

International Civil Aviation Organization



ICAO

WORKING PAPER

Nineteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/19)

Virtual meeting, 22 to 24 March 2021

Agenda Item 7: Future work program and terms of reference

REVIEW MET/IE WG WORK PROGRAM AND TERMS OF REFERENCE

(Presented by the Secretariat)

SUMMARY

This paper presents the terms of reference and work program of the Meteorological Information Exchange Working Group (MET/IE WG) and invites the meeting to review and propose updates as necessary to the terms of reference and work programme of the MET/IE WG for possible approval by the Meteorology Subgroup (MET SG).

1. INTRODUCTION

1.1 The MET/IE WG supports the MET SG (and APANPIRG) to improve the availability, reliability and compliance of OPMET in the Asia/Pacific Region.

1.2 This paper invites the meeting to review the terms of reference and work program and of the group and to propose updates as necessary to ensure the MET/IE WG continues to meet its objectives and support increased safety, efficiency and capacity of the global air traffic system.

2. DISCUSSION

2.1 The Twenty-Fourth Meeting of the Meteorology Sub-group (MET SG/24) approved updates to the MET/IE WG terms of reference and work program with its adoption of Decision MET SG/24-18: *Updates to terms of reference and work plan of and MET/R WG, MET/IE WG and MET/S WG*. A copy of the MET SG/24 approved terms of reference and work plan of the MET/IE WG is provided at the **Appendix A** to this paper.

3. ACTION BY THE MEETING

3.1 This paper invites the meeting to review the terms of reference and work program of the MET/IE WG at the **Appendix A** to this paper and propose further updates, as necessary, based on the agreements reached by the meeting for further review and possible approval by MET SG.

**ICAO ASIA AND PACIFIC METEOROLOGICAL INFORMATION EXCHANGE
WORKING GROUP (MET/IE WG)**

TERMS OF REFERENCE AND WORK PLAN

TERMS OF REFERENCE

| 1. MEMBERSHIP |
|---|
| <p>The MET/IE WG is made up of experts from the following bodies:</p> <ul style="list-style-type: none"> • APAC Regional OPMET Data Banks (RODBs): Brisbane, Nadi, Tokyo, Singapore and Bangkok; • APAC Regional OPMET Centres (ROCs); • World Area Forecast Centres (WAFCs), London and Washington; • Secure Aviation Data Information Service (SADIS) and WAFS Internet File System (WIFS) Provider States, United Kingdom and United States; • APAC Volcanic Ash Advisory Centres (VAACs): Darwin, Tokyo and Wellington; • Designated focal points for SIGMET tests and regional OPMET bulletin exchange (ROBEX); • Pacific Islands Aviation Weather Services (PIAWS) Panel; and • International Air Transport Association (IATA). |

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| 2. DESCRIPTION | |
|------------------------|--|
| Objective | Increase OPMET availability and reliability needed for flight planning (efficiency) and in-flight re-planning (safety) in support of the Global Air Navigation Plan (GANP) framework and the Aviation System Block Upgrade (ASBUs) methodology. |
| Benefits | Increase in safety and efficiency (time and fuel savings). |
| Functions of the group | Under guidance from the ICAO APAC Secretariat: <ul style="list-style-type: none"> a) Review the OPMET exchange schemes in the APAC and other regions and develop proposals for their optimization, taking into account the requirements by the aviation users and global OPMET exchange; b) Review and update of the procedures for inter-regional OPMET exchange and ensure the availability of the required APAC OPMET data for SADIS and WIFS; c) Report on deficiencies in the format and dissemination of OPMET messages; d) Monitor and participate in inter- and intra-regional trials of aeronautical meteorological information exchange in support of the implementation of IWXXM and SWIM; e) Conduct trials and develop standardized quality control, monitoring and management procedures related to exchange of IWXXM and TAC OPMET information; f) Participate in the implementation and promote awareness of the transition to digital exchange of OPMET (IWXXM) and System Wide Information Management (SWIM); g) Conduct regular regional VAAC back-up and SIGMET tests; h) Provide support for the APAC Volcanic Ash Exercises; |

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|--|---|
| | <ul style="list-style-type: none"> i) Review and update the regional guidance material related to OPMET exchange, including relevant material on IWXXM, AMHS and SWIM; j) Liaise and consult with other appropriate bodies within ICAO and WMO dealing with communication and/or management aspects of the OPMET exchange; and k) Provide advice and report to the MET Sub-group on the above issues for further co-ordination through the ICAO Secretariat with other appropriate bodies. |
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| 3. COMMUNICATION STRATEGIES | | | | |
|--|---------------------------------------|---------------------------------------|--|-----------------------------|
| Description | Target Audience | Delivery Method | Frequency / Date | Responsibility |
| Interim Work Program Progress Report | MET/IE WG Members | Web-conference E-mail | Quarterly/as determined by Chair | Chair and Secretariat |
| Major Work Program Progress Report | MET/IE WG Members | Working Paper (MET/IE WG meeting) | Annually/published 14-days or more before the meeting | Chair and Secretariat |
| General correspondence | MET/IE WG Members | E-mail | As required | MET/IE WG Members |
| New, specific proposal for action (WP) | MET/IE WG Meeting | Working Paper (MET/IE WG meeting) | Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting) | MET/IE WG Members or States |
| New, specific information (IP) | MET/IE WG Meeting | Information Paper (MET/IE WG meeting) | Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting) | MET/IE WG Members or States |
| Working Group Meeting Report | MET/IE WG Members and all APAC States | MET/IE WG Meeting Report | Annually/published 21-days or less after the meeting | Chair and Secretariat |
| Working Group Progress Report | MET SG Meeting | Working Paper (MET SG meeting) | Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting) | Chair and Secretariat |

WORK PROGRAM

| Activity | Time Frame | Responsibility | Status |
|---|------------|----------------|--------|
| Activity 1: Availability of OPMET information | Ongoing | MET/IE WG | |
| Activity 2: Timeliness, compliance and regularity of OPMET exchange | Ongoing | MET/IE WG | |
| Activity 3: SIGMET and Advisory Tests | Ongoing | MET/IE WG | |
| Activity 4: VAAC Backup Tests | Ongoing | MET/IE WG | |
| Activity 5: IROG Backup Tests | Ongoing | | |
| Activity 6: Regional guidance material related to data exchange | Ongoing | MET/IE WG | |
| Activity 7: IWXXM implementation | 2020-2021 | MET/IE WG | |
| Activity 8: MET information exchange scheme | 2020-2026 | MET/IE WG | |
| Activity 9: MET information in SWIM | 2020-2026 | | |

| 5. WORK PLAN | | | | |
|--|----------------|--------------|--------------|--------|
| Activity / Milestone | Accountability | Predecessors | Date | Status |
| Activity 1: Availability of OPMET information | | | | |
| Activity 1.1: Perform real time monitoring if required | IATA | - | If required | |
| Activity 1.2: Monitor and score SADIS/WIFS OPMET reception. | IATA | - | Annually Jan | |
| Activity 1.3: Capture OPMET monitoring | RODBs | 1.2 | Annually Dec | |
| Activity 1.4: Assess OPMET monitoring results and share results with RODBs | RODB Bangkok | 1.3 | Annually Jan | |

| 5. WORK PLAN | | | | |
|---|--------------------------|---------------------|--------------|----------------------------|
| Activity / Milestone | Accountability | Predecessors | Date | Status |
| Activity 1.5: Prepare paper reporting results and deficiencies to MET/IE WG meeting. | IATA and RODB Bangkok | 1.4 | Annually Feb | |
| Activity 1.6: Report summary of OPMET availability results to MET SG | Secretariat and Chair | 1.5 | Annually May | |
| Activity 1.7: Advise States of OPMET deficiencies and corrective actions. | Secretariat | 1.6 | Annually Jun | |
| Activity 1.8: Actively engage States with corrective against deficiencies. | ROCs | 1.7 | As required | |
| Milestone 1: Achieve 95% (90%) or greater OPMET availability for AOP (non-AOP) aerodromes at RODBs and WAFS. | MET/IE WG | 1.8 | Annually Jun | |
| Activity 2: Timeliness, compliance and regularity of OPMET exchange | | | | |
| Activity 2.1: Monitor and collate OPMET data. | RODBs and IATA | - | Annually Dec | |
| Activity 2.2: Score RODB OPMET reception against PI thresholds. | RODB Bangkok | - | Annually Jan | |
| Activity 2.3: Analyse data and share results with RODBs | RODB Bangkok | 2.2 | Annually Jan | |
| Activity 2.4: Prepare paper report results to MET/IE WG meeting and identify corrective actions | RODB Bangkok | 2.3 | Annually Feb | |
| Activity 2.5: Report summary of OPMET timeliness, compliance and regularity results to METSG | Chair | 2.4 | Annually May | |
| Activity 2.6: Inform States of non-compliance and corrective actions | Secretariat | 2.5 | Annually Jun | |
| Activity 2.7: Provide support for States to rectify deficiencies if requested. | RODBs | 2.6 | As required | |
| Milestone 2: Achieve 95% (90%) or greater OPMET timeliness, compliance and regularity for AOP (non-AOP) aerodromes at RODBs, SADIS and WIFS. | MET/IE WG | 2.7 | Annually Jun | |
| Activity 3: SIGMET and Advisory Tests | | | | |
| Activity 3.1: Review SIGMET Test procedures | MET/IE WG | - | Annually Aug | |
| Activity 3.2: State Letter regarding SIGMET Tests | Secretariat | 3.1 | Annually Sep | |
| Activity 3.3: Email States regarding SIGMET Tests | Secretariat | 3.2 | Annually | Last Wed in Oct |
| Activity 3.4: Conduct and collate data for WC SIGMET Tests | RODBs | 3.2 | Annually | 2 nd Wed in Nov |
| Activity 3.5: Conduct and collate data for WV SIGMET Tests | RODBs | 3.2 | Annually | 3 rd Wed in Nov |
| Activity 3.6: Conduct and collate data for WS SIGMET Tests | RODBs | 3.2 | Annually | 4 th Wed in Nov |
| Activity 3.7: Analyse test data | RODB Singapore and Tokyo | 3.4 - 3.6 | Annually Jan | |
| Activity 3.8: Assess SIGMET test results to identify corrective actions from Nov tests | RODB Singapore and Tokyo | 3.4 - 3.6 | Annually Feb | |

| 5. WORK PLAN | | | | |
|---|-----------------------------------|---------------------|------------------------|------------------------|
| Activity / Milestone | Accountability | Predecessors | Date | Status |
| Activity 3.9: Report to MET/IE WG | RODB Singapore and Tokyo | 3.8 | Annually Mar | |
| Activity 3.10: Report on SIGMET Test Results to MET SG. | Chair | 3.9 | Annually May | |
| Activity 3.11: Advise States of SIGMET deficiencies | Secretariat | 3.9 | Annually Jun | |
| Milestone 3: Improved issuance and compliance of SIGMETs | MET/IE WG | 3.11 | Annually Jun | |
| Activity 4: VAAC Back-up Tests | | | | |
| Activity 4.1: Review and Update VAAC Back-up Test procedures | MET/IE WG and VAACs | | Annually | 2 months prior to test |
| Activity 4.2: Issue Notice of VAAC Back-up Tests | Secretariat/VAACs | 4.1 | Annually Aug | |
| Activity 4.3: Conduct VAAC Back-up Test between Darwin and Tokyo | VAACs | 4.2 | Annually Oct – TBC | |
| Activity 4.4: Conduct VAAC Back-up Test between Darwin and Wellington | VAACs | 4.2 | Annually Oct – TBC | |
| Activity 4.5: Collect test results and send to VAAC Provider State members | RODBs | 4.3 | Annually Oct – TBC | |
| Activity 4.6: Analyse Test results | VAAC Back-up Focal Points Members | 4.5 | Annually Nov | |
| Activity 4.7: Report to MET/IE WG | VAAC Back-up Focal Points Members | 4.6 | Annually Feb | |
| Activity 4.8: Report to MET SG. | Chair | 4.7 | Annually May | |
| Activity 4.9: Advise relevant States, VAACs and RODBs of any deficiencies. | Secretariat | 4.7 | Annually Jun | |
| Milestone 4: VAAC Back-up Tests conducted, analysed and report complete. | VAAC Back-up Focal Points Members | 4.8 | Annually Jun | |
| Activity 5: IROG Back-up Tests | | | | |
| Activity 5.1: Investigate the feasibility and benefits of back-up arrangements of IROG Tokyo, Nadi and Brisbane | IROG Nadi, Tokyo and Brisbane | - | Nov 2020 | |
| Activity 5.2: Review IROG Back-up Test procedures to include all IROG. | IROG Bangkok and Singapore | - | Apr 2019, Annually Feb | |
| Activity 5.3: Updated IROG Back-up Procedures in ROBEX Handbook. | Secretariat | 5.2 | Annually May | |
| Activity 5.4: Identify list of MET Bulletins to monitor. | IROG Bangkok and Singapore | - | Annually Jan/Feb | |
| Activity 5.5: Conduct IROG Back-up Test of Bangkok and analyse results | IROG Bangkok and Singapore | 5.4 | Annually Sept/Oct | |
| Activity 5.6: Conduct IROG Back-up Test of Singapore and analyse results | IROG Bangkok and Singapore | 5.4 | Annually Jan/Feb | |
| Activity 5.8: Report to MET/IE WG | IROG Bangkok and Singapore | 5.7 | Annually Mar | |

| 5. WORK PLAN | | | | |
|---|----------------------------|---------------------|---------------------|---------------|
| Activity / Milestone | Accountability | Predecessors | Date | Status |
| Milestone 5: IROG Back-up Tests conducted, analysed and report complete. | IROG Bangkok and Singapore | 5.7 | Annually Mar | |
| Activity 6: Regional guidance material related to data exchange | | | | |
| Activity 6.1: Review monitoring procedure in ROBEX Handbook and update as necessary. | All RODBs | - | Annually Apr | |
| Activity 6.2: Changes to RODB monitoring procedures and updates to Appendix A and B in ROBEX Handbook. | Secretariat | 6.1 | Annually May | |
| Activity 6.3: Advise Secretariat of changes to ROBEX Handbook. | All States | - | Annually Apr | |
| Activity 6.4: Incorporation of AMHS and Addressing in ROBEX Handbook. | Pierre and Marco | | Sep 2020 | |
| Activity 6.5: Complete update of ROBEX Handbook including Table MET 2A. | Secretariat | - | Annually May | |
| Activity 6.6: Review ANP Tables (initially MET II-2) and ensure all necessary aerodromes are contained in OPMET bulletins | WG | - | May Annually | |
| Activity 6.7: Seek MET/SG endorsement of the updated ROBEX Handbook. | Secretariat | - | Annually Jun | |
| Milestone 6: RODB Monitoring procedures published in ROBEX Handbook | Secretariat | 6.7 | Annually Sep | |
| Activity 7: IWXXM Implementation | | | | |
| Activity 7.1: Monitor migration to IWXXM. | WG | - | As required | |
| Activity 7.2: Conduct survey to determine status of IWXXM Implementation. | Secretariat | | July 2020, May 2021 | |
| Activity 7.3: Report to MET SG on APAC States' IWXXM implementation status. | Secretariat | | Next meeting MET SG | |
| Activity 7.4: Increase awareness of the requirement for States to exchange of OPMET data in IWXXM format and the impact of inability to do so. | WG | | As required | |
| Activity 7.5: Conduct IWXXM tests and report to MET/IE WG and RODB Singapore on the status of the testing and implementation of digital OPMET exchange. | WG | | Annually Mar | |
| Activity 7.6: Maintain a register of IWXXM tests conducted, detailing Met software, UAs and MTAs tested | RODB Singapore | 7.5 | As required | |
| Activity 7.7: Arrange provision for the next IWXXM Workshop in APAC | Secretariat/Chair, WG | 7.2 | Sep 2020 | |
| Activity 7.8: Actively participate in the next APAC IWXXM Workshop | Secretariat/Chair, WG | 7.7 | Oct 2020 | |
| Activity 7.9: Prepare information (e.g. issues, CONOPS) for MET/P WG-MIE | WG | | As required | |
| Activity 7.10: Development and Publishing AMHS/FTBP network map | Pierre, Secretariat | | Monthly | |
| Activity 7.11: State IWXXM status register | Secretariat | | Monthly | |
| Milestone 7: Report to MET/IE WG and MET SG on IWXXM exchange and testing. | Secretariat and Chair | 7.5, 7.6 and 7.8 | Annually May | |

| 5. WORK PLAN | | | | |
|--|------------------------|--------------|--------------|--------|
| Activity / Milestone | Accountability | Predecessors | Date | Status |
| Activity 8: MET Information Exchange Structure | | | | |
| Activity 8.1: Review ROBEX Scheme diagram. | All RODBs, Secretariat | | May Annually | |
| Activity 8.2: Review the structure of the ROBEX exchange in light of the introduction of SWIM. | WG | | Annually Feb | |
| Activity 8.3: Review use of the Request/Reply service | RODBs | - | May 2021 | |
| Activity 8.4: Improve the efficiency of Request/Reply service | RODBs | 8.3 | Sep 2021 | |
| Milestone 8: Improved efficiency and effectiveness of ROBEX Scheme | MET/IE WG | - | 2021 | |
| Activity 9: MET information in SWIM | | | | |
| Activity 9.1: Assist in the definition of the APAC SWIM Met service catalogue | WG | - | As required | |
| Activity 9.2: Assist in the definition of the APAC SWIM Met data catalogue | WG | - | As required | |
| Milestone 9: Participated in the development of SWIM Meteorological services for APAC | MET/IE WG | - | 2023 | |
