

*International Civil Aviation Organization***WORKING PAPER**

ICAO

**Eighteenth Meeting of the Meteorological Information
Exchange Working Group (MET/IE WG/18)
and
Tenth Meeting of the Meteorological Services
Working Group (MET/S WG/10)**

Web-conference, 27 to 31 July 2020

Agenda Item 6: Regional tests of Advisory and SIGMET services

REVIEW OF WS SIGMET TEST 15

(Presented by Singapore)

SUMMARY

This paper presents the analysis of the data collected during WS SIGMET Test 15 that was conducted on 27 November 2019.

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, in particular 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 15 data

2.1.1 The WS SIGMET Test 15 was conducted on 27 November 2019.

2.1.2 RODB Bangkok, RODB Brisbane, RODB Tokyo, RODB Nadi, RODB Singapore and Regional OPMET Centre (ROC) London provided reception summaries of the WS SIGMET Test 15 to

Agenda Item 6

27-31/07/20

the focal point (RODB Singapore) for the WS SIGMET test in the Asia/Pacific region. The data provided by RODB Nadi was incomplete and was not included in the data analysis. The summarized data reception of the four 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 24 of the possible 29 States listed in the Asia/Pacific SIGMET Guide participated in WS SIGMET Test 15
- 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 53 of the possible 58 WS SIGMET test messages were issued by the MWOs in the 2019 WS SIGMET test
- The following 5 MWOs did not issue WS SIGMET test messages in 2019:

1	Afghanistan, Kabul (OAKB)
2	Nauru, Port Moresby on behalf of Nauru (ANYN)
3	Papua New Guinea, Port Moresby (AOPY)
4	Sri Lanka, Colombo (VCBI)
5	United States, Honolulu (PHFO)

Table 1: MWOs that did not participate in WS SIGMET Test 15

2.3 WS Test SIGMET Reception

2.3.1 53 WS SIGMET test messages were issued by the MWOs in WS SIGMET Test 15. The reception of WS test SIGMET by the four Asia/Pacific RODBs and ROC London is listed below:

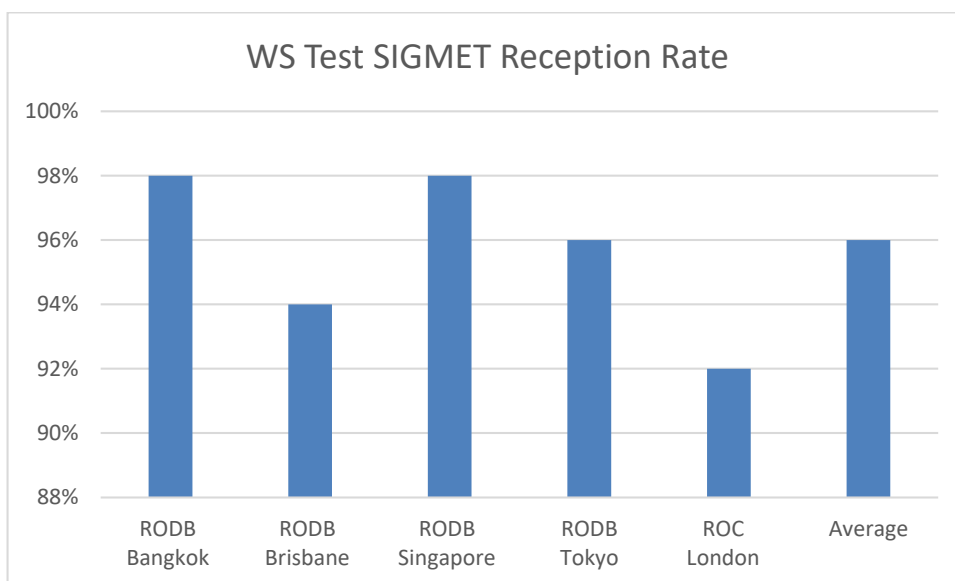


Figure 1: 2019 WS SIGMET Test Reception Rate

WS SIGMET Test 15	RODB Bangkok	RODB Brisbane	RODB Singapore	RODB Tokyo	ROC London	Total
Number of Reception	52 of 53	50 of 53	52 of 53	51 of 53	49 of 53	254 of 265
Percentage of Reception	98%	94%	98%	96%	92%	96%

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

3. CONCLUSION

3.1 5 of the 29 States, namely Afghanistan, Nauru, Papua New Guinea, Sri Lanka and United States did not participate in WS SIGMET Test 15. The State participation rate was 83%. This participation rate was four percent higher than that in the 2018 WS SIGMET Test.

3.2 5 MWOs did not participate in the 2019 WS SIGMET test. The MWO participation rate for 2019 WS SIGMET Test was 90%, an increase of five percent compared with 2018 WS SIGMET test result of 85%.

3.3 53 out of the possible 58 WS test SIGMET messages were received during the test. The overall availability of 91% was four percent higher than the 2018 WS SIGMET test result of 87%.

3.4 The average reception rate of the WS test SIGMET messages of the four RODBs was 96%, a decrease of one percent from the 2018 WS SIGMET test result.

3.5 The following table summarizes the WS SIGMET Test 15 results:

Asia/Pac Region	2018 WS SIGMET Test	2019 WS SIGMET Test
State participation	23 out of 29 (79%)	24 out of 29 (83%)
MWO participation	44 out of 52 (85%)	45 out of 50 (90%)
Test SIGMETs issued	54 out of 62 (87%)	53 out of 58 (91%)
RODB reception	262 out of 270 (97%)	254 out of 265 (96%)

Table 3: WS SIGMET Test Results

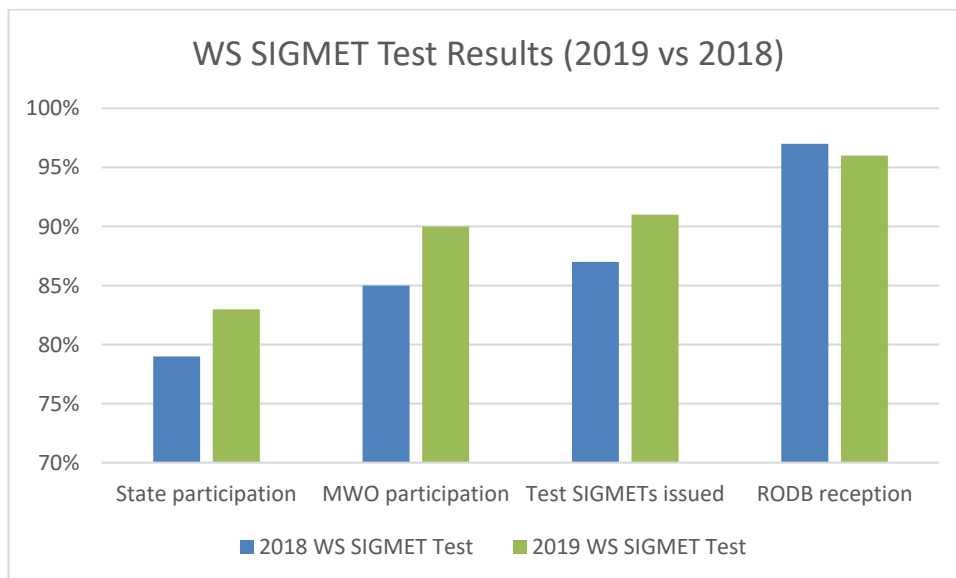


Figure 2: Comparison of 2018 and 2019 WS SIGMET Test Results

Agenda Item 6

27-31/07/20

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 15.

APPENDIX 1 – Summary of WS SIGMET Test 15 Results Received from Asia Pacific RODBs and ROC London

State	Meteorological Watch Office (MWO)		Area Served		SIGMET Guide			Transmitted Header				RODB and EUR ROC Reception					Remarks	
	Location	MWO	Name	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGggg	MWO	FIR / UIR	VTBB	YBBN	WSSS	RJTD		EBBR
Afghanistan	KABUL AD	OAKB	Kabul FIR and SSR	WSAH31	OAKB	OAKX												Not in Asia/Pac Region
Australia	ADELAIDE/Adelaide	YPRM	Melbourne FIR	WSAU21	APRM	YMMM	FF	WSAU21	APRM	070206	YPRM	YMMM	02:06	02:07	02:06	02:06	02:07	
	BRISBANE/Brisbane	YBRF	Brisbane FIR	WSAU21	ABRF	YBBB	FF	WSAU21	ABRF	270204	YBRF	YBBB	02:05	02:06	02:05	02:04	02:05	
	BRISBANE/Brisbane	YBRF	Melbourne FIR	WSAU21	ABRF	YMMM	FF	WSAU21	ABRF	270203	YBRF	YMMM	02:03	02:04	02:03	02:03	02:04	
	HOBART/Hobart	YMHF	Melbourne FIR	WSAU21	AMHF	YMMM	FF	WSAU21	AMHF	270212	YMHF	YMMM	02:12	02:14	02:13	02:12	02:13	
	MELBOURNE/Melbourne	YMRP	Brisbane FIR	WSAU21	AMRF	YBBB	FF	WSAU21	AMRF	270200	YMRP	YBBB	02:00	02:02	02:00	02:00	02:01	
	MELBOURNE/Melbourne	YMRP	Melbourne FIR	WSAU21	AMRF	YMMM	FF	WSAU21	AMRF	270200	YMRP	YMMM	02:00	02:02	02:00	02:00	02:01	
	MELBOURNE/World Met. Centre	YMMC	Brisbane FIR	WSAU21	AMMC	YBBB	FF	WSAU21	AMMC	270204	YMMC	YBBB	02:05	02:06	02:05	02:05	02:06	
	MELBOURNE/World Met. Centre	YMMC	Melbourne FIR	WSAU21	AMMC	YMMM	FF	WSAU21	AMMC	270200	YMMC	YMMM	02:00	02:02	02:00	02:00	02:02	
	PERTH/Perth	YPRF	Brisbane FIR	WSAU21	APRF	YBBB	FF	WSAU21	APRF	270200	YPRF	YBBB	02:00	02:02	02:00	02:00	02:01	
	PERTH/Perth	YPRF	Melbourne FIR	WSAU21	APRF	YMMM	FF	WSAU21	APRF	270200	YPRF	YMMM	02:00	02:02	02:00	02:00	02:01	
	SYDNEY/Sydney	YSRF	Brisbane FIR	WSAU21	ASRF	YBBB	FF	WSAU21	ASRF	270200	YSRF	YBBB	02:00	02:02	02:00	02:00	02:01	
	SYDNEY/Sydney	YSRF	Melbourne FIR	WSAU21	ASRF	YMMM	FF	WSAU21	ASRF	270200	YSRF	YMMM	02:00	02:02	02:00	02:00	02:01	
Bangladesh	DHAKA/Hazrat Shahjalal Intl	VGHS	Dhaka FIR & SRR	WSBW20	VGHS	VGFR	FF	WSBW20	VGHS	270200	VGHS	VGFR	02:00	02:01	02:00	02:00	02:01	
Cambodia	CHENGDU/Shuangliu for PHNOM-PENH (VDPP)	ZUUU	Phnom-Penh FIR & SRR	WSKP31	ZUUU	VDPP	FF	WSKP31	ZUUU	270205	ZUUU	VDPP	02:06	02:07	02:05	02:05	02:06	
China	BEIJING/Capital	ZBAA	Beijing FIR & SRR	WSCI33	ZBAA	ZBPE	FF	WSCI33	ZBAA	270205	ZBAA	ZBPE	02:01	02:02	02:01	02:01	02:01	
	GUANGZHOU/Baiyan	ZGGG	Guangzhou FIR & SRR	WSCI35	ZGGG	ZGZU	FF	WSCI35	ZGGG	270205	ZGGG	ZGZU	02:10	02:11	02:10	02:10	02:11	
	CHENGDU/Shuangliu	ZUUU	Kunming FIR & SRR	WSCI36	ZUUU	ZPKM	FF	WSCI36	ZUUU	270202	ZUUU	ZPKM	02:04	02:06	02:04	02:05	02:05	
	XIAN/Xiayang	ZLXY	Lanzhou FIR and SRR	WSCI37	ZLXY	ZLHW	FF	WSCI37	ZLXY	270202	ZLXY	ZLHW	02:06	02:08	02:07	02:06	02:07	
	HAIKOU/Melian	ZJHK	Sanya FIR & SRR	WSCI35	ZJHK	ZJSA	FF	WSCI35	ZJHK	270203	ZJHK	ZJSA	02:05	02:06	02:05	02:04	02:05	
	SHANGHAI/Hongqiao	ZSSS	Shanghai FIR & SRR	WSCI34	ZSSS	ZSHA	FF	WSCI34	ZSSS	270201	ZSSS	ZSHA	02:04	02:02	02:01	02:02	02:02	EBBR from GTS
	SHENYANG/Taoxian	ZYTX	Shenyang FIR & SRR	WSCI38	ZYTX	ZYSH	FF	WSCI38	ZYTX	270200	ZYTX	ZYSH	02:01	02:03	02:01	02:01	02:02	
	TAIBEI/Taipei Intl	RCTP	Taipei FIR & SRR	WSCI31	RCTP	RCAA	FF	WSP31	RCTP	270204	RCTP	RCAA	02:04	02:06	02:04	02:04	02:05	
	URUMQI/Diwopu	ZWWW	Urumqi FIR & SRR	WSCI39	ZWWW	ZWUQ	FF	WSCI39	ZWWW	270200	ZWWW	ZWUQ	02:04	02:03	02:01	02:01	02:02	
	WUHAN/Tianhe	ZHHH	Wuhan FIR & SRR	WSCI45	ZHHH	ZHWH	FF	WSCI45	ZHHH	270200	ZHHH	ZHWH	02:01	02:02	02:01	02:01	02:02	RJTD from GTS
	HONG KONG/Hong Kong Intl	VHHH	Hong Kong FIR & SRR	WSSS20	VHHH	VHHK	FF	WSSS20	VHHH	270200	VHHH	VHHK	02:00	02:02	02:00	02:00	02:01	
DPR Korea	SUNAN	ZKPY	Pyeongyang FIR & SRR	WSKR31	ZKPY	ZKKP	FF	WSKR31	ZKPY	270205	ZKPY	ZKKP	02:06	02:07	02:05	02:05	02:06	
Fiji	NADI/Nadi Intl	NFFN	Nadi FIR & SRR	WSFJ01.02.	NFFN	NFFF	FF	WSFJ02	NFFN	270000	NFFN	NFFF	02:02	02:04	02:00	02:02	02:02	
French Polynesia	TAHITI/Faaa	NTAA	Tahiti FIR & SRR	WSPF21.22	NTAA	NTTT	FF	WSPF99	NTAA	270202	NTAA	NTTT	02:02	02:04	02:02	02:02	02:03	Wrong header (i=99 instead of 21)
India	CHENNAI/Chennai	VOMM	Chennai FIR & SRR	WSIN31	VOMM	VOMF	FF	WSIN31	VOMM	270200	VOMM	VOMF	02:00	02:02	02:00	02:00	02:01	
	DELHI/Indira Gandhi Intl	VIDP	Delhi FIR & SRR	WSIN31	VIDP	VIDF	FF	WSIN31	VIDP	270200	VIDP	VIDF	02:00	02:02	02:00	02:00	02:01	
	KOLKATA	VECC	Kolkata FIR & SRR	WSIN31	VECC	VECF	FF	WSIN31	VECC	270200	VECC	VECF	02:00	02:02	02:00	02:00	02:01	
	MUMBAI/Chhatrapati Shivaji Intl.	VABB	Mumbai FIR & SRR	WSIN31	VABB	VABF	FF	WSIN31	VABB	270205	VABB	VABF	02:01	02:08	02:01	02:01	02:02	
Indonesia	JAKARTA/Soekarno-Hatta	WIII	Jakarta FIR/UIR & SRR	WSDI20	WIII	WIIZ	FF	WSDI20	WIII	270201	WIII	WIIZ	02:06	02:07	02:06	02:06	02:06	
	UJUNG PANDANG/Hasanuddin	WAAA	Ujung Pandang FIR/UIR & SRR	WSDI21	WAAA	WAAZ	FF	WSDI21	WAAA	270205	WAAA	WAAZ	02:04	02:04	02:04	02:05	02:05	Wrong WMO line, RJTD from GTS
Japan	TOKYO (CITY)	RJTD	Fukuoka FIR & Tokyo SRR	WSJP31	RJTD	RJJJ	FF	WSJP31	RJTD	270205	RJTD	RJJJ	02:05	02:06	02:05	02:05	02:05	
Lao PDR	VIENTIANE/Wattay	VLVT	Vientiane FIR & SRR	WSLA31	VLVT	VLVT	FF	WSLA31	VLVT	270200	VLVT	VLVT	02:01	02:02	02:01	02:01	02:01	
Malaysia	SEPANG/KL International Airport	WMKK	Kota Kinabalu FIR & SRR	WSMS31	WMKK	WBFC	FF	WSMS31	WMKK	270205	WMKK	WBFC	02:05	02:07	02:05	02:05	02:06	
	SEPANG/KL International Airport	WMKK	Kuala Lumpur FIR & SRR	WSMS31	WMKK	WMFC	FF	WSMS31	WMKK	270204	WMKK	WMFC	02:06	02:08	02:07	02:06	02:06	EBBR from GTS
Maldives	MALE/Intl	VRMM	Male FIR & SRR	WSMV31	VRMM	VRMF	FF	WSMV31	VRMM	270233	VRMM	VRMF	02:32	02:34	02:32	02:32	02:33	
Mongolia	ULAANBAATAR	ZMUB	Ulaanbaatar FIR & SRR	WSMO31	ZMUB	ZMUB	FF	WSMO31	ZMUB	270200	ZMUB	ZMUB				02:00	02:07	
Myanmar	YANGON/Yangon International	VYYY	Yangon FIR & SRR	WSBM31	VYYY	VYYY	FF	WVBM31	VYYY	210205	VYYY	VYYY	02:06		02:06	02:06		Wrong header (TT=VV)
Nauru	NAURU	ANYN	Nauru FIR & SRR	WSNW20	ANYN	ANAU												
Nepal	KATHMANDU	VNKT	Kathmandu FIR & SRR	WSNP31	VNKT	VNSM	FF	WSNP31	VNKT	270202	VNKT	VNSM	02:04	02:06	02:04	02:04	02:05	
New Zealand	WELLINGTON (Aviation Weather Centre)	NZKL	New Zealand FIR & SRR	WSNZ21	NZKL	NZZC	FF	WSNZ21	NZKL	270200	NZKL	NZZC	02:03	02:05	02:03	02:03	02:04	
	WELLINGTON (Aviation Weather Centre)	NZKL	Auckland Oceanic FIR & SRR	WSPS21	NZKL	NZZO	FF	WSPS21	NZKL	270200	NZKL	NZZO	02:03	02:05	02:03	02:03	02:04	
Pakistan	KARACHI/Jinnah Intl	OPKC	Karachi FIR & SRR	WSPK31	OPKC	OPKR	GG	WSPK31	OPKC	270200	OPKC	OPKR	02:00	02:01	02:00	02:00	02:00	Wrong priority
	LAHORE/Allama Iqbal Intl	OPLA	Lahore FIR & SRR	WSPK31	OPLA	OPLR	GG	WSPK31	OPLA	270200	OPLA	OPLR	02:00	02:01	02:00	02:00	02:00	Wrong priority
Papua New Guinea	PORT MORESBY/Intl	AYPY	Port Moresby FIR & SRR	WSNG20	AYPY	AYPY												
Philippines	MANILA/Ninoy Aquino Intl, Pasay City, Metro Manila	RPLL	Manila FIR & SRR	WSPH31	RPLL	RPHI	FF	WSPH31	RPLL	270202	RPLL	RPHI	02:08	02:03	02:02	02:02	02:09	
Republic of Korea	INCHEON	RKSI	Incheon FIR & SRR	WSKO31	RKSI	RKRR	FF	WSKO31	RKSI	270200	RKSI	RKRR	02:00	02:02	02:00	02:00	02:01	
Singapore	SINGAPORE/Changi	WSSS	Singapore FIR & SRR	WSSR20	WSSS	WSJC	FF	WSSR20	WSSS	270205	WSSS	WSJC	02:05	02:07	02:05	02:05	02:06	
Solomon Islands	HONIARA/Henderson	AGGH	Honiara FIR & SRR	WSSO20	AGGH	AGGG	FF	WSSO31	AGGG	270207	AGGG	AGGH	02:10	02:11	02:10	02:10	02:11	Wrong header (i=31 instead of 20)
Sri Lanka	COLOMBO/Bandaranaike Intl Airport Colombo	VCEB	Colombo FIR & SRR	WSSB31	VCEB	VCEB												
Thailand	BANGKOK/Suvarnabhumi Intl Airport	VTBS	Bangkok FIR & SRR	WSTH31	VTBS	VTBB	FF	WSTH31	VTBS	270200	VTBS	VTBB	02:00	02:02	02:00	02:00	02:01	
United States	HONOLULU/Honolulu Intl	PHFO	Oakland Oceanic & Honolulu SRR	WSPA01-13	PHFO	KZAK												
	Gia Lam	VVGL	Hanoi FIR & SRR	WSVS31	VVGL	VVNB	FF	WSVS31	VVGL	270204	VVGL	VVNB	02:05	02:07	02:05	02:05	02:06	
Vietnam	Gia Lam	VVGL	Ho-Chai-Minh FIR & SRR	WSVS31	VVGL	VVTS	FF	WSVS31	VVGL	270205	VVGL	VVTS	02:06	02:08	02:07	02:06	02:07	