International Civil Aviation Organization

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)
METEOROLOGY SUB-GROUP NITH MEETING (MET/SG/9)

(Dakar, Senegal, 21-23 June 2009)

Agenda Item 5: Provision of SIGMET, tropical cyclone and volcanic ash advisories for the AFI Region

RESULTS OF SIGMET TESTS IN THE AFI REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the results of the AFI SIGMET Tests conducted in November 2008 and June 2009; the Group is invited to review the results and decide on the issue.

1. Introduction

1.1 The MET Divisional Meeting (2002) formulated recommendation 1/12 b), *Implementation of SIGMET requirements*, which called, inter alia, for the relevant planning and implementation regional groups (PIRGs) to conduct periodic tests on the issuance and reception of SIGMET messages, especially those for volcanic ash.

1.2 Concerns by the users for the timely reception of SIGMET information has prompted the need to improve awareness on the critical and important nature of SIGMETs. In order to maintain the International Airways Volcano Watch (IAVW) and International Tropical Cyclone Watch (ITCW) Systems ready-for-action, regular exercises involving the advisory centres and the MWOs under their areas of responsibility should be performed.

1.3 In this regard, APIRG/15 formulated Conclusion 15/90 to recall on the need to carry out SIGMET tests in the AFI region and APIRG/16 adopted the procedures for conducting such tests through Conclusion 16/56.

1.4 This paper presents the results of SIGMET tests conducted in the AFI region in November 2008 and June 2009 for review and submit the required actions to the attention of the

MET/SG and APIRG.

2. **Discussion**

2.1 The training workshop on SIGMET in French Language held in Dakar in May 2008, recommended the following three different phases to carry out SIGMET tests using the procedures described in Appendix N of APIRG/16 report or in Appendix J to WACAF and ESAF Regional SIGMET Guides:

Phase 1 : To assess the telecommunications facilities involving the dissemination of VAA (Volcanic Ash Advisory) and exchange of SIGMET information;

Phase 2 : Test the-know-how in the meteorological watch offices (MWO) with regard to implementation and dissemination of SIGMET information;

Phase 3 : Test that will involve all stakeholders (meteorological services, volcanic observatories, flight information regions, area control centres, international NOTAM offices) and which will refer to the overall SIGMET procedures.

1.5 Test results obtained from phase 1 were analyzed and appropriate corrective measures entered into force prior to undertaking the phase 2 test.

1.6 The results of the first two phases of the SIGMET Test conducted in 2008/2009 are presented. The short term recommended actions were implemented by the MWO concerned and those needing medium to long term implementation are presented for review and appropriate action by the Task Force:

A°) Results of Phase 1 test:

Action Recommended 1/3: Displaying VAA and SIGMET Messages through the Dakar RODB Internet Access

That the Dakar RODB Provider State and ASECNA take the required measures to:

a) display VAA and SIGMET messages through the Internet Access of that RODB;

b) file automatically the SIGMET Test results using the Table in Attachment B to Appendix N of the APIRG/16 report (or Attachment 2 to Appendix J of SIGMET Guide).

Action Recommended 1/6: Period of Dissemination of SIGMET Messages

That, upon receipt of a VAA message, the MWOs in the AFI Region act swiftly to issue a corresponding SIGMET within ten (10) minutes after the reception time.

Action Recommended 1/7: Displaying the VAA Message

That, the MWOs provider States in the AFI Region take the required measures to display or print the incoming VAA message in the forecast room with visual and sound alarms.

1.7 The Group may wish to agree that the actions recommended above be proposed as a recommendation to MET/SG/9 meeting.

Conclusion 9/XX: Improving the Dissemination of SIGMET

That:

1. Dakar ROBD provider State and ASECNA take the required measures to:

a. display VAA and SIGMET messages through the Internet Access of that RODB;

b. file automatically the SIGMET Test results using the Table in Attachment B to Appendix N of the APIRG/16 report.

2. upon receipt of a VAA message, the MWOs in the AFI Region act swiftly to issue a corresponding SIGMET within ten (10) minutes after the reception time.

3. the MWOs provider States in the AFI Region take the required measures to display or print the incoming VAA message in the forecast room with visual and sound alarms.

B°) Results of Phase 2 test:

B1. The shortcomings and deficiencies identified are listed in Table 2/1 below:

	Shortcomings or Deficiencies Identified	**VAAC, TCAC, RODBs or MWOs**
1	VA SIGMET tests format not in compliance with Annex 3 provisions	FBSK, DNKN
2	The VA SIGMET issued does not reflect the MET contain VAA test message provided the VAAC	FTTJ, GMMC, DRRN, GOOY, DTTA
3	No line change after the hyphen separating the preamble from the text	GMMC, FAJS
4	The priority indicator GG instead of FF, was used to issue the Advisories (VAA or TCA) or the SIGMET messages	TCAC, DRRN, DNKN, DTTA, FAJS
5	An Aerodrome MET Office issued a SIGMET while it is not a MWO.	DNMM
6	A MWO issued a TC SIGMET while it is not allowed to do it	DTTA
7	Used SIGMET type indicator WC instead of FK in the header	FAJS
8	A real VAA message from VAAC Darwin reported as a VAA test message from Toulouse VAAC	Dakar RODB
9	A none MET content TCA test message was issued	TCAC

	instead of a MET content TCA		
10	Some of the MWOs are not able to issue any SIGMET due to lack of telecommunication facilities or organizational issues (No SIGMET received during 21 days monitoring at the RODBs: Appendix 7)	**8 MWOs suspected:** FNLU, HBBA, HRYR, HCMM, HUEN, HTDA, FZAA, GLRB,	
11	No SIGMET received at the RODBs during both tests	24 MWOs	**ESAF - 19:** FNLU, HBBA, HECA, HAAB, HHAS, HKJK, HLLT, FWKI, FIMP, FQMA, FYWH, HRYR, FSIA, HCMM, HSSS, HUEN, HTDA, FLLS, FVHA.
			WACAF – 5: DAAG, GCLP, GVAC, FZAA, GLRB.

B2. From the above list of shortcomings and deficiencies identified, it appears that:

- some arrangements will be needed to set up agreements between Adjacent MWOs for the provision of SIGMET information where telecom issues still crucial;
- an additional training will be needed for some MWOs not able to issue the required VA and TC SIGMETs;
- the procedure of VA described in AFI SIGMET Guide will need additional details;
- a procedure of TCA test will need to be detailed in the AFI SIGMET Guide.

B3 To improve the provision of SIGMET information in the AFI Region, the Group may wish to adopt the following conclusion:

Conclusion 9/XX: Measures to Improve the Issuance and Dissemination of SIGMET

That

- **the ICAO Regional Offices of Dakar and Nairobi evaluate the provision of SIGMET information in all AFI MWOs through the RODBs and State missions;**
- **ICAO encourage arrangements for agreements between Adjacent MWOs for the provision of SIGMET information in MWOs where telecom or organizational issues are still crucial;**
- **the WMO in coordination with ICAO provides additional trainings in the issuance of VA and TC SIGMETs for some MWOs not able to issue the required SIGMETs;**
- **the ICAO Regional Offices of Dakar and Nairobi update the AFI SIGMET Guide for additional details of VA procedure;**
- **the ICAO Regional Offices of Dakar and Nairobi update update the AFI SIGMET Guide to add a detailed procedure of the TCA test.**

3. ACTION BY THE MEETING

The meeting is invited to:

a) Note the information in this paper and;
b) Suggest required actions to improve OPMET exchange in the AFI region.