

International Civil Aviation Organization



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ICAO Asia and Pacific (APAC)

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(MET SG/28)

Bangkok, Thailand, 8 to 12 July 2024

Agenda Item 4: Regional guidance material

UPDATES TO IWXXM EXCHANGE TASKS IN SIGMET TEST PROCEDURES

(Presented by Chairs of MET/IE WG and MET/SG ad hoc group on Regional SIGMET Guide)

SUMMARY

This paper presents issues in the dissemination of SIGMET test messages in IWXXM form encountered during ICAO Asia and Pacific (APAC) SIGMET tests in 2023 and proposed updates to the tasks of dissemination of SIGMET test messages in IWXXM form.

1. INTRODUCTION

1.1 Meteorological Watch Offices (MWOs) should disseminate SIGMET test messages in ICAO meteorological information exchange model (IWXXM) form in addition to disseminating the test messages in Traditional Alphanumeric Code (TAC) form.

1.2 This paper presents issues in the dissemination of SIGMET test messages in IWXXM form encountered during SIGMET Tests in 2023 and proposed updates to IWXXM message exchange tasks in ICAO APAC REGIONAL SIGMET TEST PROCEDURES to resolve the issues.

2. DISCUSSION

2.1 MET/IE WG/22 noted issues in the dissemination of SIGMET test messages in IWXXM form encountered during ICAO Asia and Pacific (APAC) SIGMET tests in 2023 as presented in [MET/IE WG/22 – WP/25](#).

2.2 While all test SIGMET messages in TAC format could be sent successfully to the five designated Regional OPMET Data Banks (RODBs) or two World Area Forecast Centres (WAFCs) in ICAO Asia and Pacific (APAC) SIGMET tests 2023, some MWOs received Non-Delivery Reports (NDRs) when disseminating the SIGMET test messages in IWXXM format during the tests.

2.3 Likely, not all TAC forwarding settings used in Regional OPMET Centres (ROCs) along the dissemination path (**APPENDIX A**) were applicable and available for IWXXM messages, which might have resulted in the IWXXM messages not being successfully disseminated directly from MWO to all the destinations, i.e., RODBs and WAFCs, as designated in the SIGMET test procedures, unlike TAC messages.

2.4 The test procedures in the ICAO APAC REGIONAL SIGMET TEST PROCEDURES, particularly the dissemination of IWXXM-formatted SIGMET test messages, would require updates to address the above identified issues to ensure it is aligned with the operational procedures for IWXXM SIGMET dissemination, i.e., (i) MWOs sending IWXXM formatted SIGMET to ROCs and (ii) ROCs forwarding them to RODBs.

2.5 Given the discussion above, MET/IE WG/22 agreed with the following action item to report the problem to the ad hoc group on the SIGMET Guide to propose an update for the SIGMET TEST PROCEDURES in time for review by MET SG/28:

ACTION MET/IE WG/22-06: SIGMET Guide updates – SIGMET test procedures for IWXXM

- a) Report the problem concerning the dissemination of SIGMET test messages in IWXXM form (as presented in MET/IE WG/22 WP/25) to the ad hoc group on the SIGMET Guide; and
- b) Propose an appropriate update to the SIGMET test procedures in the SIGMET Guide to address the IWXXM test message issues.

2.6 To follow up on the above Action, it is proposed to include a note in relevant tasks in SIGMET TEST PROCEDURES to indicate that, for IWXXM form SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the IWXXM form SIGMET test message to their respective ROC, and the ROCs are responsible for automatically forwarding the message to RODBs/WAFCs, which aligns with the exchange of all IWXXM message.

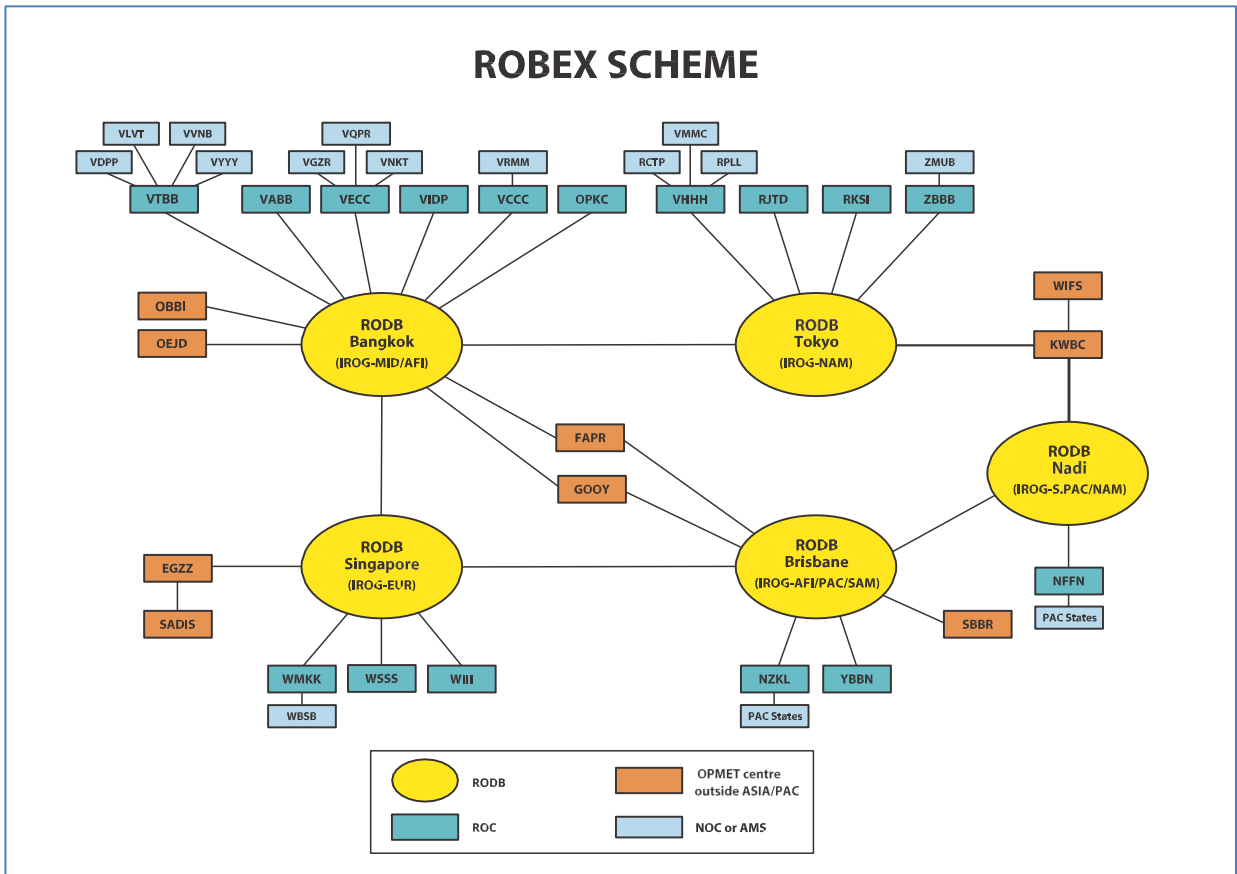
2.7 The proposed updates to IWXXM message dissemination tasks, i.e. Task ID WC/LY 1.1, WC/LY 2.1, WC/LY 3.1, WV/LV 1.1 and WS/LS 1.0 in “Table 6: SIGMET test tasks”, as well as an addition of a schematic diagram of TAC/IWXXM SIGMET test message dissemination below Table 6, are provided in Appendix B for review by MET SG/28.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information contained in this paper;
- b) review the proposed changes to SIGMET TEST PROCEDURES in **APPENDIX B** of this paper;
- c) consider action to update the IWXXM message dissemination tasks in the SIGMET Test Procedures in Appendix C of ICAO Asia/Pacific Regional SIGMET Guide, before the next SIGMET Test to be conducted later in 2024; and
- d) discuss any relevant matters as appropriate.

APPENDIX A



APPENDIX B

Proposed updates to ICAO APAC Regional SIGMET Test Procedures (Appendix C of ICAO APAC Regional SIGMET Guide)

*Editorial note – proposed updates are indicated with **highlighted text**.*

Table 6: SIGMET test tasks

Chronology and detailed description of tasks, listed by task ID

TASK ID.	WHO? Responsible unit/s	WHAT? Detailed description of the task	WHEN? Date/Time indicated in the following format: YYYYMMDD/HHMM UTC
SIGMET test for tropical cyclone (WC/LY SIGMET test) – 20231108/0200, 20231108/0500 and 20231108/0800			
WC/LY 1.0	TCACs listed in Table 3 except TCAC La Réunion	Send the TC advisory test message (see para. 7.1) to: <ul style="list-style-type: none"> i. MWOs as indicated in Table 3 (Note: at this time, TCAC New Delhi should <u>only</u> send the TC advisory test message to MWOs in the APAC Region); ii. RODBs listed in Table 2 (Note: this only applies to TCACs Darwin, Nadi, New Delhi and Tokyo); and iii. WAFCs listed in Table 5 	20231108/0200
WC/LY 1.1	MWOs associated with one or more TCACs listed in Table 3 except TCAC La Réunion.	Send the WC/LY* SIGMET test message based on the TC advisory test message from each associated TCAC (see para. 7.3) to: <ul style="list-style-type: none"> i. RODBs listed in Table 2 (Note: this only applies to MWOs in the APAC Region); and ii. WAFCs listed in Table 5 <p><i>*Note.- For LY SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the LY SIGMET test message to their respective Regional OPMET Centres (ROC), and the ROC is responsible for automatically forwarding the message to RODBs/WAFCs.</i></p>	<ul style="list-style-type: none"> a. On receipt of the TC advisory test message from each associated TCAC between 20231108/0200 and 20231108/0230; and/or b. At or as soon as practicable after 20231108/0230, only when the MWO does not receive the TC advisory test message from an associated TCAC. <p>Note: MWOs should send a test WC/LY SIGMET on receipt (or non-receipt) of a test TC advisory test message for each TCAC that it is associated with.</p>
WC/LY 2.0	TCAC La Réunion	Send the TC advisory test message (see para. 7.1) to: <ul style="list-style-type: none"> i. MWOs as indicated in Table 3; ii. RODBs listed in Table 2; and iii. WAFCs listed in Table 5 	20231108/0500
WC/LY 2.1	MWOs associated with TCAC La Réunion, as indicated in Table 1 and Table 3	Send the WC/LY* SIGMET test message based on the TC advisory test message from TCAC La Réunion (see para. 7.3) to: <ul style="list-style-type: none"> i. RODBs listed in Table 2; and ii. WAFCs listed in Table 5 <p><i>*Note.- For LY SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the LY SIGMET test message to their respective ROC, and the ROC is responsible for automatically forwarding the message to RODBs/WAFCs.</i></p>	Either: <ul style="list-style-type: none"> a. On receipt of the TC advisory test message from TCAC La Réunion between 20231108/0500 and 20231108/0530; or b. At or as soon as practicable after 20231108/0530, only when the MWO does not receive the TC advisory test message from TCAC La Réunion

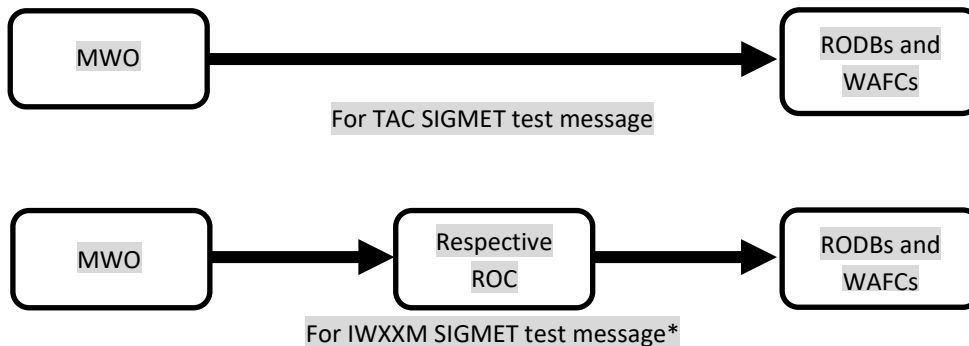
MET SG/28
Appendix B to WP/11

TASK ID.	WHO? Responsible unit/s	WHAT? Detailed description of the task	WHEN? Date/Time indicated in the following format: YYYYMMDD/HHMM UTC
WC/LY 3.0	TCAC New Delhi	Send the TC advisory test message (see para. 7.1) to: <ul style="list-style-type: none"> i. MWOs as indicated in Table 3 (Note: at this time, TCAC New Delhi should <u>only</u> send the test TCA to MWOs in the <u>MID Region</u>); ii. RODBs listed in Table 2; and iii. WAFCs listed in Table 5 	20231108/0800
WC/LY 3.1	MWOs in the MID Region associated with TCAC New Delhi, as indicated in Table 1 and Table 3	Send the WC/LY* SIGMET test message based on the TC advisory test message from TCAC New Delhi (see para. 7.3) to: <ul style="list-style-type: none"> i. WAFCs listed in Table 5 <p><i>*Note.- For LY SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the LY SIGMET test message to their respective ROC, and the ROC is responsible for automatically forwarding the IWXXM form message to RODBs/WAFCs.</i></p>	Either: <ul style="list-style-type: none"> a. On receipt of the TC advisory test message from TCAC New Delhi between 20231108/0800 and 20231108/0830; or b. At or as soon as practicable after 20231108/0830, only when the MWO does not receive the TC advisory test message from TCAC New Delhi
WC/LY 4.0	RODBs listed in Table 2 and WAFCs listed in Table 5	<ul style="list-style-type: none"> i. File all incoming TC advisory and WC/LY SIGMET test messages; and ii. Prepare and send the SIGMET test summary table (see para. 8.1) to: <ul style="list-style-type: none"> a) APAC SIGMET test focal points (see para. 6.2.2); and b) Copy to the ICAO APAC Office 	<ul style="list-style-type: none"> a. Between 20231108/0200 and 20231108/0830; and b. After 20231108/0830
SIGMET test for volcanic ash (WV/LV SIGMET test) - 20231115/0200			
WV/LV 1.0	VAACs listed in Table 4	Send the VA advisory test message (see para. 7.2) to: <ul style="list-style-type: none"> i. MWOs as indicated in Table 4; ii. RODBs listed in Table 2 (Note: this only applies to VAACs Darwin, Tokyo and Wellington); and iii. WAFCs listed in Table 5 	20231115/0200
WV/LV 1.1	MWOs associated with one or more VAACs, as indicated in Table 1 and Table 4	Send the WV/LV* SIGMET test message based on the VA advisory test message from each associated VAAC (see para. 7.4) to: <ul style="list-style-type: none"> i. RODBs listed in Table 2 (Note: this only applies to MWOs in the APAC Region); and ii. WAFCs listed in Table 5 <p><i>*Note.- For LV SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the LV SIGMET test message to their respective ROC, and the ROC is responsible for automatically forwarding the message to RODBs/WAFCs.</i></p>	<ul style="list-style-type: none"> a. On receipt of the VA advisory test message from an associated VAAC between 20231115/0200 and 20231115/0230; and/or b. At or as soon as practicable after 20231115/0230, only when the MWO does not receive the VA advisory test message from an associated VAAC. <p>MWOs should send a test WV/LV SIGMET on receipt (or non-receipt) of a test VA advisory test message for each VAAC that it is associated with.</p>

MET SG/28
Appendix B to WP/11

TASK ID.	WHO? Responsible unit/s	WHAT? Detailed description of the task	WHEN? Date/Time indicated in the following format: YYYYMMDD/HHMM UTC
WV/LV 2.0	RODBs listed in Table 2 and WAFCs listed in Table 5	<p>a. File all incoming VA advisory and WV/LV SIGMET test messages; and</p> <p>b. Prepare and send the SIGMET test summary table (see para. 8.1) to:</p> <p>a) APAC SIGMET test focal points (see para. 6.2.2); and</p> <p>b) Copy to the ICAO APAC Office</p>	<p>a. Between 20231115/0200 and 20231115/0230; and</p> <p>b. After 20231115/0230</p>
SIGMET test for weather and other phenomena apart from tropical cyclone and volcanic ash (WS/LS SIGMET test) - 20231122/0200			
WS/LS 1.0	MWOs in the APAC Region listed in Table 1	<p>Send the WS/LS* SIGMET test message (see para. 7.5) to:</p> <p>i. RODBs listed in Table 2; and</p> <p>ii. WAFCs listed in Table 5</p> <p>*Note.- For LS SIGMET test message to be successfully disseminated to RODBs/WAFCs, MWOs need to send the LS SIGMET test message to their respective ROC, and the ROC is responsible for automatically forwarding the message to RODBs/WAFCs.</p>	20231122/0200
WS/LS 2.0	RODBs listed in Table 2 and WAFCs listed in Table 5	<p>i. File all incoming WS/LS SIGMET test messages; and</p> <p>ii. Prepare and send the SIGMET test summary table (see para. 8.1) to:</p> <p>a) APAC SIGMET test focal points (see para. 6.2.2); and</p> <p>b) Copy to the ICAO APAC Office</p>	<p>a. Between 20231122/0200 and 20231122/0230; and</p> <p>b. After 20231122/0230</p>
Final	APAC SIGMET test focal points listed in para. 6.2.2	Prepare the final report of the SIGMET tests	Sequential to Tasks WC/LY 4.0 b., WV/LV 2.0 b. and WS/LS 2.0 b

Schematic diagram of SIGMET test message dissemination



* as per normal IWXXM distribution