

International Civil Aviation Organization



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Bangkok, Thailand, 25 to 28 March 2025

Agenda Item 6: Meteorological information exchange in IWXXM form

STATUS AND PLANS FOR IMPLEMENTATION OF IWXXM IN THAILAND

(Presented by Thailand)

SUMMARY

This paper presents a brief overview of the status and plans for the implementation of IWXXM in Thailand.

1. INTRODUCTION

1.1 The implementation of ICAO Meteorological Information Exchange Model (IWXXM) for OPMET exchange was proposed to become a standard in the Amendment 78 to ICAO Annex 3 which became effective in Nov 2018 and applicable in Nov 2020. This paper provides a brief update on the status and plans for the implementation of IWXXM in Thailand.

2. DISCUSSION

Thailand NOC

2.1 Playing a role as the National OPMET Centre of Thailand (Thailand NOC), Thai Meteorological Department (TMD) has been collecting and distributing national METAR/SPECI, TAF and SIGMET reports in IWXXM v2021-2 by translation since 30 May 2024.

2.2 The exchange of IWXXM reports from the Thailand NOC to Bangkok ROC (AEROTHAI) conducts through the ATS Message Handling System (AMHS) with File Transfer Body Part (FTBP).

2.3 Corresponding to the medium-term Strategic Initiative Implementation Plan for Meteorological Services under Thailand's National Air Navigation Plan, the possibility of AMSs, AMOs and MWO to generate their reports in IWXXM format by source has been explored. This implementation is expected to be completed within this period accordingly. Completion will, however, depend on factors like technical implementation, budget allocation, and sustainability.

Bangkok ROC

2.4 Bangkok ROC has been collecting all OPMET data from its Area of Responsibility (AoR) in both TAC and IWXXM formats through AFTN/AMHS

2.5 Bangkok ROC has been disseminating IWXXM reports, in addition to delivering the international IWXXM reports to Thailand NOC, that received from its area of responsibility to other ROCs/RODBs. At the moment, Bangkok ROC disseminates IWXXM OPMET to Beijing ROC, Hong Kong ROC, Brisbane RODB, Singapore RODB and Tokyo RODB.

2.6 Bangkok ROC provides the translation service, especially for its AoR, by bilateral agreement. Currently, the translation of OPMET data (METAR/SPECI and TAF) from TAC to IWXXM v2021-2 has been operating for Vietnam NOC until the communication between Bangkok COM Centre and Vietnam COM Centre are fully implemented in AMHS with FTBP.

2.7 Some of the communication networks of Bangkok ROC were upgraded to Common Aeronautical Virtual Private Network (CRV). To enhance the information exchange on the CRV network, the 512 kbps has been replaced by the 1 Mbps bandwidth since 4 March 2024. The current CRV network includes Beijing, Hong Kong China, Kuala Lumpur, Mumbai, Paro, Phnom Penh, Singapore and Yangon. The CRV network with Ho Chi Minh is expected to conduct an initial technical test in March 2025.

Bangkok RODB

2.8 The request/reply function is available for both TAC and IWXXM at Bangkok RODB.

2.9 The new Performance Indices (PIs) for both TAC and IWXXM reports in APAC, composed of Timeliness and Availability, have been implemented

2.10 The IWXXM-specific statistics that include the records of the exchange of IWXXM in the topics specified in the *Guidelines for the Implementation of OPMET Data Exchange using IWXXM* has been produced. The statistics include detailed records of IWXXM SIGMET Test messages such as IWXXM version, validation success rate, and extension which are reported to the SIGMET Test focal points (Japan and Singapore).

2.11 The preliminary report of Performance Indices (PIs) for IWXXM in individual package versions has been generated, taking into consideration, for future OPMET monitoring improvement.

Future Plans

2.12 To include the IWXXM reports in the backup exercise between IROG Singapore and IROG Bangkok.

2.16 To upgrade the IWXXM version to 2023-1 for Thailand NOC and Bangkok ROC/RODB in 2025.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.
