

*International Civil Aviation Organization*



**THE TWELFTH MEETING OF ASIA/PACIFIC ROBEX  
WORKING GROUP (ROBEX WG/12) and  
FOURTH MEETING OF METEOROLOGICAL HAZARDS TASK  
FORCE (MET/H TF/4)**

ICAO Regional Sub-Office, Beijing, China

19 March 2014

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**Agenda Item (conjoint session) 2: SIGMET and advisory information**

**a) SIGMET tests**

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

(Presented by Japan)

**SUMMARY**

This paper presents the results of the AISA/PAC SIGMET tests conducted in November 2012 for TC and VA.

**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 At its 11th meeting, the ROBEX Working Group (ROBEX WG) reviewed the results of SIGMET tests in the Asia/Pac Region held in November 2012. After the meeting, it was decided that the WC, WV and WS SIGMET tests would be conducted on 12, 19 and 26 November 2013, respectively.

1.3 The Regional SIGMET tests were conducted as follows.

SIGMET for	2007	2008	2009		2010	2011	2012	2013
tropical cyclone	1/15	1/15	2/10	11/10	11/10	11/08	11/07	11/12
volcanic ash	1/22	1/22	2/17	11/17	11/17	11/15	11/14	11/19

## 2. PREPARATION FOR THE TEST

2.1 In its State letter dated September 24 2013, *Schedule for SIGMET tests in the Asia/Pacific Region – November 2013*, the ICAO Asia Pacific Regional Office notified the schedule and the procedure of the regional SIGMET tests as follows.

- Test for **SIGMET for tropical cyclones (WC SIGMET) – 12 November 2013, start time** (time of issuance of triggering tropical cyclone advisory by the TCACs concerned ) **0200 UTC**;
  - Note that for TCAC New Delhi, test tropical cyclone advisories would be issued at **0200 UTC for the ASIA/PAC Region and 0800 UTC for the MID Region**
- Test for **SIGMET for volcanic ash (WV SIGMET) – 19 November 2013, start time** (time of issuance of the triggering volcanic ash advisory by the VAACs concerned ) **0200 UTC**; and
- Test for **SIGMET for other weather phenomena (WS SIGMET) – 26 November 2013**, to be issued during the 10-minute period between 0200 and 0210 UTC.

## 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 SIGMET test. The combined information of the reception of the bulletins during the test on TC and VA is shown in the Appendices A and B, respectively. In this paper, the overall availability means the rate of test bulletins received at least one RODB(s) over all those expected to be reported.

### 3.2 Summary of WC SIGMET test

3.2.1 The total number of WC SIGMET bulletins expected to be reported during the test from ASIA/PAC States was 46 and that received during the WC SIGMET test was 33, with some bulletins with incorrect formats or WMO headings. The overall availability of the test WC SIGMET from ASIA/PAC States was about 72%. The availability remained almost the same as that of the SIGMET test in 2012 (70%). Compared with the result in 2012, bulletins from NTAA, RCTP and WIII newly appeared in this WC SIGMET test.

3.2.2 Appendix A shows the summary of the WC SIGMET test. The format of the received time is “GGgg” where GG and gg are hour and minute, respectively. Yellow colored cell indicates bulletins with an incorrect header or format. The key issue related to incorrect WMO heading, especially for TT (WS, WC or WV), remains unchanged.

3.2.3 Figure 1 shows the availability of the WC SIGMET test bulletins at each RODB since November 2009. The availability in 2013 was almost the same as that in 2012.

### 3.3 Summary of WV SIGMET test

3.3.1 The total number of WV SIGMET bulletins expected to be reported during the test from ASIA/PAC States was 49. In addition, RODB Tokyo relayed 9 Russian WV SIGMETs (one from each of UELL, UEST, UHHH, UHMM, UHPP, UIAA and UIII, and two from UHMA). Therefore the total number of WV SIGMET bulletins expected to be reported during the WV SIGMET test was 58. The total number of WV SIGMET bulletins received during the test from

ASIA/PAC and from Russia was 37 and 1, respectively. The availability in the ASIA/PAC region was 66% which was lower than that of the SIGMET test in 2012 (72%). While lack of WV SIGMET messages from Russia resulted in the lower availability, bulletins from WIII newly appeared in this WV SIGMET test.

3.3.1 Appendix B shows the summary of the WV SIGMET test. The format of the received time and the meaning of the yellow colored cell are the same as those of the Appendix A. The incorrect WMO heading is also for TT.

3.3.1 Figure 2 shows the availability of the WV SIGMET test at each RODB since 2009. The availability of the SIGMET test messages at each RODB in 2013 was slightly lower than that in 2011.

3.4 Overall summary of the SIGMET tests

3.4.1 The overall availabilities of both WC and WV test bulletins for 2013 were almost the same as those of 2012. However, some MWOs issued test bulletins with completely same message for several times. It is desirable to improve this point, since it might cause confusion among participating countries when they analyze the result of the SIGMET tests.

#### **4. ACTION BY THE MEETING**

3.1 The meeting is invited to:

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

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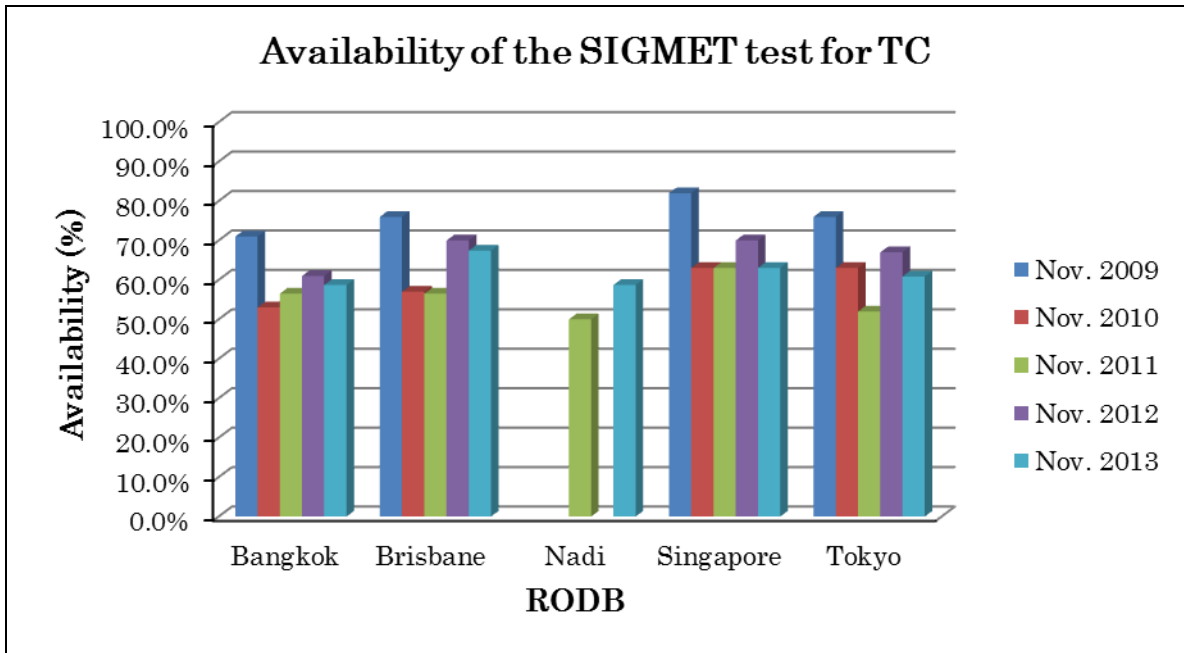


Figure 1 Availability of the SIGMET test messages for TC

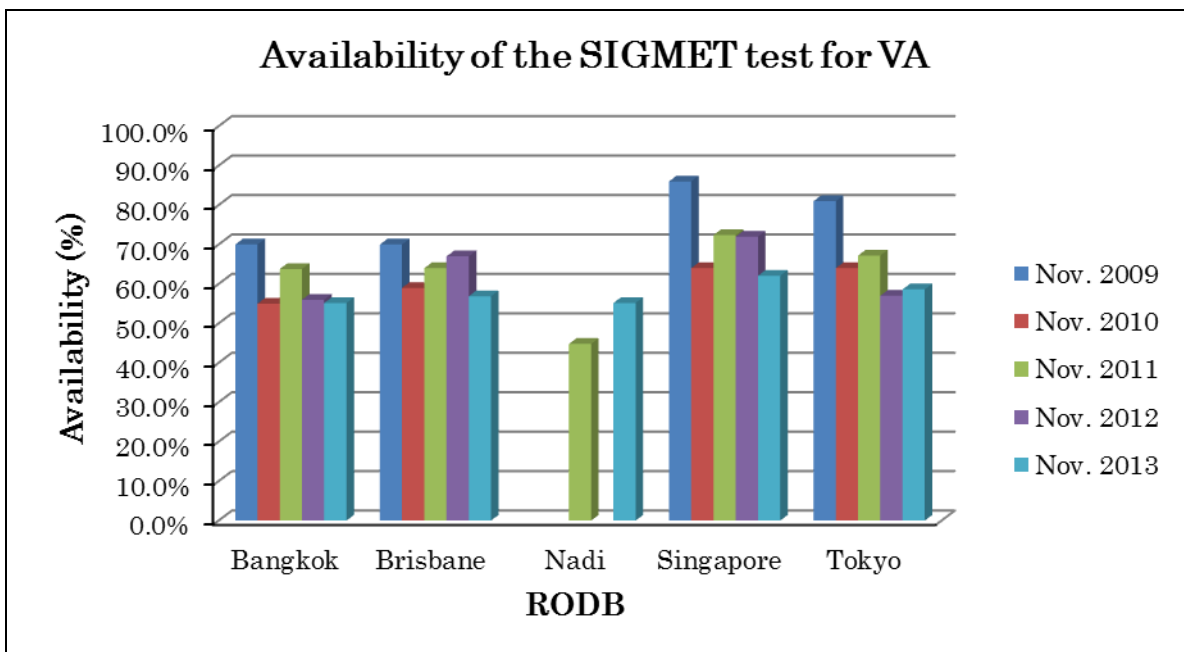


Figure 2 Availability of the SIGMET test messages for VA

Appendix A  
 Summary of the WC SIGMET test results

Header According to SIGMET Guide				Test Result						Received Time GGgg (UTC)				
MWO	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGGgg	MWO	FIR	VTBB	YBBB	NFZZ	WSZZ	RJTD
AYPY	WCNG20	AYPY	AYPY	-	-	-	-	-	-	-	-	-	-	-
AYPY	WCNW20	AYPY	ANAU	-	-	-	-	-	-	-	-	-	-	-
AYPY	WCSO20	AYPY	AGGG	-	-	-	-	-	-	-	-	-	-	-
KKCI	WCPN01-13	KKCI	KZAK	FF	WCPN01	KKCI	120200	KKCI	KZAK	-	-	-	0203	0209
NFFN	WCFJ01, 02, ...	NFFN	NFFF	FF	WCFJ01	NFFN	120000	NFFN	NFFF	0209	0208	0208	0208	0209
NTAA	WCPF21	NTAA	NTTT	GG	WCPF20	NTAA	120205	NTAA	NTTT	0214	0206	0206	0207	0207
NZKL	WCNZ21	NZKL	NZZC	-	-	-	-	-	-	-	-	-	-	-
NZKL	WCPS21	NZKL	NZZO	FF	WCPS21	NZKL	120212	NZKL	NZZO	0212	0212	0212	0212	0212
OPKC	WCPK31	OPKC	OPKR	GG	WCPK31	OPKC	120205	OPKC	OPKC	0208	0208	0208	0208	0212
OPLA	WCPK31	OPLA	OPLR	GG	WSPK31	OPLA	120200	OPLA	OPLA	0200	0157	0200	0200	-
PAWU	WCAK01-09	PAWU	PAZA	-	-	-	-	-	-	-	-	-	-	-
PHFO	WCPA01-13	PHFO	KZAK	-	WCPA01	PHFO	120200	PHFO	KZAK	-	-	-	0203	0200
RCTP	WCCI31	RCTP	RCAA	FF	WCCI31	RCTP	120200	RCTP	RCAA	0204	0200	0204	0204	0204
RJTD	WCJP31	RJTD	RJJJ	GG	WCJP31	RJTD	120205	RJTD	RJJJ	0205	0205	0205	0205	0224
RKSI	WCKO31	RKSI	RKRR	FF	WCKO31	RKSI	120201	RKSI	RKRR	0202	0202	0202	0202	0202
RPLL	WCPH31	RPLL	RPHI	FF	WCPH31	RPLL	120200	RPLL	RPHI	0200	0200	0200	0200	0200
VABB	WCIN31	VABB	VABF	FF	WCIN31	VABB	120205	VABB	VABF	0206	0203	0205	0205	0206
VCBI	WCSB31	VCBI	VCBI	-	-	-	-	-	-	-	-	-	-	-
VECC	WCIN31	VECC	VECF	FF	WCIN31	VECC	120205	VECC	VECF	0205	0205	0205	0205	0205
VGHS	WCBW20	VGHS	VGFR	FF	WCBW20	VGHS	120205	VGHS	VGFR	0205	0205	0205	0205	0205
VHHH	WCSS20	VHHH	VHHK	FF	WCSS20	VHHH	120203	VHHH	VHHK	0203	0203	0203	0203	0202
VIDP	WCIN31	VIDP	VIDF	FF	WCIN31	VIDP	120205	VIDP	VIDF	0210	0201	0205	0210	0210
VLVT	WCLA31	VLVT	VLVT	-	-	-	-	-	-	-	-	-	-	-
VOMM	WCIN31	VOMM	VOMF	FF	WCIN31	VOMM	120205	VOMM	VOMF	0204	0203	0218	0204	0204
VRMM	WCMV31	VRMM	VRMF	-	-	-	-	-	-	-	-	-	-	-
VTBS	WCTH31	VTBS	VTBB	FF	WCTH31	VTBS	120212	VTBS	VTBB	0217	0218	0224	0217	0217
VVGL	WCVS31	VVGL	VVNB	FF	WCVS31	VVGL	120201	VVGL	VVNB	0203	0159	0203	0203	0203
VVGL	WCVS31	VVGL	VVTS	FF	WCVS31	VVGL	120202	VVGL	VVTS	0204	0201	0204	0205	0204
VYYY	WCBM31	VYYY	VYYY	-	-	-	-	-	-	-	-	-	-	-
WAAA	WCID21	WAAA	WAAF	-	-	-	-	-	-	-	-	-	-	-
WIII	WCID20	WIII	WIIF	FF	WCID20	WIII	120218	WIII	WIIF	0229	0224	0229	0229	0229
WMKK	WCMS31	WMKK	WBFC	FF	WCMS31	WMKK	120220	WMKK	WBFC	0221	0220	0221	0221	0221
WMKK	WCMS31	WMKK	WMFC	FF	WCMS31	WMKK	120220	WMKK	WMFC	0221	0220	0220	0220	0220
WSSS	WCSR20	WSSS	WSJC	FF	WCSR20	WSSS	120205	WSSS	WSJC	0205	0205	0205	0205	0205
YBRF	WCAU01	ABRF	YBBB	-	WCAU01	ADRM	120158	YBRF	YBBB	-	0158	-	-	-
YBRF	WCAU01	ABRF	YMMM	-	-	-	-	-	-	-	-	-	-	-
YDRM	WCAU01	ADRM	YBBB	-	WCAU01	ADRM	120204	YPRF	YBBB	-	0204	-	-	-
YDRM	WCAU01	ADRM	YMMM	-	-	-	-	-	-	-	-	-	-	-
YPRF	WCAU01	APRF	YBBB	-	WCAU01	APRF	120220	YPRF	YBBB	-	0220	-	-	-
YPRF	WCAU01	APRF	YMMM	-	WCAU01	APRF	120219	YPRF	YMMM	-	0219	-	-	-
ZBAA	WCCI33	ZBAA	ZBPE	FF	WCCI33	ZBAA	120205	ZBAA	ZBPE	0204	0202	0202	0204	0204
ZGGG	WCCI35	ZGGG	ZGZU	FF	WCCI35	ZGGG	120205	ZGGG	ZGZU	0200	0200	0200	0200	0200
ZJHK	WCCI35	ZJHK	ZJSA	FF	WCCI35	ZJHK	120203	ZJHK	ZJSA	0209	0209	0209	0209	0209
ZKPY	WCKR31	ZKPY	ZKPP	-	-	-	-	-	-	-	-	-	-	-
ZSSS	WCCI34	ZSSS	ZSHA	GG	WCCI34	ZSSS	120205	ZSSS	ZSHA	0201	0200	0200	0201	0201
ZUUU	WCKP31	ZUUU	VDPP	FF	WCKP31	ZUUU	120202	ZUUU	VDPP	0203	0203	0203	0203	0203

Appendix B  
Summary of the WV SIGMET test results

Header According to SIGMET Guide				Test Result						Received Time GGgg (UTC)				
MWO	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YYGGgg	MWO	FIR	VTBB	YBBB	NFZZ	WSZZ	RJTD
AYPY	WVNG20	AYPY	AYPY	-	-	-	-	-	-	-	-	-	-	-
AYPY	WVNW20	AYPY	ANAU	-	-	-	-	-	-	-	-	-	-	-
AYPY	WVSO20	AYPY	AGGG	-	-	-	-	-	-	-	-	-	-	-
KKCI	WVFN01-13	KKCI	KZAK	GG	WVFN01	KKCI	190200	KKCI	KZAK	-	-	-	0219	0211
NFFN	WVFN01, 02, ...	NFFN	NFFF	FF	WVFN01	NFFN	190000	NFFN	NFFF	-	0205	0205	0205	0205
NTAA	WVFN21	NTAA	NTTT	-	-	-	-	-	-	-	-	-	-	-
NZKL	WVNZ21	NZKL	NZZC	FF	WVNZ21	NZKL	190206	NZKL	NZZC	0207	0206	0206	0206	0206
NZKL	WVPS21	NZKL	NZZO	FF	WVPS21	NZKL	190206	NZKL	NZZO	0207	0206	0206	0206	0206
OAKB	WVAH31	OAKB	OAKX	-	-	-	-	-	-	-	-	-	-	-
OPKC	WVPK31	OPKC	OPKR	GG	WSPK31	OPKC	190205	OPKC	OPKR	0215	0214	0214	0214	-
OPLA	WVPK31	OPLA	OPLR	GG	WVPK31	OPLA	190200	OPLA	OPLA	0206	0204	0205	0205	0205
PAWU	WVAK01-09	PAWU	PAZA	-	-	-	-	-	-	-	-	-	-	-
PHFO	WVPA01-13	PHFO	KZAK	-	-	-	-	-	-	-	-	-	-	-
RCTP	WVCI31	RCTP	RCAA	FF	WVCI31	RCTP	190207	RCTP	RCAA	0208	0207	0207	0211	0208
RJTD	WVJP31	RJTD	RJJJ	GG	WVJP31	RJTD	190205	RJTD	RJJJ	0207	0206	0206	0206	0209
RKSI	WVKO31	RKSI	RKRR	FF	WVKO31	RKSI	190203	RKSI	RKRR	0204	0203	0203	0204	0204
RPLL	WVPH31	RPLL	RPHI	FF	WVPH31	RPLL	190200	RPLL	RPHI	0202	0201	0201	0201	0201
UELL	WVRA32	RUYK	UELL	-	-	-	-	-	-	-	-	-	-	-
UEST	WVRA38	RUYK	UEST	-	-	-	-	-	-	-	-	-	-	-
UHHH	WVRA31	RUHB	UHHH	-	-	-	-	-	-	-	-	-	-	-
UHMA	WVRA31	RUPV	UHMP	-	-	-	-	-	-	-	-	-	-	-
UHMA	WVRA32	RUPV	UHMA	-	-	-	-	-	-	-	-	-	-	-
UHMM	WVRA31	RUMG	UHMM	-	-	-	-	-	-	-	-	-	-	-
UHPP	WVRA31	RUPK	UHPP	FF	WVRA31	RUPK	190245	UHPP	UHPP	-	-	-	-	0245
UIAA	WVRA31	RUCH	UIAA	-	-	-	-	-	-	-	-	-	-	-
UIII	WVRA31	RUIR	UIII	-	-	-	-	-	-	-	-	-	-	-
VABB	WVIN31	VABB	VABF	-	-	-	-	-	-	-	-	-	-	-
VCBI	WVSB31	VCBI	VCBI	-	-	-	-	-	-	-	-	-	-	-
VECC	WVIN31	VECC	VECF	-	-	-	-	-	-	-	-	-	-	-
VGHS	WVBW20	VGHS	VGFR	FF/GG	WVBW20	VGHS	190209	VGHS	VGFR	0208	-	-	0213	0212
VHHH	WVSS20	VHHH	VHHK	FF	WVSS20	VHHH	190203	VHHH	VHHK	0204	0203	0203	0204	0204
VIDP	WVIN31	VIDP	VIDF	FF	WVIN31	VIDP	190205	VIDP	VIDF	0212	0209	0213	0216	0212
VLVT	WVLA31	VLVT	VLVT	GG	WVLA31	VLVT	190205	VLVT	VLVT	0346	0337	0344	0347	0347
VOMM	WVIN31	VOMM	VOMF	FF	WVIN31	VOMM	190205	VOMM	VOMF	0207	0205	0205	0206	0207
VRMM	WVMV31	VRMM	VRMF	-	-	-	-	-	-	-	-	-	-	-
VTBS	WVTH31	VTBS	VTBB	FF	WVTH31	VTBS	190218	VTBS	VTBB	0225	0225	0227	0225	0225
VVGL	WVVS31	VVGL	VVNB	FF	WVVS31	VVGL	190201	VVGL	VVNB	0204	0200	0200	0204	0204
VVGL	WVVS31	VVGL	VVTS	FF	WVVS31	VVGL	190202	VVGL	VVTS	0206	0202	0202	0206	0206
VYYY	WVBM31	VYYY	VYYY	-	-	-	-	-	-	-	-	-	-	-
WAAA	WVID21	WAAA	WAAF	FF	WVID21	WAAA	190208	WAAA	WAAF	-	0205	-	0205	0212
WIII	WVID20	WIII	WIIF	DD/FF	WVID20	WIII	190200	WIII	WIIF	0227	0206	0206	0215	0215
WMKK	WVMS31	WMKK	WBFC	FF	WVMS31	WMKK	190205	WBKK	WBFC	0208	0208	0210	0208	0210
WMKK	WVMS31	WMKK	WMFC	FF	WVMS31	WMKK	190205	WMKK	WMFC	0205	0205	0205	0205	0205
WSSS	WVSR20	WSSS	WSJC	FF	WVSR20	WSSS	190205	WSSS	WSJC	0205	0205	0205	0205	0205
YDRM	WVAU01	ADRM	YBBB	GG	WVAU01	ADRM	190205	YPDM	YBBB	0207	0205	0205	0205	0212
YDRM	WVAU01	ADRM	YMMM	GG	WVAU01	ADRM	190206	YPDM	YMMM	0207	0206	0210	0206	0207
ZBAA	WVCI33	ZBAA	ZBPE	FF	WVCI33	ZBAA	190205	ZBAA	ZBPE	0203	0201	0201	0204	0203
ZGGG	WVCI35	ZGGG	ZGZU	FF	WVCI35	ZGGG	190205	ZGGG	ZGZU	0204	0203	0203	0205	0204
ZHHH	WVCI45	ZHHH	ZHWH	GG	WVCI45	ZHHH	190240	ZHHH	ZHWH	0247	0244	0246	0249	0245
ZJHK	WVCI35	ZJHK	ZJSA	FF	WVCI35	ZJHK	190205	ZJHK	ZJSA	0207	0207	0207	0208	0207
ZKPY	WVKR31	ZKPY	ZKKP	-	-	-	-	-	-	-	-	-	-	-
ZLXY	WVCI37	ZLXY	ZLHW	FF/GG	WVCI37	ZLXY	190203	ZLXY	ZLHW	0203	0202	0202	0208	0204
ZMUB	WVMO31	ZMUB	ZMUB	FF	WVMO31	ZMUB	190206	ZMUB	ZMUB	0207	-	-	0207	0207
ZSSS	WVCI34	ZSSS	ZSHA	FF/GG	WVCI34	ZSSS	190205	ZSSS	ZSHA	0203	0201	0201	0208	0202
ZUUU	WVCI36	ZUUU	ZPKM	FF	WVCI36	ZUUU	190207	ZUUU	ZPKM	0208	0208	0208	0208	0208
ZUUU	WVKP31	VDPP	VDPP	FF	WVKP31	ZUUU	190203	ZUUU	VDPP	-	0204	0204	0205	-
ZWWW	WVCI39	ZWWW	ZWUQ	FF/GG	WVCI39	ZWWW	190205	ZWWW	ZWUQ	0212	0200	0200	0212	-
ZYTX	WVCI38	ZYTX	ZYSH	FF	WVCI38	ZYTX	190205	ZYTX	ZYSH	0218	0218	0219	0219	0218