

International Civil Aviation Organization

INFORMATION PAPER



ICAO

Asia and Pacific (APAC)
Fifteenth Meeting of the Meteorological Requirements
Working Group (MET/R WG/15)

Bangkok, Thailand 07 April – 10 April 2026

Agenda Item 3: Collaboration between MET and ATM stakeholders**UPDATE ON TAILORED MET INFORMATION TO SUPPORT ATM OPERATIONS IN THAILAND**

(Presented by Thailand)

SUMMARY

This paper shares the information on the effort to implement the Tailored Meteorological information and services to support ATM operation in Thailand utilizing current available resources and the future plan.

1. INTRODUCTION

1.1 The Thai Meteorology Department (TMD) is a Civil Aviation Authority of Thailand (CAAT) certified Meteorology Services Provider in Thailand, providing observations, forecasts, charts, and other related aviation meteorology products for aircraft operators and air navigation service provider in Thailand. Meteorological products included the standard meteorological products in accordance with the ICAO Annex 3 (e.g. MET Report, METAR/SPECI, TAF, SIGMET, etc.) from most of the civil aerodromes in Thailand.

1.2 The increasing of the air traffic demand at major aerodromes in Thailand has pushed these aerodromes and surrounding airspace sectors to utilize at their full capacity, while weather is the main factor that affects capacity. The operations under adverse weather situations resulted in airborne delays, unpredictable operations, and heavy ATC workload. The use of Air Traffic Flow Management (ATFM) measures based on standard meteorological products is unable to manage demand and capacity effectively.

1.3 CAAT had published a Guidance Material for Meteorological information and services to support ATM operation. The purposes of this document are:

- 1.3.1 (1) provide a framework for MET Service providers to establish MET information and services to support the ATM operations,
- 1.3.2 (2) To support the ATM operations in Thailand with MET information and services, particularly short and long-term plan for its air traffic management scheme.
- 1.3.3 (3) To encourage MET service providers to learn more about MET information and services for ATM Operations from the examples set by other countries, within this guidance.

1.4 The TMD and Aeronautical Radio of Thailand Co., Ltd. (AEROTHAI), an Air Navigation Service Provider in Thailand, are collaborating to develop the procedure and service to promote the Tailored Meteorological Information to support Air Traffic Management (ATM) operations in Thailand, supported by the CAAT. The collaboration utilizes the current available tools and equipment to provide specific weather information for the ATM to deal with the severe weather effectively.

2. DISCUSSION

Weather briefing by TMD in the daily ATFM web conference

2.1 The Daily ATFM web conference is hosted by Bangkok Air Traffic Flow Management Unit (Bangkok ATFMU) at 0930 local time, with all air traffic services units in AEROTHAI. The conference topics are weather, traffic demand/capacity situation, activities that may affect Air Traffic Management operations, planned ATFM measures, NOTAM, ATFM daily plan, and other related information.

2.2 Multiple collaborations between TMD and AEROTHAI through online and onsite meetings were established to create a list of required meteorological information. This data was used by TMD to prepare the briefing package for AEROTHAI. Starting from 16 August 2024, TMD participated in the Daily ATFM web conference for a daily weather outlook briefing. The briefing utilized available products at that time, and the package was prepared using a PowerPoint presentation. The package includes a Significant Weather Chart, a nationwide general weather forecast, hourly decoded TAFs for major aerodromes, and graphical SIGMETs.

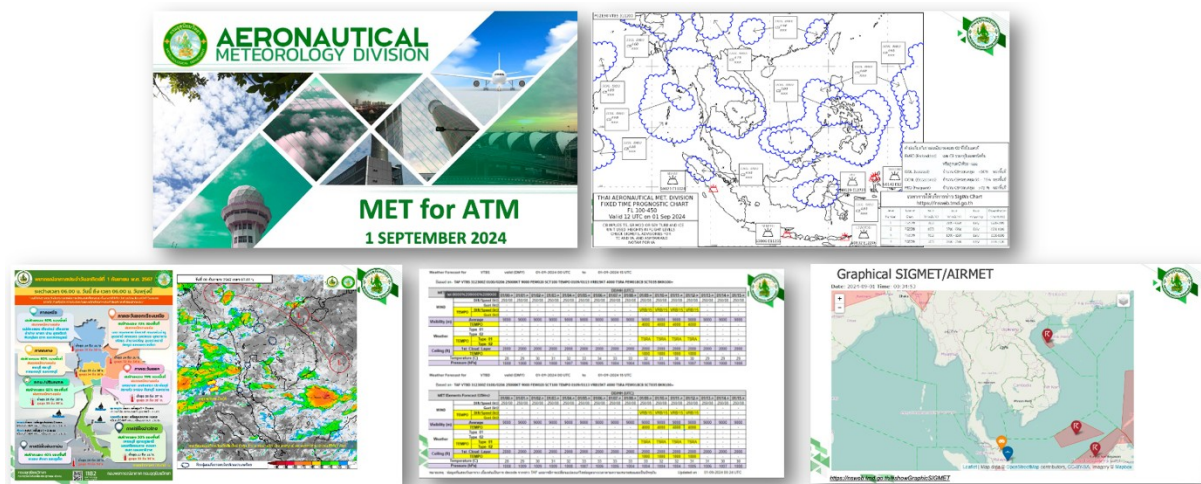


Figure 1: Original version of the briefing package since 16 August 2024.

2.3 On 30 September 2025, TMD introduced an updated version of the briefing package, which is now accessible on the web portal. The content will automatically update to the latest version and adjust to meet ATM requirements. This briefing package is a live document and will be updated whenever a new product becomes available and ready to use.

The information displayed in the briefing package includes

a) Cover page.



Figure 2: Cover page and effective date.

b) Latest satellite image with forecast wind.

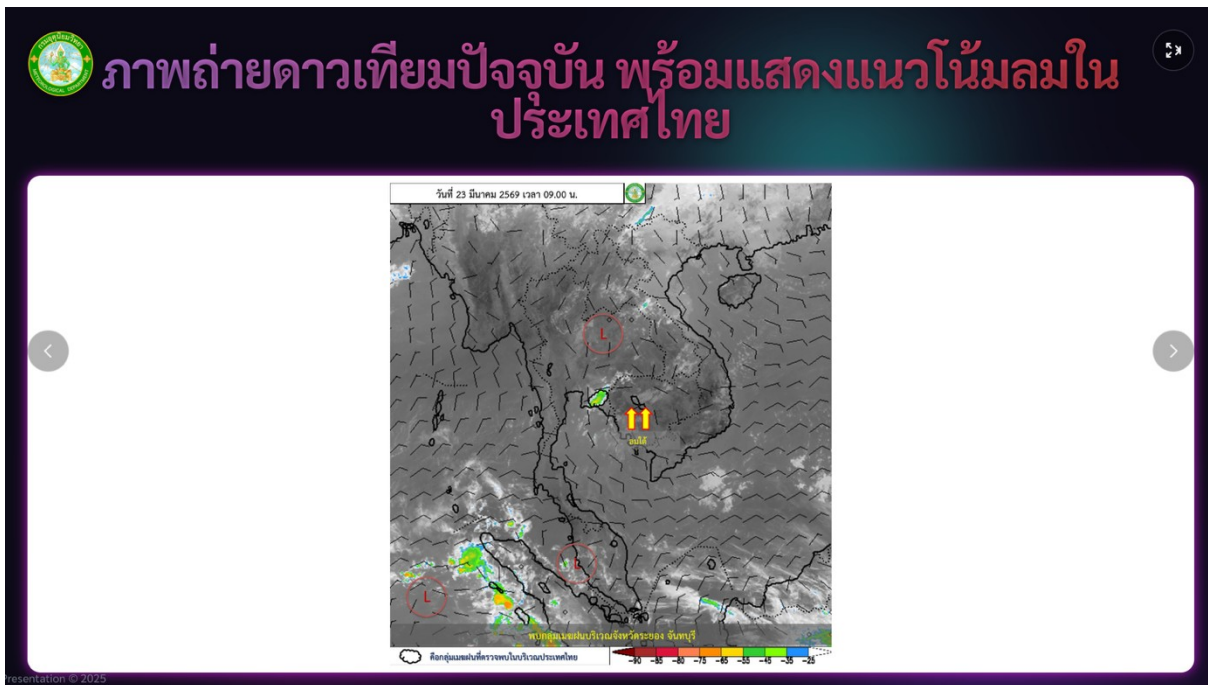


Figure 3: Satellite image with forecast wind.

c) Satellite animation and quantitative precipitation estimate.

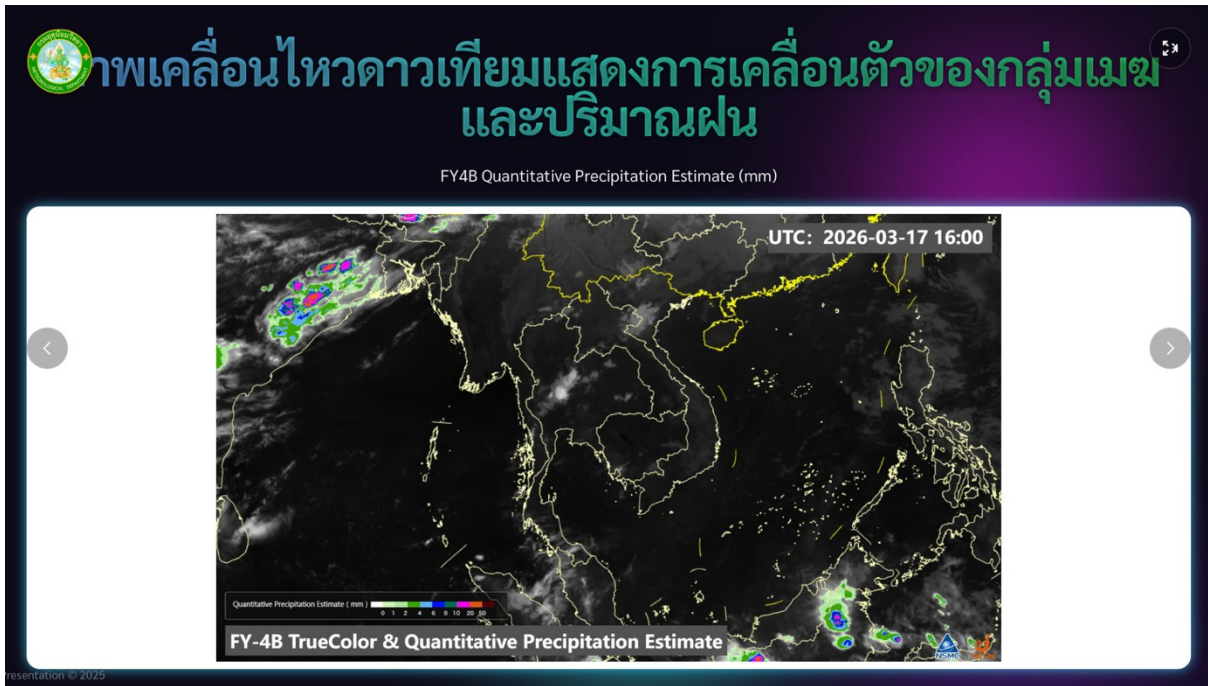


Figure 4: Satellite animation and quantitative precipitation estimate

d) Significant weather charts.

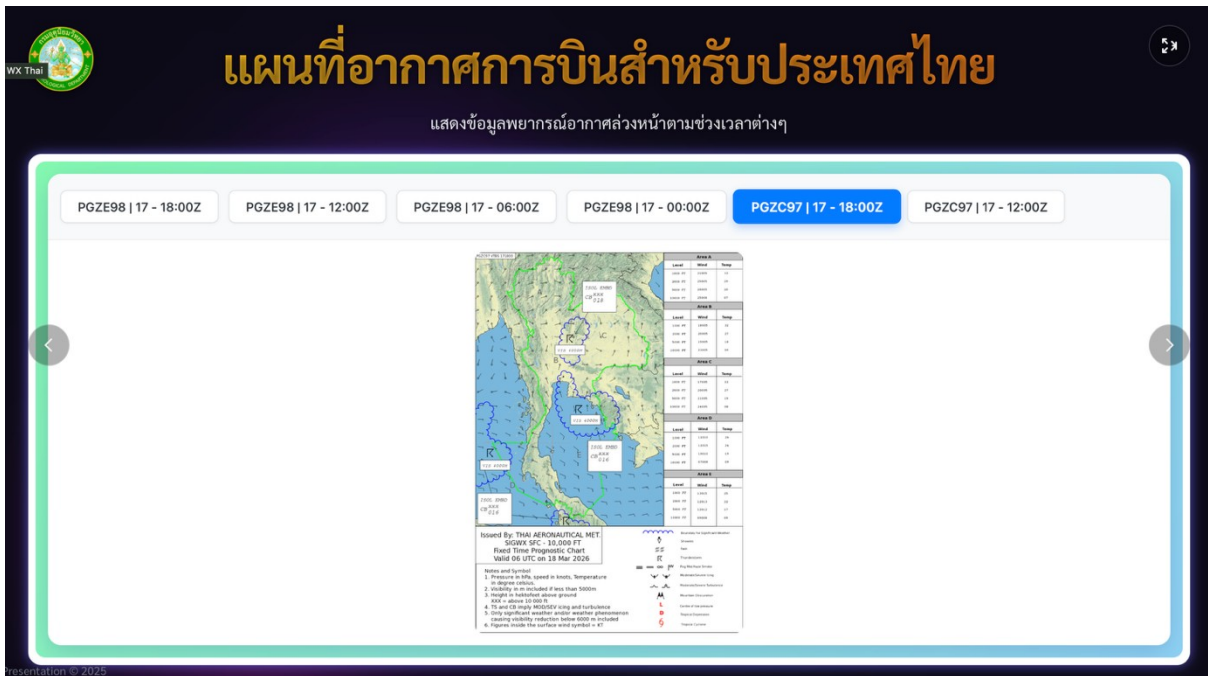


Figure 5: Regional and Thailand Significant weather charts.

- e) Decoded TAF for major aerodromes (e.g. VTBS / Suvarnabhumi, VTBD / Don Mueang, VTSP / Phuket, VTCC / Chiang Mai, VTUK / Khon Kaen)

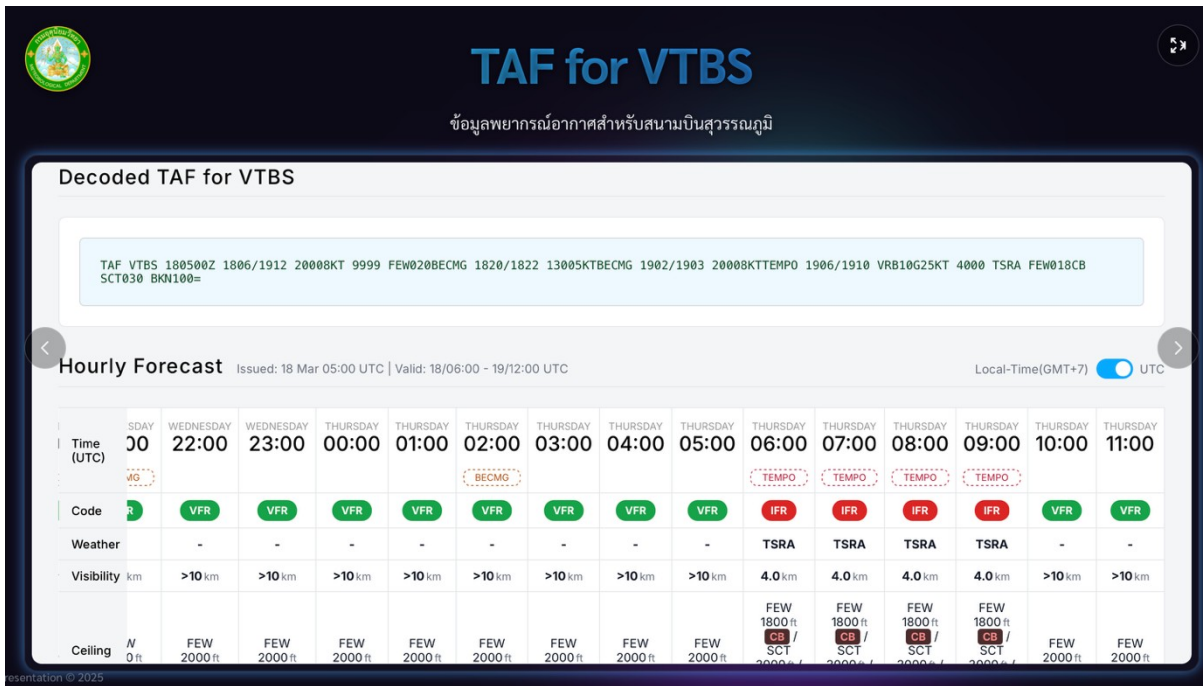


Figure 6: Decoded TAF for major aerodromes.

- f) SIGMET information with weather radar.

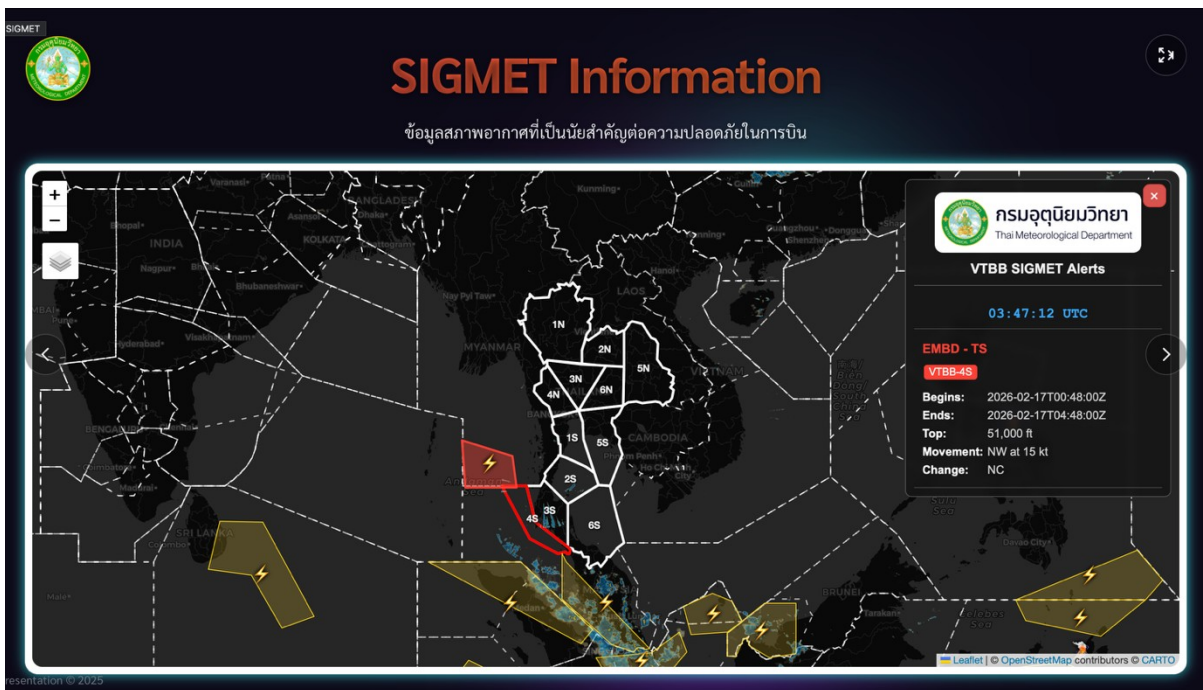


Figure 7: SIGMET information with weather radar.

2.4 TMD developed a roadmap for Meteorological information and services to support ATM operations since 2015. It began with Step 1 (2015 – 2022), focusing on preparing the instrument/measurement system and data integration. Step 2 (2023) marked the official launch of the MET for ATM project. Step 3, the current phase (2024 – 2026) is MET for ATM phase 1, which aims to deliver the Nowcasting product. Phase 2 (2027 – 2029) targets a Short-Range Forecast, with full project implementation scheduled for 2029.

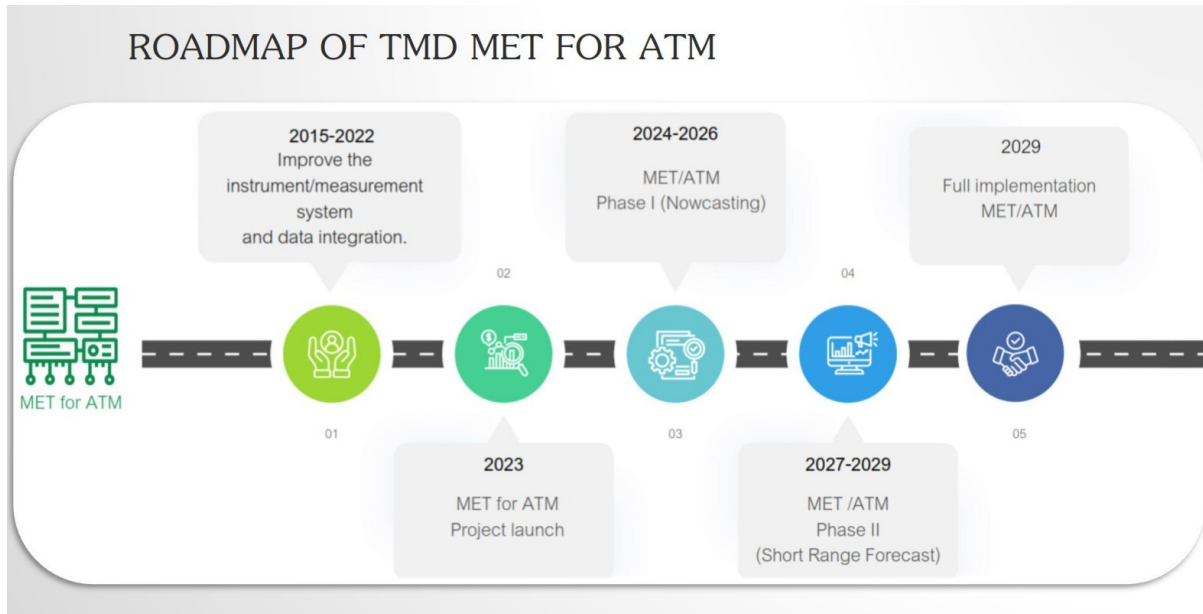


Figure 8: TMD roadmap for Tailored MET for ATM.

3. ACTION BY THE MEETING

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