

International Civil Aviation Organization



ICAO

INFORMATION PAPER (IP/08)

ICAO Asia and Pacific (APAC)
Twenty-Eighth Meeting of the Meteorology Sub-Group
(MET SG/28)

Bangkok, Thailand, 8 to 12 July 2024

Agenda Item 6: Research, development, and other initiatives

JOINT PROVISION OF SIGMET BY MWO JAKARTA AND MWO SINGAPORE WITHIN PORTIONS OF THE JAKARTA FIR

(Presented by Indonesia and Singapore)

SUMMARY

This paper presents the joint provision of SIGMET by the Meteorological Watch Office (MWO) Jakarta and MWO Singapore within portions of the Jakarta Flight Information Region (FIR).

1. INTRODUCTION

1.1 The Government of the Republic of Indonesia and the Government of the Republic of Singapore signed an agreement on the realignment of the boundary between the Jakarta FIR and the Singapore FIR. The Agreement entered into force on **21 March 2024**. Under the Agreement, the boundary between the Jakarta FIR and the Singapore FIR has been realigned (Appendix A).

1.2 Concurrent with the realignment of the boundary between the Jakarta FIR and the Singapore FIR, Indonesia delegated to Singapore the provision of air navigation services within portions of the Jakarta FIR (Appendix A), wherein the aeronautical meteorological services (“MET”) are jointly provided as agreed in the coordination procedure between Indonesia and Singapore MET Authorities including the issuance of SIGMET.

2. DISCUSSION

2.1 Indonesia and Singapore have developed the procedure for joint provision of SIGMET by MWO Jakarta and MWO Singapore as follows:

- a. Joint provision of SIGMET is conducted when the significant meteorological phenomena occur within the portion of Jakarta FIR stated in Appendix A;
- b. SIGMETs are issued by both Jakarta MWO and Singapore MWO must be harmonized;
- c. Where there are differences in assessments of SIGMET parameters, the more conservative parameters will be adopted; and

- d. The coordination process for SIGMET issuance must be done within 15 minutes from the point of initiation of coordination.

2.2 To facilitate the issuance of harmonized SIGMET within the portions of the Jakarta FIR, the Japan Meteorological Agency (JMA) and Hong Kong Observatory (HKO) were requested to make modifications to the SIGMET coordination platform. An example of the joint provision of SIGMET by MWO Jakarta and MWO Singapore using the SIGMET coordination platform is given in Appendix B.

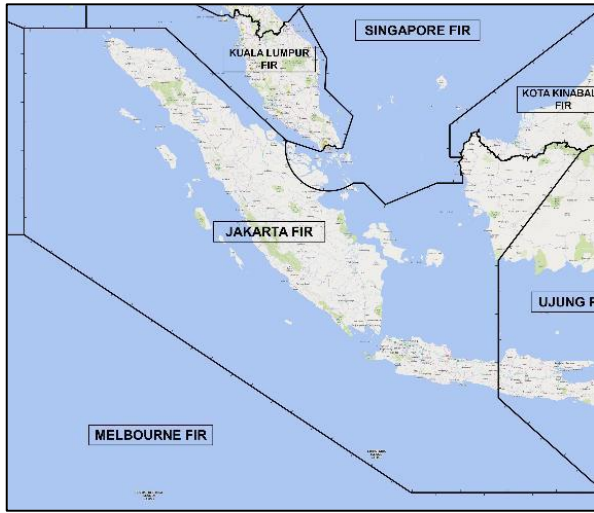
2.3 The experience from this coordination procedure bring benefit to both MWOs such as to enhance the understanding of the respective viewpoints in assessing significant weather phenomena. The arrangements also helped ensure that SIGMET information at the border area between FIR Jakarta and Singapore were well harmonized, since there was a need for consensus on the parameters.

3. ACTION BY THE MEETING

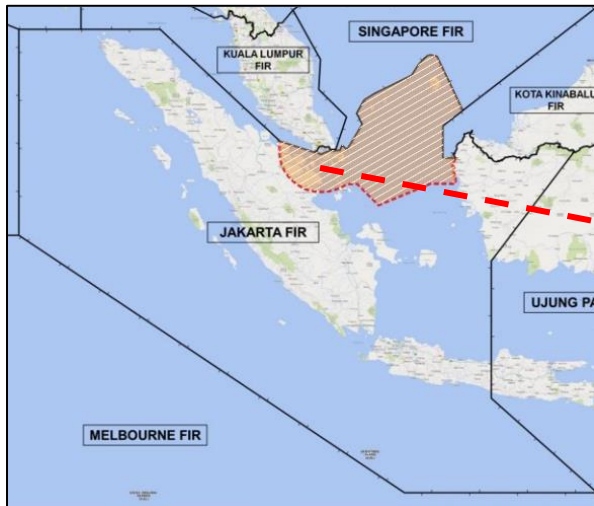
- 3.1 Note the information contained in this paper.

APPENDIX A: Realignment between Jakarta FIR and Singapore FIR and the Area of Joint Provision of SIGMET

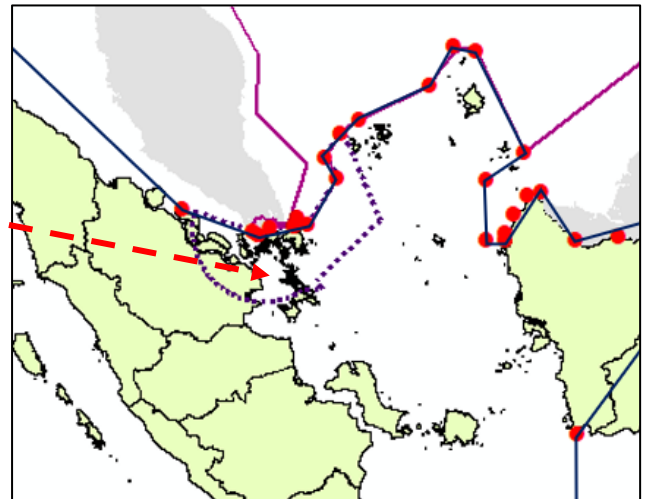
Before 21 March 2024



After 21 March 2024

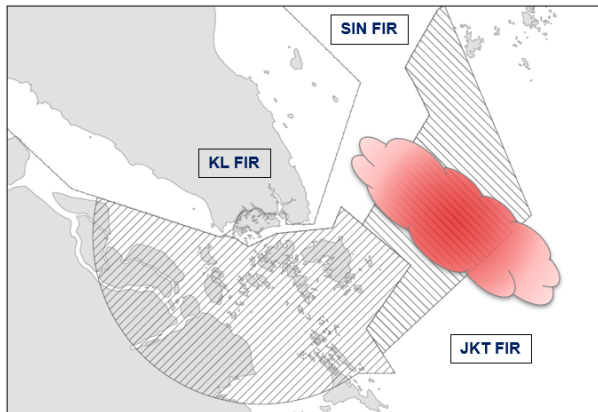


Area of joint provision of SIGMET



APPENDIX B: Example of Joint Provision of SIGMET by MWO Jakarta and MWO Singapore within the portions of the Jakarta FIR

- Significant weather phenomena (Embedded Thunderstorm) extends over a portion of airspace that straddles both SIN and JKT FIR, including the portions of the Jakarta FIR
 - Area: N0219 E10455 – N0219 E10522 – N0125 E10617 – N0110 E10715 – N0040 E10630 – N0048 E10537 – N0120 E10446 – N0129 E10435 – N0219 E10455
 - Validity time: 7 Feb 0800-1100UTC
 - Movement: East- North Easterly 8 knots
 - Intensity: Weakening
 - Vertical extension: FL520



SIGMETs to be issued :

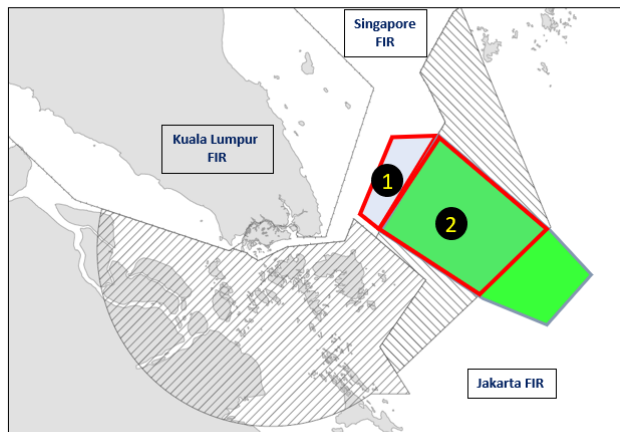
- MWO Jakarta will issue the following SIGMET:

WIIF SIGMET 01 VALID 070800/071100 WIII-
WIIF JAKARTA FIR EMBD TS OBS WI N0219 E10522 –
N0125 E10617 – N0110 E10715 – N0040 E10630 –
N0048 E10537 – N0120 E10446 – N0219 E10522
TOP FL520 MOV ENE 8KT WKN

- MWO Singapore will issue the following SIGMETs:

1 WSJC SIGMET A01 VALID 070800/071100 WSSS-
WSJC SINGAPORE FIR EMBD TS OBS WI N0219
E10522 – N0120 E10446 – N0129 E10435 – N0219
E10455 – N0219 E10522 TOP FL520 MOV ENE 08KT
WKN

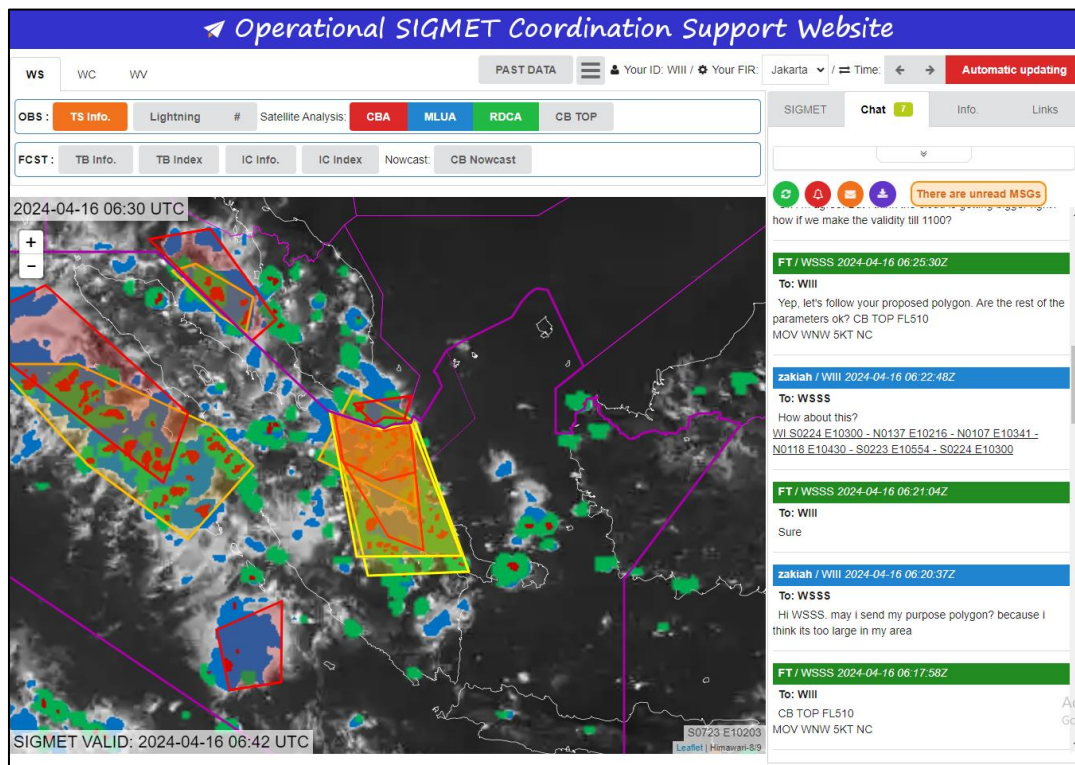
2 WSJC SIGMET B01 VALID 070800/071100 WSSS-
WIIF JAKARTA FIR EMBD TS OBS WI N0120 E10446 –
N0219 E10522 – N0125 E10617 – N0048 E10537 –
N0120 E10446 TOP FL520 MOV ENE 08KT WKN



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Study Case: 16th April 2024

1. SIGMET Coordination Platform showed the notification of the coverage area of WS SIGMET at the portion of Jakarta FIR



2. MWO Jakarta and MWO Singapore coordinated to harmonize the SIGMET

FT / WSSS 2024-04-16 06:17:26Z

To: WIII

Hi WIII, we are planning to extent SIGMET B1 from 0700/1000, with a larger SIGMET area WI S0255 E10319 - N0138 E10217 - N0105 E10341 - N0118 E10438 - S0249 E10606 - S0255 E10319

FT / WSSS 2024-04-16 06:17:58Z

To: WIII

CB TOP FL510
MOV WNW 5KT NC

zakiah / WIII 2024-04-16 06:20:37Z

To: WSSS

Hi WSSS. may i send my purpose polygon? because i think its too large in my area

FT / WSSS 2024-04-16 06:21:04Z

To: WIII

Sure

zakiah / WIII 2024-04-16 06:22:48Z

To: WSSS

How about this?
WI S0224 E10300 - N0137 E10216 - N0107 E10341 - N0118 E10430 - S0223 E10554 - S0224 E10300

FT / WSSS 2024-04-16 06:25:30Z

To: WIII

Yep, let's follow your proposed polygon. Are the rest of the parameters ok? CB TOP FL510
MOV WNW 5KT NC

zakiah / WIII 2024-04-16 06:28:06Z

To: WSSS

Ok i m agree. But i think the cloud is getting bigger right? how if we make the validity till 1100?

FT / WSSS 2024-04-16 06:30:10Z

To: WIII

sure

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- After discussion and adjustment, MWO Jakarta and MWO Singapore issued WS SIGMET with similar parameters

MWO Jakarta SIGMET

WSID20 WIII 160639
WIIIF SIGMET 04 VALID 160700/161100 WIII-
WIIIF JAKARTA FIR EMBD TS OBS WII S0224 E10300 -
N0137 E10216 - N0107 E10341 - N0118 E10430 -
S0223 E10554 - S0224 E10300 TOP FL510 MOV WNW
5KT NC=

SIGMET VALID: 2024-04-16 06:48 UTC

Chat messages:
zakiah / WIII 2024-04-16 06:41:14Z
To: WSSS
thanks for the coordination ;)
FT / WSSS 2024-04-16 06:36:59Z
To: WIII
all ok. Thanks
zakiah / WIII 2024-04-16 06:36:24Z
To: WSSS
validity 0700/1100
CB TOP FL510
MOV WNW 5KT NC
ok?
FT / WSSS 2024-04-16 06:35:03Z
To: WIII
yup
zakiah / WIII 2024-04-16 06:34:16Z
To: WSSS
we still use this one right?
WII S0224 E10300 - N0137 E10216 - N0107 E10341 -
N0118 E10430 - S0223 E10554 - S0224 E10300

MWO Singapore SIGMET

WSSR20 WSSS 160643
WSJC SIGMET B2 VALID 160700/161100 WSSS-
WIIIF JAKARTA FIR EMBD TS OBS WII N0106 E10338 -
N0117 E10427 - N0011 E10456 - S0016 E10340 -
N0025 E10233 - N0133 E10221 - N0106 E10338 TOP
FL510 MOV WNW 05KT NC=

SIGMET VALID: 2024-04-16 06:51 UTC

Chat messages:
zakiah / WIII 2024-04-16 06:41:14Z
To: WSSS
thanks for the coordination ;)
FT / WSSS 2024-04-16 06:36:59Z
To: WIII
all ok. Thanks
zakiah / WIII 2024-04-16 06:36:24Z
To: WSSS
validity 0700/1100
CB TOP FL510
MOV WNW 5KT NC
ok?
FT / WSSS 2024-04-16 06:35:03Z
To: WIII
yup
zakiah / WIII 2024-04-16 06:34:16Z
To: WSSS
we still use this one right?
WII S0224 E10300 - N0137 E10216 - N0107 E10341 -
N0118 E10430 - S0223 E10554 - S0224 E10300

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