



*International Civil Aviation Organization*

**SEVENTEENTH MEETING OF THE METEOROLOGY  
SUB-GROUP (MET SG/17) OF APANPIRG**

Bangkok, Thailand, 13 – 16 May 2013

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**Agenda Item 7: Meteorological advisories, warnings and hazards**

7.1) Review of MET/H TF/3 meeting

**MET/H TASK FORCE REPORT**

(Presented by Michael Berechree, Chair of MET/H TF)

**SUMMARY**

This paper provides a summary of the Third Meeting of the Meteorological Hazards Task Force (MET/H TF/3), formerly known as the Meteorological Advisories and Warnings Implementation Task Force (METWARN/I TF), held in Bangkok, Thailand, from 13-15 March 2013.

**1. Introduction**

1.1 The Third Meeting of the Asia and Pacific (APAC) Meteorological Hazards Task Force (MET/H TF/3) of the Meteorology Sub-group (MET SG) of the APAC Air Navigation Planning and Implementation Regional Group (APANPIRG) was held in Bangkok, Thailand, from 13 to 15 March 2013. The meeting commenced with a conjoint session on 13 March 2013 with the Eleventh Meeting of the APAC Regional Operational Meteorological (OPMET) Bulletins Exchange Working Group (ROBEX WG/11) of the MET SG of APANPIRG.

1.2 The meeting is reminded that the MET/H TF was reformed from the Meteorological Advisories and Warnings Implementation Task Force (METWARN/I TF) following discussion that commenced at the group's previous meeting and was followed up at the subsequent 16<sup>th</sup> Meeting of the Communications, Navigation, Surveillance and Meteorology Sub-group (CNS/MET SG/16) of APANPIRG, held in Bangkok, Thailand, from 23 to 27 July 2012, in CNS/MET SG/16 Decision 16/34.

1.3 Mr. Michael Berechree presided over the meeting in the role as chairperson and indicated that he will not be available to chair the group at the next meeting. Mr. Pak-wai Chan was elected as co-chairperson of the MET/H TF commencing at the next meeting and he assisted as co-chairperson of this meeting.

## 2. Discussion

2.1 The executive summary of the MET/H TF/3 meeting is provided in **Appendix A** to this paper. The full report may be accessed at the following website: <http://www.bangkok.icao.int/cns/meeting.do>

2.2 General topics of discussion included: a review of the group's work plan and follow-up action; SIGMET tests, including errors and follow-up; Volcanic Ash Advisory Centre (VAAC) backup tests; SIGMET monitoring; Regional SIGMET Guide review; advisory information; guidance for issuance of advisory information on radioactive material and tsunami warnings; and progress on Regional contingency plans.

2.3 The meeting is encouraged to review progress on the Agreed Actions by the MET/H TF/3 meeting provided in the **Appendix B** to this paper and provide updates where necessary.

2.4 The Work Plan document of the MET/H TF, including the Task Team, Terms of Reference, Work Program, Communication Strategies, Performance Framework Form, Milestones and Work Plan was reviewed by the MET/H TF/3 meeting and is included in a separate paper.

## 3. Action by the Meeting

3.1 The meeting is invited to:

- a) review the information contained in this paper; and
- b) provide updates as necessary to the list of actions agreed contained in **Appendix B** to this paper.

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## **APPENDIX A**

### **MET/H TF/3 Executive Summary**

#### **Introduction**

The third meeting of the Asia and Pacific (APAC) Meteorological Hazards Task Force (MET/H TF/3) of the Meteorology Sub-group (MET SG) of the APAC Air Navigation Planning and Implementation Regional Group (APANPIRG) was held in Bangkok, Thailand, from 13 to 15 March 2013. The meeting was attended by 41 experts from 15 Contracting States, the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO). The meeting commenced with a conjoint session on 13 March 2013 with the Eleventh Meeting of the APAC Regional Operational Meteorological (OPMET) Bulletins Exchange Working Group (ROBEX WG/11) of the MET SG of APANPIRG. Highlights of the meeting included:

#### **Review of the TORs and follow-up actions**

- The meeting noted some highlights from the previous meeting, METWARN/I TF/2 which included: review of the SIGMET advisory trial in Asia, hosted by China (April to July 2011), consideration of discussions stemming from IVATF on ways to reduce information overload during volcanic eruptions due to multiple sources of VA-information, review of the structure and working arrangements of the MET SG task forces, review of the work plan and action of the group, review of global progress on guidance for radioactive cloud, progress on regional contingency plans for phenomena including volcanic ash, tsunamis, radioactive cloud and tropical cyclone, and consideration of the requirements for aerodrome warning for tsunamis.
- The meeting was reminded that IAVWOPSG/6 Conclusion 6/21 formed an ad-hoc group to assess and evaluate the proposal for VAA/VAG to replace SIGMET for volcanic ash. The meeting reviewed IAVWOPSG/7-WP/29 and suggested that should the opportunity arise during the discussions in IAVWOPSG/7 on WP/29 the MET/H TF Member from United States who is a Member of the IAVWOPSG could provide additional comments to the IAVWOPSG/7 to supplement the pros and cons listed in the paper..
- In relation to APANPIRG/23 Conclusion 23/41 – *VAAC Backup Procedures in the ASIA/PAC Region* – the meeting was informed that VAAC back-up procedures and VAAC back-up test procedures were incorporated into the SIGMET Guide (Sept 2012) and the meeting was apprised of progress towards inclusion of VAAC Wellington in the VAAC back-up and VAAC back-up test procedures, which is expected to be formalized in a letter of agreement between New Zealand and Australia and put into practice with VAAC back-up testing (Wellington/Darwin) towards the end of 2013.

#### **Review SIGMET Guide**

- The meeting was reminded of the review of regional SIGMET Guides conducted by the 4th meeting of the Meteorological Warnings Study Group (METWSG/4), held in Montréal (May 2012) noted several inconsistencies between two ICAO regional SIGMET guides, European region and Asia/Pacific regions. The METWSG agreed that a comprehensive review of all regional SIGMET guides should be carried out noting that these guides generally contained generic information (which would not vary regionally) and specific information pertaining to the communications and other needs of each region.
- The meeting also noted that the work of the METWSG ad-hoc group tasked with developing generic guidance on the issuance of SIGMET for each ICAO Region has made some progress in terms of the structure of a template for a generic SIGMET guide. A progress report should be made available to METWSG Members for consideration at the METWSG/5 in June 2013.

- The meeting was also reminded of APANPIRG/22 – Conclusion 22/44 (adopted Sept 2011) to provide guidance in relation to volcanic eruptions that resulted in the ash plumes dissipating within a few hours following the eruptions. Amendment 76 to Annex 3, which was developed to include a provision that would allow for the reporting of ‘NO VA EXP’ has subsequently been adopted by Council and will become applicable in November 2013. Therefore the meeting noted the requirement for an example in the Asia/Pacific SIGMET Guide should be implemented in time for Am.76.
- The meeting also noted the Am.76 Annex 3 that require the location of phenomena (in SIGMET) to only be identified by the use of coordinates, therefore SIGMET will no longer contain geographical locations, which will have implications for APAC States providing SIGMET.

### **Advisory information**

- The meeting was apprised of JMA developments of an automatic significant weather detection technique that provides advisory information with timeliness and accuracy for a large region. The technique for automated detection of thunderstorm areas uses satellite observations and forecasts by a global numerical weather prediction model to produce SIGMET advisory information to improve the content of SIGMET.
- Noting the potential for such developments to be of interest to the global group investigating the feasibility of SIGMET advisory centres, the meeting encouraged Japan to report further development of the system and associated practical experience to the METWSG.

### **WAFS gridded global forecasts**

- The meeting was reminded that, in view of the planned cessation of WAFS products in WMO GRIB 1 code form, users of SADIS or WIFS should migrate to receiving, decoding and using the WAFS gridded global forecasts in WMO GRIB 2 code form as soon as possible if not already done so.

### **Review educational material**

- Radioactive Cloud: It was noted that ad-hoc groups reporting to IAVWOPSG/7 will include progress made on: the draft concept of operations (ConOps) for the provision of information about the release of radioactive material into the atmosphere in support of international air navigation. It was also noted that regional guidance material for the issuance of radioactive cloud SIGMET will depend on outcomes from IAVWOPSG/7. The meeting recalled that a Regional survey was conducted in 2011 on the status of present capabilities of Asia/Pacific States to prepare and issue R-SIGMET and recommended the results be reviewed and presented in a paper at the next meeting along with results from a new survey to update the status in 2013 (**Action Agreed 3/1 refers**).
- Tsunami: The meeting expects that further development of the regional guidance material for the issuance of aerodrome warnings for tsunami will depend on the outcome(s) of METWSG/5, to be held in Montréal (June 2013) concerning the amendment proposal to Annex 3, Appendix 6, 5.1.3.

### **Review progress on contingency plans**

- The meeting recalled that APANPIRG/22 Conclusion 22/9 led to the formation of the Regional ATM Contingency Plan Task Force (RACP/TF), for planning, coordination and implementation of a regional ATM contingency plan, with a link to the (former) METWARN/I TF, which first met in Bangkok (April 2012) and again in Bangkok (March 2013).
- The meeting was also reminded that the International Volcanic Ash Task Force (IVATF), which concluded its activities at its fourth meeting (IVATF/4), held at ICAO Headquarters (June 2012) had developed an Air Traffic Management Volcanic Ash Contingency Plan (ATM VACP)

template that includes interfaces with supporting services, such as aeronautical information service (AIS) and meteorological (MET) services. The meeting reviewed the ATM VACP template. The meeting noted that the IAVWOPSG will take into consideration the regional utilization of the ATM VACP template when it reviews the IAVW-related guidance material at IAVWOPSG/7 in Bangkok (March 2013).

- The meeting considered the work plan of the MET/H TF ad-hoc group on contingency plans and noted that the group should determine how the ATM VACP template can assist with further development of a framework for APAC regional (MET) contingency plans for phenomena that include volcanic ash, tropical cyclone, radioactive cloud and tsunami. The meeting also considered the kind of assistance the ad-hoc group would provide in meeting the RACP/TF requirements for MET input in regional ATM contingency plans, including potential regional adaptation of ATM VACPs based on the ATM VACP template.
- The meeting learned that one of the most significant challenges faced in ICAO EUR/NAT Region Volcanic Ash Exercise conducted in Kamchatka (VOLKAM13) (January 2013) was coordinating the teleconferences necessary to facilitate the Collaborative Decision Making process among the various participating organizations. The teleconferences were conducted in the English language, which the meeting was advised could present significant challenges in an exercise conducted in the APAC Region, and would require careful planning to mitigate the risk of mis-communication. Other recommendations from the exercise included improvements to VAAC products that will be forwarded to IAVWOPSG for further consideration through the appropriate regional representative(s) of the global group.

#### **Aerodrome Warnings**

- The meeting recalled that a Regional survey was conducted in 2011 on the present capabilities of Asia/Pacific States to prepare and issue aerodrome warning for tsunami and recommended the results be reviewed and presented in a paper at the next meeting along with results from a new survey to update the status in 2013 (**Action Agreed 3/2 refers**).

#### **Next Meeting**

- Dates for the next meeting were tentatively agreed as Wednesday 19 to Friday 21 March 2014, including a conjoint session with ROBEX WG/12 on 19 March 2014.

## Appendix B

### METWARN/I TF/2 Agreed Actions

Status on **15 March 2013**

(✓ = completed)

No.	Title/Action	Follow-up action (target/completion dates in brackets)
2/1	<p><b>SIGMET advisory trial.</b></p> <p>That, an evaluation of the SIGMET advisory trial in Asia (hosted by China) – including feedback from IATA – is presented for further discussion.</p>	<p>China/Secretariat</p> <p>✓</p> <p>IP/7 (&amp; SN/8) presented at METWSG/4; IP/17 &amp; WP/50 presented at CNS/MET SG/16 (May-Jul 2012)</p>
2/2	<p><b>Volcanic Ash Advisory and Warning information.</b></p> <p>That, the details of discussions in this meeting concerning the pros and cons of removing the requirement for SIGMET for VA be reported to the IAVWOPSG for further consideration.</p>	<p>States/Secretariat</p> <p>✓</p> <p>WP/29 prepared by U.S. for IAVWOPSG/7 (March 2013)</p>
2/3	<p><b>Volcanic Ash Advisory and Warning information.</b></p> <p>That, the outcomes from the IVATF/4 meeting concerning the proposed removal of the requirement for SIGMET for VA be reported to the CNS/MET SG for further consideration.</p>	<p>IVATF /Secretariat</p> <p>✓</p> <p>IP/15 presented at CNS/MET SG/16 (Jul 2012)</p>
2/4	<p><b>Sub-Regional exchange of volcanic ash information.</b></p> <p>That, an investigation of the optimal exchange of MET information in relation specifically to VA in the APAC regions be conducted to facilitate the group's further consideration of the proposal to remove the requirement for SIGMET for VA.</p>	<p>States/Secretariat</p> <p><b>In progress</b></p> <p>WP for MET/H TF/4 based on outcomes from discussions at IAVWOPSG/7 (revised to February 2014)</p>
2/5	<p><b>User requirements for volcanic ash information.</b></p> <p>That, the MET/ATM TF be asked to establish detailed user requirements in the APAC regions in relation to VA information.</p>	<p>Secretariat</p> <p>✓</p> <p>WP/21 presented to CNS/MET SG/16 (Jul 2012)</p>
2/6	<p><b>Structure and working arrangements of MET groups.</b></p> <p>That, proposals for streamlining the structure and operation of MET groups (under APANPIRG) be further developed and presented to CNS/MET for consideration.</p>	<p>TF chairs/Secretariat</p> <p>✓</p> <p>WP/46 presented to CNS/MET SG/16 (Jul 2012)</p>

<p>2/7</p>	<p><b>Aerodrome warning on Tsunami.</b></p> <p>That, the METWSG be asked take into consideration the requirements of the Asia/Pacific regions in its development of global requirements for Tsunami warning information.</p>	<p>Secretariat                  ✓                  METWARN/I TF/2 members (Australia, Japan and Hong Kong, China) participated in METWSG/4, which agreed (4/7) to develop draft amendment proposal to Annex 3 (Appendix 6, 5.1.3) that tsunami warnings are not required in cases where a national public safety plan for tsunami was fully integrated with the "at risk" aerodrome concerned. (May 2012)</p>
<p>2/8</p>	<p><b>Ad-hoc group on regional contingency plans.</b></p> <p>That, the ad-hoc group tasked with the framework for APAC Regional (MET) Contingency Plans be refreshed to include Japan and IFALPA (plus updated contact for Australia) and re-commence action against the established tasks of the group.</p>	<p>Secretariat                  ✓                  WP for METWARN/I TF/3 (February 2013)</p>