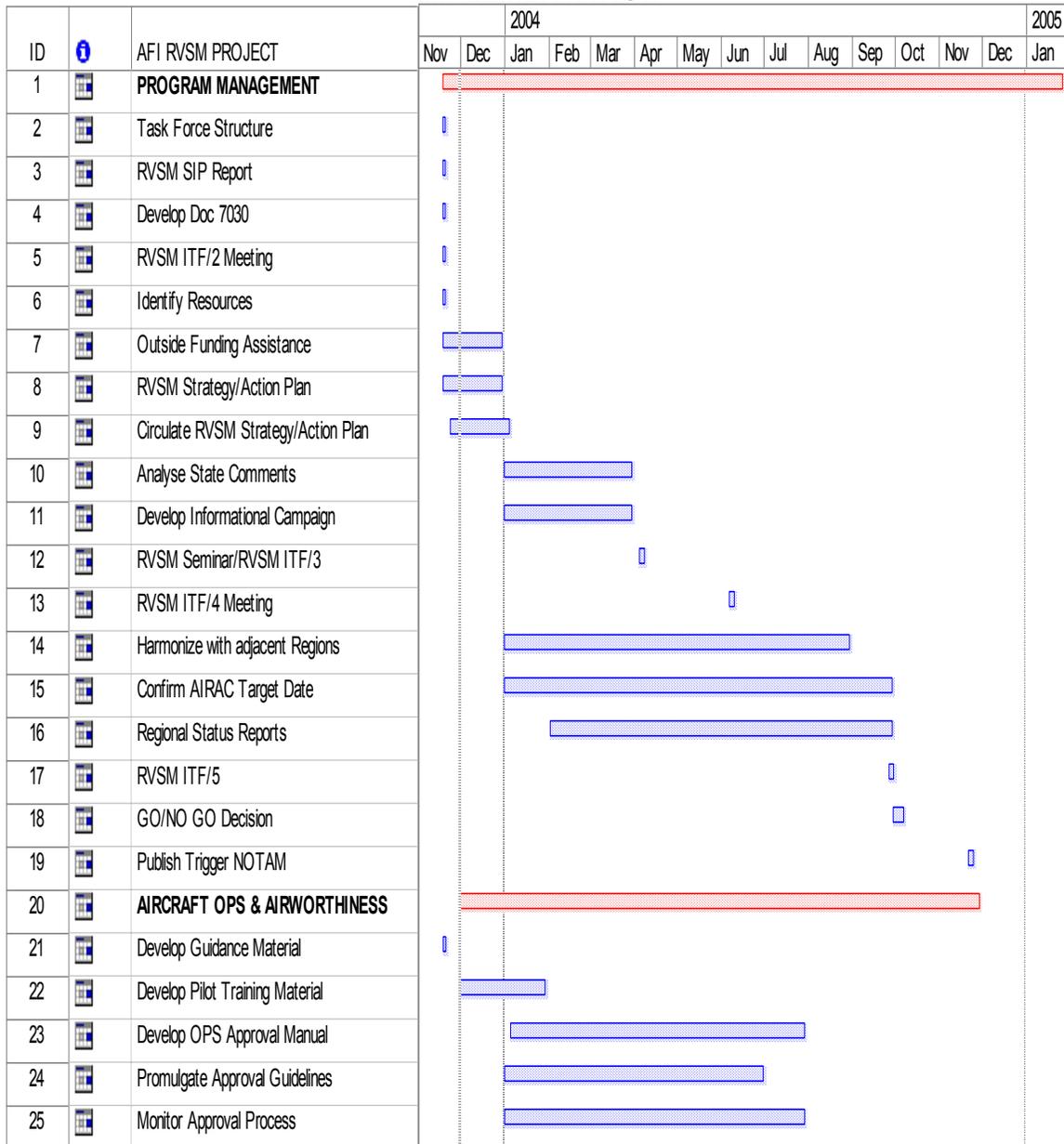
8 CONCLUSION

Implementation planning should be progressed as a priority item. A program for implementation in the earliest possible time frame should be actively pursued, with implementation planning being carried out by the ARTF under the direction of APIRG. RVSM Program should be fully coordinated by the Program Office for the entire area of future application, and should take full account of the work carried out by the ARTF.

AFI RVSM PROGRAM



DRAFT SCHEDULE: AFI RVSM IMPLEMENTATION



ID	i	AFI RVSM PROJECT	2004												2005		
			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
26	i	AIR TRAFFIC MANAGEMENT															
27	i	Develop National Plan															
28	i	Develop ATM Manual															
29	i	Determine RVSM Airspace Limits															
30	i	Develop ATC Training Material															
31	i	Evaluate ATC Load & Airspace Changes															
32	i	Identify LOA requirements															
33	i	Military Aviation Preparation															
34	i	Develop National RVSM Legislation															
35	i	Evaluate ATC System Modifications															
36	i	Collect Weather Data															
37	i	Conduct ATC Training															
38	i	RVSM SAFETY															
39	i	Data & Readiness Assessment															
40	i	Complete Safety Assessment															
41	i	Validate Safety Assessment															
42	i	Develop RVSM Safety Policy															
43	i	REGIONAL MONITORING AGENCY															
44	i	Evaluate RMA Requirement															
45	i	Identify RMA															
46	i	Establish AFI RMA															
47	i	Validate Readiness Assessment															

APPENDIX A

AFI RVSM AFI IMPLEMENTATION STRATEGY/ACTION PLAN				
ID	Description	Target Date	Status	Resources
	Program Management			
1	Agree on structure of TF to enable efficient handling of specialist technical tasks	21 November 2003	Completed	Secretariat Support Team: ASECNA South Africa, IATA, Nigeria, Tunisia
2	Consideration of the RVSM SIP Report	21 November 2003	Completed	RVSM/ITF2
3	Develop Doc 7030 amendment	21 November 2003	Completed	ICAO
4	RVSM/RNAV/RNP TF/2 Meeting	21 November 2003	Completed	RVSM/ITF2
5	Identify resources for performing specialist technical tasks	21 November 2003	Completed	RVSM/ITF2
6	Investigate methods of funding any outside assistance required	31 December 2003	In progress.	ICAO/IATA
7	Finalize the RVSM Implementation Strategy/ Action Plan	31 December 2003	In progress	ICAO
8	Circulate RVSM Implementation Strategy/Action Plan for comments from States	5 January 2004	In progress	ICAO
9	Obtain and analyze the comments from States on RVSM implementation Strategy/Action Plan	31 March 2004	In progress	States, ICAO RVSM/ITF3
10	Develop a regional RVSM informational campaign	31 March 2004	In Progress	IACO/IATA/States
11	RVSM Seminar/Workshops/RVSM ITF3	5 April 2004	In Progress	ICAO
12	RVSM/ITF/4	June 2004	In progress	ICAO/RVSM ITF/4
13	Undertake coordination and harmonization of procedures with adjacent Regions	30 August 2004	In progress	ICAO and AFI RMA
14	Confirm target AIRAC implementation date (AIP Supplement to be published)	30 September 2004	In progress	Informal coordination Meeting/RVSM ITF/5
15	Prepare/maintain regional status report detailing RVSM implementation plans and circulate to States	30 September 2004	In progress	ICAO
16	RVSM/ITF/5	Sept/October 2004	In progress	ICAO/RVSM ITF/5
17	Go/No-Go decision	30 September 2004	In Progress	Informal meeting of all Stakeholders/ ICAO/ RVSM/TF/5

ID	Description	Target Date	Status	Resources
18	Publish Trigger NOTAM	25 November 2004	In progress	States
Aircraft Operations and Airworthiness				
19	Develop regional OPS & Airworthiness RVSM Guidance Material	21 November 2003	Completed	ICAO
20	Develop regional RVSM Guidance Material on Pilot Training	31 January 2004	In Progress	States/ICAO/IATA
21	Develop AFI OPS Approval Process	30 July 2004	In progress	RMA/ ICAO
22	Promulgate on the guideline operational approval process	1 July 2004	In progress	States, ICAO
23	Monitor operator approval process	30 July 2004	In progress	RMA
Air Traffic Management				
24	Develop National RVSM plan	31 March 2004	In progress	States, ICAO
25	Develop ATC regional training guidance material	31 March 2004	In progress	South Africa/ASECNA and Nigeria
26	Determine the limits of RVSM airspace	31 March 2004	In progress	States/ICAO
27	Develop Regional ATC Training Guidance Material	31 March 2004	In Progress	South Africa/ASECNA/ Nigeria
28	Evaluate the need for simulations to assess ATC workload and possible need for airspace/air route Sector changes			Senegal/ASECNA/Nigeria South Africa
29	Identify issues to be addressed in Letters of Agreement	31 March 2004	In progress	Tunisia
30	Military aviation preparation	31 March 2004	In progress	States, ICAO
31	Develop National RVSM Legislation	31 March 2004	In progress	States, ICAO
32	States assess the impact of RVSM implementation on controller automation systems and plan for upgrades/ modifications	30 April 2004	In progress	States
33	Collect weather and turbulence data for analysis	31 June 2004	In progress	AFI RMA ICAO/States
34	States to conduct local RVSM training for air traffic controllers.	31 June 2004	In progress	States
RVSM Safety Assurance				
35	Conduct preliminary data collection and readiness assessment	31 March 2004	In progress	RMA - ICAO
36	Complete RVSM Safety assessment	31 March 2004	In progress	AFI RMA/ICAO

ID	Description	Target Date	Status	Resources
37	Validate safety assessment	30 June 2004	In progress	RVSM ITF/4
38	Develop AFI RVSM Safety Policy	31 March 2004	In progress	RVSM/ITF3
39	Evaluate options for setting up AFI Regional	21 November 2003	Completed	RVSM/ITF2
	Monitoring Agency			
40	Identify an AFI RMA	21 November 2003	Completed	RVSM/ITF/2
41	Establish an AFI RMA.	31 March 2004	In progress	South Africa/ICAO
42	Validate implementation readiness assessment	31 July 2004	In progress	ICAO, RMA