



WORKING PAPER

**SPECIAL AFRICA-INDIAN OCEAN (AFI)
REGIONAL AIR NAVIGATION (RAN) MEETING**

Durban, South Africa, 24 to 29 November 2008

Agenda Item 6: Development of a set of comprehensive work programmes in the air navigation field, aimed at improving efficiency of the air navigation system (Efficiency Committee)

**MEASURES TO FOSTER THE IMPLEMENTATION OF SIGMET AND THE QUALITY
MANAGEMENT SYSTEM FOR THE PROVISION OF MET SERVICE TO
INTERNATIONAL AIR NAVIGATION**

(Presented by the Secretariat)

SUMMARY

The persistent problems in the implementation of SIGMET and the importance of quality management system (QMS) implementation in support of safety management system (SMS) for the provision of aviation MET service in the AFI Region, have been highlighted and measures to foster the implementation of SIGMET and QMS have been proposed for endorsement by the meeting.

Action by the meeting is in paragraph 4.

1. INTRODUCTION

1.1 The MET Divisional Meeting (2002) formulated Recommendation 1/12 – *Implementation of SIGMET Requirements*, which inter alia, called for the relevant planning and implementation regional groups (PIRGs) to foster the implementation of SIGMET information. Missions of ICAO regional offices to AFI States and the Satellite Distribution System Operations Group (SADISOPSG) reports have shown persistent non compliance of most of AFI States to ICAO Annex 3 — *Meteorological Service for International Air Navigation* requirements on the issuance of SIGMET.

1.2 The meeting will recall that quality assurance-related Standards and Recommended Practices (SARPs) were first introduced in ICAO Annex 15 — *Aeronautical Information Services* and became applicable on 1 January 1998 and Amendment 72 to ICAO Annex 3 introduced the quality management system (QMS) for meteorological service to international air navigation, which became applicable on 1 November 2001. Furthermore, AFI Planning and Implementation Regional Group (APIRG/14), Conclusion 14/40 recognizing the new requirements of Annex 3, requested States in the AFI Region to give priority to the implementation of QMS and APIRG/16, Conclusion 16/59 called for a support to AFI States to implement QMS. However, the level of implementation of QMS in the area of aeronautical meteorology in the AFI Region is still very low.

1.3 This paper highlights the persistent problems in implementing SIGMET and QMS and proposes measures to foster the implementation of SIGMET and QMS in the AFI Region.

2. DISCUSSION

2.1 Overview

2.1.1 The APIRG/16 meeting noted with concern the persistent deficiencies in the AFI Region, in particular those affecting the safety of aircraft operations. The meeting agreed that priority should be given by States to eliminate the most common and persistent deficiencies. Although efforts have been made by States concerned, most of these long-standing deficiencies have not been eliminated.

2.1.2 Based on past findings of various ICAO missions to States in the AFI Region and on deficiencies listed by APIRG, a number of critical safety related aviation meteorology (MET) deficiencies had been identified which relate to the lack of:

- a) provision of information on volcanic activity to civil aviation units (Annex 3, Chapter 3, 3.6);
- b) issuance and dissemination of SIGMETs (Annex 3, Chapter 7, 7.1.1 and Appendix 6, 1.2, APIRG Conclusion 16/57); and
- c) provision of quality management system for meteorological information (Annex 3, Chapter 2, 2.2 and APIRG Conclusions 14/40, 14/55, 16/59).

2.1.3 Therefore measures in terms of implementation projects, are proposed to foster the implementation of SIGMET and QMS for the provision of meteorological service to international air navigation.

2.2 Scope of the projects

2.2.1 In view of the above, the projects in the appendix are proposed. The objectives of the projects are to foster the implementation of SIGMET and QMS by steps and to assist the administrations in the development of action plans and their implementation to mitigate the problems in the provision of SIGMET and QMS in the provision of meteorological information to international air navigation.

2.2.2 A number of seminars and workshops through special implementation projects (SIPs) and International Financial Facility for Aviation Safety (IFFAS) cooperative development projects for concerned participating States, are proposed to be organized to update and prepare action plans to remove existing deficiencies in the area of SIGMET and QMS. The corresponding performance objectives for short- (2009-2010) to medium-term (2010-2011) concerning planning and implementation of SIGMET and QMS in the AFI Region are in the appendix to this paper.

2.3 Duration of the projects

2.3.1 A two-year project (2009-2010) for the implementation of SIGMET and a three-year project (2009-2011) for the implementation of QMS in the provision of MET service to civil aviation, are proposed.

3. CONCLUSION

3.1 Based on the foregoing information, the meeting is invited to endorse the appendix to this paper and adopt the following recommendation:

Recommendation 6/x — Foster the implementation of SIGMET and QMS in the AFI Region

That the projects as contained in the Performance Framework Form in the appendix to this paper, be included in the comprehensive implementation plan for Africa (AFI Plan) as measures to foster the implementation of SIGMET and quality management system for the provision of meteorological service to international air navigation in the AFI Region.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) note the information in this working paper; and
- b) approve the draft Recommendation at paragraph 3.1 above.

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APPENDIX

MET PERFORMANCE OBJECTIVES

FOSTER THE IMPLEMENTATION OF SIGMET AND QMS IN THE AFI REGION				
Benefits				
Environment	• contribution in the reduction in fuel consumption			
Efficiency	• improvement of efficiency of meteorological services to aircraft in flight • ensure timely preparation and provision to airlines of aviation warnings for en-route meteorological hazards • ensure the quality management system (QMS) in the provision of MET information to international civil aviation			
Safety	• minimize encounters by aircraft of hazardous meteorological conditions			
Strategy				
Short term (2010)				
Medium term (2011 - 2015)				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AOM	En-route airspace SIGMET • assessment o the current level of implementation through a first SIGMET test in the AFI Region • establishment of an updated list of deficiencies including States not compliant with SIGMET format • provision of details guidance to States not issuing SIGMET or correct SIGMET • second SIGMET test to re-assess the level of implementation • establishment of an implementation project in terms of seminars through special implementation projects (SIPs) and IFFAS projects for States not meeting their obligation	2008-2010	RO, MET	
	QMS • two seminars in French and English for the chief executive of MET authorities and assessment of the current level of implementation during the seminars • establishment of an updated list of States not implemented or partly implemented the QMS • training of trainers for personnel in States not implemented through SIP and IFFAS projects	2008-2011	RO, MET	

	• establishment of an implementation project in terms of seminars and consultancy services through special implementation project (SIP) and IFFAS projects during the initial stages of implementation for States not meeting their obligation			
linkage to GPIs	GPI/19: Meteorological systems			

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