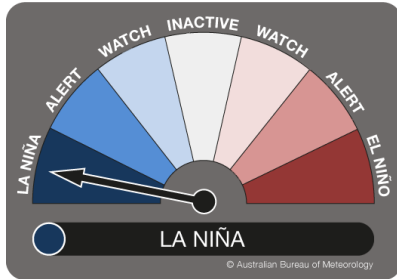


# ENSO update - OCOF 177

15 June 2022

# ENSO Update

## La Niña continues to slowly weaken

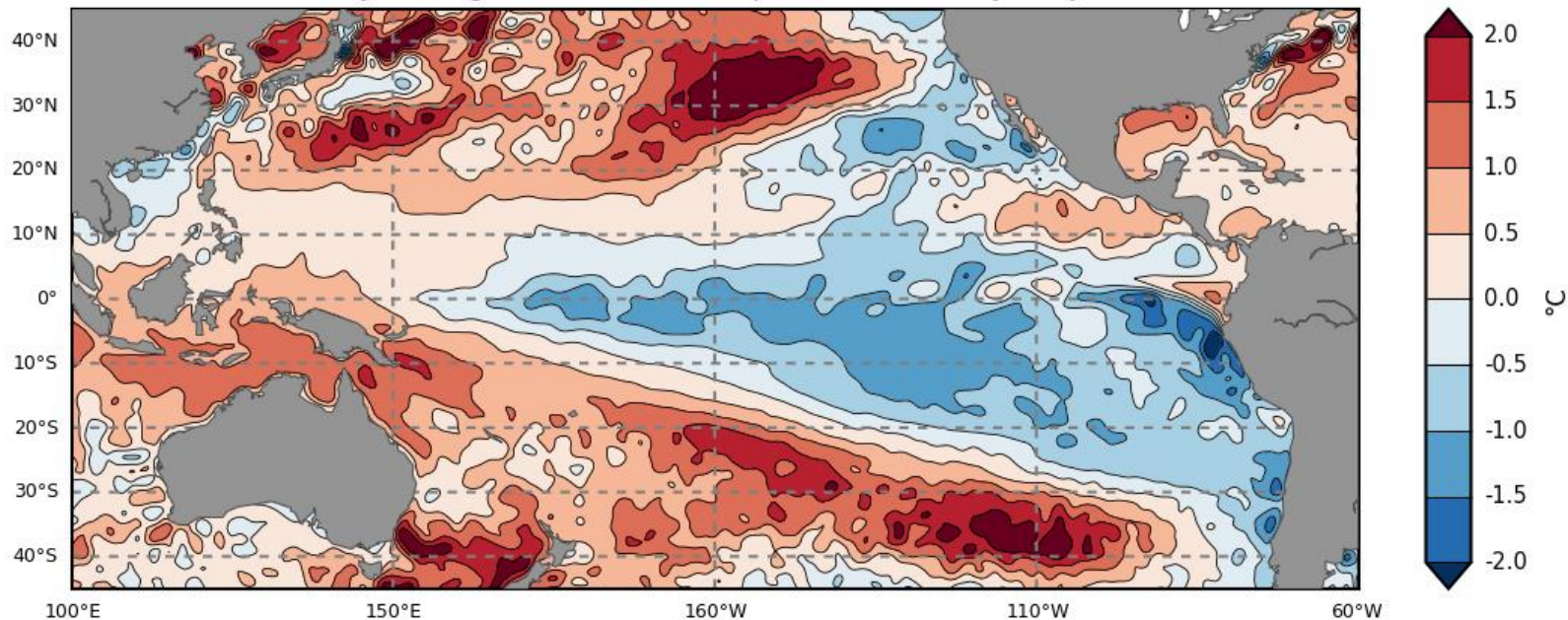


- The ENSO Outlook remains at LA NIÑA as the event continues to slowly weaken.
- Tropical sea surface temperatures over the western half of the Pacific Ocean have warmed over the past fortnight and waters under the surface of the tropical Pacific continue to support further surface warming. The Southern Oscillation Index (SOI) remains at La Niña levels but trade wind strength has weakened over May compared to earlier in the year.
- Most models show a return to neutral El Niño–Southern Oscillation (ENSO) during June to August.
- Even in decline, La Niña may continue to influence global weather and climate.

# May 2022 SSTs

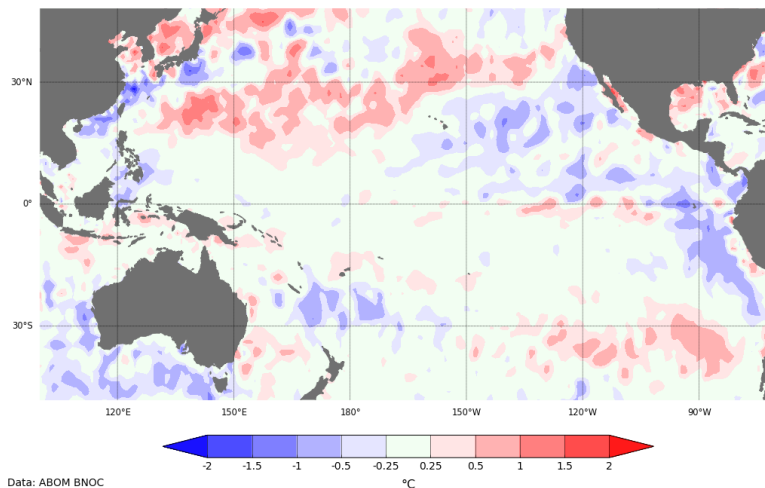
Pacific Ocean

Monthly Average Sea Surface Temperature Anomaly: May 2022



©Commonwealth of Australia 2022  
Australian Bureau of Meteorology, COSPPac COMP

Change in the monthly SST anomaly: May-2022 - April-2022

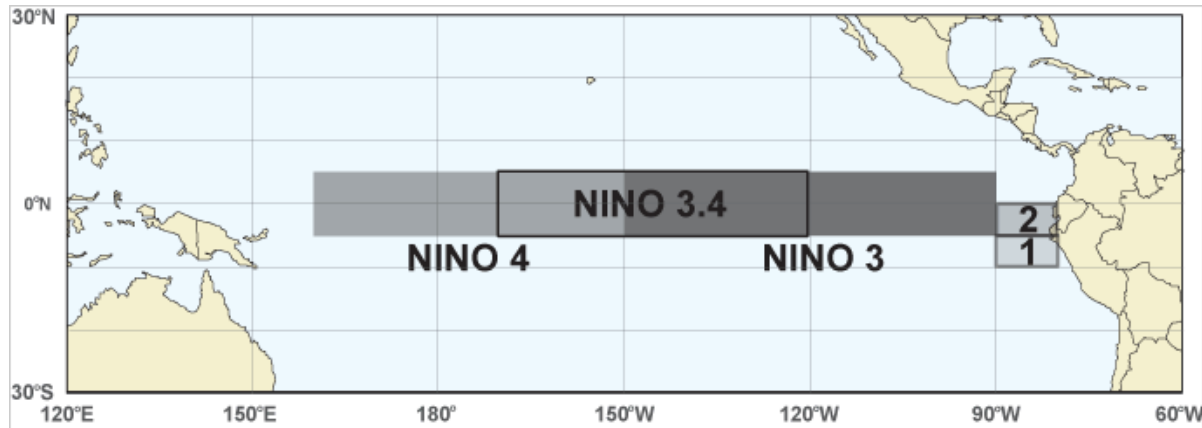


Data: ABOM BNOG  
Climatology baseline: 1961 to 1990  
© Commonwealth of Australia 2022, Australian Bureau of Meteorology

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

Anomaly monthly difference  
Created: 06/06/2022

# NINO INDICES SST anomalies (°C)

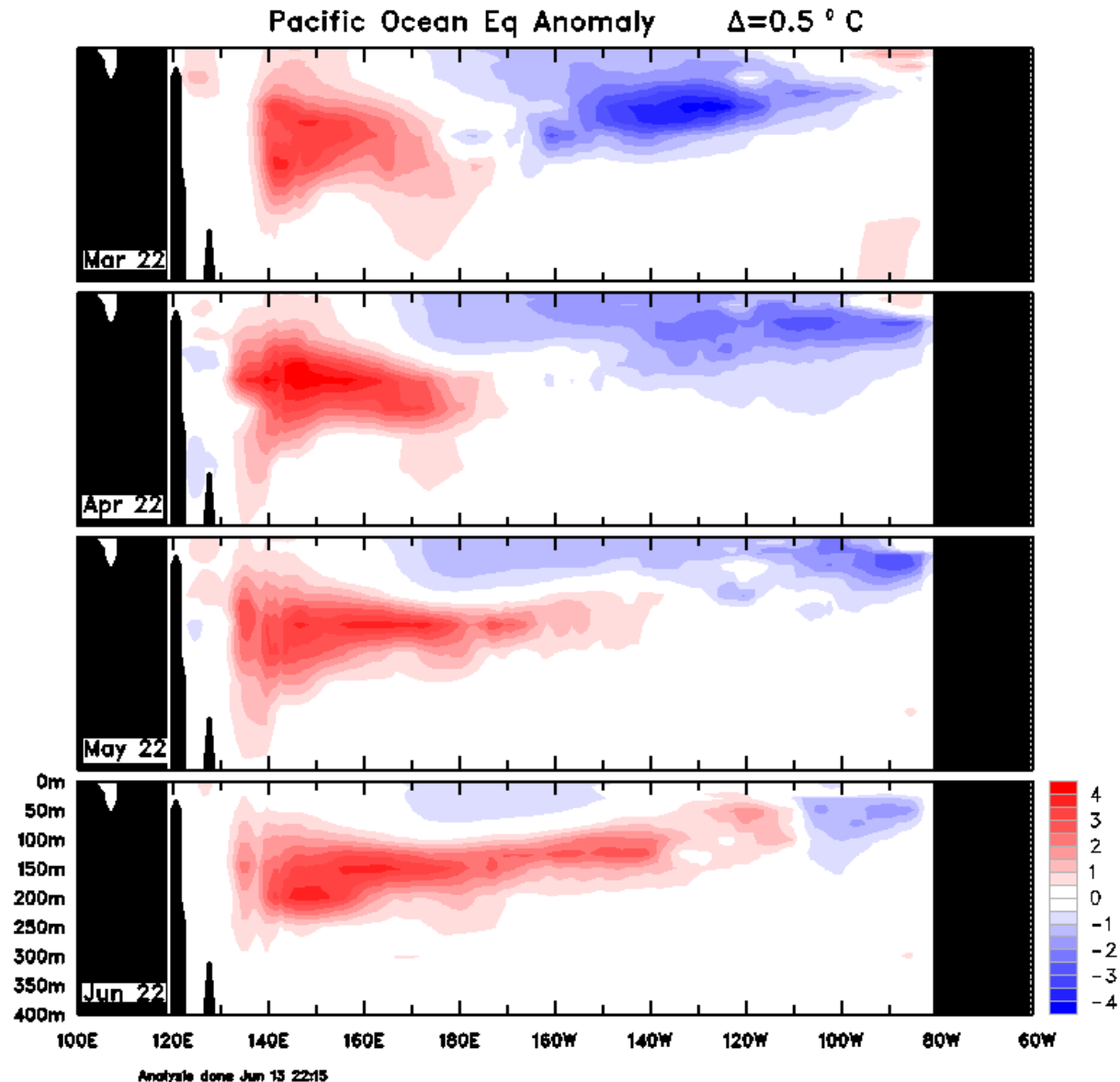


Index	Apr 2022	May 2022	Latest weekly
NINO3	-0.5	-0.6	-0.3
NINO3.4	-0.7	-0.7	-0.4
NINO4	-0.6	-0.6	-0.3

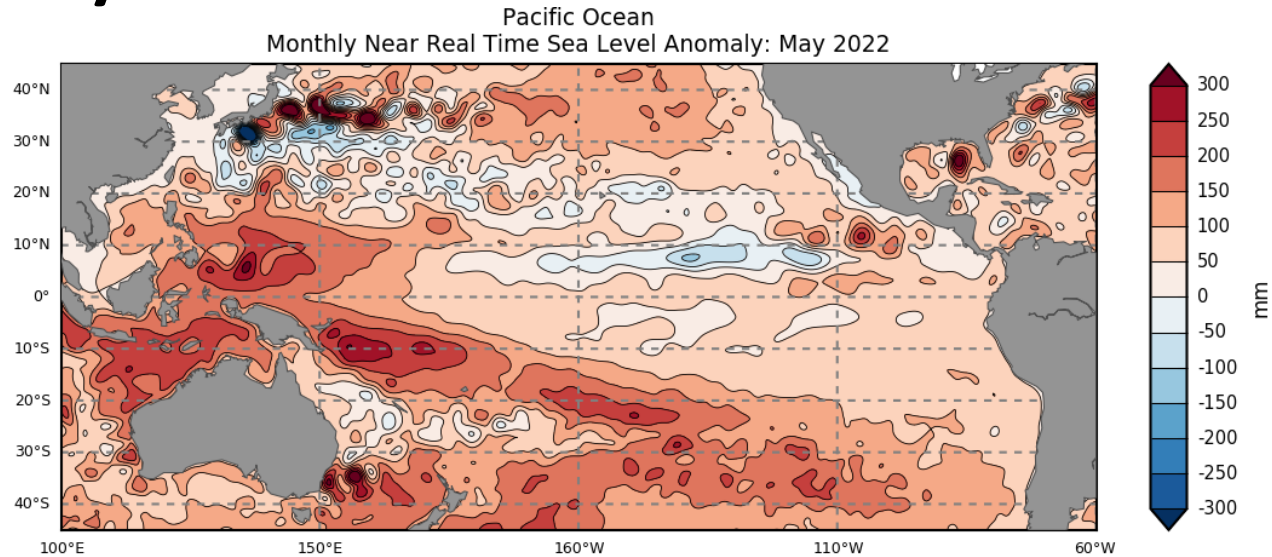
Weekly data for the  
week ending 12/06/2022

# Equatorial Pacific sub-surface profile

## Bureau of Meteorology

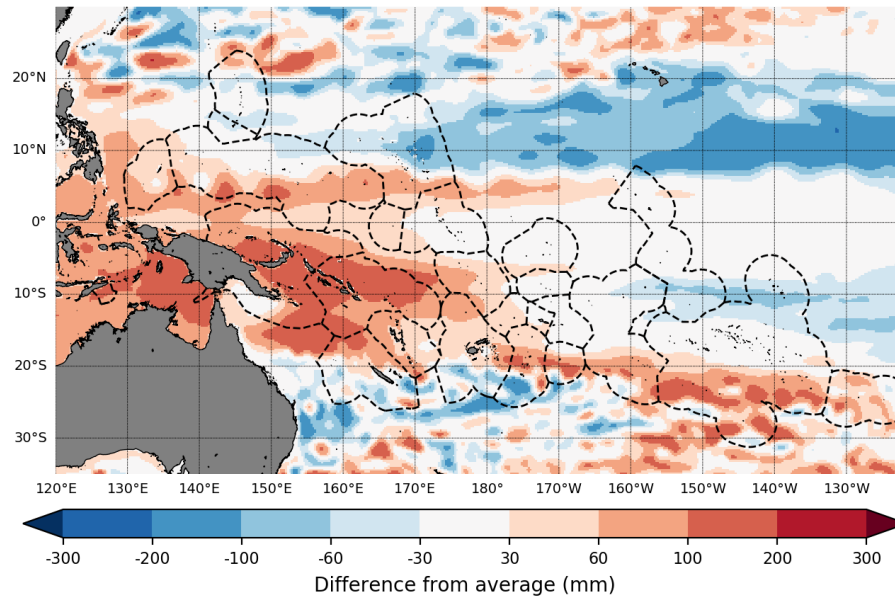


# May 2022 Sea Level Anomaly

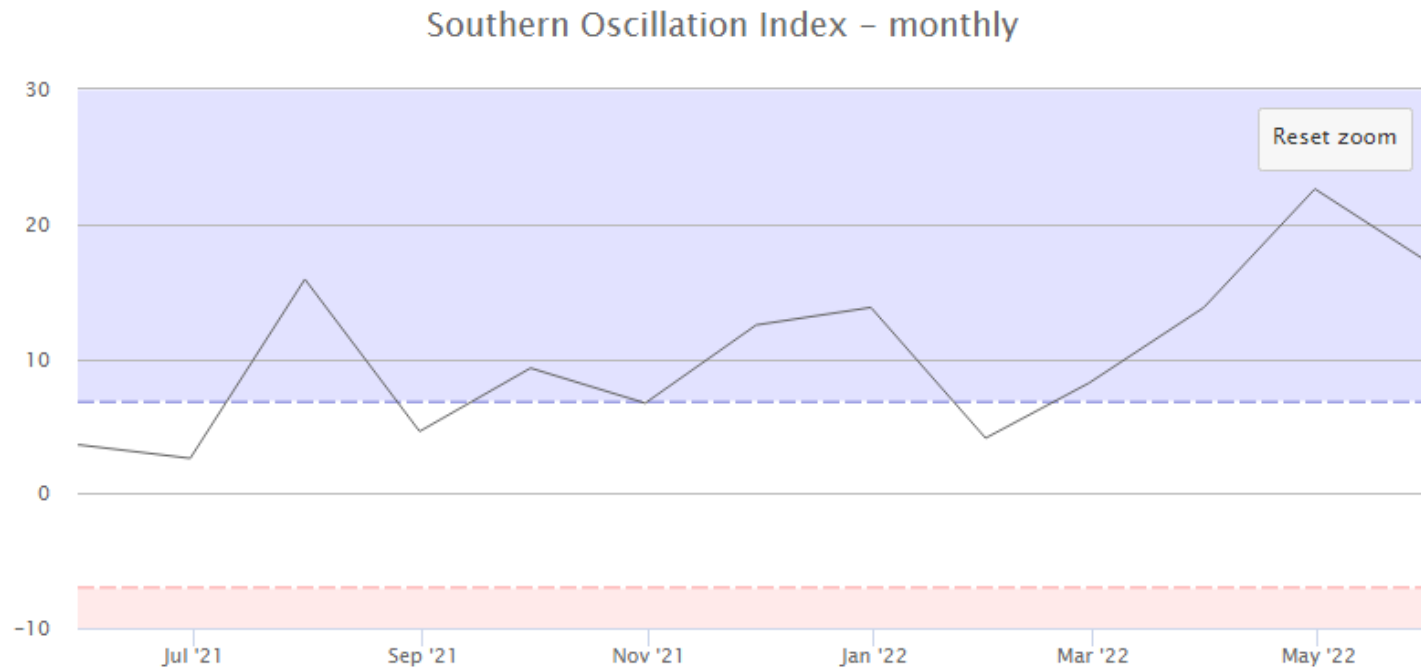


©Cor  
Austr

Difference from average sea surface height forecast for  
July 2022 to September 2022



# Southern Oscillation Index



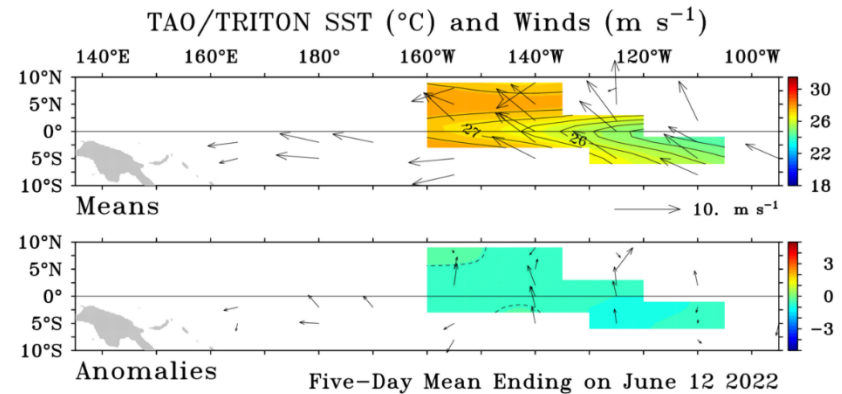
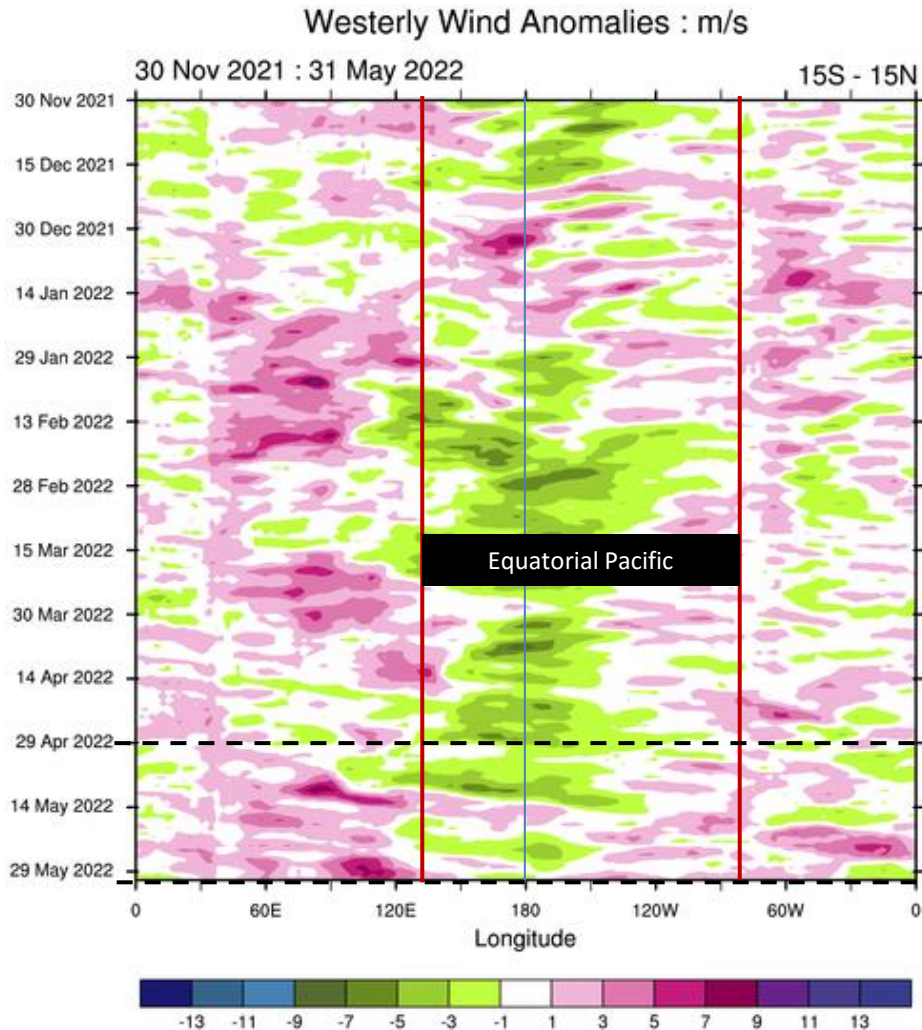
© Copyright Commonwealth of Australia 2022, Bureau of Meteorology

Southern Oscillation Index monthly data												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	+4.1	+8.2	+13.8	+22.6	+17.1	-	-	-	-	-	-	-
2021	+16.5	+11.5	-0.3	+2.0	+3.6	+2.6	+15.9	+4.6	+9.3	+6.7	+12.5	+13.8

At 12 June 2022: 30-day SOI = +16.4; 90-day SOI = +17.3



# Equatorial Trade Winds

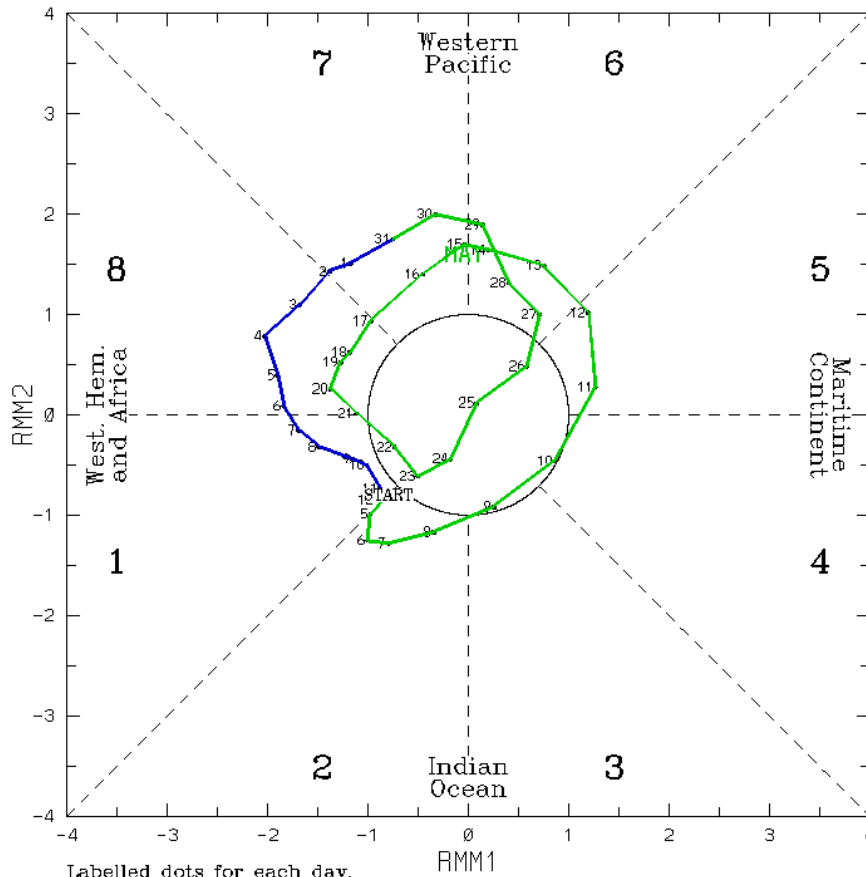


Global Tropical Moored Buoy Array Program Office, NOAA/PMEL



# Madden-Julian Oscillation

(RMM1,RMM2) phase space for 4-May-2022 to 12-Jun-2022

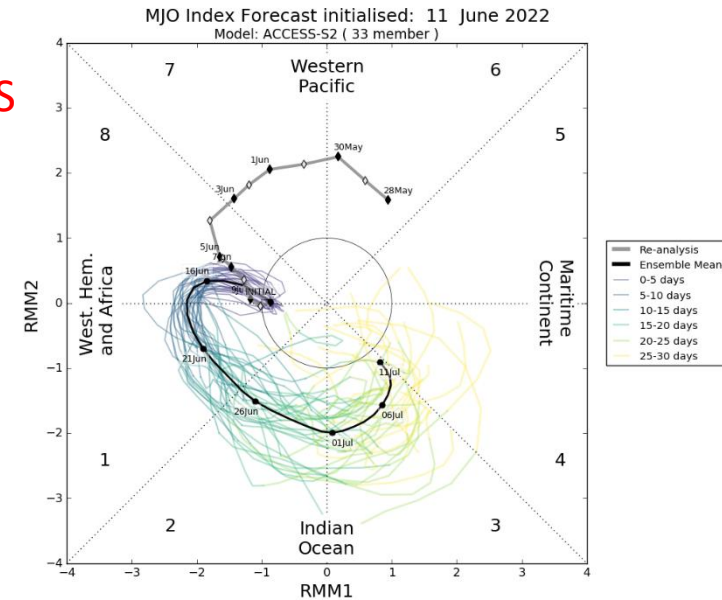


Labeled dots for each day.

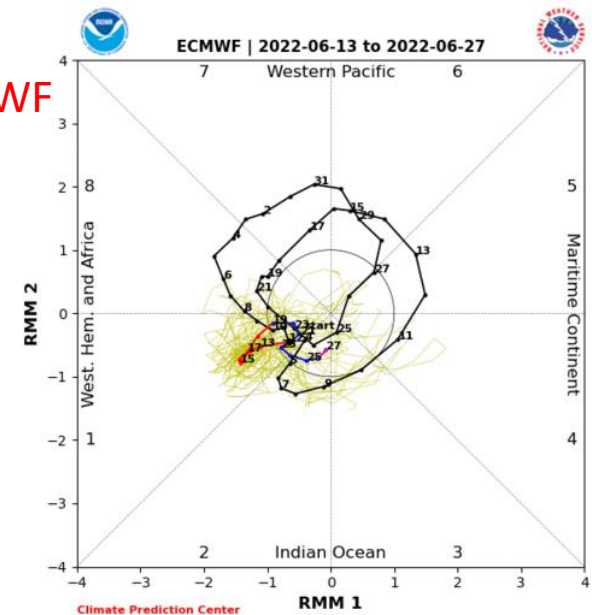
Blue line is for Jun, green line is for May, red line is for Apr.

(C) Copyright Commonwealth of Australia 2022. Bureau of Meteorology  
2022

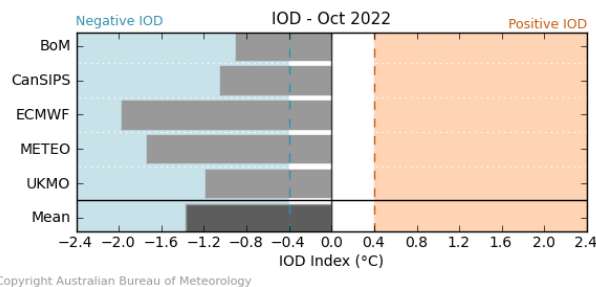
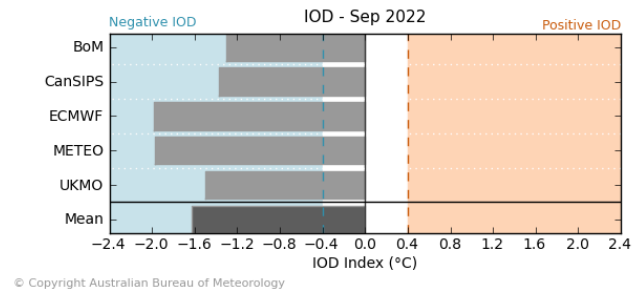
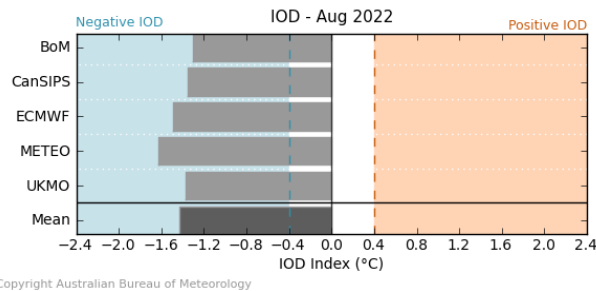
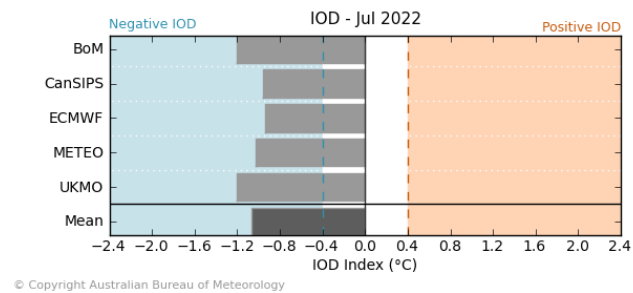
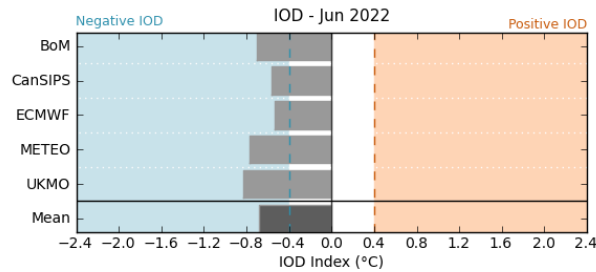
ACCESS



ECMWF

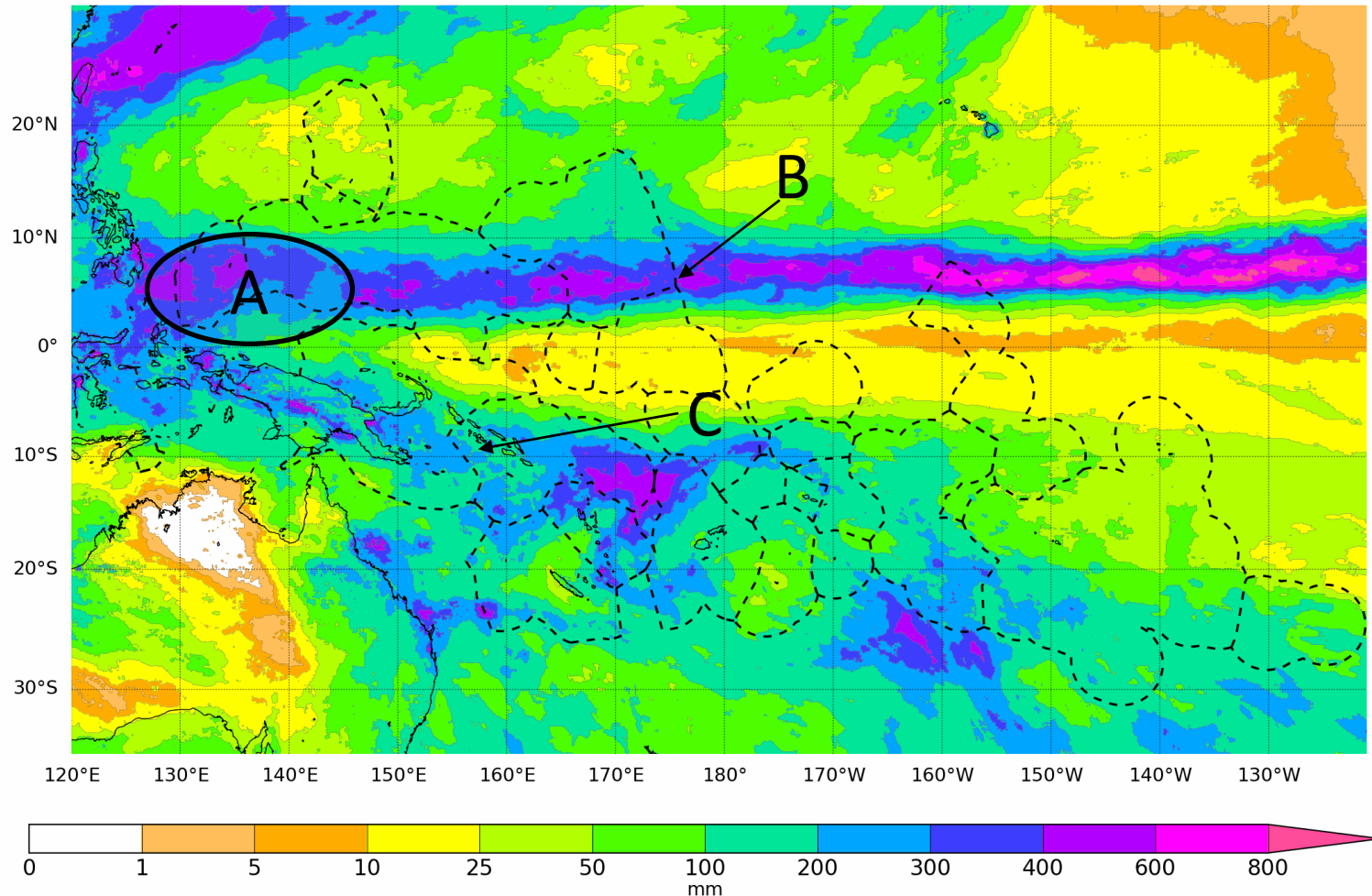


# Indian Ocean Dipole (IOD)



# Satellite Rainfall May2022

1-month total rainfall ending May 2022



Source: MSWEP

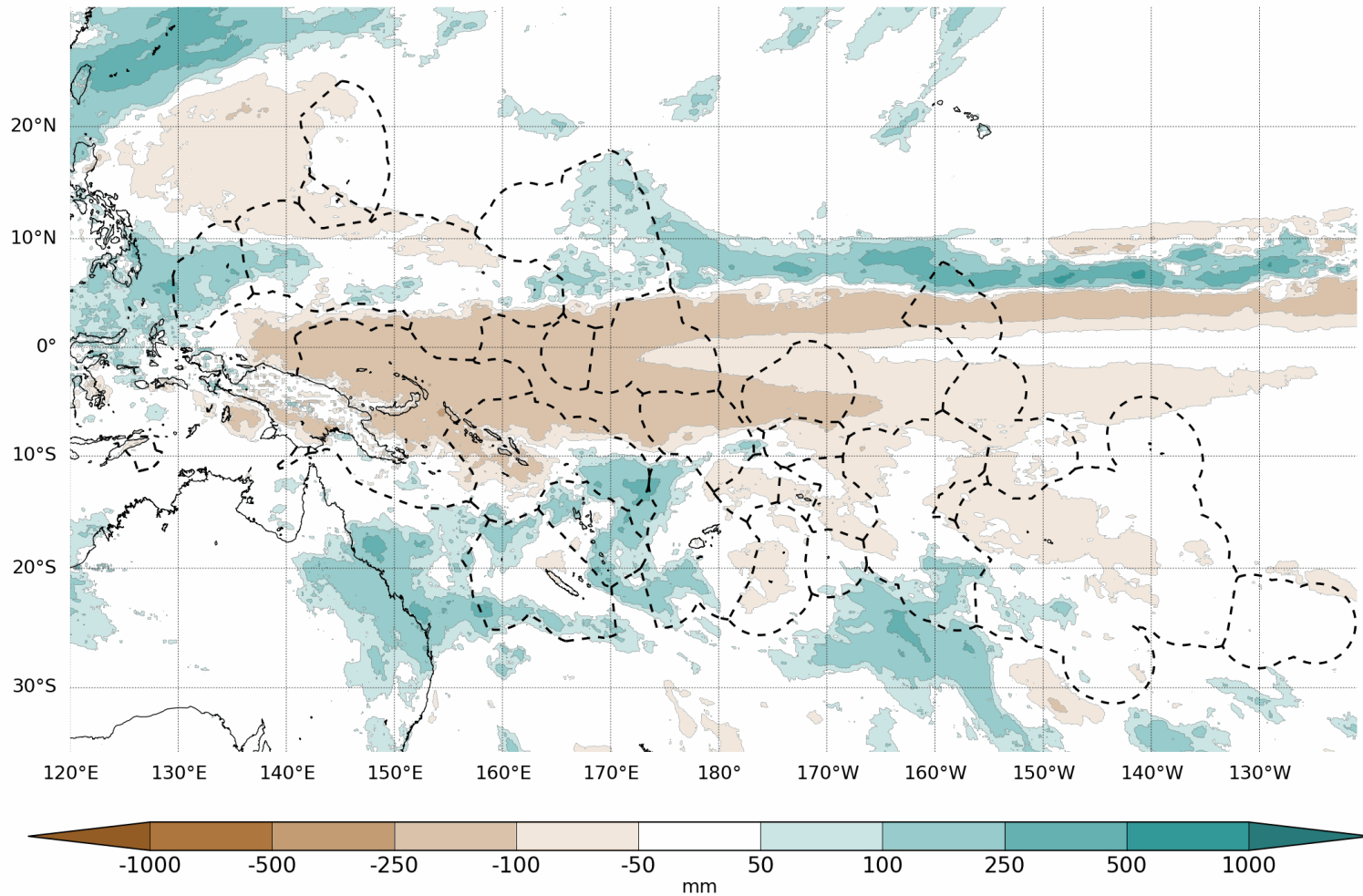
Map created: 07/06/2022 (UTC)

© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

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 May 2022

1-month total rainfall anomaly ending May 2022



Source: MSWEP

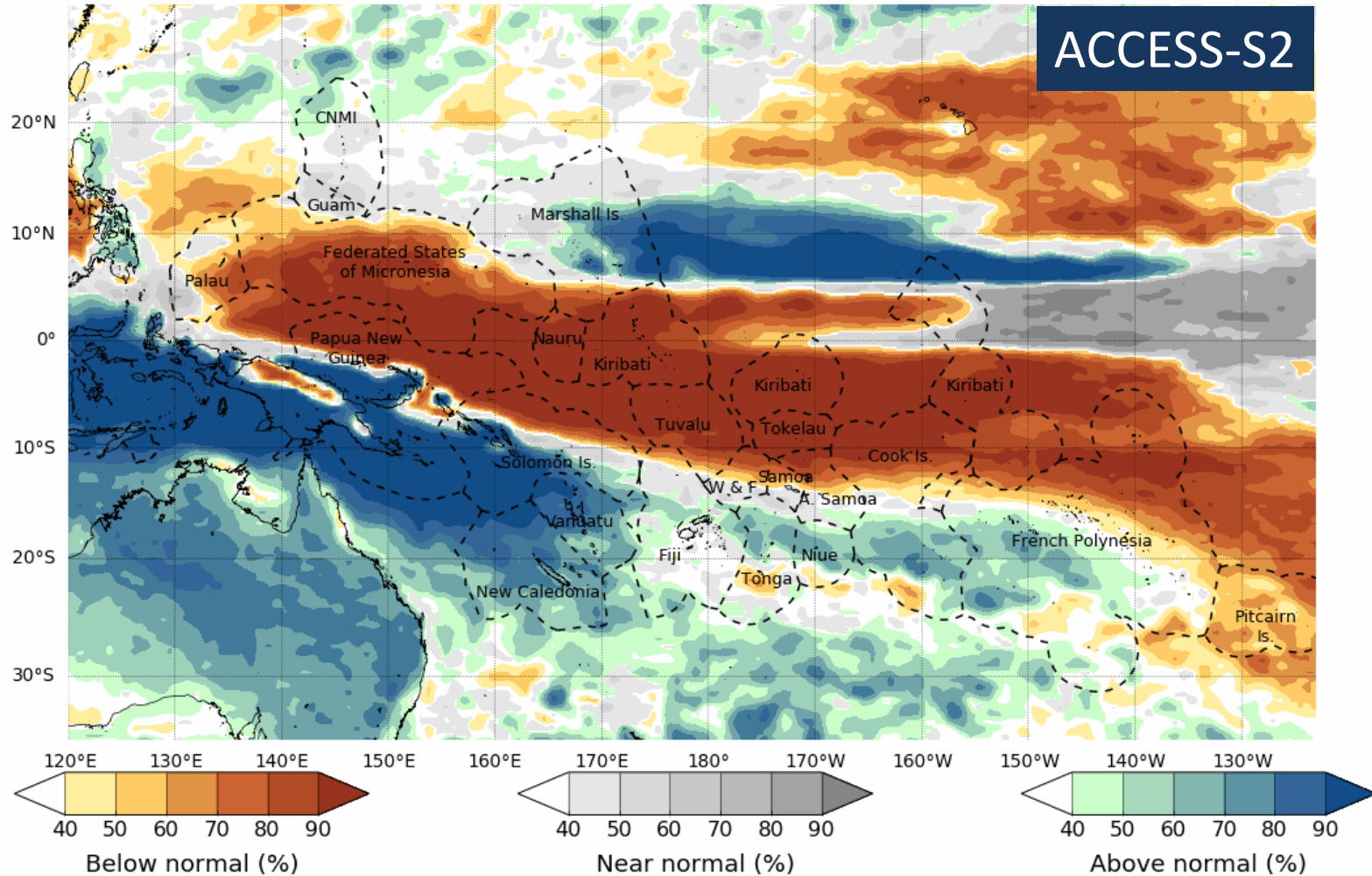
Base period: 1980-2021

Map created: 07/06/2022 (UTC)

© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac  
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 Rainfall Predictions (JJA)

Tercile rainfall probabilities for  
June to August 2022



Base period: 1981-2018

Model: ACCESS-S2

© Commonwealth of Australia 2022, Australian Bureau of Meteorology

Model run: 30/05/2022

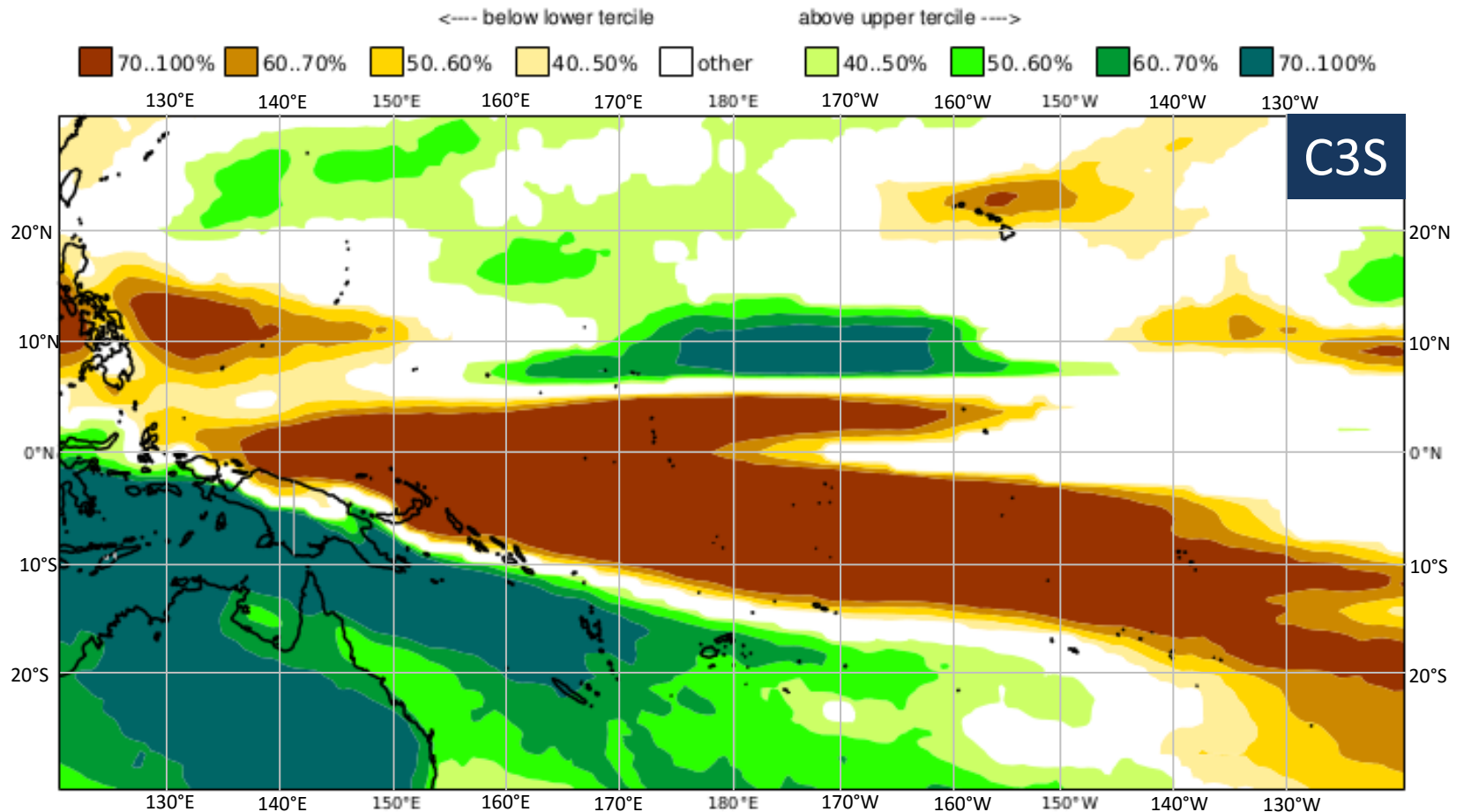
Issued: 02/06/2022

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/>.



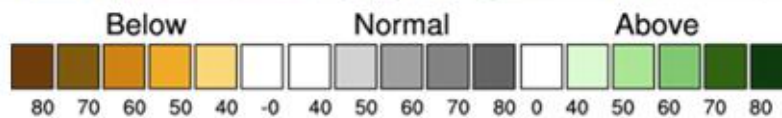
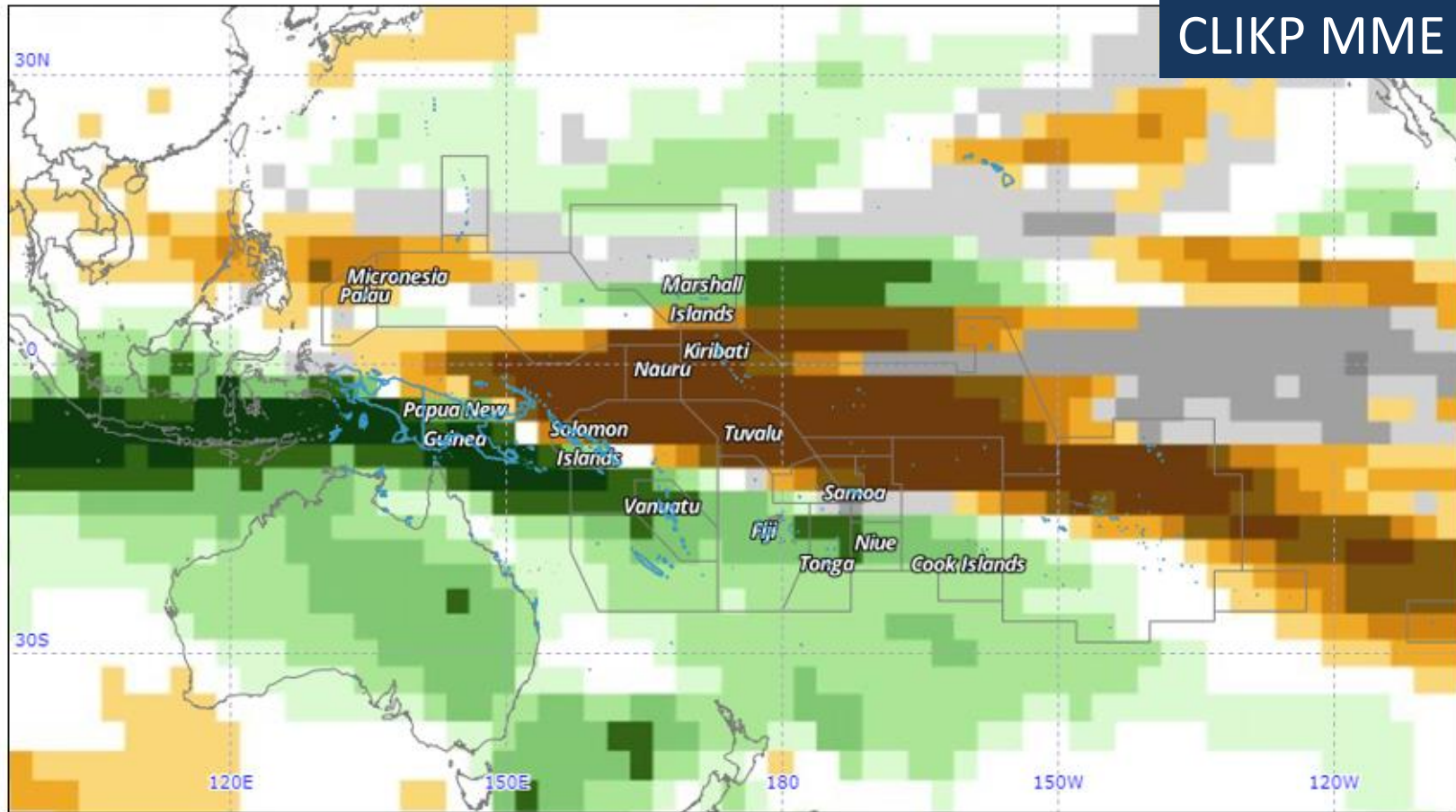
# Model Rainfall Predictions (JJA)

C3S multi-system seasonal forecast    ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC  
Prob(most likely category of precipitation)    JJA 2022  
Nominal forecast start: 01/05/22  
Unweighted mean



# Model Rainfall Predictions (JJA)

CLIKP MME



Year: 2022, Season: JJA, Lead Month: 3, Method: GAUS

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

Generated using CLIK® (2022-6-2)

© APEC Climate Center



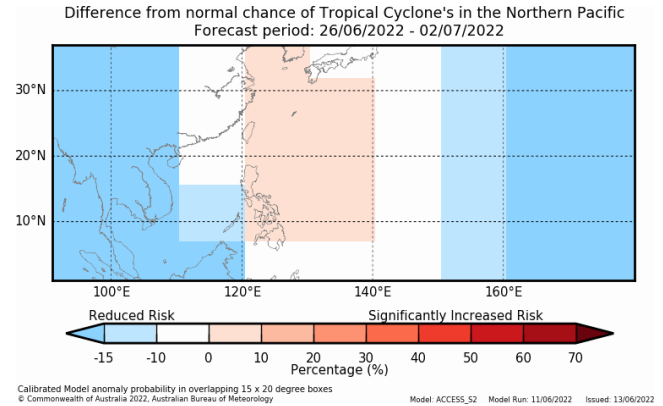
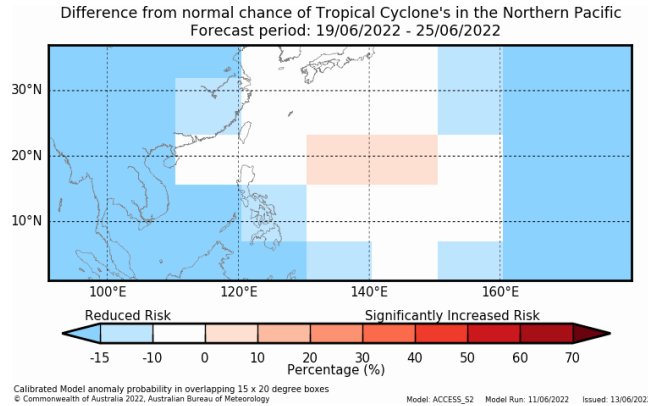
# Model Rainfall Predictions (JJA)

June to August 2022			
	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			

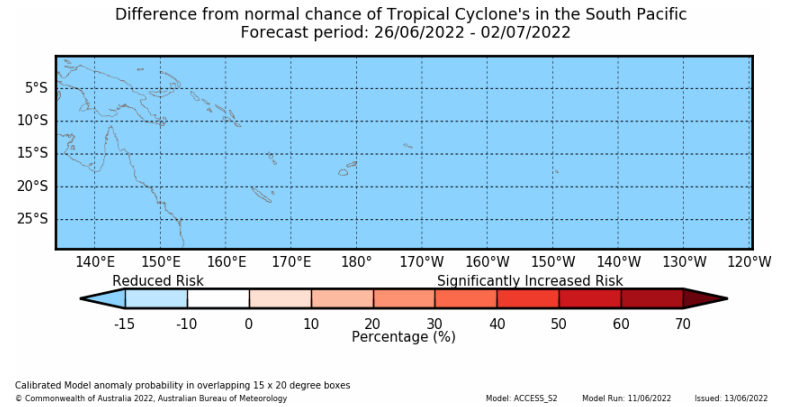
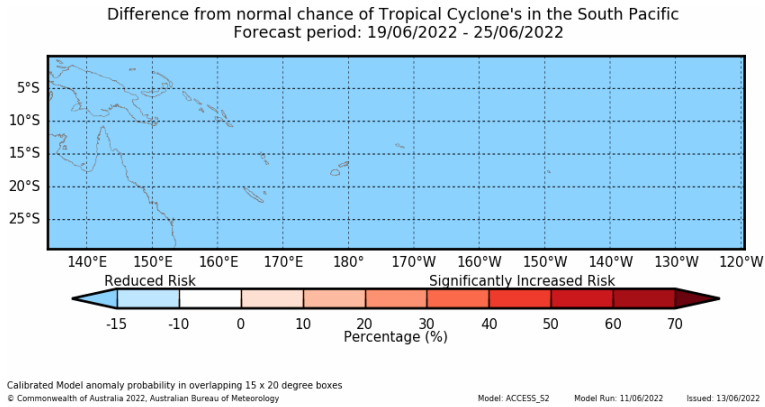
	41-50%	51-60%	61-70%	71-80%	81-90%	>90%
Below normal						
Near-normal						
Above normal						

# TCC Outlooks

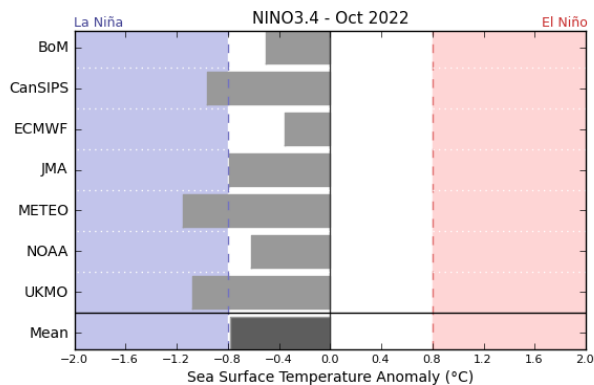
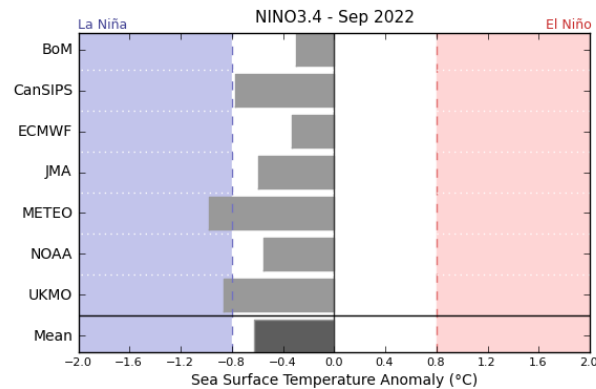
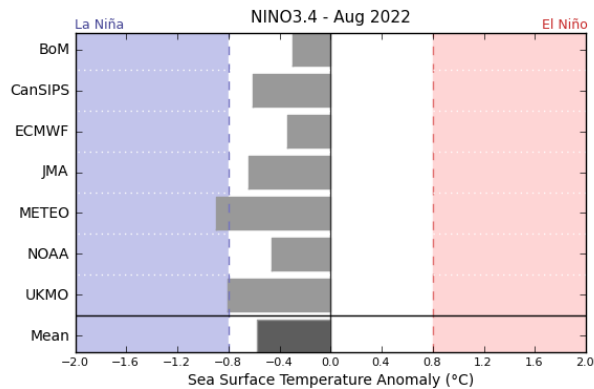
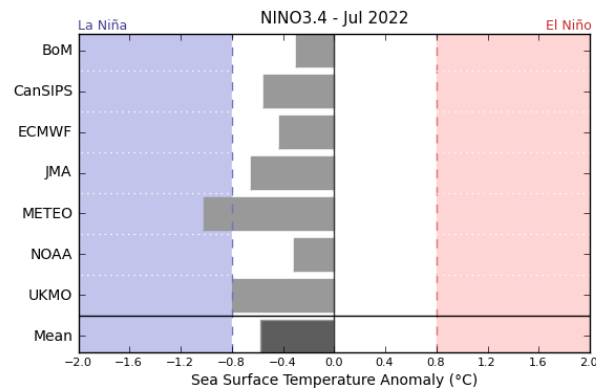
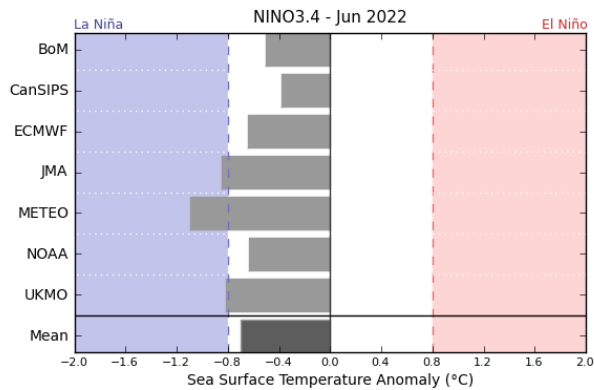
## Northwest Pacific



## South Pacific



# Climate Model Summary



ght /

Model Predictions of ENSO from May 2022

