

International Civil Aviation Organization

ICAO

INFORMATION PAPER**Asia and Pacific (APAC)
Fourteenth Meeting of the Meteorological
Requirements Working Group (MET/R WG/14)**

Bangkok, Thailand 28 April – 2 May 2025

Agenda Item 4: SIGMET coordination**UPDATES ON SIGMET COORDINATION ACTIVITIES SUPPORTED BY HKO**

(Presented by Hong Kong, China)

SUMMARY

This paper presents the latest updates on SIGMET Coordination projects supported by the Hong Kong Observatory (HKO).

1. INTRODUCTION

1.1 The Hong Kong Observatory (HKO), Hong Kong, China has been actively involved in regional collaboration on aviation weather services. In 2017, HKO developed and implemented a web-based Regional SIGMET Coordination Platform (the “Platform”) to support regional SIGMET coordination trials and operations.

1.2 Previous updates of these projects were presented in [MET/SG 27 IP/06](#). This paper provides the latest developments on these SIGMET Coordination projects supported by HKO.

2. DISCUSSION

2.1 The GHKPSV SIGMET Coordination Project ([MET/S WG/11 IP/03](#)), commenced in 2017, involves Meteorological Watch Offices (MWOs) in the northern and northwestern parts of the South China Sea, namely Guangzhou (ZGZU), Hong Kong (VHHK), Kunming (ZPKM), Phnom Penh (VDPP), Sanya (ZJSA), Hanoi (VNVN) and Ho Chi Minh (VVGL). A record high of 463 SIGMET Coordination cases were conducted in 2024, with consensus achieved in over 75% of the cases. More efficient and responsive coordination was made possible through discussion at the quarterly review meetings. Since 2017, over 2500 SIGMET coordination cases have been performed. To raise common situational awareness for Tropical Cyclones (TCs) affecting multiple Flight Information Regions (FIRs) and to strengthen aviation forecasters’ communication for the related SIGMET coordination, online ad hoc TC briefings would be arranged when TCs are expected to affect multiple FIRs in the coordination group. A total of 21 ad hoc TC briefings have been conducted since 2020, improving coordination efficiency with better alignment of thunderstorm (TS) and TC SIGMETs (Figure 1).

2.2 The HMSU SIGMET Coordination group includes Hong Kong (VHHK), Manila (RPHI) and Sanya (ZJSA) and Ujung Pandang (WAAF). Coordination between VHHK-RPHI-ZJSA

commenced its operational coordination in May 2022 (para 2.2 in [MET/SG 27 IP/06](#)). In 2024, a total of 387 SIGMET coordination cases were performed, with consensus rate over 95% – the highest rate to date. Since 2022, over 950 SIGMET coordination cases have been conducted. Long-term forecasts of potential TC activity presented at quarterly review meetings assisted the early preparation by aviation forecasters. Participants commended the Platform’s integration of track forecasts from Tropical Cyclone Advisory (TCA), national centres and numerical weather prediction models, which have enhanced the common situational awareness of the participants.

2.3 The South and Southeastern Asia (SSEA) SIGMET Coordination Project ([MET SG/28 WP/12](#)) now involves nine FIRs, namely Chennai (VOMF), Colombo (VCCF), Dhaka (VGFR), Delhi (VIDF), Jakarta (WIIF), Kathmandu (VNSM), Kolkata (VECF), Male (VRMF) and Mumbai (VABF). Dhaka (VGFR) and Male (VRMF) transitioned from trial to operational members in 2024. In late 2024, Karachi (OPKR), Lahore (OPLR) and Muscat (OOMM) joined the group as trial members. A few online trainings were conducted to familiarise new members with the Platform. The Project operates under the Guiding Principles of Cooperation and SIGMET Coordination Procedures jointly developed by participating agencies. In 2024, there was a total of 66 SIGMET coordination cases, with consensus achieved in around 70% of the cases.

2.4 The Mekong SIGMET Coordination involves three FIRs, namely Bangkok (VTBB), Ho Chi Minh (VVHM) and Phnom Penh (VDPF) ([MET/S WG/12 IP/03](#)). Round-the-clock SIGMET coordination has been set up since August 2020. Recently, to encourage communication between aviation forecasters from different MWOs, a daily communication mechanism has been established within the Group since March 2025. The Group would communicate daily on the forecast outlook for the next 24 hours and discuss possibilities of coordination near the FIR borders.

2.5 For the updates on the Oceanic SIGMET Coordination, please refer to a separate working paper that has been submitted to this meeting.

2.6 The Platform facilitates smooth and efficient SIGMET coordination and it includes four modules: (i) thunderstorms and tropical cyclones, (ii) turbulence, (iii) icing and (iv) volcanic ash. Major enhancements of the Platform in 2024 to 2025 include:

- (i) New release of real-time volcano hot spot information;
- (ii) New release of Forecast Icing Potential information;
- (iii) New release of Chat Archival Viewer;
- (iv) New release of guidance products for significant convection, turbulence and icing;
- (v) Enhancement of expanded real-time radar mosaic;
- (vi) Enhancement of 850hPa wind and temperature information;
- (vii) Enhancement in Data Archival Viewer for post-event analysis;
- (viii) Enhancement in cloud top height product.

HKO will continue to support the aforementioned coordination projects and collaborate with regional and global counterparts to advance aviation weather services. HKO also plans to conduct trials for the Hazardous Weather Information Service (HWIS) from 2025 to 2027 together with regional partners to contribute to the development of HWIS.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;

APPENDIX A



Figure 1 WC/WS SIGMET coordination in the GHKPSV SIGMET Coordination Group. The coordination and SIGMETs denoted in orange and blue represent the coordination for TC and TS respectively.