



*International Civil Aviation Organization*

**WORKING PAPER**

**TWENTIETH MEETING OF THE METEOROLOGY SUB-GROUP  
(MET SG/20) OF THE ASIA/PACIFIC AIR NAVIGATION PLANNING  
AND IMPLEMENTATION REGIONAL GROUP (APANPIRG)**

*Bangkok, Thailand, 6 – 9 June 2016*

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**Agenda Item 3: Review outcomes from other ICAO groups**

**REVIEW OF THE NINETEENTH MEETING OF THE  
METEOROLOGY SUB-GROUP**

(Presented by Chair of MET SG)

**SUMMARY**

This paper presents a summary of the Nineteenth Meeting of the Meteorology Sub-Group (MET SG/19) of the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), held in the ICAO APAC Regional Office, Bangkok, Thailand, from 3-6 August 2015.

**1. INTRODUCTION**

1.1 The Nineteenth Meeting of the Meteorology Sub-group (MET SG/19) of the Asia and Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) was held in the International Civil Aviation Organization (ICAO) Regional Office, Bangkok, Thailand, from 3-6 August 2015.

1.2 A copy of the report from MET SG/19, as well as all related meeting documentation, is available at the following website: <http://www.icao.int/APAC/Meetings/Pages/2015-METSG19.aspx>

**2. DISCUSSION**

2.1 A total of twenty-four (24) Working Papers (WP), twenty-nine (29) Information Papers (IP), two (2) presentations (SP) and seven (7) flimsies were considered by the meeting.

2.2 Based on the outcome of discussions, the MET SG/19 meeting adopted eleven (11) Decisions related solely to matters dealing with the internal working arrangements of the MET SG and formulated nine (9) Draft Conclusions dealing with matters that, according to APANPIRG Terms of Reference, require the attention of States, or action by the ICAO in accordance with established procedures.

2.3 The list of Decisions formulated by MET SG/19 for further action by the MET SG and its subsidiary working groups were as follows:

### 2.3.1 Decision 19/1 – MET SG Terms of Reference

That, to promote safety-related objectives of APANPIRG, the word “effective”, in addition to “efficient”, should be considered for inclusion in the terms of reference proposed by Draft Decision ABSRTF/2/3 – *Revised Terms of Reference of APANPIRG Sub Groups* (at the third dot point under the objectives) with respect to the objective of addressing deficiencies in the respective air navigation services related to each Sub-Group of APANPIRG.

Status: The proposed amendment to the Sub-Group Terms of Reference was forwarded to the ABSRTF for consideration.

### 2.3.2 Decision 19/2 – Expert working groups of the Meteorology Sub-group (MET SG)

That, in order to assist APANPIRG with its planning and implementation work in close alignment with the Global Air Navigation Plan (GANP) and Aviation System Block Upgrade (ASBU) strategies and the APAC regional priorities, and to facilitate coordination, where necessary, with the Meteorology Panel:

- a) The following expert working groups be appointed to replace the existing structure of expert task forces and working group under the MET SG:
  - i. Meteorological Requirements Working Group (MET/R WG)
  - ii. Meteorological Services Working Group (MET/S WG)
  - iii. Meteorological Information Exchange (MET/IE WG); and
- b) The draft terms of reference for the working groups under the MET SG, as contained in **Attachment 3** to [the MET SG/19] Report, be adopted.

*Note: The Volcanic Ash Exercises Steering Group (APAC VOLCEX/SG) will report to the MET/S WG.*

Status: The MET SG adopted and has implemented the new working group structure.

### 2.3.3 Decision 19/4 – SIGMET Deficiencies in the APAC Region

That, the ad hoc group, comprising New Zealand (Rapporteur), Australia, China, Indonesia and Japan, continue to assist with rectification of SIGMET Deficiencies in the APAC Region, including coordination of the following activities:

- a) Alignment of the systems/processes/procedures used in Papua New Guinea and Solomon Islands for SIGMET issuance with relevant Annex 3\* provisions and regional guidance materials;
- b) Monitor SIGMET issuance by Papua New Guinea and Solomon Islands over a defined period and during specific volcanic ash and tropical cyclone events to determine level of effective implementation of SIGMET service;
- c) Consider the inclusion of Papua New Guinea and Solomon Islands in volcanic ash scenarios for the second ICAO APAC volcanic ash exercise;
- d) Assist Nauru with respect to the designation of meteorological authority, including associated arrangements for the provision of SIGMET service and, if necessary, establishment of a bilateral agreement for SIGMET issuance; and

- e) Investigate other opportunities (particularly establishment of bilateral agreements or other targeted assistance) to facilitate the rectification of SIGMET deficiencies within the APAC Region.

Status: Adopted as part of the MET/S WG work plan

#### 2.3.4 **Decision 19/6 – Darwin TCAC Boundary**

That:

- a) the ICAO Secretariat ensure that all relevant documents are updated with the new Darwin TCAC area of responsibility; and
- b) States ensure all procedural documents are updated with the boundary information for Darwin TCAC.

Status: Refer to review of outcomes from MET/IE WG/14 (para. 6.10 – 6.11 and Task 14/12).

#### 2.3.5 **Decision 19/8 – Tropical Cyclone Advisory (TCA) messages**

That, to facilitate clarity and consistency of information within tropical cyclone advisory and SIGMET messages in the Region, the APAC tropical cyclone advisory centre (TCAC) Provider States be encouraged to provide information in the “Remarks” (RMK) element of the advisory messages for tropical cyclones to support meteorological watch offices (MWOs) with the provision of tropical cyclone SIGMET information including “Changes in intensity” and the horizontal and vertical extent of “CB TOP”, based on information provided by the TCACs. (MET SG) consideration should also be given to the provision of an appropriate example in the SIGMET Guide.

Status: Refer to review of outcomes from APANPIRG/26 (Conclusion APANPIRG/26/53).

#### 2.3.6 **Decision 19/9 – Back up of TCACs**

That, ICAO clarifies the requirements, if any, for back-up arrangements with respect to provisions related to TCACs.

Status: In progress.

#### 2.3.7 **Decision 19/10 – WMO Abbreviated Headers for VAAC Wellington/Tokyo backup of VAAC Darwin**

That, ICAO be invited to update Doc 9766 — *Handbook on the International Airways Volcano Watch (IAVW)*, Table 4-3, to include the new WMO abbreviated headers for volcanic ash advisory information bulletins (plain language and graphical format) issued by VAAC Wellington/Tokyo when backing up VAAC Darwin, after the coordination on provision of backup volcanic ash advisory information in graphical format (VAG) is finalized between VAACs Darwin and Tokyo.

*Note: The finalized backup procedure is expected to be reported to ROBEX WG/14.*

Status: In progress.

**2.3.8 Decision 19/11 – Change to Darwin VAAC telephone number**

That, ICAO Secretariat ensure that all relevant documents are updated with the new Darwin VAAC telephone number and promulgate this information to States to ensure all procedural documents are updated accordingly.

Status: In progress.

**2.3.9 Decision 19/12 – Observations including air-reports of VA**

ICAO to remind States and airspace users (through IFALPA) of the provisions [Annex 3/Doc 4444] relating to observing and reporting of hazardous phenomena, including volcanic ash information.

Status: In progress.

**2.3.10 Decision 19/19 – SIGMET Pamphlets**

That, the ad hoc group, consisting of Australia, New Zealand, Japan and Hong Kong China:

- a) Forward the final versions of the WS and WC SIGMET pamphlets to ICAO for publication on the APAC eDocuments website, if approved by APANPIRG;
- b) Further develop the WV SIGMET pamphlet; and
- c) Review the pamphlets again in July 2016 when Amendment 77 to Annex 3 is published to ensure that the pamphlets are aligned accordingly with Amendment 77 prior to its effective date in November 2016.

Status: The WS and WC SIGMET pamphlets were approved by APANPIRG and are available on the APAC website. The task to complete the WV SIGMET pamphlet and to review all SIGMET pamphlets, taking into account Amendment 77 to Annex 3, was adopted as part of the MET/S WG work plan.

**2.3.11 Decision 19/20 – Regional guidance on SIGMET (radioactive cloud)**

That,

- a) MET SG members who are members of the METP, be invited to forward the draft guideline on the issuance of SIGMET for radioactive cloud to the METP at the earliest opportunity for further consideration; and
- b) The ad hoc group continues work on Regional guidance material based on the work done so far.

Status: Adopted as part of the MET/S work plan.

2.4 The list of Draft Conclusions formulated by MET SG/19 for further consideration and possible adoption by APANPIRG were as follows (and will be discussed in another MET SG/20 WP):

**Draft Conclusion 19/3 — SIGMET Training**

**Draft Conclusion 19/5 — SADIS user States and SADIS users to prepare for cessation of SADIS 2G**

**Draft Conclusion 19/7 — Tropical Cyclone Advisory (TCA) and SIGMET messages**

**Draft Conclusion 19/13 — Improvement of OPMET data availability for aerodromes listed in AOP tables and aerodromes not listed in AOP tables**

**Draft Conclusion 19/14 — IWXXM and AMHS Survey**

**Draft Conclusion 19/15 — Capacity building workshop to facilitate planning and implementation of digital exchange of aeronautical meteorological information**

**Draft Conclusion 19/16 — Survey of State Meteorological Information Supporting Air Traffic Management**

**Draft Conclusion 19/17 — Competency of aeronautical meteorological personnel**

**Draft Conclusion 19/18 — SIGMET Pamphlets**

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) Note the information contained in this paper; and
- b) Provide any further updates on the activities related to the MET SG/19 Decisions.

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