



**INTERNATIONAL CIVIL AVIATION ORGANIZATION  
ASIA AND PACIFIC OFFICE**

**REPORT OF  
THE EIGHTH MEETING OF THE ASIA/PAC OPMET  
MANAGEMENT TASK FORCE (OPMET/M TF/8)**

**23 - 25 March 2010  
Bangkok, Thailand**

---

**History of the Meeting**

**Page**

Introduction..... i-2

Attendance ..... i-2

Opening of the Meeting ..... i-2

Chair and Secretariat..... i-2

Organization and language of the meeting ..... i-2

**Report on Agenda Items**

Adoption of Agenda..... 1

Agenda Item 1..... 2

Agenda Item 2..... 2

Agenda Item 3..... 8

Agenda Item 4..... 10

Agenda Item 5..... 15

Agenda Item 6..... 17

Agenda Item 7..... 17

**Attachments**

- Attachment 1: List of participants
- Attachment 2: List of working and information papers

**Appendices**

- Appendix A: Term of References (TORs) and Work Programme
- Appendix B: OPMET Exchange Action Items List
- Appendix C: ROBEX HB – list of updates
- Appendix D: SIGMET Guide – list of updates
- Appendix E: MWOs/FIRs nonparticipation in all five WS SIGMET tests

-----

## **1. Introduction**

1.1 The Eighth Meeting of the ASIA/PAC OPMET Management Task Force (OPMET/M TF/8) of the CNS/MET Sub-group of APANPIRG was held in Bangkok, Thailand, from 23 to 25 March 2010.

## **2. Attendance**

2.1 The meeting was attended by 38 experts from Australia, China, Hong Kong China, Indonesia, Japan, Malaysia, Singapore, Thailand, Viet Nam, United States, and ICAO. The List of Participants is provided in **Attachment 1** to the Report.

## **3. Opening of the meeting**

3.1 Mr. Christopher F. Keohan, Regional Officer Aeronautical Meteorology, ICAO Asia and Pacific Office opened the meeting and extended welcome to all the participants to the ICAO Regional Office and emphasized the importance of timely exchange of OPMET information through ROBEX scheme for the safety of flight operation. He was pleased to see a significant increase in State participation in the SIGMET tests conducted in November 2009. He supported efforts in continuing this trend of SIGMET test involvement to help reduce real time SIGMET format errors. He also commended the continued efforts to update the ROBEX Handbook that is referenced by the Regional OPMET Data Banks (RODBs) in the exchange of OPMET data needed for flight safety and efficiency by providing timely meteorological data for international flight. These efforts are shown in the increase in OPMET reception at SADIS/ISCS for AOP and non-AOP aerodromes in the Region. He assured his full support to the meeting and wished the meeting success in its productive deliberations.

3.2 The meeting noted that the chairperson, Ms. Guat Mui CHUA of the Meteorological Services of the National Environment, Singapore. Ms. Chua would step down from the chair after the OPMET/M TF/8 meeting in accordance to the agreed upon 2-year cycle discussed in the OPMET/M TF/7 meeting. The meeting wished Ms. Chua a successful meeting and appreciated her efforts in OPMET exchange in the previous years. She provided a brief overview of the objectives of the meeting and also highlighted main tasks for the meeting and sought continuous support from all participants of the meeting.

## **4. Chair and Secretariat**

4.1 Ms. Guat Mui Chua, chairperson of the OPMET/M Task Force presided over the meeting.

4.2 Mr. Christopher Keohan, Regional Officer, MET acted as Secretary of the meeting.

## **5. Organization and language of the meeting**

5.1 The meeting met as a single body. Working language was English including all papers and this report. The meeting considered 24 Working Papers and 5 Information Papers. List of papers is provided at **Attachment 2** to this Report.

-----

### **Adoption of agenda**

1.1 The agenda adopted by the meeting was as follows:

**Agenda Item 1:** a) Adoption of provisional agenda and working arrangements for the meeting  
b) Review of the TORs and follow-up action on the TF/7 meeting

**Agenda Item 2:** Review:  
a) Report of 4<sup>th</sup> RODB Coordination Meeting – Chiang Mai  
and Review status of APANPIRG/20 Conclusion  
b) Current status of OPMET exchange in the Region  
c) Status report of Regional OPMET Data Banks  
d) Inter-Regional exchange and new requirements for OPMET information.  
– Harmonization of OPMET data on SADIS and ISCS  
– State implementation of new TAF format (Am 74)  
– Status of Am 75 applicable 18 November 2010

**Agenda Item 3:** Review of regional guidance material on OPMET exchange:  
a) ROBEX Handbook  
b) ASIA/PAC ICD  
c) OPMET related FASID tables  
d) Asia/Pacific Regional SIGMET Guide

**Agenda Item 4:** Management of OPMET exchange:  
a) OPMET monitoring and quality control procedures  
–RODB backup procedures – contingency trials  
b) SIGMET tests  
–Address and header format verification  
–Follow-up notification to States on errors identified

**Agenda Item 5:** Future exchange and reception of OPMET information  
a) Update on XML coded OPMET information  
b) ISCS-G2 cessation plans and WIFS development

**Agenda Item 6:** Future Work Programme

**Agenda Item 7:** Any other business

**Agenda Item 1: Review of the Terms of Reference (TORs) and follow-up action on the TF/7 meeting**

1.1 The meeting reviewed the Terms of Reference (TORs) of the group located in **Appendix A** to this report. The meeting was apprised that the TORs were last updated by the CNS/MET SG/13 meeting (July 2009) through CNS/MET SG/13 Decision 13/34. Specifically, section (f) of the work programme was changed to reflect continuous monitoring of the progress of XML, the likely format of OPMET data exchange in the future. The meeting did not propose changes to the TORs at this meeting.

**Agenda Item 2: Review:**

- a) **Report of 4<sup>th</sup> RODB Coordination Meeting – Chiang Mai**  
**Review status of APANPIRG/20 Conclusions**
- b) **Current status of OPMET exchange in the Region**
- c) **Status report of Regional OPMET Data Banks**
- d) **Inter-Regional exchange and new requirements for OPMET information**
  - **Harmonization of OPMET data on SADIS and ISCS**
  - **State implementation of new TAF format (Am 74)**
  - **Status of Am 75 applicable 18 Nov 2010**

**2.1 Review status of APANPIRG/20 Conclusions**

The group further reviewed the follow-up action taken by APANPIRG/20 (September 2009) meetings on the OPMET/M TF/7 report. The meeting noted APANPIRG/20 adopted draft conclusions on OPMET related matters formulated by the Task Force. The meeting also noted follow-up actions taken by States, Secretariat and International Organization with respect to the adopted Conclusions and that some working papers related to these Conclusions. The progress on OPMET related APANPIRG/20 Conclusions are provided in the attachment to WP/5.

**2.2 Report on 4<sup>th</sup> RODB Coordination Meeting – Chiang Mai**

The meeting reviewed the OPMET exchange action items list developed at the RODB/4 meeting, which includes action items from the OPMET/M TF/7 meeting provided in the first attachment to WP/3. The RODB/4 meeting agreed that all OPMET related issues be deposited in this list with reference to the respective meeting update. The meeting reviewed the first attachment and agreed to close 17 tasks and transfer 10 tasks to the new list in the second attachment. The new list was reviewed by the meeting and closed 1 action item and opened 18 action items as shown in **Appendix B** to this report. The full report of the 4<sup>th</sup> RODB Coordination Meeting held in Chiang Mai from 11 to 12 February 2010 is posted on the following web site: <http://www.icao.or.th/meetings/2010/rodb4/Index.html>.

**2.3 Current status of OPMET exchange in the Region**Status of Deficiencies

2.3.1 The meeting recalled APANPIRG/20 Conclusion 20/75 which resulted in the addition of 5 deficiencies to the APANPIRG list of deficiencies. These deficiencies were a result of findings from the ICAO Technical Co-operation Project *Cooperative Agreement for Enhancement of the Meteorological Service for Aviation in the South Pacific (CAEMSA-SP)*. Specifically, lack of WAFS forecasts in flight briefings for Nauru, Kiribati, and Solomon Islands (AP-MET-18, -19 and -20), lack of meteorological observing station for Nauru (AP-MET-21), and lack of volcano monitoring for the Kingdom of Tonga (AP-MET-17) were included in the list of APANPIRG deficiencies. The status of these deficiencies have not been updated, however, the ICAO TCB plans to conduct a workshop on a Phase II of the

CAEMSA-SP project that would include developing action plans with donors and States in mitigating these deficiencies and other MET gaps identified in this project.

2.3.2 The meeting recalled APANPIRG/20 Conclusion 20/74 which resulted in the removal of the deficiency (AP-MET-15) on the provision of SIGMET for the Phnom Penh FIR. The Kunming MWO provides SIGMET for the Phnom Penh FIR since June 1, 2009 in accordance to a bilateral agreement between China and Cambodia. The establishment of an MWO (AP-MET-11) still exists for Cambodia since other provisions (pre-eruption volcanic activity, dissemination of radioactive material information) are necessary for an MWO.

2.3.3 Myanmar has informed the Regional Office (February 2010) that SIGMET is provided by the Yangon MWO. The meeting also noted that Myanmar participated in the SIGMET tests in November 2009 (except for WC SIGMET since an advisory was not issued by TCAC New Delhi). As a result of the RODB/4 meeting, Myanmar was recently informed by the Regional Office to issue SIGMET to all RODBs in the Region via AFTN. The meeting agreed that verification of SIGMET by RODB Bangkok is necessary for the removal of this related deficiency (AP-MET-13) and more information will likely be available by the CNS/MET SG/14 meeting.

2.3.4 The meeting also noted that Myanmar notified the Regional Office (February 2010) of an action plan on obtaining SADIS FTP in 2010 that would provide the required WAFS information in flight briefings (AP-MET-10). Confirmation of WAFS information in flight documentation is needed for removal of this deficiency.

2.3.5 The meeting noted that Lao PDR plans to establish a MWO responsible for the provision of SIGMET in 2010 and that Lao PDR participated in the November 2009 SIGMET tests. The meeting agreed that once this is achieved, a RODB monitor for the issuance of SIGMET for the removal of the related deficiency (AP-MET-12).

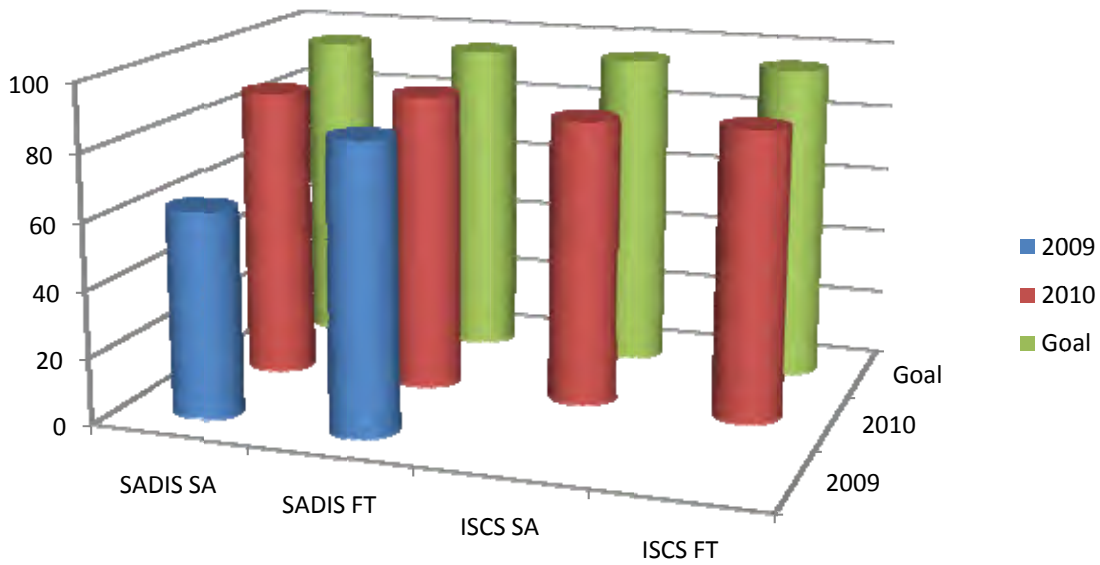
2.3.6 The meeting noted that DPR Korea notified the Regional Office on 30 March 2009 of the establishment of a MWO at Sunan (published in AIP) and has participated in the WS SIGMET test on 24 November 2010. As a result, the documentation (FASID Table MET 1B) is proposed to reflect the establishment of the MWO in a current amendment proposal (SN: APAC 10/06 – MET). In terms of the deficiency (AP-MET-16) on SIGMET, a proposal to remove this deficiency from the list of APANPIRG deficiencies is contingent upon sufficient evidence that this deficiency be removed through monitoring by RODB Tokyo. Lastly, DPR Korea plans to send SIGMET to all RODBs beginning 10 March 2010. The meeting agreed that monitoring information may be available in time for the CNS/MET SG/14 meeting for appropriate action.

#### IATA Monitoring of OPMET on SADIS and ISCS

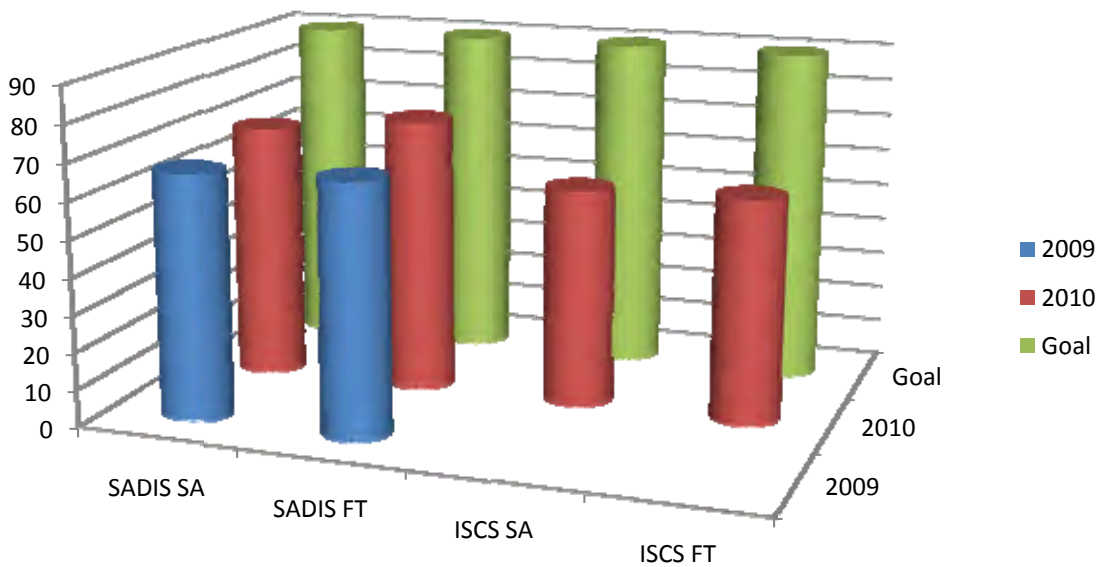
2.3.7 IATA provided two papers on the reception of OPMET (METAR and TAF) data for the period of 9 weeks beginning 4 January 2010 at ISCS and SADIS measured against expected reception indicated in FASID Table MET 1A for AOP aerodromes and FASID Table MET 2A for non-AOP aerodromes (AOP aerodromes screened) (which also corresponds to the SADIS SUG Annex 1). The meeting observed that the extensive data base tables provided to these working papers appeared to be outdated. For example, Singapore aerodromes WSAC and WSAT were listed, yet OPMET is no longer provided for these aerodromes and reflected in the ASIA/PAC FASID Tables MET 1A and 2A (Singapore AOP aerodromes include WSAP, WSSL, WSSS). Furthermore, numerous aerodromes with zero OPMET reception which appeared much greater than the corresponding statistics. Given the aforementioned, the meeting agreed that IATA should provide RODB Singapore (cc RO) with a softcopy of the tables in categories of AOP, non-AOP and aerodromes not listed in the FASID Tables. RODB Singapore could then determine the aerodrome discrepancies of each category. Once this has been established, performance indices can be recalculated. Despite the concerns with reference tables on OPMET reception, the statistics generated were encouraging and a summary provided here within.

OPMET Reception									
System	AOP aerodromes			Non-AOP aerodromes			Non-AOP aerodromes not listed in Tables		
	SA (%)	TAF (%)	FC (#)	SA (%)	TAF (%)	FC (#)	SA (#)	TAF (#)	FC (#)
ISCS	85.4	86.3	14	58.7	60.1	1	76	33	1
SADIS	87.3 (61.7-2009)	89.3 (86-2009)	14	69.2 (66.1-2009)	74.1 (67.7-2009)	2	64	24	20 (18 only FC)
Goal	95	95	0	90	90	0			

**SADIS/ISCS SA/TAF Reception for AOP Aerodromes**



**SADIS/ISCS SA/TAF Reception for non-AOP Aerodromes**



2.3.8 Reception statistics of OPMET data for AOP aerodromes for two years were only available for SADIS, which revealed an improvement in reception of 25.6% for SA and 3.3% for TAF. This significant increase in reception is commendable and attributed to States awareness and participation in the exchange of OPMET data, however, further efforts will continue by the Regional Office and States to achieve the goal of 95% availability as indicated in APANPIRG Conclusion 20/63. To facilitate this effort, IATA is encouraged to provide a list of AOP aerodromes by State in the Region that do not provide OPMET data at SADIS and ISCS and formulate a draft Conclusion for the CNS/MET SG/14 meeting inviting the ICAO Regional Office to inform States of their obligation to fulfil requirements detailed in FASID Table MET 1A.

2.3.9 Reception statistics for OPMET data for non-AOP aerodromes for two years were only available for SADIS, which revealed an improvement in reception of 3.1% for SA and 6.4% for TAF. This modest increase in reception is commendable and attributed to States awareness and participation in the exchange of OPMET data, however, further efforts will continue by the Regional Office and States to achieve the goal of 90% availability as indicated in APANPIRG Conclusion 20/64. To facilitate this effort, IATA is encouraged to provide a list of non-AOP aerodromes by State in the Region that do not provide OPMET data at SADIS and ISCS and formulate a draft Conclusion for the CNS/MET SG/14 meeting inviting the ICAO Regional Office to consult States on their intention of providing OPMET data for international use. The FASID Table MET 2A would be updated depending on the responses from States and coordinated with ICAO Headquarters (for updating Annex 1 to the SADIS User Guide).

2.3.10 The comparison of OPMET reception between SADIS and ISCS reveals further harmonization is needed since the reception at SADIS is greater than that of ISCS for all categories. Specifically, SA/TAF reception at SADIS is 4/6 more than ISCS for AOP aerodromes and 15/20 more than ISCS for non-AOP aerodromes. IATA is encouraged to develop a draft Conclusion for the CNS/MET SG/14 meeting that invites the ISCS and SADIS Provider States to further harmonize the OPMET data base.

2.3.11 Note that the IATA position, as formulated in the IATA METTF/14 meeting, is that all OPMET data currently available should be distributed. This does not mean modifying the airport status in the AOP table. The meeting noted, however, that procedurally, it is up to the State to decide what non-AOP OPMET is available for distribution through ICAO consultation with the State (this is not an amendment proposal, simply concurrence or non concurrence via consultation).

2.3.12 With regards to non-AOP aerodromes not listed in FASID Table MET 2A providing OPMET data to SADIS and/or ISCS, IATA could produce a list of States with aerodromes providing this service and develop a draft Conclusion for the CNS/MET SG/14 meeting that invites the ICAO Regional Office to consult States to include these non-AOP aerodromes in FASID Table MET 2A.

2.3.13 IATA provided *regularity* results in the attachments to WP11 and WP12 that reveal some States do not provide OPMET data in accordance to the FASID Tables MET 1A and 2A. IATA is encouraged to produce a list of aerodromes by State that does not meet a user acceptable OPMET regularity. This draft Conclusion would invite the ICAO Regional Office to inform (for AOP-aerodromes) or consult (for non-AOP aerodromes) States of the user requirements.

2.3.14 In summary, IATA is invited to produce the following conceptual draft Conclusions for the CNS/MET SG/14 meeting to consider:

- Invite the ICAO Regional Office to inform States of FASID Table MET 1A requirements based on a list of AOP aerodromes by State whose OPMET data are not received at SADIS or ISCS;
- Invite the ICAO Regional Office to consult States on their intention in distributing OPMET data for their non-AOP aerodromes currently listed in FASID Table MET 2A based on a list of non-AOP aerodromes by State whose OPMET data are not received at SADIS or ISCS;



- Invite the SADIS and ISCS Provider States to further harmonize their OPMET data base referencing a list of aerodromes by State that are not received at both SADIS and ISCS;
- Invite the ICAO Regional Office to consult States to distribute OPMET data for non-AOP aerodromes based on a list of non-AOP aerodromes whose OPMET data is received at SADIS or ISCS but is not currently listed in FASID Table MET 2A. If the State concurs that OPMET data information be distributed, even if partial (e.g. METAR only), the OPMET information for the non-AOP aerodrome will be included in FASID Table MET 2A;
- Invite the ICAO Regional Office to inform States of irregular OPMET data based on a list of AOP aerodromes by State whose OPMET data is deemed irregular by the user; and
- Invite the ICAO Regional Office to consult States of irregular OPMET data based on a list of non-AOP aerodromes by State whose OPMET data is deemed irregular by the user.

#### Data verification in the Singapore IROG

2.3.15 The Singapore Inter Regional OPMET Gateway (IROG), which facilitates data exchange between Asia/Pacific and European Regions, manually corrects format errors such as bulletin headers and location indicators when the Message Switch and Data Management System do not meet pre-defined rules. Message errors presented to the meeting include: 1) mistyped SIGMET validity period (Bangladesh, Indonesia, and Fiji); 2) incorrect SIGMET format (Malaysia and India); 3) incorrect TAF filing time which should be 1 hour before the start period of validity (New Zealand); 4) incorrect TAF format (Sri Lanka, India and Indonesia); and 5) missing AHL in TAF message (Indonesia). Malaysia responded to the error identified in the SIGMET format by indicating that the issue had been resolved. Indonesia will inform the Regional Office of an agreement between the military and civilian entities with regards to the distribution of WIHH TAF realizing the importance of this alternate aerodrome. The other States (Bangladesh, Fiji, New Zealand and Sri Lanka) will be informed accordingly by the Regional Office (placed in OPMET exchange action item list).

#### **2.4 Status report of Regional OPMET Data Banks**

2.4.1 The RODB Bangkok informed the meeting of monitoring results related to actions developed at the RODB/4 meeting. Specifically, TAF format errors identified in Sri Lanka are likely corrected at Mumbai collection centre since RODB Singapore recently verified the use of 'Z' in the first time element of TAF. Monitoring of SIGMET for Yangon FIR revealed the incorrect use of WS SIGMET for an aerodrome warning for fog which will be communicated to Myanmar by the Regional Office.

2.4.2 The Chair spoke of developments with regards to RODB Nadi that include commissioning of their AFTN/AIS/OPMET System in April 2010. Currently RODB Singapore is assisting RODB Nadi in verifying message formats in a trial period. RODB Singapore has been receiving TAF bulletins FTSP31 NFFN regularly since 20 March 2010.

2.4.3 RODB Singapore informed the meeting of a major upgrade to the Singapore Messages Switching System in December 2009 that is detailed in WP/16. The meeting noted that one of these changes includes sending and requesting OPMET data via email for which the details are provided in WP/16. Iraq has recently requested instructions since OPMET data can not currently be sent via AFTN and the information forwarded to the EUR Regional Office and Iraq. The meeting noted the usefulness of using email for OPMET exchange for flight planning purposes. Indonesia expressed interest in delivering OPMET data to RODB Singapore via email as a backup. The meeting was informed that WMO headers

are necessary and the procedures need to comply with the instructions detailed in WP/16. In addition, the system can handle message switching in Extensible Markup Language (XML), the possible future exchange of OPMET data. Furthermore, the system can handle existing GRIB format (GRIB1) and new GRIB2 format relevant for transmitting flight documents. RODB Singapore also implemented “XX” geographical designator in the WMO abbreviated heading of a reply message as of 2 December 2009, which is in compliance with the ICD.

## 2.5 **Inter-Regional Exchange and New Requirements for OPMET Information**

### Harmonization of OPMET data on SADIS and ISCS

2.5.1 The meeting was informed that another round of harmonization between ISCS and SADIS was in progress and necessary to complete APANPIRG/20 C20/63 and C20/64 (improvement of OPMET data availability for AOP and non-AOP aerodromes). ISCS has consulted SADIS on what is necessary for harmonization and completion expected in the near future.

### State implementation of new TAF format (Am 74)

2.5.2 The meeting was reminded of the changes associated with Amendment 74 to Annex 3 and regional requirements in relation to the issuance of TAF. That is, (a) the TAF format includes the day in the time elements, (b) only one TAF is required at an aerodrome at any given time, (c) 9-hour and 12-hour TAF is no longer issued internationally in the ASIA/PAC Region, and (d) the requirements for the period of validity of TAF was increased to 30 hours at some aerodromes to support ultra-long haul flights and 24 hours for all other AOP aerodromes in the ASIA/PAC Region.

2.5.3 The meeting noted that points (b) and (c) above have not been implemented in three States (India has become compliant since 9 March 2010): Indonesia, Mongolia and Pakistan in that two TAF are provided at a given aerodrome.

2.5.4 Indonesia provided the meeting with an action plan to implement TAF provisions related to Amendment 74 to Annex 3 (details in WP/24 – revised). Specifically, short TAF will be distributed for domestic use only. In addition, 30-hour TAF requirements will be reconsidered for those aerodromes that do not yet comply (WALL, WABB, and WAAA). TAF for all other AOP aerodromes will have a period of validity of 24-hour TAF to meet the Regional Air Navigation Plan (RANP) requirements. Furthermore, the filing time will follow the RANP by filing 1 hour before the start period of validity of TAF. These changes to meet TAF requirements are planned for implementation in July 2010.

2.5.5 The meeting noted that Indonesia provides users OPMET data and weather information designed for low-level flights via a website (<http://aviation.bmg.go.id>) that requires user authorization that can be found in the menu at the website provided. Providing SIGMET information on this website is possible in the future.

### Status of Am 75 applicable 18 Nov 2010

2.5.6 The meeting noted MET requirement changes associated with Amendment 75 to Annex 3 adopted by the ICAO Council on 22 February 2010, which are provided in the attachment to IP/3. These included, but are not limited to the following changes:

- improved horizontal, vertical and temporal resolutions for WAFS forecasts
- introduction of an enabling clause for the implementation of improved WAFS forecasts of cumulonimbus clouds, icing and turbulence
- elimination of routine voice reports related to weather

- enabling the provision of graphical MET information in the cockpit
- enhancement of the provision of information on volcanic ash and toxic chemicals
- aerodrome observations enabling the use of fully automatic observing systems for the provisions of local reports and the replacement of km/h by m/s for the SI unit to report **wind speed**
- implementation of tropical cyclone advisory graphics that include the extent of gale force wind and frequent CB
- no name storms indicated as NN versus current NIL with regards to tropical cyclone advisories and WC SIGMET
- inclusion of the forecast time in the **first second** line of SIGMET **message**
- inclusion of “headwind gain” and “headwind loss” information for wind shear warnings
- enable the use of the public Internet for the exchange of MET data that is used for flight planning
- MET elements requiring quality management system will be effective in 2012

2.5.7 The meeting discussed whether the numbering of SIGMET for various phenomena would be addressed in the future and a member of the Meteorological Warnings Study Group (METWSG) explained the reason why this was originally introduced (for large FIRs with numerous SIGMET valid at one time) and that it would likely be re-addressed at the appropriate forum (METWSG). The meeting also requested that the final version of Amendment 75 be distributed to States. The Regional Office will investigate the process of distribution from a procedural point of view.

### **Agenda Item 3: Review of regional guidance material on OPMET exchange**

- ROBEX Handbook**
- ASIA/PAC ICD**
- OPMET related FASID tables**
- Asia/Pacific Regional SIGMET Guide**

#### **3.1 ROBEX Handbook**

3.1.1 The meeting noted numerous proposed changes to the ROBEX Handbook that includes synchronizing bulletins with real time monitoring provided by RODB Singapore, Amendment 75 to Annex 3 changes (highlighted to indicate implementation on 18 November 2010) and States inputs. Japan provided the meeting with proposed changes to the ROBEX Handbook that is detailed in WP/18. These changes include further distribution of TAF bulletins to additional addresses, the inclusion of 8 aerodromes in a new bulletin (7 of which are non-AOP aerodromes) and a change in air-report bulletin name as well as added destinations to reflect current practices. RODB Singapore will investigate the possible discrepancy in the Port Moresby AFTN address before this change is made. (Jakarta and Wellington use AYPYYMYX). The meeting noted the importance of issuing METNO one to two months in advance of an OPMET bulletin change for other OPMET distribution centres to make the necessary changes. Other updates were provided by States present and reflected in the list of changes provided in **Appendix C** to this report. These changes are expected to be included in an amendment to the ROBEX Handbook before the CNS/MET SG/14 meeting. Currency of the ROBEX Handbook is essential in that

the Regional Air Navigation Plan references the ROBEX Handbook for OPMET exchange in the Region and the accuracy of monitoring exercises by RODBs is dependent upon the accuracy of the ROBEX Handbook.

### **3.2 Updates to the ASIA/PAC ICD**

3.2.1 As agreed upon by the RODB/4 meeting, updates to RODB appendices to the Asia/Pacific OPMET data banks interface control document (ICD) is expected by May 2010 for inclusion in an amendment in June 2010. RODB Singapore provided updates in the General Information to Appendix D section 1 to the ICD that include: adding WMO abbreviated heading to a reply message, amending the format of a reply message when a request is not available in the databank, and amended the format of a reply message when the CCCC is unknown. Furthermore, updated stations (CCCC) in the bulletins according to the real-time data received between 10 and 23 February 2010 is reflected in the OPMET Data Catalogue of Appendix D. These changes will be included in an amendment to the ICD before the CNS/MET SG/14 meeting.

### **3.3 OPMET related FASID tables**

3.3.1 The meeting noted several amendment proposals during 2009 and early 2010 resulting in more stable FASID Tables MET. Since the OPMET/M TF/7 meeting, FASID Tables 4A, 4B and 4C were replaced by the ROBEX Handbook and ICD for reference of OPMET exchange in the Region in the Basic ANP. FASID Table 6 and 7 were removed in accordance to WAFSOPSG/5 Conclusion 5/2 as they are global in nature and documented in Annex 3.

3.3.2 Of recent importance, the meeting noted the inclusion of VAAC Toulouse to reflect the issuance of volcanic ash to 11 MWOs in the western Asia Region. Furthermore, the inclusion of MID MWOs that are recipients of tropical cyclone advisories from TCAC New Delhi is in preparation for the next WC SIGMET test in facilitating MID MET SG/2 draft Conclusion 2/4. Lastly, Afghanistan was recently included in the RANP to reflect accreditation to the ASIA/PAC Region. A pdf of the present Basic ANP and FASID Tables will be provided to the meeting via the OPMET/M TF/8 meeting CD. Another version of the Basic ANP and FASID Tables is in progress and will be available on the ASIA/PAC website by the end of April 2010. The next amendment envisioned will be related to Amendment 75 to Annex 3 provisions and coordinated with ICAO Headquarters and other Regions.

### **3.4 Asia/Pacific Regional SIGMET Guide**

3.4.1 The meeting noted numerous proposed changes to the Asia/Pacific Regional SIGMET Guide as reflected in the list of updates provided in **Appendix D** to this report. These changes will be included in the next amendment to the SIGMET Guide before the CNS/MET SG/14 meeting. These changes include new WMO headers for SIGMET in Appendix H to the SIGMET Guide, particularly for these new SIGMET test participants, noting the expected WC SIGMET test participants in the MID Region, noting that if a SIGMET test cannot be issued due to a current SIGMET, the contacts provided be notified for proper test calculations (Appendix J to the SIGMET Guide). In addition, Amendment 75 to Annex 3 related changes will be included and highlighted to indicate implementation on 18 November 2010. Changes provided by the meeting are also reflected in **Appendix D** to this report.

**Agenda Item 4: Management of OPMET exchange****4.1 OPMET monitoring and quality control procedures**RODB Singapore Performance Indices

4.1.1 The meeting was informed by RODB Singapore of OPMET performance indicators generated for January 2010 that includes corrections to the AU aerodromes reported at the RODB/4 meeting. TAF performance indicators were 98, 96, and 94% for availability, regularity and compliance, while METAR performance indicators were 92, 89, and 80%, respectively. The meeting noted the low compliance of .49 for various aerodromes (e.g. YBHM and ZBSJ), which maybe due to the hourly updates versus half hourly updates of all other aerodromes in the rest of their respective bulletins and the issuance of NIL in such cases. The meeting was notified that ZBSJ will move from SACI31 to SACI32, which is a bulletin that contains hourly updates. This is expected to occur next year and the meeting agreed that a METNO be issued 1-2 months in advance.

4.1.2 The meeting was informed by RODB Bangkok of backup procedures (for RODB Singapore) conducted from 0200 to 0800 UTC on 26 February 2010. This test is to ensure continuity of OPMET exchange between the ASIA/PAC and EUR Regions, necessary in providing OPMET globally via SADIS. The test included activation of backup procedures, monitoring of data traffic and recovery phase. The test results are as follows:

- RODB Bangkok transmitted 98.3% of the messages (that would have been transmitted by RODB Singapore) to the SADIS gateway
- 1.7% of the messages were not successfully routed and explained
  - 8 METAR bulletins were received after Bangkok stopped the transmission at 0800 UTC
  - 2 TAF bulletins were received after Bangkok stopped the transmission at 0800 UTC
  - 2 TAF bulletins had compilation errors
- Bulletin average transit time for METAR was 14 minutes and for TAF was 17 minutes
  - Both METAR and TAF bulletins were heavily delayed in the routing process due to Bangkok's switching system

4.1.3 The time delay and non transmission of data (due to compiling errors) are being resolved by RODB Bangkok. Nevertheless, the high rate of transmission is commendable and contributed to the good coordination between RODBs Bangkok and Singapore and their respective efforts. The results of this annual test will be reported to the OPMET/M TF meetings.

4.1.4 RODB Bangkok informed the meeting of METAR messages (2/hour) received from Paro International (VQPR) from 1 to 15 March 2010. RODB Bangkok has received METAR data from VQPR since AEROTHAI installed an AFTN circuit from Bhutan and Bangkok Com centre in December 2009. These METAR are rejected by the RODB Bangkok due to the absence of a geographical designator (A<sub>1</sub>A<sub>2</sub>) in the abbreviated heading, which is not defined for Bhutan in WMO no. 386. The meeting agreed the Regional Office inquire to WMO about the geographical designator for Bhutan. In the meantime, the use of XX for unidentified geographical designators was accepted by the meeting.

Multi Part OPMET Bulletins

4.1.5 The meeting noted the implementation of the optional group RRx in the second part of a multi part OPMET Bulleting in accordance to the WMO Manual on Global Telecommunication System (WMO-No. 386). This WMO code change was effective 7 November 2007, however, most of the Region

was not aware of the change and an implementation date of 1 February 2010 agreed upon by the RODBs after the OPMET/M TF/7 meeting. RODB Singapore had already implemented this change, RODB Tokyo implemented change in January 2010, Hong Kong, China on 1 February 2010, RODB Bangkok expected implementation on 1 April 2010, while the RODB Brisbane implementation has been deferred.

## 4.2 SIGMET tests

4.2.1 The meeting reviewed the results of the SIGMET tests conducted November 2009 in the ASIA/PAC Region presented by the members from Australia and Japan. The tests were conducted according to a schedule, coordinated with the Rapporteur of the ASIA/PAC VA/TC Implementation Task Force, as follows:

- Test for SIGMET for tropical cyclones (WC SIGMET) – 10 November 2009, start time (time of issuance of the triggering tropical cyclone advisory by the TCACs concerned) 0200 UTC;
- Test for SIGMET for volcanic ash (WV SIGMET) – 17 November 2009, start time (time of issuance of the triggering volcanic ash advisory by the VAACs concerned) 0200 UTC; and
- Test for SIGMET for other weather phenomena (WS SIGMET) – 24 November 2009, start time 0200 UTC.

4.2.2 The objective and procedures for conducting the test were provided to the States through ICAO letter T 4/7.5: AP135/09 (MET) dated 30 September 2009 and a reminder letter T 4/7.5: AP151/09 (MET) dated 29 October 2009. The purpose of the tests is to measure the availability of SIGMET in order to resolve SIGMET related errors. Observations regarding the test SIGMET issuance and dissemination are provided here within.

### WC SIGMET test

4.2.3 The Rapporteur of the VA/TC/I TF of Japan informed the meeting of the WC and WV SIGMET test results that were conducted on 10 and 17 November 2009 in the vicinity of 0200 UTC. Six of seven Tropical Cyclone Advisory Centres (La Réunion, Darwin, Fiji, Tokyo, Honolulu and Miami) issued SIGMET advisories for the production and dissemination of WC SIGMET by MWOs. MWOs Chennai, Dhaka, Karachi and Yangon are exempt from the analysis since TCAC New Delhi did not issue a test tropical cyclone advisory due to a disturbance in the Indian Ocean. Test results of the 63 test WC SIGMET messages (including duplicate bulletins) issued are as follows.

- 28 out of 33 (85%) MWOs listed in Appendix H of the Asia/Pac Regional SIGMET Guide reported WC SIGMETs up from 54% in 2008 and 77% in February 2009 (increase of 31% and 8% respectively)
- VLVT MWO participated, but the VLVT MWO Header is not listed in Appendix H to the SIGMET Guide (expected in June 2010)
- not all the test TC advisories and test SIGMETs issued by MWOs reached all RODBs
- incorrect WMO headers were identified (MWOs: NFFN and AYPY – yellow highlight in Appendix A to WP/23)
- incorrect use of priority (GG and DD) was identified
- an overall increase in reception of the test messages was observed at four reporting RODBs (Bangkok, Brisbane, Singapore and Tokyo) (bar graph provided in WP/23)

WV SIGMET test

4.2.4 Five Volcanic Ash Advisory Centres (Darwin, Tokyo, Toulouse, Washington and Wellington) issued VA advisories on 17 November 2009 in the vicinity of 0200 UTC. Test results of the 80 test WV SIGMET messages (including duplicate bulletins) issued are as follows.

- 32 out of 37 MWOs (86%) in the ASIA/PAC Regional SIGMET Guide, Appendix H (21% better than the third test in 2008 and 10% in fourth test in February 2009)
- VECC, VRMM and VYYY participated in the WV SIGMET test, but are not listed in Appendix H to the SIGMET Guide (expected in June 2010)
- participation of the following 12 Russian MWOs were satisfactory: UHBB, UIAA, UHHH, UHMM, UHNN, UHPP, UHWW, UHSS, UELL, UESO, UEST, and UWOO. RODB Tokyo relayed the Russian VA SIGMET messages received from GTS to the other RODBs via AFTN
- not all the test VA advisories issued by the VAACs and test WV SIGMETs issued by the MWOs reached all the RODBs
- Some WMO headings were incorrect (e.g WSxx instead of WVxx) (MWOs: VRMM, VECC, ZLLL, ZWWW, EDZF, NTAA, NFFN, VGGL)
- YMMC is re-issuing SIGMET for various MWOs in the Region (i.e. ADRM, RJTD, PHFO, KKCI, and KZOA)
- Incorrect priority (GG and DD) was observed in some SIGMET test messages
- An increase in availability of VA SIGMET test messages was observed for RODB Bangkok, Brisbane, Singapore and Tokyo (bar graph provided in WP/23)

SIGMET for other MET phenomena

4.2.5 Four RODBs in the Region provided summary of the reception of the WS tests to Australia. Analysis of the test results is as follows:

- Out of 27 States in the Asia/Pac Region SIGMET Guide, Appendix H (Japan exempt due to notification of active SIGMET), 19 States (70%) participated in the test, by having their MWOs issue a test SIGMET compared to 41% in February 2009
- Of the 53 MWOs listed in the ASIA/PAC Region SIGMET Guide, Appendix H (Fukuoko MWO exempt due to notification of active SIGMET), 43 MWOs (81%) issued a test WS SIGMET for at least one of their FIRs compared to 63% in February 2009
- Not all test SIGMETs issued reached all RODBs, where it had been agreed that all RODB's would mirror each other RODB contents. Of the 4 RODBs who took part in the test, 176 test WS SIGMETs messages were received, the maximum number possible should have been 196. A total of 10% of SIGMETs were not received by RODBs, 3% more than the February 2009 test.

- RODB Bangkok received 40 of 49 test WS SIGMETs issued or 82% down from 86% in February 2009. RODB Bangkok was missing WS SIGMETs from Adelaide and Melbourne National Centre (for FIRs YBBB and YMMM), Sunan, Jakarta, Ulaanbaatar, Anchorage, Honolulu and Kansas City.
  - RODB Brisbane received 44 out of 49 test WS SIGMETs issued or 90% down from 93% in February 2009. RODB Brisbane was missing WS SIGMETs from Brisbane, Haikou, Nadi, Ulaanbaatar, Yangon and Anchorage.
  - RODB Singapore received 48 of 49 test WS SIGMETs issued or 98% down from 100% in February 2009. RODB Singapore was missing WS SIGMET from Sunan.
  - RODB Tokyo received 44 of 49 test WS SIGMETs issued or 90% down from 93% in February 2009. RODB Tokyo was missing Darwin (Melbourne FIR), Melbourne (Brisbane FIR), Melbourne World MET Centre (Brisbane FIR), Perth (Brisbane FIR) and Yangon.
- Discrepancies in WMO SIGMET headings, as per ASIA/PAC Region SIGMET Guide Appendix H (Edition 4 Amended September 2009)

<b>MWOs/FIR</b>	<b>Received designator</b>	<b>SIGMET guide designator</b>	<b>Action by the Meeting</b>
Melbourne/World Met. Centre (Melbourne & Brisbane FIR)	CCCC: AMMC	-	Change to AMMC for WMO CCCC in remarks
Townsville (Brisbane FIR)	CCCC: ABCS	ABTL	WMO CCCC in remarks will be changed to ABCS (Cairns replaced Townsville)
Mumbai/Chhatrapati Shivaji Intl (Mumbai FIR & SIR)	FIR: VAAB	VABF	
Jakarta/Soekamo-Hatta Intl (Jakarta FIR/UIR & SRR)	FIR: WIII	WIIZ	

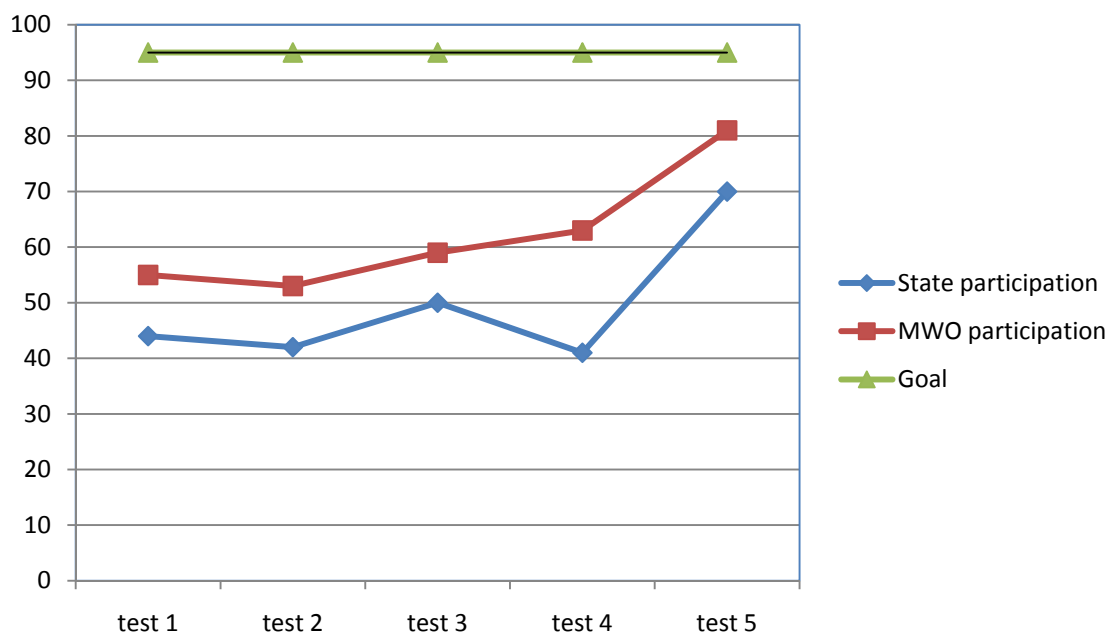
- A report was not received by RODB Nadi and was strongly encouraged to participate in the next test to gauge the SIGMET issuance and reception of the South Pacific Region. The meeting agreed that the Regional Office further promote participation of RODB Nadi in the SIGMET analysis (via State letter referencing the initiation of tests in the region).
- State/MWO participation significantly increased in the 5<sup>th</sup> WS SIGMET test



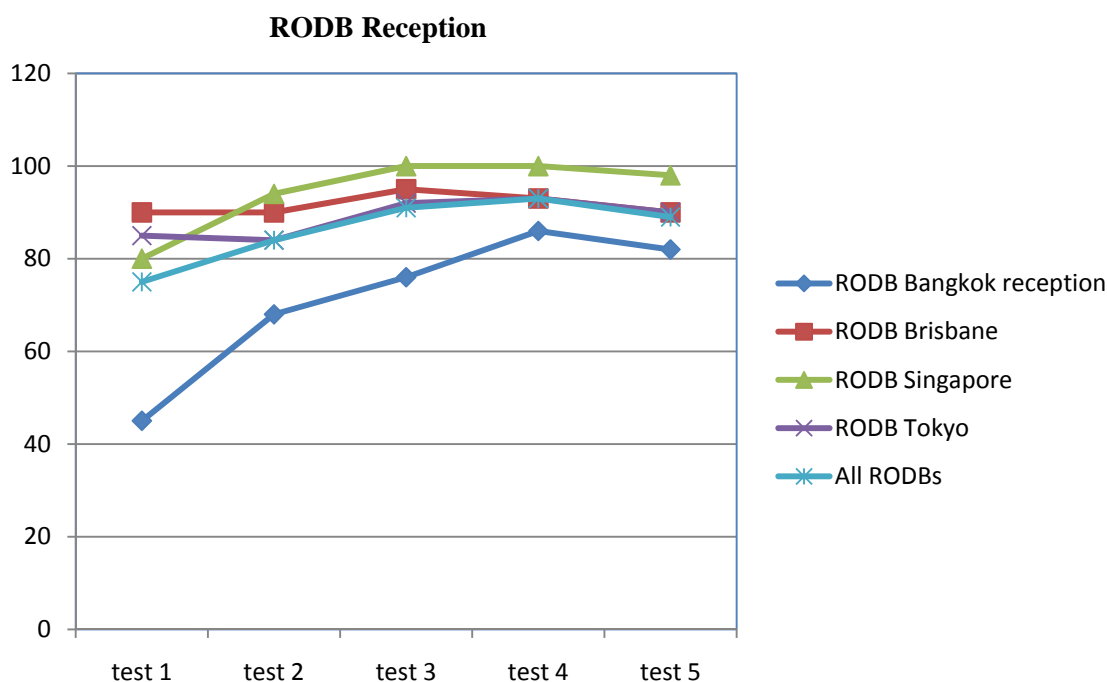
Comparison of WS SIGMET TESTS 1, 2, 3, 4 & 5

4.2.6 The meeting reviewed the report of the comparison work accomplished by the OPMET Management Task Force SIGMET Team presented by Australia. The result of WS SIGMET Tests undertaken on 9 February 2006, 9 February 2007, 29 January 2008, 24 February 2009, and 24 November 2009 was presented to the meeting.

4.2.7 Comparison of the test results for the five tests is as follows:

**State/MWO Participation**

- States who did not participate in any of the five WS SIGMET tests are as follows: Bangladesh, Nauru, Nepal, Papua New Guinea, Solomon Islands, and Sri Lanka. Note that 8 States were removed from this list since the OPMET/M TF/7 meeting as a result of first time participation.
- MWOs who did not participate in any of the five WS SIGMET tests are as follows: Brisbane for YMMM, Dhaka, Ujung Pandang, Nauru Island, Kathmandu, Lahore, Port Moresby, Honiara, and Colombo. Note that 8 MWOs were removed from the list since the OPMET/M TF/7 meeting as a result of first time participation. Those FIRs where a SIGMET was not issued in any of the 5 tests are indicated with a red shade in **Appendix E** to this report.



- Individual result from RODBs was slightly down since the previous year mainly due to the new participants sending SIGMET only to some of the RODBs (details given in the previous paragraphs). Since the RODB/4 meeting, these participants were encouraged to send SIGMET messages to all RODBs.
- The lack of a report from RODB Nadi was noted and encouraged to participate in the next SIGMET test.

#### **Agenda Item 5: Future exchange and reception of OPMET information**

##### Update on XML coded OPMET information

5.1 The meeting was informed of the recent WMO Commission for Aeronautical Meteorology (CAEM)/Commission for Basic Systems (CBS) Expert Team on OPMET Data Representation meeting held in Paris, France on 26 October 2009 for which the full report may be accessed at <http://www.wmo.int/pages/prog/www/WDM/ET-ODR-2/Documents.html>. Reference is made to section 2.4.1 and 2.4.2 to the report on attendance (by C/MET, ICAO) that include milestones such as the pilot project conducted by WMO in 2009, possible endorsement of the future use of Weather Information Exchange Model (WXXM) by the planned conjoint ICAO/WMO MET/AIM Divisional Meeting in 2014 and the possible implementation of WXXM in 2016.

5.2 The meeting was informed that the pilot project on the exchange of XML in 2009 allowed only IA5 characters and the bulletin size had to be less than 1800. The meeting also noted that there is a trend against fixed formatting and that future MET data exchange system will be shared by all users, flight crews and meteorologists.

##### ISCS-G2 cessation plans and WIFS development

5.3 The meeting was informed by the ISCS Provider State on the ISCS-G2 cessation plans and World Area Forecast System (WAFS) Internet File Service (WIFS) development. The Federal Aviation Administration (FAA) plans on replacing ISCS-G2 with WIFS based on service availability, network diversity, data on demand capacity and future expansion to support graphic based data. In

addition, WP/15 references the use of the Internet for MET data used for flight planning (APANPIRG/20 D20/59 and WAFSOPSG/5 D5/9), which was also addressed earlier in the meeting with related enabling clauses in Amendment 75 to Annex 3.

5.4 To provide time for WIFS implementation, ISCS-G2 contract was extended from December 2009 to June 2012. Implementation should be completed by March 2012, three months before the extension expires. WIFS is expected to be available for operational use by March 2010 for initial testing. The meeting further noted that users are responsible for arranging access to the public Internet, and also for any required modifications to WAFS workstation software. Guidance on WIFS (users' guide and ICD) is being developed for which a draft document of the ICD is provided in the last attachment to WP/15. Once complete, the Provider State will inform the Regional Office who will inform States in the Region of the new guidance material.

5.5 Internet security and quality of service (QOS) were primary concerns for using WIFS by several ASIA/PAC States in response to a survey. The meeting noted that WIFS will comply as a Qualified Internet Communication Provider (QICP) in accordance with FAA Advisory Circular 00-62, which is similar to the ICAO *Guidelines on the Use of the Public Internet for Aeronautical Applications* (Doc 9855). That is, three standards, network infrastructure reliability, accessibility and security must be met to receive QICP (details in section 2 to attachment of WP/15). The meeting was provided more options on Internet security if the State's internal policy required greater security than provided in Doc 9855, such as the use of Virtual Private Network (VPN) connection. Caution was placed on the use of dedicated circuits (another secure option) in that this option requires multiple circuits to take advantage of other backup servers.

5.6 The meeting noted the development of file server systems that will host World Area Forecast System Products. WAFS workstations will be able to access these products using Hypertext Transfer Protocol Secure (HTTPS) over the Public Internet. The footprint of ISCS/SADIS coverage is still used in determining coverage (for dual coverage, WIFS can act as backup only to SADIS when SADIS is the provider).

5.7 The use of wget was demonstrated to the meeting by noting the security associated with https, file directory structure and downloading of specific MET files. The meeting noted the more straight forward access of data versus the current pd receiver that utilizes zipped files. The meeting inquired as to how long the data remains on the file server, noting it may change based on the type of data (30-hour TAF versus more frequently updated METAR), which will be answered by the Provider State in the future. Vendors are currently developing scripts that allow the user to choose data type and a range of time. The WIFS can also run in parallel to the satellite reception through the extension date, which can facilitate in providing user input of the trail WIFS (available 31 March 2010) to the point of contact in the users guide. If a degradation of service to the satellite occurs over the next two years, the help desk is the point of contact for ISCS. Inquiries on WIFS transition can also be sent to the point of contact provided in WP/14.

5.8 With regards to regional implementation, a State letter fulfilling APANIRG/20 obligations by informing users of the Provider State's intentions on the replacement of ISCS-G2 and contract extension date will be provided. In addition, an update to the ISCS focal point list for ISCS will be requested by the Regional Office. As noted in the meeting, the State letter will request a WIFS focal point if different from the ISCS focal point. Furthermore, implementation issues are expected to be discussed at the CNS/MET SG/14 meeting where the proposed draft Conclusion in WP/14 may be considered.

**Agenda Item 6: Future Work Programme**

6.1 The group decided that the WC, WV and WS SIGMET tests will be conducted on 10, 17, and 24 November 2010.

6.2 The group decided that the OPMET monitoring periods will be December 2010 and January 2011.

6.3 The group decided that RODB issues can be presented at the OPMET/M TF/9 meeting due to overlapping material in the two meetings in addition to the well established coordination and cooperation amongst the RODBs through correspondence. RODBs may meet to discuss specific issues during the days of the OPMET/M TF/9 meeting and report back to the OPMET/M TF/9 meeting if necessary. With the aforementioned, the group decided that the OPMET/M TF/9 meeting be held from 23-25 March 2011 in Bangkok, Thailand. The meeting also decided that more time is needed for States to review papers and that all OPMET/M TF/9 papers be submitted by 1 March 2011.

**Agenda Item 7: Any other business**

NIL

-----

**TERMS OF REFERENCE OF ASIA/PAC OPMETMANAGEMENT TASK FORCE  
(OPMET/M TF)**

**1. Terms of Reference**

- Review the OPMET exchange schemes in the ASIA/PAC and MID Regions and develop proposals for their optimization taking into account the requirements by the aviation users and the current trends for global OPMET exchange;
- Develop standardized quality control, monitoring and management procedures related to ROBEX exchange and other exchanges of OPMET information;
- Regularly update the regional guidance material related to OPMET exchange; and
- Liaise with other groups dealing with communication and/or management aspects of the OPMET exchange in ASIA/PAC and other ICAO Regions (ASIA/PAC ATN Implementation Coordination Group, BMG EUR Region, CNS/MET SG MID Region, SADISOPSG).

**2. Work Programme**

The work to be addressed by the ASIA/PAC OPMET Management Task Force includes:

- (a) to examine the existing and any new requirements for OPMET exchange in ASIA/PAC and MID regions and assess the feasibility of satisfying these requirements, taking into account the availability of the data;
- (b) to keep under review the ROBEX scheme and other OPMET exchange schemes and prepare proposal for updating and optimizing of the schemes;
- (c) to review and update the procedures for interregional OPMET exchange and ensure the availability of the required ASIA/PAC and MID OPMET data for the AFS satellite broadcasts (ISCS and SADIS);
- (d) to keep under review and provide timely amendments to the regional guidance material on OPMET exchange; to ensure that guidance material contains procedures for the exchange of all required OPMET data types: SA, SP, FT, WS, WC, WV, FK, FV, UA;
- (e) to conduct trials and develop procedures for quality control, monitoring and management of the OPMET exchange; to foster implementation of quality management of OPMET data by the ROBEX centres and the RODBs;
- (f) to monitor in coordination with the ATN 1C Group, the transition to an alternative code (i.e. XML) for OPMET exchange;
- (g) to participate in the regular regional SIGMET tests; and
- (h) to further develop quality control guidance material and to promote implementation of quality control for OPMET management.

**3. Composition**

- (a) The Task Force is composed by experts from:  
Australia; China; Fiji; Japan; Hong Kong, China; India; Indonesia;  
Malaysia, Singapore; Thailand; United Kingdom; United States; and Viet Nam;
- (b) Representatives of IATA, EUR BMG and MID OPMET Bulletin Board are invited to participate in the work of the Task Force

-----

**OPMET Exchange Action Items List**

(Last update: **OPMET/M TF/8 meeting**, Bangkok, Thailand, 23-25 March 2010)

Meeting list contributing to progress

RODB/3 – Melbourne, Australia, 29-30 January 2009

OPMET/M TF/7 – Bangkok, Thailand, 2-4 June 2009

CNS/MET SG/13 – Bangkok, Thailand, 20-24 June 2009

APANPIRG/20 – Bangkok, Thailand, 7-11 September 2009

MID MET SG/2 – Cairo, Egypt, 15-17 December 2009

RODB/4 – Chiang Mai, 11-12 February 2010

OPMET/M TF/8 – Bangkok, 23-25 March 2010

**Subjects:**

Non ROBEX scheme issues

IROG backup tests

METAR/TAF non compliance

SIGMET non compliance / monitoring

SIGMET test issues

SIGMET Guide updates

ROBEX Handbook updates

ICD updates

Other

OPMET/M TF/8  
Appendix B to the Report

Action	Assigned	Progress
<b><i>Non ROBEX Scheme Issues</i></b>		
Inquiry on AFTN ICAO Int'l requests from Brasilia (SBBR) to RODB Brisbane	RO APAC/SAM	<u>RODB-3</u> : Email sent to RO SAM. RO SAM contacted SBBR. SBBR wanted more details in reference to time of occurrence, which was forwarded to RO SAM given the monitoring period. No response since. <u>RODB-4</u> : Closed (deemed low priority)
Request US to issue OPMET bulletins that contain only IA5 characters from KWBC (Washington)	RO RODB Brisbane	<u>RODB-3</u> : Sent email to NOAA. Information being forwarded to appropriate group. Waiting for response. <u>RODB-4</u> : Still open and assigned to RODB Brisbane for monitoring
OPMET data required at SADIS for aerodromes in Iraq: ORBI (Baghdad) – SA, 24-h TAF ORMM – (Basrah) – SA, 24-h TAF ORSU – Sulaymaniyah - SA ORER – Ebil – SA SA, TAF are available throughout 24 hours IRAQ should be using LOZZMMID AFTN destination address for the Inter-Regional OPMET Gateway (IROG) in Vienna, Austria, but this is not being done and direct connections to other regional centres being investigated.	Meeting/RODB Singapore	<u>RODB4</u> : As reported by the EUR Bulletin Management Group (BMG), OPMET data for these IRAQI aerodromes are required at SADIS and requested by users, but are not available. It may take some time before direct connections (to Regional Centres such as in Jordan) are installed. Waiting on response by Iraq to EUR RO for verification that reliable email exists – if so – RODB Singapore will provide information on emailing OPMET at the OPMET/M TF/8 meeting <u>OPMET-M TF/8</u> : exchange of OPMET via email provided in WP/16 forwarded to EUR RO and Iraq
Coordinate with ICAO MID Regions in regard to the operation of databanks	RO APAC/EUR	<u>OPMET-M TF/8</u> : APAC RO consult EUR RO in obtaining 1) Contact list for MID Regions OPMET Focal Points 2) ROBEX Tables for MID Region 3) SIGMET AHL for MID Region



OPMET/M TF/8  
Appendix B to the Report

<b><i>IROG Backup tests</i></b>		
IROG backup tests	RODB Singapore and Tokyo	RODB 3: RODB 4: Status of Brisbane – Singapore; Tokyo – Singapore to be reported at OPMET/M TF/8 meeting <b>OPMET/M TF/8: no update</b>
Resolve non transmission of OPMET data to SADIS from Bangkok RODB identified when operating in backup mode for the Singapore RODB	RODB Singapore and Bangkok	OPMET/M TF/7 (2/09): investigate possible correlation of OPMET data filing on the half hour RODB 4: Test expected March 2010 to be reported at OPMET/M TF/8 meeting <b>OPMET/M TF/8: In the February backup exercise, the distribution of METARs by VTBB RODB achieved 98.3%, 8 bulletins were received late</b> TAF routing – only four bulletins not transmitted to SADIS Gateway. (in which two bulletins were received after 0800 UTC). <b>Annual test – results report next year</b>
<b><i>METAR/TAF non compliance</i></b>		
Shortfall of OPMET data reported by IATA	Working Group	<b>OPMET/M TF/8: Working group to determine follow-up action needed.</b>
<b>IATA OPMET reception tables appear to have out of date aerodromes (Singapore WSAC and WSAT) and many more aerodromes with zero OPMET reception at SADIS/ISCS than the statistic provided.</b>	IATA RODB Singapore	<b>OPMET/M TF/8: IATA to provide soft copy of tables generated in WP/11 and WP/12 to RODB Singapore for comparison of aerodrome databases before recalculating performance indicators.</b>
Monitor WABB TAF availability via Civil Aviation Transformation Team (CATT)	RODB Singapore  RO	RODB 3: RODB Singapore monitored the availability of TAF for WABB from 1 to 10 April 2009. Only 3 of 40 TAF messages were received. RO sent ICAO CATT summary of OPMET deficiencies on 3

OPMET/M TF/8  
Appendix B to the Report

		<p>July 2009 that included unavailability of TAF from WABB (since 13 May to reporting time of 30 June 2009) Summary provided for CATT delegation received in Bangkok in Sep 2009 <u>RODB 4: Closed (availability increased to 87% in Jan 2010 as reported by RODB Singapore)</u></p>
Indonesia 2 TAF valid at one aerodrome (non compliance to Annex 3)	<p>RO</p> <p>RODB Singapore/IATA/RO</p> <p>RO</p>	<p><u>RODB 3: errors in TAF format in Indonesia need to be re-addressed</u> <u>OPMET/M TF/7: continue monitoring TAF in June 2009 and forward to RO States that are non compliant</u> Indonesia non compliant in TAF in June 2009 (source Singapore RODB), SL sent 3 July 2009 Indonesia non compliant in TAF on 25 Nov 2009 (source IATA), SL sent 14 Dec 2009 <u>RODB 4: RODB Singapore determined in meeting that 2 TAF still being issued by Indonesia – RO inform Indonesia</u> <u>OPMET/M TF/8: RODB Singapore receives 9-hr and 12-hr TAF from WIII and WIHH in addition to the long TAFs – Implementation plan provided by Indonesia – expected to become compliant in July 2010</u></p>
India 2 TAF valid at one aerodrome (non compliance to Annex 3)	<p>RO</p> <p>Singapore RODB/IATA/RO</p>	<p><u>RODB 3: errors in TAF format in India need to be re-addressed</u> <u>OPMET/M TF/7: continue monitoring TAF in June 2009 and forward to RO States that are non compliant</u> India non compliant in TAF in June 2009 (i.e. VABB) (source Singapore RODB), SL sent 3 July 2009 Indonesia non compliant in TAF on 25 Nov 2009 (source IATA), SL sent 14 Dec 2009 <u>RODB 4: IATA informed RO of noncompliance and SL sent on 9 Feb 2010</u> <u>OPMET/M TF/8: RODB Singapore no longer receiving 9-hour</u></p>

OPMET/M TF/8  
Appendix B to the Report

		TAFs (FCIN31 and FCIN32) from India as of 9 Mar 2010 CLOSED
Mongolia 2 TAF valid at one aerodrome (non compliance to Annex 3)	RODB Singapore/RO  RODB Singapore/RO  RO	Post RODB 3: Singapore RODB identified 2 TAF valid at the same time in Mongolia in February 2009, SL sent 13 March 2009  OPMET/M TF/7: continue monitoring TAF in June 2009 and forward to RO States that are non compliant Mongolia non compliant in TAF in June 2009 (source Singapore RODB), SL sent 3 July 2009 RODB 4: Mongolia still issues 2 TAF as determined by RODB Singapore in the meeting – RO to re-inform Mongolia OPMET/M TF/8: RODB Singapore continues to receive 9-hr TAF from Mongolia Mongolia informed on 8 March 2010
Sri Lanka TAF format errors	RO  RODB Bangkok	OPMET/M TF/7: reported TAF format errors in Sri Lanka (blank line before WMO header and use of “Z” in date/time group of WMO AHL), email sent RODB 4: Monitor for format errors and report to Regional Office by the OPMET/M TF/8 meeting OPMET/M TF/8: RODB Singapore reports ‘Z’ is still inserted in the date/time group of the WMO AHL RO to inform Sri Lanka
Incorrect TAF filing time (New Zealand) as noted in WP/17 to OPMET/M TF/8 meeting	RODB Singapore  RO	OPMET/M TF/8: RODB Singapore identified errors RO to inform NZ to use filing time (1 hour before start period of validity – in first line)
Incorrect TAF format (India and Indonesia) as noted in WP/17 to OPMET/M TF/8 meeting	RODB Singapore  RO	OPMET/M TF/8: RODB Singapore identified errors; Indonesia informed at the meeting RO to inform India
TAF message without AHL (Indonesia) as noted in WP/17 to OPMET/M TF/8 meeting	RODB Singapore	OPMET/M TF/8: RODB Singapore identified errors; Indonesia informed at meeting
Low METAR/TAF compliance indices ( Australia, Indonesia,	RODB Singapore	OPMET/M TF/8: RODB Singapore identified low TAF

OPMET/M TF/8  
Appendix B to the Report

India, Maldives (TAF only), Myanmar, Lao, PNG, Pakistan , Saudi Arabia, and Thailand (METAR only)	RO	compliance indices; Australia, Indonesia, and Thailand attended meeting RO to inform India and Maldives (is this a ROBEX Bulletin issue), Myanmar, Lao(isn't Lao only providing TAF part of the time – 3 times/day), PNG, Pakistan and EUR RO for Saudi Arabia
WSSL METAR in SAMS31 bulletin not available	Malaysia	OPMET/M TF/8: Malaysia to investigate WSSL METAR availability
VTUU METAR in SATH33 bulletin not available	Thailand	OPMET/M TF/8: Thailand to investigate VTUU METAR availability
missing AHL in TAF message (India)		OPMET/M TF/8: No update
Address temperature group location error and multiple min/max temperatures from Switzerland	RO	RODB 3: Sent email to RO EUR but response not received due to transition of personnel RODB 4: Closed (deficiency would be reported to EUR RO)
Errors in TAF format in MID (Amman, Beirut, Jeddah, Tehran filing time and format (Amman) errors)	RO	RODB 3: Sent EUR RO format errors, but due to transition of personnel, response not provided RODB 4: Closed (deficiency would be reported to EUR RO)
Improve OPMET timeliness	IATA/RO  RO to ask IATA	OPMET/M TF/7: improving the elapsed time from METAR observation and TAF creation to reception to user is desired by operators. WP35 – CNS/MET SG/13 meeting produced <b>APANPIRG Conclusion 20/62</b> , Harmonization of procedures for OPMET data issuance. Subsequently, guidance material on OPMET timeliness was clarified on pages 18 and 19 of the ROBEX HB in the September 2009 Amendment. Part c) of this conclusion, “consult the RODBs to monitor the progress of OPMET data issuance in compliance with the Regional Air Navigation Plan for reporting at the OPMET/M TF/8 Meeting”  RODB 4: Meeting agreed IATA is best equipped to monitor OPMET reception times at SADIS (reception time of METAR

OPMET/M TF/8  
Appendix B to the Report

		and TAF should be 15 and 25 minutes after observation and creation) – RO to ask IATA <u>OPMET/M TF/8: Chair recommended IATA provide results to fulfil this conclusion.</u> RO to ask IATA
Determine appropriate location indicator (A1A2) for Bhutan to be used in the WMO Header for sending TAF for VQPR	RO to ask WMO	<u>OPMET/M TF/8: RO to inquire with WMO on the location indicator for Bhutan to be used in the WMO Header for sending TAF for VQPR and report back to RO DB Bangkok</u>
<b><i>SIGMET non compliance/ monitoring</i></b>		
Monitor issuance of SIGMET from Sunan MWO (ZKPY) for the Pyongyang FIR (ZKKP)	RODB Tokyo  RO	<u>OPMET/M TF/7: No SIGMET received from Pyongyang MWO (ZKPY) for 50 days monitored during convection season (9 and 30 June; 18-31 July, 1-14 August 2009) Participated in WS SIGMET test 24 Nov 2009</u> <u>RODB 4: RO DB Tokyo monitor for validation of SIGMET before proposing removal of AP-MET-16 to be reported to the RO</u> Inform DPR Korea that all RO DBs be sent SIGMET (RO DBs Bangkok and Singapore did not receive test SIGMET) <u>OPMET/M TF/8: DPR Korea informed to send SIGMET to all RO DBs in the Region on 8 March 2010</u> <u>RO DB Singapore noted that between 10 and 15 March, no SIGMET was issued by Sunan MWO (Pyongyang FIR)</u> <u>RO DB Tokyo to provide monitoring results to RO by 1 July 2010</u>
Monitor progress of the issuance of SIGMET by Myanmar		<u>OPMET/M TF/7: SIGMET is issued by Myanmar; however, the format of the validity period is incorrect. This information was forwarded to Myanmar in June 2009. Participated in WV and WS SIGMET tests on 17, 24 Nov 2009 (exempt from WC since advisory from TCAC Delhi not</u>

OPMET/M TF/8  
Appendix B to the Report

	RODB Bangkok  RO	issued and likely due to disturbance in Indian Ocean) <u>RODB 4</u> : RODB Bangkok monitor for validation of SIGMET before proposing removal of AP-MET-13 to be reported to the RO Inform Myanmar that all RODBs be sent SIGMET (RODBs Tokyo and Brisbane did not receive test SIGMET) <u>OPMET/M TF/8</u> : Myanmar informed to send SIGMET to all RODBs in the Region on 8 March 2010 RODB Singapore monitoring between 1 and 15 March revealed FOG warning (using SIGMET heading) from Yangon MWO and also verified by RODB Bangkok RO to inform Myanmar RODB Bangkok to provide monitoring results (only 2 weeks of monitoring in active CB period necessary) by 1 July 2010 to RO
States with incorrect WMO headers identified in the WS SIGMET tests in November 2009 be informed by the Regional Office using yellow-highlighted text in Appendix 1 to RODB WP/7 as reference (i.e. FIRs Mumbai and Jakarta should be VABF and WIIZ)	RO	<u>OPMET/M TF/8</u> : no update
<u>Incorrect WMO headers for WC SIGMET test identified for MWOs: NFFN and AYPY</u>	<u>RODB Tokyo</u>  RO	<u>OPMET/M TF/8</u> : Inform States/MWOs (NFFN and AYPY) of the incorrect WC SIGMET heading as indicated in Appendix A to WP/23 of OPMET/M TF/8
<u>Incorrect FIR for WC SIGMET identified for VECC MWO</u>	RO	<u>OPMET/M TF/8</u> : Inform India (VECC) of the incorrect FIR designator associated with the MWO in WC SIGMET heading as indicated in Appendix A to WP/23 of OPMET/M TF/8
<u>Incorrect WMO headers for WV SIGMET test identified for MWOs: VRMM, VECC, ZLLL, ZWWW, EDZF, NTAA, NFFN, VGGL</u>	<u>RODB Tokyo</u>  RO	<u>OPMET/M TF/8</u> : Inform States/MWOs (VRMM, VECC, ZLLL, ZWWW, EDZF, NTAA, NFFN, VGGL) of the incorrect WV SIGMET heading as indicated in Appendix B to WP/23 of OPMET/M TF/8

OPMET/M TF/8  
Appendix B to the Report

YMMC is re-issuing SIGMET for various WMO (i.e. ADRM, RJTD, PHFO, KKCI, and KZOA) in the Region	Australia	OPMET/M TF/8: Australia (BoM) to investigate re-issuing of SIGMET as identified in Appendix B to WP/23 of OPMET/M TF/8
Mistyped validity period in SIGMET (Bangladesh, Indonesia, Fiji) as noted in WP/17 of OPMET/M TF/8 meeting	RODB Singapore RO	OPMET/M TF/8: RODB Singapore identified errors; Indonesia informed at meeting RO to inform Bangladesh and Fiji
Incorrect SIGMET format (Malaysia and India) as noted in WP/17 to OPMET/M TF/8 meeting	RODB Singapore	OPMET/M TF/8: RODB Singapore identified errors; Malaysia informed meeting that correction was made RO to inform India
<b><i>RODB data catalogue</i></b>		
Post RODB data catalogue on ICAO APAC website	RO	RODB 3: RODB 4: Closed (ICD is referenced by RODBs and is posted on web site)
<b><i>SIGMET test issues</i></b>		
Propose expanded WV SIGMET test with added details to the OPMET/M TF/7	RODB Tokyo	RODB 3: WP23 – OPMET/M TF/7; IP32 – CNS/MET SG/13; <b>APANPIRG C20/68</b> , Expanded WV SIGMET Test Development RODB 4: active volcanoes makes it difficult for testing – plan to coordinate with JCAB and major airlines report to the OPMET/M TF/8 meeting OPMET/M TF/8: update possible at CNS/MET SG/14 meeting
Inclusion of MID Region MWOs that receive Tropical Cyclone Advisories from TCAC Delhi in the November 2010 SIGMET tests	EUR RO	MID METSG/2: Proposal to include MID in ASIA/PAC TC SIGMET test was pragmatic since TCAC Delhi participates and would already be sending TC Advisories to the western Indian Ocean for MWOs in Iran, Kuwait, Bahrain, United Arab Emirates, Oman, and Yemen. Note - Qatar is covered

OPMET/M TF/8  
Appendix B to the Report

	EUR&ASIA/PAC ROs	by Bahrain. RODB 4: RO sent amendment proposal to FASID Table MET 3A (APAC 10/6) that includes the MID MWOs under TCAC Delhi in italics and will note in <i>SIGMET Guide</i> of this added participation <u>OPMET/M TF/8: EUR RO coordinating with MID MWOs</u>
Use standard spread sheet for collecting data from RODBs in preparation for the analysis of SIGMET tests	Australia	RODB 4: Template will be sent to RODBs for review by OPMET/M TF/8 meeting <u>OPMET/M TF/8: no update</u>
<u>Non-participation of RODB Nadi in providing SIGMET test information to SIGMET POCs for analysis</u>	RO	<u>OPMET/M TF/8: SL to Fiji reiterating the importance of analyses of SIGMET tests (reference APANPIRG)</u>
<u>MID SIGMET tests clarification (ref email 2 Mar 2010- EUR)</u>	ASIA/PAC RO/EUR RO	<u>OPMET/M TF/8: MID SIGMET tests instructions do not include reissuance of valid SIGMET immediately after test is conducted.</u> <u>RO to inquire if MID SIGMET test messages will be distributed to RODBs in ASIA/PAC region. If so, request reissuance of valid SIGMET immediately after issuance of test SIGMET to avoid users taking latest SIGMET that may be a test versus a valid SIGMET. (note reissuance time of valid SIGMET would be at test SIGMET time –or very near)</u>
<b><i>SIGMET Guide updates</i></b>		
Add inclusion of MID MWOs under TCAC Delhi in WC SIGMET test procedures	RO	<u>MID METSG/2</u> RODB 4: RO will update by June 2010
Update Appendix H for missing WMO SIGMET Headers (including new entry for Afghanistan) and Melbourne correction	RO	<u>RODB 4: RO will update by June 2010</u>
Update Appendix J to note that the RO and SIGMET test point of contact be made aware of nonparticipation in SIGMET test due to active SIGMET – for accurate accounting	RO	<u>RODB 4: RO will update by June 2010</u>



OPMET/M TF/8  
Appendix B to the Report

And include in SL of notification of SIGMET test		RO will include in SL of notification of SIGMET test
<p><i>Note that the complete list of updates associated with the June 2010 amendment to the SIGMET Guide discussed in OPMET/M TF/8 meeting are provided in Appendix D to the OPMET/M TF/8 final report</i></p>		
<p><b><i>ROBEX Handbook updates</i></b></p>		
<p>SA and FT bulletins, SAPS31, SAPS32 NFFN and FTFS31 NFFN are not received from Nadi ROBEX Centre via AFTN at RODB Singapore The following is received by ISCS: SAPS31 NZKL (NCRG, NFTF, NGFU, NIUE, NSFA) SAFJ31 NFFN (NFFN) FTFJ31 NFFN (NCRG, NFFN, NFTF, NSFA)</p>	<p>RO</p> <p>RODBs Nadi and Singapore</p>	<p><u>RODB4:</u> General concept of RODB functions (use of AFTN in distributing OPMET data to other RODBs, participation in SIGMET test results, backup to RODB Brisbane) be forwarded to ICAO Headquarters for consultation and determine a course of action (to improve RODB Fiji performance) <u>OPMET/M TF/8:</u> RODB Singapore informed the meeting that AFTN switching system for Nadi Fiji expected to be commissioned in April 2010. Testing with RODB Singapore has produced OPMET data at the RODB Singapore from the South Pacific and preliminary results encouraging. Continued coordination between RODBs Nadi and Singapore expected.</p>
<p>Include non-AOP aerodromes from Japan in ROBEX HB Table B</p>	<p>RO/ Japan</p> <p>RODB Singapore</p>	<p><u>RODB 3:</u> <u>RODB 4:</u> Japan provide a list of aerodromes by April for inclusion in June amendment <u>OPMET/M TF/8:</u> WP/18 details the changes to the ROBEX HB, such as the inclusion of a new bulletin for which 7 of 8 aerodromes listed are non-AOP aerodromes, additional destinations of TAF and air-report bulletins (note that the change of address proposed for Port Moresby would not be consistent with Jakarta and Wellington bulletins that reference Port Moresby and will be investigated by RODB Singapore). RO to include all others requested changes in WP/18 in June amendment.</p>

OPMET/M TF/8  
Appendix B to the Report

Update MID info in ROBEX HB	RO	RODB 3: email sent to EUR RO, but due to transition of personnel, response not provided RODB 4: Will include any changes provided by EUR RO in next amendment
ROBEX HB amendment to include results of mean real time reception at the Singapore RODB	RODB Singapore/ RO	OPMET/M TF/7 (3/09): RODB 4: Plan for including results of real time monitoring conducted in Sep 2009 in June 2010 Amendment OPMET/M TF/8: draft ROBEX Tables updated by RODB Singapore according to real time monitoring on March 2010 and will be included in next ROBEX HB amendment
Afghanistan – OPMET currency in ROBEX HB – AFTN not used and thus bulletin SAIR32 OIII with regards to Afghanistan is incorrect.	RO	RODB 4: Remove SAIR32 OIII from Table A since Afghanistan does not utilize this bulletin (as confirmed by Singapore RODB) Note to be added that bulletins used are SAAH10 (METAR for OAKB) and FTAH10 (TAF for OAKB) and obtained by ISCS and relayed by Singapore IROG to SADIS
Lao – possibly add 4 aerodromes (VLLB, VLLN, VLSK and VLPS with 18-hour TAF validity at issuance times of 0500/1100/2300 UTC) to FTAE33. Also, VLVT will be moved from FTAE31 to FTAE33 date not yet known)	RODB Bangkok  RO	RODB4: RODB Bangkok in progress of optimizing bulletins – possibly reported to the OPMET/M TF/8 meeting OPMET/M TF/8: TBD
Viet Nam – VVPB (24-hour TAF at issuance times 0500/1100/1700/2300) will be added to FTAE32 and METAR (HH+00 and HH+30) will be added to SAAE31 as of 1 April 2010. Also, VLVT will be moved from FTAE31 to FTAE33.	RODB Bangkok  RO	OPMET/M TF/8: RODB Bangkok informed meeting of inclusion of VVPB METAR in SAAE31 bulletin and TAF in AFAE32 bulletin effective 1 April 2010 RO to include in June amendment
Add AFTN routing sketch to ROBEX Handbook which helps serve who and why backups are conducted And verify the OPMET exchange diagram conforms to this sketch	RO	RODB 4: update to be included in the June 2010 amendment
<i>Note that the complete list of updates associated with the June 2010 amendment to the ROBEX Handbook discussed in OPMET/M TF/8 meeting are provided in Appendix C to the OPMET/M TF/8 final report</i>		

OPMET/M TF/8  
Appendix B to the Report

<b>ICD updates</b>		
Update once per year	RODBs RO	RODB 4: Updated Appendices by May 2010 Update doc and post (amendment June 2010)
<b>Other</b>		
Monitoring software to accept AUTO format for METAR in calculating performance indicators	RODB Singapore	RODB 4: to update software
Resolve multiple bulletin counting by requesting the source not to issue multiple bulletins for the same information In addition, RRA should be used instead of PAA and be placed on the first line	RODB Tokyo/RO	RODB 4: RODB Tokyo to provide RO example of duplicate bulletins sent from India for consultation with State OPMET/M TF/8: inquire to members of India when these multiple bulletins will stop being issued
Monitor the progress of pilot project – implementation of XML for OPMET exchange	RO	OPMET/M TF/8: IP/2 provides progress and noted implementation is several years away.
Amendment 75 to Annex 3 finalized version be distributed to States	RO	OPMET/M TF/8: RO to inquire on distribution process

**ROBEX HB - list of updates – 25 March 2010**

Strategy for updating: make all changes not related to Am 75 to Annex 3 and accept all changes and save. Turn on track changes and make changes associated with Am 75 to Annex 3 for ease of seeing the difference of changes associated with Am 75 that could be provided approximately 6 months before the applicability date of 18 Nov 2010. After this date, the track changes can be turned off and reposted without notification to States since it would be considered editorial.

Text highlighted yellow indicate changes needed in accordance to real-time monitoring at the RODB Singapore – should consult States of these differences at the OPMET/M TF/8 meeting

Text highlighted blue need confirmation from State(s)

Text highlighted in grey is dependent on other document changes (i.e. Doc 7910) or the change has not yet been made to the draft document

Text highlighted green is in draft documents

Red font - input from OPMET/M TF/8 meeting

**General**

- 7910 associated updates (verified with ed 134): Malaysia – remove (RMAF) from WMKD to read Kuantan  
Note - (WBKL – Labuan (RMAF) not changed in ed 134 and possibly due to the more recent letter dated nov 2009 by Malaysia to the SecGen which did not include Labuan (RMAF)) – **Malaysia to investigate**
- India – aerodrome name changes expected for nearly all aerodromes, however, due to the lengthy names – abbreviations may be used

**Text**

- pg 7, make reference in para 4.2 to AFTN PLAN – ASIA/PAC (Char CNS 1), whose illustration should be inserted after pg 8 (ROBEX Scheme)
- pg 9, para 5.2.5: change reference to FASID Table MET 7 to the Basic ANP, Part VI Meteorology (MET) page VI-4 para 35 (this is due to Amendment Proposal APAC 09/22 which longer references FASID Table MET 7)
- pg 9, para 5.2.5: replace reference of Internet for backup purposes with: Amendment 75 to Annex 3, para 11.1.9 allows the use of the Internet for non-time critical OPMET information
- pg 17, para 7.4.1.2: replace “long” and “short” TAFs in one bulletin with TAF with different periods of validity
- pg 20, para 8.2 note: replace third edition, 2003 with fourth edition, 2007 (amended September 2009 – *or whatever the most recent amendment is*)
- pg 20, para 8.6: update the link to the latest SIGMET Guide
- pg 21, para 9.1: remove reference to routine voice reports, AIREP and corresponding note in paragraph 9.1 (this change is associated with Am 75 to Annex 3) **and clarify when possible that AIREP in Table D refers to AIREP SPECIAL (search all text)**
- pg 21: remove all text except para 9.2 note 2 (MWOs should follow the special requirements for the dissemination of special air-reports as defined by Annex 3) which can become note 1 in section 9.1
- pg 23: change AYPY to AYPM

**Table A (METAR)**

- SAAE31 VTBB: add VVPB (avail 24 hours HH+00 and HH+30) to be effective 1 May 2010
- SATH31 VTBB: VTCP change from 2300-1400 to 0000-1100
- SATH31 VTBB: remove VTPB, VTPM and VTPT
- SATH32 VTBB: add VTSE (Nakhon Si Thammarat) and apply '\*' footnote
- SATH32 VTBB: remove VTSE and VTSK
- SATH33 VTBB: do not remove VTUU – Bangkok to investigate availability
- SATH33 VTBB: remove VTUJ  
(Bangkok to verify notes that apply to bulletins)
- SATH41 VTBB: new bulletin for 'on request aerodrome' to include VTPB, VTPM, VTPT, VTSE, VTSK and VTUJ
- SACI32 ZBBB: add ZSNB
- SAAU31 YBBN: add YSCB, YBCG, YCFS, YHID, YPJT, YSTW
- SAAU32 YBBN: remove YSCB, YBCG
- SAAU32 YBBN: make bulletin time HH+00 and HH+30
- SAAU32 YBBN: add YGEL
- SANG31 YBBN: remove all footnotes
- SANG31 YBBN: remove YCFS, YHID
- SASB31 VCCC: remove HH+40 in bulletin time
- SAHK31 VHHH: change '\*' note to RPLL, RPVM to "HH+00 only"
- SAHK31 VHHH: change "\*\*\*" note to "available 2200-1000 at HH+00" and apply to RPMD, RPLB, RPLI, and RPMZ
- SAHK31 VHHH: remove \*\* note  
(Hong Kong to verify the above notes)
- SAKO31 RKSI: add \* to HH+30 and apply to RKSI only
- SAKO31 RKSI: add RKJB (Muan Intl)
- SAID32 WIII: add HH+30 for whole bulletin
- SAID32 WIII: which is correct (WIKN or WIDN) – no action for ROBEX HB – Indonesia to inform staff that WIDN should be used
- SAID32 WIII: remove WIMG (note that WIMG changed to WIPT (Minangkabau Int'l Airport) which is in HB)
- SAID33 WIII: add HH+30 to bulletin time for whole bulletin
- SAID33 WIII: which is correct (WIAT or WICT) – no action for ROBEX HB – Indonesia to inform staff that WICT should be used
- SAID33 WIII: remove note – verify with Indonesia that this bulletin is correct and note can be removed
- SAPK31 OPKC: change bulletin time to HH+00 and HH+30
- SAPK31 OPKC: add OPSK – note not listed in 7910
- SAMS31 WMKK: remove WSSL - will not remove, Malaysia will investigate unavailability
- SAIN31 VABB: add VOHS
- SAIN31 VABB: apply VANP, VOHY, VOTV to new bulletin time of HH+40
- SAIN31 VABB: apply new footnote "available 0040-2340" to VANP and VOTV
- SAIN31 VABB: apply new footnote "available 0040-1540" to VOHY
- SAIN31 VABB: apply new footnote "available 2340-1640" to VOTV
- SAIN31 VABB: remove VQPR (Paro) – keep in bulletin WP/20 indicates data received at RODB Bangkok
- SAPS31 and PS32: add note that SA bulletins do not reach RODBs
- SAPS32 NFFN: add NSMA and NFTL as non-AOP aerodromes (ital)

OPMET/M TF/8  
Appendix C to the Report

- SAJP31 RJTD: remove HH+30 from bulletin time – **Japan to confirm later**
- ~~SAJP31 and SAJP32 bulletins: AFTN address changes: YBBBYPYX to YBZZSPAX, NFFNYPYX to NFZZRCXX, WSZZYPYM to WSSSYMYX~~
- SABN31 OBBI: change bulletin time from HH+50 to HH+00
- SABN31 OBBI: remove OOSA
- SABN32 OBBI: add OOSA
- SAME31 OLBA: change bulletin number from SALB31 to SAME31
- SAME31 OLBA: add OSAP, OSLK, and OJAQ
- SASD31 OEJD: change bulletin time from HH+50 to HH+00 – verify bulletin
- SAIR31 OIII: add footnote “available 0330-1130” and apply to HH+30
- SAIR32 OIII: add OIIE, OITR, OIAA, OICC, OIGG, OIBK, OIYY  
(bulletins for Nadi and Baghdad not provided in real time monitoring table)
- SAIR32 OIII: remove ~~bulletin since~~ OAKB and OAKN METAR (and TAF) are obtained on ISCS as SAAH10 (METAR for OAKB) and FTAH10 (TAF for OAKB) and Singapore IROG relays this OPMET data to SADIS which has confirmed receipt. AFTN not expected in near future and inclusion in ROBEX scheme not expected in near future. **Discuss with RODB Singapore**
- **SAAW31 (Baghdad bulletin) not received at RODB Singapore – Iraq would like to get instructions on sending OPMET to Singapore via email – discuss at OPMET/M TF/8 meeting**
- **add SAIR33 HH+00 (00-23) for OIBB, OIBL, OIBP, OICK, OICS, OIHH, OINZ, OITL, OIZC**
- **add SAIR34 HH+00 (00-23) for OIAG, OIAM, OICI, OIKQ, OINN, OINR, OISL, OISY, OITZ**
- **add SAIR35 HH+00 (00-23) for OIAD, OIBJ, OIBS, OIHR, OIKM, OIKR, OING, OIZB, OIZI**
- **add SAIR36 HH+00 (00-23) for OIBA, OIBV, OIFS, OIHP, OIMB, OIMN, OIMS, OIMT, OIZJ**
- **add SAIR37 HH+00 (00-23) for OIBQ, OIHK, OIMC, OIMD, OIMQ, OITK, OITM verify SAIR bulletins with EUR RO**

**Table B (FT TAF)**

- ~~FTAE31 VTBB: remove note for VLVT (unless RTM shows TAF issued 3 times/day)~~
- **FTAE31 VTBB: change 24 to 30 in TAF validity and remove ‘(30)’ for VTBS, VTBD, VTCC and VTSP since these aerodromes meet user requirements of 30-hour TAF as of 1 December 2009**
- FTAE32 VTBB: add VVPB (24-hour TAF; issuance times 0500/1100/1700/2300) to be implemented 1 May 2010
- **FTAE32 VTBB: remove note for VYMD (unless RTM shows TAF issued 2 times/day) – do not remove note – still two times/ day**
- **FTAE33 VTBB: add VLLB, VLLN, VLSK and VLPS (all are 18-hour TAF of issuance times 0500/1100/2300 UTC (though sent by Lao to Bangkok at earlier times of 0330/0930/2200) – Implementation date not known – on hold**
- FTFCI32 ZBBB: add ZSNB (24H)
- FTAU32 YBBN: add YBCG and YGEL
- FTAU33 YBBN: remove YBCG
- FTAU33 YBBN: add YCFS, YHID, YPJT, YSTW and YPEA (18H)
- FTAU34 YBBN: add footnote indicating YAMB, YCIN, YFRT (18H) ‘filing time – 0700/1300/1900/0100 for TAF validity start from 0800/1400/2000/0200’
- FTNG31 YBBN: long term discrepancy of doc 7910 AUUU and practiced ANYN
- FTHK31 VHHH: add 24 (30) for RPLL, RPVM

- FTNG31 YBBN: TAF valid for 24 hours
- FTKO31 RKSI: make RKSS, RKPC, RKNY, RKJB 30H
- FTPK31 OPKC: make OPKS 30H
- FTPK31 OPKC: add OPSK (SUKKUR) 30H
- FTIN32 VABB: add VOHS and VOHY
- FTIN32 VABB: change 24 to 30 in TAF validity for VRMM and remove '(30) ^' for VRMM
- FTIN32 VABB: remove footnote - not confirmed part of bulletin
- FTIN32 VRMG: add entry to FTIN32 with period of validity of 30-hour TAF and issuance times the same as stated in the bulletin
- FTIN31 and FTIN32 – check italics of aerodromes with many status changes in India
- FTSP31 NFFN: possibly add NLWF when generated and disseminated by NWCC – when METAR system is installed and fully operational (probably not ready until next amendment – carry over into future updates)
- Note: NLWW TAF will be generated by Météo France under WMO abbreviated heading FTFW20 NWCC to the Nadi (NFFN) ROBEX Centre for inclusion in the FTSP31 TAF bulletin effective 1 April 2010 (already in HB)
- FTSR32 and FTSR33 – check italics of aerodromes with many status changes in Malaysia
- FTJP31 bulletin: add the following AFTN addresses: EGZZFRXX, LIIBYMYX, and NWCCYMYX
- FTJP32 bulletin: add the following AFTN addresses: EGZZFRXX, KWBCYMYX, and NWCCYMYX
- FTJP32 bulletin: change AFTN address in dissemination to Hong Kong from VHZZYPXX to VHZZYPYX
- FTJP38 (new bulletin): RJSN, RJSA, RJSE, RJSK, RJOM, RJNS, RJEC and RJAH with filing time 0200, 0800, 1400 and 2000 and start of validity 0300, 0900, 1500 and 2100 with a TAF validity of 27 hours for all aerodromes and disseminated to VTBBYPYX, YBBYPYX, NFZZRFXX, WSZZYPYX, OPKCYMYX, RKSIPYX and ZBBYPYX (note that this information is in WP/18 of OPMET/M TF/8 meeting)
- FTBN31 OBBI: add OEDF
- FTBN32 OBBI: add OMAD
- FTME31 OLBA: add OSAP and OSLK
- FTME31 OLBA: remove OJAM, OJAI, ORBI and ORMM
- FTSD31 OEJD: is OEDF supposed to be OYAA (the second is in ROBEX HB and the first is already listed in FTBN31)
- FTIR32 OIII: add OIIE, OITR, OIBK (hours of validity?)
- General: Content order different in FTNZ31, FTSR32, FTBN32 and FTME31 – ask RODB Singapore

**Table C (ROBEX exchange of METAR and TAF compared with ASIA/PAC FASID Table MET 1A)**

- verify changes in Tables A and B are included in C if they are an AOP aerodrome (listed in FASID Table MET 1A)

**Appendix D – ROBEX Collection and Dissemination of AIREP Bulletins**

- remove Table since Amendment 75 to Annex 3 the collection and dissemination of routine reports (AIREP) is no longer a requirement – better to keep table for special air-reports and clarify that in the table title
- UAJP31: change UAJP31 to UAFE31
- UAFE31: add the following AFTN addresses: PANCYMYX and PGUMCOAX

**Appendix E – Use of WMO Abbreviated Heading**

-

**Appendix I – ROBEX Focal Points**

- updated Japan focal point

-----



**Asia/Pacific Regional SIGMET Guide – list of updates – 25 March 2010**

Strategy for updating: make all changes not related to Am 75 to Annex 3 and accept all changes and save. Turn on track changes and make changes associated with Am 75 to Annex 3 for ease of seeing the difference of changes associated with Am 75 that could be provided approximately 6 months before the applicability date of 18 Nov 2010. After this date, the track changes can be turned off and reposted without notification to States since it would be considered editorial.

**Green highlight – change made in draft**  
**Red font - input from OPMET/M TF/8 meeting**

**Text**

- Replace LOC with PSN **when** an eruption is referenced – pages 3-7, 3-8.
- Add BLW FLnnn with SFC/FLnnn (Amendment 75 to Annex 3): pages 3-4, 3-6 with note that BLW used for CB only
- Change compass directions from eight to sixteen and related examples (Amendment 75 to Annex 3): pages 3-6, 3-7, 3-9, 3-11  
Appendix F
- Introduction of TC NN for forecast TC not presently named – for storms whose strength is forecasted to reach TC levels (Amendment 75 to Annex 3): pages 3-10,
- Introduction of time in forecast position of SIGMET event (Amendment 75 to Annex 3): pages 3-4, 3-5, 3-7, 3-8, 3-10

**Appendices A**

- Replace with latest FASID Table MET 1B, Meteorological Watch Offices (which will include Maldives update to VRMF for Male FIR
- and KZOA will change to KZAK for Oakland Oceanic FIR)

**Appendix B**

- Replace with latest FASID Table MET 3A, Tropical Cyclone Advisory Centres  
*(which will include information on MID Region (Bahrain, Emirates, Iran, Kuwait, Oman, Saudi Arabia, and Yemen) as MWO recipients of TC advisories from TCAC New Delhi – italics for being outside the region)*

**Appendix C**

- Replace with latest FASID Table MET 3B, Volcanic Ash Advisory Centres
- and KZOA will change to KZAK for Oakland Oceanic FIR for Washington and Wellington

**Appendix D**

-

**Appendix G**

- Seek support from State(s) and OPMET/M TF to update Appendix G in accordance to Amendment 75 to Annex 3 utilizing 16 compass points, replacing BLW with SFC (except for CB), adding time to FCST and utilizing NN in WC SIGMET where necessary (unnamed storm that is expected to become a TC)

**Appendix E**

-

**Appendix F**

-

**Appendix G**

-

**Appendix H**

- add entry for Afghanistan
- add WMO CCCC of AMMC in remarks column for Melbourne/World Met. Centre for both Melbourne and Brisbane FIRs
- Replaced Townsville YBTL ABTL to Cairns YBCS ABCS
- Add WSKR31, WCKR31, and WVKR31 to SUNAN MWO entry for WMO SIGMET Headings
- change ZKKK to ZKKP in accordance to Doc 7910 for Pyongyang FIR in SUNAN MWO entry and complete entry
- complete WMO headers for India
- should Lao PDR have entry WCLA31? Land-locked, but could have cyclone conditions and complete entry to include WMO header for WV SIGMET
- add WCMV31 and WVMV31 to Male MWO entry for WMO SIGMET Headings
- change Male FIR designator to VRMF
- add WMO headers for Myanmar
- check all other entries in Appendix H (all States with MWOs should have WV WMO Heading)
- italicize Kansas City MWO so that the ASIA/PAC SIGMET tests' statistics will not include this entry
- change KZOA to KZAK for FIR/ACC Served for the United States

**Appendix I**

- Verify against FASID Table MET 3A (the area of coverage where it is already known that Réunion needs to be updated)
- Add Toulouse in VA section

**Appendix J**

- Remove (under consideration) for VAAC Toulouse, page J-2
- Add note 3) MWOs in MID Region under TCAC Delhi plan to participate in WC SIGMET test beginning in late 2010, page J-3 (3.1.1.4)
- Make note that “if no SIGMET test message issued due to active SIGMET, please notify the SIGMET tests focal points below and the ICAO Regional Office, Bangkok” at the end of 3.2 and 3.2.3.1 (c) – that is, add part (c) to include it as an option for the State to choose for safety reasons...“if the State decides for safety reasons, not to issue a SIGMET due to an existing SIGMET, please notify the SIGMET tests focal points below and the ICAO Regional Office, Bangkok”

-----

APPENDIX E to the OPMET/M TF/8 meeting – FIRs not Covered by any of the Five WS SIGMET Tests (in pink/orange)



**EIGHTH MEETING OF  
ASIA/PAC OPMET MANAGEMENT TASK FORCE (OPMET/M TF/8)  
23 – 25 March 2010  
Bangkok, Thailand**

ATTACHMENT 1

**LIST OF PARTICIPANTS**

STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
<b>AUSTRALIA (1)</b>		
Mrs. Susan E. O' Rourke	National Manager Aviation Weather Service Australian Bureau of Meteorology Weather Services Policy Branch GPO Box 1289 Melbourne VIV 3001 <b><u>AUSTRALIA</u></b>	Tel: +61 (3) 9669 4586 Fax: +61 (3) 9669 4695 E-mail: <a href="mailto:srav@bom.gov.au">srav@bom.gov.au</a> <a href="mailto:S.Lawrence@bom.gov.au">S.Lawrence@bom.gov.au</a>
<b>CHINA (2)</b>		
Mr. Shi Bujiu	Deputy Director Met Division, North China Air Traffic Management Bureau, CAAC Beijing 100621 <b><u>PEOPLE'S REPUBLIC OF CHINA</u></b>	Tel: +86 (10) 6459 2335 Fax: +86 (10) 6733 2446 E-mail: <a href="mailto:shibujiu@263.net">shibujiu@263.net</a>
Mr. Gu Lei	Engineer Aeronautical Meteorological Center Air Traffic Management Bureau, CAAC P.O. Box 2272, Shilihe Chaoyang District Beijing 100122 <b><u>PEOPLE'S REPUBLIC OF CHINA</u></b>	Tel: +86 (10) 6733 3714 Fax: +86 (10) 6733 2446 E-mail: <a href="mailto:gulei@atmb.net.cn">gulei@atmb.net.cn</a> <a href="mailto:gulei@mail.iap.ac.cn">gulei@mail.iap.ac.cn</a>
<b>HONG KONG, CHINA (1)</b>		
Mr. Lee Kai-san	Aeronautical Communications Supervisor Room 205, 2 <sup>nd</sup> Floor Air Traffic Control Complex Hong Kong International Airport <b><u>HONG KONG, CHINA</u></b>	Tel: +852 2910 6206 Fax: +852 2910 1160 E-mail: <a href="mailto:kslee@cad.gov.hk">kslee@cad.gov.hk</a>
<b>INDONESIA (6)</b>		
Mr. Tuwamiu Mulyono	Deputy of Meteorology Meteorological Climatological and Geophysics Agency Jl. Angkasa I, No. 2, Kemayoran Jakarta Pusat <b><u>INDONESIA</u></b>	Tel: Fax: E-mail:
Mr. Tri Samyo Rumidi	Chief of Aeronautical Division Meteorological Climatological and Geophysics Agency Jl. Angkasa I, No. 2, Kemayoran Jakarta Pusat <b><u>INDONESIA</u></b>	Tel: +62 (21) 654 6315 Fax: +62 (21) 654 6315 E-mail: <a href="mailto:meteo.penerbangan@bmg.go.id">meteo.penerbangan@bmg.go.id</a>

STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
Mr. Isdharto	Deputy Director for Aeronautical Communication Directorate of Air Navigation DGCA Indonesia Jl. Medan Merdeka Barat No. 8 Jakarta 10110 <b><u>INDONESIA</u></b>	Tel: +62 (21) 350 6451 Fax: +62 (21) 350 7569 E-mail: <a href="mailto:anggijogya@yahoo.com.id">anggijogya@yahoo.com.id</a>
Mr. Ali Wardhana	Aeronautical Meteorological Forecaster Meteorological Climatological and Geophysics Agency Jl. Angkasa I, No. 2, Kemayoran Jakarta Pusat <b><u>INDONESIA</u></b>	Tel: +62 (21) 654 6315 Fax: +62 (21) 654 6315 E-mail: <a href="mailto:alln_1979@yahoo.com">alln_1979@yahoo.com</a> <a href="mailto:vadya.wardhana@gmail.com">vadya.wardhana@gmail.com</a>
Ms. Suyanti Aviany	DGCA Officer Directorate of Air Navigation DGCA Indonesia Jl. Medan Merdeka Barat No. 8 Jakarta 10110 <b><u>INDONESIA</u></b>	Tel: +62 (21) 350 6451 Fax: +62 (21) 350 7569 E-mail: <a href="mailto:s.aviany@ymail.com">s.aviany@ymail.com</a>
Ms. Indah	DGCA Officer Directorate of Air Navigation DGCA Indonesia Jl. Medan Merdeka Barat No. 8 Jakarta 10110 <b><u>INDONESIA</u></b>	Tel: +62 (21) 350 6451 Fax: +62 (21) 350 7569 E-mail: <a href="mailto:indah_trikoram@yahoo.co.id">indah_trikoram@yahoo.co.id</a>
<b>JAPAN (1)</b>		
Mr. Takahiro Saito	Senior Scientific Officer Japan Meteorological Agency 1-3-4 Ote-matchi, Chiyoda-ku Tokyo 100-8122 <b><u>JAPAN</u></b>	Tel: +81 (3) 3218 3825 Fax: +81 (3) 3211 8404 E-mail: <a href="mailto:t_saito@met.kishou.go.jp">t_saito@met.kishou.go.jp</a>
<b>MALAYSIA (2)</b>		
Mr. Yong Heng Lim	Senior Assistant Director Level 1-4, Podium Block No. 27, Persiaran Perdana Precinct 4, 62618 Putrajaya <b><u>MALAYSIA</u></b>	Tel: +603 8871 4260 Fax: +603 8881 0288 E-mail: <a href="mailto:limyh@dca.gov.my">limyh@dca.gov.my</a>
Mr. Che Cob Abllah Bin	Director Malaysian Meteorological Department Malaysian Meteorological Department Jalan Sultan 46667 Petaling Jaya <b><u>MALAYSIA</u></b>	Tel: +603 8787 2110 Fax: +603 8787 1020 E-mail: <a href="mailto:ablah@met.gov.my">ablah@met.gov.my</a>
<b>SINGAPORE (1)</b>		
Ms. Chua Guat Mui	Principal Technical Officer Meteorological Services Singapore P.O. Box 8, Singapore Changi Airport Post Office Singapore 918141 <b><u>SINGAPORE</u></b>	Tel: +65 6542 2861 Fax: +65 6542 2915 E-mail: <a href="mailto:chua_guat_mui@nea.gov.sg">chua_guat_mui@nea.gov.sg</a>

STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
<b>THAILAND (17)</b>		
Mr. Somchai Yimsricharoenkit	Professional Meteorologist Bureau of Aeronautical Meteorology 6 <sup>th</sup> Floor, ATC Complex Suvarnabhumi International Airport Rachatheva, Bang Phli Samut Prakarn 10540 <b><u>THAILAND</u></b>	Tel: +66 (2) 134 0006-7 Fax: +66 (2) 134 0010 E-mail: <a href="mailto:somchai_yim@tmd.go.th">somchai_yim@tmd.go.th</a> <a href="mailto:somchai_yim@hotmail.com">somchai_yim@hotmail.com</a>
Ms. Rassmee Damrongkietwattana	Professional Meteorologist Bureau of Aeronautical Meteorology 6 <sup>th</sup> Floor, ATC Complex Suvarnabhumi International Airport Rachatheva, Bang Phli Samut Prakarn 10540 <b><u>THAILAND</u></b>	Tel: +66 (02) 134 0006-7 Fax: +66 (02) 134 0010 E-mail: <a href="mailto:rassmee@hotmail.com">rassmee@hotmail.com</a>
Mrs. Paweena Panikodom	Professional Meteorologist Bureau of Aeronautical Meteorology 6 <sup>th</sup> Floor, ATC Complex Suvarnabhumi International Airport Rachatheva, Bang Phli Samut Prakarn 10540 <b><u>THAILAND</u></b>	Tel: +66 (02) 134 0006-7 Fax: +66 (02) 134 0010 E-mail: <a href="mailto:pavna55@hotmail.com">pavna55@hotmail.com</a>
Mr. Warapong Noothong	Meteorologist Bureau of Aeronautical Meteorology 6 <sup>th</sup> Floor, ATC Complex Suvarnabhumi International Airport Rachatheva, Bang Phli Samut Prakarn 10540 <b><u>THAILAND</u></b>	Tel: +66 (2) 134 0006-7 Fax: +66 (2) 134 0009-10 E-mail: <a href="mailto:pui74@hotmail.com">pui74@hotmail.com</a> <a href="mailto:warapong74@yahoo.com">warapong74@yahoo.com</a>
Mr. Thavit Nowvaratkoonchai	Engineering Manager Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 285 9579 Fax: +66 (2) 287 8620 E-mail: <a href="mailto:thavit.no@aerothai.co.th">thavit.no@aerothai.co.th</a>
Ms. Sujin Promduang	General Administrative Manger Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 285 9333 Fax: +66 (2) 287 3131 E-mail: <a href="mailto:sujin.pr@aerothai.co.th">sujin.pr@aerothai.co.th</a>
Mr. Worapoj Yodjabog	General Administrative Manager Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 287 8407 Fax: +66 (2) 287 3131 E-mail: <a href="mailto:worapoj.yo@aerothai.co.th">worapoj.yo@aerothai.co.th</a>

STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
Ms. Narissara Na Rangsi	Aeronautical Communication and AIS Manager Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 285 9084 Fax: +66 (2) 287 3131 E-mail: <a href="mailto:narissara.na@aerothai.co.th">narissara.na@aerothai.co.th</a>
Mr. Pramuk Rungrojaree	Executive Officer, Systems Engineering Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 285 9578 Fax: +66 (2) 287 8620 E-mail: <a href="mailto:pramuk.ru@aerothai.co.th">pramuk.ru@aerothai.co.th</a>
Mr. Ronnachai Charoensit	Executive Officer, Systems Engineering Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 285 8801 Fax: E-mail: <a href="mailto:ronnachai.ch@aerothai.co.th">ronnachai.ch@aerothai.co.th</a>
Ms. Siree Vatrnavigkit	Executive Officer, Systems Engineering Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 287 8508 Fax: +66 (2) 285 9716 E-mail: <a href="mailto:siree@aerothai.co.th">siree@aerothai.co.th</a> <a href="mailto:amiator@gmail.com">amiator@gmail.com</a>
Mr. Sutham Sujarritthammakun	Systems Engineer Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 085 328 7228 Fax: E-mail: <a href="mailto:sutham.su@aerothai.co.th">sutham.su@aerothai.co.th</a>
Ms. Nandawan Simakulthorn	Administrative Officer Aeronautical Radio of Thailand Ltd. 102 Ngamduplee, Sathorn Tungmahamek Bangkok 10120 <b><u>THAILAND</u></b>	Tel: +66 (2) 287 8753 Fax: E-mail: <a href="mailto:nandawansi@aerothai.co.th">nandawansi@aerothai.co.th</a>
Capt. Kampol Charoensiri	Deputy Director, Operations Coordination and Dispatch Services Department Flight Operations Department Thai Airways International Public Co., Ltd. BKKOC, 4 <sup>th</sup> Floor OPC Building Suvarnabhumi International Airport Samutprankarn <b><u>THAILAND</u></b>	Tel: +66 (2) 137 1783 Fax: +66 (2) 137 1785 E-mail: <a href="mailto:kampol.c@thairways.com">kampol.c@thairways.com</a>

STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
Mr. Saranpat Santivechkul	Manager, Operations Planning and Support Department Flight Operations Department Thai Airways International Public Co., Ltd. BKK OP-P, 8 <sup>th</sup> Floor, OPC Building Suvarnabhumi International Airport Samutprakarn <b><u>THAILAND</u></b>	Tel: +66 (2) 137 1231 Fax: +66 (2) 137 1244 E-mail: <a href="mailto:sarunpat.s@thaiairways.com">sarunpat.s@thaiairways.com</a>
Mr. Prachaya Niemloy	Chief, Flight Plan Support Group Flight Operations Department Thai Airways International Public Co., Ltd. BKKOW, 4 <sup>th</sup> Floor, OPC Building (OPC-A2) Suvarnabhumi International Airport Samutprakarn <b><u>THAILAND</u></b>	Tel: +66 (2) 137 1757 Fax: +66 (2) 137 1736 E-mail: <a href="mailto:prachaya.n@thaiairways.com">prachaya.n@thaiairways.com</a>
Ms. Puangrat Pisutthinantakun	Air Traffic Control Instructor Aeronautical Service Division Civil Aviation Training Center 1032/355, Phaholyothin Road Jomphon, Chatuchak Bangkok 10900 <b><u>THAILAND</u></b>	Tel: +66 (2) 282 5741 Ext. 267 Fax: E-mail: <a href="mailto:puangrat@catc.or.th">puangrat@catc.or.th</a>
<b>VIET NAM (5)</b>		
Mr. Dao Son Hai	Senior Meteorologist Air Navigation Division Civil Aviation Administration of Viet Nam 119 Nguyen Son Street Long Bien, Hanoi 10000 <b><u>THE SOCILIST REPUBLIC OF VIET NAM</u></b>	Tel: +84 (4) 873 1611 Fax: +84 (4) 827 4194 E-mail: <a href="mailto:dsh@caa.gov.vn">dsh@caa.gov.vn</a>
Mr. Dang Dinh Tuat	Viet Nam Air Navigation Services Corporation (VANSCORP) 200/6 Nguyen Son Street Long Bien District Hanoi <b><u>THE SOCILIST REPUBLIC OF VIET NAM</u></b>	Tel: +84 (4) 873 0321 Fax: +84 (4) 872 5291 E-mail: <a href="mailto:dangdinh.tuat@yahoo.com">dangdinh.tuat@yahoo.com</a>
Mr. Nguyen Duc Chinh	Chief of Noibai M.O. Northern Airport Cooperations (NAC) <b><u>THE SOCILIST REPUBLIC OF VIET NAM</u></b>	Tel: Fax: E-mail: <a href="mailto:ducchinht@gmail.com">ducchinht@gmail.com</a>
Mr. Cao Xuan Huy	Forecaster, Danang M.O. Middle Airport Cooperations (MAC) <b><u>THE SOCILIST REPUBLIC OF VIET NAM</u></b>	Tel: Fax: E-mail: <a href="mailto:cxhuymet@yahoo.com">cxhuymet@yahoo.com</a>
Mr. Luu Dinh Quy	Forecaster, Tan Son Nhat M.O. Southern Airport Cooperations (SAC) <b><u>THE SOCILIST REPUBLIC OF VIET NAM</u></b>	Tel: +84 988 50279 Fax: E-mail: <a href="mailto:luudguy@gmail.com">luudguy@gmail.com</a>



STATE/INTERNATIONAL ORGANIZATION/NAME	DESIGNATION/ADDRESS	TELEPHONE/FAX/E-MAIL
<b>USA (2)</b>		
Mr. Hoang Tran	AMHS Programme Manager Federal Aviation Administration Air Traffic Organization, Technical Operations Washington, D.C. <b><u>USA</u></b>	Tel: +1 (202) 493 5995 Fax: E-mail: <a href="mailto:hoang.tran@faa.gov">hoang.tran@faa.gov</a>
Mr. Jeremy Hassall	Federal Aviation Administration Air Traffic Organization, Technical Operations Communications, Flight Services, & Weather Engineering Group Egg Harbor, NJ <b><u>USA</u></b>	Tel: +1 (609) 484 0953 Fax: E-mail: <a href="mailto:Jeremy.CTR.Hassall@faa.gov">Jeremy.CTR.Hassall@faa.gov</a>
<b>ICAO (1)</b>		
Mr. Christopher F. Keohan	Regional Officer, MET International Civil Aviation Organization Asia and Pacific Office 252/1, Vibhavadee Rangsit Road Ladyao, Chatuchak Bangkok 10900 <b><u>THAILAND</u></b>	Tel: +66 (2) 537-8189 Ext. 153 Fax: +66 (2) 537-8199 E-mail: <a href="mailto:ckeohan@bangkok.icao.int">ckeohan@bangkok.icao.int</a>



*International Civil Aviation Organization*

**EIGHTH MEETING OF THE ASIA/PACIFIC OPMET MANAGEMENT TASK FORCE (OPMET/M TF/8)**

Bangkok, Thailand, 23 – 25 March 2010

**LIST OF WORKING AND INFORMATION PAPERS**

<b>WP/IP No.</b>	<b>Agenda Item</b>	<b>Subject</b>	<b>Presented by</b>
WP/1	-	Provisional Agenda	Secretariat
WP/2	1 (b)	Terms of Reference and Work Programme of the OPMET/M Task Force	Secretariat
WP/3	1 (b)	Review OPMET/M TF/7 Action Items	Secretariat
WP/4	2 (a)	Review RODB/4 Meeting Action Items	Secretariat
WP/5	2	Review APANPIRG/20 Conclusions Progress	Secretariat
WP/6	3 (a)	Review Updates to the ROBEX Handbook	Secretariat
WP/7	3 (d)	Review Updates to the SIGMET Guide	Secretariat
WP/8	3 (b)	Review Updates to the ASIA/PAC ICD	Secretariat
WP/9	3	Review OPMET Related FASID Tables	Secretariat
WP/10	2 (b)	MET Deficiencies Update	Secretariat
WP/11	4 (a)	IATA OPMET Data Monitoring (ISCS)	IATA
WP/12	4 (a)	IATA OPMET Data Monitoring (SADIS)	IATA
WP/13	4 (b)	WS SIGMET Test 5	Australia
WP/14	5 (b)	ISCS-G2 Contract Extension Status and WIFS Operational Status	USA
WP/15	5 (b)	Development of File Server in Support of International Satellite Communication System	USA
WP/16	2 (c)	An Update on OPMET Databank Operations	Singapore
WP/17	2 (b)	Data Verification in the Singapore IROG	Singapore
WP/18	3 (a)	Proposal for Changes to ROBEX Handbook	Japan
WP/19	4 (a)	RODB Back-up Procedure's Real-time Exercise between RODBS Bangkok and Singapore	Thailand

<b>WP/IP No.</b>	<b>Agenda Item</b>	<b>Subject</b>	<b>Presented by</b>
WP/20	4 (a)	Monitoring of OPMET Information Received from Bhutan between 1 and 15 March 2010	Thailand
WP/21	2 (b)	Data Verification in Bangkok RODB	Thailand
WP/22	3 (a)	Review of the Updates to the METAR and TAF Bangkok Bulletins	Thailand
WP/23	4 (b)	Progress with SIGMET Tests – WC and WV	Japan
WP/24	2 (d)	Status Implementation and Proposed Plan of New TAF Format (Amendment 74) in Indonesia	Indonesia

#### **LIST OF INFORMATION PAPERS**

IP/1	-	Meeting Bulletin	Secretariat
IP/2	5 (a)	Review Status of OPMET Data Representation	Secretariat
IP/3	2 (d)	Status and Highlights of Amendments 75 to Annex 3	Secretariat
IP/4	3 (b)	Review of ICD for Singapore Databank	Singapore
IP/5	4 (a)	OPMET Performance Indices Compiled by Singapore RODB	Singapore

-----