



International Civil Aviation Organization

**EIGHTH MEETING OF THE ASIA/PACIFIC OPMET MANAGEMENT TASK FORCE (OPMET/M TF/8)**

Bangkok, Thailand, 23 – 25 March 2010

**Agenda Item 4b: SIGMET Tests**

**PROGRESS WITH SIGMET TESTS - WC and WV**

(Presented by Japan)

**SUMMARY**

This paper presents the results of the ASIA/PAC SIGMET tests conducted in November 2009 for TC and VA.

This paper relates to

**Strategic Objectives:**

A: Safety – Enhance global civil aviation safety

D: Efficiency – Enhance the efficiency of aviation operations

**Global Plan Initiatives:**

GPI-19 Meteorological Systems

**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 OPMET Management Task Force (OPMET/M TF) 7th meeting reviewed the results of SIGMET tests in the Asia/Pac Region held in January 2009. The meeting decided that the WC, WV and WS SIGMET tests would be conducted on 10, 17, and 24 November 2009, respectively.

1.3 The Regional SIGMET tests were conducted as follows:

	2005	2006	2007	2008	2009	2009
SIGMET for volcanic ash	1/18	1/19	1/22	1/22	2/17	11/17
SIGMET for tropical cyclones	2/18	1/26	1/15	1/15	2/10	11/10

**2. PREPARATION FOR THE TEST**

2.1 ICAO APAC Office sent a state letter, *Follow-up of the APANPIRG Conclusion 15/42 --- Conducting SIGMET tests in the Asia/Pacific region*, dated 30 September 2009, notifying the schedule and the procedure of the sixth Regional SIGMET tests as follows:

- Test for SIGMET for tropical cyclones (WC SIGMET) – 10 November 2009, start time (time of issuance of the triggering tropical cyclone advisory by the TCACs concerned) 0200 UTC;

- Test for SIGMET for volcanic ash (WV SIGMET) – 17 November 2009, start time (time of issuance of the triggering volcanic ash advisory by the VAACs concerned) 0200UTC;
- Test for SIGMET for other weather phenomena (WS SIGMET) – 24 November 2009, start time 0200 UTC.

2.2 RODB Tokyo forwarded 10 Russian VA SIGMETs messages received via GTS to the other RODBs via AFTN, as the follow-up of discussion on SIGMET Tests at the OPMET/M TF/5.

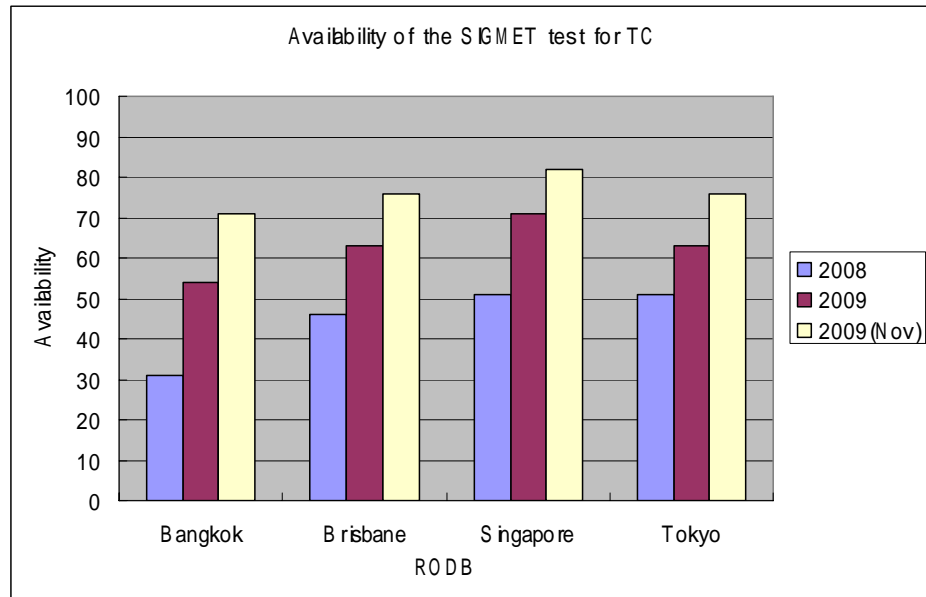
### **3. TEST RESULTS AND ANALYSIS**

3.1 Four RODBs in the Region sent the summary of the reception of the TC and VA tests to Japan, Rapporteur of the VA/TC/I TF. The combined information of the reception of the bulletins during the test on TC and VA is shown in Appendix A and B, respectively.

#### **3.2 Summary of WC SIGMET test**

3.2.1 63 test WC SIGMETs including duplicate bulletins were received. There were some incorrect format and wrong usage of WMO headings. 28 SIGMETs were received, while 37 were expected. Test advisories were issued by six TCACs out of seven – Darwin, Fiji, Honolulu, Miami, Réunion and Tokyo. Three MWOs (Myanmar, Bangladesh, and Pakistan) should not be included in the statistics since TCAC New Delhi did not issue test advisories to these MWOs likely due to a tropical disturbance in the Indian Ocean Basin. Thus the overall availability of the test WC SIGMETs from ASIA/PAC States was about 82%.

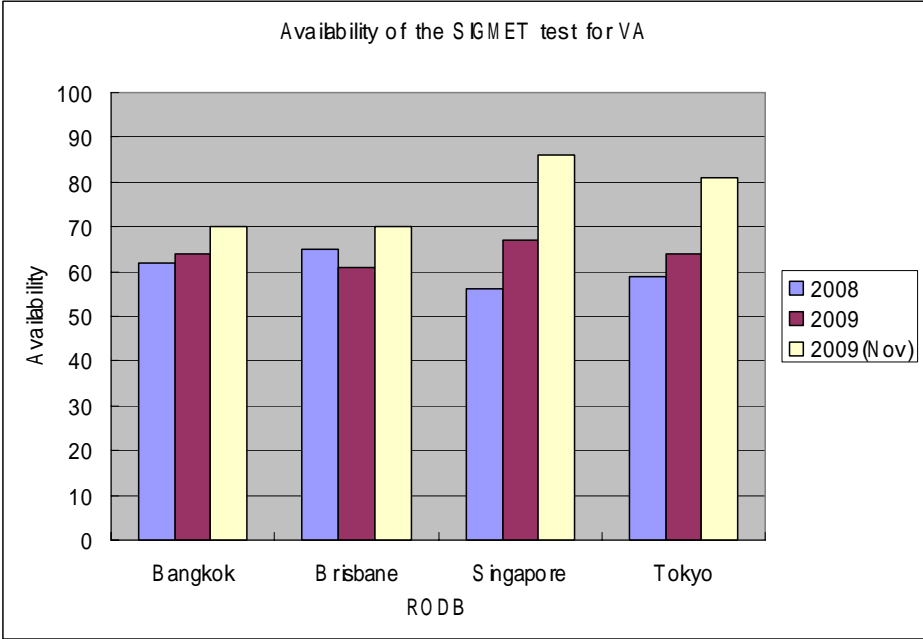
- 28 out of 34 responsible MWOs listed in Appendix H of the Asia/Pac Regional SIGMET Guide reported WC SIGMETs
- VLVT, although not listed in Appendix H, participated in the WC SIGMET test
- The number of availability was better than the previous test in February 2009
- Not all the SIGMET issued by TCACs reached all RODBs
- There were still wrong usages of WMO Headings. Marked yellow lines are incorrect format
- There were wrong settings of priority in use of SIGMET test (GG, DD)
- An overall significant increase in reception of the test messages are as follows



### 3.3 Summary of WV SIGMET test

3.3.1 80 test WV SIGMETs including duplicate bulletins were issued. 14 SIGMETs were issued by MWOs in the Russian Federation. There were some incorrect formats and wrong usages of WMO headings. 32 SIGMETs were received, while 37 were expected. Thus the overall availability of test WV SIGMETs was approximately 86%.

- 32 out of 37 MWOs listed in Appendix H of the Asia/Pac Regional SIGMET Guide reported VA SIGMETs
- VECC, VRMM and VYYY, although not listed in Appendix H, participated in the WV SIGMET test
- The number of availability was better than the previous test in February 2009
- The participation of the following 12 Russian MWOs: UHBB, UIAA, UHHH, UHMM, UHNN, UHPP, UHWW, UHSS, UELL, UESO, UEST and UWOO were satisfactory. RODB Tokyo relayed the Russian VA from GTS to the RODBs
- Not all the test VAA reached all RODBs
- There were still wrong usages of WMO Headings, e.g. WSxx instead of WVxx
- There were wrong settings of priority in use of SIGMET test (GG, DD)
- An overall significant increase in reception of the test messages are as follows



**4. ACTION BY THE MEETING**

4.1 The meeting is invited to note the results of the SIGMET tests presented above and discuss on the future improvement of the SIGMET exchange in the region.

4.2 The meeting is also invited to discuss, if necessary, revision of the test procedure.

-----

ASIA/PAC SIGMET TEST Summary (Reception time at RODBs)										
Name of RODB		Bangkok, Brisbane, Singapore and Tokyo								
Date of Test		11/10/2009								
Target (VA or TC)		TC								
TCA		Header				Received time(UTC)				
	TTAAii	CCCC	YGGGgg			Bangkok	Brisbane	Singapore	Tokyo	
	FKAU03	ADRM	100200			02:02	02:01	02:02:10	02:01:41	
	FKAU05	ADRM	100207			02:13		02:14:13	02:13:04	
	FKIO20	FMEE	100200			02:01	02:00	02:01:55	02:00:42	
	FKPQ31	RJTD	100200			02:00	02:00	02:00:14	02:00:07	
	FKPS03	NFFN	100000			01:56	01:56	01:56:33	01:56:34	
	FKPZ21	KNHC	100150					01:53:56		
	FKNT25	KNHC	100150					01:53:56		
	FKPA21	PHFO	100200					02:01:51		
SIGMET		Header				Received time(UTC)				
	TTAAii	CCCC	YGGGgg	MWO	FIR/UIR	Bangkok	Brisbane	Singapore	Tokyo	
	WCFJ31	NFFN	100000	NFFN	NFFF	01:57	01:57	01:57:48	01:57:50	
	WCMS31	WMKK	100000	WMKK	WMFC	01:59				
	WCMS31	WMKK	100200	WMKK	WMFC		02:00	01:59:33	01:59:50*	
	WCMS31	WMKK	100200	WMKK	WMFC		02:04			
	WSMS31	WMKK	100200	YMMC	WBFC		02:00			
	WSMS31	WMKK	100200	WMKK	WBFC		02:01	02:00:29		
	WSMS31	WMKK	100200	WMKK	WBFC		02:06			
	WCIN31	VIDP	100200	VIDP	VIDF	02:01	02:00	02:02:33	02:02:01	
	WCIN31	VIDP	100200	VIDP	VIDF		02:00			
	WCIN31	VIDP	100200	VIDP	VIDF	02:20	02:19	02:22:26	02:20:37	RRA
	WCIN31	VIDP	100200	VIDP	VIDF	02:22		02:22:33	02:22:38	RRA
	WCIN31	VIDP	100200	VIDP	VIDF	02:22		02:22:46	02:22:46	RRA
	WCIN31	VIDP	100200	VIDP	VIDF	02:22		02:32:41	02:32:11	RRA
	WCCI35	ZGGG	100159	ZGGG	ZGZU	02:02	02:02	02:02:23	02:02:27	
	WCTH31	VTBS	100202	VTBS	VTBB	02:04	02:04	02:03:28	02:03:32	
	WCTH31	VTBS	100202	VTBS	VTBB		02:04			
	WCTH31	VTBS	100206	VTBS	VTBB	02:06	02:07	02:06:59	02:06:57	
	WCPS21	NZKL	100202	NZKL	NZZO	02:03	02:03	02:03:13	02:03:15	
	WCPS21	NZKL	100217	NZKL	NZZO	02:17	02:17		02:17:19	Cancel
	WCPS21	NZKL	100217	NZKL	NZZO	02:17			02:17:23	Cancel
	WCAU01	APRF	100203	YPRF	YMMM	02:03	02:03	02:03:40	02:04:17**	
	WCAU01	APRF	100203	YPRF	YBBB	02:03	02:03	02:03:54	02:04:17**	
	WCAU01	ADRM	100207	YBRF	YBBB	02:07	02:07	02:07:45	02:07:45	
	WCAU01	ADRM	100209	YPDM	YBBB	02:09	02:09	02:09:41	02:13:00**	
	WCKO31	RKSI	100205	RKSI	RKRR	02:04	02:04	02:04:50	02:04:50*	
	WCKO31	RKSI	100205	RKSI	RKRR	02:05	02:04			
	WCSS20	VHHH	100202	VHHH	VHKK	02:05	02:04	02:05:03	02:05:01	
	WCVS31	VVGL	100202	VVGL	VVNB	02:05	02:03	02:05:18	02:05:14	
	WCVS31	VVGL	100205	VGGL	VVTS	02:08	02:06	02:08:47	02:08:46	
	WCJP31	RJTD	100205	RJTD	RJJJ	02:05	02:05	02:05:14	02:05:12	
	WCJP31	RJTD	100205	RJTD	RJJJ		02:05			
	WCSR20	WSSS	100205	WSSS	WSJC	02:05	02:05	02:05:37	02:05:41	
	WCPH31	RPLL	100205	RPLL	RPHI	02:05	02:05	02:06:03	02:05:48	
	WCVS31	VVGL	100205	VGGL	VVTS		02:06			
	WCIN31	VABB	100200	VABB	VABF	02:09	02:07	02:09:29	02:09:43	
	WCIN31	VABB	100200	VABB	VABF	02:16	02:15		02:16:53	
	WCCI34	ZSSS	100205	ZSSS	ZSHA	02:09	02:09	02:08:44	02:08:44*	
	WCCI34	ZSSS	100205	ZSSS	ZSHA		02:09			
	WCCI31	RCTP	100206	RCTP	RCAA	02:10	02:06	02:10:18	02:10:36*	
	WCCI31	RCTP	100206	RCTP	RCAA	02:10				
	WCCI31	RCTP	100211	RCTP	RCAA	02:13	02:11	02:14:05	02:13:52*	CCA
	WCCI31	RCTP	100211	RCTP	RCAA	02:13				
	WCIN31	VOMM	100210	VOMM	VOMF	02:11	02:11	02:11:23	02:11:36*	
	WCIN31	VOMM	100210	VOMM	VOMF	02:15	02:12	02:16:53		
	WCCI35	ZGGG	100210	ZGGG	ZGZU	02:11	02:11	02:11:58	02:11:58*	

	WCCI35	ZGGG	100210	ZGGG	ZGZU	02:12	02:12			
	WCMV31	VRMM	100215	VRMM	VRMM	02:15	02:15	02:15:55	02:15:57	
	WCCI35	ZJHK	100200	ZJHK	ZJSA	02:20	02:00	02:17:43	02:17:40	
	WCCI33	ZBAA	100205	ZBAA	ZBPE	02:32	02:35	02:33:31	02:33:31*	
	WCCI33	ZBAA	100205	ZBAA	ZBPE	02:33				
	WCCI33	ZBAA	100205	ZBAA	ZBPE	02:35				
	WCLA31	VLVT	100300	VLVT	VLVT	03:11	03:12	03:11:58	03:12:03	
	WCLA31	VLVT	100300	VLVT	VLVT	03:12		03:12:25	03:12:28	
	WCLA31	VLVT	100300	VLVT	VLVT	03:22				
	WCMS31	WMKK	100205	WBKK	WBFC	03:35	03:45	03:35:38	03:35:53	
	WCNG01	AYPY	100001	AYPM	AYPY		02:47	02:42:26		
	WCNG01	AYPY	100001Z	AYPM	AYPY			02:43:51		
	WCPN01	KKCI	100200	KKCI	KZOA			02:01:44	01:59:02**	
	WCPN01	KKCI	100210	KKCI	KZOA			02:14:24	02:11:42**	
	WCPN01	KKCI	100210	YMMC	KZOA		03:19			
	WCPA01	PHFO	100201	PHFO	KZOA			02:04:02	02:01:22**	
	WCPA01	PHFO	100210	PHFO	KZOA			02:11:55	02:10:24**	
	WCIN31	VECC	100203	VECC	WECF			02:31:03		
								*indicates two or more bulletins were received, and the time of the first one is shown.		
								**indicates received from ISCS and GTS		

ASIA/PAC SIGMET TEST Summary (ROBEX Availability Index for TC)									
Availability = No of aerodromes for which one more or more non-NIL data type are received									
Index		No of aerodromes required for the bulletin							
ROBEX Availability Index (TC test)									
WMO Header	TC	ICAO	WMO Header	CCCC	VTBB	YBZZ	WSZZ	RJTD	
1	WCAU01	YBRF	WCAU01	ADRM	1	1	1	1	1
2	WCAU01	YDRM	WCAU01	ADRM	1	1	1	1	2
3	WCAU01	YPRF	WCAU01	APRF	1	1	1	1	3
4	WCBW20	VGZR							
5	WCKP31	ZPPP							
6		ZBAA	WCCI33	ZBAA	1	1	1	1	4
7	WCCI35	ZGGG	WCCI35	ZGGG	1	1	1	1	5
8		ZJHK	WCCI35	ZJHK	1	1	1	1	6
9	WCCI34	ZSSS	WCCI34	ZSSS	1	1	1	1	7
10	WCCI31	RCTP	WCCI31	RCTP	1	1	1	1	8
11	WCSS20	VHHH	WCSS20	VHHH	1	1	1	1	9
12	WCFJ01, ...	NFFN	WCFJ01	NFFN	1	1	1	1	10
13	WCPF21	NTAA	WCPF21	NTAA					
14	WCIN31	VECC	WCIN31	VECC			1		11
15	WCIN31	VOMM	WCIN31	VOMM	1	1	1	1	12
16	WCIN31	VIDP	WCIN31	VIDP	1	1	1	1	13
17	WCIN31	VABB	WCIN31	VABB	1	1	1	1	14
18	WCID20	WIII							
19	WCID21	WAAA							
20	WCJP31	RJTD	WCJP31	RJTD	1	1	1	1	15
21		VLVT	WCLA31	VLVT	1	1	1	1	16
22		WBKK	WCMS31	WMKK	1	1	1	1	17
23	WCMS31	WMKK	WCMS31	WMKK	1	1	1	1	18
24		VRMM	WCMV31	VRMM	1	1	1	1	19
25	WCBM31	VYYY							
26	WCNZ21	NZKL							
27	WCPS21		WCPS21	NZKL	1	1	1	1	20
28	WCPK31	OPKC							
29	WCNG20	AYPY	WCNG01	AYPY		1	1		21
30	WCPH31	RPLL	WCPH31	RPLL	1	1	1	1	22
31	WCKO31	RKSI	WCKO31	RKSI	1	1	1	1	23
32	WCSR20	WSSS	WCSR20	WSSS	1	1	1	1	24
33	WCSB31	VCBI							
34	WCTH31	VTBS	WCTH31	VTBS	1	1	1	1	25
35	WCAK01-09	PAWU							
	WCPA01-13	PHFO	WCPA01	PHFO			1	1	26
	WCNT01-13	KKCI							
36	WCPN01-13	KKCI	WCPN01	KKCI		1	1	1	27
37	WCVS31	VVGL	WCVS31	VVGL	1	1	1	1	28
			WCVS31	VVGL	1	1	1	1	
Availability Index for RODBs					0.71	0.76	0.82	0.76	

ASIA/PAC SIGMET TEST Summary (Reception time at RODBs)										
Name of RODB		: Bangkok, Brisbane, Singapore and Tokyo								
Date of Test		: 11/17/2009								
Target (VA or TC)		: VA								
VAA	Header			Received time(UTC)						
	TTAAii	CCCC	YGGggg	Bangkok	Brisbane	Singapore	Tokyo			
	FVFE01	RJTD	170200	02:00	02:00:10	02:00:19	02:00:07			
	FVXX01	LFPW	170200		02:00:45	02:00:47	02:00:48			
	FCAK23	PAWU	170200			02:01:16	02:00:24**			
	FVAU01	ADRM	170202		02:02:25	02:02:27	02:02:30*			
	FVPS01	NZKL	170206	02:06	02:06:11	02:06:13	02:06:17			
	FVAK23	PAWU	170210			02:11:14	02:10:24**			
	FVXX25	KNES	170212			02:14:08	02:14:15*			
SIGMET	Header			Received time(UTC)						
	TTAAii	CCCC	YGGggg	MWO	FIR/UIR	Bangkok	Brisbane	Singapore	Tokyo	
	WCMV31	VRMM	170210	VRMM	VRMM	02:12		02:07:02	02:12:20	Incorrect TT in AHL
	WCIN31	VECC	170205	VECC	WECF			02:12:18		Incorrect TT in AHL
	WSCI37	ZLLL	170200	ZLLL	ZLHW	02:05		02:05:54	02:05:54*	Incorrect TT in AHL
	WSCI37	ZLLL	170200	ZLLL	ZLHW	02:06				Incorrect TT in AHL
	WSCI39	ZWWW	170205	ZWWW	ZWUQ	02:08		02:09:18	02:09:18	Incorrect TT in AHL
	WSDL31	EDZF	170301	EDZF	EDGG			03:01:29		Incorrect TT in AHL
	WSDL32	EDZF	170302	EDZF	EDUU			03:02:17		Incorrect TT in AHL
	WSPP21	NTAA	170219	NTAA	NTTT	02:19		02:19:46	02:19:48	Incorrect TT in AHL
	WVAK01	PAWU	170200	PAWU	PAZA			02:02:50	02:00:45**	
	WVAK01	PAWU	170210	PAWU	PAZA			02:13:02		CANX SIGMET TEST
	WVAU01	ADRM	170207	YPDM	YBBB	02:08	02:08:01	02:08:21	02:08:03	
	WVAU01	ADRM	170207	YMMC	YBBB		02:08:00			
	WVAU01	ADRM	170209	YPDM	YMMM	02:09	02:09:10	02:09:11	02:09:53	
	WVAU01	ADRM	170209	YMMC	YMMM		02:09:10			
	WVBM31	VYYY	170205	VYYY	VYYY			08:45:47		RRA
	WVCI31	RCTP	170200	RCTP	RCAA	02:04	02:05:05	02:05:04	02:04:52*	
	WVCI31	RCTP	170200	RCTP	RCAA	02:04				
	WVCI33	ZBAA	170205	ZBAA	ZBPE	02:10	02:10:52	02:10:52	02:10:52*	
	WVCI33	ZBAA	170205	ZBAA	ZBPE	02:10				
	WVCI34	ZSSS	170205	ZSSS	ZSHA	02:15	02:14:40	02:14:40	02:14:40*	
	WVCI34	ZSSS	170205	ZSSS	ZSHA	02:15				
	WVCI35	ZGGG	170205	ZGGG	ZGZU	02:08	02:08:25	02:08:25	02:08:41*	
	WVCI35	ZGGG	170205	ZGGG	ZGZU	02:09				
	WVCI35	ZJHK	170205	ZJHK	ZJSA	02:10	02:12:01	02:12:01	02:11:59	
	WVCI36	ZPPP	170205	ZPPP	ZPKM	02:07	02:07:46	02:07:46	02:07:45	
	WVCI37	ZLLL	170200	ZLLL	ZLHW	02:10	02:12:09	02:12:08	02:12:08	
	WVCI38	ZYTX	170250	ZYTX	ZYSH	02:51	02:51:23	02:51:22	02:51:41	
	WVCI45	ZHHH	170220	ZHHH	ZHWH	02:35	02:36:01	02:36:01	02:26:36*	
	WVCI45	ZHHH	170220	ZHHH	ZHWH	02:36				
	WVCI45	ZHHH	170220	ZHHH	ZHWH	02:37				
	WVCI45	ZHHH	170220	ZHHH	ZHWH	02:37				
	WVCI45	ZHHH	170220	ZHHH	ZHWH	02:37				
	WVFI01	NFFN	170000	NFFN	NFFF	02:06	02:06:02	02:04:28	02:06:04	
	WVIN31	VOMM	170207	VOMM	VOMF	02:07	02:07:31	02:07:37	02:07:37	
	WVIN31	VOMM	170210	VOMM	VOMF	02:12	02:10:38	02:10:45	02:11:08	
	WVIN31	VOMM	170212	VOMM	VOMF	02:12	02:12:40	02:12:44	02:12:42	
	WVJP31	RJTD	170205	RJTD	RJJJ	02:06	02:05:11	02:05:11	02:05:10	
	WVJP31	RJTD	170205	YMMC	RJJJ		02:06:27			
	WVKO31	RKSI	170205	RKSI	RKRR	02:03	02:03:12	02:03:12	02:03:11	
	WVKP31	ZPPP	170202	ZPPP	VDPP	02:05	02:05:34	02:05:33	02:05:33	
	WVLA31	VLVT	170200	VLVT	VLVT	02:10	02:10:05	02:10:05	02:10:39	
	WVLA31	VLVT	170200	VLVT	VLVT	02:10				
	WVLA31	VLVT	170200	VLVT	VLVT	02:28		02:28:51	02:28:57	RRA
	WVMS31	WMKK	170205	WBKK	WBFC	02:03	02:03:57	02:03:57	02:04:03	
	WVMS31	WMKK	170205	WMKK	WMFC	02:06	02:05:44	02:05:44	02:05:50	
	WVN221	NZKL	170210	NZKL	NZZC	02:10	02:10:45	02:10:47	02:11:17*	
	WVN221	NZKL	170229	NZKL	NZZC	02:29				
	WVPS21	NZKL	170213	NZKL	NZZO	02:13	02:13:38	02:13:40	02:13:42	
	WVPS21	NZKL	170230	NZKL	NZZO	02:30				
	WVPA01	PHFO	170215	PHFO	KZOA			02:17:46	02:15:25**	
	WVPA01	PHFO	170215	YMMC	WSVP		02:15:18			
	WVPH31	RPLL	170201	RPLL	RPHI		02:01:17	02:01:16	02:01:15	
	WVFN01	KKCI	170215	KKCI	KZOA			02:17:45	02:15:25**	
	WVFN01	KKCI	170215	YMMC	WSVP		02:15:37			
	WVFN01	KKCI	170220	KKCI	KZOA			02:22:52		CANX SIGMET TEST

WVPN01	KKCI	170220	YMMC	KZOA		02:35:31			
WVPN01	KKCI	170220	YMMC	WSVP		02:19:58			
WVRA31	RUVV	170203	UHWW	UHWW	02:03	02:03:52	02:03:52	02:03:50	
WVRA31	RUPK	170200	UHPP	UHPP	02:04	02:04:16	02:04:16	02:03:54	
WVRA31	RUHB	170203	UHSH	UHSH	02:04	02:04:31	02:04:30	02:04:29*	
WVRA31	RUCH	170200	UIAA	UIAA	02:07	02:07:29	02:07:28	02:07:26	
WVRA31	RUSH	170200	UHSS	UHSS	02:13	02:12:58	02:13:01	02:12:56	
WVRA31	RUMG	170205	UHMM	UHMM	02:11	02:11:19	02:11:19	02:11:14	
WVRA32	RUHB	170201	UHNN	UHNN	02:02	02:02:35	02:02:34	02:02:32	
WVRA32	RUYK	170205	UELL	UELL	02:06	02:05:58	02:17:48	02:05:56	
WVRA33	RUHB	170159	UHBB	UHBB	02:03	02:03:31	02:03:31	02:03:29	
WVRA34	RUYK	170205	UESS	UESS				02:05:23	
WVRA35	RUYK	170200	UESO	UESO			02:07:53	02:01:20	
WVRA35	RUYK	170200	UESO	UESO				02:04:08	
WVRA38	RUYK	170200	UEST	UEST				02:00:38	
WVRS32	RUSM	171000	RUSM	UWOO				10:01:15	
WVSR20	WSSS	170205	WSSS	WSJC	02:06	02:06:29	02:06:28	02:06:33	
WVSS20	VHHH	170200	VHHH	VHHK	02:03	02:03:46	02:03:48	02:03:37	
WVTH31	VTBS	170205	VTBS	VTBB	02:06	02:06:54	02:06:54	02:07:12	
WVTH31	VTBS	170205	VTBS	VTBB	02:07		02:08:11	02:08:17	
WVTH31	VTBS	170210	VTBS	VTBB	02:10	02:10:12	02:10:13	02:10:49	
WVTH31	VTBS	170220	VTBS	VTBB	02:25	02:25:45	02:25:45	02:25:49	
WVVS31	VVGL	170201	VVGL	VVNB	02:02	02:02:22	02:02:26		
WVVS31	VVGL	170202	VVGL	VVTS	02:03	02:03:39	02:03:44	02:03:43	
WVVS31	VVGL	1702011	VVGL	VVNB	02:02			02:02:24	

\*indicates two or more bulletins were received,  
and the time of the first one is shown.

\*\*indicates received from ISCS and GTS

ASIA/PAC SIGMET TEST Summary (ROBEX Availability Index for VA)									
Availability Index = $\frac{\text{No of aerodromes for which one more or more non-NIL data type are received}}{\text{No of aerodromes required for the bulletin}}$									
ROBEX Compliance Index (VA test)									
	WMO Header VA	ICAO	WMO Header	CCCC	VTBB	YBZZ	WSZZ	RJTD	
1	WVAU01	YDRM	WVAU01	ADRM	1	1	1	1	1
2	WVCI33	ZBAA	WVCI33	ZBAA	1	1	1	1	2
3	WVCI35	ZGGG	WCCI35	ZGGG	1	1	1	1	3
4	WVCI35	ZJHK	WVCI35	ZJHK	1	1	1	1	4
5	WVCI36	ZPPP	WVCI36	ZPPP	1	1	1	1	5
6	WVCI37	ZLLL	WVCI37	ZLLL	1	1	1	1	6
7	WVCI34	ZSSS	WVCI34	ZSSS	1	1	1	1	7
8	WVCI38	ZYTX	WVCI38	ZYTX	1	1	1	1	8
9	WVCI31	RCTP	WVCI31	RCTP	1	1	1	1	9
10	WVCI39	ZWWW			1		1	1	10
11	WVCI45	ZHHH	WVCI45	ZHHH	1	1	1	1	11
12	WVSS20	VHHH	WVSS01	VHHH	1	1	1	1	12
13	WVVFJ01,02...	NFFN	WVVFJ01	NFFN	1	1	1	1	13
14	WVVPF21	NTAA			1		1	1	14
15		VECC	WVIN31	VECC			1		15
16	WVIN31	VOMM	WVIN31	VOMM	1	1	1	1	16
17	WVID20	WIII							
18	WVID21	WAAA							
19	WVJP31	RJTD	WVJP31	RJTD	1	1	1	1	17
20	WVLA31	VLVT	WVLA31	VLVT	1	1	1	1	18
21	WVMS31	WBKK	WVMS31	WMKK	1	1	1	1	19
22	WVMS31	WMKK	WVMS31	WMKK	1	1	1	1	20
23		VRMM	WVMV31	VRMM	1		1	1	21
25		VYYY	WVBM31	VYYY			1		22
26	WVNZ21	NZKL	WVNZ21	NZKL	1	1	1	1	23
27	WVPS21	NZKL	WVPS21	NZKL	1	1	1	1	24
28	WVNG20	AYPY							
29	WVPH31	RPLL	WVPH31	RPLL		1	1	1	25
30	WVKO31	RKSI	WVKO31	RKSI	1	1	1	1	26
31	WVSR20	WSSS	WVSR21	WSSS	1	1	1	1	27
32	WVTH31	VTBS	WVTH31	VTBS	1	1	1	1	28
33	WVAK01-09	PAWU	WVAK01	PAWU			1	1	29
34	WVPA01-13	PHFO	WVPA01	PHFO		1	1	1	30
35	WVNT01-13	KKCI							
36	WVNP01-13	KKCI	WVNP01	KKCI		1	1	1	31
37	WVVS31	VVGL	WCVS31	VVGL	1	1	1	1	32
Availability Index for RODBs					0.70	0.70	0.86	0.81	