



**International Civil Aviation Organization**

**NINTH MEETING OF THE  
COMMUNICATIONS/NAVIGATION/SURVEILLANCE AND  
METEOROLOGY SUB-GROUP OF APANPIRG  
(CNS/MET SG/9)**

Bangkok, Thailand, 11–15 July 2005

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**Agenda Item 9:           Exchange of OPMET information**

**PROPOSAL FOR AMENDMENT OF BASIC ANP AND FASID  
PROCEDURES RELATED TO OPMET EXCHANGE**

(Presented by Secretariat)

**SUMMARY**

This paper presents a review of the OPMET related MET Tables in the ASIA/PAC FASID. The paper contains amendment proposals related to Tables MET 2A and 2B, which could be significantly simplified, and Tables MET 4A, 4B and 4C, which should be updated and harmonized with the relevant ROBEX Handbook tables.

**1.                   INTRODUCTION**

1.1               The exchange of OPMET information is carried out under the global provisions of Annex 3 and the regional provisions of the relevant air navigation plans (ANP). The regional provisions should be reviewed and updated by the PIRGs upon advice by the specialized contributory bodies. In addition to these provisions, regional guidance is provided in the ROBEX Handbook.

1.2               The status of the FASID procedures related to the OPMET exchange has been reviewed by the OPMET/M TF/3 meeting in March 2005. It has been identified that the FASID procedures and, in particular, the relevant FASID MET Tables needed to be updated and, where possible, simplified. The meeting expressed concern of the various provisions on OPMET contained in the Basic ANP and FASID, regional guidance material and the SADIS User Guide, Annex 1, which contains the stated user's requirement for OPMET information.

1.3               OPMET/M TF/3 meeting formulated an action item on the above issues and requested the Secretariat to prepare amendment proposal, which should take into account the need of harmonizing the provisions related to OPMET exchange contained in different documents.

## 2. DISCUSSION

### Global provisions – Annex 3

2.1 To recall the Annex 3 provisions related to the exchange of METAR, SPECI, TAF, SIGMET and advisories, they are outlined in the following table:

Dissem Type of message	WMO header	RODB	SADIS ISCS	WAFC	Other	Note
<b>METAR/SPECI</b>	SA/SP	App. 3, 3.1.1	App. 3, 3.1.1	No	Yes, App. 3, 3.1.2	Other aerodromes acc. to regional air navigation agreement
<b>TAF</b>	FT (FC)	App. 5, 1.6	App. 5, 1.6	No	No	
<b>SIGMET</b>	WS, WC	App. 6, 1.2.2	App. 6, 1.2.2	App. 6, 1.2.1	Yes, App. 6, 1.2.1	MWOs, other MET offices acc. to regional air navigation agreement
	WV	App. 6, 1.2.2	App. 6, 1.2.2	App. 6, 1.2.1	Yes App. 6, 1.2.1	MWOs, other MET offices, acc. to regional air navigation agreement; VAACs
<b>Advisories</b>	FK	3.7 b) 3)	3.7 b) 3)	3.7 b) 3)	3.7 b) 1) and 2)	TCACs, MWOs
	FV	3.5.1 c) 3)	3.5.1 c) 3)	3.5.1 c) 3)	3.5.1 c) 1)- 4)	VAACs MWOs ACCs NOFs Airlines

2.2 The Annex 3 provisions related to the dissemination of the OPMET information, which are subject to “regional air navigation agreement”, should be covered in the respective Regional ANPs.

### Regional provisions – ASIA/PAC Basic ANP and FASID, Doc 9673

#### **ROBEX related information**

2.3 The regional provisions related to ROBEX scheme are in the Basic ANP, Part VI, Meteorology, para. 5, *Exchange of operational meteorological information*. The information about ROBEX centres is included in FASID Tables 4A and 4B, and for the ROBEX OPMET Data Banks (RODB), in Table 4C.

2.4 It is proposed to combine Tables 4A and 4B into one table, as shown in Attachment A. This proposal is based on the agreed simplified ROBEX structure by removing the former distinction between METAR Collection Centres (MCC) and TAF Collection Centres (TCC). Thus, the current ROBEX scheme is build on seventeen ROBEX centres, five of which serve also as RODBs (attach the scheme from ROBEX Handbook). The new FASID Table MET 4A, shown in Attachment A, reflects this change and its format is harmonized with the new edition of the ROBEX Handbook. *(Note: should be vice versa but in reality ROBEX Handbook is the more dynamic document and easier to update).*

2.5 Similar changes have been done to FASID Table MET 4C, which is renamed to MET 4B. The new table is shown in Attachment B.

2.6 The changes to Tables MET4A, 4B and 4C, are reflected in the corresponding amended paragraphs of the Basic ANP as shown in Attachment C.

#### ***FASID Table MET 2A***

2.7 The current status and the need for amendments to FASID Tables 2A and 2B was also discussed. It was noted that these tables were introduced long ago and under entirely different communication environment than now, i.e., before the establishment of the RODBs and before the introduction of the satellite broadcasts SADIS and ISCS. The capacity and reliability of the communication circuits at that time was also incomparable with the present. Therefore, these two tables required serious updates.

2.8 Paragraph 5.2.3 of the Basic ANP states that FASID Table MET 2A specifies requirements for exchanges “not carried on the ROBEX scheme”; these exchanges of METAR, SPECI and TAF are to be carried out by individual AFTN addressing. The OPMET/M TF agreed that, the ROBEX scheme has already covered almost all required OPMET information from the ASIA/PAC Region. The scheme included arrangements for efficient relay of the ASIA/PAC OPMET information to the other ICAO regions through the designated Inter-Regional OPMET Gateways (IROG); this information is also made available for global distribution via SADIS and ISCS. Therefore, the continuation of exchanges by individual AFTN addressing outside the ROBEX scheme was considered inefficient and should be used only in exceptional cases.

2.9 The meeting agreed also that, in its current format FASID Table MET 2A was very difficult to maintain up-to-date, and therefore, of very limited use for the ASIA/PAC States.

2.10 Based on the above considerations, OPMET/M TF/3 requested the Secretariat to prepare a proposal for replacing FASID Table MET 2A with a table, which should reflect the requirements for OPMET information to be generated by the ASIA/PAC States. Such table would allow the States to plan effectively their meteorological services and to establish performance indicators for the status of implementation. It would also be an informative source for users, in or outside the region, in planning their operations. It was noted also that the EUR Region decided to use the SADIS User Guide Annex 1 as FASID Table MET 2A, which insures consistency of States’ plans to fulfil the requirements stated by the users.

2.11 The Secretariat took note of the discussions by the OPMET/M TF and proposes, as shown in Attachment C to this paper, a new FASID Table MET 2A, which contains the ASIA/PAC part of the SUG Annex 1.

***FASID Table MET 2B***

2.12 FASID Table MET 2B specifies requirements for exchange of SIGMET. Most of the above arguments are also valid for this table, which has also been established long before the current requirements for regional and global exchange of SIGMET.

2.13 There are global Annex 3 provisions for the distribution of SIGMET to the international OPMET data banks and SADIS and ISCS providers. The BORPC of the regional plan specifies requirements for availability of SIGMET in the centres providing VOLMET broadcasts or D-VOLMET, as well as in the MWOs and ACCs of the adjacent FIRs in order to cover distance of two hours flying time. All these requirements should be taken into account by the States concerned and there is no need for a special FASID Table in this regard.

2.14 Based on the above considerations, it is proposed to replace the FASID Table MET 2B with a simple table containing the general requirements for SIGMET distribution to the RODBs as shown in Attachment D.

2.15 It is understood that any changes to FASID Tables 2A and 2B should be coordinated with the other ICAO regions, in order to ensure a harmonized inter-regional OPMET exchange. It is also recognized that in some regions, where a special OPMET exchange scheme, such as the ROBEX scheme, has not been established, FASID Tables MET 2A and 2B in their current format could still be necessary. However, it is considered that for the ASIA/PAC region the ROBEX scheme and the related guidance material provide comprehensive framework and procedures to effectively fulfill the requirements for OPMET exchange. Therefore, FASID Tables MET 2A and MET 2B could be simplified as proposed above.

2.16 The respective texts of the Basic ANP and FASID are also amended as shown in Attachment C.

***Conclusion***

2.15 Based on the above discussion, the meeting is invited to agree on the proposed amendments of the OPMET related provisions in the *ASIA/PAC Basic ANP and FASID, Doc 9673* and to formulate the following Draft Conclusion:

**Draft Conclusion 9/xx: Amendment of the OPMET related regional procedures in ASIA/PAC Basic ANP and FASID, Doc 9673**

That, the ASIA/PAC Basic ANP and FASID (Doc 9673) be amended as indicated in Appendix XX to the report.

**3. ACTION BY THE MEETING**

3.1 The Meeting is invited to:

- 
- a) note the content of this paper;
- b) review the amendment proposal related to FASID procedures on OPMET exchange;
- c) agree on the proposed draft conclusion in paragraph 2.15 above.

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**FASID TABLE MET 4A — REGIONAL OPMET BULLETIN EXCHANGE (ROBEX)  
SCHEME – ROBEX CENTRES AND THEIR  
RESPONSIBILITIES FOR COLLECTION OF OPMET  
INFORMATION**

*EXPLANATION OF THE TABLE*

*Column*

1. Name of the ROBEX Centre
  2. ICAO location indicator of ROBEX Centre
  3. Name of aerodromes in the ROBEX Centre's area of responsibility
  4. ICAO location indicator of the aerodromes in column 3
  5. Indication of collection of METAR, SPECI and AIREP
  6. Indication of collection of TAF
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**ROBEX CENTRES AND THEIR  
RESPONSIBILITIES FOR COLLECTION OF OPMET INFORMATION**

Name	CCCC	Aerodrome	CCCC	SA/SP/UA*	FT
1	2	3	4	5	6
<b>Bangkok</b>	<b>VTBB</b>	BANGKOK/Bangkok Intl	VTBD	x	x
		CHIANG MAI/Chiang Mai Intl	VTCC	x	x
		DANANG/Danang	VVDN	x	x
		DHAKA/Zia Intl	VGZR		x
		HANOI/Noibai	VVNB	x	x
		HO-CHI-MINH/Tan-Son Nhat	VVTS	x	x
		MANDALAY/Mandalay	VYMD	x	
		PHNOM PENH/Pochentong	VDPP	x	x
		PHUKET/Phuket Intl	VTSP	x	x
		RAYONG/U-Tapao Intl	VTBU	x	x
		SIEM REAP/Siem Reap	VDSR	x	
		SONGKHLA/Hat Yai Intl	VTSS	x	x
		VIENTIANE/Wattay	VLVT	x	x
		YANGON/ Yangon Intl	VYYY	x	x
<b>Beijing</b>	<b>ZBBB</b>	BEIJING/Capital	ZBAA	x	x
		CHANGCHUN/Dafangshen	ZYCC	x	x
		CHANGSHA/Huanghua	ZGHA	x	x
		CHENGDU/Shuangliu	ZUUU	x	x
		CHONGQING/Jiangbei	ZUCK	x	x
		DALIAN/Zhoushuzi	ZYTL	x	x
		GUANGZHOU/Baiyun	ZGGG	x	x
		GUILIN/Liangjiang	ZGKL	x	x
		HAIKOU/Meilan	ZJHK	x	x
		HANGZHOU/Xiaoshan	ZSHC	x	x
		HARBIN/Yanjiangang	ZYHB	x	x
		HEFEI/Luogang	ZSOF	x	x
		HOHHOT/Baita	ZBHH	x	x
		KASHI	ZWSH	x	x
		KUNMING/Wujiaba	ZPPP	x	x
		LANZHOU/Zhongchuan	ZLLL	x	x
		NANJING/Lukou	ZSNJ	x	x
		NANNING/Wuxu	ZGNN	x	x
		QINGDAO/Liuting	ZSQD	x	x
		SANYA/Fenghuang	ZJSY	x	
		SHANGHAI/Hongqiao	ZSSS	x	x
		SHANGHAI/Pudong	ZSPD	x	x
		SHANTOU/Shantou	ZGOW	x	x
		SHENYANG/Taoxian	ZYTX	x	x
		SHENZHEN/Baoan	ZGSZ	x	x
		TAIYUAN/Wusu	ZBYN	x	x
		TIANJING/Binhai	ZBTJ	x	x
		ULAANBAATOR/Bryant-Ukhaa	ZMUB	x	x
		URUMQI/Diwopu	ZWWW	x	x
		WUHAN/Tianhe	ZHHH	x	x
		XIAMEN/Gaoqi	ZSAM	x	x
		XIAN/Xianyang	ZLXY	x	x
<b>Brisbane</b>	<b>YBBN</b>	SYDNEY/Kingsford Smith Intl	YSSY	x	x
		MELBOURNE/Melbourne Intl	YMLL	x	x
		BRISBANE/Brisbane	YBBN	x	x

**ROBEX CENTRES AND THEIR  
RESPONSIBILITIES FOR COLLECTION OF OPMET INFORMATION**

Name	CCCC	Aerodrome	CCCC	SA/SP/UA*	FT
1	2	3	4	5	6
		ADELAIDE/Adelaide	YPAD	x	x
		DARWIN/Darwin	YPDN	x	x
		PERTH/Perth int	YPPH	x	x
		CAIRNS/Cairns	YBCS	x	x
		ALICE SPRINGS/Alice Springs	YBAS	x	x
		LEARMONTH/Learmonth	YPLM	x	x
		TOWNSVILLE/Townsville	YBTL	x	x
		COCOS ISLD/Cocos Isld	YPVV	x	x
		CHRISTMAS ISL/Cristms Isl	YPXM	x	x
		TINDAL /Tindal RAAF	YPTN	x	x
		KUNUNURRA/Kununurra	YPKU	x	
		CANBERRA/Canberra	YSCB	x	x
		COOLANGATTA/Coolangatta	YBCG	x	x
		AVALON/Avalon	YMAV	x	x
		ROCKHAMPTON/Rockhampton	YBRK	x	x
		KALGOORLIE/Kalgoorlie	YPKG	x	x
		PORT HEDLAND/Port Hedland	YPPD	x	x
		BROOME/Broome	YBRM	x	
		NORFOLK ILS/Norfolk Isl	YSNF	x	
		DUBBO/Dubbo	YSDU	x	
		RICHMOND/Richmond	YSRI	x	
		WILLIAMTOWN/Williamtown	YWLM	x	
		LAUNCESTON/Launceston	YMLT	x	
		HOBART/Hobart	YMHB	x	
		PEARCE/Pearce	YPEA	x	x
		CURTIN-DERBY/Curtin-Derby	YCIN	x	
		FORREST/Forrest	YFRT	x	
		GOVE/Gove	YPGV	x	
		AMBERLEY/Amberley RAAF	YAMB	x	
		HAMILTON ISLD/Hamilton Isld	YBHM	x	
		MOUNT ISA/Mount Isa	YBMA	x	
Colombo	VCCC	COLOMBO/Katunayake	VCBI	x	
		MALE/Male Intl	VRMM	x	
Delhi	VIDP	DELHI/Indira Gandhi Intl	VIDP	x	
		LUCKNOW	VILK	x	
		AMRITSAR/Amritsar	VIAR	x	
		VARANASI/Varanasi	VIBN	x	
		JAIPUR	VIJP	x	
Hong Kong	VHHH	HONG KONG/Hong Kong Intl	VHHH	x	x
		TAIBEI/Taibei Intl	RCTP	x	x
		GAOXIONG/Gaoxiong	RCKH	x	x
		TAIBEI/Sungshan	RCSS	x	x
		MACAU/Macau Intl	VMMC	x	x
		MANILA/Ninoy Aquino Intl	RPLL	x	x
		LAPU LAPU/Mactan Cebu Intl	RPVM	x	x
		DAVAO/Francisco Bangoy Intl	RPMD	x	x
		SUBIC BAY/Subic Bay Intl	RPLB	x	x
		LAOAG/Laoag Intl	RPLI	x	x
		ZAMBOANGA/Zamboanga Intl	RPMZ	x	x
Incheon	RKSI	SEOUL/Incheon Intl	RKSI	x	x



**ROBEX CENTRES AND THEIR  
RESPONSIBILITIES FOR COLLECTION OF OPMET INFORMATION**

Name	CCCC	Aerodrome	CCCC	SA/SP/UA*	FT
1	2	3	4	5	6
		SEOUL/Gimpo Intl	RKSS	x	x
		JEJU/Jeju Intl	RKPC	x	x
		BUSAN/Gimhae Intl	RKPK	x	x
		CHEONGJU/Cheongju Intl	RKTU	x	x
		YANGYANG/Yangyang Intl	RKNY	x	x
		DAEGU/Daegu Intl	RKTN	x	x
Jakarta	WIII	UJUNG PANDANG/Hasanuddin	WAAA	x	
		BIAK/Frans Kaisieppo	WABB	x	
		JAKARTA/Halim	WIIH	x	
		JAKARTA/Soekarno-Hatta	WIII	x	
		BATAM/Hang Nadim	WIKB	x	
		MEDAN/Polonia	WIMM	x	
		DENPASARx	WRRR	x	
		SURABAYA/Juanda	WRSJ	x	
		MANADO/Sam Ratulangi	WAMM	x	
		PEKAN BARU/Simpangtiga	WIBB	x	
		TANJUNG PINNAG/Kijang	WIKN	x	
		PADANG/Tabing	WIMG	x	
		PONTIANAK/Supadio	WIOO	x	
		PALEMBANG/Sultan Mahmud Badaruddin II	WIPP	x	
		BANJARMASIN/Syamsudin Noor	WRBB	x	
		BALIKPAPAN/Sepinggan	WRLL	x	
		MATARAM/Selaparang	WRRR	x	
		TIMIKA/Tembegapura	WABP	x	
		JAYAPURA/Sentani	WAJJ	x	
		MERAUKE/Mopah	WAKK	x	
		AMBON/Pattimura	WAPP	x	
		SEMARANG/Achmad Yani	WIIS	x	
		BANDAR LAMPUNG/Branti	WIIT	x	
		KUPANG/EI-Tari	WRKK	x	
		TARAKEN	WRLR	x	
Kolkata	VECC	KOLKATA/Netaji Subhash Chandra Bose Intl	VECC	x	
		PATNA/Patna	VEPT	x	
		DHAKA/Zia Intl	VGZR	x	
		CHITTAGONG/M. A. Hannan Intl	VGEG	x	
		KATHMANDU/Tribhuvan Intl	VNKT	x	
Karachi	OPKC	KARACHI/Quaid-E-Azam Intl	OPKC	x	x
		ISLAMABAD/Chaklala	OPRN	x	x
		LAHORE/Lahore	OPLA	x	x
		NAWABSHAH	OPNH	x	x
		GAWADAR	OPGD	x	x
		PESHAVAR	OPPS	x	x
Kuala Lumpur	WMKK	KUALA LUMPUR/Kuala Lumpur Intl	WMKK		x
		SINGAPORE/Changi	WSSS		x
		SINGAPORE/Paya Lebar	WSAP		x
		PENANG/Bayan Lepas	WMKP		x
		KOTA KINABALU/Kota Kinabalu Intl	WBKK		x
		KUCHING/Kuching	WBGG		x

**ROBEX CENTRES AND THEIR  
RESPONSIBILITIES FOR COLLECTION OF OPMET INFORMATION**

Name	CCCC	Aerodrome	CCCC	SA/SP/UA*	FT
1	2	3	4	5	6
		BANDAR SERI BEGAWAN /Brunei Intl	WBSB		X
<b>Mumbai</b>	<b>VABB</b>	AHMADABAD/Ahmadabad	VAAH	X	X
		MUMBAI/Jawaharlal Nehru Intl	VABB	X	X
		NAGPUR/Nagpur	VANP	X	X
		CALCUTTA/Calcutta	VECC		X
		PATNA/Patna	VEPT		X
		AMRITSAR/Amritsar	VIAR		X
		VARANASI/Varanasi	VIBN		X
		DELHI/Indira Gandhi Intl	VIDP		X
		JAIPUR/Jaipur	VIJP		X
		LUCKNOW/Lucknow	VILK		X
		COLOMBO/Katunayake	VCBI		X
		KATHMANDU/Tribhuvan Intl	VNKT		X
		COCHIN/Cochin Intl	VOCI		X
		CALICUT/Calicut	VOCL		X
		HYDERABAD/Hyderabad	VOHY	X	X
		CHENNAI/Chennai	VOMM	X	X
<b>Nadi</b>	<b>NFFN</b>	TIRUCHCHIRAPALLI/Tiruchchirapalli	VOTR	X	X
		TRIVANDRUM/Trivandrum	VOTV	X	X
<b>Port Moresby</b>	<b>AYPY</b>	NADI/Intl	NFFN		X
		NOUMEA/La Tontouta	NWWW		X
		PAGO PAGO/Intl, Tutuila I.	NSTU		X
<b>Port Moresby</b>	<b>AYPY</b>	PORT MORESBY/Jacksons	AYPY	X	
		MADANG	AYMD	X	
		WEWAK	AYWK	X	
<b>Singapore</b>	<b>WSSS</b>	SINGAPORE/Changi	WSSS		X
		SINGAPORE/Paya Lebar	WSAP		X
		KUALA LUMPUR/Kuala Lumpur Intl	WMKK		X
		DENPASAR/Ngurah Rai (Bali Intl)	WRRR		X
		JOHOR BAHRU/Sultan Ismail	WMKJ		X
		PENANG/Bayan Lepas	WMKP		X
		SURABAYA/Juanda	WRSJ		X
		JAKARTA/Halim	WIIH		X
		JAKARTA/Soekarno-Hatta	WIII		X
		SUBANG/Sultan Abdul Aziz Shah	WMSA		X
<b>Tokyo</b>	<b>RJTD</b>	SINGAPORE/Changi	WSSS		X
		TOKYO/Narita Intl	RJAA	X	X
		TOKYO/Tokyo Intl	RJTT	X	X
		NAHA/Naha	ROAH	X	X
		OSAKA/Osaka Intl	RJOO	X	X
		OSAKA/Kansai Intl	RJBB	X	X
		NAGOYA/Nagoya	RJNN	X	X
		SENDAI/Sendai	RJSS		X
		SAPPORO/New Chitose	RJCC	X	X
		HAKODATE/Hakodate	RJCH	X	
		FUKUOKA/Fukuoka	RJFF	X	X
		KAGOSHIMA/Kagoshima	RJFK	X	X

**ROBEX CENTRES AND THEIR  
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Name	CCCC	Aerodrome	CCCC	SA/SP/UA*	FT
1	2	3	4	5	6
		OITA/Oita	RJFO		x
		KUMAMOTO/Kumamoto	RJFT		x
		NAGASAKI/Nagasaki	RJFU		x
		NAGASAKI/Nagasaki	RJFU	x	
		NAGOYA/Nagoya	RJNN		x
		HIROSHIMA/Hiroshima	RJOA		x
		OKAYAMA/Okayama	RJOB		x
		TAKAMATSU/Takamatsu	RJOT		x
		NIIGATA/Niigata	RJSN		x
<b>Wellington</b>	<b>NZKL</b>	WELLINGTON/Wellington Intl	NZWN	x	x
		AUCKLAND/Auckland Intl	NZAA	x	x
		CHRISTCHURCH/Christchurch Intl	NZCH	x	x

**\*Note:** UA bulletins are compiled by those aerodrome meteorological offices in Column 3, which are designated as MWOs according to FASID Table MET 1B.

**FASID TABLE MET 4B — OPMET DATA BANKS TO SUPPORT THE ROBEX SCHEME  
(ROBEX OPMET DATA BANKS – RODB)**

*EXPLANATION OF THE TABLE*

*Column*

1. ROBEX Centres
2. ROBEX OPMET data bank responsible for collection and dissemination of METAR, SPECI, AIREP and TAF bulletins issued by ROBEX centres in column 1.

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**RODB RESPONSIBILITY FOR ROBEX BULLETINS**

ROBEX centres	RODB responsible for collection and dissemination of bulletins (SA, SP, UA and FT)				
	Bangkok	Brisbane	Singapore	Tokyo	Nadi
1	2				
ASIA/PAC					
Bangkok	x				
Beijing				x	
Brisbane		x			
Colombo	x				
Delhi	x				
Hong Kong				x	
Incheon				x	
Jakarta			x		
Karachi	x				
Kolkata	x				
Kuala Lumpur			x		
Mumbai	x				
Nadi					x (FT)
Port Moresby		x			
Singapore			x (FT)		
Tokyo				x	
Wellington		x			
MID					
Baghdad	x				
Bahrain	x				
Beirut	x				
Jeddah	x				
Tehran	x				

ROBEX centres	RODB responsible for collection and dissemination of bulletins (SA, SP, UA and FT)				
	Bangkok	Brisbane	Singapore	Tokyo	Nadi
1	2				
OTHER REGIONS					
EUR Bulletins			x		
AMBEX TAF Bulletins	x				
SAM TAF Bulletins		x			
NAM TAF Bulletins				x	x

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## PART VI

## METEOROLOGY (MET)

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## 5. Exchange of operational meteorological information

(FASID Tables MET 2A, MET 2 B, MET 4A and MET 4B and MET 4C)

### 5.1 ~~International~~ OPMET data banks

5.1.1 The ~~international~~ OPMET data banks in Bangkok, Brisbane, Nadi, Singapore and Tokyo have been designated to serve States in the ASIA/PAC Regions to access OPMET information which is required but not received. FASID Tables MET 4B and 4C sets out the responsibilities of the ASIA/PAC OPMET data banks for collection and dissemination of OPMET bulletins to support the ROBEX Scheme. [APANPIRG/7 Concl. 7/20]

*Note: A list of the OPMET information available at the ~~international~~ OPMET data banks to serve the ASIA/PAC Regions, together with the procedures to be used in communicating with the data banks are contained in the ASIA/PAC Interface Control Document (ICD) for interrogation with the OPMET data banks, published by the ICAO Regional Office, Bangkok.*

### 5.2-Exchange of METAR, SPECI and TAF

5.2.1 FASID Tables MET 4A and MET 4B sets out the Regional OPMET Bulletin Exchange (ROBEX) Scheme for the collection and dissemination of METAR, SPECI and TAF, respectively. These tables contains information regarding the designated ROBEX centres and their respective areas of responsibility. [ASIA/PAC/3 Rec. 9/6, Rec. 9/8] [APANPIRG/7 Concl. 7/20]

*Note.— Details of the ROBEX procedures regarding the exchange of OPMET information required under the scheme are given in the ROBEX Handbook published by the ICAO ASIA/PAC Office, Bangkok, in coordination with the ICAO MID Office, Cairo.*

5.2.2 FASID Tables MET 4A and MET 4B should be updated, as necessary, by the ICAO Regional Office on the basis of changes in the pattern of aircraft operations, the Statement of Basic Operational Requirements and Planning Criteria, and in

consultation with those States and international organizations directly concerned. [ASIA/PAC/3 Rec. 9/8]

5.2.3 ~~Requirements for METAR, SPECI and TAF from ASIA/PAC Regions not carried on the ROBEX Scheme which should be transmitted to the international ASIA/PAC OPMET data banks and to SADIS and ISCS uplink stations available at meteorological offices are contained in accordance with FASID Table MET 2A. This table should be updated, as necessary, by the ICAO Regional Office on the basis of changes in the pattern of aircraft operations, the Statement of Basic Operational Requirements and Planning Criteria, and consultation with those States and international organizations directly concerned.~~ [ASIA/PAC/3 Rec. 9/1, Rec. 9/8]

5.2.4 The exchanges indicated in FASID Table MET 2A should be implemented as soon as possible, ~~but only for those related to current aircraft operations. New exchanges should be started coincidentally with the introduction of new aircraft operations. Any changes required in respect of additional OPMET information or information no longer required should be notified to the corresponding meteorological authority which, in turn, should inform the ICAO Regional Office concerned.~~ [ASIA/PAC/3 Rec. 9/8]

### 5.3 Exchange of SIGMET information and air-reports

5.3.1 ~~The exchange requirement for SIGMET from ASIA/PAC regions should be transmitted and special air reports to the ASIA/PAC OPMET data banks and to the SADIS and ISCS uplink stations in accordance with FASID Table MET 2 B. SIGMET should also be disseminated to other MWOs and ACCs as necessary to fulfill the requirements for availability set out in the Statement of Basic Operational Requirements and Planning Criteria. FASID Table MET 2B provides detail regarding the ASIA/PAC communication gateways to which SIGMET messages from all regions should be addressed. are contained in FASID Table MET 2B. This table should be updated, as necessary, by the ICAO Regional Office. s on the basis of changes in the pattern of aircraft operations, the Statement of Basic Operational Requirements and Planning Criteria, and in consultation with those States and international organizations directly concerned.~~ [ASIA/PAC/3 Rec. 9/2, Rec. 9/8]

*Note: To avoid duplication in transmission, the inter-regional exchange of SIGMET should be via designated inter-regional gateways.*

5.3.2 Each MWO should arrange for the transmission to all aerodrome meteorological offices within its associated FIR of its own SIGMET messages and relevant SIGMET messages for other FIR, as required for briefing and, where appropriate, for flight documentation.

[ASIA/PAC/3 Rec. 8/16]

5.3.3 Each MWO should arrange for the transmission to its associated ACC/FIC of SIGMET information and special air-reports received from other MWOs as necessary to fulfill the requirements for availability set out in the Statement of the Basic Operational Requirements and Planning Criteria.

5.3.4 Each MWO should arrange for the transmission of routine air-reports received by voice communication to all meteorological offices within its associated FIR. Special air-reports which do not warrant the issuance of a SIGMET should be disseminated by MWO in the same way as SIGMET messages, ~~in accordance with FASID Table MET 2B.~~



## PART VI

## METEOROLOGY (MET)

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**3. EXCHANGE OF OPERATIONAL  
METEOROLOGICAL INFORMATION**  
(FASID Tables MET 2A, 2B, 4A and 4B)

3.1 The requirements for METAR, SPECI and TAF, which should be made available to meet the requirement of international flight operations in the ASIA/PAC Region are shown in FASID Table MET 2A.

3.2 FASID Table MET 2B contains information for the communication gateways in the ASIA/PAC Region to which all SIGMET messages and volcanic ash and tropical cyclones advisories should be addressed.

3.3 FASID Table MET 4A sets out the Regional OPMET Bulletin Exchange (ROBEX) Scheme for the exchange of METAR, SPECI, air reports (AIREP) and TAF.

*Note. — Details of the ROBEX procedures including the exchange of OPMET information required under the Scheme are given in the “ROBEX Handbook” prepared by the ICAO Asia and Pacific Office, Bangkok in co-ordination with the ICAO MID Office, Cairo.*

3.4 FASID Table MET 4B reflects the requirements for the operation of the ASIA/PAC OPMET data banks to support the ROBEX Scheme. The responsibilities of the ROBEX OPMET data banks are as follows :

- a) support the ROBEX Scheme to facilitate a regular exchange of OPMET information within the ASIA/PAC Regions;
- b) operate as Inter-regional OPMET Gateways (IROG) with responsibility of exchanging the OPMET information between stations within the ASIA/PAC Regions and in other Regions; and
- c) provide request/response facilities for users to obtain non-regular or occasional information.

*Note. — The interrogation procedures applicable to the OPMET data banks and data banks catalogues are provided in the “ASIA/PAC Regional Interface Control Document (ICD) - OPMET Data Bank Access Procedures”, published by the ICAO Asia and Pacific Office, Bangkok.*

<b>ASIA/PACIFIC (ASIA/PAC) REGIONS</b>					
<b>CITY/AERODROME</b>		<b>Loc.Ind.</b>	<b>SA/SP or SA/SP/FC</b>	<b>FT</b>	<b>Remarks</b>
<b>Listed in the AOP Tables</b>	<b>Not listed in the AOP Tables</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>AMERICAN SAMOA (United States)</b>					
Pago Pago/Pago Pago Intl		NSTU	X	X	SA/FTP32
<b>AUSTRALIA</b>					
Adelaide/Adelaide Intl		YPAD	X	X	
Alice Springs/Alice Springs		YBAS	X		
	<i>Amberley</i>	YAMB	X		FC: issued 6 hourly on Sat. and Sun.; 12- hour validity
	<i>Avalon</i>	YMAV	M	X	
Brisbane/Brisbane Intl		YBBN	X	X	
Broome/Broome Intl		YBRM	X		FC: issued 6 hourly; 12-hour validity
Cairns/Cairns Intl		YBCS	M	X	
	<i>Canberra</i>	YSCB	M	X	
Christmas I./Christmas I.		YPXM	X		FC: issued as required; 12-hour validity
Cocos I./Cocos I.		YPCC	M		
	<i>Coolangatta</i>	YBCG	M	X	
	<i>Curtin-Derby</i>	YCIN	X		FC: issued 6-hourly; 12-hour validity
Darwin/Darwin Intl		YPDN	X	X	
Dubbo/Dubbo		YSDU	X		FC: issued 6-hourly; 12-hour validity
	<i>Forrest</i>	YFRT	X		FC: issued 6-hourly; 12-hour validity
	<i>Gove</i>	YPGV	X		FC: issued 6-hourly; 12-hour validity
	<i>Hamilton I.</i>	YBHM	X		FC: issued 6-hourly; 12-hour validity
Hobart/Hobart		YMHB	X		FC: issued 6 hourly; 12-hour validity
	<i>Kalgoorlie</i>	YPKG	X		FC: issued 6 hourly; 12-hour validity
	<i>Kununurra</i>	YPKU	X		FC: issued three times a day; 12- or 6-hour validity
Learmonth		YPLM	M		
Melbourne/Melbourne Intl		YMLL	X	X	
	<i>Mount Isa</i>	YBMA	X		FC: issued 6 hourly;

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
					12-hour validity
Norfolk I./Norfolk I.		YSNF	X		FC: issued three times a day; 12-hour validity
	<i>Pearce</i>	YPEA	X		FC: issued 6 hourly; 12-hour validity
Perth/Perth Intl		YPPH	X	X	
Port Hedland/Port Hedland		YPPD	X		
	<i>Richmond, NSW</i>	YSRI	X		FC: issued 6 hourly; 12-hour validity
Rockhampton/Rockhampton		YBRK	M		
Sydney/Kingsford Smith Intl		YSSY	X	X	
Tindal/Catherine		YPTN	M		
Townsville/Townsville Intl		YBTL	X	X	
	<i>Williamtown</i>	YWLM	M	X	FT: issued three times a day
<b>BANGLADESH</b>					
Chittagong/ Chitagong		VGEG	M	X	
Dhaka/Zia Intl		VGZR	X	X	
<b>BHUTAN</b>					
Paro/Paro Intl		VQPR	M		
<b>BRUNEI DARUSSALAM</b>					
Bander Seri Beegawan/Brunei Intl		WBSB	X	X	
<b>CAMBODIA</b>					
Phnom-Penh/Pochentong		VDPP	M	X	
Siem-Reap/Angkor		VDSR	M		
<b>CHILE</b>					
	<i>Isla de Pascua/Mataverí</i>	SCIP	M		SA: available as required; FT: twice a day
<b>CHINA</b>					
Beijing/Capital		ZBAA	X	X	
	<i>Changchun/Dafangshen</i>	ZYCC	M	X	
Changsha/Huanghua		ZGHA	X	X	
Chengdu/Shuangliu		ZUUU	X	X	
Chongqing/Jiangbei		ZUCK	M	X	
Dalian/Zhoushuzi		ZYTL	X	X	
Fuzhou/Changle		ZSFZ	M		
Gaoxiong/Gaoxiong		RCKH	M	X	
Guangzhou/Baiyun		ZGGG	M	X	

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
Guilin/Liangjiang		ZGKL	M		
	Haikou/Meilan	ZJHK	M	X	
Hangzhou/Jianqiao		ZSHC	X	X	
Harbin/Yanjiagang		ZYHB	X	X	
Hefei/Luogang		ZSOF	M	X	
Hohhot/Baita		ZBHH	X	X	
Jinan/Yaoqiang		ZSJN	M		
Kashi/Kashi		ZWSH	M		
Kunming/Wujiaba		ZPPP	X	X	
Lanzhou/Zhongchuan		ZLLL	X	X	
Nanjing/Lukou		ZSNJ	M	X	
Nanning/Wuxu		ZGNN	X	X	
Qingdao/Liuting		ZSQD	M	X	
Sanya/Fenghuang		ZJSY	M	X	temporarily not available
Shanghai/Hongqiao		ZSSS	M	X	
Shanghai/Pudong		ZSPD	X	X	
	Shantou/Shantou	ZGOW	M	X	
Shenyang/Taoxian		ZYTX	X	X	
Shenzhen/Huangtian		ZGSZ	M	X	
Taipei/Sungshan		RCSS	M	X	
Taipei/Taipei Intl		RCTP	M	X	
Taiyuan/Wusu		ZBYN	X	X	
Tianjin/Binhai		ZBTJ	X	X	
Urumqi/Diwopu		ZWWW	X	X	
Wuhan/Tianhe		ZHHH	X	X	
Xiamen/Gaoqi		ZSAM	X	X	
Xi'an/Xianyang		ZLXY	X	X	
Xichang/Qingshan		ZUXC	M		
<b>Hong Kong, China</b>					
Hong Kong/Hong Kong Intl		VHHH	X	X	
<b>Macau, China</b>					
Macau/Macau Intl		VMMC	M	X	
<b>COOK ISLANDS</b>					
Avarua/Rarotonga Intl		NCRG	M	X	
<b>DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA</b>					
Pyongyang/Sunan		ZKPY	M	X	
<b>FIJI</b>					
Nadi/Nadi Intl		NFFN	X	X	

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
	<i>Naousori/Naousori Intl</i>	NFNA	M		
<b>FRENCH POLYNESIA (France)</b>					
Rangiroa/Rangiroa		NTTG	M		
Tahiti/Faaa		NTAA	X	X	
<b>GUAM (United States)</b>					
Guam I./Agana NAS		PGUM	M	X	SA/FTP31
Guam I./Andersen AFB		PGUA	M	X	SA/FTP31
<b>INDIA</b>					
Ahmadabad/Ahmadabad		VAAH	X	X	
Amritsar/Amritsar		VIAR	M	X	
	<i>Bangalore</i>	VOBG	M	X	
	<i>Bhubaneshwar</i>	VEBS	M	X	
Calicut/Calicut		VOCL	X	X	
Chennai/Chennai		VOMM	M	X	
Delhi/Indira Gandhi Intl		VIDP	X	X	
	<i>Hyderabad</i>	VOHY	M	X	
	<i>Jaipur</i>	VIJP	M	X	
Kolkata/Netaji Subhash Chandra Bose Intl		VECC	X	X	
	<i>Lucknow</i>	VILK	M	X	
Mumbai/Jawahar Lal Nehru Intl		VABB	X	X	
Nagpur/Nagpur		VANP	M	X	
	<i>Pathankot</i>	VIPK	M	X	
Patna/Patna		VEPT	M	X	
Tiruchchirappalli/ Tiruchchirappalli		VOTR	M	X	
Trivandrum/Trivandrum Intl		VOTV	M	X	
Varanasi/Varanasi		VIBN	M	X	
<b>INDONESIA</b>					
Ambon/Pattimura		WAPP	M		
Bali/Ngurah Rai		WADD	X	X	
Balikpapan/Sepinggan		WALL	M		
Banjarmasin/Syamsuddin Noor		WAOO	M		
Batam/Hang Nadim		WIDD	M		
Biak/Frans Kaisiepo		WABB	M	X	
Jakarta/Halim Perdana Kusuma		WIHH	X	X	
Jakarta/Soekarno (Hatta Intl)		WIII	X	X	
Jayapura/Sentani		WAJJ	M		

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
	<i>Jogyakarta/Adisucipto</i>	WARJ	M	X	
Kupang/Eltari		WATT	M		
Manado/Sam Ratulangi		WAMM	M		
	<i>Mataram/Selaparang</i>	WADA	M	X	
Medan/Polonia		WIMM	M	X	
Merauke/Mopah		WAKK	M		
Padang/Tabing		WIMG	M		
Palembang/Sultan M.B. II		WIPP	M		
Pekanbaru/Simpang Tiga		WIBB	M		
Pontianak/Supadio		WIOO	M		
	<i>Solo/Adi Sumarmo</i>	WARQ	M	X	
	<i>Sorong/Jefman</i>	WASS		X	
Surabaya/Juanda		WARR	M		
Tanjung Pinang/Kijang		WIDN	M		
Tarakan/Juwata		WALR	M		
Timika/Tembagapura		WABP	M		
Ujung Pandang/Hasanuddin		WAAA	M	X	
<b>JAPAN</b>					
Fukuoka/Fukuoka		RJFF	X	X	
Hakodate/Hakodate		RJCH	M	X	
Hiroshima/Hiroshima		RJOA	M	X	
Kagoshima/Kagoshima		RJFK	M	X	
Kumamoto/Kumamoto		RJFT	M	X	
Nagasaki/Nagasaki		RJFU	M	X	
Nagoya/Nagoya		RJNN	X	X	
Naha/Naha		ROAH	X	X	
Niigata/Niigata		RJSN	M	X	
Oita/Oita		RJFO	M	X	
Okayama/Okayama		RJOB	M	X	
Osaka/Kansai Intl		RJBB	M	X	
Osaka/Osaka Intl		RJOO	M	X	
Sapporo/New Chitose		RJCC	M	X	
Sendai/Sendai		RJSS	M	X	
Takamatsu/Takamatsu		RJOT	M	X	
Tokyo/New Tokyo Intl		RJAA	X	X	
Tokyo/Tokyo Intl		RJTT	X	X	
<b>JOHNSTON I. (United States)</b>					
Johnston I./Johnston Atoll		PJON	M	X	SA/FTPA31
<b>KIRIBATI</b>					
Kiribati/Christmas I.		PLCH	M	X	
Tarawa/Bonriki Intl		NGTA	M	X	FT: 12 to 15 hours
<b>LAO PEOPLE'S DEMOCRATIC REPUBLIC</b>					

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
Vientiane/Wattay		VLVT	M	X	
<b>MALAYSIA</b>					
	<i>Alor Setar/Sultan Abdul Halim</i>	WMKA	M	X	
	<i>Bintulu</i>	WBGB	X		
	<i>Ipoh/Sultan Azlan Shaw</i>	WMKI	M	X	
Johor Bharu/Sultan Ismail		WMKJ	M		
	<i>Kota Bahru/Sultan Ismail Petra</i>	WMKC	M		
Kota Kinabalu/Kota Kinabalu Intl		WBKK	X	X	
Kuala Lumpur/Sepang Intl		WMKK	M	X	
Kuala Lumpur/Subang Kuala Lumpur Intl		WMSA	X	X	
	<i>Kuala Terengganu/Sultan Mahmud</i>	WMKN	M	X	
Kuantan/Kuantan		WMKD	M		
Kuching/Kuching		WBGG	X	X	
	<i>Kudat</i>	WBKT	M		
	<i>Labuan/Labuan</i>	WBKL	X		FC: 12-hour validity
Malacca/Malacca		WMKM	M		
	<i>Mersing</i>	WMAU	M		
Miri/Miri		WBGR	M		FC: 12-hour validity
Penang/Bayan Lepas		WMKP	X	X	
Pulau Langkawi/Pulau Langkawi Intl		WMKL	M		
	<i>Sandakan</i>	WBKS	X		FC: 12-hour validity
Sibu/Sibu		WBGs	M		FC: 12-hour validity
	<i>Simanggang</i>	WBGY	M		
	<i>Sitiawan</i>	WMBA	M		
Tawau/Tawau		WBKW	M		FC: 12-hour validity
<b>MALDIVES</b>					
Gan/Gan		VRMG	M	X	
Male/Hulule		VRMM	M	X	
<b>MARSHALL Is</b>					
Majuro Atoll/Marshall I Intl		PKMJ	M	X	SA/FTP31
	<i>Kwajalein Atoll/Bucholz AAF, Kiribati</i>	PKWA	M	X	
<b>MICRONESIA, FEDERATED STATES OF</b>					
	<i>Kosrae I./Kosrae</i>	PTSA	M	X	SA/FTP31
Moen./Truk Intl		PTKK	M		SA/FTP31
Ponape I./Ponape		PTPN	M	X	SA/FTP31
Yap I./Yap Intl		PTYA	M		SA/FTP31
<b>MIDWAY Is (United States)</b>					

Updated  
February 2005

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
	<i>Sand I./Midway NAF.</i>	PMDY	M	X	SA/FTPA31
<b>MONGOLIA</b>					
Ulaanbaator/Bryant-Ukhaa		ZMUB	M	X	
<b>MYANMAR</b>					
	<i>Mandalay Intl</i>	VYMD	M	X	
	<i>Sittwe</i>	VYSW	M	X	
Yangon/Mingaladon		VYYY	X	X	
<b>NAURU</b>					
Nauru I./Nauru		AUUU	M	X	
<b>NEPAL</b>					
Kathmandu/Tribhuran Intl		VNKT	M	X	
<b>NEW CALEDONIA (France)</b>					
Noumea/La Tontouta		NWWW	X	X	
<b>NEW ZEALAND</b>					
Auckland/Auckland Intl		NZAA	X	X	
Christchurch/Christchurch Intl		NZCH	X	X	
Wellington/Wellington Intl		NZWN	X	X	
<b>NIUE I. (New Zealand)</b>					
Alofi/Niue Intl		NIUE	M		FC: 9-hour validity
<b>NORTHERN MARIANA Is (United States)</b>					
Rota/Rota Intl		PGRO	M	X	
Saipan I. (Obyan)/Saipan I. (Obyan) Intl		PGSN	M	X	
<b>PAKISTAN</b>					
Gwadar/Gwadar		OPGD	M	X	
	<i>Faisalabad</i>	OPFA	M	X	
Islamabad/Chaklala		OPRN	X	X	
Karachi/Jinnah Intl		OPKC	X	X	
Lahore/Allama Iqbal Intl		OPLA	X	X	
	<i>Multan</i>	OPMT	M	X	
Nawabshah/Nawabshah		OPNH	M		
	<i>Pasni</i>	OPPI	M	X	
Peshawar/Peshawar		OPPS	M	X	
	<i>Quetta/Samungli</i>	OPQT	M	X	
	<i>Sukkur</i>	OPSK	M	X	
<b>PALAU I. (United States)</b>					
Koror/Koror (Babelthuap I.)		PTRO	M	X	SA/FTPA31



CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
<b>PAPUA NEW GUINEA</b>					
	<i>Daru</i>	AYDU	X		
	<i>Goroka</i>	AYGA	X		
Kieta/Kieta		AYKT	M		
	<i>Madang</i>	AYMD	X		
	<i>Momote</i>	AYMO	X		
	<i>Mount Hagen</i>	AYMH	X		
	<i>Nadzab</i>	AYNZ	X		
Port Moresby/Jacksons		AYPY	M	X	
Vanimo/Vanimo		AYVN	M		
	<i>Wewak</i>	AYWK	M		
<b>PHILIPPINES</b>					
	<i>Clark AB/Pampanga</i>	RPLC	M	X	
Davao/Francisco Bangoy Intl		RPMD	M		
Laoag/Laoag Intl		RPLI	M		
Lapu-Lapu/Mactan Cebu Intl		RPVM	X		
Manila/Ninoy Aquino Intl		RPLL	X	X	
Olongapo/Cubi Intl		RPMB	M		
	<i>Puerto Princesa/Palawan</i>	RPVP	M	X	
Subic Bay/Subic Bay Intl		RPLB	M	X	
Zamboanga/Zamboanga Intl		RPMZ	M		
<b>REPUBLIC OF KOREA</b>					
Busan/Gimhae Intl		RKPK	M	X	
Cheongju/Cheongju Intl		RKTU	M		
Daegu/Daegu Intl		RKTN	M	X	
	<i>Gunsan</i>	RKJK	M	X	
	<i>Gwangju</i>	RKJJ	M	X	
Jeju/Jeju Intl		RKPC	M	X	
	<i>Osan</i>	RKSO	M	X	
Seoul/Gimpo Intl		RKSS	M	X	
Seoul/Incheon Intl		RKSI	M	X	
	<i>Seoul/Sinchonri</i>	RKSM	M	X	
Yangyang/Yangyang Intl		RKNY	M	X	
<b>SAMOA</b>					
Apia/Faleolo Intl		NSFA	M	X	SA/FTPA32
<b>SINGAPORE</b>					
	<i>Seletar</i>	WSSL	M		
Singapore/Changi		WSSS	X		
Singapore/Paya Lebar		WSAP	M		

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
Singapore/Seletar		WSSL	M		
<b>SOLOMON ISLANDS</b>					
Honiara/Henderson		AGGH	M	X	
<b>SRI LANKA</b>					
Colombo/Katunayake		VCBI	X	X	
	<i>Colombo/Ratmalana</i>	VCCC	M	X	
	<i>Kankasanturai/Jaffna</i>	VCCJ	M	X	
Minnerya/Hingurakgoda		VCCH	M		
<b>THAILAND</b>					
Bangkok/Bangkok Intl		VTBD	X	X	
	<i>Buri Ram</i>	VTUO	M	X	
Chiang Mai/Chiang Mai Intl		VTCC	M	X	
Chiang Rai/Chiang Rai Intl		VTCT	M		
	<i>Chumphon</i>	VTSE	M	X	
Khon Kaen/Khon Kaen		VTUK	M		
	<i>Krabi</i>	VTSG	M	X	
	<i>Lampang</i>	VTCL	M	X	
	<i>Loei</i>	VTUL	M	X	
	<i>Mae Hong Son</i>	VTCH	M	X	
	<i>Nakhon Phanom (West)</i>	VTUW	M	X	
	<i>Nakhon Ratchasima</i>	VTUQ	M	X	
	<i>Nakhonsi Thammarat</i>	VTSF	M	X	
	<i>Nakhon Si Thammarat/Chai-Ian</i>	VTSN	M	X	
	<i>Nan</i>	VTGN	M	X	
	<i>Narathiwat</i>	VTSC	M	X	
	<i>Pattani</i>	VTSK	M	X	
Phitsanulok/Phitsanulok		VTTP	M		
	<i>Phrae</i>	VTCP	M	X	
	<i>Phetchabun</i>	VTBP	M	X	
Phuket/Phuket Intl		VTSP	M	X	
	<i>Prachuap Khiri Khan/Hua Hin</i>	VTPH	M	X	
	<i>Ranong</i>	VTSR	M	X	
Rayong/Utaphao		VTBU	M		
	<i>Roi Et</i>	VTUV	M	X	
	<i>Sakhon Nakhon/Ban Khai</i>	VTUI	M	X	
Songkhla/Hat Yai Intl		VTSS	M	X	
Surat Thani/Surat Thani		VTSB	M		
	<i>Surathani/Samui</i>	VTSM	M	X	
	<i>Tak/Mae Sot</i>	VTSM	M	X	
	<i>Trang</i>	VTST	M	X	
Ubon Ratchathani/Ubon Ratchathani		VTUU	M		

CITY/AERODROME		Loc.Ind.	SA/SP or SA/SP/FC	FT	Remarks
Listed in the AOP Tables	Not listed in the AOP Tables				
1	2	3	4	5	6
	<i>Udon Thani</i>	VTUD	M	X	
<b>TONGA</b>					
Tongatapu/Fua'amotu Intl		NFTF	M	X	
Vava'u/Vava'u		NFTV	M	X	
<b>TUVALU</b>					
Funafuti/Funafuti Intl		NGFU	M	X	FT: 15-hour validity
<b>VANUATU</b>					
Port Vila/Bauerfield		NVVV	M	X	
Santo/Pekoa		NVSS	M	X	
<b>VIET NAM</b>					
	<i>Cat Bi</i>	VVCI	X		SA/FC issued during 2200-1100 UTC, as required
	<i>Da Lat/Lien Khuong</i>	VVDL	X		SA/FC issued during 2200-1100 UTC, as required
Danang/Danang		VVDN	M	X	
	<i>Dien Bien Phu</i>	VVDB	X		SA/FC issued during 2200-1100 UTC, as required
Hanoi/Noibai		VVNB	X	X	
Ho-Chi-Minh/Tan-Son-Nhat		VVTS	X	X	
	<i>Hue/Phu Bai</i>	VVPB	X		SA/FC issued during 2200-1100 UTC, as required
	<i>Nha Trang</i>	VVNT	X		SA/FC issued during 2200-1100 UTC, as required
<b>WAKE Is ((United States</b>					
Wake Island	<i>Wake Island</i>	PWAK	M	X	
<b>WALLIS Is (France)</b>					
Wallis/Hihifo		NLWW	M		

Table MET 2B

**EXCHANGE REQUIREMENTS FOR SIGMET, AIRMET, VOLCANIC ASH AND  
TROPICAL CYCLONE ADVISORIES, AND SPECIAL AIR REPORTS FOR  
WHICH SIGMET HAS NOT BEEN ISSUED**

ASIA/PAC Regions have a requirement for a global set of SIGMET, volcanic ash and tropical cyclone advisories, and special air reports for which SIGMET has not been issued.

To ensure availability in the ASIA/PAC Regions, all the foregoing information should be addressed as shown in the following table.

*Note: Detailed information on the exchange of SIGMET and advisories in the ASIA/PAC Regions is provided in the **ASIA/PAC Regional SIGMET Guide** and the **ROBEX Handbook**, issued by the ICAO Asia and Pacific Office.*

Source Region	Responsible ASIA/PAC Gateway	AFTN Address	Remark
AFI	Bangkok	VTBBYPYX	
ASIA	Bangkok Brisbane Singapore Tokyo	VTBBYPYX YBBBYPYX WSZZYPYM RJAAYPYX	
CAR	Brisbane	YBBBYPYX	
EUR	Singapore	WSZZYPYM	
NAM	Tokyo	RJAAYPYX	
NAT	Singapore	WSZZYPYM	
PAC	Brisbane Nadi	YBBBYPYX NFFNYPYX	
SAM	Brisbane	YBBBYPYX	