International Civil Aviation Organization

NINTH MEETING OF THE ASIA AND PACIFIC METEOROLOGICAL REQUIREMENTS WORKING GROUP (MET/R WG/9)

Web-conference, 07 May 2020 and 11 – 14 May 2020

Agenda Item 4: MET information required to support end-user systems

CURRENT STATUS OF INDONESIAN SIGMET COORDINATION WITH NEIGHBOURING FIRs

(Presented by Indonesia)

SUMMARY

This paper presents the progress, outcomes, and plans for the development of SIGMET coordination activities between Indonesia and its neighbouring FIRs. BMKG Indonesia is delighted to extend the SIGMET information harmonization with other potential FIRs.

1. INTRODUCTION

1.1 The 28th Meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/28) held in 2017 adopted a Conclusion APANPIRG/28/30 to foster SIGMET coordination activities in the APAC region.

> **Conclusion APANPIRG/28/30 - SIGMET coordination in the APAC Region**
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> That, States and Administrations are encouraged to:
> a) Participate in cross-FIR-boundary SIGMET coordination on a bilateral or multilateral basis for seamless hazardous weather information for the benefit of aviation users, as well as advancing the capabilities of participating Meteorological Watch Offices in the issuance of SIGMETs for cross-border hazardous weather phenomena; and
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> b) Continue to share outcomes from SIGMET coordination activities and consider a step-by-step integration of SIGMET coordination activities in the region when operationally ready.

1.2 SIGMET coordination is subjected to become a recommended practice in the Amendment 79 of ICAO Annex 3, which will become applicable on 5 November 2020.

1.3 Indonesia FIRs border with 10 international FIRs, i.e. Singapore, Kuala Lumpur and Kota Kinabalu (Malaysia), Manila (Philippines), Oakland Oceanic (USA), Port Moresby (PNG), Brisbane and Melbourne (Australia), Colombo (Sri Lanka), and Chennai (India).

1.4 A number of SIGMET coordination activities has been carried out between Indonesian MWOs and the neighbouring FIRs through MWOs, which include the full operational phase and trial phase. Most of the coordination activities have been focused on thunderstorms SIGMET and considered to progress forward to other phenomena.

1.5 In view of the positive outcomes of the above activities, Indonesia is delighted to extend the SIGMET information harmonization with the neighbouring FIRs as recommended by ICAO regional and discussed among the aviation community in the region.

2. DISCUSSION

Current status of SIGMET coordination with neighbouring FIRs

2.1 Indonesia (BMKG) has been participating in cross-FIR-border SIGMET coordination with Singapore (MSS), Malaysia (MMD), and Viet Nam (VATM) in a coordination project namely Southeast Asia Operational SIGMET Coordination (OSC) which is conducted under the OSC's Guiding Principles of Cooperation and SIGMET Coordination Procedures. This coordination has been fully operational since August 2017 and was firstly initiated in 2016. Communication means in the consultation and coordination process on the SIGMET phenomena between forecasters are conducted using web-based platforms provided by Japan Meteorological Agency (JMA) and Hong Kong Observatory (HKO).

2.2 Indonesia (BMKG) and Australia (BoM Australia) conducted a short-term SIGMET coordination trial on 12 to 25 November 2018 using HKO web-tool. The phase-2 short-term trial using JMA web-tool is scheduled on the next Southern Hemisphere wet season when the thunderstorms move south of the equator.

2.3 During the Asia Pacific Volcanic Ash Exercise 19/02 conducted on September 2019, Indonesia (BMKG) and Philippines (PAGASA) exercised the cross-border volcanic ash SIGMET using JMA web-tool. The exercise was a great start of volcanic ash SIGMET coordination trial. BMKG Indonesia further recommends to further set up to another trial to the SIGMET coordination and progress next-step activities.

2.4 Indonesia (BMKG) and Sri Lanka (DoMSL) are on the trial phase of SIGMET coordination in a project namely South and South-eastern Asia (SSEA) SIGMET Coordination coordinated by Hong Kong (HKO). SSEA was kicked off on 8 November 2019 and was trialled in a period starting from 2 December 2019 to 1 March 2020. Participating agencies agreed to further extend the trial for three months to 1 June 2020.

Outcomes

2.5 SIGMET coordination and trial have benefited forecasters to have closer interaction and collaboration with forecasters in the neighbouring FIRs as well as impacted positively on SIGMET issuances which would be useful for the aviation users. Coordination activities have also facilitated forecasters to improve common situation awareness.

2.6 Learned from the past coordination and trial activities, some lessons from the SIGMET coordination have improved which include the understanding of each other's thunderstorm SIGMET criteria of issuance and getting familiar with the coordination procedures as well as consultation process and meeting the consensus.

Future Plans

2.7 BMKG Indonesia is delighted to extend the SIGMET information harmonization with other neighbouring FIRs. This effort would rather be useful to the end-users to obtain higher quality of information on hazardous phenomena over the international enroute and to achieve seamless production of SIGMET information across FIR borders.

2.8 With regards to the trial-phase activities in SIGMET coordination, BMKG Indonesia is looking forward to further enhance participation and coordination of SIGMETs in the future.

2.9 In view of the positive outcomes of SIGMET coordination and trial on the thunderstorm SIGMET, forecasters have extended the discussion to not only the thunderstorm coverage, but also other parameters like top cloud height and thunderstorm movement.

3. ACTION BY THE MEETING

3.1 Discuss potential SIGMET coordination with other neighbouring FIRs.

3.2 Note the information contained in this paper.

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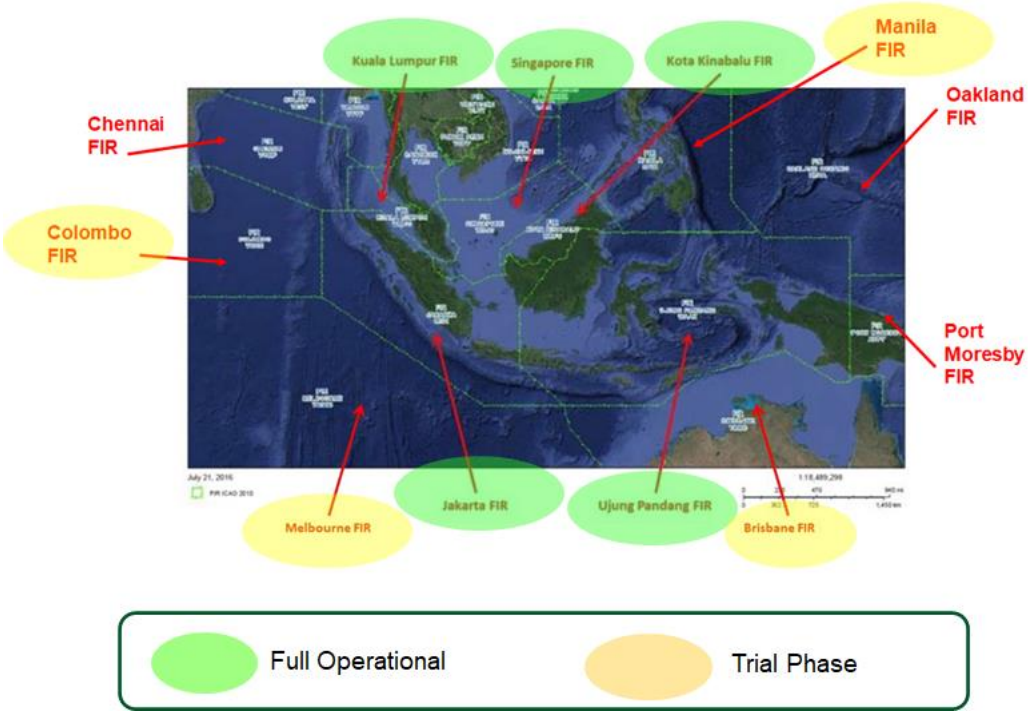

Figure 1. A map showing current status of SIGMET Coordination between Indonesia and the neighbouring FIRs