

*International Civil Aviation Organization*

**WORKING PAPER**



ICAO

**Eighteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/18) and Tenth Meeting of the Meteorological Services Working Group (MET/S WG/10)**

Web-conference, 27 to 31 July 2020

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**Agenda Item 4: Guidance material related to meteorological information exchange**

**UPDATES TO AUSTRALIA'S MWOs**

(Presented by Australia)

**SUMMARY**

This paper presents Australia's required updates to regional documentation.

**1. INTRODUCTION**

1.1 The Australian Bureau of Meteorology has recently restructured its Aviation Meteorological Services. There are now only three Meteorological Watch Offices (MWOs) in Australia.

1.2 This paper presents the ICAO Asia Pacific documentation updates that are required due to the change in MWOs in Australia.

**2. DISCUSSION**

2.1 The Australian Bureau of Meteorology provide Aviation Meteorological Services from the following offices:

- i. Meteorological Watch Offices (MWOs):
  - Melbourne Regional Forecast Centre (YMRF)
  - Melbourne World Met Centre (YMMC)
  - Brisbane Regional Forecast Centre (YBRF)
- ii. Darwin VAAC – Located in Melbourne
- iii. Darwin TCAC – Located in Perth and Brisbane
- iv. Aviation Meteorological Offices (MOs) at some aerodromes.

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2.2 The Attachment to this paper details the required documentation updates.

2.3 Updates to the APAC Regional Air Navigation Plan (eANP) Volume II have been submitted separately to the ICAO APAC office through a Proposal for Amendment (PfA).

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- i. Note the information contained in the paper; and
- ii. Request ICAO Secretariat to make the required changes, as outlined in the attachment to this paper, to relevant regional guidance material.

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ATTACHMENT – DOCUMENTATION UPDATES

ASIA PACIFIC Regional SIGMET Guide

APPENDIX C  
ICAO APAC REGIONAL SIGMET TEST PROCEDURES

Table 1: Participating MWOs

MWOs (listed by ICAO Region and State) with indication of the required SIGMET test task/s including, where applicable, the associated TCAC/VAAC

MWO DETAILS				REQUIRED SIGMET TEST TASK ID (Refer Table 6 for further details)													
				Associated TCAC							Associated VAAC					WS SIGMET test	
ICAO REGION*	STATE	MWO NAME	ICAO Location Indicator	WC SIGMET test							WV SIGMET test						
				Darwin	Nadi	La Réunion	New Delhi	Tokyo	Honolulu	Miami	Darwin	Toulouse	Tokyo	Wellington	Anchorage	Washington	
A	AUSTRALIA	ADELAIDE	YPRM	-	-	-	-	-	-	-	-	-	-	-	-	WS 1.0	
		BRISBANE	YBRF	WC 1.1	WC 1.2	-	-	-	-	-	-	-	-	-	-	WS 1.0	
		DARWIN	YDPM	-	-	-	-	-	-	-	WV 1.1	-	-	-	-	-	-
		HOBART	YMHE	-	-	-	-	-	-	-	-	-	-	-	-	WS 1.0	
		MELBOURNE (RFC)	YMRF	-	-	-	-	-	-	-	-	-	-	-	-	WS 1.0	
		MELBOURNE (WMC)	YMMC	WC 1.1	WC 1.2	WC 2.1	-	-	-	-	WV 1.1	-	-	-	-	WS 1.0	
		PERTH	YPRF	WC 1.1	-	WC 2.1	-	-	-	-	-	-	-	-	-	WS 1.0	
		SYDNEY	YSRF	-	-	-	-	-	-	-	-	-	-	-	-	WS 1.0	

**Table 3: Participating TCACs**

TCACs listed by State and ICAO Region, with indication of the required SIGMET test tasks and the associated MWOs

STATE	ICAO REGION	TCAC NAME	ICAO Location Indicator	TASK (ID)*	Associated MWOs to which the advisory information on tropical cyclones should be sent
AUSTRALIA	APAC	DARWIN	YPDM YMMC	WC 1.0	BRISBANE, COLOMBO, DARWIN, HONIARA, JAKARTA, MAKASSAR, MELBOURNE (WORLD MET CENTRE, BOM) PERTH, PORT MORESBY
FIJI	APAC	NADI	NFFN	WC 1.0	BRISBANE, HONIARA, HONOLULU, MELBOURNE (WORLD MET CENTRE, BOM) NADI, NAURU, TAHITI, WELLINGTON
FRANCE	AFI	LA RÉUNION	FMEE	WC 2.0	MALE, MELBOURNE (WORLD MET CENTRE, BOM), MUMBAI, PERTH

**Table 4: Participating VAACs**

Participating VAACs listed by State and ICAO Region, with indication of the required SIGMET test tasks and the associated MWOs

STATE	ICAO REGION	VAAC NAME	ICAO Location Indicator	TASK (ID)*	Associated MWOs to which the advisory information on volcanic ash should be sent
AUSTRALIA	APAC	DARWIN	YPDM YMMC	WV 1.0	BANGKOK, CHENNAI, COLOMBO, DARWIN, GIALLAM, HONIARA, JAKARTA, KUALA LUMPUR, MELBOURNE (WORLD MET CENTRE, BOM), MAKASSAR, MANILA, PORT MORESBY, SINGAPORE, YANGON

**APPENDIX D**

**WMO HEADINGS (WMO AHL) FOR SIGMET BULLETINS**

Used by Asia/Pacific Meteorological Watch Offices

MWO location	ICAO location indicator	WMO SIGMET Headings			FIR/ACC served	Remarks
		WS	WC	WV	ICAO location indicator	
1	2	3	4	5	6	7
<b>AUSTRALIA</b>						<i>Note: Non-ICAO location indicators are used in the WMO headings</i>
ADELAIDE/Adelaide	YPRM	WSAU21			YMMM	APRM
BRISBANE/Brisbane	YBRF	WSAU21	WCAU04		YBBB YMMM	ABRF
HOBART/Hobart	YMHE	WSAU21			YMMM	AMHE
MELBOURNE/Melbourne	YMRF	WSAU21			YBBB YMMM	AMRF
MELBOURNE (WORLD MET CENTRE, BUREAU OF METEOROLOGY)	YMMC	WSAU21	WCAU01	WVAU01	YBBB YMMM	AMMC
	YMMC			WVAU04	YBBB YMMM	ADRM

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MWO location	ICAO location indicator	WMO SIGMET Headings			FIR/ACC served	Remarks
		WS	WC	WV	ICAO location indicator	
1	2	3	4	5	6	7
PERTH/Perth	YPRF	WSAU21	WCAU01		YBBB YMMM	APRF
SYDNEY/Sydney	YSRF	WSAU21			YBBB YMMM	ASRF

**APPENDIX E**

**WMO HEADINGS FOR TROPICAL CYCLONE AND VOLCANIC ASH ADVISORY BULLETINS (FK and FV)**

Used by Asia/Pacific TCACs and VAACs

TCAC/VAAC (State)	ICAO location indicator	WMO Heading TTAAii CCCC	Remarks
1	2	3	4
<b>TC Advisories (FK)</b>			
Darwin (Australia)	ADRM	FKAU01 - 06 ADRM <del>FKAU02 ADRM</del>	Area bounded by 0°S 90°E, 40°S 90°E, 40°S 160°E, 0°S 160°E, 0°S 90°E.  0°S 125°E, 15°S 125°E, 15°S 129°E, 40°S 129°E, 40°S 138°E, 14°S 138°E, 40°S 141°E, 0°S 141°E, 0°S 125°E.  (Advisories prepared by Darwin-Brisbane or Perth)
		FKAU03 ADRM <del>FKAU04 ADRM</del>	Area bounded by  0°S 141°E, 10°S 141°E, 14°S 138°E, 40°S 138°E, 40°S 160°E, 0°S 160°E.  (Advisories prepared by Brisbane)
		FKAU05 ADRM <del>FKAU06 ADRM</del>	Area bounded by  0°S 90°E, 40°S 90°E, 40°S 129°E, 15°S 129°E, 15°S 125°E, 0°S 125°E, 0°S 90°E.  (Advisories prepared by Perth)

**FASID TABLE MET 3A**

TROPICAL CYCLONE ADVISORY CENTRE	ICAO LOC. IND.	AREA OF RESPONSIBILITY	PERIOD OF OPERATION <sup>2)</sup>	MWO TO WHICH ADVISORY INFORMATION IS TO BE SENT	
				Name	ICAO LOC. IND.
1	2	3	4	5	6
<b>Darwin (Australia)</b>	YPRM	South-East Indian Ocean N: 0°S — S: 36°S	November – April	Adelaide <sup>3)</sup>	YPRM
	YMMC	W: 90°E — E: 141°E		Brisbane	YBRF
		and		Colombo	VOMM
		South-West Pacific Ocean		Darwin	YDRM
		N: 0°S S: 40°S		Hobart <sup>3)</sup>	YMHE
		W: 144°E E: 160°E		Honiara <sup>4)</sup>	AGGH
				Jakarta	WIII
				Melbourne	YMRF
				Perth <sup>3)</sup>	YPRF
				Port Moresby	AYPY
				Sydney <sup>3)</sup>	YSRF
				Cairns <sup>3)</sup>	YBCS
				Ujung Pandang	WAAA
		Melbourne (World Met Centre, BoM)	YMMC		
.....					
<b>Nadi (Fiji)</b>	NFFN	Southern Pacific: N: 0°S S: 40°S W: 160°E E: 120°W	November April	Brisbane Cairns <sup>3)</sup> Hobart <sup>3)</sup> Honiara <sup>4)</sup> Honolulu Melbourne <sup>3)</sup>	YBRF YBCS YMHE AGGH PHFO YMRF

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				Melbourne (World Met Centre, BoM) <sup>2)</sup>	YMMC
				Nadi	NFFN
				Nauru <sup>4)</sup>	ANYN
				Sydney <sup>3)</sup>	YSRF
				Tahiti	NTAA
				Wellington (Aviation Weather Centre)	NZKL
.....					
<b>Réunion (France)</b>	FMEE	Southwest Indian Ocean N: 0°S S: 40°S W: African Coastline E: 90°E	Throughout the year	Antananarivo Bloemfontein  Brisbane Melbourne Mumbai Dar-es-Salaam Durban Gaborone Harare Johannesburg Lilongwe Mahé Male Maputo Mauritius Melbourne (World Met Centre, BoM) <sup>2)</sup> Nairobi Perth <sup>3)</sup>	FMMI FABL  YBRF YMRF VABB HTDA FADN FBSK FVHA FAJS FWLI FSIA VRMM FQMA FIMP YMMC HKJK YPRF

NOTES:

1) Co-ordinates of the area of responsibility of the Nadi Tropical Cyclone Advisory Centre to be confirmed.

2) Indicates approximately the main seasons for tropical cyclones.

3) Tropical cyclone SIGMET for the Australian FIRs is issued by MWOs: ~~Brisbane, Melbourne (World Met Centre, BoM) Darwin and Perth.~~

4) MWO not implemented, however, arrangement made for issuance of SIGMET by Port Moresby MWO

5) MWO not implemented, however, arrangement made for issuance of SIGMET by Chengdu MWO

**FASID TABLE MET 3B**

VAAC		AREA OF RESPONSIBILITY	STATE	ICAO REGION	MWO TO WHICH INFORMATION IS TO BE SENT		ACC/FIC TO WHICH INFORMATION IS TO BE SENT	
NAME	ICAO LOC. IND.				Name	ICAO LOC. IND.	Name	ICAO LOC. IND.
1	2	3	4	5	6	7	8	9
<b>Darwin (Australia)</b>	YPDM	Southward from N2000 and from E08200 to E10000, and Southward from N1000 and from E10000 to E16000, and the Colombo, Melbourne and Brisbane FIRs	Australia	APAC	Adelaide <sup>3)</sup>	YPRM	Adelaide	YPAD
	YMMC		Thailand	APAC	Bangkok	VTBS	Bangkok	VTBB
			Australia	APAC	Brisbane <sup>3)</sup>	YBRF	Brisbane	YBBB
							Melbourne	YMMM
							Brisbane	YBBN
							Cairns	YBCS
			Australia	APAC	Cairns <sup>3)</sup>	YBCS	Townsville	YBTL
			India	APAC	Chennai	VOMM	Chennai	VOMF
			Sri Lanka	APAC	Colombo	VCBI	Colombo	VCBI
			Australia	APAC	Darwin	YDRM	Darwin	YPDN
			Viet Nam	APAC	Gia Lam	VVGL	Hanoi Ho-Chi-Minh	VVNB VVTS
			Australia	APAC	Hobart <sup>3)</sup>	YMHE	Hobart	YMHB
			Solomon I.	APAC	Honiara <sup>1)</sup>	AGGH	Honiara	AGGH
			Indonesia	APAC	Jakarta	WIIF	Jakarta	WIIF
Malaysia	APAC	Kuala Lumpur	WMKK	Kota Kinabalu Kuala Lumpur	WBFC WMFC			
Philippines	APAC	Manila	RPLL	Manila	RPHI			
Australia	APAC	Melbourne (World Met Centre, BoM)	YMMC	Melbourne Brisbane	YMMM YBBB			

VAAC		AREA OF RESPONSIBILITY	STATE	ICAO REGION	MWO TO WHICH INFORMATION IS TO BE SENT		ACC/FIC TO WHICH INFORMATION IS TO BE SENT	
NAME	ICAO LOC. IND.				Name	ICAO LOC. IND.	Name	ICAO LOC. IND.
1	2	3	4	5	6	7	8	9
			Australia	APAC	Melbourne <sup>3)</sup>	YMRF	Melbourne Brisbane	YMMM YBBB
			Australia	APAC	Perth <sup>3)</sup>	YPRF	Perth	YPPH
			Papua New Guinea	APAC	Port Moresby	AYPY	Port Moresby	AYPM
			Singapore	APAC	Singapore	WSSS	Singapore	WSJC
			Australia	APAC	Sydney <sup>3)</sup>	YSRF	Sydney	YSSY
			Indonesia	APAC	Ujung Pandang	WAAA	Ujung Pandang	WAAF
			Myanmar	APAC	Yangon	VYYY	Yangon	VYYY
-								
-								
-								
-								
-								
-								
<b>Wellington (New Zealand)</b>	NZKL	Southward from the Equator and from E16000 to W14000, except for the Melbourne and Brisbane FIRs, and Southward from S1000 and from W14000 to W09000	Australia	APAC	Brisbane <sup>3)</sup>	YBRF	Brisbane	YBBN
			Australia	APAC	Darwin	YDRM	Darwin	YPDN
			USA	APAC	Honolulu	PHFO	<i>Oakland Oceanic</i>	<i>KZAK</i>
			Solomon I.	APAC	Honiara <sup>4)</sup>	AGGH	Honiara	AGGH
			Australia	APAC	Melbourne <sup>3)</sup>	YMRF YMMC	Melbourne	YMMM
			Fiji	APAC	Nadi	NFFN	Nadi	NFFF
			Nauru	APAC	Nauru <sup>1)</sup>	ANYN	Nauru	ANAU
			Australia	APAC	Sydney <sup>3)</sup>	YSRF	Sydney	YSSY

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			French Polynesia	APAC	Tahiti	NTAA	Tahiti	NTTT
			New Zealand	APAC	Wellington (Aviation Weather Centre)	NZKL	Auckland Christchurch	NZZO NZZC

Notes: –

- 1) MWO not implemented, ~~however, arrangement made for issuance of SIGMET by Port Moresby MWO.~~
- 2) MWO not implemented, however, arrangement made for issuance of SIGMET by Chengdu MWO.
- 3) MWO ~~Darwin~~ Melbourne (World Met Centre, BoM) is designated to issue VA SIGMET for Brisbane and Melbourne FIRs.