



International Civil Aviation Organization

**EIGHTEENTH MEETING OF THE METEOROLOGY
SUB-GROUP (MET SG/18) OF APANPIRG**

ICAO Regional Sub-Office, Beijing, China
18 – 21 August 2014

Agenda Item 4: Review outcomes from ICAO APAC groups

REPORT ON MET/H TF/4

(Presented by the Secretariat on behalf of the Chairman of the MET/H TF)

SUMMARY

This paper presents a summary of the Fourth Meeting of the Meteorological Hazards Task Force, held in Beijing, China, from 19 to 21 March 2014.

1. Introduction

1.1 The Fourth Meeting of the Meteorological Hazards Task Force (MET/H TF/4) was held in Beijing, China, from 19 to 21 March 2014. Participation by thirty four (34) experts from thirteen (13) States and Administrations and the ICAO provided the group the opportunity to coordinate on initiatives to improve the quality of meteorological advisories and warnings and implementation of the international airways volcano watch (IAVW) and the tropical cyclone warning system. A conjoint session with the Twelfth Meeting of the APAC Regional Operational Meteorological (OPMET) Bulletin Exchange Working Group (ROBEX WG/12) was held on 19 March 2014 to address issues common to both groups related to the implementation of SIGMET and advisory information.

2. Discussion

2.1 The group is reminded that MET/H TF meetings have been held once every twelve months (approx.) since the first meeting (METWARN/I TF/1)¹ in March 2011. They necessarily serve as an integral part of the MET/H TF coordination and work programme where progress against tasks is facilitated, monitored and reported.

2.2 With reference to the MET/H TF/4 discussions, agenda items 1 and 2 addressed meeting organizational matters and follow-up to previous meetings; agenda item 3 principally addressed guidance material; agenda item 4 addressed contingency plans; agenda item 5 principally

¹ ASIA/PAC Meteorological Advisories and Warnings Implementation Task Force. *Note: METWARN/I TF was renamed MET/H TF at the third meeting in 2013 in accordance with CNS/MET SG/16 Decision 16/34.*

addressed warnings; agenda item 6 addressed the MET/H TF work programme; and agenda item 7 principally addressed any other business including space weather.

2.3 With reference to the conjoint session discussions, held on 19 March, agenda item 1 principally addressed volcanic ash advisory centre backup tests; and agenda item 2 addressed other SIGMET and advisory information issues including annual SIGMET tests, SIGMET monitoring, the SIGMET Guide and other advisory related issues.

2.4 A summary of the MET/H TF/4 discussions and outcomes, including agreed actions and the updated work programme, is provided in **the Attachment** to this paper.

2.5 The group is reminded that dates for the next meeting (MET/H TF/5) were tentatively agreed in the week commencing 16 March 2015, back-to-back with ROBEX WG/13, including a conjoint session with ROBEX WG/13.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) agree to the updated work programme in the Attachment; and
- c) discuss any relevant matters as appropriate.

FOURTH MEETING
METEOROLOGICAL HAZARDS TASK FORCE
(MET/H TF/4)
(Beijing, China, 19 to 21 March 2014)
EXECUTIVE SUMMARY¹

1. Introduction

1.1 The Fourth Meeting of the Meteorological Hazards Task Force (MET/H TF/4) was held in Beijing, China, from 19 to 21 March 2014. Thirty four (34) participants from thirteen (13) States and Administrations and the ICAO attended the meeting. A conjoint session was held on 19 March 2014 with the Twelfth Meeting of the APAC Regional Operational Meteorological (OPMET) Bulletin Exchange Working Group (ROBEX WG/12) to address issues common to both groups related to the implementation of SIGMET and advisory information.

1.2 Mr. Chan Pak Wai presided over the meeting in the role as chairperson and was assisted by Ms. Sujin Promduang, chairperson of the ROBEX WG, during the conjoint session on 19 March 2014.

2. Follow-up of MET/H TF/3 agreed action

2.1 With regard to the follow-up of MET/H TF/3 agreed action, the task force considered that action was completed with the review of the surveys on States' capabilities to provide information on radioactive cloud and tsunami, discussed later in this summary at 5.1 and 5.2. *Note: the table of follow-up of MET/H TF/3 agreed action is provided in **Appendix A** to this summary.*

3. VAAC back-up tests (conjoint session)

3.1 Volcanic Ash Advisory Centres (VAACs) Wellington and Darwin had developed back-up test procedures. The task force suggested minor editorial adjustments and requested the Secretariat to include the VAAC back-up test procedures in the regional SIGMET Guide (Agreed action 4/1). *Note: the table of MET/H TF/4 agreed action is provided in **Appendix B** to this summary.*

3.2 Japan and Australia had endorsed a Scheme of Cooperation (SoC) for VAACs Tokyo and Darwin, effective 1 March 2014.

4. SIGMET and advisory information (conjoint session)

SIGMET tests / Regional SIGMET monitoring and coordination

4.1 APAC SIGMET tests were conducted on 12, 19 and 26 November 2013 to test the issuance and reception of SIGMET messages for tropical cyclones (WC SIGMET), volcanic ash (WV SIGMET) and for phenomena other than tropical cyclones and volcanic ash (WS SIGMET).

4.2 Results from the WC and WV SIGMET tests were almost the same as those in 2012, though in some cases multiple test bulletins were received from meteorological watch offices (MWOs), which could cause confusion and affect the results of the SIGMET tests. In some cases, as reported by Australia and New Zealand, MWOs were not configured to issue WC SIGMET in particular FIRs, which would have had an impact on the SIGMET test results. Two States reported

¹ The full report is available at the following website: <http://www.icao.int/APAC/Meetings/Pages/2014-MET-HTF4.aspx>

lack of specific guidance for when the test advisory message (tropical cyclone or volcanic ash), required to trigger the issuance of test WC or WV SIGMET, is not received. The meeting suggested the SIGMET Guide and SIGMET test procedures should be reviewed and updated, accordingly (Agreed action 4/2).

4.3 Results from the WS SIGMET test showed overall participation by States and MWOs had increased on the previous year, mainly due to the participation by Bangladesh and Nepal. The average reception rate of test messages at RODBs also increased on the previous year and the reception rate at three European Regional OPMET Centres (EUR ROCs) was high.

4.4 The task force agreed that the annual State letter notifying details of the 2013 SIGMET test results should urge States to resolve the errors identified in the tests and to report back to ICAO on any issues that cannot be resolved so as to enable the Secretariat to provide, or coordinate the provision of, targeted assistance to States to address the SIGMET test errors where necessary (Agreed action 4/3).

4.5 Australia had addressed formatting errors reported in previous SIGMET tests. Australia also initiated an amendment to the regional air navigation plan to remove the requirement for MWO services at Cairns (YBCS) (Agreed action 4/4). Furthermore, Australia was planning to fully automate the processing of test SIGMET messages with the correct sequence number (Z99) to resolve delays in distribution currently due to the manual handling of Z99 messages.

Review SIGMET Guide

4.6 The task force considered the adoption of the Regional SIGMET Guide template provided by the Meteorological Warnings Study Group (METWSG) as the basis for an updated, Fifth Edition of the Asia/Pacific Regional SIGMET Guide. Australia and Hong Kong-China, both members of the METWSG, had contributed to the development of the Regional SIGMET Guide template and provided additional comments and changes based on the adaptation of the template for APAC regional use. The task force appointed an ad-hoc group comprising Australia (Rapporteur), Hong Kong-China, Japan, New Zealand and ICAO to further develop a draft Asia/Pacific Regional SIGMET Guide (5th Edition) for consideration by the MET SG (Agreed action 4/5).

Advisory information

4.7 VAAC Darwin had introduced volcanic activity situational awareness products during 2013 to support aviation users in the collaborative decision making process. The task force noted the METWSG had completed a high-level strategic statement relating to the short- and long-term vision for the provision of information relating to hazardous meteorological conditions, which would be reviewed, and possibly endorsed, by the ICAO Meteorology Divisional Meeting in July 2014.

Other SIGMET/advisory related business

4.8 Australia was developing a system that would produce two versions of the same SIGMET message: (1) international, which would comply with Annex 3; and (2) domestic, which may include the use of PCA² locations. The task force cautioned Australia on the potential for confusion if international users unintentionally received the non-compliant, domestic version of SIGMET from such a system.

² Planning Chart Australia

4.9 The Republic of Korea (ROK) was developing forecast guidance for turbulence used in support of SIGMET issuance. The task force invited the ROK to provide a detailed report on the progress and performance of the system at a future meeting and to provide any useful information on the algorithms used that may help other States in forecasting turbulence.

4.10 The task force noted that States may wish to bring issues raised in the meeting, such as the revised provisions for SIGMET in the proposed draft Amendment 77 to ICAO Annex 3, to the attention of the relevant ICAO groups and meetings.
(End of conjoint session)

5. Guidance material

5.1 Results of a survey of the present capabilities of APAC States to prepare and issue SIGMETs for radioactive clouds (Agreed action 3/1 refers) indicated that States continued to use a variety of sources of information and criteria to issue SIGMET for radioactive cloud and that additional guidance and/or training resources would be beneficial. The task force suggested it would be useful to include specific guidance on SIGMET for radioactive cloud in the Regional SIGMET Guide and agreed to form an ad-hoc group comprising China (Rapporteur), Hong Kong-China and Japan to develop guidance for possible inclusion in the Regional SIGMET Guide on the issuance of SIGMET for radioactive cloud (Agreed action 4/6). Furthermore, the task force requested ICAO to investigate the requirement for guidance and/or training on the use of the information provided in SIGMET for radioactive cloud by end users (Agreed action 4/7).

5.2 Results of a survey of the present capabilities of APAC States to prepare and issue aerodrome warnings for tsunami (Agreed action 3/2 refers) indicated that States generally had the capacity to provide national tsunami warning systems for the public, which could also include aerodromes, but few had implemented aerodrome warnings for tsunami and that guidance and criteria could be more specific. With respect to the proposal (in draft Amendment 77 to Annex 3) where aerodrome warnings related to tsunami would not be required where a national plan for tsunami was in place, the task force noted that some States may require guidance on how to integrate aerodromes into their national tsunami warning systems and agreed to form an ad-hoc group comprising Japan (Rapporteur) and Indonesia to develop regional guidance on the provision of tsunami warning information directly from the relevant tsunami warning centres to the 'at-risk' aerodromes (Agreed action 4/8).

5.3 The task force requested ICAO to share the information gathered by the surveys (mentioned above) with other relevant groups (Agreed action 4/9).

Other necessary guidance

5.4 Japan had not yet implemented the standardized international volcano database for the preparation of volcanic ash advisories (IAVWOPSG Decision 8/10 refers) because the updates it submitted to the review of the database had not yet been implemented. Japan would, however, inform the Regional Office of the date of implementation of the new database in its volcanic ash advisory messages. The ICAO should determine how the changes, when implemented by Japan, should be informed to others (Agreed action 4/10). Implementation of the new database may have implications for the VAAC back-up arrangements so the task force suggested VAAC back-up procedures between Darwin and Tokyo be reviewed and updated if necessary (Agreed action 4/11).

5.5 Proposed updates to realign the SIGMET posters with Amendment 76 to Annex 3 were discussed, which were expected to be published in the near future. The task force proposed that an ad-hoc group consisting of Australia, Hong Kong-China and New Zealand (Rapporteur) review and update the posters again in 2016 to realign with Amendment 77 to Annex 3 (Agreed action 4/12).

6. Review progress on contingency plans

6.1 Input was still required from the task force for the Regional ATM Contingency Planning Task Force (RACP/TF) however the detailed requirements of the RACP/TF were not yet known, which made it difficult to progress with the MET input. To this end, the task force urged the Secretariat to accelerate necessary coordination to obtain a list of requirements from the RACP/TF to guide the task force's work.

7. Aerodrome warnings

7.1 The topic of aerodrome warnings for tsunami was discussed earlier in this summary at 5.2.

8. Future work programme and review of terms of reference

8.1 Cambodia and Philippines agreed to join the task force as core members and Fiji and the Republic of Korea would also consider joining and would advise the Secretariat in due course.

8.2 The task force reviewed and updated the work programme as included in **Appendix C** to this summary.

9. Any other business

Space weather

9.1 Australia and China presented information on space weather services provided in support of international air navigation operations. The task force noted that the ICAO Meteorology Divisional Meeting in July 2014 would consider a draft concept of operations for space weather information services, developed by the relevant global group, and any recommendations adopted by the divisional meeting would set forth global objectives and implementation timelines.

AFTN addresses for VAA

9.2 Japan had compiled a list of 8-letter AFTN addresses for MWO and ACC to which VAA information is required to be distributed by VAAC Tokyo. The list was updated with the assistance of the Secretariat and feedback from States. The task force recommended that similar lists for VAACs Darwin and Wellington be established (Agreed action 4/13).

Next Meeting

9.3 Dates for the next meeting (MET/H TF/5) were tentatively agreed in the week commencing 16 March 2015, back-to-back with ROBEX WG/13, including a conjoint session with ROBEX WG/13.

**FOLLOW-UP OF MET/H TF/4
AGREED ACTION**

Status on 21 **March 2014**
(✓ = completed)

No.	Title/description	Follow-up action (target/completion dates in brackets)
4/1 (ROBEX WG 12/10)	<p>SIGMET Guide/VAAC back-up test procedures</p> <p>VAAC back-up test procedures between Wellington and Darwin to be included in the next amendment or edition of the APAC Regional SIGMET Guide</p>	<p>Secretariat to include VAAC back-up test procedures in SIGMET Guide</p> <p>(Target date TBD in 2014, in coordination with ad-hoc group's revision of SIGMET Guide for presentation to MET SG/18)</p>
4/2 (ROBEX WG 12/11)	<p>SIGMET Guide/SIGMET test procedures</p> <p>a) List of WMO headings for SIGMET bulletins used by APAC MWOs (to be used for compilation of SIGMET test results) to be updated to reflect the limitations in WC SIGMET issuance from certain MWOs as notified by States in the next amendment or edition of the APAC Regional SIGMET Guide; and</p> <p>b) Specific guidance for the issuance of test WC/WV SIGMET when a test advisory message for tropical cyclone/volcanic ash is not received to be included in the SIGMET test procedures in the next amendment or edition of the APAC Regional SIGMET Guide.</p>	<p>Secretariat to include (a) updated information on WC SIGMET issuance and (b) specific guidance for non-receipt of test advisory messages in SIGMET tests in SIGMET Guide</p> <p>(Target date TBD in 2014, in coordination with ad-hoc group's revision of SIGMET Guide for presentation to MET SG/18)</p>

MET/H TF/4
Attachment 3 to the Report

No.	Title/description	Follow-up action (target/completion dates in brackets)
4/3 (ROBEX WG 12/12)	<p>SIGMET test results</p> <p>a) ICAO State letter urging States to resolve the errors identified in the 2013 SIGMET tests (reported by Japan and Singapore and provided in Attachments C3 and C4 to the Report); and</p> <p>b) States to advise ICAO on any issues that cannot be resolved or require further coordination/assistance to address the SIGMET test errors.</p>	<p>(a) Secretariat to issue State letter (April 2014)</p> <p>(b) States respond if necessary (June 2014)</p>
4/4 (ROBEX WG 12/13)	<p>Proposal for amendment of FASID Table MET 1B – Cairns (YBCS)</p> <p>Update the regional air navigation plan, FASID Table MET 1B, to remove the requirement for MWO services at Cairns (YBCS) – in line with current requirements.</p>	<p>Secretariat (in coordination with Australia) to prepare and process the PfA (June 2014)</p>
4/5 (ROBEX WG 12/14)	<p>Draft Asia/Pacific Regional SIGMET Guide (5th Edition)</p> <p>Comprehensive revision of the draft Asia/Pacific Regional SIGMET Guide (5th Edition) based on the suggested changes in Attachments C5, C6 and C7 to the Report.</p>	<p>Ad-hoc group comprising Australia (Rapporteur), Hong Kong-China, Japan, New Zealand and ICAO to produce the revised draft Asia/Pacific Regional SIGMET Guide (5th Edition) and forward to the Secretariat for inter-regional coordination then to the MET SG for further consideration (June 2014).</p>
4/6	<p>Guidance on SIGMET for radioactive cloud</p> <p>Guidance on the issuance of SIGMET for radioactive cloud for possible inclusion in the Regional SIGMET Guide.</p>	<p>Ad-hoc group comprising China (Rapporteur), Hong Kong-China and Japan to develop guidance on the issuance of SIGMET for radioactive cloud and forward to the ad-hoc group revising the draft Regional SIGMET Guide (5th Edition) (June 2014).</p>
4/7	<p>Guidance on the use of SIGMET for radioactive cloud</p> <p>Guidance and/or training on the use of the information provided in SIGMET for radioactive cloud.</p>	<p>Secretariat to raise the issue with an appropriate ICAO group or user group (June 2014).</p>

No.	Title/description	Follow-up action (target/completion dates in brackets)
4/8	<p>Guidance on integration of aerodromes with national tsunami warning systems</p> <p>Guidance on how to integrate aerodromes into national tsunami warning systems where such systems are in place.</p>	<p>Ad-hoc group comprising Japan (Rapporteur) and Indonesia to review the tsunami survey results and develop regional guidance on the provision of tsunami warning information directly from the relevant tsunami warning centres to the ‘at-risk’ aerodromes (June 2014).</p>
4/9	<p>Survey results for radioactive cloud and tsunami</p> <p>Information gathered by the surveys to be shared with other relevant groups.</p>	<p>Secretariat to forward the information gathered by the surveys to ICAO HQ to be shared with other relevant groups (May 2014).</p>
4/10	<p>Notification of implementation of the new standardized international volcano database for the preparation of volcanic ash advisories</p> <p>Notification of the implementation of the new database for volcanic ash advisory (VAA) messages by VAAC Tokyo.</p>	<p>Secretariat to liaise with ICAO HQ to determine whether there are any requirements for notification to others such as the IAVW-related organizations, ATCs and MWOs in the VAAC Tokyo area of responsibility, as well as the EUR/NAT Regional Office (May 2014).</p>
4/11	<p>Impact of non-implementation of the new volcano database on VAAC back-up arrangements</p> <p>VAAC back-up procedures between Darwin and Tokyo to be reviewed and updated if necessary to address the interim period before the new database is implemented by VAAC Tokyo.</p>	<p>VAAC Tokyo, in conjunction with VAAC Darwin, to review the impact of VAAC Tokyo not referring to the new volcano database and take necessary actions as required (May 2014).</p>
4/12	<p>Updates to the SIGMET posters</p> <p>Revision of SIGMET posters to realign the posters with the SIGMET changes envisaged in Amendment 77 to Annex 3 in 2016.</p>	<p>Ad-hoc group consisting of Australia, Hong Kong-China and New Zealand (Rapporteur) to review and update the SIGMET posters to realign with Amendment 77 to Annex 3 in 2016.</p>

MET/H TF/4
Attachment 3 to the Report

No.	Title/description	Follow-up action (target/completion dates in brackets)
4/13	MWO and ACC AFTN addresses for VAA information List of MWO and ACC locations and AFTN addresses for distribution of VAA information from VAACs Darwin and Wellington.	Secretariat to: (a) source the lists of MWO and ACC locations for distribution of VAA information from VAACs Darwin and Wellington; and (b) issue a State Letter requesting updates to the MWO and ACC location information for distribution of VAA information in the APAC Region, including AFTN addresses (May 2014).

**FOLLOW-UP OF MET/H TF/3
AGREED ACTION**

Status on 3 March 2014
(✓ = completed)

No.	Title/Action	Follow-up action (target/completion dates in brackets)
3/1	Regional capabilities to prepare and issue radioactive SIGMET. That, results of the 2011 Regional survey on the status of present capabilities of Asia/Pacific States to prepare and issue R-SIGMET are reviewed at the next meeting and a new survey is conducted to update the status in 2013.	✓ Secretariat/States Survey (July 2013/March 2014) WP for MET/H TF/4 (Feb 2014/March 2014)
3/2	Regional capabilities to prepare and issue aerodrome warnings for tsunami. That, results of the 2011 Regional survey on the status of present capabilities of Asia/Pacific States to prepare and issue aerodrome warning for tsunami are reviewed at the next meeting and a new survey is conducted to update the status in 2013.	✓ Secretariat/States Survey (July 2013/March 2014) WP for MET/H TF/4 (Feb 2014/March 2014)

ICAO APAC METEOROLOGICAL HAZARDS TASK FORCE (MET/H TF)

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MET/H TF/4
Attachment 8 to the Report

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MET/H TF/4
Attachment 8 to the Report

2.DESCRPTION	
Objective	Improve the quality of meteorological advisories and warnings and implement the International Airways Volcano Watch (IAVW) and International Tropical Cyclone Watch (ITCW).
Benefits	<ul style="list-style-type: none"> • Improve in-flight safety by providing information on volcanic ash, tropical cyclone and other hazardous weather. • Improve pre-flight planning by optimizing flight routes with respect to volcanic ash, tropical cyclone and other hazardous weather phenomena.
Terms of Reference	<p>Under guidance from ICAO Secretariat:</p> <ul style="list-style-type: none"> • Maintain awareness of current and future requirements with respect to the issuance of meteorological advisories and warnings; • Maintain awareness of the implementation of meteorological advisories and warnings within the ASIA/PAC Region and any deficiencies; • Continually seek ways to improve the operational effectiveness of the meteorological advisory and warning system; and • Provide advice to the MET Sub-group on the above issues.
Work Program	<p>The work to be addressed by the ASIA/PAC MET/H TF includes:</p> <ul style="list-style-type: none"> • Review procedures for the issuance of meteorological advisories and warnings in the region and propose actions for their improvement to related performance objectives; • In conjunction with ROBEX WG, investigate the deficiencies in the format and dissemination of meteorological advisories and warnings and propose remediation plans; • Respond to the needs of the States for guidance and/or training related to the implementation of meteorological advisories and warnings-and inform ROBEX WG of changes required to the SIGMET guide; • In conjunction with MET/R TF, provide meteorological input for contingency planning for specific phenomenon including Volcanic Ash, Radioactive Cloud, Tropical Cyclone and Tsunami; • Follow the developments in the States related to the improvement of meteorological advisories and warnings and provide regional input on these matters to relevant ICAO and WMO groups and to gather user requirements from ANSPs, IATA, IFATCA and IFALPA; • Report on its work to the MET Sub-group of APANPIRG; and • Maintain a link to the Regional ATM Contingency Plan Task Force (RACP/TF).

3. COMMUNICATION STRATEGIES				
Description	Target Audience	Delivery Method	Frequency/ Date	Responsibility
Work Plan	Task Force Members	Document via email and posted on ICAO Bangkok website	As required but reviewed at least quarterly	☞Chair
General correspondence	Task Force Members	Email	As required	Task Force Members
Task Force Meeting	Task Team Members	Meeting in conjunction with ROBEX WG	Yearly in March	Chair
Status& Milestone Reports	ICAO Secretariat and Task Team Members	Report via email	Quarterly	Chair
Task Force Report	MET/H TF and ROBEX WG	Working Paper	Yearly	Chair
Task Force Report	MET SG	Working Paper	Yearly	Secretariat

MET/H TF/4
Attachment 8 to the Report

4. PERFORMANCE FRAMEWORK FORM (PFF)				
Tasks	Time Frame	Responsibility	Status	Milestone
Task 1: Monitor and provide assistance to the regional implementation of meteorological warnings and advisories that include volcanic ash (VA) and tropical cyclone (TC) advisories and meteorological warnings and advisories based on current and future requirements	2014-2019	MET/H TF	In progress	1
Task 2: Track and investigate deficiencies in the format and dissemination of meteorological advisories and warnings and propose remediation plans and provide information to ICAO and WMO groups for possible assistance	2014-2019	MET/H TF and ROBEX WG	In progress	1,2
Task 3: Review WC, WV & WS SIGMET test results and implement improvements.	2014-2019	MET/H TF	In progress	1
Task 4: Provide guidance and/or training related to the implementation of meteorological advisories and warnings, including input to the Regional SIGMET Guide as they relate to the Annex 3 amendment cycle.	2014, 2016	R/O, MET/H TF and ROBEX WG	In progress	1,3
Task 5: Develop framework Provide input into regional for contingency plans as required for specific phenomenon, including VA, radioactive cloud, TC and Tsunami, with consideration to global ICAO groups and WMO developments.	2015	MET/H TF and MET/R TF	In progress	3

5. MILESTONES			
Milestone	Accountability	Dates	Status
Milestone 1: Report back to MET SG on SIGMET test results and regional performance and action plan to MET SG	Chair	Annually	
Milestone 2: Guidance and educational material available Review and further develop suitable educational Material	Chair	Annually Mar 2015	
Milestone 3: MET input provided for ASIA/PAC Regional ATM Contingency Plans Develop framework for ASIA/PAC Regional (MET) Contingency Plans	ad-hoc group	Aug 2013 Next meeting	
Milestone 4: Review requirements from ASIA/PAC Regional (MET) for dissemination of Tsunami warnings	Chair & R/O	Apr 2013	

MET/H TF/4
Attachment 8 to the Report

6. WORK PLAN				
Task / Milestone	Accountability	Predecessors	Date	Status
Activity 1: SIGMET TESTS				
Task 1.1: Review SIGMET tests (conjoint session with ROBEX WG)	Chair	-	Annually	
Task 1.2: Develop action plan to fix identified deficiencies	Chair in conjunction with the Task Force	conjoint session with ROBEX WG	During meeting	
Task 1.3 Report back to MET SG on regional performance and action plan	Chair		Annually	
Milestone 1: Report back to MET SG on SIGMET test results and regional performance and action plan to MET SG	Chair	-	Annually	
Activity 2: GUIDANCE AND EDUCATIONAL MATERIAL				
Task 2.1: Review current SIGMET posters and education material (Future Annex 3 amendments)	Australia, Hong Kong, China and New Zealand (Rapporteur) in conjunction with METWSG or ICAO HQ and WMO	-	September 2014, and following Annex 3 amendments Next meeting	
Task 2.2: Review the requirements for educational material in light of monitoring results radioactive cloud survey results and develop guidance for inclusion in the SIGMET Guide	Task Force China (Rapporteur), Hong Kong, China, Japan	-	Next meeting	
Task 2.3: Review tsunami survey results and develop guidance in line with proposal for Amendment 77 to Annex 3 Consider the requirement for seminars/workshops	Japan (rapporteur), Indonesia Task Force		Next meeting February 2013	
Task 2.4: Propose amendments to the SIGMET Guide template to ICAO HQ in co-ordination with EUR R/O	Australia (rapporteur), Hong Kong, China, Japan, New Zealand		July 2014	
Task 2.5: Consider the requirement for seminars/workshops	Task Force		Next meeting	
Milestone 2: Review and further develop suitable Guidance and educational material available	Chair		July (annually) MET SG Next Meeting	
Activity 3: REGIONAL CONTINGENCY PLANS				
Task 3.1: Report on the progress of IAVWOPSG to MET/H TF Get a list of requirements from RACP/TF	Chair Secretariat	-	Mar 2014 TBD	
Task 3.2: Considering existing VA procedures and plans in the ASIA/PAC, and in light of the issuance of the EUR/NAT, NAM/SAM contingency	Task Force & ad-hoc group	-	Aug 2013 Next meeting	

MET/H TF/4
Attachment 8 to the Report

6. WORK PLAN				
Task / Milestone	Accountability	Predecessors	Date	Status
plans, consider the appropriateness of an ASIA/PAC contingency plan, and develop possible framework. Provide information on hazardous meteorological phenomena to ATM group for inclusion in the ATM contingency plan, if required				
Task 3.3 Consider existing contingency plan in APAC region (e.g., TC, radioactive cloud and Tsunami)	Task Force & ad-hoc group	—	Aug 2013	
Milestone 3: MET input provided Develop framework for ASIA/PAC Regional (MET) ATM Contingency Plans	Rapporteur ad-hoc group		Aug 2013 Next meeting	
Activity 4: TSUNAMI				
Task 4.1: Report on the progress of topic from METWSG/5 for regional applications	Chair	—	March 2014	
Task 4.2: Review outcomes from METWSG/5 in relation to the provision of Tsunami Warnings to aerodromes	Task Force	—	Mar 2014	
Milestone 4: Review requirements from ASIA/PAC Regional (MET) for dissemination of Tsunami warnings	Chair		Mar 2014	
