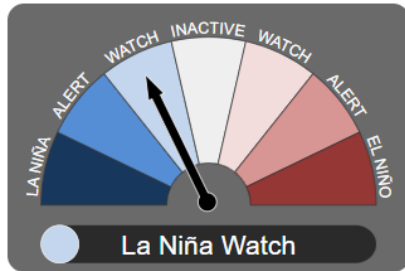


ENSO update - OCOF 203

15 August 2024

ENSO Update

ENSO and IOD remain neutral

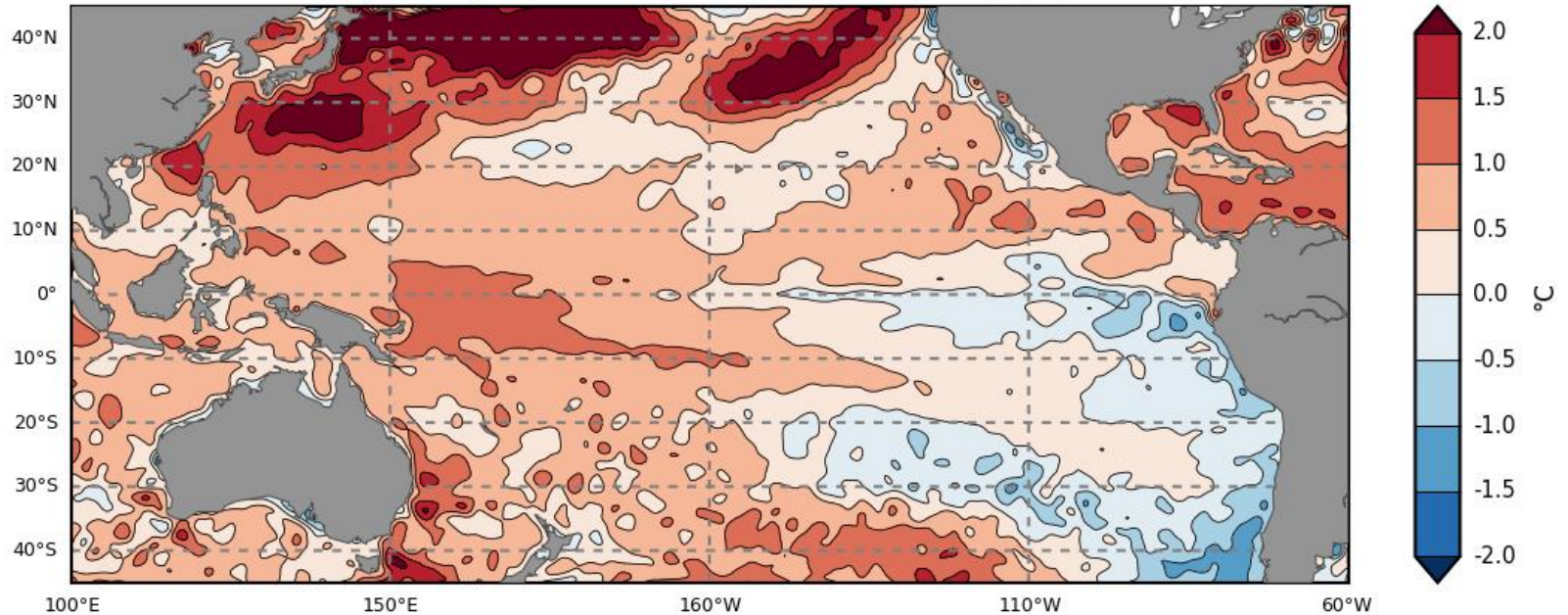


- Sea surface temperatures (SSTs) in the central equatorial Pacific Ocean are ENSO-neutral, following a steady cooling from El Niño levels since December 2023. This cooling is being sustained by deep waters surfacing in the central and eastern Pacific. However, the rate and extent of cooling both at and below the surface has decreased since May. Atmospheric patterns, including cloud and trade winds, are currently ENSO-neutral.
- ENSO is likely to remain neutral until at least early spring. Three of 7 climate models suggest the possibility of SSTs reaching the La Niña threshold (below -0.8°C) by October. The remaining 4 models suggest a continuation of ENSO-neutral throughout the forecast period.
- The ENSO Outlook remains at La Niña Watch. La Niña Watch does not guarantee La Niña development, only that there is about an equal chance of ENSO remaining neutral or La Niña developing during the remainder of 2024.

July 2024 SSTs

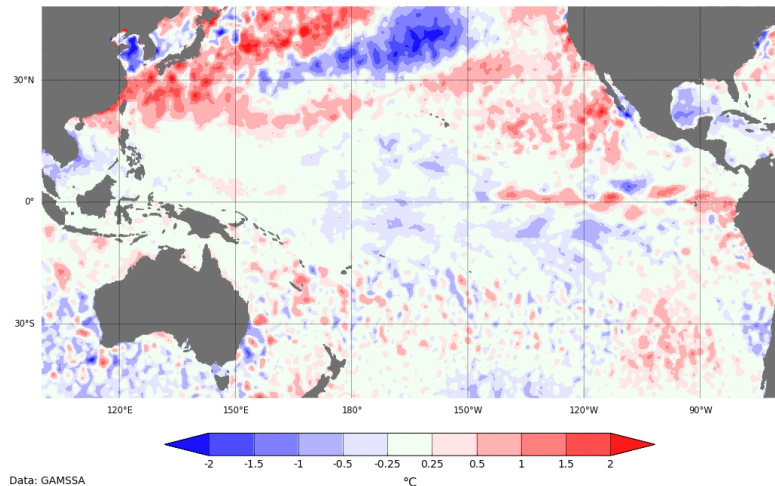
Pacific Ocean

Monthly Average Sea Surface Temperature Anomaly: July 2024



©Commonwealth of Australia 2024
Australian Bureau of Meteorology, COSPPac

Change in the monthly SST anomaly: July-2024 - June-2024

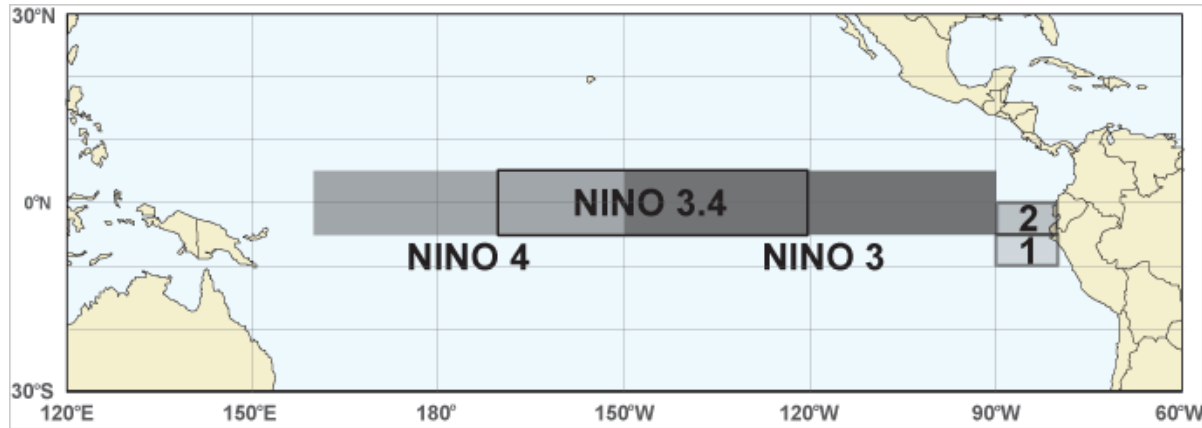


Data: GAMSSA
Climatology baseline: 1991 to 2020
© Commonwealth of Australia 2024, Australian Bureau of Meteorology

<http://www.bom.gov.au/climate>

Anomaly monthly difference
Created: 04/08/2024

NINO INDICES SST anomalies (°C)

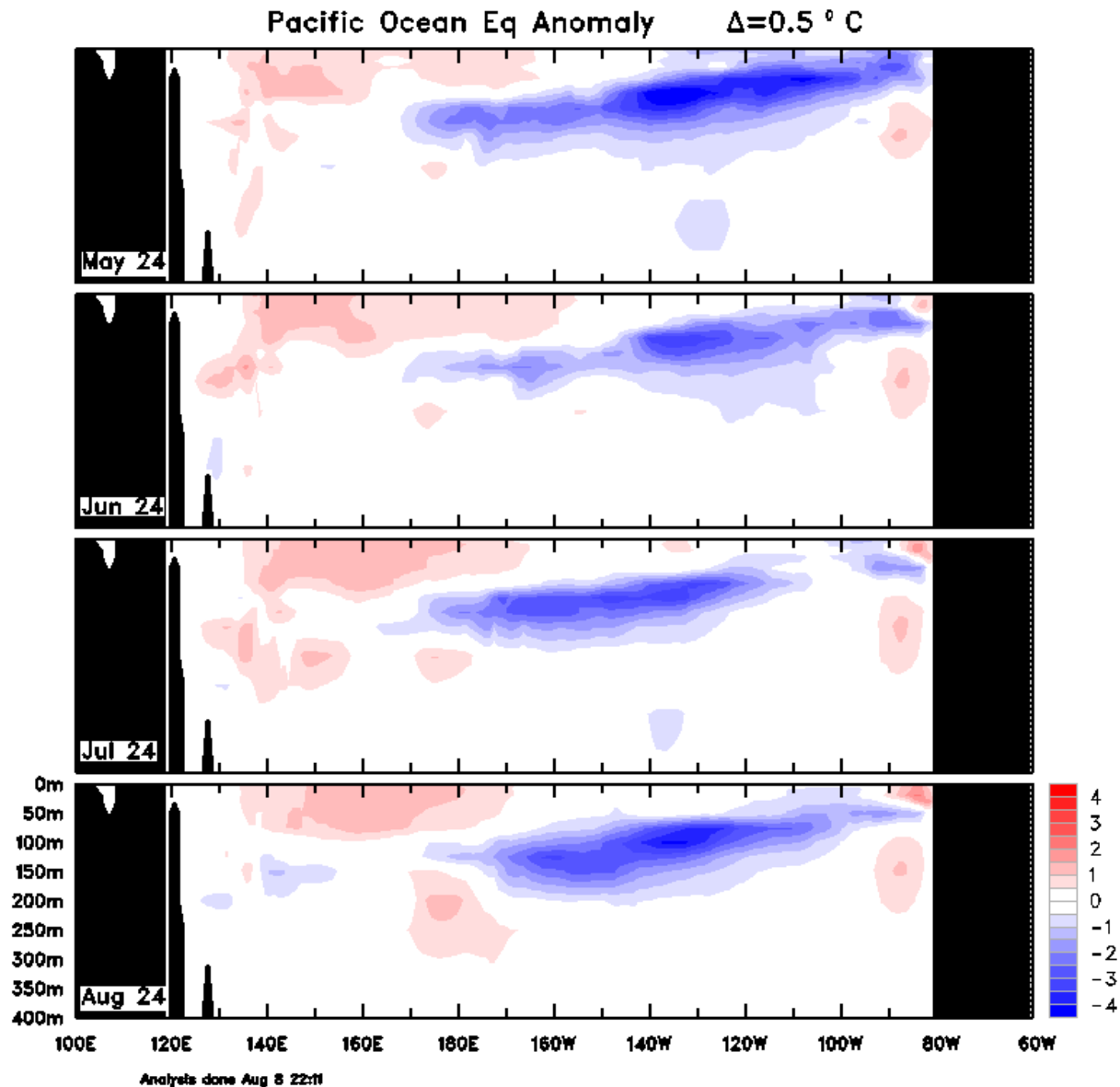


Index	June 2024	July 2024	Latest weekly
NINO3	-0.1	0.0	0.0
NINO3.4	+0.2	+0.2	+0.2
NINO4	+0.6	+0.4	+0.6

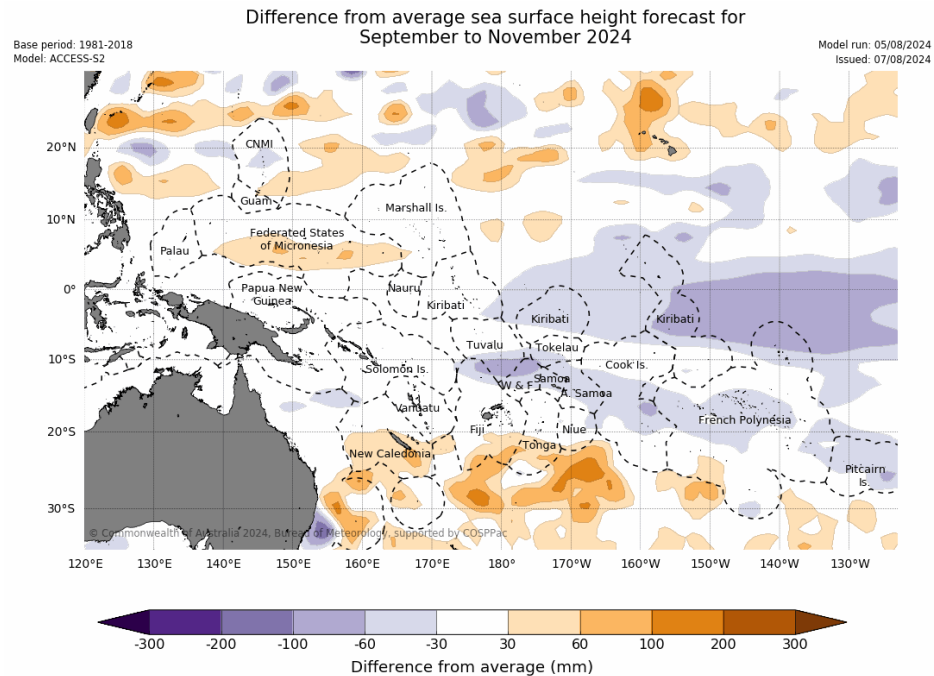
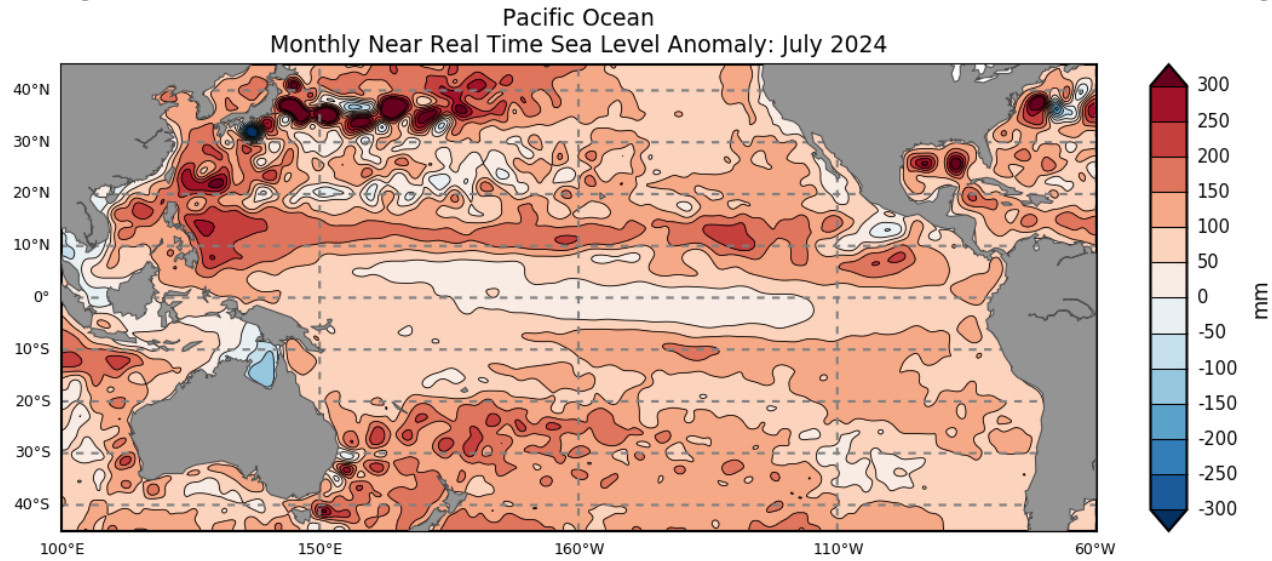
Weekly data for the week ending 11/08/2024

Equatorial Pacific sub-surface profile

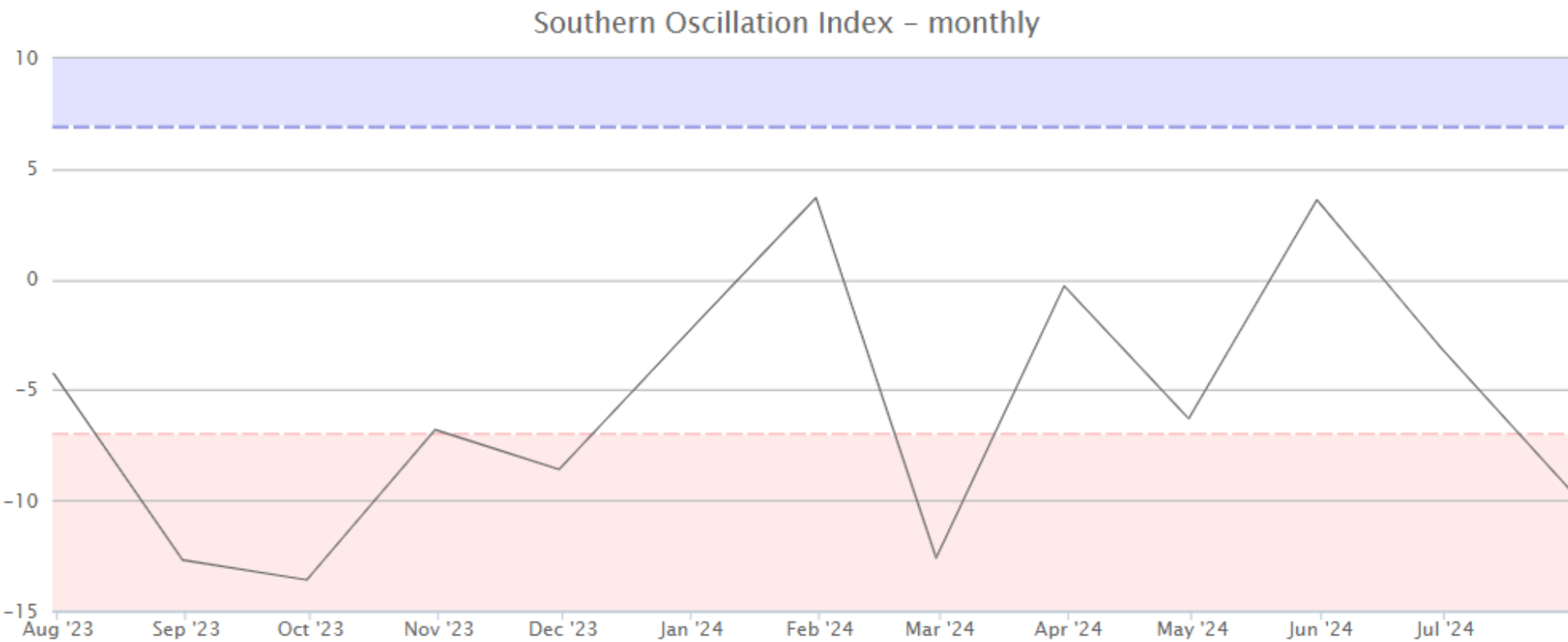
Bureau of Meteorology



July 2024 Sea Level Anomaly



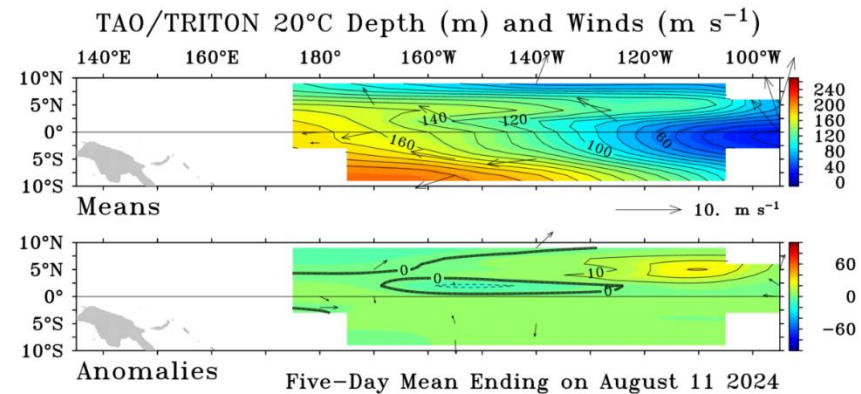
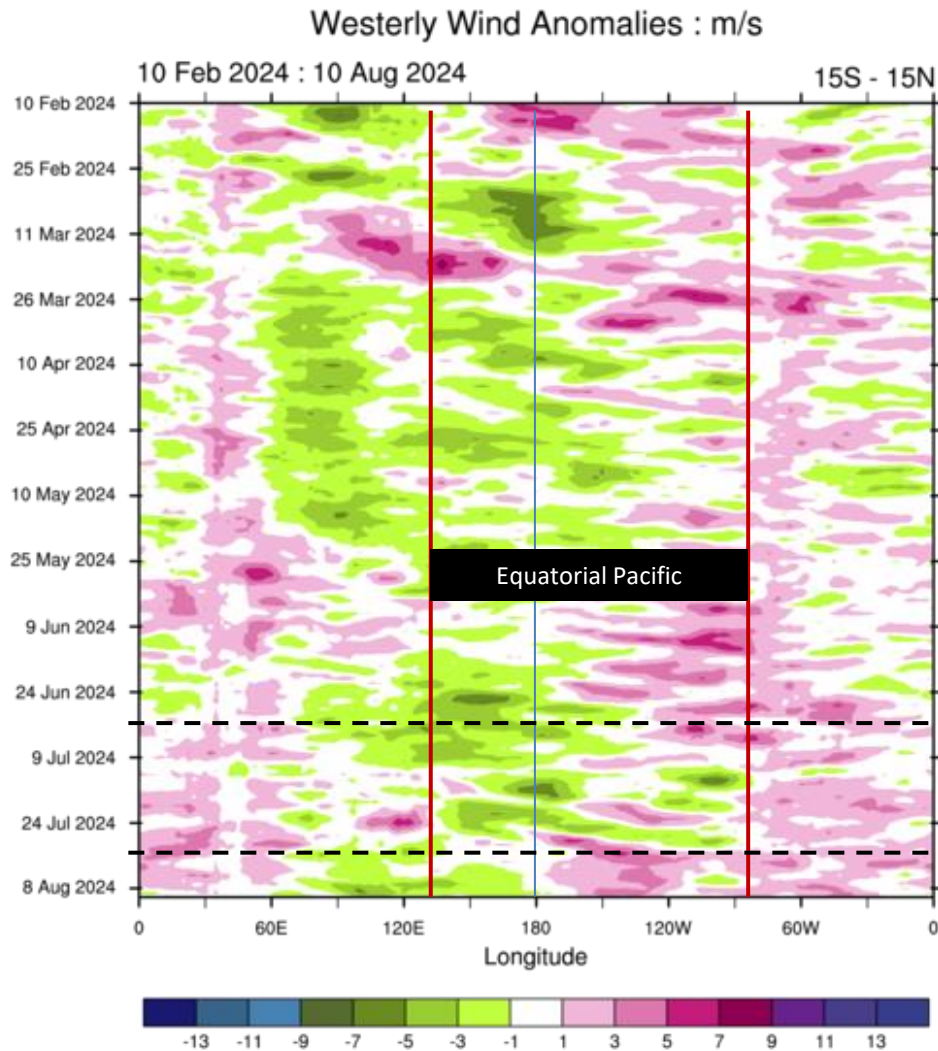
Southern Oscillation Index



Southern Oscillation Index monthly data												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024	+3.7	-12.6	-0.3	-6.3	+3.6	-3.1	-9.5	-	-	-	-	-
2023	+11.8	+10.5	-2.0	+0.3	-18.5	+0.2	-4.3	-12.7	-13.6	-6.8	-8.6	-2.4

At 11 August 2024: 30-day SOI = -14; 90-day SOI = -5

Equatorial Trade Winds

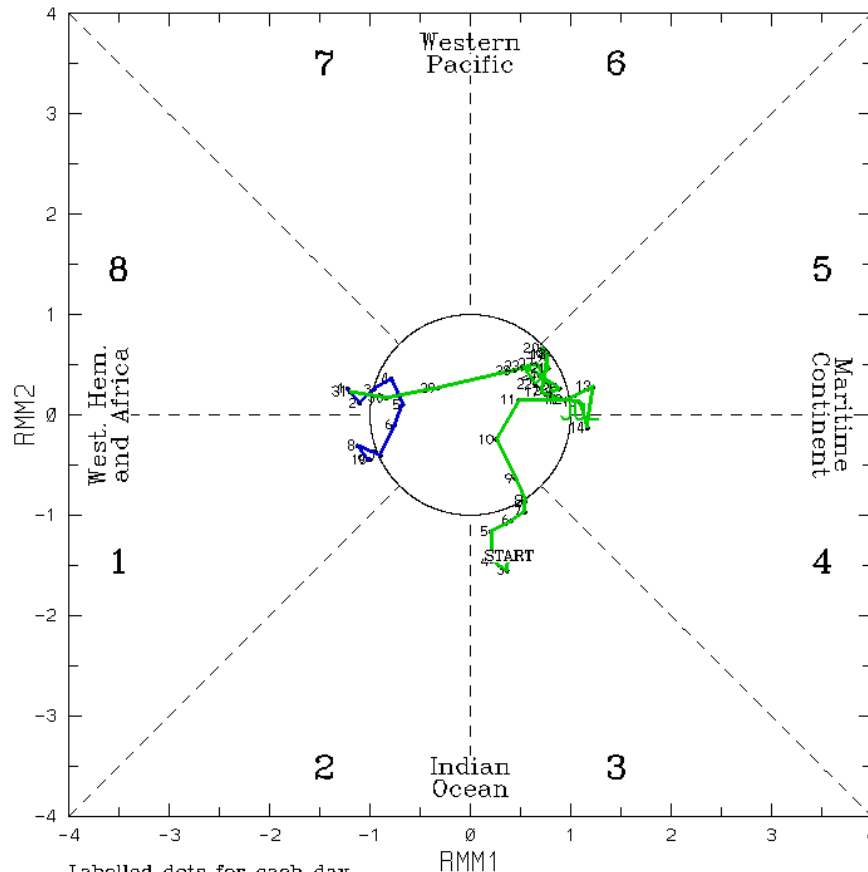


Global Tropical Moored Buoy Array Program Office, NOAA/PMEL

Madden-Julian Oscillation

OFFICIAL

(RMM1,RMM2) phase space for 2-Jul-2024 to 10-Aug-2024

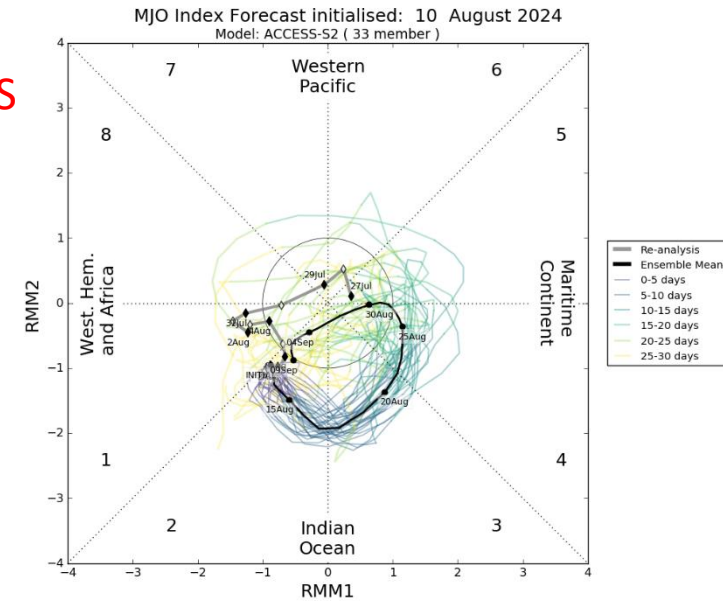


Labelled dots for each day.

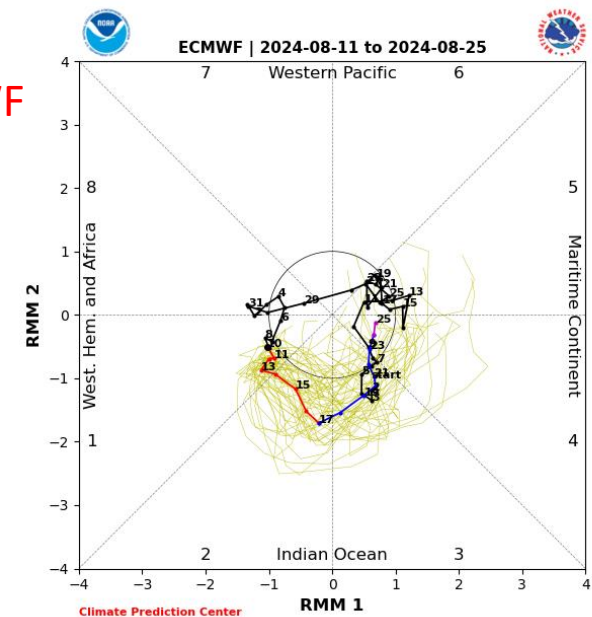
Blue line is for Aug, green line is for Jul, red line is for Jun.

(C) Copyright Commonwealth of Australia Bureau of Meteorology

ACCESS

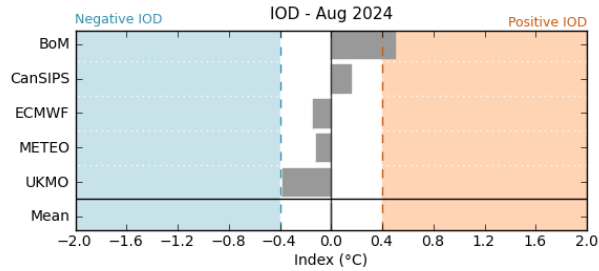


ECMWF

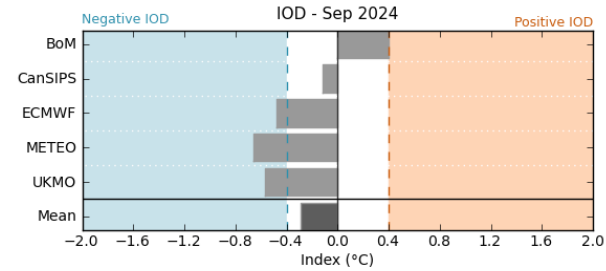


OFFICIAL

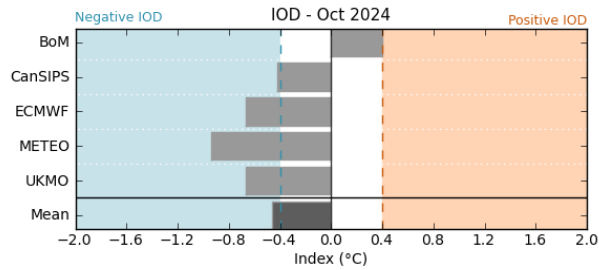
Indian Ocean Dipole (IOD)



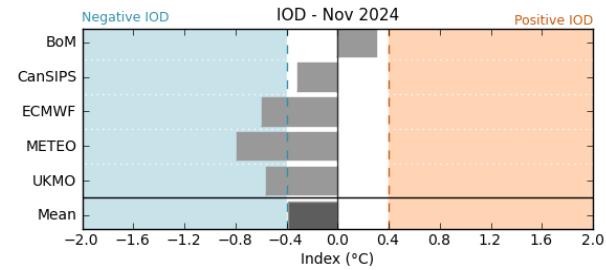
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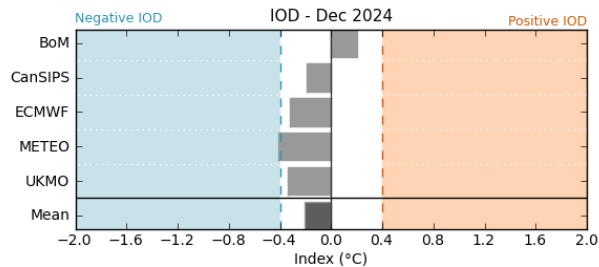
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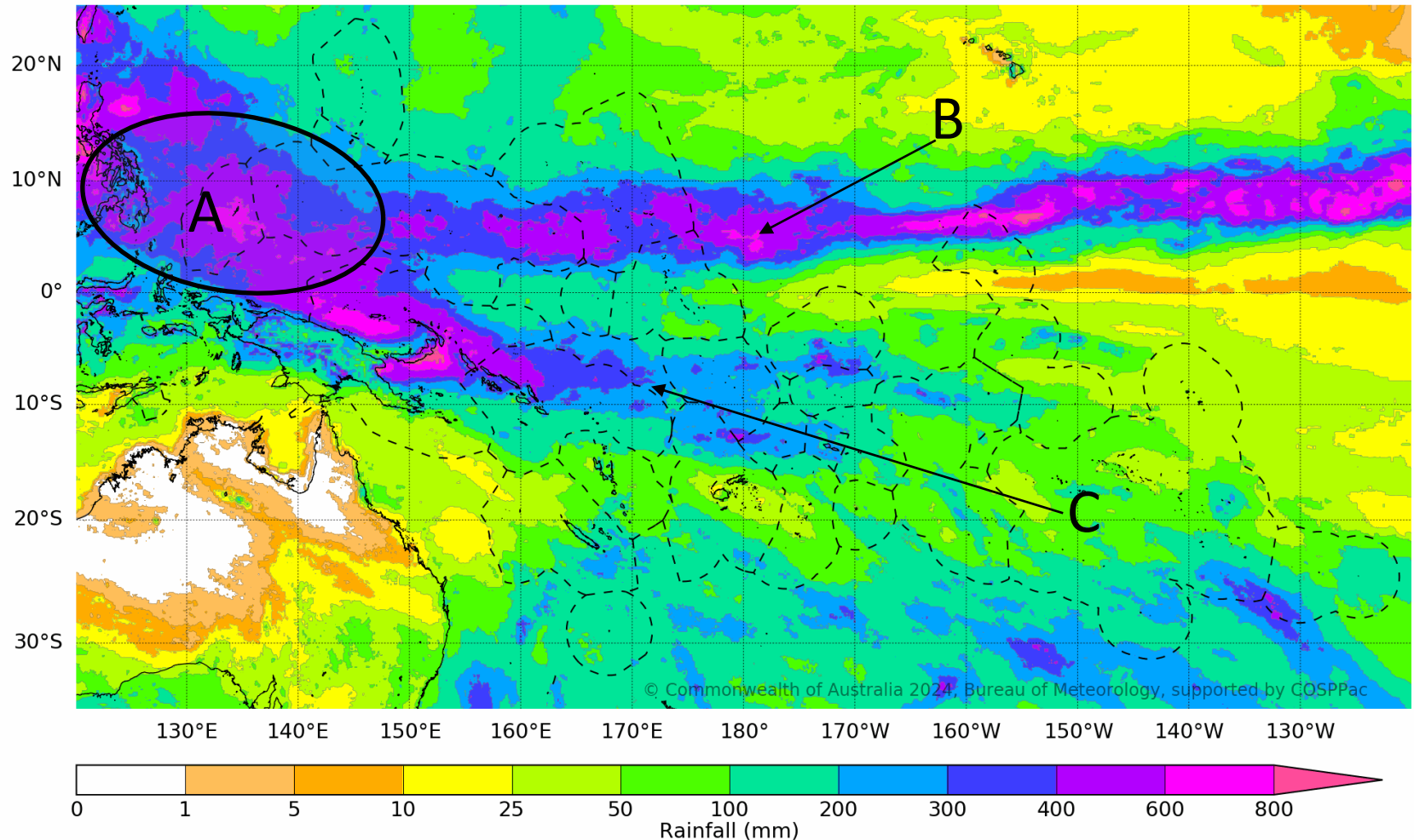
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Satellite Rainfall July 2024

1-month total rainfall ending July 2024

Data source: MSWEP

Issued: 07/08/2024



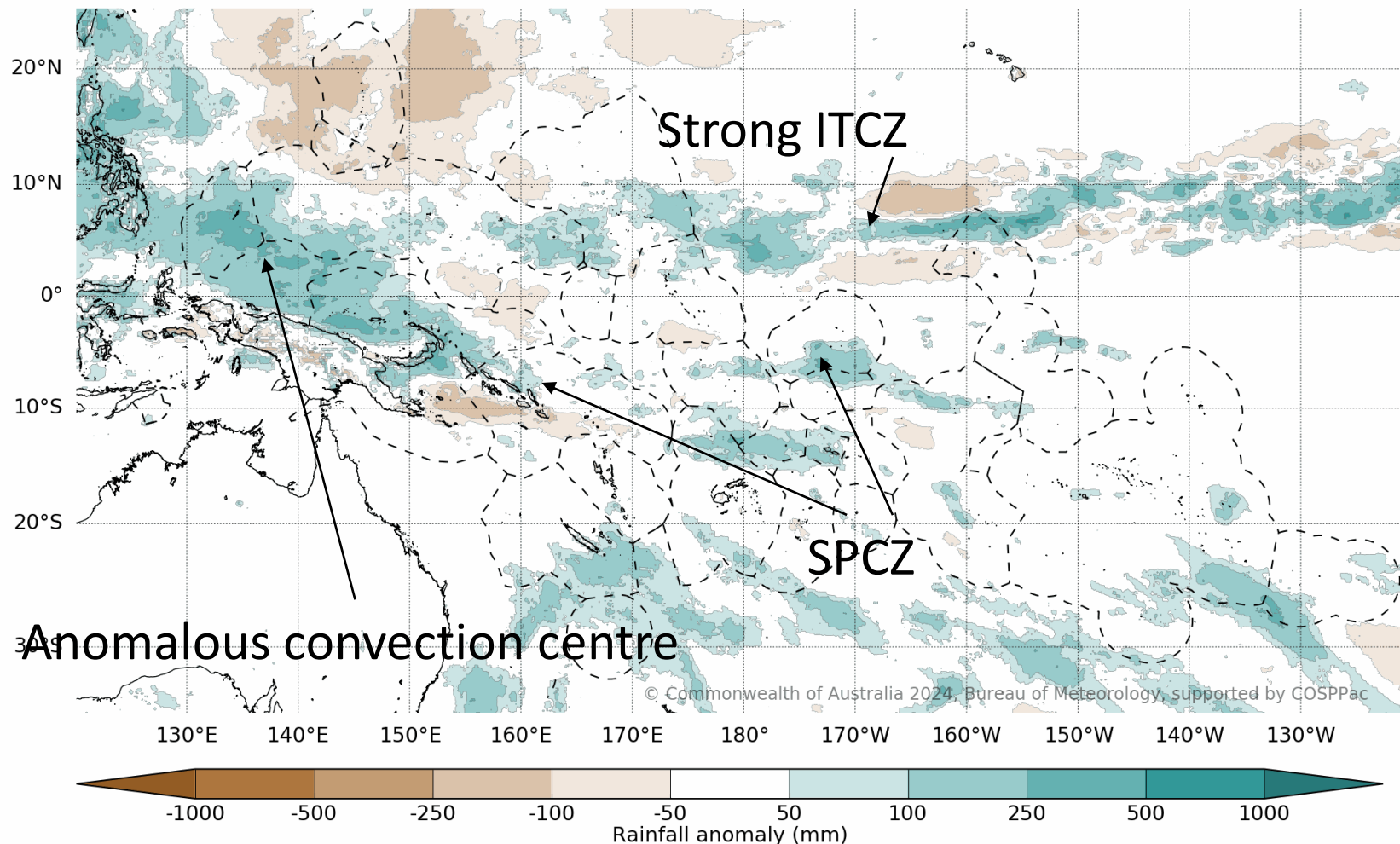
Dashed EEZ shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

Satellite Rainfall Anomaly July 2024

Base period: 1980-2021
Data source: MSWEP

1-month total rainfall anomaly ending July 2024

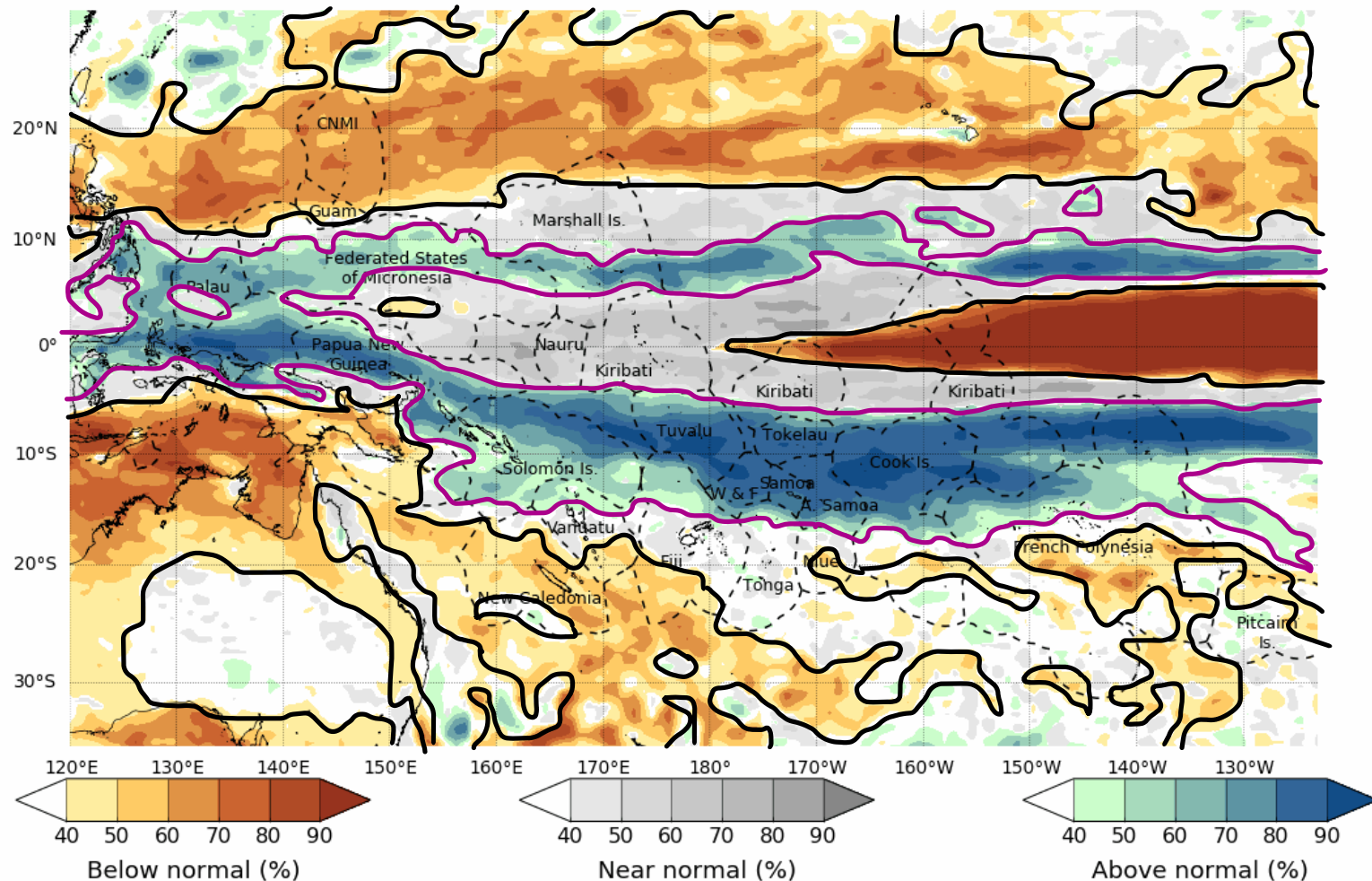
Issued: 07/08/2024



Dashed EEZ shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

Forecast Verification: May-Jul

Tercile rainfall probabilities for
May to July 2024



Base period: 1981-2018

Model: ACCESS-S2

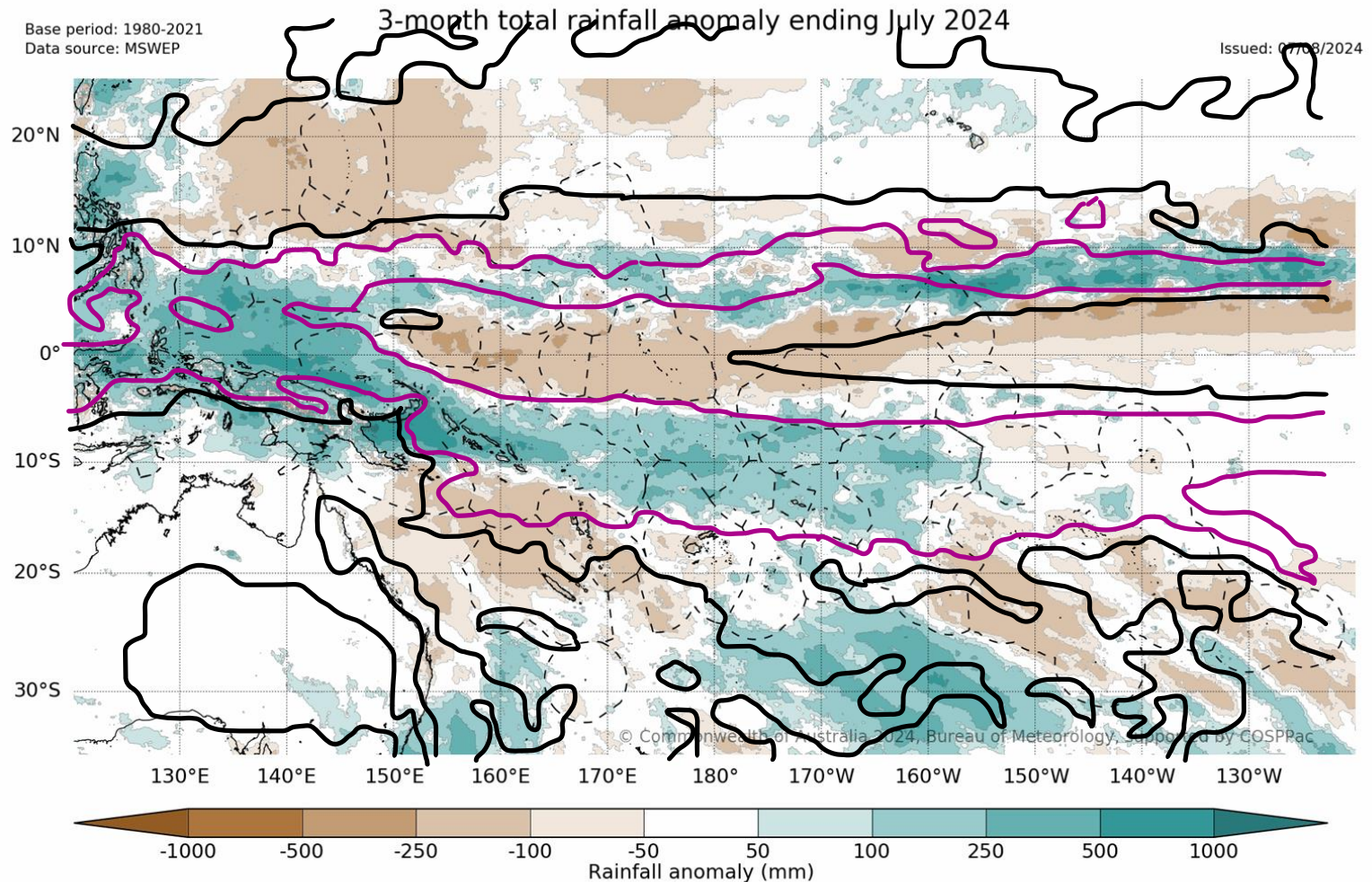
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Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

Model run: 29/04/2024

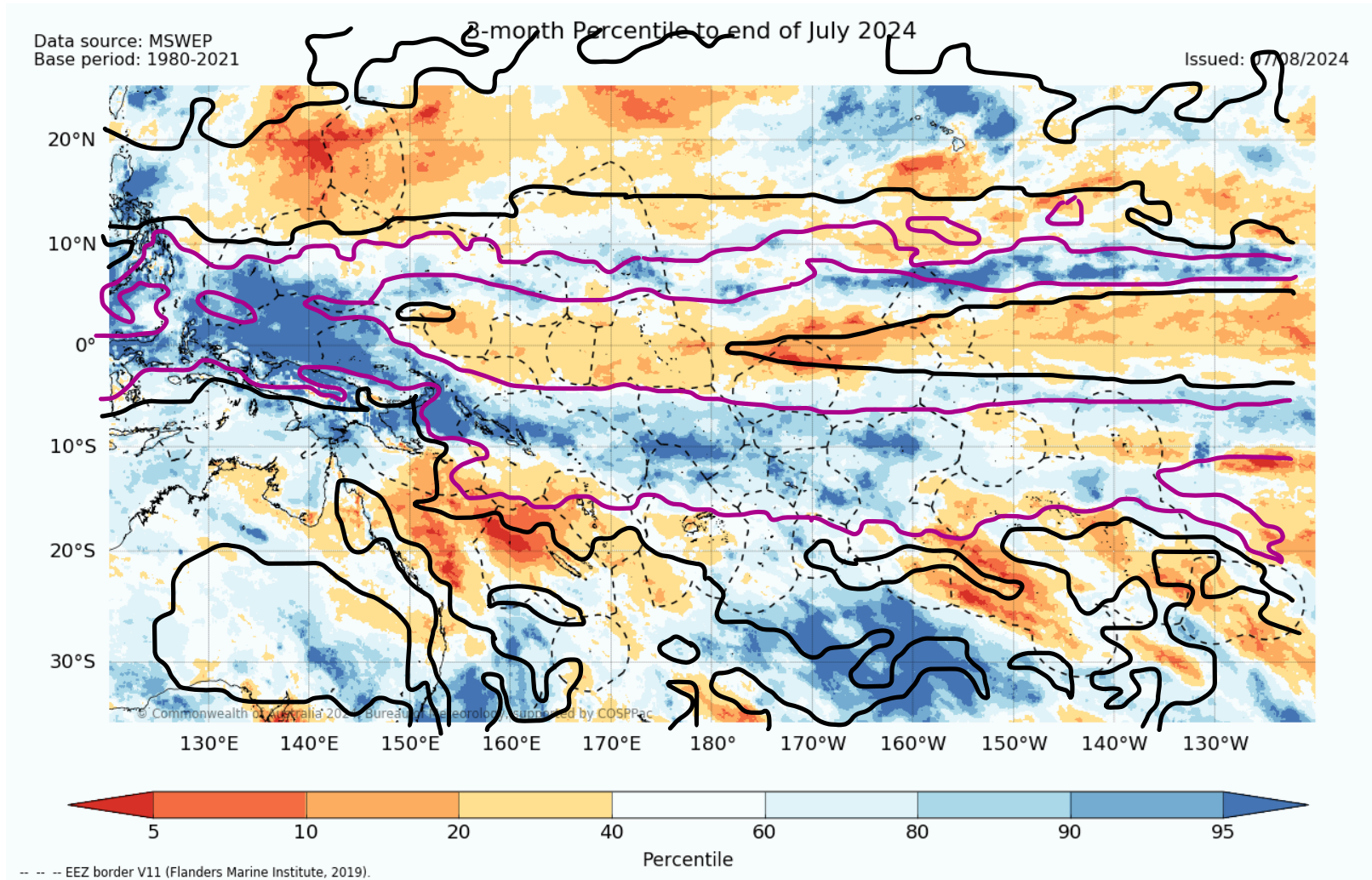
Issued: 01/05/2024

Forecast Verification: May-Jul



Dashed EEZ shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

Forecast Verification: May-Jul

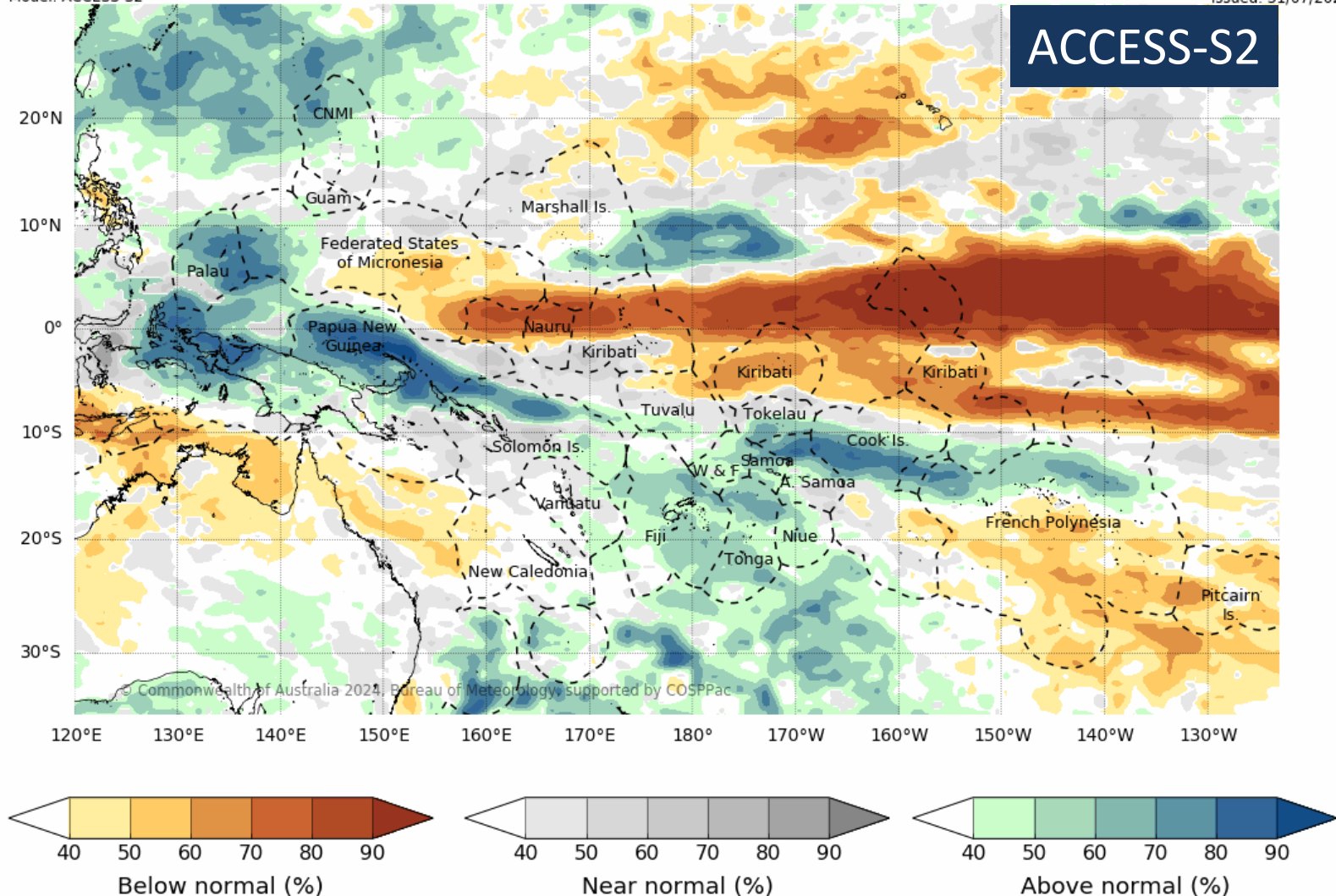


Model Rainfall Predictions (ASO)

Tercile rainfall probabilities for
August to October 2024

Base period: 1981-2018
Model: ACCESS-S2

Model run: 29/07/2024
Issued: 31/07/2024

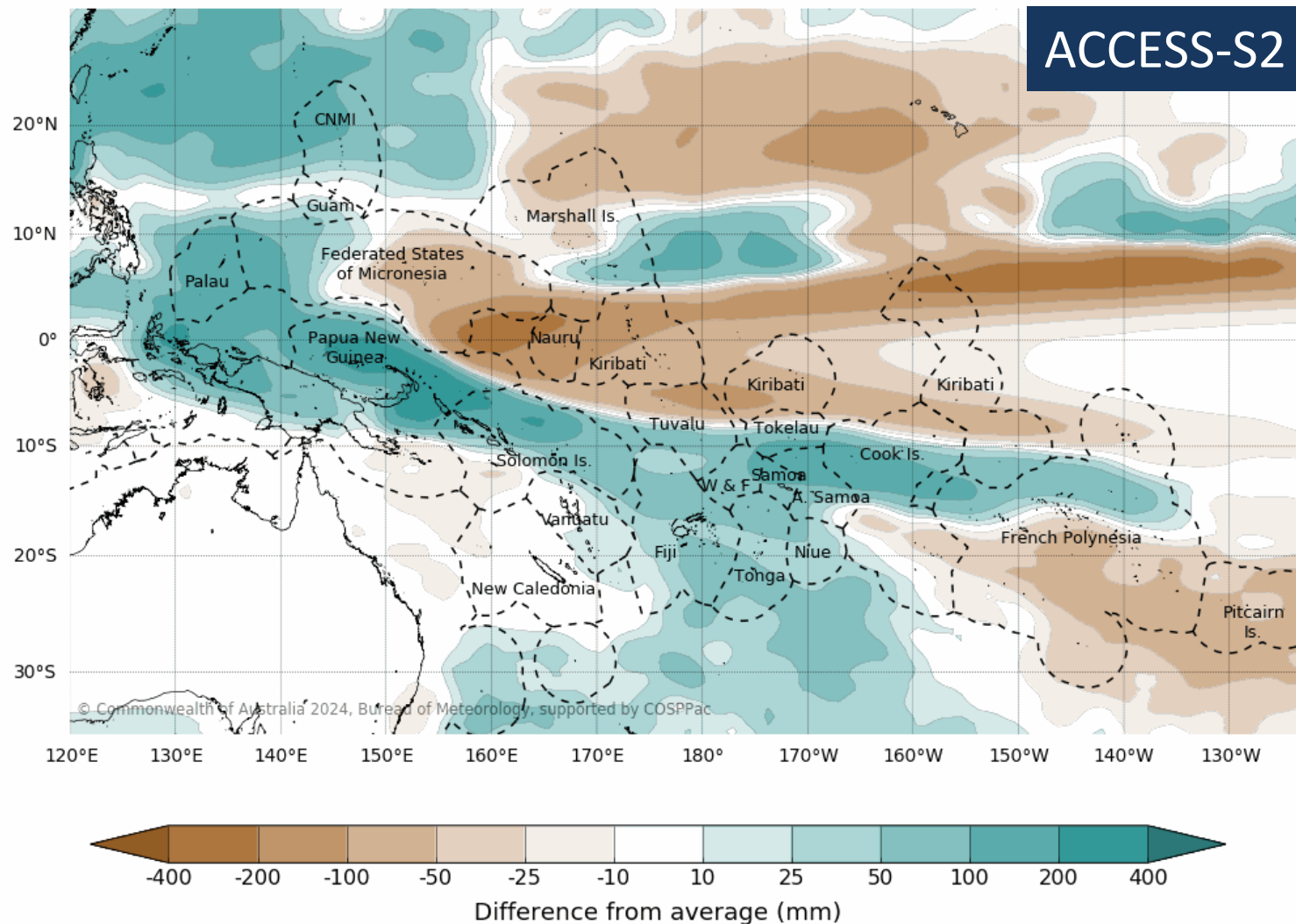


Difference from Average (ASO)

Difference from average rainfall forecast for
August to October 2024

Base period: 1981-2018
Model: ACCESS-S2

Model run: 29/07/2024
Issued: 31/07/2024



Model Rainfall Predictions (ASO)

C3S multi-system seasonal forecast

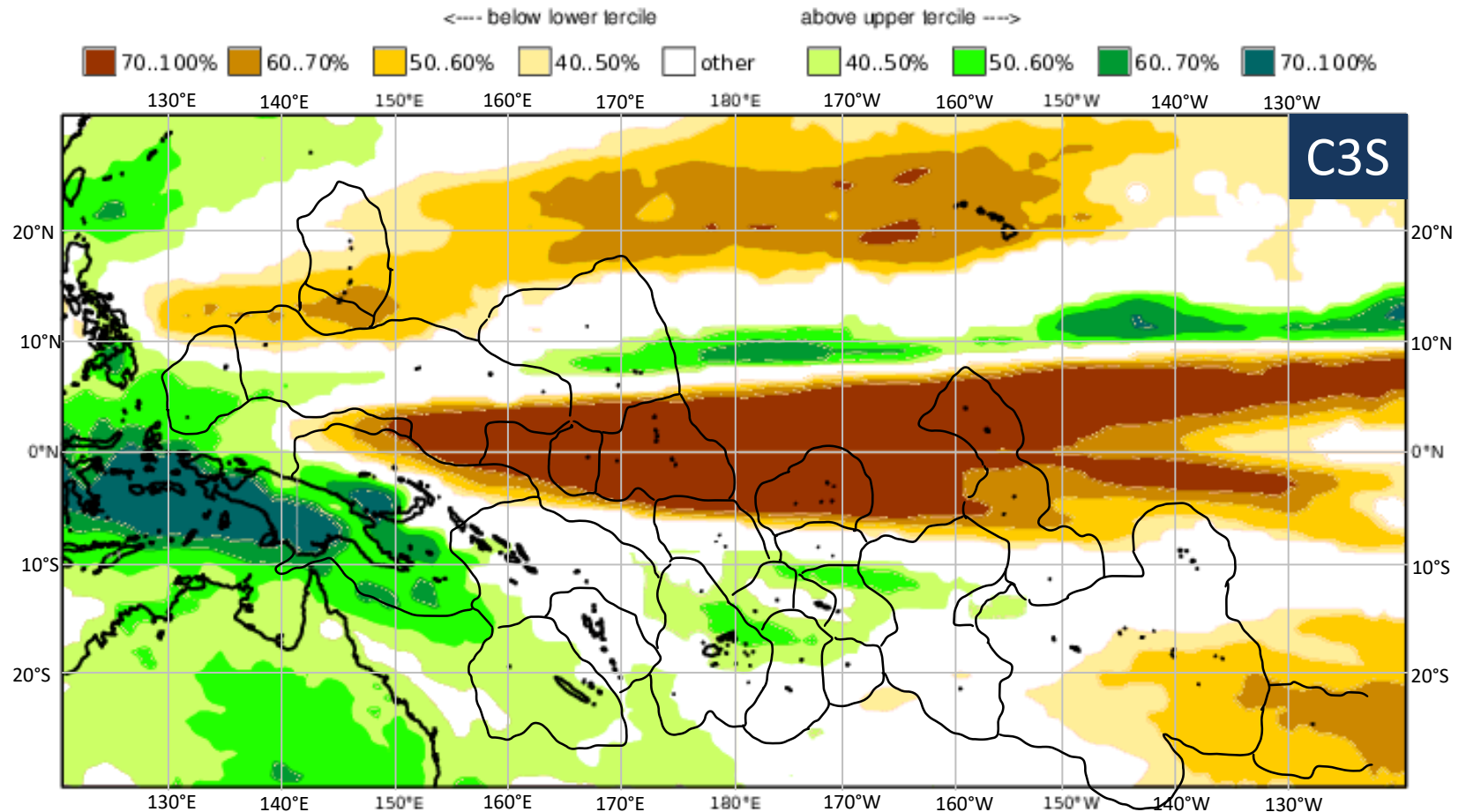
Prob(most likely category of precipitation)

Nominal forecast start: 01/07/24

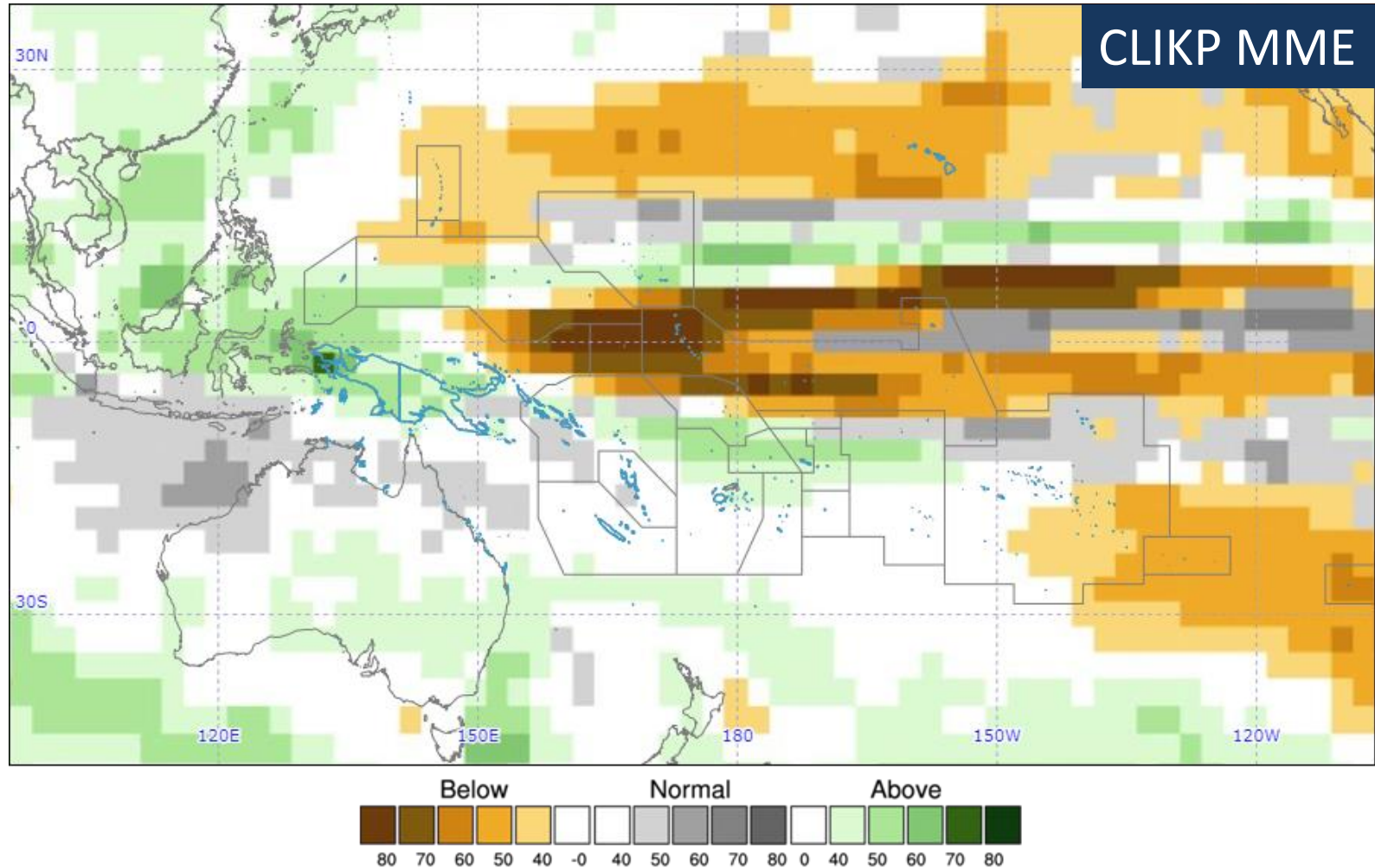
Unweighted mean

ECMWF/Met Office/Météo-France/CMCC/NCEP/JMA

ASO 2024



Model Rainfall Predictions (ASO)



Year: 2024, Season: ASO, Lead Month: 3, Method: GAUS

Model: APCC, CMCC, CWB, MSC, NASA, NCEP, PNU

Generated using CLIK® (2024-8-8)

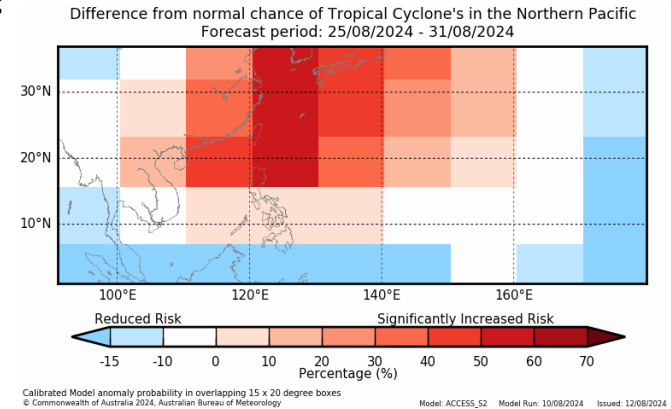
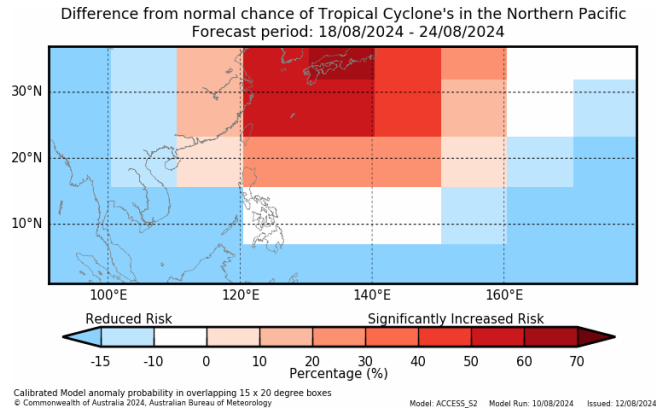
Model Rainfall Predictions (ASO)

August to October 2024			
	ACCESS-S	C3S	CLIKP
Cook Is North			
Cook Is South			
Fiji West			
Fiji Central			
Fiji East			
Fiji North			
Fiji Rotuma			
FSM West			
FSM Central			
FSM East			
Kiribati West			
Kiribati Central			
Kiribati East			
RMI North			
RMI Central			
RMI South			
Nauru			
Niue			
Palau			
PNG Momase			
PNG Is			
PNG South			
PNG Highlands			
Samoa			
Solomon Is West			
Solomon Is Central			
Solomon Is East			
Tonga North			
Tonga Central			
Tonga South			
Tuvalu North			
Tuvalu Central			
Tuvalu South			
Vanuatu North			
Vanuatu South			

	41-50%	51-60%	61-70%	71-80%	81-90%	>90%
Below normal						
Near-normal						
Above normal						

TC Outlooks

Northwest Pacific

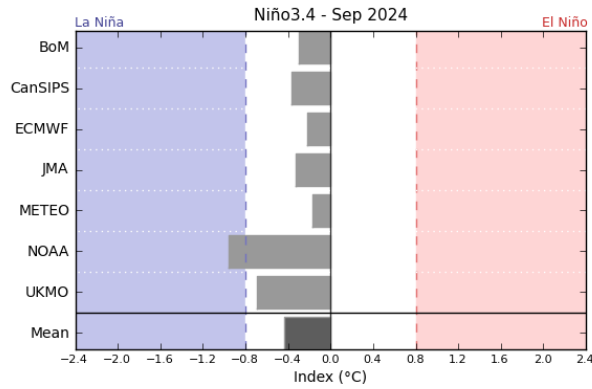


South Pacific

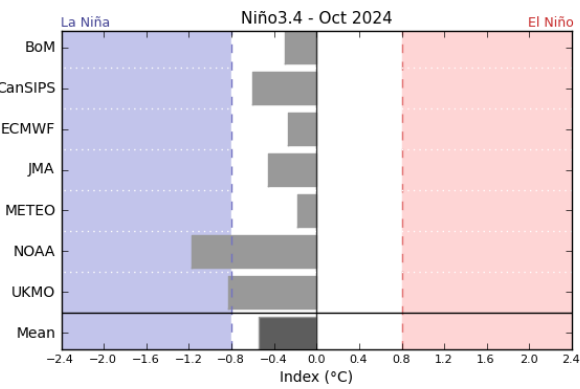
OUT OF SEASON

Calibrated Tropical Cyclone outlooks
are for November to April

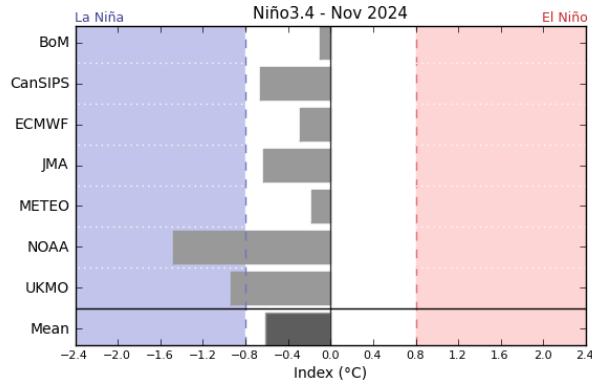
Climate Model Summary



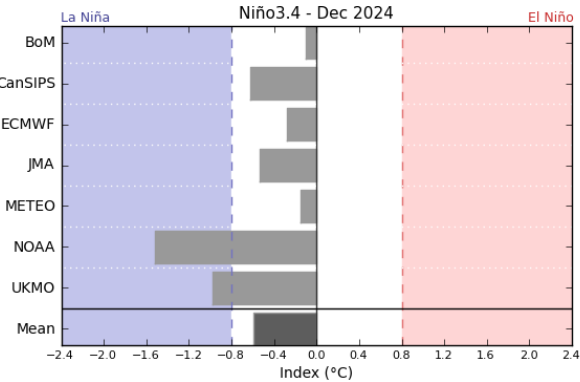
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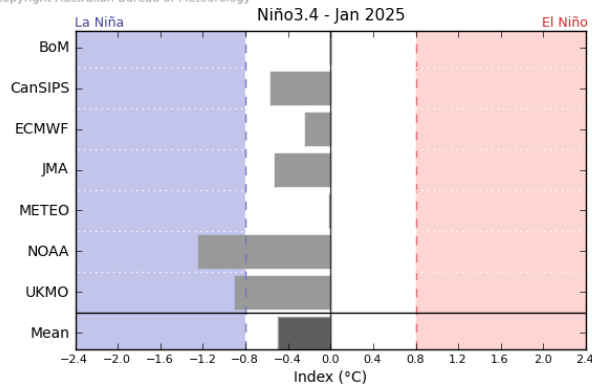
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IRI Climate Model Summary

