



International Civil Aviation Organization

**FIFTEENTH MEETING OF THE ASIA/PACIFIC METEOROLOGICAL
INFORMATION EXCHANGE WORKING GROUP
(MET/IE WG/15)**

Bangkok, Thailand, 20 – 22 March 2017

**Agenda Item 4: Planning and Implementation of digital exchange of meteorological
information**

STATUS AND PLANS FOR IWXXM AND AMHS WITHIN APAC

(Presented by Chair MET/IE)

SUMMARY

This paper proposes that a survey be conducted to identify the status of IWXXM and AMHS capability within the Asia Pacific (APAC) region. Action by the MET/IE-WG is in paragraph 4.

1. INTRODUCTION

1.1 Effective with Amendment 77 to ICAO Annex 3 – Meteorological Service for International Air Navigation (applicable Nov. 2016) exchange of METAR, SPECI, TAF, SIGMET, Volcanic Ash Advisory (VAA), Tropical Cyclone Advisory (TCA) and AIRMET should be disseminated in digital form in addition to traditional alphanumeric code (TAC) form.

1.2 It is understood that OPMET exchange in IWXXM format is proposed to become an Annex 3 Standard in November 2020.

1.3 The size and character set of IWXXM messages prevent these messages from being transmitted via the Aeronautical Fixed Telecommunication Network (AFTN). Therefore, IWXXM messages will need to be transmitted over the ATS Message Handling System (AMHS). Furthermore, the IWXXM bulletins will be compressed and transferred as File Transfer Body Part (FTBP), which is often associated with Extended AMHS (rather than Basic AMHS) links.

2. DISCUSSION

Previous Survey

2.1 In order to assess the status and plans for implementation of both IWXXM and AMHS within Asia Pacific (APAC) a survey of States, via State letter (AP 151_15), was issued. The results of this survey were discussed at the fourteenth meeting of the Asia/Pacific Meteorological Information Exchange Working Group (MET/IE WG/14).

2.2 The meeting may recall that half the States did not respond to the survey and it's likely that many of these States which did not respond will require support.

2.3 Subsequently, the Chair of MET/IE WG presented a paper to twentieth meeting of APAC Meteorological Sub-Group (MET SG/20) advising the meeting of the results of the survey.

Next Survey

2.4 Given the limited responses received to the last survey, the Chair of MET/IE WG also proposed that the World Meteorological Organization (WMO) be requested to distribute future surveys through its channels to States that do not respond to the 2015 survey distributed by ICAO. The meeting was also advised that discussion at a workshop on implementing IWXXM for exchange of OPMET data (Paris, France, 31 May to 2 June 2016) considered possible coordination between the ICAO APAC and EUR/NAT Regions on a revised survey to ascertain States' level of implementation of IWXXM and to request information from States on associated issues.

2.5 In view of the discussion above, the METSG/20 adopted the following Decision

MET SG/20 Decision 20/7 – IWXXM and AMHS Survey

Revise and recirculate the IWXXM and AMHS survey, in coordination with the ICAO EUR/NAT Region, with distribution of the survey assisted through the WMO's channels, and produce an analysis of the Regional status of implementation of IWXXM and AMHS.

Revised Survey

2.6 In collaboration with the EUR/NAT region, the Chair of MET/IE WG has drafted a revised survey as detailed in Appendix A.

3. RECOMMENDATION

3.1 It is recommended that the MET-IE WG/15 adopts the following draft Decision:

Draft Decision 15/x – IWXXM and AMHS Survey

That, the ICAO APAC Secretariat distributes the updated survey, as defined in Appendix A, prior to 30 April 2017.

4. ACTION REQUIRED BY THE MEETING

4.1 The meeting is invited to:

- a) note the information in this paper;
- b) review the survey contained in Appendix A;
- c) consider the draft Decision in paragraph 3.1; and
- d) discuss any relevant matters as appropriate.

Attachment A

IWXXM Implementation Planning Questionnaire

ICAO APAC Region

NOC (National OPMET Centre): The role of the NOC is to collect and validate all FASID required OPMET messages generated by all originating units within a State and send them to the Regional OPMET Centre (ROC) according to the regional distribution schema.

ROC (Regional OPMET Centre or ROBEX Centres): A ROC is responsible for collection of OPMET messages from the originating stations or NOCs in their area of responsibility and for compiling these messages into ROBEX bulletins.

RODB (Regional OPMET Data Bank): Within the APAC Region, there are currently five RODBs: Bangkok, Brisbane, Nadi, Singapore and Tokyo.

The RODBs are supplied with required OPMET data by the ROCs. These databases can be queried via the Aeronautical Fixed Service (AFS) by using a specified query language.

IROG (Inter-Regional OPMET Gateway): Within the APAC Region, the IROGs are the RODBs.

An IROG is responsible for the collection of all required OPMET data from its Inter-Regional Area(s) of Responsibility (IAoR) and its dissemination to the ROCs in its Region. Furthermore, IROGs are responsible for collection and dissemination of their Region's required OPMET data to their partner IROGs. The IROG is responsible for the validation of the bulletins sent to the IROGs of its IAoR and received from their IAoR.

For further details on the above, refer to the ROBEX Handbook available at:

<http://www.icao.int/APAC/Pages/edocs.aspx>

Date: Click here for date.

State: Click here for text.

Completed by (please provide Name, E-mail, Phone-number in case of questions):

Click here for text.

COM-Centre Name: Click here for text.

COM-Centre Location Indicator: Click here for text.

NOC-Centre Name: Click here for text.

NOC-Centre Location Indicator: Click here for text.

Please respond to the following questions, all in the context of the transition to IWXXM MET message exchange.

Aeronautical Fixed Services (AFS) related

Question 1:

Does your AFS COM-Centre plan to implement a subset of the extended Air Traffic Services Message Handling Services (ATSMHS) that includes File Transfer Body Parts (FTBP) which is required for the exchange of IWXXM messages?

- ☐ **No File Transfer Body Part support planned** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, File Transfer Body Part support planned to be operational by:** *(Date or expected period)*

[Click here for text.](#)

- ☐ **File Transfer Body Part support already operationally implemented.**

Question 2: For NOC only States

Do you intend to establish a direct ATS Message Handling System (AMHS)-connection between your AFS COM-Centre and AFS COM-Centre of your associated Regional OPMET Centre?

- ☐ **No** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, but no co-ordination started.**

- ☐ **Yes, co-ordination already started. Planned to be operational by:** *(Date or expected period)*

[Click here for text.](#)

- ☐ **Yes, connection already in place**

[Click here for text.](#)

Question 3: For ROC States

- A) Do you intend to establish an AMHS-connection between your AFS COM-Centre and all other ROC AFS COM-Centres in the APAC ICAO-Region?

- ☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, but co-ordination not yet started.**

- ☐ **Yes, co-ordination already started. Planned to be operational by:** *(Name of Centre(s) & date or expected period)*

[Click here for text.](#)

- ☐ **Yes, connection already in place.** *(Name of Centre(s))*

- B) Do you intend to establish an AMHS-connection between your AFS COM-Centre and all of your associated Inter-Regional OPMET Gateways (IROGs) in other ICAO regions?

- ☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, but co-ordination not yet started.**

- ☐ **Yes, co-ordination already started. Planned to be operational by:** *(Name of IROG(s) & date or expected period)*

[Click here for text.](#)

☐ **Yes, connection already in place:** *(Please indicate name IROG(s))*

Click here for text.

Regional OPMET Bulletin Exchange (ROBEX) related

Question 4:

Does your MET-Switch system plan to support the exchange of IWXXM MET-messages by means of a sub-set of extended ATSMHS including File Transfer Body Parts?

- ☐ **No File Transfer Body Part support planned** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, File Transfer Body Part support planned between MET-Switch and the national COM-Centre by:** *(Date or expected period)*

[Click here for text.](#)

- ☐ **File Transfer Body Part support already operationally in place between MET-Switch and the national COM-Centre**

Question 5: For RODBs only

A) Does your OPMET-DB plan to support **storage** of IWXXM formatted OPMET data?

- ☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **Yes, planned to be operational by:** *(Date or expected period)*

[Click here for text.](#)

B) Does your OPMET-DB plan to support IWXXM formatted OPMET data **request and reply service**?

☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

☐ **Yes, IWXXM formatted OPMET data requests planned to be operational by:** *(Date or expected period)*

[Click here for text.](#)

IWXXM related questions

Question 6:

A) Do you plan to provide your national OPMET data in IWXXM format?

☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

☐ **IWXXM METAR/SPECI planned to be available by:** *(Date or expected period)*

[Click here for text.](#)

☐ **IWXXM TAF planned to be available by:** *(Date or expected period)*

[Click here for text.](#)

☐ **SIGMET planned to be available by:** *(Date or expected period)*

[Click here for text.](#)

B) If your State generates AIRMETs, do you plan to provide your AIRMETs in IWXXM format?

☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

☐ **IWXXM AIRMETs planned to be available by:** *(Date or expected period)*

[Click here for text.](#)

C) If your State generates Volcanic Ash Advisories (VAA), do you plan to provide your VAA in IWXXM format?

☐ **No:** *(Please indicate the reasons for the decision)*

[Click here for text.](#)

- ☐ **IWXXM VAA planned to be available by:** *(Date or expected period)*

Click here for text.

D) If your State generates Tropical Cyclone Advisories (TCA), do you plan to provide your TCA in IWXXM format?

- ☐ **No:** *(Please indicate the reasons for the decision)*

Click here for text.

- ☐ **IWXXM TCA planned to be available by:** *(Date or expected period)*

Click here for text.

Question 7:

Do you plan to receive OPMET data in IWXXM format?

- ☐ **No:** *(Please indicate the reasons for the decision)*

Click here for text.

- ☐ **Yes, ready for receipt of OPMET data in IWXXM format by:** *(Date or expected period)*

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Question 8:

What should be organised to raise awareness and promote the implementation of IWXXM and extended ATSMHS?

- ☐ **Dedicated APAC workshop by ICAO**
- ☐ **Dedicated APAC workshop by WMO**
- ☐ **Dedicated APAC workshop by ICAO & WMO**
- ☐ **Dedicated period during one of the following APAC ICAO meetings**
 - ☐ **MET-IE WG**
 - ☐ **METSG**
- ☐ **Other**

Thank you for taking the time to complete this survey. Any further comments on the implementation of extended ATSMHS or the transition to IWXXM are welcomed.