



International Civil Aviation Organization

**FIFTEENTH MEETING OF THE ASIA/PACIFIC METEOROLOGICAL
INFORMATION EXCHANGE WORKING GROUP (MET/IE WG/15)**

Bangkok, Thailand, 22 March 2017

Agenda Item C2: SIGMET tests

REVIEW OF WS SIGMET TEST 12
(Presented by Singapore RODB)

SUMMARY

This paper presents the data collected during WS SIGMET Test 12 conducted on 16 November 2016.

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 (5th edition October 2015). This document also outlines the procedures for conducting SIGMET tests. The test procedures encompass all the three types of SIGMET, as follows:

- 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 data

2.1.1 All five RODBs in the Region, Bangkok, Brisbane, Tokyo, Singapore and Nadi provided summaries of the reception of the WS SIGMET tests to the focal point for the WS SIGMET Tests in the Asia/Pacific region. An overview of the data reception is shown in Appendix 1.

2.1.2 The Regional OPMET Centre (ROC) London also provided a summary report on the reception of the WS SIGMET test messages in the EUR region. SIGMET Results received from the EUR region is shown in Appendix 2.

2.2 Test result and data analysis

2.2.1 State and MWO Issuance

- A total of 26 of the possible 29 States listed in the Asia/Pacific SIGMET Guide participated in SIGMET Test 2016.
- A total of 2 States (Afghanistan and Papua New Guinea (for Port Moresby FIR)) did not participate in any of the SIGMET test conducted.
- Following MWOs did not issue WS test SIGMET in 2016:

1	Kabul (OAKB)
2	China, Taibei (RCTP)
3	Democratic People’s Republic of Korea, Sunan (ZKPY)
4	French Polynesia, Tahiti (NTAA)
5	Fiji, Nadi (NFFN)
6	Nauru, Port Moresby on behalf of Nauru (ANYN)
7	Papua New Guinea, Port Moresby (AOPY)
8	Pakistan, Lahore (OPLA)

Table 1: States/MWOs did not participate in WS SIGMET Test 2016

2.2.2 **RODB Reception**

The summary of Asia Pacific RODB Reception for SIGMET Test 2016 is listed below:

SIGMET Test	RODB Reception	Bangkok RODB	Brisbane RODB	Singapore RODB	Tokyo RODB	Nadi RODB
Test 2016	243	46 of 54	46 of 54	54 of 54	51 of 54	46 of 54
	90%	85%	85%	100%	94%	85%

Table 2: RODB Reception of WS SIGMET Test 2016

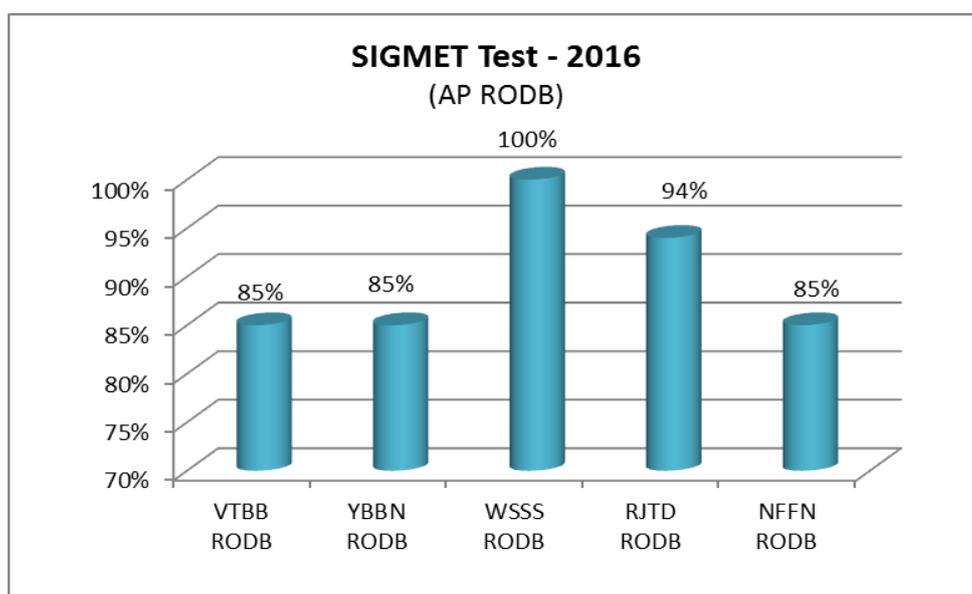


Figure 1: AP-RODB Reception of 2016 SIGMET Test

2.3 **EUR ROCs and RODB Reception**

2.3.1 The WS SIGMET Test results were collected from ROCs, Vienna, London and Toulouse, and RODB Brussels. An overview of the data reception is shown in Appendix 2.

2.3.2 A summary of the WS SIGMET Test results in the EUR region is shown in Table 3 below:

SIGMET Test	ROC Reception	LOWM ROC	EGGY ROC	EGGY ROC	EBBR RODB
Test 2016	133	45 of 54	44 of 54	44 of 54	40 of 54
	82%	83%	81%	81%	74%

Table 3: EUR ROC and RODB Reception of WS SIGMET Test 2016

2.3.3 Comparison of the WS SIGMET test reception between AP RODB and EUR ROC

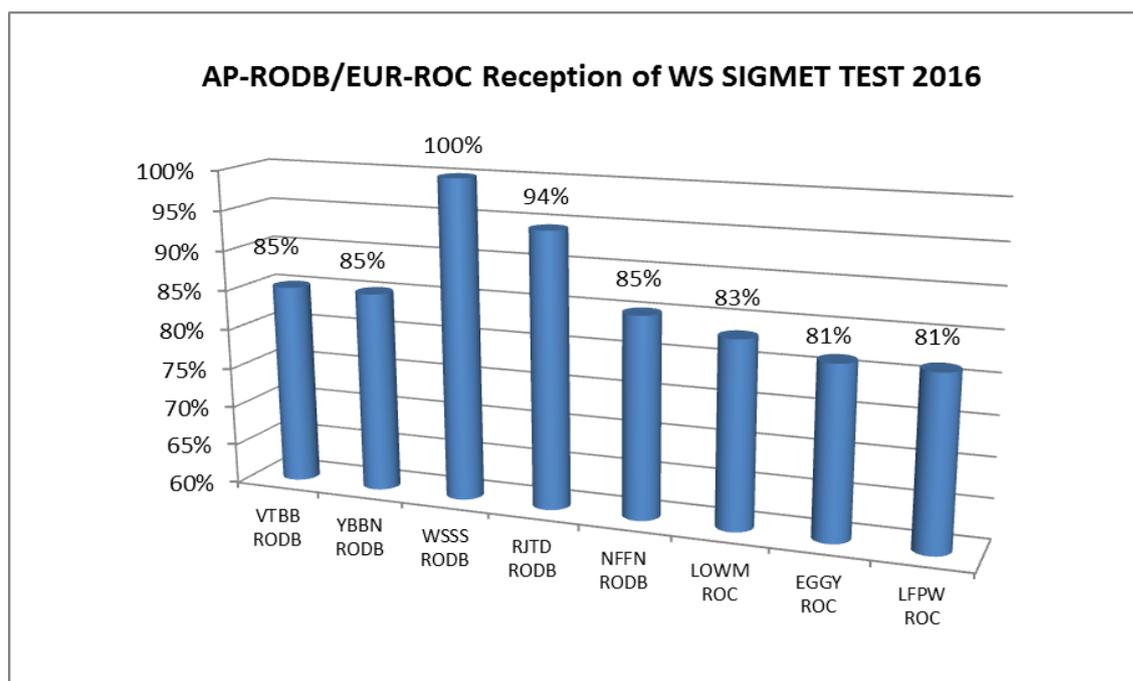


Figure 2: Comparison of WS SIGMET Test Reception

2.4 **Formatting errors in WS SIGMET test messages**

2.4.1 **Message header** – Received SIGMET test message with invalid WMO Heading:

State, MWOs (FIR)	Invalid group	Message Content
Maldives MALE	Invalid message identifier, using 'WC' for WS SIGMET Test	FF WSSSYZYX 020200 VRMMYMYX WCMV31 VRMM 160200 VRMF SIGMET Z99 VALID 160200/160210 VRMM- VRMF MALE' FIR THIS A TEST SIGMET, PLEASE DISREGARD=

Solomon Islands HONIARA	Invalid message identifier, using 'WC' for WS SIGMET Test	GG WSSSYZYX 160226 AGGHYMYX WCSO20 AGGH 160215 AGGG SIGMET Z99 VALID 160205/160215 AGGH- AGGG HONIARA FIR THIS IS A TEST SIGMET, PLEASE DISREGARD. SIGMET TEST SERVERE THURNDERSTORM ASSW TURB FOR HONIARA FIR NOW CANCELLED=
Bangladesh DHAKA	Invalid message identifier, using 'WV' for WS SIGMET Test	FF WSSSYZYX 160230 VGHSYMYX WVBW20 VGHS 160230 VGFR SIGMET Z99 VALID 160230/160240 VGHS- VGFR DHAKA FIR THIS IS A TEST SIGMET, PLEASE DISREGARD. TEST VA ADVISORY NOT RECEIVED FM NEW DELHI VAAC=

2.4.2 **Priorities** - The priority for SIGMET dissemination should be FF:

MWO Location	FIR	Priority	Message Content
Solomon Islands HONIARA	AGGG	GG	GG WSSSYZYX 160226 AGGHYMYX WSSO20 AGGH 160215 AGGG SIGMET Z99 VALID 160205/160215 AGGH- AGGG HONIARA FIR THIS IS A TEST SIGMET, PLEASE DISREGARD. SIGMET TEST SERVERE THURNDERSTORM ASSW TURB FOR HONIARA FIR NOW CANCELLED=

2.4.3 Receive incorrect FIR Identifier

MWO Location	MWO	FIR	Message Content
Myanmar YANGON	VYYY	VYYF (VYYY)	FF WSSSYMYX 160204 VYYYYMYX WSBM31 VYYY 160204 VYYF SIGMET Z99 VALID 160205/160215 VYYY- VYYF YANGON FIR THIS IS A TEST SIGMET, PLEASE DISREGARD.

Sri Lanka COLOMBO	VCBI	VCCF (VCBI)	FF WSSSYMYX 160205 VCBIYMYX WSSB31 VCBI 160205 VCCF SIGMET Z99 VALID 160205/160215 VCBI- VCCF COLOMBO FIR THIS IS A TEST SIGMET PLEASE DISREGARD=
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2.5 **Conclusion**

2.5.1 The participation for States in WS SIGMET Test 2016 increased by seven percent compared with previous test (States: 79% vs 72%). Five States, namely DPR Korea, Fiji, French Polynesia, Nauru and Papua New Guinea did not participate in the WS TEST 2016.

2.5.2 By comparison between 2015 and 2016, of the 52 WMOs, the participation percentage of MWOs was 85, increased by six percent (2016: 85%; 2015: 79%).

2.5.3 Total number of expected WS SIGMET test messages was 62 and 54 bulletins were received during the test. The overall availability was five percent higher than the test conducted in 2015 (82%).

2.5.4 The averaged availability of the WS TEST bulletins for five RODBs was 90%, down five percent from previous year.

2.5.5 Three EUR ROCs had an average of 82% availability of WS test messages received from the ASIA/PAC WMOs.

2.5.6 The following table summarizes the 2016 WS SIGMET Tests:

Asia/Pac Region	Test 2015	Test 2016
State participation	21 of 29 (72%)	23 of 29 (79%)
MWO participation	41 of 52 (79%)	44 of 52 (85%)
Test SIGMETs issued	51 of 62 (82%)	54 of 62 (87%)
RODB reception	243 of 255 (95%)	243 of 270 (90%)

3. **ACTION REQUIRED BY THE MEETING**

3.1 The meeting is invited to discuss the following:

- a) the results of the WS SIGMET test presented above;
- b) a review of the existing test procedures in accordance with the issues identified in paragraph 2.4 if needed; and
- c) the necessary follow-up issues arising from WS SIGMET test 2016.

APPENDIX 1 – Summary of WS SIGMET test results received from AP/RODBs

State	Meteorological Watch Office (MWO)		Area Served			SIGMET Guide					Transmitted Header				RODB Reception					Remarks
	Location	MWO	Name	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGgg	MWO	FIR / UR	VTBB	YBBN	WSSS	RJTD	NFFN			
Afghanistan	KABUL AD	OAKB	Kabul FIR and SSR	WSAH31	OAKB	OAKB														
Australia	ADELAIDE/Adelaide	YPRM	Melbourne FIR	WSAU21	APRM	YMMM	FF	WSAU21	APRM	160201	YPRM	YMMM	02:01	02:02	02:01	02:01	02:01	Not in Asia/Pac Region		
	BRISBANE/Brisbane	YBRF	Brisbane FIR	WSAU21	ABRF	YBBB	FF	WSAU21	ABRF	160201	YBRF	YBBB	02:02	02:03	02:02	02:02	02:02			
	BRISBANE/Brisbane	YBRF	Melbourne FIR	WSAU21	ABRF	YMMM	FF	WSAU21	ABRF	160201	YBRF	YMMM	02:02	02:03	02:02	02:02	02:02			
	DARWIN/Darwin	YPOD	Brisbane FIR	WSAU21	ADRM	YBBB	FF	WSAU21	ADRM	160201	YPOD	YBBB	02:02	02:03	02:01	02:01	02:01			
	DARWIN/Darwin	YPOD	Melbourne FIR	WSAU21	ADRM	YMMM	FF	WSAU21	ADRM	160201	YPOD	YMMM	02:02	02:03	02:01	02:01	02:01			
	HOBART/Hobart	YMHF	Melbourne FIR	WSAU21	AMHF	YMMM	FF	WSAU21	AMHF	160201	YMHF	YMMM	02:02	02:03	02:01	02:01	02:01			
	MELBOURNE/Melbourne	YMRP	Brisbane FIR	WSAU21	AMRF	YBBB	FF	WSAU21	AMRF	160203	YMRP	YBBB	02:03	02:04	02:03	02:03	02:03			
	MELBOURNE/Melbourne	YMRP	Melbourne FIR	WSAU21	AMRF	YMMM	FF	WSAU21	AMRF	160203	YMRP	YMMM	02:03	02:04	02:03	02:03	02:03			
	MELBOURNE/World Met. Centre	YMMC	Brisbane FIR	WSAU21	AMMC	YBBB	FF	WSAU21	AMMC	160202	YMMC	YBBB	02:03	02:04	02:03	02:03	02:03			
	MELBOURNE/World Met. Centre	YMMC	Melbourne FIR	WSAU21	AMMC	YMMM	FF	WSAU21	AMMC	160208	YMMC	YMMM	02:09	02:10	02:09	02:09	02:09			
	PERTH/Perth	YPRF	Brisbane FIR	WSAU21	APRF	YBBB	FF	WSAU21	APRF	160201	YPRF	YBBB	02:02	02:03	02:01	02:03	02:01			
	PERTH/Perth	YPRF	Melbourne FIR	WSAU21	APRF	YMMM	FF	WSAU21	APRF	160202	YPRF	YMMM	02:03	02:04	02:03	02:03	02:03			
	SYDNEY/Sydney	YSRF	Brisbane FIR	WSAU21	ASRF	YBBB	FF	WSAU21	ASRF	160206	YSRF	YBBB	02:06	02:02	02:06	02:06	02:06			
	SYDNEY/Sydney	YSRF	Melbourne FIR	WSAU21	ASRF	YMMM	FF	WSAU21	ASRF	160206	YSRF	YMMM	02:07	02:07	02:06	02:06	02:06			
Bangladesh	DHAKA/Zia Intl	VGHS	Dhaka FIR & SRR	WSBW20	VGHS	VGFR	FF	WSBW20	VGHS	160200	VGHS	VGFR	02:22	02:23	02:22	02:22	02:23			
Cambodia	CHENGDU/Shuangliu for PHNOM-PENH (VDFP)	ZUUU	Phnom-Penh FIR & SRR	WSPK31	ZUUU	VDFP	FF	WSPK31	ZUUU	160205	ZUUU	VDFP	02:07	02:07	02:06	02:06	02:05			
China	BEIJING/Capital	ZBAA	Beijing FIR & SRR	WSPK31	ZBAA	ZBPE	FF	WSPK31	ZBAA	160200	ZBAA	ZBPE	02:01	02:01	02:00	02:00	02:00			
	GUANGZHOU/Baiyan	ZGGG	Guangzhou FIR & SRR	WSPK31	ZGGG	ZGZU	FF	WSPK31	ZGGG	160201	ZGGG	ZGZU	02:01	02:02	02:00	02:00	02:00			
	CHENGDU/Shuangliu	ZUUU	Kunming FIR & SRR	WSPK31	ZUUU	ZPKM	FF	WSPK31	ZUUU	160201	ZUUU	ZPKM	02:01	02:01	02:00	02:00	02:00			
	XIAN/Xianyang	ZLXY	Lanzhou FIR and SRR	WSPK31	ZLXY	ZLHW	FF	WSPK31	ZLXY	160201	ZLXY	ZLHW	02:04	02:06	02:04	02:04	02:06			
	HAIKOU/Meilan	ZJHK	Sanya FIR & SRR	WSPK31	ZJHK	ZJSA	FF	WSPK31	ZJHK	160205	ZJHK	ZJSA	02:01	02:02	02:00	02:00	02:00			
	SHANGHAI/Hongqiao	ZSSS	Shanghai FIR & SRR	WSPK31	ZSSS	ZSHA	FF	WSPK31	ZSSS	160205	ZSSS	ZSHA	02:08	02:08	02:07	02:07	02:02			
	SHENYANG/Taoxian	ZYTX	Shenyang FIR & SRR	WSPK31	ZYTX	ZYSH	FF	WSPK31	ZYTX	160200	ZYTX	ZYSH	02:02	02:03	02:01	02:01	02:01			
	TAIBEI/Taipei Intl	RCTP	Taipei FIR & SRR	WSPK31	RCTP	RCAA														
	URUMQI/Diw opu	ZWWW	Urumqi FIR & SRR	WSPK31	ZWWW	ZWUQ	FF	WSPK31	ZWWW	160200	ZWWW	ZWUQ	03:05	03:07	03:05	03:05	03:05			
	WUHAN/Tianhe	ZHHH	Wuhan FIR & SRR	WSPK31	ZHHH	ZHWH	FF	WSPK31	ZHHH	160207	ZHHH	ZHWH	02:09	02:10	02:09	02:09	02:08			
	HONG KONG/Hong Kong Intl	VHHH	Hong Kong FIR & SRR	WSPK31	VHHH	VHKK	FF	WSPK31	VHHH	160200	VHHH	VHKK	02:01	02:01	02:00	02:00	02:00			
DPR Korea	SUNAN	ZKPY	Pyongyang FIR & SRR	WSPK31	ZKPY	ZKPK														
Fiji	NADI/Nadi Intl	NFFN	Nadi FIR & SRR	WSFJ01_02	NFFN	NFFF														
French Polynesia	TAHITI/Faaa	NAAA	Tahiti FIR & SRR	WSPF21_22	NAAA	NTTT														
India	CHENNAI/Chennai	VOMM	Chennai FIR & SRR	WSIN31	VOMM	VOMF	FF	WSIN31	VOMM	160200	VOMM	VOMF	02:01	02:02	02:00	02:00	02:01			
	DELHI/Indira Gandhi Intl	VIDP	Delhi FIR & SRR	WSIN31	VIDP	VIDF	FF	WSIN31	VIDP	160205	VIDP	VIDF	02:02	02:03	02:01	02:06	02:08			
	KOLKATA	VECC	Kolkata FIR & SRR	WSIN31	VECC	VECF	FF	WSIN31	VECC	160200	VECC	VECF	02:01	02:02	02:03	02:00	02:08			
	MUMBAI/Chhatrapati Shivaji Intl.	VABB	Mumbai FIR & SRR	WSIN31	VABB	VABF	FF	WSIN31	VABB	160205	VABB	VABF	02:02	02:04	02:02	02:02	02:07			
Indonesia	JAKARTA/Soekarno-Hatta	WIII	Jakarta FIR/UR & SRR	WSID20	WIII	WIIZ	FF	WSID20	WIII	160200	WIII	WIIZ	02:02	02:03	02:01	02:01	02:01			
	LUJUNG PANDANG/Hasanuddin	WAAA	Ujung Pandang FIR/UR & SRR	WSID21	WAAA	WAAZ	FF	WSID21	WAAA	160200	WAAA	WAAZ			02:00	02:07				
Japan	TOKYO (CTY)	RJTD	Fukuoka FIR & Tokyo SRR	WSJP31	RJTD	RJJJ	FF	WSJP31	RJTD	160205	RJTD	RJJJ	02:05	02:06	02:04	02:05	02:05			
Lao PDR	VIENTIANE/Wattay	VLVT	Vientiane FIR & SRR	WSLA31	VLVT	VLVT	FF	WSLA31	VLVT	160200	VLVT	VLVT	02:01	02:02	02:00	02:00	02:01			
Malaysia	SEPANG/KL International Airport	WMKK	Kota Kinabalu FIR & SRR	WSMS31	WMKK	WBFC	FF	WSMS31	WMKK	160153	WMKK	WBFC			02:05					
	SEPANG/KL International Airport	WMKK	Kuala Lumpur FIR & SRR	WSMS31	WMKK	WMFC	FF	WSMS31	WMKK	160200	WMKK	WMFC			02:05					
Maldives	MALE/Intl	VRMM	Male FIR & SRR	WSMV31	VRMM	VRMF	FF	WCVM31	VRMM	160200	VRMM	VRMF	02:03	02:07	02:03	02:03	02:05	Using 'WC' for WS SIGMET Test		
Mongolia	ULAANBAATAR	ZMUB	Ulaanbaatar FIR & SRR	WSMO31	ZMUB	ZMUB	FF	WSMO31	ZMUB	160200	ZMUB	ZMUB	02:10							
Myanmar	YANGON/Yangon International	VYYY	Yangon FIR & SRR	WSBM31	VYYY	VYYY	FF	WSBM31	VYYY	160204	VYYY	VYYF	02:02	02:04	02:02	02:02	02:03	incorrect FIR ID		
Nauru	NAURU	ANYN	Nauru FIR & SRR	WSNW20	ANYN	ANAU														
Nepal	KATHMANDU	VNKT	Kathmandu FIR & SRR	WSNP31	VNKT	VNSM	FF	WSNP31	VNKT	160200	VNKT	VNSM	02:02	02:04	02:02	02:02	02:03			
New Zealand	WELLINGTON (Aviation Weather Centre)	NZKL	New Zealand FIR & SRR	WSNZ21	NZKL	NZZC	FF	WSNZ21	NZKL	160201	NZKL	NZZC	02:02	02:03	02:01	02:01	02:01			
	WELLINGTON (Aviation Weather Centre)	NZKL	Auckland Oceanic FIR & SRR	WSPS21	NZKL	NZZO	FF	WSPS21	NZKL	160201	NZKL	NZZO	02:02	02:03	02:02	02:02	02:02			
Pakistan	KARACHI/Jinnah Intl	OPKC	Karachi FIR & SRR	WSPK31	OPKC	OPKR	FF	WSPK31	OPKC	160200	OPKC	OPKR			02:05	02:01				
	LAHORE/Allama Iqbal Intl	OPLA	Lahore Fir & SRR	WSPK31	OPLA	OPLR														
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	160200	RPLL	RPHI	02:00	02:01	02:00	02:00	02:00			
Republic of Korea	INCHEON	RKSI	Incheon FIR & SRR	WSKO31	RKSI	RKRR	FF	WSKO31	RKSI	160205	RKSI	RKRR	02:19	02:20	02:19	02:19	02:19			
Singapore	SINGAPORE/Changi	WSSS	Singapore FIR & SRR	WSSR20	WSSS	WSJC	FF	WSSR20	WSSS	160205	WSSS	WSJC	02:05	02:06	02:05	02:05	02:05			
Solomon Islands	HONIARA/Henderson	AGGH	Honiara FIR & SRR	WSSO20	AGGH	AGGG	GG	WSSO20	AGGH	160205	AGGH	AGGG	02:10	02:12	02:10	02:10	02:10			
Sri Lanka	COLOMBO/Bandaranaik Intl Airport Colombo	VCBI	Colombo FIR & SRR	WSSB31	VCBI	VCBI	FF	WSSB31	VCBI	160205	VCBI	VCCF	02:06	02:07	02:05	02:05	02:06	incorrect FIR ID		
Thailand	BANGKOK/Suvarnabhumi Intl Airport	VTBS	Bangkok FIR & SRR	WSTH31	VTBS	VTBB	FF	WSTH31	VTBS	160201	VTBS	VTBB	02:02	02:03	02:01	02:03	02:02			
United States	ANCHORAGE/Anchorage Intl	PAWU	Anchorage FIR	WSAK01-09	PAWU	PAZA	FF	WSAK05	PAWU	160202	PAWU	PAZA			02:06	02:09				
	HONOLULU/Honolulu Intl	PHFO	Oakland Oceanic & Honolulu SRR	WSPA01-13	PHFO	KZAK	FF	WSPA01	PHFO	160200	PHFO	KZAK			02:06	02:05				
	KANSAS CITY	KKCI	Oakland Oceanic FIR	WSPN01-13	KKCI	KZAK	FF	WSPN01	KKCI	160200	KKCI	KZAK			02:06	02:05				
Vietnam	Gia Lam	VVGL	Hanoi FIR & SRR	WSVS31	VVGL	VVNB	FF	WSVS31	VVGL	160209	VVGL	VVNB	02:08	02:10	02:09	02:08	02:08			
	Gia Lam	VVGL	Ho-Chi-Minh FIR & SRR	WSVS31	VVGL	VVTS	FF	WSVS31	VVGL	160208	VVGL	VVTS	02:08	02:09	02:09	02:08	02:08			

APPENDIX 2 – Summary of WS SIGMET results received from EUR ROCs and RODB

State	Meteorological Watch Office (MWO)		Area Served		SIGMET Guide			Transmitted Header				EUR ROC and RODB Reception				
	Location	MWO	Name	TTAAii	CCCC	FIR	Priority	TTAAii	CCCC	YGGgg	MWO	FIR / UR	LOWM	EGGY	LFPW	EBBR
Afghanistan	KABUL AD	OAKB	Kabul FIR and SSR	WSAH31	OAKB	OAKX										
Australia	ADELAIDE/Adelaide	YPRM	Melbourne FIR	WSAU21	APRM	YMMM	FF	WSAU21	APRM	160201	YPRM	YMMM	02:01	02:01	02:01	02:01
	BRISBANE/Brisbane	YBRF	Brisbane FIR	WSAU21	ABRF	YBBB	FF	WSAU21	ABRF	160201	YBRF	YBBB	02:02	02:02	02:02	
	BRISBANE/Brisbane	YBRF	Melbourne FIR	WSAU21	ABRF	YMMM	FF	WSAU21	ABRF	160201	YBRF	YMMM	02:02	02:02	02:02	02:02
	DARWIN/Darwin	YPDM	Brisbane FIR	WSAU21	ADRM	YBBB	FF	WSAU21	ADRM	160201	YPDM	YBBB	02:02	02:02	02:02	
	DARWIN/Darwin	YPDM	Melbourne FIR	WSAU21	ADRM	YMMM	FF	WSAU21	ADRM	160201	YPDM	YMMM	02:01	02:01	02:02	02:02
	HOBART/Hobart	YMHF	Melbourne FIR	WSAU21	AMHF	YMMM	FF	WSAU21	AMHF	160201	YMHF	YMMM	02:01	02:01	02:01	02:01
	MELBOURNE/Melbourne	YMRF	Brisbane FIR	WSAU21	AMRF	YBBB	FF	WSAU21	AMRF	160203	YMRF	YBBB	02:03	02:03	02:03	
	MELBOURNE/Melbourne	YMRF	Melbourne FIR	WSAU21	AMRF	YMMM	FF	WSAU21	AMRF	160203	YMRF	YMMM	02:03	02:03	02:03	02:03
	MELBOURNE/World Met. Centre	YMMC	Brisbane FIR	WSAU21	AMMC	YBBB	FF	WSAU21	AMMC	160202	YMMC	YBBB	02:03	02:03	02:03	02:03
	MELBOURNE/World Met. Centre	YMMC	Melbourne FIR	WSAU21	AMMC	YMMM	FF	WSAU21	AMMC	160208	YMMC	YMMM	02:09	02:09	02:09	02:09
	PERTH/Perth	YPRF	Brisbane FIR	WSAU21	APRF	YBBB	FF	WSAU21	APRF	160201	YPRF	YBBB	02:01	02:01	02:01	02:01
	PERTH/Perth	YPRF	Melbourne FIR	WSAU21	APRF	YMMM	FF	WSAU21	APRF	160202	YPRF	YMMM	02:03	02:03	02:03	02:03
	SYDNEY/Sydney	YSRF	Brisbane FIR	WSAU21	ASRF	YBBB	FF	WSAU21	ASRF	160206	YSRF	YBBB	02:06	02:06	02:06	02:06
	SYDNEY/Sydney	YSRF	Melbourne FIR	WSAU21	ASRF	YMMM	FF	WSAU21	ASRF	160206	YSRF	YMMM	02:06	02:06	02:06	
Bangladesh	DHAKA/Zia Intl	VGHS	Dhaka FIR & SRR	WSBW20	VGHS	VGFR	FF	WSBW20	VGHS	160200	VGHS	VGFR				
Cambodia	CHENGDU/Shuangliu for PHNOM-PENH (VDPP)	ZUUU	Phnom-Penh FIR & SRR	WSKP31	ZUUU	VDPP	FF	WSKP31	ZUUU	160205	ZUUU	VDPP	02:06	02:06	02:06	02:06
China	BEIJING/Capital	ZBAA	Beijing FIR & SRR	WSC33	ZBAA	ZBPE	FF	WSC33	ZBAA	160200	ZBAA	ZBPE	02:00	02:00	02:00	02:00
	GUANGZHOU/Baiyan	ZGGG	Guangzhou FIR & SRR	WSC35	ZGGG	ZGZU	FF	WSC35	ZGGG	160201	ZGGG	ZGZU	02:00	02:00	02:00	02:00
	CHENGDU/Shuangliu	ZUUU	Kunming FIR & SRR	WSC36	ZUUU	ZPKM	FF	WSC36	ZUUU	160201	ZUUU	ZPKM	02:00	02:00	02:00	02:00
	XIAN/Xianyang	ZLXY	Lanzhou FIR and SRR	WSC37	ZLXY	ZLHW	FF	WSC37	ZLXY	160201	ZLXY	ZLHW	02:04	02:04	02:04	02:04
	HAIKOU/Meilan	ZJHK	Sanya FIR & SRR	WSC35	ZJHK	ZJSA	FF	WSC35	ZJHK	160205	ZJHK	ZJSA	02:00	02:00	02:00	02:00
	SHANGHAI/Hongqiao	ZSSS	Shanghai FIR & SRR	WSC34	ZSSS	ZSHA	FF	WSC34	ZSSS	160205	ZSSS	ZSHA	02:07	02:07	02:07	02:07
	SHENYANG/Taoxian	ZYTX	Shenyang FIR & SRR	WSC38	ZYTX	ZYSH	FF	WSC38	ZYTX	160200	ZYTX	ZYSH	02:01	02:01	02:01	02:01
	TAIBEI/Taipei Intl	RCTP	Taipei FIR & SRR	WSC31	RCTP	RCAA										
	URUMQI/Diw opu	ZWWW	Urumqi FIR & SRR	WSC39	ZWWW	ZWUQ	FF	WSC39	ZWWW	160200	ZWWW	ZWUQ				
	WUHAN/Tianhe	ZHHH	Wuhan FIR & SRR	WSC45	ZHHH	ZHWH	FF	WSC45	ZHHH	160207	ZHHH	ZHWH	02:09	02:09	02:09	02:09
	HONG KONG/Hong Kong Intl	VHHH	Hong Kong FIR & SRR	WSSS20	VHHH	VHHK	FF	WSSS20	VHHH	160200	VHHH	VHHK	02:00	02:00	02:00	02:00
DPR Korea	SUNAN	ZKPY	Pyongyang FIR & SRR	WSKR31	ZKPY	ZKKP										
Fiji	NADI/Nadi Intl	NFFN	Nadi FIR & SRR	WSFJ01.02..	NFFN	NFFF										
French Polynesia	TAHITI/Faaa	NTAA	Tahiti FIR & SRR	WSFP21.22	NTAA	NTTT										
India	CHENNAI/Chennai	VOMM	Chennai FIR & SRR	WSIN31	VOMM	VOMF	FF	WSIN31	VOMM	160200	VOMM	VOMF	02:01	02:01	02:01	02:01
	DELHI/Indira Gandhi Intl	VIDP	Delhi FIR & SRR	WSIN31	VIDP	VIDF	FF	WSIN31	VIDP	160205	VIDP	VIDF	02:01	02:01	02:01	02:01
	KOLKATA	VECC	Kolkata FIR & SRR	WSIN31	VECC	VECF	FF	WSIN31	VECC	160200	VECC	VECF	02:01	02:01	02:01	02:01
	MUMBAI/Chhatrapati Shivaji Intl.	VABB	Mumbai FIR & SRR	WSIN31	VABB	VABF	FF	WSIN31	VABB	160205	VABB	VABF	02:06	02:06	02:11	02:06
Indonesia	JAKARTA/Soekarno-Hatta	WIII	Jakarta FIR/UR & SRR	WSID20	WIII	WIIZ	FF	WSID20	WIII	160200	WIII	WIIZ	02:01	02:01	02:01	02:01
	LUUNG PANDANG/Hasanuddin	WAAA	Ljung Pandang FIR/UR & SRR	WSID21	WAAA	WAAZ	FF	WSID21	WAAA	160200	WAAA	WAAZ	02:08	02:08	02:08	02:08
Japan	TOKYO (CITY)	RJTD	Fukuoka FIR & Tokyo SRR	WSJP31	RJTD	RJJJ	FF	WSJP31	RJTD	160205	RJTD	RJJJ	02:04	02:04	02:04	02:04
Lao PDR	VIENTIANE/Wattay	VLVT	Vientiane FIR & SRR	WSLA31	VLVT	VLVT	FF	WSLA31	VLVT	160200	VLVT	VLVT	02:00	02:00	02:00	02:00
Malaysia	SEPANG/KL International Airport	WMKK	Kota Kinabalu FIR & SRR	WSMS31	WMKK	WBFC	FF	WSMS31	WMKK	160153	WMKK	WBFC				
	SEPANG/KL International Airport	WMKK	Kuala Lumpur FIR & SRR	WSMS31	WMKK	WMFC	FF	WSMS31	WMKK	160200	WMKK	WMFC				
Maldives	MALE/Intl	VRMM	Male FIR & SRR	WSMV31	VRMM	VRMF	FF	WCVM31	VRMM	160200	VRMM	VRMF				
Mongolia	ULAANBAATAR	ZMUB	Ulaanbaatar FIR & SRR	WSMO31	ZMUB	ZMUB	FF	WSMO31	ZMUB	160200	ZMUB	ZMUB				
Myanmar	YANGON/Yangon International	VYYY	Yangon FIR & SRR	WSBM31	VYYY	VYYY	FF	WSBM31	VYYY	160204	VYYY	VYYF	02:00	02:00	02:02	02:02
Nauru	NAURU	ANYN	Nauru FIR & SRR	WSNW20	ANYN	ANAU										
Nepal	KATHMANDU	VNKT	Kathmandu FIR & SRR	WSNP31	VNKT	VNSM	FF	WSNP31	VNKT	160200	VNKT	VNSM	02:02	02:02	02:02	02:02
New Zealand	WELLINGTON (Aviation Weather Centre)	NZKL	New Zealand FIR & SRR	WSNZ21	NZKL	NZZC	FF	WSNZ21	NZKL	160201	NZKL	NZZC	02:01	02:01	02:01	02:01
	WELLINGTON (Aviation Weather Centre)	NZKL	Auckland Oceanic FIR & SRR	WSPS21	NZKL	NZZO	FF	WSPS21	NZKL	160201	NZKL	NZZO	02:02	02:02	02:02	02:02
Pakistan	KARACHI/Jinnah Intl	OPKC	Karachi FIR & SRR	WSPK31	OPKC	OPKR	FF	WSPK31	OPKC	160200	OPKC	OPKR	02:00	02:00	02:00	02:00
	LAHORE/Allama Iqbal Intl	OPLA	Lahore FIR & SRR	WSPK31	OPLA	OPLR										
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	160200	RPLL	RPHI	02:00	02:00	02:00	02:00
Republic of Korea	INCHEON	RKSI	Incheon FIR & SRR	WSKO31	RKSI	RKRK	FF	WSKO31	RKSI	160205	RKSI	RKRK				
Singapore	SINGAPORE/Changi	WSSS	Singapore FIR & SRR	WSSR20	WSSS	WSJC	FF	WSSR20	WSSS	160205	WSSS	WSJC	02:05	02:05	02:05	02:05
Solomon Islands	HONIARA/Henderson	AGGH	Honiara FIR & SRR	WSSO20	AGGH	AGGG	GG	WSSO20	AGGH	160205	AGGH	AGGG	02:16		02:15	
Sri Lanka	COLOMBO/Bandaranaike Intl Airport Colombo	VCBI	Colombo FIR & SRR	WSSB31	VCBI	VCBI	FF	WSSB31	VCBI	160205	VCBI	VCCF				
Thailand	BANGKOK/Suvarnabhumi Intl Airport	VTBS	Bangkok FIR & SRR	WSTH31	VTBS	VTBB	FF	WSTH31	VTBS	160201	VTBS	VTBB	02:01	02:01	02:01	02:01
United States	ANCHORAGE/Anchorage Intl	PAWU	Anchorage FIR	WSAK01-09	PAWU	PAZA	FF	WSAK05	PAWU	160202	PAWU	PAZA				
	HONOLULU/Honolulu Intl	PHFO	Oakland Oceanic & Honolulu SRR	WSPA01-13	PHFO	KZAK	FF	WSPA01	PHFO	160200	PHFO	KZAK	02:14	02:14		02:14
	KANSAS CITY	KKCI	Oakland Oceanic FIR	WSPN01-13	KKCI	KZAK	FF	WSPN01	KKCI	160200	KKCI	KZAK				
Vietnam	Gia Lam	VVGL	Hanoi FIR & SRR	WSVS31	VVGL	VVNB	FF	WSVS31	VVGL	160209	VVGL	VVNB	02:08	02:08	02:08	02:08
	Gia Lam	VVGL	Ho-Chi-Minh FIR & SRR	WSVS31	VVGL	VVTS	FF	WSVS31	VVGL	160208	VVGL	VVTS	02:08	02:08	02:08	02:08