

International Civil Aviation Organization



ICAO

WORKING PAPER

**Conjoint session
Nineteenth Meeting of the Meteorological Information
Exchange Working Group (MET/IE WG/19)
and
Eleventh Meeting of the Meteorological Services
Working Group (MET/S WG/11)**

Virtual meeting, 24 March 2021

Agenda Item 2 (conjoint session): SIGMET tests

REVIEW OF WS SIGMET TEST 2020

(Presented by Singapore)

SUMMARY

This paper presents the analysis of the data collected during the WS SIGMET Test that was conducted on 16 December 2020.

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 (7th edition Oct 2019). 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 2020 data

2.1.1 The WS SIGMET Test 2020 was conducted on 16 December 2020.

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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 2020 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**

- A total of 23 of the possible 29 States listed in the Asia/Pacific SIGMET Guide participated in WS SIGMET Test 2020
- A total of 2 States (Afghanistan and Papua New Guinea (for Port Moresby FIR)) have yet to participate in any WS SIGMET Tests to date
- A total of 48 of the possible 54 WS SIGMET Test messages were issued by the MWOs in the WS SIGMET Test 2020
- The following 6 MWOs did not issue WS SIGMET Test messages in 2020:

1	Afghanistan, Kabul (OAKB)
2	DPR Korea, Sunan (ZKPY)
3	Fiji, Nadi (NFFN)
4	Papua New Guinea, Port Moresby (AOPY)
5	Maldives, Male (VRMM)
6	Nauru, Nauru (ANYN)

Table 1: MWOs that did not participate in WS SIGMET Test 2020

2.3 **WS Test SIGMET Reception**

2.3.1 48 WS SIGMET Test messages were issued by the MWOs in WS SIGMET Test 2020. 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:

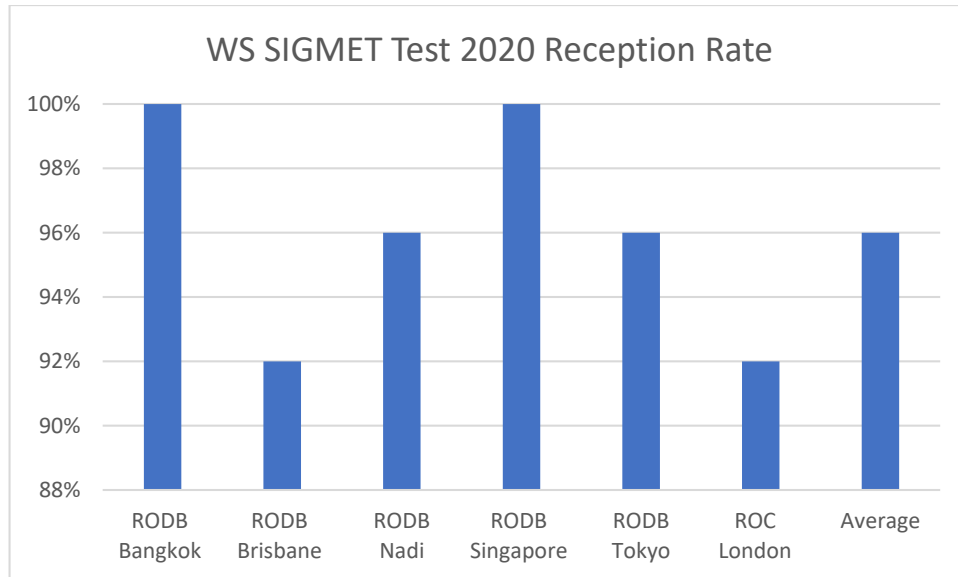


Figure 1: WS SIGMET Test 2020 Reception Rate

WS SIGMET Test 15	RODB Bangkok	RODB Brisbane	RODB Nadi	RODB Singapore	RODB Tokyo	ROC London	Total
Number of Reception	48 of 48	44 of 48	46 of 48	48 of 48	46 of 48	44 of 48	276 of 288
Percentage of Reception	100%	92%	96%	100%	96%	92%	96%

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

3. CONCLUSION

3.1 6 of the 29 States, namely Afghanistan, DPR Korea, Fiji, Papua New Guinea, Maldives and Nauru did not participate in WS SIGMET Test 2020. The State participation rate was 79%. This was four percent lower than that in the WS SIGMET Test 2019.

3.2 48 out of the possible 54 WS test SIGMET messages were received during the test. The overall availability of 89% was two percent lower than the WS SIGMET Test 2019 result of 91%.

3.3 The average reception rate of the WS test SIGMET messages of the five Asia/Pacific RODBs and ROC London was 96%, the same with WS SIGMET test 2019 result.

3.4 Table 3 compares the results of WS SIGMET Tests 2019 and 2020:

Asia/Pac Region	2019 WS SIGMET Test	2020 WS SIGMET Test
State participation	24 out of 29 (83%)	23 out of 29 (79%)
Test SIGMETs issued	53 out of 58 (91%)	48 out of 54 (89%)
RODB reception	254 out of 265 (96%)	276 out of 288 (96%)

Table 3: Comparison of WS SIGMET Test 2019 and 2020 Results

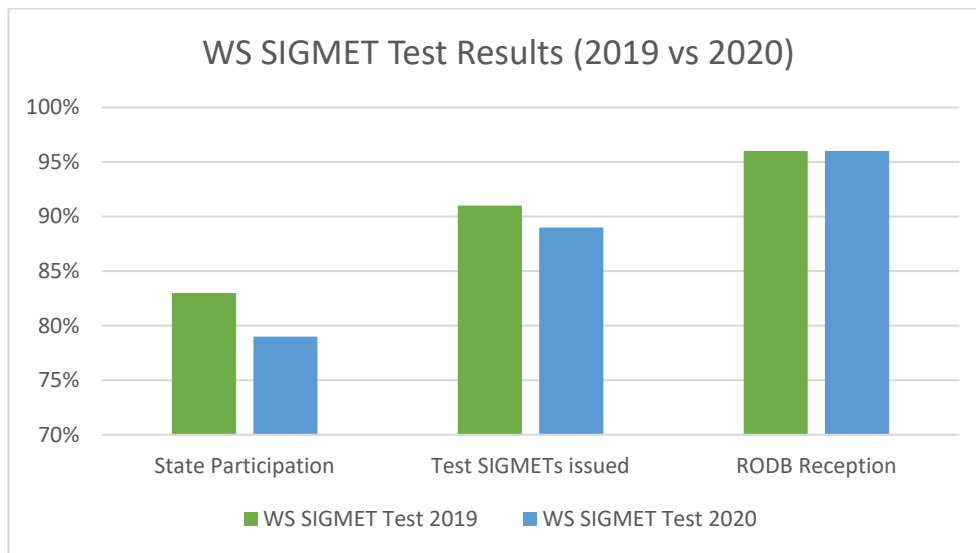


Figure 2: Comparison of WS SIGMET Test 2019 and 2020 Results

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 2020.

State	Meteorological Watch Office (MWO)	SIGMET Guide				Transmitted Header						RODB and EUR ROC Reception						Remark
	Location	MWO	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGGg	MWO	FIR	VTBB	YBBN	WSSS	RJTD	NFFN	EBBR	
Afghanistan	KABUL	OAKB	WSAH31	OAKB	OAKX													
Australia	BRISBANE	YBRF	WSAU21	YBRF	YBBB	FF	WSAU21	YBRF	160201	YBRF	YBBB	02:01	02:03	02:01	02:01	02:01	02:02	
	BRISBANE	YBRF	WSAU21	YBRF	YMMM	FF	WSAU21	YBRF	160205	YBRF	YMMM	02:05	02:07	02:05	02:05	02:05	02:07	
	MELBOURNE (RFC)	YMRP	WSAU21	YMRP	YBBB	FF	WSAU21	YMRP	160200	YMRP	YBBB	02:00	02:02	02:00	02:00	02:00	02:01	
	MELBOURNE (RFC)	YMRP	WSAU21	YMRP	YMMM	FF	WSAU21	YMRP	160200	YMRP	YMMM	02:00	02:02	02:00	02:00	02:01	02:02	
	MELBOURNE (WMC)	YMMC	WSAU21	YMMC	YBBB	FF	WSAU21	YMMC	160208	YMMC	YBBB	02:08	02:10	02:09	02:08	02:08	02:10	
MELBOURNE (WMC)	YMMC	WSAU21	YMMC	YMMM	FF	WSAU21	YMMC	160210	YMMC	YMMM	02:10	02:11	02:10	02:10	02:10	02:11		
Bangladesh	DHAKA	VGHS	WSBW20	VGHS	VGFR	FF	WSBW20	VGHS	160200	VGHS	VGFR	02:00	02:01	02:00	02:00	02:00	02:00	
Cambodia	PHNOM PENH	VDPP	WSKP31	VDPP	VDPP	FF	WSKP31	VDPP	160225	VDPP	VDPP	02:32		02:32	02:32	02:31	02:33	
China	BEIJING	ZBAA	WSCI33	ZBAA	ZBPE	FF	WSCI33	ZBAA	160205	ZBAA	ZBPE	02:01	02:02	02:00	02:00	02:00	02:01	
	GUANGZHOU	ZGGG	WSCI35	ZGGG	ZGZU	FF	WSCI35	ZGGG	160205	ZGGG	ZGZU	02:03	02:04	02:02	02:02	02:03	02:03	
	CHENGDU	ZUUU	WSCI36	ZUUU	ZPKM	FF	WSCI36	ZUUU	160210	ZUUU	ZPKM	02:10	02:12	02:10	02:10	02:10	02:12	
	HAIKOU	ZJHK	WSCI35	ZJHK	ZJSA	FF	WSCI35	ZJHK	160204	ZJHK	ZJSA	02:04	02:05	02:04	02:03	02:04	02:05	
	HONG KONG	VHHH	WSSS20	VHHH	VHJK	FF	WSSS20	VHHH	160200	VHHH	VHJK	02:00	02:01	02:00	02:00	02:00	02:01	
	SHANGHAI	ZSSS	WSCI34	ZSSS	ZSHA	FF	WSCI34	ZSSS	160205	ZSSS	ZSHA	02:03	02:03	02:01	02:01	02:05	02:02	
	SHENYANG	ZYTX	WSCI38	ZYTX	ZYSH	FF	WSCI38	ZYTX	160205	ZYTX	ZYSH	02:05	02:07	02:05	02:05	02:00	02:06	
	TAIBEI	RCTP	WSCI31	RCTP	RCAA	FF	WSPI31	RCTP	160210	RCTP	RCAA	02:11	02:12	02:10	02:10	02:10	02:12	
	URUMQI	ZWWW	WSCI39	ZWWW	ZWUQ	FF	WSCI39	ZWWW	160202	ZWWW	ZWUQ	02:03	02:03	02:02	02:02	02:02	02:03	
	WUHAN	ZHHH	WSCI45	ZHHH	ZHWH	FF	WSCI45	ZHHH	160200	ZHHH	ZHWH	02:05	02:03	02:02		02:00	02:03	
	XI'AN	ZLXY	WSCI37	ZLXY	ZLHW	FF	WSCI37	ZLXY	160201	ZLXY	ZLHW	02:03	02:04	02:03	02:03	02:01		
DPR Korea	SUNAN	ZKPY	WSKR31	ZKPY	ZKPK													
Fiji	NADI	NFFN	WSFJ01.02...	NFFN	NFFF													
French Polynesia	TAHITI	NTAA	WSPF21.22	NTAA	NTTT	FF	WSPF99	NTAA	160211	NTAA	NTTT	02:12	02:13	02:11		02:11	02:13	Wrong header (ii=99 instead of 21)
India	CHENNAI	VOMM	WSIN31	VOMM	VOMF	FF	WSIN31	VOMM	160202	VOMM	VOMF	02:01	02:04	02:03	02:03	02:01	02:04	
	KOLKATA	VECC	WSIN31	VECC	VECF	FF	WSIN31	VECC	160200	VECC	VECF	02:00	02:02	02:00	02:00	02:00	02:01	
	MUMBAI	VABB	WSIN31	VABB	VABF	FF	WSIN31	VABB	160205	VABB	VABF	02:03	02:05	02:03	02:03	02:03	02:04	
	NEW DELHI	VIDP	WSIN31	VIDP	VIDF	FF	WSIN31	VIDP	160200	VIDP	VIDF	02:01	02:02	02:00	02:00	02:00	02:01	
Indonesia	JAKARTA	WIII	WSID20	WIII	WIIZ	FF	WSID20	WIII	160200	WIII	WIIZ	02:00	02:02	02:00	02:00	02:00	02:01	
	MAKASSAR	WAAA	WSID21	WAAA	WAAZ	FF	WSID21	WAAA	160205	WAAA	WAAZ	02:05	02:07	02:05	02:05	02:05	02:06	
Japan	TOKYO	RJTD	WSJP31	RJTD	RJJJ	FF	WSJP31	RJTD	160205	RJTD	RJJJ	02:05	02:06	02:05	02:05	02:05	02:06	
Lao PDR	VIENTIANE	VLVT	WSLA31	VLVT	VLVT	GG	WSLA31	VLVT	160200	VLVT	VLVT	02:27	02:28	02:00	02:27			Wrong priority
Malaysia	KUALA LUMPUR	WMKK	WSMS31	WMKK	WBFC	FF	WSMS31	WMKK	160200	WBKK	WBFC	02:00	02:02	02:00	02:00	02:00	02:01	
	KUALA LUMPUR	WMKK	WSMS31	WMKK	WMFC	FF	WSMS31	WMKK	160202	WMKK	WMFC	02:02	02:03	02:02	02:02	02:02	02:03	
Maldives	MALE	VRMM	WSMV31	VRMM	VRMF													
Mongolia	ULANBAATAR	ZMUB	WSMO31	ZMUB	ZMUB	FF	WSMO31	ZMUB	160200	ZMUB	ZMUB	02:00	02:01	02:00	02:00		02:01	
Myanmar	YANGON	VYYY	WSBM31	VYYY	VYYY	FF	WSBM31	VYYY	160200	VYYY	VYYF	01:59	02:01	01:59	01:59	02:00	02:00	
Nauru	NAURU	ANYN	WSNW20	ANYN	ANAU													
Nepal	KATHMANDU	VNKT	WSNP31	VNKT	VNSM	FF	WSNP31	VNKT	160201	VNKT	VNSM	02:01	02:02	02:01	02:01	02:01	02:01	
New Zealand	WELLINGTON	NZKL	WSNZ21	NZKL	NZZC	FF	WSNZ21	NZKL	160203	NZKL	NZZC	02:05	02:06	02:05	02:05	02:05	02:06	
	WELLINGTON	NZKL	WSPS21	NZKL	NZZO	FF	WSPS21	NZKL	160205	NZKL	NZZO	02:06	02:07	02:06	02:06	02:06	02:07	
Pakistan	KARACHI	OPKC	WSPK31	OPKC	OPKR	FF	WSPK31	OPKC	160200	OPKC	OPKR	02:00	02:02	02:00	02:00	02:00	02:01	
	LAHORE	OPLA	WSPK31	OPLA	OPLR	FF	WSPK31	OPLA	160200	OPLA	OPLR	02:00	02:02	02:00	02:00	02:00	02:01	
Papua New Guinea	PORT MORESBY	AYPY	WSNG20	AYPY	AYPY													
Philippines	MANILA	RPLL	WSPH31	RPLL	RPHI	FF	WSPH31	RPLL	160200	RPLL	RPHI	03:30	02:02	02:00	02:16	02:00		
Republic of Korea	INCHEON	RKSI	WSKO31	RKSI	RKRR	FF	WSKO31	RKSI	160200	RKSI	RKRR	02:00	02:02	02:00	02:00	02:00	02:01	
Singapore	SINGAPORE	WSSS	WSSR20	WSSS	WSJC	FF	WSSR20	WSSS	160205	WSSS	WSJC	02:05	02:07	02:05	02:05	02:05	02:07	
Solomon Islands	HONIARA	AGGH	WSSO20	AGGH	AGGG	FF	WSSO20	AGGG	160205	AGGG	AGGH	02:11	02:13	02:11	02:11	02:11	02:12	Wrong CCCC, MWO & FIR
Sri Lanka	COLOMBO	VCBI	WSSB31	VCBI	VCBI	FF	WSSB31	VCBI	160205	VCBI	VCCF	02:05	02:06	02:05	02:05	02:05	02:06	
Thailand	BANGKOK	VTBS	WSTH31	VTBS	VTBB	FF	WSTH31	VTBS	160200	VTBS	VTBB	02:00	02:01	02:00	02:00	02:00	02:00	
United States	ANCHORAGE	PAWU	WSAK01-09	PAWU	PAZA	DD	WSAK05	PAWU	160200	PANC	PAZA	02:00		02:00	02:00			Wrong priority
	HONOLULU	PHFO	WSPA01-13	PHFO	KZAK	GG	WSPA01	PHFO	160200	PHFO	KZAK	02:00		02:00	02:03	02:00	02:01	Wrong priority
	KANSAS CITY	KKCI	WSPN01-13	KKCI	KZAK	DD	WSPN01	KKCI	160205	KKCI	KZAK	02:03		02:03	02:03	02:03	02:04	Wrong priority
Vietnam	GIA LAM	VVGL	WSVS31	VVGL	VVNB	FF	WSVS31	VVGL	160202	VVGL	VVHM	02:02	02:04	02:03	02:03	02:02	02:04	
	GIA LAM	VVGL	WSVS31	VVGL	VVTS	FF	WSVS31	VVGL	160203	VVGL	VVHM	02:03	02:05	02:03	02:03	02:03	02:04	