

International Civil Aviation Organization

WORKING PAPER



ICAO

Eighteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/18) and Tenth Meeting of the Meteorological Services Working Group (MET/S WG/10)

Web-conference, 27 to 31 July 2020

Agenda Item 5: Future work programme and terms of reference of MET/IE WG

REVIEW MET/IE WG TERMS OF REFERENCE AND WORK PROGRAM

(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 terms of reference and work program of the MET/IE WG were last updated based on proposals by the previous meeting of the group; MET/IE WG/17, 11 – 13 March 2019.

2.2 The Twenty-Third Meeting of the Meteorology Sub-Group (MET SG/23), 17 – 20 June 2019, reviewed the work plan of all the ICAO APAC working groups under the MET SG and agreed to the following action:

Table 1: Extract from the Task List from MET SG/23

Action No.	Detailed description of actions	Responsibility	Target date
...			
23/03	Conduct a coordinated review and update of the terms of reference and work plans to realign the working groups with the work plan of the MET SG [Report, para. 2.10]	Chairs MET/IE WG, MET/S WG, MET/R WG and MET SG, in conjunction with Secretariat	Before APANPIRG/30
...			

2.3 As follow-up action to the MET SG/23 action no. 23/3, above, the respective Chairs of the working groups initiated in an informal web-meeting on 26 September 2019. The Chairs proposed, inter-alia, that the MET/IE WG terms of reference should be updated to specifically include references to IWXXM and SWIM in relation to digital aeronautical meteorological information exchange (at dot point b of the terms of reference) and include SWIM in relation to the regional guidance material (at dot point b of the terms of reference).

2.4 A copy of the MET/IW WG terms of reference and work program, including the proposed updates discussed above, is provided at the **Appendix A** to this paper.

3. ACTION BY THE MEETING

3.1 This paper invites the meeting to review and revise as necessary the terms of reference and work program of the MET/IE WG at the **Appendix A** to this paper, in accordance with the advice from the MET SG and the agreements reached in this meeting and forward the revised MET/IE WG terms of reference and work program to the MET SG for further review and approval.

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

TERMS OF REFERENCE AND WORK PLAN

1. COMPOSITION
<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; • 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).
Terms of Reference	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) Monitor and participate in inter- and intra-regional trials of digital aeronautical meteorological information exchange in support of the implementation of IWXXM and SWIM inter- and intra-regionally; c) Develop standardized quality control, monitoring and management procedures related to exchange of IWXXM and TAC OPMET information; d) Review the regional guidance material related to OPMET exchange, including relevant material on <u>SWIM</u>; e) Liaise and consult with other appropriate bodies within ICAO and WMO dealing with communication and/or management aspects of the OPMET exchange; and f) 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.
Work Programme	The work to be addressed by the MET/IE WG includes: <ul style="list-style-type: none"> - Examine new and existing requirements for OPMET exchange in APAC and other neighbouring regions along with the WAFS Provider States and assess the feasibility of satisfying these requirements, taking into account the availability of the data; - Keep the ROBEX scheme and other OPMET exchange schemes under review and prepare proposals for updating and optimizing the schemes; - 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; - Review the regional guidance material on OPMET exchange to ensure procedures are provided for the exchange of all required OPMET data;

	<ul style="list-style-type: none"> - 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 ROCs and the RODBs/IROGs; - Develop quality control guidance material and promote implementation of quality control for OPMET management; - Report on deficiencies in the format and dissemination of OPMET messages; - Participate in the implementation and promote awareness of the transition to digital exchange of OPMET (IWXXM) and System Wide Information Management (SWIM); - Engage with, and participate in the activities of, the SWIM Task Force; - Conduct regular regional VAAC back-up and SIGMET tests; and - Provide support for the APAC Volcanic Ash Exercises.
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3. COMMUNICATION STRATEGIES				
Description	Target Audience	Delivery Method	Frequency / Date	Responsibility
Work Plan	MET/IE WG Members	Webex, via email & MET/IE WG Meeting	Quarterly Webex and email as required but reviewed at the MET/IE WG Meeting and the MET SG	Chair
General correspondence	MET/IE WG Members	Email	As required	MET/IE WG Members
Working Group Meeting	MET/IE WG Members	Meeting	Annually	Chair
Status & Milestone Reports	ICAO Secretariat and MET/IE WG Members	Report via email & WP at MET/IE WG Meeting	Annually	Chair
Working Group Report	All APAC States	Working Paper at MET SG	Annually	Chair

4. PERFORMANCE FRAMEWORK FORM (PFF)					
Tasks	Time Frame	Responsibility	Status	Milestone	
Task 1: Improve the availability of OPMET data	Ongoing	MET/IE WG		1	
Task 2: Improve timeliness, compliance and regularity of OPMET exchange	Ongoing	MET/IE WG		2	
Task 3: Identify gaps and errors in processes, procedures and OPMET exchange	Ongoing	MET/IE WG		3, 4, 5	
Task 4: Review regional guidance material related to OPMET data	Ongoing	MET/IE WG		3, 4, 5, 6	
Task 5: Facilitate and monitor the migration to IWXXM in support of SWIM	2017-2020	MET/IE WG		7	
Task 6: Review the OPMET Exchange structure	2019	MET/IE WG		8	

5. MILESTONES			
Milestone	Accountability	Dates	Status
Milestone 1: Achieve 95% (90%) or greater OPMET availability for AOP (non-AOP) aerodromes where OPMET information is required at RODBs, SADIS and WIFS (i.e., aerodromes listed in former FASID Table MET 2A).	MET/IE WG	Annually Jun	
Milestone 2: Achieve OPMET timeliness, compliance and regularity index of 0.95 (0.90) for AOP (non-AOP) aerodromes where OPMET information is required at RODBs, SADIS and WIFS (i.e., aerodromes listed in former FASID Table MET 2A).	MET/IE WG	Annually Jun	
Milestone 3: SIGMET tests conducted, analysed and report complete.	MET/IE WG	Annually Jun	

Milestone 4: VAAC Back-up tests conducted, analysed and report complete.	VAAC Back-up Focal Points	Annually Jun	
Milestone 5: IROG Back-up tests conducted, analysed and report complete.	IROG Bangkok & Singapore	Annually Mar	
Milestone 6: RODB Monitoring procedures updated in ROBEX Handbook.	Secretariat	Annually Sep	
Milestone 7: Report to MET/IE WG & MET SG on IWXXM exchange & testing.	Secretariat & Chair	Annually Mar & May	
Milestone 8: OPMET Exchange structure review complete.	MET/IE WG	2019	
Milestone 9: Improved efficiency and effectiveness of ROBEX scheme.	RODBs	Annually Jun	
Milestone 10: Participated in the development of SWIM Meteorological services for APAC.	MET/IE WG	2023	

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 1: Increasing OPMET availability for aerodromes where OPMET information is required at RODBs, SADIS and WIFS				
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: Assess OPMET monitoring results & identify corrective actions	IATA	1.2	Annually Feb	
Activity 1.4: Prepare paper reporting results and deficiencies to MET/IE WG meeting.	IATA	1.3	Annually Mar	
Activity 1.5: Report summary of OPMET availability results to MET SG	Secretariat & Chair	1.4	Annually May	
Activity 1.6: Advise States of OPMET deficiencies and corrective actions.	Secretariat	1.5	Annually Jun	
Activity 1.7: Provide support to States to rectify deficiencies if requested.	RODBs	1.6	As required	
Milestone 1: Achieve 95% (90%) or greater OPMET availability for AOP (non-AOP) aerodromes at RODBs & WAFS.	MET/IE WG	1.7	Annually Jun	
Activity 2: Improving OPMET timeliness, compliance and regularity at RODBs, SADIS and WIFS				
Activity 2.1: Monitor & collate OPMET data.	RODBs & IATA	-	Annually Dec/Jan	
Activity 2.2: Score RODB OPMET reception against PI thresholds.	RODB Bangkok	-	Annually Dec/Jan	
Activity 2.3: Analyse data	RODB Bangkok	2.2	Annually Feb	
Activity 2.4: Prepare paper report results to MET/IE WG meeting & identify corrective actions	RODB Bangkok	2.3	Annually Mar	
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	

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
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 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: Conduct & collate data for WC SIGMET Tests	RODBs	3.2	Annually	2ndWed in Nov
Activity 3.4: Conduct & collate data for WV SIGMET Tests	RODBs	3.2	Annually	3rd Wed in Nov
Activity 3.5: Conduct & collate data for WS SIGMET Tests	RODBs	3.2	Annually	4th Wed in Nov
Activity 3.6: Analyse test data	RODB Singapore & Tokyo	3.3 - 3.5	Annually Jan	
Activity 3.7: Assess SIGMET test results to identify corrective actions from Nov tests	RODB Singapore & Tokyo	3.3 - 3.5	Annually Feb	
Activity 3.8: Report to MET/IE WG	RODB Singapore & Tokyo	3.6	Annually Mar	
Activity 3.9: Report on SIGMET Test Results to MET SG.	Chair	3.7	Annually May	
Activity 3.10: Advise States of SIGMET deficiencies	Secretariat	3.8	Annually Jun	
Milestone 3: Improved issuance and compliance of SIGMETs	MET/IE WG	3.9	Annually Jun	
Activity 4: VAAC Back-up Tests				
Activity 4.1: Review VAAC Back-up Test procedures	MET/IE WG and VAACs		Annually Jan	
Activity 4.2: Update VAAC Back-up Procedures	Secretariat	4.1	Annually May	
Activity 4.3: Issue Notice of VAAC Back-up Tests	Secretariat/VAACs	4.1	Annually Aug	
Activity 4.4: Conduct VAAC Back-up Test between Darwin and Tokyo	VAACs	4.3	Annually Oct – TBC	
Activity 4.5: Conduct VAAC Back-up Test between Darwin and Wellington	VAACs	4.3	Annually Oct – TBC	
Activity 4.6: Collect test results and send to VAAC Provider State members	RODBs	4.4	Annually Oct – TBC	
Activity 4.7: Analyse Test results	VAAC Back-up Focal Points Members	4.5	Annually Nov	
Activity 4.8: Report to MET/IE WG	VAAC Back-up Focal Points Members	4.6	Annually Feb	

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 4.9: Report to MET SG.	Chair	4.8	Annually May	
Activity 4.10: 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 & benefits of back-up arrangements of IROG Tokyo, Nadi & Brisbane	IROG Nadi & Brisbane	-	Nov 2019	
Activity 5.2: Review IROG Back-up Test procedures to include all IROG.	IROG Bangkok & 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 & Singapore	-	Annually Jan/Feb	
Activity 5.5: Conduct IROG Back-up Test of Bangkok & analyse results	IROG Bangkok & Singapore	5.4	Annually Sept/Oct	
Activity 5.6: Conduct IROG Back-up Test of Singapore & analyse results	IROG Bangkok & Singapore	5.4	Annually Jan/Feb	
Activity 5.8: Report to MET/IE WG	IROG Bangkok & Singapore	5.7	Annually Mar	
Milestone 5: IROG Back-up Tests conducted, analysed and report complete.	IROG Bangkok & Singapore	5.7	Annually Mar	
Activity 6: APAC RODB Monitoring procedures				
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 & 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: Complete update of ROBEX Handbook.	New Zealand & Secretariat	-	Annually May	
Activity 6.5: Seek MET/SG endorsement of the updated ROBEX Handbook.	Secretariat	-	Annually Jun	
Milestone 6: RODB Monitoring procedures published in ROBEX Handbook	Secretariat	6.5	Annually Sep	
Activity 7: New OPMET Exchange Formats				
Activity 7.1: Monitor migration to IWXXM.	WG	-	As required	
Activity 7.2: Undertake IWXXM tests with other centres.	WG		As required	
Activity 7.3: Report to MET SG on APAC RODBs support IWXXM.	Secretariat		Next meeting MET SG	

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
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: Report to MET/IE WG & 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	WG, RODB Bangkok		May 2019	
Activity 7.8: Actively participate in the next APAC IWXXM Workshop	WG	7.7	June 2019	
Activity 7.9: Prepare information (e.g. issues, CONOPS) for MET/P WG-MIE	WG		As required	
Milestone 7: Report to MET/IE WG & MET SG on IWXXM exchange & testing.	Secretariat & Chair	7.5, 7.6 & 7.8	Annually May	
Activity 8: Review OPMET 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	
Milestone 8: RODB structure review complete.	MET/IE WG	-	2020	
Activity 9: Improve Efficiency and effectiveness of ROBEX Scheme				
Activity 9.1: Align content of SA bulletins with FT bulletins, where appropriate	All RODBs	-	May 2019	
Activity 9.2: Adjust FT bulletin filing time, where appropriate	All RODBs	-	May 2019	
Activity 9.3: Review ANP Table MET II-2 and ensure all necessary aerodromes are contained in OPMET bulletins	WG	-	May Annually	
Activity 9.4: Review and update ROBEX HB and ICD, including aligning with OPMET bulletin contents and changes associated with IWXXM	WG	-	Feb Annually	
Activity 9.5: Review use of the Request/Reply service	RODBs	-	May 2019	
Activity 9.6: Improve the efficiency of Request/Reply service	RODBs	9.5	Sep 2019	
Milestone 9: Improved efficiency and effectiveness of ROBEX Scheme	MET/IE WG	-	2019	
Activity 10: Participate in the development of meteorological elements of SWIM in APAC				
Activity 10.1: Assist in the definition of the APAC SWIM Met service catalogue	WG	-	May 2019	
Activity 10.2: Assist in the definition of the APAC SWIM Met data catalogue	WG	-	May 2019	
Milestone 10: Participated in the development of SWIM Meteorological services for APAC	MET/IE WG	-	2023	

