



ICAO

International Civil Aviation Organization

WORKING PAPER

**Asia and Pacific (APAC)
Twentieth Meeting of the Meteorological Information
Exchange Working Group (MET/IE WG/20)**

Online, 28 to 30 March 2022

**Conjoint session
Agenda Item 2: SIGMET tests**

REVIEW OF WS SIGMET TEST 2021

(Presented by Singapore)

SUMMARY

This paper presents the analysis of the data collected during the WS SIGMET Test that was conducted on 22 December 2021.

1. INTRODUCTION

1.1 The MET Divisional Meeting (2002) formulated Recommendation 1/12 b), *Implementation of SIGMET requirements*, which called, *inter alia*, for the relevant Planning and Implementation Regional Groups (PIRGs) to conduct periodic tests on the issuance and reception of SIGMET messages, particularly those for volcanic ash.

1.2 Information on the requirements for the dissemination and exchange of SIGMET is published in the Asia/Pacific Regional SIGMET Guide (8th edition Nov 2020). This document also outlines the procedures for conducting SIGMET tests. The test procedures encompass the three types of SIGMETs, namely

- SIGMET for Volcanic ash (WV SIGMET)
- SIGMET for Tropical cyclones (WC SIGMET)
- SIGMET for other weather phenomena (WS SIGMET)

2. DISCUSSION

2.1 WS SIGMET Test 2021 data

2.1.1 The WS SIGMET Test 2021 was conducted on 22 December 2021.

2.1.2 RODB Bangkok, RODB Brisbane, RODB Tokyo, RODB Nadi, RODB Singapore and the Regional OPMET Centre (ROC) London provided reception summaries of the WS SIGMET Test 2021

to RODB Singapore, who is the WS SIGMET test focal point in the Asia/Pacific region. The summarized data reception of the five Asia/Pacific RODBs and ROC London are shown in Appendix 1.

2.2 Test result and data analysis

2.2.1 State and MWO Issuance

- 23 of the possible 29 States listed in the Asia/Pacific SIGMET Guide participated in WS SIGMET Test 2021
- Two States (Afghanistan and Papua New Guinea (for Port Moresby FIR)) have yet to participate in any WS SIGMET Tests to date
- 42 of the possible 49 WS SIGMET test messages were issued by the MWOs in the WS SIGMET Test 2021
- The following six States did not issue WS SIGMET test messages in 2021:

1	Afghanistan, Kabul (OAKB)
2	Maldives, Male (VRMM)
3	Myanmar, Yangon (VYYY)
4	Nauru, Nauru (ANYN)
5	Papua New Guinea, Port Moresby (AYPY)
6	Philippines, Manila (RPLL)

Table 1: States that did not participate in WS SIGMET Test 2020/21

2.3 WS Test SIGMET Reception

2.3.1 42 WS SIGMET Test messages were issued by the MWOs in WS SIGMET Test 2021. The reception of WS test SIGMET by the five Asia/Pacific RODBs and ROC London is shown in Figure 1 and listed in Table 2 below:

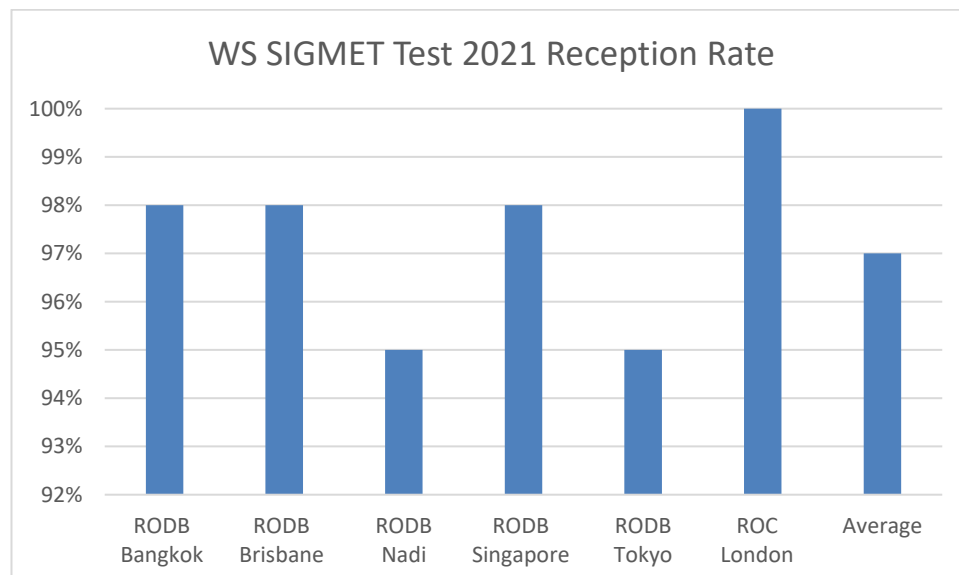


Figure 1: WS SIGMET Test 2021 Reception Rate

WS SIGMET Test 15	RODB Bangkok	RODB Brisbane	RODB Nadi	RODB Singapore	RODB Tokyo	ROC London	Total
Number of Reception	41 of 42	41 of 42	40 of 42	41 of 42	40 of 42	42 of 42	245 of 252
Percentage of Reception	98%	98%	95%	98%	95%	100%	97%

Table 2: Asia Pacific RODBs' and ROC London's Reception of WS Test SIGMET

3. CONCLUSION

3.1 Six of the 29 States, namely Afghanistan, Maldives, Myanmar, Nauru, Papua New Guinea and Philippines did not participate in WS SIGMET Test 2021. The State participation rate was 79%, the same with WS SIGMET test 2020 result.

3.2 42 out of the possible 49 WS test SIGMET messages were received during the test. The overall availability of 86% was three percent lower than the WS SIGMET Test 2020 result of 89%.

3.3 The average reception rate of the WS test SIGMET messages of the five Asia/Pacific RODBs and ROC London was 97%, one percent higher than the WS SIGMET test 2020 result.

3.4 Table 3 compares the results of WS SIGMET Tests 2020 and 2021:

Asia/Pac Region	2020 WS SIGMET Test	2021 WS SIGMET Test
State participation	23 out of 29 (79%)	23 out of 29 (79%)
Test SIGMETs issued	48 out of 54 (89%)	42 out of 49 (86%)
RODB reception	276 out of 288 (96%)	245 out of 252 (97%)

Table 3: Comparison of WS SIGMET Test 2020 and 2021 Results

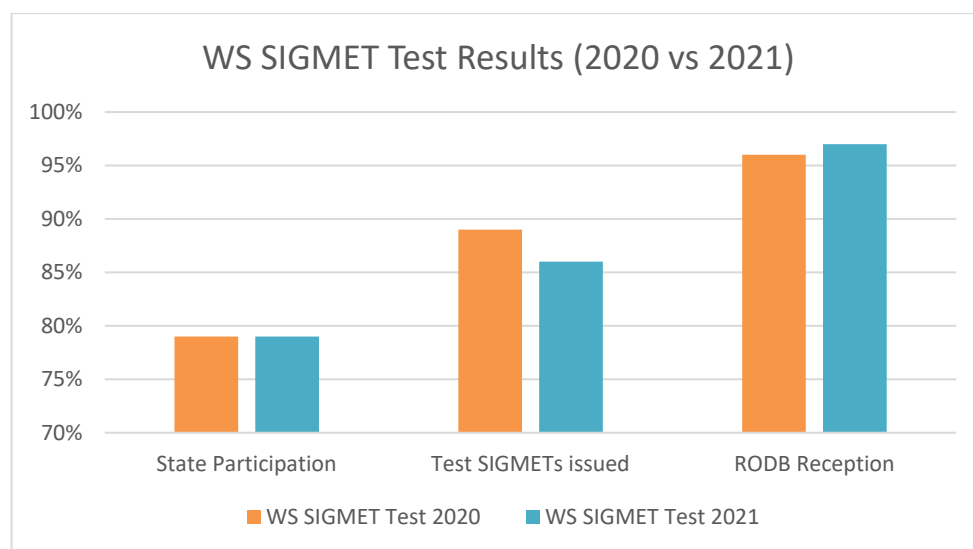


Figure 2: Comparison of WS SIGMET Test 2020 and 2021 Results

4. ACTION REQUIRED BY THE MEETING

4.1 The meeting is invited to discuss the following:

- a) the results of the WS SIGMET test presented above; and
- b) the necessary follow-up issues arising from the WS SIGMET Test 2021.

State	Meteorological Watch Office (MWO)		SIGMET Guide			Transmitted Header						RODB and EUR ROC Reception						Remark
	Location	MWO	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGGgg	MWO	FIR	VTBB	YBBN	WSSS	RJTD	NFFN	EBBR	
Afghanistan	KABUL	OAKB	WSAH31	OAKB	OAKX													
Australia	BRISBANE	YBRF	WSAU21	YBRF	YBBB	FF	WSAU21	YBRF	220212	YBRF	YBBB	02:13	02:14	02:13	02:13	02:13	02:13	
	MELBOURNE (RFC)	YMRF	WSAU21	YMRF	YMMM	FF	WSAU21	YMRF	220206	YMRF	YMMM	02:07	02:08	02:07	02:07	02:07	02:07	
	MELBOURNE (WMC)	YMMC	WSAU21	YMMC	YMMM													
Bangladesh	DHAKA	VGHS	WSBW20	VGHS	VGFR	FF	WSBW20	VGHS	220200	VGHS	VGFR	02:01	02:02	02:01	02:01	02:01	02:02	
Cambodia	PHNOM PENH	VDPP	WSKP31	VDPP	VDPP	FF	WSKP31	VDPP	220200	VDPP	VDPP	02:00	02:02	02:00	02:00	02:00	02:01	
China	BEIJING	ZBAA	WSC133	ZBAA	ZBPE	FF	WSC133	ZBAA	220200	ZBAA	ZBPE	02:03	02:04	02:02	02:02	02:02	02:03	
	GUANGZHOU	ZGGG	WSC135	ZGGG	ZGZU	FF	WSC135	ZGGG	220205	ZGGG	ZGZU	02:01	02:02	02:00	02:00	02:01	02:01	
	CHENGDU	ZUUU	WSC136	ZUUU	ZPKM	FF	WSC136	ZUUU	220201	ZUUU	ZPKM	02:01	02:02	02:01	02:01	02:01	02:02	
	HAIKOU	ZJHK	WSC135	ZJHK	ZJSA	FF	WSC135	ZJHK	220201	ZJHK	ZJSA	02:02	02:03	02:02	02:02	02:02	02:03	
	HONG KONG	VHHH	WSSS20	VHHH	VHHK	FF	WSSS20	VHHH	220200	VHHH	VHHK	02:01	02:02	02:01	02:01	02:00	02:02	
	SHANGHAI	ZSSS	WSC134	ZSSS	ZSHA	FF	WSC134	ZSSS	220200	ZSSS	ZSHA	02:00	02:02	02:00	02:00	02:00	02:01	
	SHENYANG	ZYTX	WSC138	ZYTX	ZYSH	FF	WSC138	ZYTX	220205	ZYTX	ZYSH	02:01	02:03	02:01	02:01	02:01	02:02	
	TAIBEI	RCTP	WSC131	RCTP	RCAA	FF	WSP131	RCTP	220205	RCTP	RCAA	02:05	02:06	02:06		02:04	02:07	
	URUMQI	ZWWW	WSC139	ZWWW	ZWUQ	FF	WSC139	ZWWW	220202	ZWWW	ZWUQ	02:02	02:03	02:02	02:02	02:02	02:03	
	WUHAN	ZHHH	WSC145	ZHHH	ZHWH	FF	WSC145	ZHHH	220200	ZHHH	ZHWH	02:02	02:03	02:02		02:00	02:03	
	XTAN	ZLXY	WSC137	ZLXY	ZLHW	FF	WSC137	ZLXY	220200	ZLXY	ZLHW	02:01	02:02	02:01	02:01	02:00	02:02	
DPR Korea	SUNAN	ZKPY	WSKR31	ZKPY	ZKKP	FF	WSKR31	ZKPY	220205	ZKPY	ZKKP	02:05	02:06	02:04	02:04	02:05	02:06	
Fiji	NADI	NFFN	WSFJ01,02..	NFFN	NFFF	FF	WSFJ01	NFFN	220205	NFFN	NFFF	02:05	02:06	02:05	02:05	02:05	02:07	
French Polynesia	TAHITI	NTAA	WSPF21,22	NTAA	NTTT	FF	WSPF21	NTAA	220205	NTAA	NTTT	02:05	02:06	02:05	02:05	02:05	02:06	
India	CHENNAI	VOMM	WSIN31	VOMM	VOMF	FF	WSIN31	VOMM	220200	VOMM	VOMF	02:00	02:05	02:00	02:00	02:00	02:01	
	KOLKATA	VECC	WSIN31	VECC	VECF	FF	WSIN31	VECC	220200	VECC	VECF	02:10	02:12	02:10	02:10	02:10	02:13	
	MUMBAI	VABB	WSIN31	VABB	VABF	FF	WSIN31	VABB	220200	VABB	VABF	02:01	02:02	02:00	02:00	02:00	02:01	
	NEW DELHI	VIDP	WSIN31	VIDP	VIDF	FF	WSIN31	VIDP	220200	VIDP	VIDF	02:00	02:02	02:00	02:00	02:00	02:01	
Indonesia	JAKARTA	WIII	WSID20	WIII	WIIZ	FF	WSID20	WIII	220210	WIII	WIIZ	02:10	02:12	02:10	02:20	02:20	02:11	
	MAKASSAR	WAAA	WSID21	WAAA	WAAZ	FF	WSID21	WAAA	220200	WAAA	WAAZ	02:01	02:02	02:01	02:01	02:01	02:02	
Japan	TOKYO	RJTD	WSJP31	RJTD	RJJJ	FF	WSJP31	RJTD	220205	RJTD	RJJJ	02:05	02:06	02:05	02:05	02:05	02:06	
Lao PDR	VIENTIANE	VLVT	WSLA31	VLVT	VLVT	FF	WSLA31	VLVT	220200	VLVT	VLVT	02:01	02:02	02:01	02:01	02:01	02:02	
Malaysia	KUALA LUMPUR	WMKK	WSMS31	WMKK	WMFC	FF	WSMS31	WMKK	220200	WMKK	WMFC	02:02	02:03	02:02	02:02	02:02	02:03	
Maldives	MALE	VRMM	WSMV31	VRMM	VRMF													
Mongolia	ULAANBAATAR	ZMUB	WSMO31	ZMUB	ZMUB	FF	WSMO31	ZMUB	220200	ZMUB	ZMUB				02:03		02:04	
Myanmar	YANGON	VYYY	WSBM31	VYYY	VYYY													
Nauru	NAURU	ANYN	WSNW20	ANYN	ANAU													
Nepal	KATHMANDU	VNKT	WSNP31	VNKT	VNSM	FF	WSNP31	VNKT	220200	VNKT	VNSM	02:00	02:02	02:00	02:00	02:00	02:01	
New Zealand	WELLINGTON	NZKL	WSNZ21	NZKL	NZZC	FF	WSNZ21	NZKL	220141	NZKL	NZZC	02:00	02:02	02:00	02:00	02:00	02:02	
	WELLINGTON	NZKL	WSPS21	NZKL	NZZO	FF	WSPS21	NZKL	220137	NZKL	NZZO	02:00	02:02	02:00	02:00	02:00	02:01	
Pakistan	KARACHI	OPKC	WSPK31	OPKC	OPKR	FF	WSPK31	OPKC	220200	OPKC	OPKR	02:01	02:03	02:01	02:01	02:01	02:02	
	LAHORE	OPLA	WSPK31	OPLA	OPLR	FF	WSPK31	OPLA	220200	OPLA	OPLR	02:01	02:03	02:01	02:01	02:01	02:02	
Papua New Guinea	PORT MORESBY	AYPY	WSNG20	AYPY	AYPY													
Philippines	MANILA	RPLL	WSPH31	RPLL	RPHI													
Republic of Korea	INCHEON	RKSI	WSKO31	RKSI	RKRR	FF	WSKO31	RKSI	220205	RKSI	RKRR	02:02	02:03	02:02	02:02	02:01	02:03	
Singapore	SINGAPORE	WSSS	WSSR20	WSSS	WSJC	FF	WSSR20	WSSS	220203	WSSS	WSJC	02:03	02:05	02:03	02:03	02:03	02:04	
Solomon Islands	HONIARA	AGGH	WSSO20	AGGH	AGGG	FF	WSSO20	AGGH	220200	AGGH	AGGG	02:06	02:07	02:03	02:04	02:06	02:07	
Sri Lanka	COLOMBO	VCBI	WSSB31	VCBI	VCBI	FF	WSSB31	VCBI	220230	VCBI	VCCF	02:40	02:41	02:40	02:40	02:40	02:41	
Thailand	BANGKOK	VTBS	WSTH31	VTBS	VTBB	FF	WSTH31	VTBS	220200	VTBS	VTBB	02:01	02:02	02:00	02:00	02:00	02:01	
United States	HONOLULU	PHFO	WSPA01-13	PHFO	KZAK	FF	WSPA01	PHFO	220200	PHFO	KZAK	02:01	02:02	02:00	02:00	02:00	02:03	
	KANSAS CITY	KKCI	WSPN01-13	KKCI	KZAK	FF	WSPN01	KKCI	220202	KKCI	KZAK	02:03	02:04	02:02	02:02		02:03	
Vietnam	GIA LAM	VVGL	WSVS31	VVGL	VVNB	FF	WSVS31	VVGL	220200	VVGL	VVNH	02:00	02:02	02:00	02:00	02:00	02:01	
	GIA LAM	VVGL	WSVS31	VVGL	VVTS	FF	WSVS31	VVGL	220202	VVGL	VVNH	02:02	02:02	02:02	02:02	02:02	02:03	