



INTERNATIONAL CIVIL AVIATION ORGANISATION
AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)
METEOROLOGY SUB-GROUP TENTH MEETING (MET/SG/10)
(Dakar, Senegal, 29 June – 01 July 2011)

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

IMPLEMENTATION OF SIGMET IN THE AFI REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the results of the AFI SIGMET Tests conducted in November 2010, 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 Meteorological Watch Offices (MWOs) under their areas of responsibility should be performed.

1.3 In this regard, Conclusion 16/56 of APIRG/16 adopted the procedures for conducting such exercises in the region and Conclusion 17/82 of APIRG/17 suggested measures to improve the issuance and dissemination of SIGMET from the results of three (3) types of SIGMET Tests conducted in November 2010.

1.4 This paper presents the results of SIGMET tests conducted in the AFI region in November 2010 for review and submit the required actions to the attention of the MET/SG and APIRG.

2. Discussion

2.1 On June 2010, a State letter was distributed to AFI MWO Provider States to provide the schedule for SIGMET Tests in the region.

2.2 In November 2010, the following three tests were conducted:

- Test for SIGMET for tropical cyclone (**WC SIGMET**) on **03 November 2010**, start time (time of issuance of the triggering tropical cyclone advisory by La Reunion TCAC): **0900UTC**;
- Test for SIGMET for volcanic ash (**WV SIGMET**) on **10 November 2010**, start time (time of issuance of the triggering volcanic ash advisory by Toulouse VAAC): **0900UTC**;
- Test for SIGMET for other weather phenomena (**WS SIGMET**) on **30 November 2010**, **no start time estimated**. WS advisory disseminated through e-mail by ESAF and WACAF ROs/MET to Johannesburg and Dakar RODBs on 30 November 2010. No time frame estimated for WS advisory. WS SIGMET Tests were issued by MWOs on receipt of the advisory in their areas of responsibility.

2.3 The report on the results of the above tests was distributed to all AFI MWO Provider States in early January 2011. The short term recommended actions were implemented by the MWO concerned after the distribution of the test report, and those needing medium to long term implementation are presented **in Appendix A** to this paper for review and appropriate action by the Task Force. The meeting is informed that Robertsfield and Kinshasa MWOs were not issuing any SIGMET and is invited to agree that steps should be taken to enable assistance to be provided by neighboring States until such time that these MWOs are in a position to issues SIGMET as required.

In this regard, the Sub-group is invited to review the following conclusions:

Draft Conclusion 10/xx: Issuance and Dissemination of SIGMET

That:

- a) **The Regional Offices concerned take the requires measures to:**
 1. **visit the listed 21 MWOs which have never issued any SIGMET during AFI SIGMET Tests; and**
 2. **identify the main deficiencies in implementing MWOs;**
- b) **Robertsfield and Kinshasa MWOs to consider bilateral arrangements between adjacent MWOs (i.e. Dakar and Brazzaville MWOs respectively) for the provision of SIGMET information on behalf of the States concerned before removing the telecommunication/organizational deficiencies.**

Draft Conclusion 10/xx: Removing Operational Shortcomings

That:

- a) **Kano, Mogadishu, N'Djamena, Sal and Casablanca MWOs use the priority indicator FF to disseminate SIGMETs;**
- b) **Toulouse VAAC disseminates the VA advisory through AFTN;**
- c) **Casablanca, Kano, Dakar and Sal MWOs and all MWOs not listed in Column 6 of Appendix A to the AFI SIGMET Guide, avoid issuing any WC SIGMET during the TC Tests;**
- d) **Antananarivo, Casablanca, Kano, Niamey, Brazzaville, Sal, Mauritius, Johannesburg, Accra, Mogadishu, N'Djamena, Gaborone and Nairobi MWOs issue SIGMETs on the required time period, no more than 10 mn, after the issuance of the advisories;**
- e) **Pretoria RODB applies the procedure described in Appendix J to the AFI SIGMET Guide in order to avoid to confuse real SIGMETs with SIGMET Test messages;**
- f) **Dakar RODB consider to avoid to file the same SIGMET several times;**

- g) Johannesburg, Gaborone, Casablanca, Mauritius, Niamey, and Dakar MWOs consider to include a line of 12 “TEST” at the end of the SIGMET test message;**
- h) All MWOs use the correct SIGMET format when preparing the SIGMET message by including:**
 - 1. a correct validity period;**
 - 2. a correct weather phenomena description;**
 - 3. the ICAO indicator of the corresponding FIR at the beginning of the main text of the SIGMET;**
 - 4. a hyphen at the end of the line containing the validity period;**
 - 5. the MWO ICAO indicator just after the validity period;**
 - 6. the word “VALID” just before the validity period.**

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information in this paper,
- b) Review the Appendix to this paper and,
- c) decide on the above conclusions proposed for the Sub-group’s consideration.

Appendix A

**SUMMARY OF OPERATIONAL
SHORTCOMINGS AND DEFICIENCIES IDENTIFIED**

	Operational Shortcomings and Deficiencies	VAAC, TCAC, RODBs or MWOs
1	2	3
1	23 MWOs out of 35 in the AFI region (65,7%) did not issue any WV SIGMET during the Test period	ESAF (18): FNLU, FBSK, HBBA, HECA*, HAAB, HHAS, HKJK, HLLT*, FWLI, FQMA, FYWH, HRYR, FSIA*, HSSS*, HUEN, HTDA, FLLS, FVHA WACAF (5): DAAL*, GCLP*, GLRB, DTTA*, FZAA,
2	29 MWOs out of 35 in the AFI region (83%) did not issue any WS SIGMET during the Test period	ESAF (23): FBSK, HBBA, HECA*, HAAB, HHAS, HKJK, HLLT*, FMMI, FWLI, FIMP, GMMC, FQMA, FYWH, HRYR, FSIA*, HCMM, FAJS, HSSS*, HUEN, HTDA, FLLS, FVHA WACAF (6): DAAL*, GCLP*, FZAA, DGAA, GLRB, DTTA*
3	The listed 21 MWOs (60%) have never issued any SIGMET during AFI SIGMET Tests	ESAF (17): FNLU, HBBA, HECA*, HAAB, HHAS, HKJK, HLLT*, FWLI, FQMA, FYWH, HRYR, FSIA*, HSSS*, HUEN, HTDA, FLLS, FVHA WACAF (4): DAAL*, GCLP*, FZAA, GLRB,
4	6 MWOs out of 10 TC-MWOs in the AFI region (60%) did not issue any WC SIGMET during the Test period	ESAF: FWLI, FIMP, FQMA, FSIA*, HTDC, FVHA
5	A TCAC used the GG priority indicator to disseminate the TC advisory, instead of the FF indicator	La reunion TCAC Deficiency removed on 15 April 2011
6	5 MWOs used GG priority indicator to disseminate WS and WV SIGMET, instead of the FF indicator	DNKK, HCMM, FTTJ, GVAC, GMMC
7	The VAAC VA advisory was received at the RODBs through WMO GTS instead of AFTN	Toulouse VAAC
8	4 MWOs issued a WC SIGMET while it is not required	GMMC, DNKN, GOOY, GVAC
9	WC SIGMETs from 3 MWOs were received late at the RODBs, more than 10 mn after the advisory was issued by FMEE.	FAJS, FBSK, HKJK
10	WV SIGMETs from 11 MWOs were received late at the RODBs, more than 10 mn after the advisory was issued by LFPW	FMMI, GMMC, DNKN, DRRN, FCBB, GVAC, FIMP, FAJS, DGAA, HCMM, FTTJ
11	A real V SIGMET from RJTD received at Pretoria RODB, was confused with a WV SIGMET Test message	Pretoria RODB
12	16 SIGMET Tests were repeated at Dakar RODB during the tests	Dakar RODB
13	6 MWOs issued a SIGMET with incorrect validity period	FAJS HKJK DGAA FCBB GOOY DNKN FIMP HCMM FTTJ GVAC
14	7 MWO issued SIGMETs with an incorrect weather phenomena description	FAJS GOOY DNKN FCBB FTTJ DRRN GVAC
15	6 MWOs issued SIGMET test messages without including a line of 12 "TEST" at the end of the SIGMET message	FAJS FBSK GMMC FIMP DRRN GOOY
16	6 MWOs issued SIGMETs without including the ICAO indicator of the corresponding FIR at the beginning of the main text of the SIGMET	FBSK HKJK DGAA FAJS FIMP HCMM

17	6 MWOs issued SIGMETs without including any hyphen at the end of the line containing the validity period	HKJK DGAA GMMC FIMP HCMM GVAC
18	3 MWOs issued SIGMETs without including the MWO ICAO indicator just after the validity period	HKJK FIMP GVAC
19	1 MWO issued a SIGMET without including the word "VALID" just before the validity period	HCMM

HECA*: MWOs in the AFI region but not accredited to ESAF and to WACAF