



ICAO

*International Civil Aviation Organization***WORKING PAPER****Asia and Pacific (APAC)****Twenty-first Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/22)**

Bangkok, Thailand, 18 to 21 March 2024

Agenda Item 3: Quality control, monitoring and management of meteorological information exchange**RESULTS OF SIGMET TESTS 2023 – TC and VA**

(Presented by Japan)

SUMMARY

This paper presents the results of the ASIA/PAC SIGMET tests conducted in November 2023 for tropical cyclone and volcanic ash.

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 of the issuance and reception of SIGMET messages, especially those for volcanic ash.

1.2 The Regional SIGMET tests were conducted on the following dates (month/date) for the last 5 years:

SIGMET for	2019	2020	2021	2022	2023
TC	11/13	12/02	12/08	11/9	11/8
VA	11/20	12/09	12/15	11/16	11/15

2. DISCUSSION**Schedule and procedure of SIGMET tests**

2.1 In its State letter dated 12 October 2023 on the schedule for SIGMET tests in the Asia/Pacific Region – November 2023, the ICAO Asia Pacific Regional Office notified the following schedule and the procedure of the regional SIGMET tests:

SIGMET test for tropical cyclone

- 08 November, 0200 UTC or 0500 UTC or 0800 UTC (refer to the attached SIGMET Test Procedures):
 - TCACs issue a tropical cyclone advisory test message;
 - MWOs issue a SIGMET test message (indicating receipt or non-receipt of the advisory test message from the TCACs); and
 - RODBs and WAFCs record all (the above) incoming advisory and SIGMET test messages and send a SIGMET test summary table to the APAC SIGMET test focal points.

SIGMET test for volcanic ash

- 15 November, 0200 UTC:
 - VAACs issue a volcanic ash advisory test message;
 - MWOs issue a SIGMET test message (including receipt or non-receipt of the advisory test message from the VAACs); and
 - RODBs and WAFCs record all (the above) incoming advisory and SIGMET test messages and send a SIGMET test summary table to the APAC SIGMET test focal points.

SIGMET test message in the IWXXM form

2.2 MWOs that have implemented the ICAO meteorological information exchange model (IWXXM) should disseminate the SIGMET test messages in the IWXXM form in addition to disseminating the test messages in abbreviated plain language or alphanumeric form.

Test result and analysis

2.3 Four RODBs (Bangkok, Brisbane, Singapore and Nadi) and WAFC London sent the summary of bulletins received during the tests to Tokyo, the rapporteur. The combined information on the reception of the bulletins during the test for each TC (WC) and VA (WV) is shown in the Appendix 6 and 7, respectively. In this paper, the overall availability is represented by the rate of test bulletins received at least at one RODB(s) over all those expected to be reported.

2.4 Tropical cyclone (FK) and volcanic ash advisories (FV) issued at the test are shown in Appendix 1.

2.5 SIGMET test messages (LY, LV) and advisories (LK, LU) in the IWXXM form issued at the test are shown in Appendix 2.

Summary of WC SIGMET test

2.6 The total number of WC test bulletins expected to be reported during test was 50 and that received during the test was 39. The overall availability of WC test bulletins was 78.0%, which was same results of 2022 (78.0%). Appendix 4 shows the availability of WC test bulletins at each RODB and the total since 2009.

2.7 WC test bulletins not issued in the WC SIGMET test are shown in Appendix 3.

Summary of WV SIGMET test

2.8 The total number of WV test bulletins expected to be reported during the test was 55 including 6 Russian WV SIGMETs (UIII, UHHH, UNKL, UHMM, UEEE and UHPP). The total number of WV test bulletins received during the test was 48. The overall availability of WV test

bulletins was 81.8%, which was lower than that of 2022 (87.3%). Appendix 5 shows the availability of WV test bulletins at each RODB and the total since 2009.

2.9 WV test bulletins not issued in the WV SIGMET test are shown in Appendix 3.

Follow-up activity

2.10 ROCs and RODBs support their relating NOCs which could not issue SIGMET test messages during the test period.

2.11 MWO Nadi was not able to participate in the Volcanic Ash SIGMET test due to there was an active TC in the Fiji region on 15 November.

3. CONCLUSION

3.1 The availability of WC and WV test bulletins were better than in the test in 2022. It seems to be difficult for some States to issue the test bulletins.

3.2 Both in the WC and WV SIGMET test, there were still incorrect use of the priority and formatting errors in the text.

3.3 Some of WC and WV test bulletins were duplicated or issued by different Date Time Group (DTG) with the same contents, which makes the analysis difficult.

3.4 Some of WC and WV test bulletins were not received by all RODBs in ASIA/PAC region. Participating States should send the test message to all RODBs and WAFCs.

3.5 Some States issued SIGMET and advisory test messages in the IWXXM form but many States are not ready to issue a test message in the IWXXM form yet.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) Note the result of the SIGMET tests presented above;
- b) Discuss on the future importance of the SIGMET exchange in the region; and
- c) Discuss, if necessary, revision of the test procedure.

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Appendix A to WP/18

Appendix A: TCA and VAA test bulletins in TAC

TCA test bulletins

TCAC	PI	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
NEW DELHI	FF	FKIN20	VIDP	080200	2:13		2:14	2:00	2:13	2:00
	FF	FKIN20	VIDP	080800	8:16		8:17	8:00	8:16	8:04
	FF	FKIN21	VIDP	080200	2:13		2:14	2:00		2:00
	FF	FKIN21	VIDP	080800	8:16		8:17	8:00	8:16	8:04
DARWIN	FF	FKAU03	ADRM	080202	2:02		2:03			2:02
	FF	FKAU03	ADRM	080204	2:05		2:06		2:05	2:04
	FF	FKAU03	ADRM	080215	2:15		2:17		2:15	2:15
	FF	FKAU03	ADRM	080215					2:16	2:16
NADI	FF	FKPS01	NFFN	080000	2:01		2:03	2:01	2:01	2:02
TOKYO	FF	FKPQ30	RJTD	080200	2:01		2:01	2:00	2:00	2:01
UNITED STATES		FKPA21	PHFO	080200			2:03			
		FKPZ21	KNHC	080200			2:05			2:02

VAA test bulletins

VAAC	PI	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
TOULOUSE	FF	FVXX04	LFPW	150200			2:02		2:00	2:00
DARWIN	FF	FVAU03	ADRM	150200	2:00		2:01	2:00	2:00	2:00
WASHINGTON	GG	FVXX27	KNES	150216			2:23		2:21	2:22
WELLINGTON	FF	FVPS01	NZKL	150205	2:06		2:06	2:05	2:05	2:05
TOKYO	FF	FVFE01	RJTD	150200	2:01		2:02	2:01	2:01	2:01

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Appendix B to WP/18

Appendix B: Test bulletins in IWXXM

TCA and TC SIGMET in IWXXM

STATE	TCAC	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
JAPAN	TOKYO	LKPQ30	RJTD	080200					2:01	

STATE	MWO	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
CHINA	HONG KONG	LYSS20	VHHH	080202	2:04	2:04			2:03	
	TAIBEI	LYCI31	RCTP	080200	1:55	1:55				
FIJI	NADI	LYFJ01	NFFN	080000	2:10	2:05			2:05	
THAILAND	BANGKOK	LYTH31	VTBS	080202	2:07	2:07				
SINGAPORE	SINGAPORE	LYSR20	WSSS	080205		2:07			2:05	
JAPAN	TOKYO	LYJP31	RJTD	080205		2:06			2:06	
SOLOMON ISLAND	HONIARA	LYSO20	AGGH	080546	5:54	5:54			-	5:54
RUSSIAN FEDERATION	KHABAROVSK/NOVY	LYRA31	RUHB	080202		2:05				2:07

VAA and VA SIGMET in IWXXM

STATE	VAAC	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
AUSTRALIA	DARWIN	LUAU03	ADRM	150159	2:00				2:00	2:01
JAPAN	TOKYO	LUFJ01	RJTD	150200					2:02	2:04
FRANCE	TOULOUSE	LUXX04	LFPW	150200						2:02

STATE	MWO	TTAAii	CCCC	YYGGgg	Received Time(UTC)					
					VTBB	WSSS	YBBB	NFFN	RJTD	EUR
CHINA	HONG KONG	LVSS20	VHHH	150202	2:05	2:04			2:04	2:04
	TAIBEI	LVCI31	RCTP	150200	2:25	2:25				2:25
FIJI	NADI	LVFJ01	NFFN							
THAILAND	BANGKOK	LVTH31	VTBS	150202	2:05	2:06				2:06
SINGAPORE	SINGAPORE	LVSR20	WSSS	150205	2:07	2:05			2:05	2:05
JAPAN	TOKYO	LVJP31	RJTD	150205		2:06			2:06	2:08
SOLOMON ISLAND	HONIARA	LVSO20	AGGH	150208	2:12	2:12			2:12	2:12
RUSSIAN FEDERATION	IRKUTSK	LVRA31	RUIR			2:08				
	KRASNOYARSK	LVRA31	RUKR			2:05				
	MAGADAN/SOKOL	LVRA31	RUMG			2:08				
	YELIZOVO/PETROPAVLOVSK-KAMCHATSKY	LVRA31	RUPK			2:08				
	YAKUTSK	LVRA31	RUYK			2:05				

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Appendix C: WC and WV test bulletins not issued during the test period

WC test bulletins not issued

State	MWO	TTAAii	CCCC	FIR	2022	2023
DPR KOREA	SUNAN	WCKR31	ZKPY	ZKKP		
MYANMAR	YANGON	WCBM31	VYYY	VYYF		R
NAURU	NAURU	WCNW20	ANYN	ANAU		
PAPUA NEW GUINEA	PORT MORESBY	WCNG20	AYPY	AYPY		
UNITED STATES	ANCHORAGE	WCAK01-09	PAWU	PAZA		
	KANSAS CITY	WCNT01-13	KKCI	KZNY,KZMA,KZHU,TJZU		
BAHRAIN	BAHRAIN	WCBN31	OBBI	OBBS		R
IRAN	TEHRAN	WCIR31	OIII	OIIX		
UNITED ARAB EMIRATES	ABU DHABI	WCAE20	OMAA	OMAE		
YEMEN	SANNA	WCYE31	OYSN	OYSC		

R: received

WV test bulletins not issued

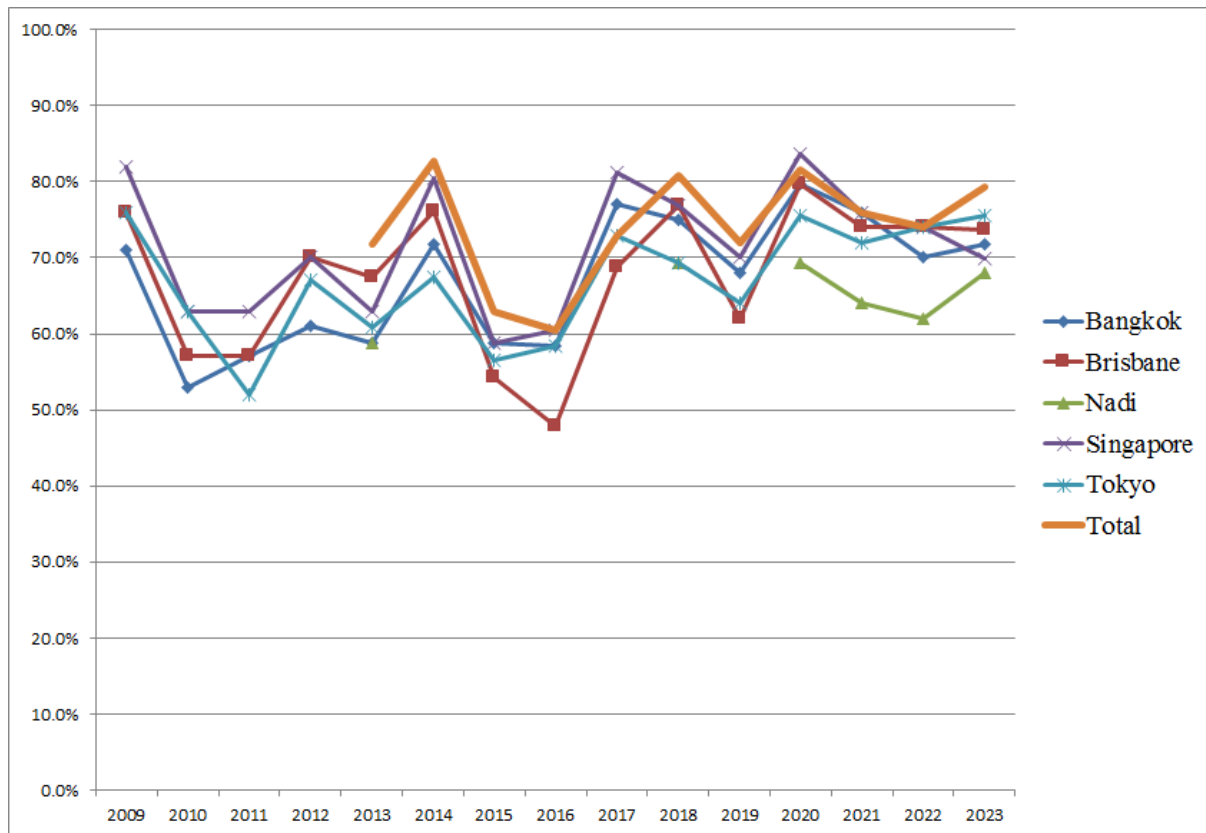
State	MWO	TTAAii	CCCC	FIR	2022	2023
AFGHANISTAN	KABUL	WVAH31	OAKB	OAKX		
CAMBODIA	PHNOM PENH	WVKP31	VDPP	VDPP		R
DPR KOREA	SUNAN	WVKR31	ZKPY	ZKKP		
NAURU	NAURU	WVNW20	ANYN	ANAU		
PAPUA NEW GUINEA	PORT MORESBY	WVNG20	AYPY	AYPY		R

R: received

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Appendix D to WP/18

Appendix D: Availability of the WC SIGMET test

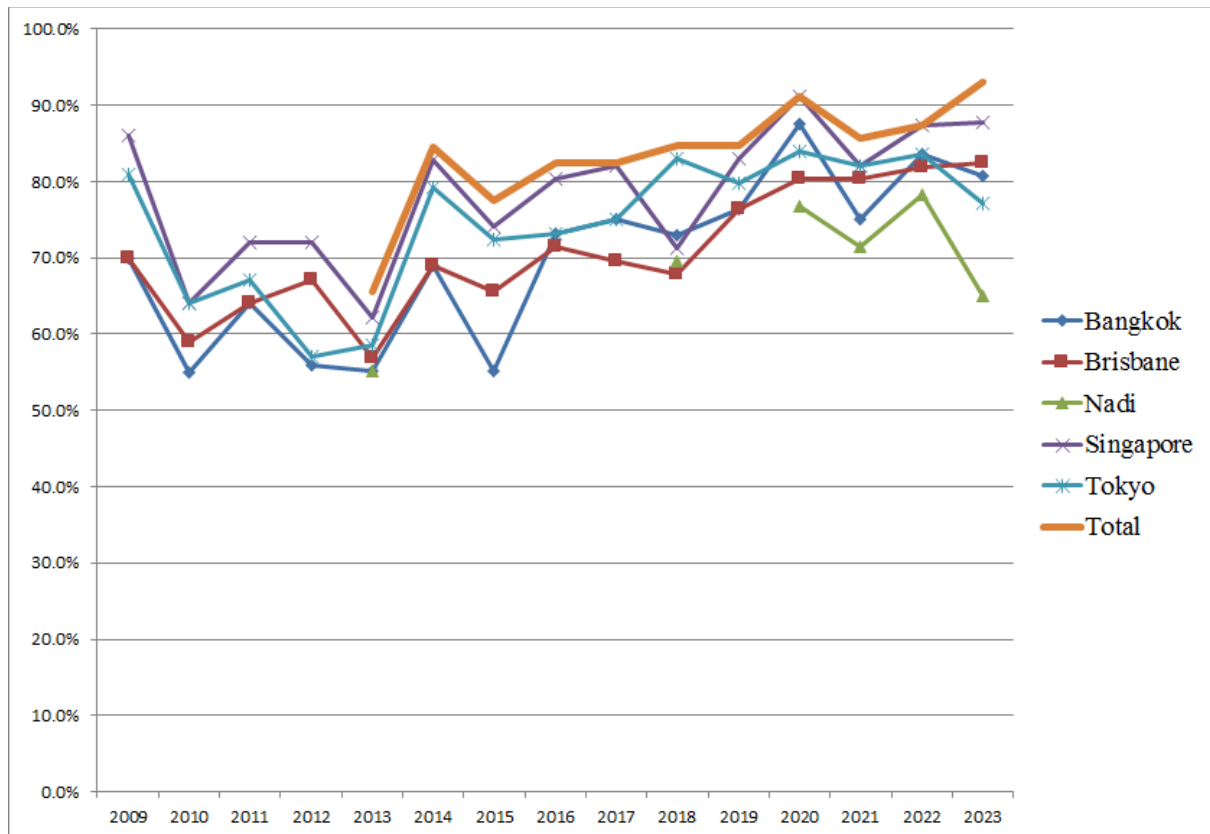
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bangkok	71.0%	53.0%	57.0%	61.0%	58.7%	71.7%	58.7%	58.3%	77.1%	75.0%	68.0%	79.6%	76.0%	70.0%	71.7%
Brisbane	76.0%	57.0%	57.0%	70.0%	67.4%	76.1%	54.3%	47.9%	68.8%	76.9%	62.0%	79.6%	74.0%	74.0%	73.6%
Nadi					58.7%					69.2%		69.4%	64.0%	62.0%	67.9%
Singapore	82.0%	63.0%	63.0%	70.0%	63.0%	80.4%	58.7%	60.4%	81.3%	76.9%	70.0%	83.7%	76.0%	74.0%	69.8%
Tokyo	76.0%	63.0%	52.0%	67.0%	60.9%	67.4%	56.5%	58.3%	72.9%	69.2%	64.0%	75.5%	72.0%	74.0%	75.5%
Total					71.7%	82.6%	63.0%	60.4%	72.9%	80.8%	72.0%	81.6%	76.0%	74.0%	79.2%



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Appendix E to WP/18

Appendix E: Availability of the WV SIGMET test

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bangkok	70.0%	55.0%	64.0%	56.0%	55.2%	69.0%	55.2%	73.2%	75.0%	72.9%	76.3%	87.5%	75.0%	83.6%	80.7%
Brisbane	70.0%	59.0%	64.0%	67.0%	56.9%	69.0%	65.5%	71.4%	69.6%	67.8%	76.3%	80.4%	80.4%	81.8%	82.5%
Nadi					55.2%					69.5%		76.8%	71.4%	78.2%	64.9%
Singapore	86.0%	64.0%	72.0%	72.0%	62.1%	82.8%	74.1%	80.4%	82.1%	71.2%	83.1%	91.1%	82.1%	87.3%	87.7%
Tokyo	81.0%	64.0%	67.0%	57.0%	58.6%	79.3%	72.4%	73.2%	75.0%	83.1%	79.7%	83.9%	82.1%	83.6%	77.2%
Total					65.5%	84.5%	77.6%	82.5%	82.5%	84.7%	84.7%	91.1%	85.7%	87.3%	93.0%



Appendix F: Table of WC SIGMET test

MWO details in APEC Regional SIGMET TEST Procedures 2023 / SIGMET Guide							Test Result												
State	MWO name	MWO	TTAAii	CCCC	FIR	TCAC	PI	TTAAii	CCCC	YYGGgg	MWO	FIR	TCAC	Received Time(UTC)					
														VTBB	WSSS	YBBB	NFFN	RJTD	EUR
AUSTRALIA	MELBOURNE	YMMC	WCAU01	YMMC	YBBB	Darwin/Nadi/La Réunion	FF	WCAU01	YMMC	080203	YMMC	YBBB	Darwin/Nadi	2:05	2:03	2:05	2:06	2:03	2:03
					YMMM	Darwin/Nadi/La Réunion	FF	WCAU01	YMMC	080206	YMMC	YMMM	Darwin	2:06	2:06	2:07	2:06	2:06	2:06
BANGLADESH	DHAKA	VGHS	WCBW20	VGHS	VGFR	New Delhi	FF	WCBW20	VGHS	080210	VGHS	VGFR	-	2:05	2:03			2:03	2:04
CAMBODIA	PHNOM PENH	VDPP	WCKP31	VDPP	VDPF	Tokyo	KK	WCKP31	VDPP	080225	VDPP	VDPF	-	2:25	2:25	2:27	2:25	2:25	2:27
CHINA	BEIJING	ZBAA	WCCI33	ZBAA	ZBPE	Tokyo	FF	WCCI33	ZBAA	080201	ZBAA	ZBPE	Tokyo	2:02	2:01	2:03	2:02	2:01	2:02
	CHENGDU	ZUUU	WCCI36	ZUUU	ZPKM	Tokyo	FF	WCCI36	ZUUU	080205	ZUUU	ZPKM	Tokyo	2:09	2:06	2:08	2:05	2:06	2:08
	GUANGZHOU	ZGGG	WCCI35	ZGGG	ZGZU	Tokyo	FF	WCCI35	ZGGG	080203	ZGGG	ZGZU	Tokyo	2:05	2:03	2:04	2:03	2:03	2:04
	HAIKOU	ZJHK	WCCI35	ZJHK	ZJSA	Tokyo	FF	WCCI35	ZJHK	080202	ZJHK	ZJSA	Tokyo	2:05	2:03	2:05	2:03	2:03	2:04
	HONG KONG	VHHH	WCSS20	VHHH	VHHK	Tokyo	FF	WCSS20	VHHH	080202	VHHH	VHHK	Tokyo	2:02	2:02	2:04	2:02	2:02	2:03
	SHANGHAI	ZSSS	WCCI34	ZSSS	ZSHA	Tokyo	FF	WCCI34	ZSSS	080202	ZSSS	ZSHA	Tokyo	2:04	2:02	2:04	2:02	2:03	2:03
	TAIBEI	RCTP	WCCI31	RCTP	RCAA	Tokyo	-	WCCI31	RCTP	missing	RCTP	RCAA	-			2:08	2:05		
DPR KOREA	SUNAN	ZKPY	WCKR31	ZKPY	ZKKP	Tokyo													
FIJI	NADI	NFFN	WCFJ01,02,...	NFFN	NFFF	Nadi/Tokyo	FF	WCFJ01	NFFN	080000	NFFN	NFFF	Nadi	2:07	2:05	2:07	2:05	2:05	2:06
FRENCH POLYNESIA	TAHITI	NTAA	WCPF20-23	NTAA	NTTT	Nadi/Honolulu/Miami	FF	WCPF21	NTAA	080207	NTAA	NTTT	Nadi	2:09	2:07	2:09	2:07	2:07	2:09
INDIA	CHENNAI	VOMM	WCIN31	VOMM	VOMF	New Delhi	FF	WCIN31	VOMM	080201	VOMM	VOMF	New Delhi	2:12	2:11	2:13	2:01	2:12	2:12
	MUMBAI	VABB	WCIN31	VABB	VABF	La Réunion/New Delhi	FF	WCIN90	VABB	080200	VABB	VABF	New Delhi	2:20	2:19	2:22		2:23	
	NEW DELHI	VIDP	WCIN31	VIDP	VIDF	-	FF	WCIN31	VIDP	080200/080800	VIDP	VIDF	New Delhi	2:14/8:16	2:11/8:06	2:15/8:18	2:00	2:14/8:08	2:11/8:06
	KOLKATA	VECC	WCIN31	VECC	VECF	-	FF	WCIN31	VECC	080205	VECC	VECF	New Delhi	2:08	2:05	2:07	2:05	2:05	2:06
INDONESIA	JAKARTA	WIII	WCID20	WIII	WIIF	Darwin/New Delhi/Tokyo	FF	WCID20	WIII	080201	WIII	WIIF	Darwin/New Delhi/Tokyo	2:02	2:01	2:03	2:01	2:01	2:03
	MAKASSAR	WAAA	WCID21	WAAA	WAAF	Darwin/Tokyo	FF	WCID21	WAAA	080207	WAAA	WAAF	Tokyo/Darwin	2:07	2:07	2:09	2:07	2:07	2:09
JAPAN	TOKYO	RJTD	WCJP31	RJTD	RJJJ	Tokyo	FF	WCJP31	RJTD	080205	RJTD	RJJJ	Tokyo	2:07	2:05	2:06	2:05	2:05	2:06
LAO PDR	VIENTIANE	VLVT	WCLA31	VLVT	VLVT	Tokyo	FF	WCLA31	VLVT	080205	VLVT	VLVT	Tokyo	2:01	2:01	2:04	2:05	2:01	2:03
MALAYSIA	KUALA LUMPUR	WMKK	WCMS31	WMKK	WMFC	New Delhi/Tokyo	FF	WCMS31	WMKK	080205	WMKK	WMFC	Tokyo/New Delhi	2:05	2:04	2:06	2:05	2:04	2:05
	KOTA KINABALU				WBFC	New Delhi/Tokyo	FF	WCMS31	WMKK	080204	WBKK	WBFC	Tokyo	2:04	2:05	2:06	2:04	2:05	2:05
MALDIVES	MALE	VRMM	WCMV31	VRMM	VRMF	La Réunion/New Delhi	FF	WCMV31	VRMM	080213	VRMM	VRMF	New Delhi	2:16	2:16	2:18	2:12	2:16	
MYANMAR	YANGON	VYYY	WCBM31	VYYY	VYYF	New Delhi	GG	WCBM31	VYYY	080205	VYYY	VYYF	New Delhi	2:08	2:06	2:08	2:05	2:06	2:07
NAURU	NAURU	ANYN	WCNW20	ANYN	ANAU	Nadi													
NEW ZEALAND	WELLINGTON	NZKL	WCNZ21	NZKL	NZZC	Nadi	FF	WCNZ21	NZKL	080209	NZKL	NZZC	Nadi	2:10	2:10	2:12	2:10	2:10	2:11
		NZKL	WCPS21	NZKL	NZZO	Nadi	FF	WCPS21	NZKL	080204	NZKL	NZZO	Nadi	2:09	2:08	2:10	2:04	2:08	2:10
PAKISTAN	KARACHI	OPKC	WCPK31	OPKC	OPKR	New Delhi	FF	WCPK31	OPKC	080235	OPKC	OPKR	-	2:34	2:34	2:36	2:35	2:34	2:36
PAPUA NEW GUINEA	PORT MORESBY	AYPY	WCNG20	AYPY	AYPY	Darwin													
PHILIPPINES	MANILA	RPLL	WCPH31	RPLL	RPHI	Tokyo	FF	WCPH31	RPLL	080202	RPLL	RPHI	Tokyo		2:02	2:03	2:02	2:02	2:02
REPUBLIC OF KOREA	INCHEON	RKSI	WCKO31	RKSI	RKRR	Tokyo	FF	WCKO31	RKSI	080203	RKSI	RKRR	Tokyo	2:05	2:04	2:05	2:03	2:04	2:03
SINGAPORE	SINGAPORE	WSSS	WCSR20	WSSS	WSJC	Tokyo	FF	WCSR20	WSSS	080205	WSSS	WSJC	Tokyo	2:07	2:05	2:06	2:05	2:05	2:05
SOLOMON ISLANDS	HONIARA	AGGH	WCSO20	AGGH	AGGG	Darwin/Nadi	FF	WCSO20	AGGH	080546	AGGH	AGGG	Darwin/Nadi	5:54	5:54	5:56	4:40	5:54	5:56
SRI LANKA	COLOMBO	VCBI	WCSB31	VCBI	VCCF	Darwin/New Delhi	FF	WCSB31	VCBI	080235	VCBI	VCCF	-	2:41		2:42	2:35	2:41	
THAILAND	BANGKOK	VTBS	WCTH31	VTBS	VTBB	Tokyo	FF	WCTH31	VTBS	080202	VTBS	VTBB	Tokyo	2:05	2:03	2:05	2:02	2:03	2:04
VIET NAM	GIA LAM	VVGL	WCVS31	VVGL	VVHM	Tokyo	FF	WCVS31	VVGL	080205	VVGL	VVHM	Tokyo	2:08	2:06	2:07	2:05	2:06	2:06
					VVHN	Tokyo	FF	WCVS31	VVGL	080204	VVGL	VVHN	Tokyo	2:06	2:04	2:06	2:04	2:05	2:05
UNITED STATES	HONOLULU	PHFO	WCPA01-13	PHFO	KZAK	Nadi/Tokyo/Honolulu/Miami	GG	WCPA01	PHFO	080200	PHFO	KZAK	PHFO	2:01	2:00	2:02	2:00	2:00	2:01
	ANCHORAGE	PAWU	WCAK01-09	PAWU	PAZA	Honolulu/Miami													
	KANSAS CITY	KKCI	WCNT01-13	KKCI	KZNY,KZMA,KZHU,TJZU	Tokyo/Honolulu/Miami													
		KKCI	WCPN01-13	KKCI	KZAK	Tokyo/Honolulu/Miami	DD/FF	WCPN01/02/03	KKCI	080205	KKCI	KZAK	Honolulu/Tokyo	2:05/2:05/2:03	2:03/2:05/2:03	2:05/2:05/2:04	2:05/2:04/2:05	2:03/2:04/2:14	2:04/2:04/2:03
BAHRAIN	BAHRAIN	OBBI	WCBN31	OBBI	OBBS	New Delhi		WSBN31	OBBI	080815	OBBI	OBBS	New Delhi	8:18		8:18			
IRAN	TEHRAN	OIII	WCIR31	OIII	OIIX	New Delhi													
KUWAIT	KUWAIT	OKBK	WCKW10	OKBK	OKAC	New Delhi		WCKW10	OKBK	-	OKBK	OKBK	-						
OMAN	MUSCAT	OOMS	WCOM31	OOMS	OOMM	New Delhi		WCOM31	OOMS	-	OOMS	OOMM	-						
SAUDI ARABIA	JEDDAH	OEJD	WCSD20	OEJD	OEJD	New Delhi	GG	WCSD20	OEJD	080800	OEJD	OEJD	-	8:01	8:00	8:02		8:00	
UNITED ARAB EMIRATES	ABU DHABI	OMAA	WCAE20	OMAA	OMAE	New Delhi													
YEMEN	SANNA	OYSN	WCYE31	OYSN	OYSC	New Delhi													
Not listed in SIGMET GUIDE																			
RUSSIAN FEDERATION	YELIZOVOPETROPAVLOVSK-KAMCHATSKY						FF	WCRA31	RUPK	080204	UHPP	UHMM	Tokyo					2:04	
RUSSIAN FEDERATION	KHABAROVSK/NOVY						FF	WCRA31	RUHB		UHMH	UHMH	Tokyo						
MONGOLIA	ULAANBAATAR						FF	WCMO31	ZMUB	080210	ZMUB	ZMUB	-					2:10	

Appendix G: Table of WV SIGMET test

MWO details in APEC Regional SIGMET TEST Procedures 2023 / SIGMET Guide							Test Result												
State	MWO name	MWO	TTAAii	CCCC	FIR	VAAC	PI	TTAAii	CCCC	YYGGgg	MWO	FIR	VAAC	Received Time(UTC)					
														VTBB	WSSS	YBBB	NFFN	RJTD	EUR
AFGHANISTAN	KABUL	OAKB	WVAH31	OAKB	OAKX	Toulouse													
AUSTRALIA	MELBOURNE	YMMC	WVAU01	YMMC	YMMM	Darwin	FF	WVAU01	YMMC	150237	YMMC	YMMM	Darwin	2:37	2:37	2:39	2:37	2:37	2:38
							FF	WVAU01	YMMC	150238	YMMC	YBBB	Brisbane	2:38	2:38	2:40		2:38	
BANGLADESH	DHAKA	VGHS	WVBW20	VGHS	VGFR	Toulouse/Tokyo	FF	WVBW20	VGHS	150205	VGHS	VGFR	Toulouse	2:06	2:05	2:06	2:05	2:05	2:06
CAMBODIA	PHNOM PENH	ZUUU	WVKP31	VDPP	VDPP	Tokyo	FF	WVKP31	VDPP	150200	VDPP	VDPF	Tokyo	2:02	2:00	2:03		2:00	
CHINA	BEIJING	ZBAA	WVCI33	ZBAA	ZBPE	Tokyo	FF	WVCI33	ZBAA	150205	ZBAA	ZBPE	Tokyo	2:02	2:01	2:03	2:02	2:01	2:02
	CHENGDU	ZUUU	WVCI36	ZUUU	ZPKM	Toulouse/Tokyo	FF	WVCI36	ZUUU	150205	ZUUU	ZPKM	Tokyo	2:06	2:05	2:06		2:05	2:06
	GUANGZHOU	ZGGG	WVCI35	ZGGG	ZGZU	Tokyo	FF	WVCI35	ZGGG	150205	ZGGG	ZGZU	Tokyo	2:07	2:05	2:06	2:05	2:05	2:05
	HAIKOU	ZJHK	WVCI35	ZJHK	ZJSA	Tokyo	FF	WVCI35	ZJHK	150203	ZJHK	ZJSA	Tokyo	2:05	2:03	2:05		2:03	2:04
	HONG KONG	VHHH	WVSS20	VHHH	VHHK	Tokyo	FF	WVSS20	VHHH	150202	VHHH	VHHK	Tokyo	2:02	2:03	2:05	2:02	2:03	2:03
	SHANGHAI	ZSSS	WVCI34	ZSSS	ZSHA	Tokyo	FF	WVCI34	ZSSS	150202	ZSSS	ZSHA	Tokyo	2:05	2:03	2:05	2:02	2:03	2:04
	SHENYANG	ZYTX	WVCI38	ZYTX	ZYSH	Tokyo	FF	WVCI38	ZYTX	150207	ZYTX	ZYSH	Tokyo	2:09	2:08	2:09	2:07	2:08	2:08
	TAIBEI	RCTP	WVCI31	RCTP	RCAA	Tokyo	FF	missing	RCTP		RCTP	RCAA	Tokyo			2:05	2:20		
	URUMQI	ZWWW	WVCI39	ZWWW	ZWUQ	Toulouse/Tokyo	FF	WVCI39	ZWWW	150205	ZWWW	ZWUQ	Tokyo	2:05	2:07	2:09	2:11	2:07	2:08
	WUHAN	ZHHH	WVCI45	ZHHH	ZHWH	Tokyo	FF	WVCI45	ZHHH	150205	ZHHH	ZHWH	Tokyo	2:07	2:05	2:07		2:05	2:07
	XT'AN	ZLXY	WVCI37	ZLXY	ZLHW	Toulouse/Tokyo	FF	WVCI37	ZLXY	150205	ZLXY	ZLHW	Tokyo	2:05	2:08	2:10	2:05	2:08	2:09
DPR KOREA	SUNAN	ZKPY	WVKR31	ZKPY	ZKKP	Tokyo													
FIJI	NADI	NFFN	WVFJ01,02,...	NFFN	NFFF	Wellington/Washington	FF	WVFJ01	NFFN		NFFN	NFFF	Wellington						
FRENCH POLYNESIA	TAHITI	NTAA	WVPF20,21	NTAA	NTTT	Wellington/Washington	FF	WVPF20	NTAA	150208	NTAA	NTTT	Wellington/Washington	2:09	2:08	2:10	2:08	2:08	2:09
INDIA	CHENNAI	VOMM	WVIN31	VOMM	VOMF	Darwin/Toulouse	FF	WVIN31	VOMM	150205	VOMM	VOMF	Darwin/Toulouse	2:08	2:07	2:09	2:35	2:07	2:08
	KOLKATA	VECC	WVIN31	VECC	VECF	Darwin/Toulouse/Tokyo	FF	WVIN31	VECC	150210	VECC	VECF	Toulouse	2:12	2:12	2:13	2:12	2:12	2:13
	MUMBAI	VABB	WVIN31	VABB	VABF	Toulouse	FF	WVIN31	VABB		VABB	VABF	Toulouse						2:18
	NEW DELHI	VIDP	WVIN31	VIDP	VIDF	Toulouse	FF	WVIN31	VIDP	150200	VIDP	VIDF	Toulouse	2:01	2:01	2:02		2:01	2:02
INDONESIA	JAKARTA	WIII	WVID20	WIII	WIIF	Darwin	FF	WVID20	WIII	150201	WIII	WIIF	Darwin	2:01	2:02	2:03	2:02	2:02	2:03
	MAKASSAR	WAAA	WVID21	WAAA	WAAF	Darwin	FF	WVID21	WAAA	150200	WAAA	WAAF	Darwin	2:02	2:01	2:03	2:01	2:01	2:03
JAPAN	TOKYO	RJTD	WVJP31	RJTD	RJJJ	Tokyo	FF	WVJP31	RJTD	150205	RJTD	RJJJ	Tokyo	2:07	2:05	2:07	2:20	2:05	2:06
LAO PDR	VIENTIANE	VLVT	WVLA31	VLVT	VLVT	Tokyo	FF	WVLA31	VLVT	150205	VLVT	VLVT	Tokyo	2:00	2:00	2:01	2:05	2:00	2:01
MALAYSIA	KUALA LUMPUR	WMKK	WVMS31	WMKK	WMFC	Darwin	FF	WVMS31	WMKK	150200	WMKK	WMFC	Darwin	2:01	2:01	2:02	2:01	2:01	2:01
					WBFC	Darwin	FF	WVMS31	WMKK	150210	WBKK	WBFC	Darwin	2:10	2:10	2:12	2:10	2:10	2:11
MALDIVES	MALE	VRMM	WVMV31	VRMM	VRMF	Toulouse	FF	WVMV31	VRMM	150212	VRMM	VRMF	Toulouse	2:19	2:19	2:15	2:12	2:19	2:23
MONGOLIA	ULAANBAATAR	ZMUB	WVMO31	ZMUB	ZMUB	Toulouse/Tokyo	FF	WVMO31	ZMUB	150200	ZMUB	ZMUB	Tokyo					2:00	
MYANMAR	YANGON	VYYY	WVBM31	VYYY	VYYF	Darwin/Tokyo	FF	WVBM31	VYYY	150206	VYYY	VYYF	Darwin	2:09	2:08	2:09	2:06	2:08	2:09
NAURU	NAURU	ANYN	WVNW20	ANYN	ANAU	Wellington/Washington													
NEPAL	KATHMANDU	VNKT	WVNP31	VNKT	VNSM	Toulouse	FF	WVNP31	VNKT	150215	VNKT	VNSM	Toulouse	2:15	2:15	2:16	2:15	2:15	2:16
NEW ZEALAND	WELLINGTON	NZKL	WVNZ21	NZKL	NZZC	Wellington	FF	WVNZ21	NZKL	150205	NZKL	NZZC	Wellington	2:10	2:10	2:12	2:10	2:08	
		NZKL	WVPS21	NZKL	NZZO	Wellington	FF	WVPS21	NZKL	150208	NZKL	NZZO	Wellington	2:09	2:08	2:10	2:08	2:10	2:11
PAKISTAN	KARACHI	OPKC	WVPK31	OPKC	OPKR	Toulouse	FF	WVPK31	OPKC	150235	OPKC	OPKR	Toulouse	2:35	2:41	2:41		2:41	2:42
	LAHORE	OPLA	WVPK31	OPLA	OPLR	Toulouse	FF	WVPK31	OPLA	150202	OPLA	OPLR	Toulouse	2:09	2:09	2:10	2:09	2:09	2:11
PAPUA NEW GUINEA	PORT MORESBY	AYPY	WVNG20	AYPY	AYPY	Darwin	FF	WVNG20	AYPY	150204	AYPY	AYPY	Darwin		4:03	4:04		4:03	
PHILIPPINES	MANILA	RPLL	WVPH31	RPLL	RPHI	Darwin/Tokyo	FF	WVPH31	RPLL	150206	RPLL	RPHI	Darwin/Tokyo	2:08	2:06	2:07	2:07	2:06	2:06
REPUBLIC OF KOREA	INCHEON	RKSI	WVKO31	RKSI	RKRR	Tokyo	FF	WVKO31	RKSI	150205	RKSI	RKRR	Tokyo	2:05	2:05	2:07	2:05	2:05	2:06
SINGAPORE	SINGAPORE	WSSS	WVSR20	WSSS	WSJC	Darwin	FF	WVSR20	WSSS	150205	WSSS	WSJC	Darwin	2:07	2:05	2:06	2:05	2:05	2:05
SOLOMON ISLANDS	HONIARA	AGGH	WVSO20	AGGH	AGGG	Darwin/Wellington	FF	WVSO20	AGGH	150208	AGGH	AGGG	Wellington/Darwin	2:14	2:12	2:13	2:12	2:12	2:13
SRI LANKA	COLOMBO	VCBI	WVSB31	VCBI	VCCF	Darwin	FF	WVSB31	VCBI	150210	VCBI	VCCF	Darwin	2:15	2:15	2:16		2:15	2:16
THAILAND	BANGKOK	VTBS	WVTH31	VTBS	VTBB	Darwin/Tokyo	FF	WVTH31	VTBS	150202	VTBS	VTBB	Darwin/Tokyo	2:04	2:03	2:05	2:05	2:03	2:04
VIET NAM	GIA LAM	VVGL	WVVS31	VVGL	VVHM	Darwin/Tokyo	FF	WVVS31	VVGL	150203	VVGL	VVHM	Darwin/Tokyo	2:05	2:04	2:06	2:03	2:04	2:04
						Darwin/Tokyo	FF												
UNITED STATES	HONOLULU	PHFO	WVPA01-13	PHFO	KZAK	Darwin/Wellington	GG	WVPA01	PHFO	150205	PHFO	KZAK	-	2:07	2:05	2:06		2:05	2:06
	KANSAS CITY	KKCI	WVPN01-13	KKCI	KZAK		DD	WVPN06/07	KKCI	150205/150215	KKCI	KZAK	Washington	2:05/2:16	2:03/2:15	2:05/2:17	2:05	2:03/2:15	2:04/2:16
RUSSIAN FEDERATION	IRKUTSK	UIII	WVRA31	RUIR	UIII	Tokyo	FF	WVRA31	RUIR	150205	UIII	UIII	-	2:07	2:05	2:07	2:05		2:06
	KHABAROVSK/NOVY	UHHH	WVRA31	RUHB	UHHH	Tokyo	FF	WVRA31	RUHB	150205	UHHH	UHHH	-	2:07	2:05	2:06	2:05		2:06
	KRASNOYARSK	UNKL	WVRA31	RUKR	UNKL	Tokyo	FF	WVRA31	RUKR	150203	UNKL	UNKL	Tokyo		2:03				2:05
	MAGADAN/SOKOL	UHMM	WVRA31	RUMG	UHMM	Tokyo	FF	WVRA31	RUMG	150205	UHMM	UHMM	Tokyo	2:08	2:06	2:07	2:05		2:06
	YAKUTSK	UEEE	WVRA31	RUYP	UEEE	Tokyo	FF	WVRA31	RUYP	150202	UEEE	UEEE	Tokyo		2:03				2:03
	YELIZOVO/PETROPAVLOVSK-KAMCHATSKY	UHPP	WVRA31	RUPK	UHPP	Tokyo	FF	WVRA31	RUPK	150206	UHPP	UHMM	Tokyo	2:08	2:06	2:08	2:07	2:07	2:06
Not listed in SIGMET GUIDE																			
SAUDI ARABIA	JEDDAH						KK	WVSD20	OEJD	150200	OEJD	OEJD	-		1:57				
MADAGASCAR	ANTANANARIVO						KK	WVMG20	FMMI	150416	FMMI	FMMM	Toulouse	4:16	4:17				