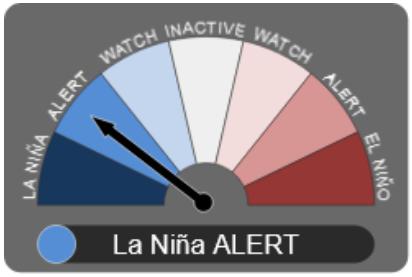
ENSO update - OCOF 180

13 September 2022

ENSO Update

La Niña ALERT continues

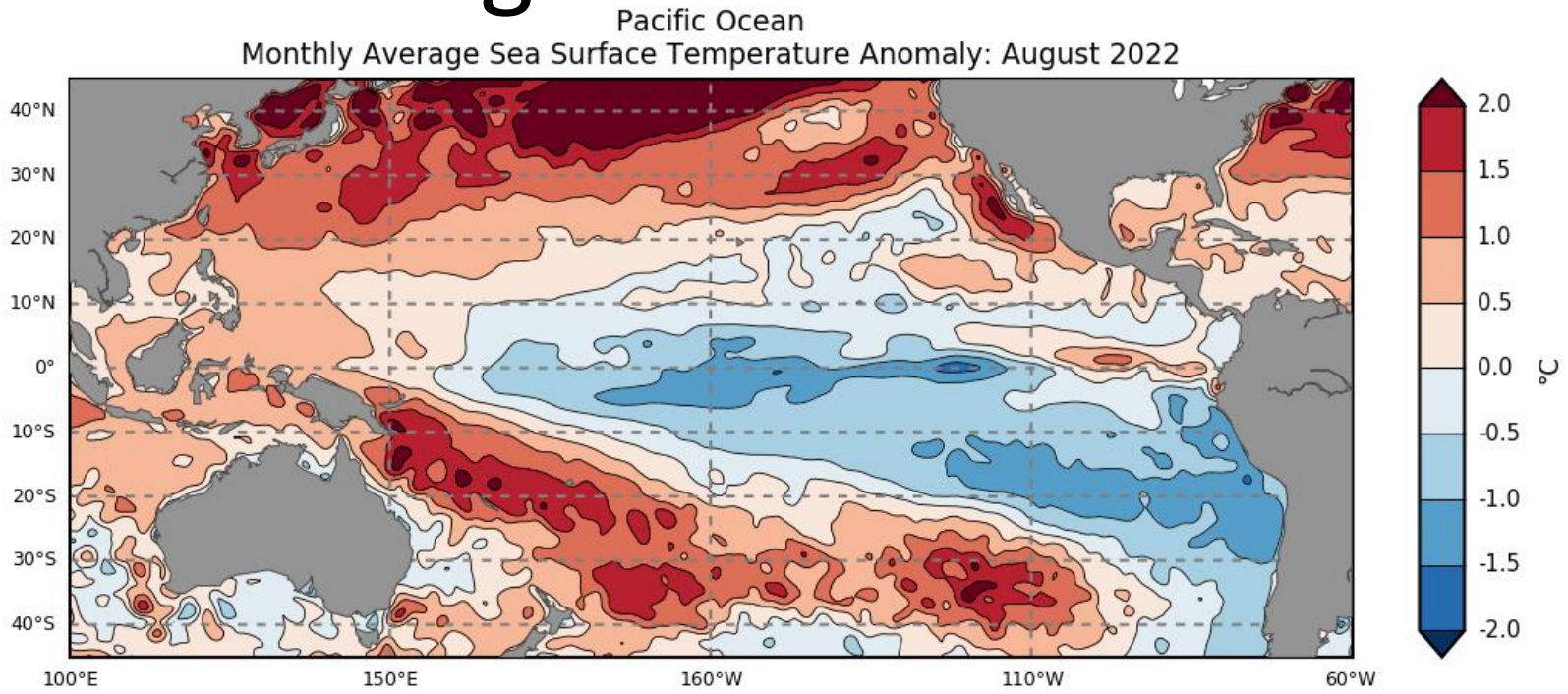


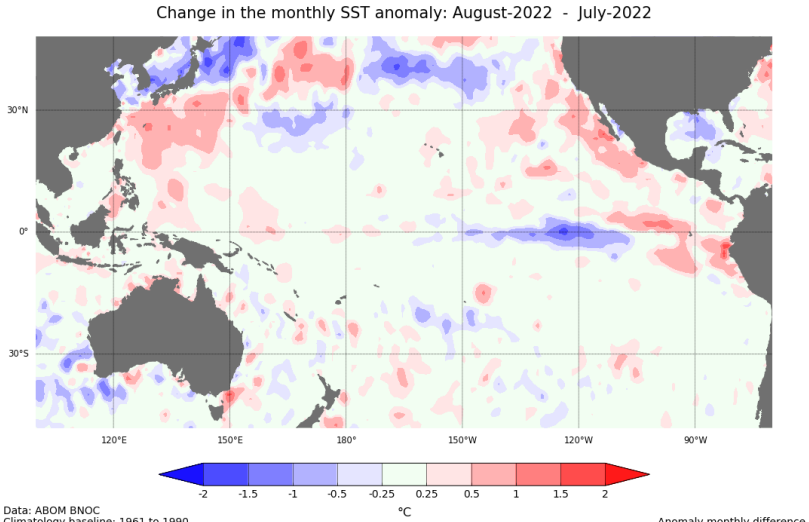
- The Bureau's ENSO Outlook continues at La Niña ALERT, indicating at least a 70% chance of La Niña reforming later this year. This is around triple the normal likelihood.

- Neutral, but cooler-than-average sea surface temperatures (SSTs), persist in the central and eastern tropical Pacific. Some atmospheric indicators, such as the Southern Oscillation Index (SOI) and cloudiness near the Date Line, show a La Niña-like signal.

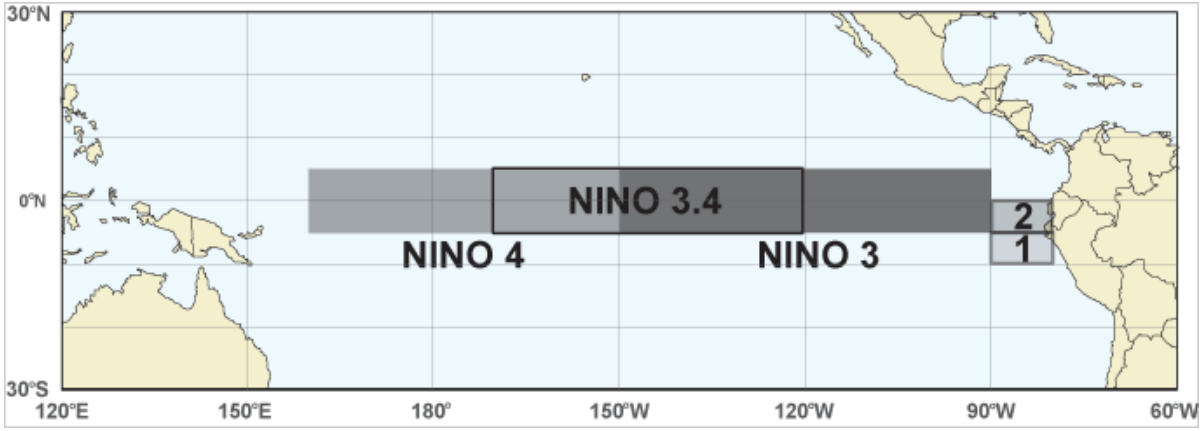
- Four of seven climate models surveyed by the Bureau suggest La Niña could return by early-to-mid southern hemisphere spring.

August 2022 SSTs





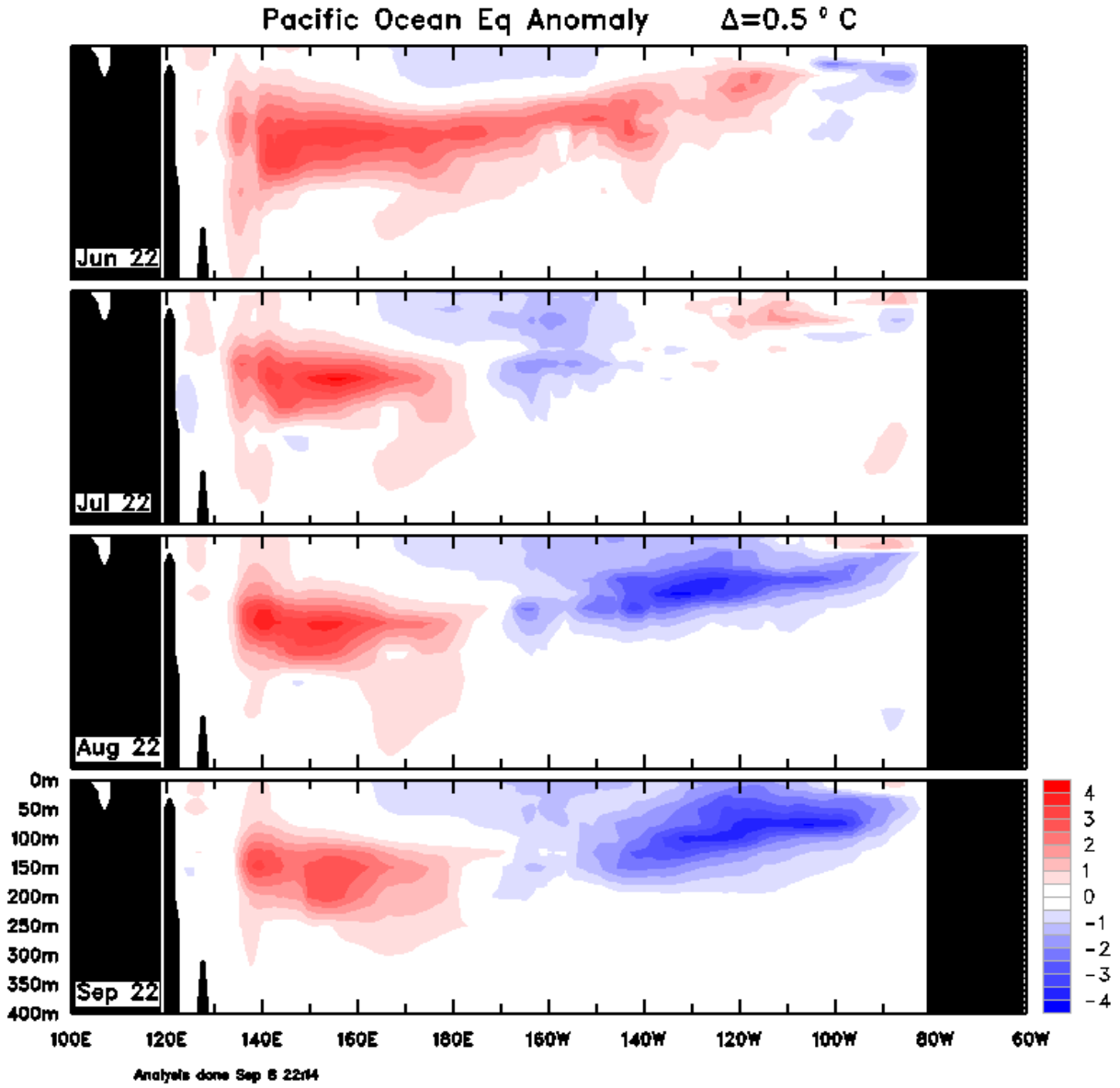
NINO INDICES SST anomalies (°C)



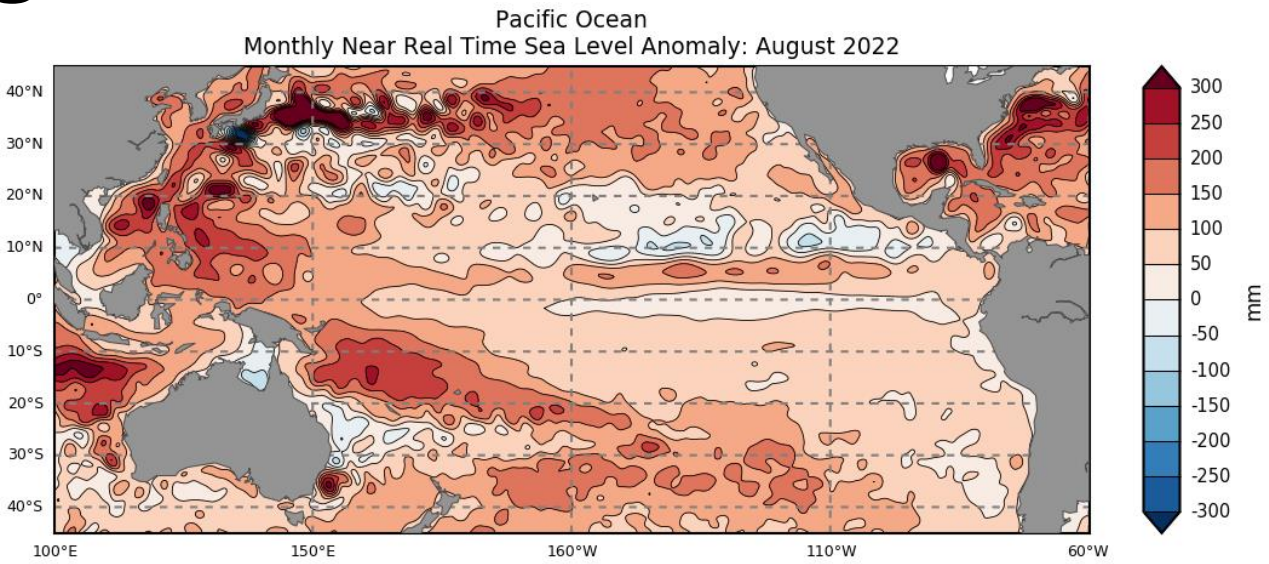
Index	July 2022	Aug 2022	Latest weekly
NINO3	–0.1	–0.2	–0.6
NINO3.4	–0.4	–0.7	–0.8
NINO4	–0.6	–0.6	–0.7

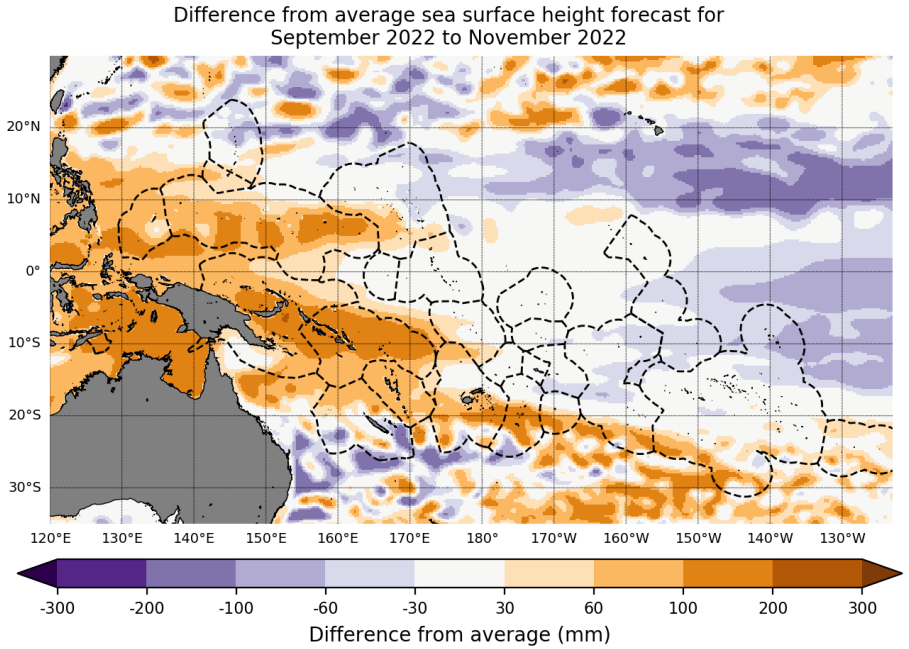
Weekly data for the week ending 11/09/2022

Equatorial Pacific sub-surface profile
Bureau of Meteorology



August 2022 Sea Level Anomaly

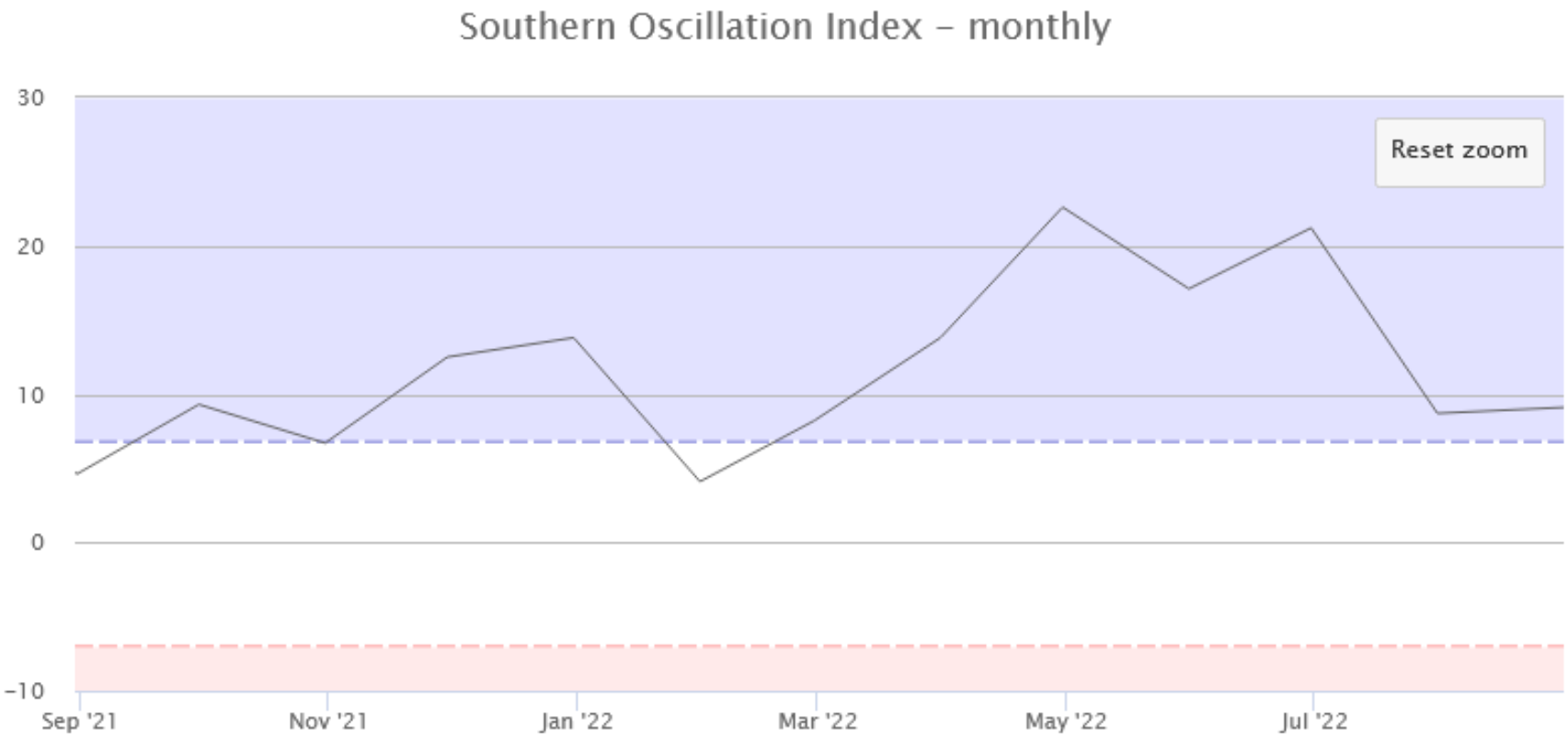




Model: ACCESS-S2
Base Period: 1981-2018

Model Run: 28/08/2022
Issued: 06/09/2022

Southern Oscillation Index

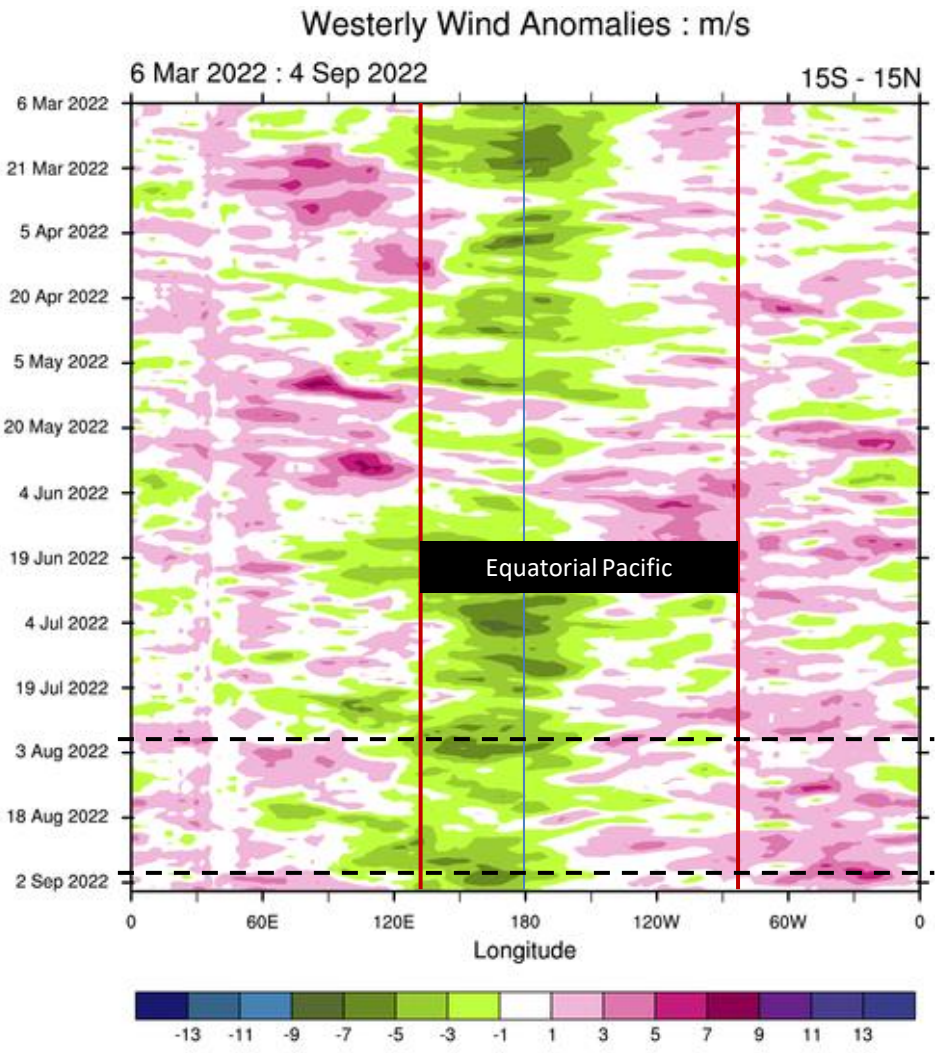


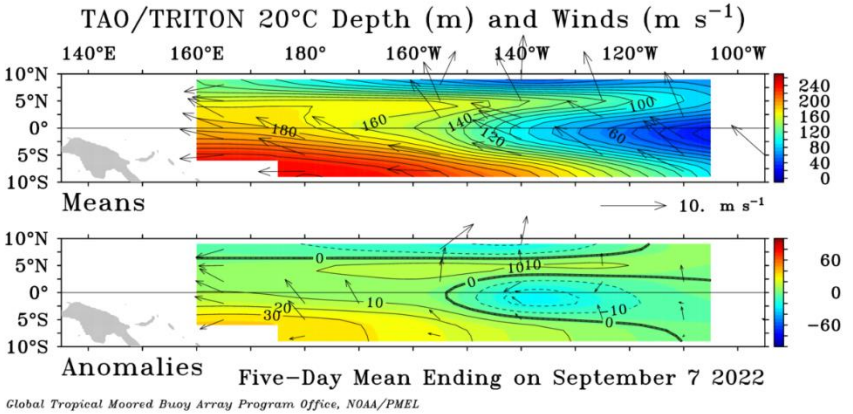
Southern Oscillation Index monthly data

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	+4.1	+8.2	+13.8	+22.6	+17.1	+21.2	+8.7	+9.1	-	-	-	-
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 10 September 2022: 30-day SOI = +11; 90-day SOI = +12

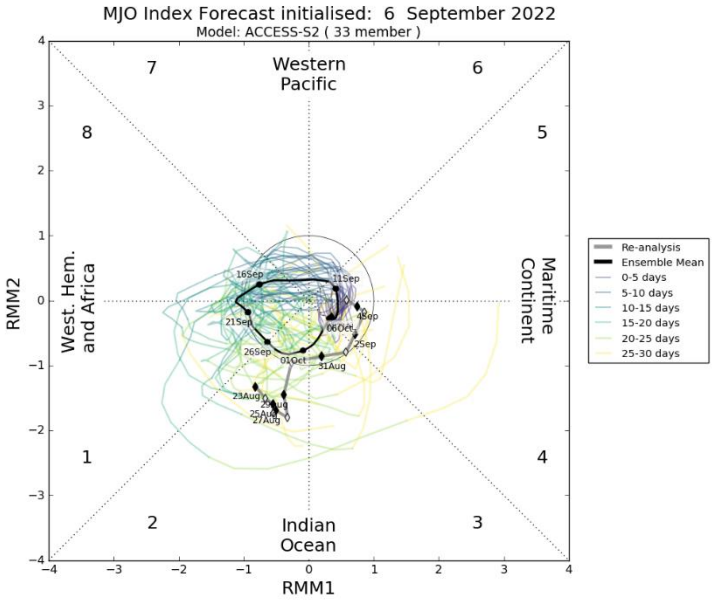
Equatorial Trade Winds



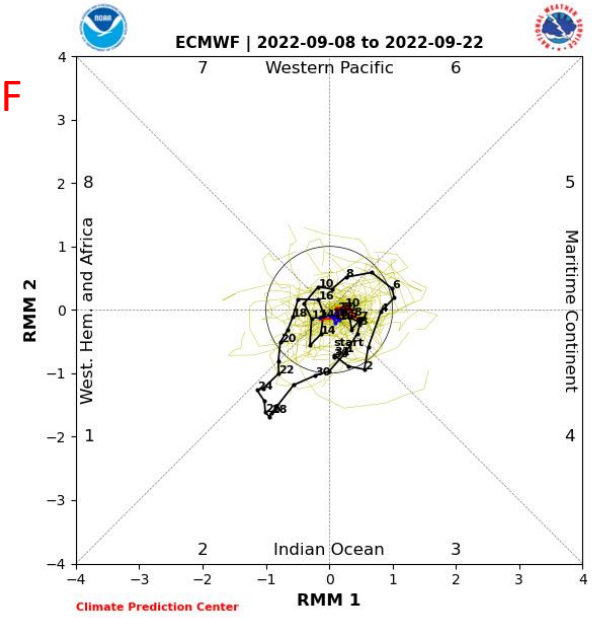


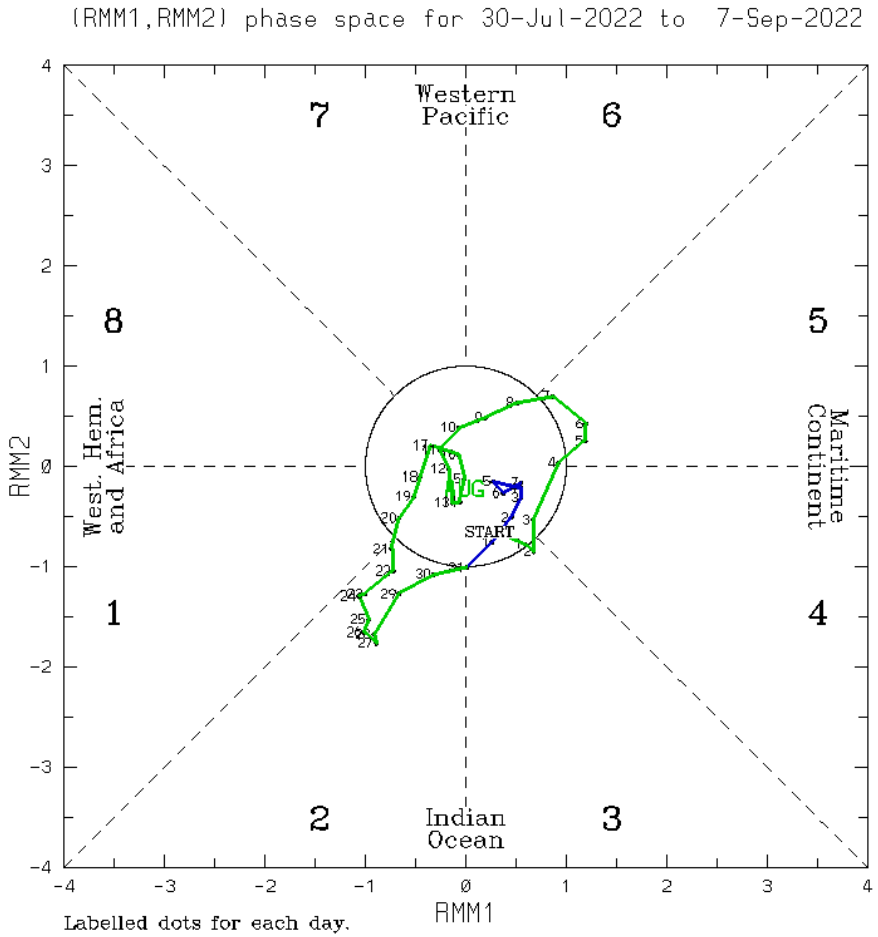
Madden-Julian Oscillation

ACCESS



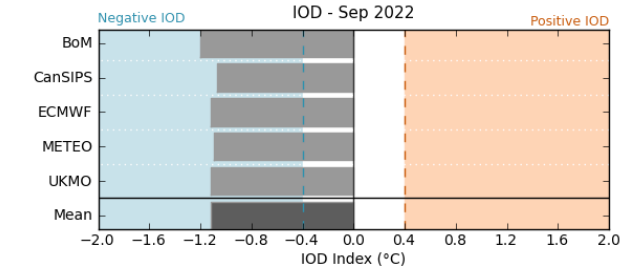
ECMWF

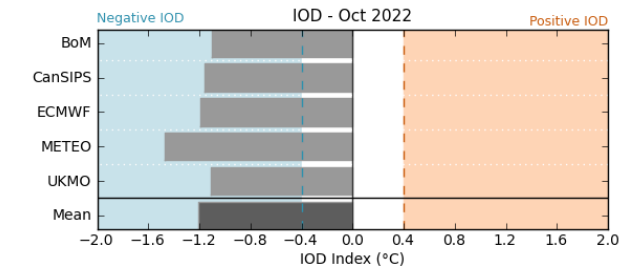


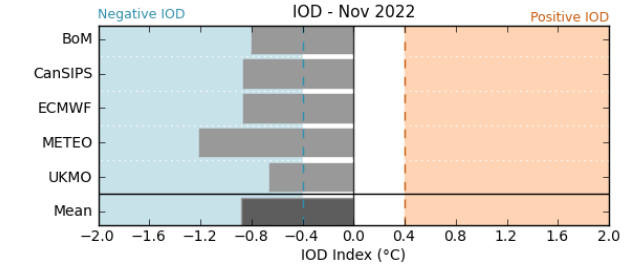


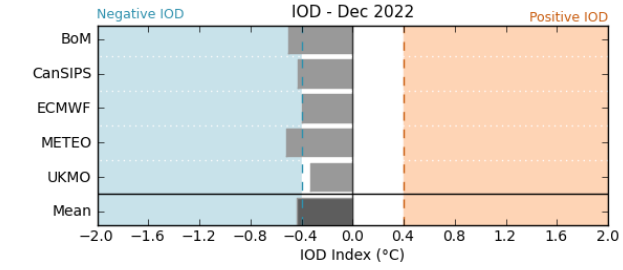
2022

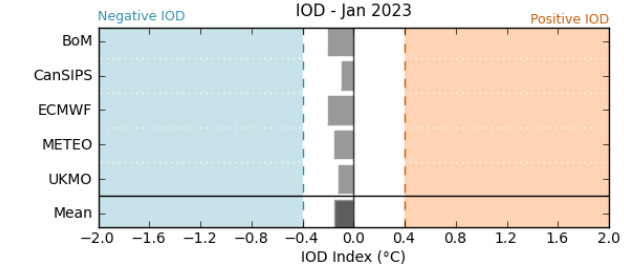
Indian Ocean Dipole (IOD)



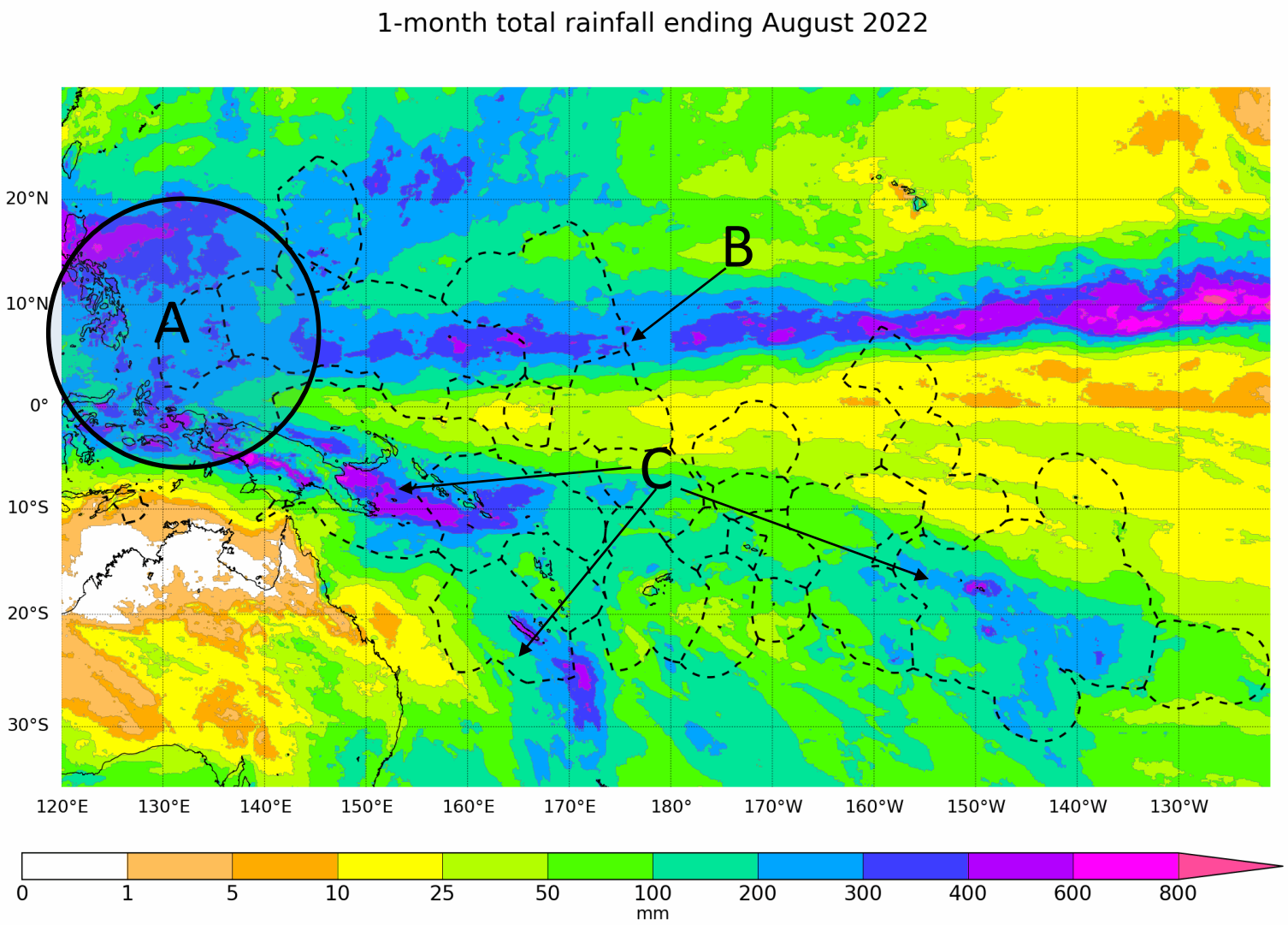






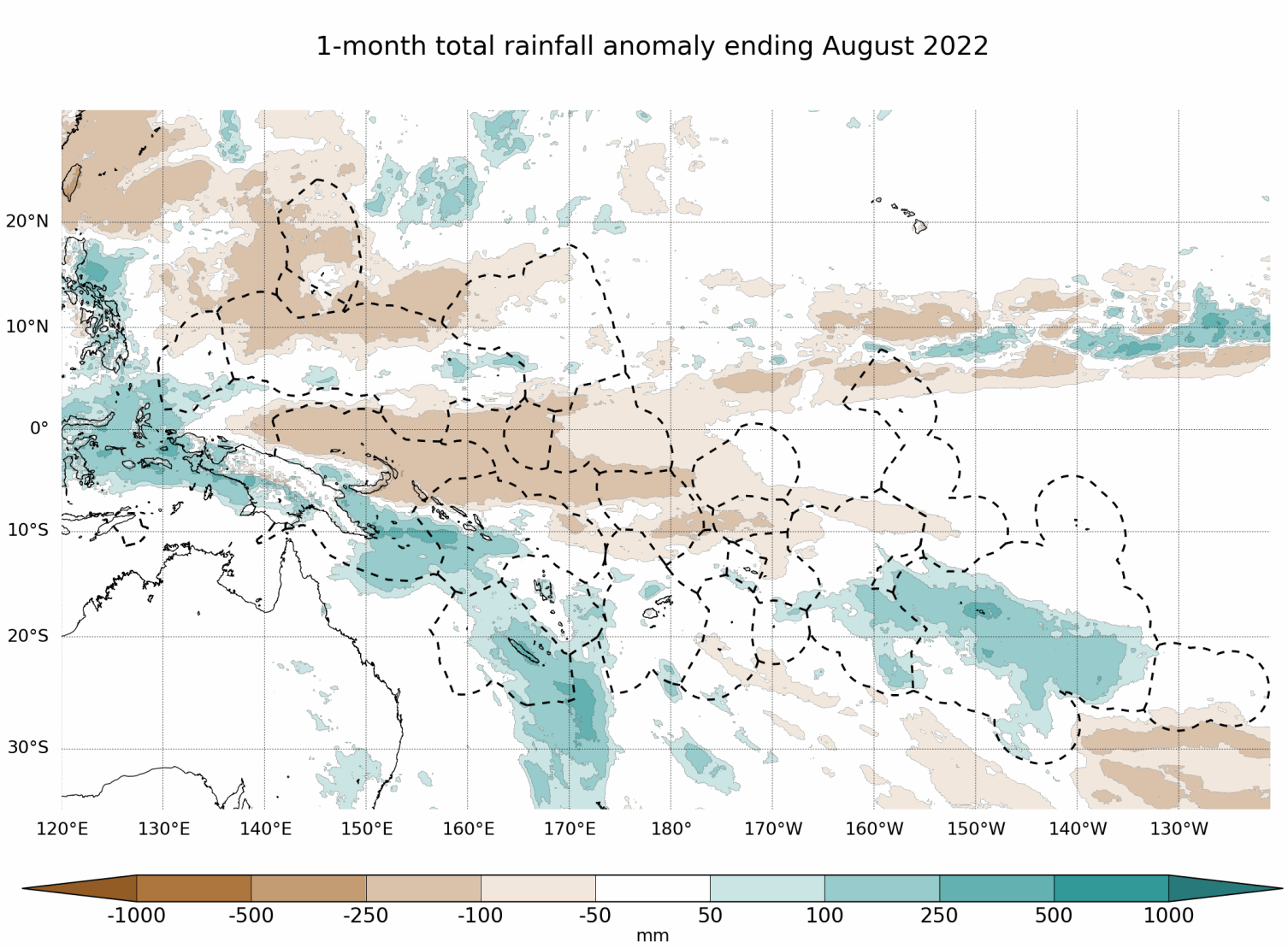


Satellite Rainfall August 2022



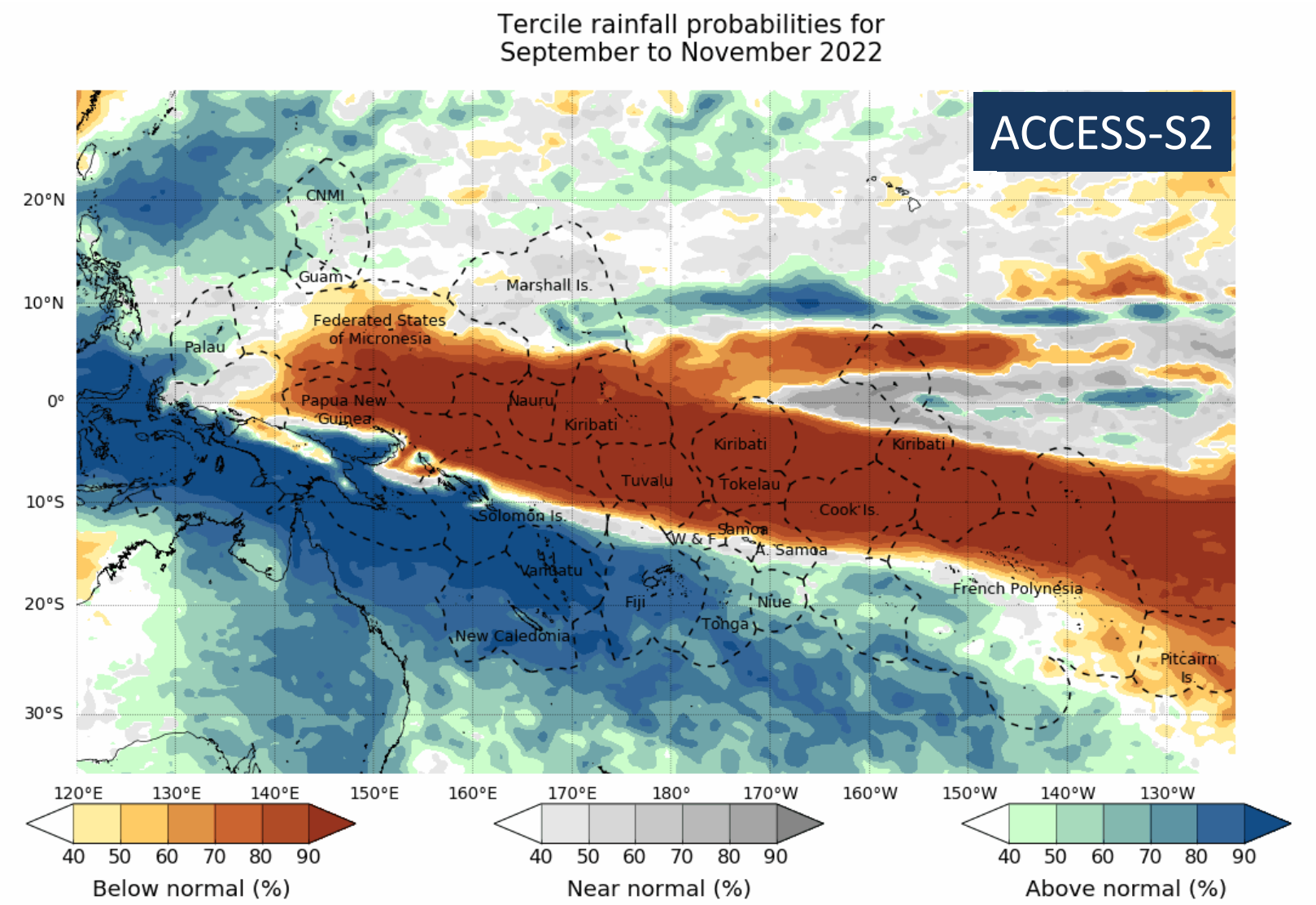
Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marineregions.org/.

Satellite Rainfall Anomaly August 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 (SON)

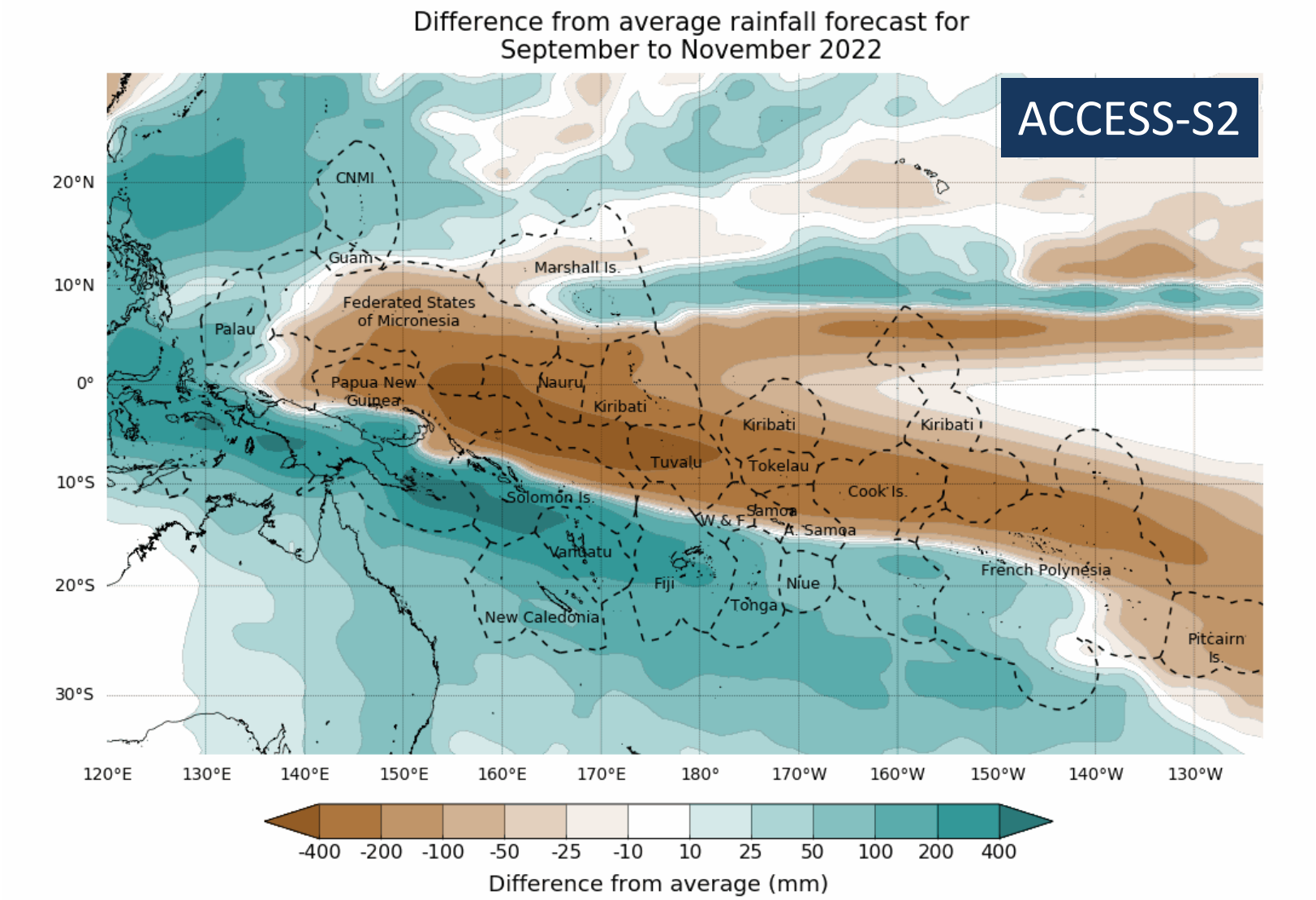


Base period: 1981-2018
Model: ACCESS-S2

Model run: 29/08/2022
Issued: 01/09/2022

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/.

Difference from Average (SON)

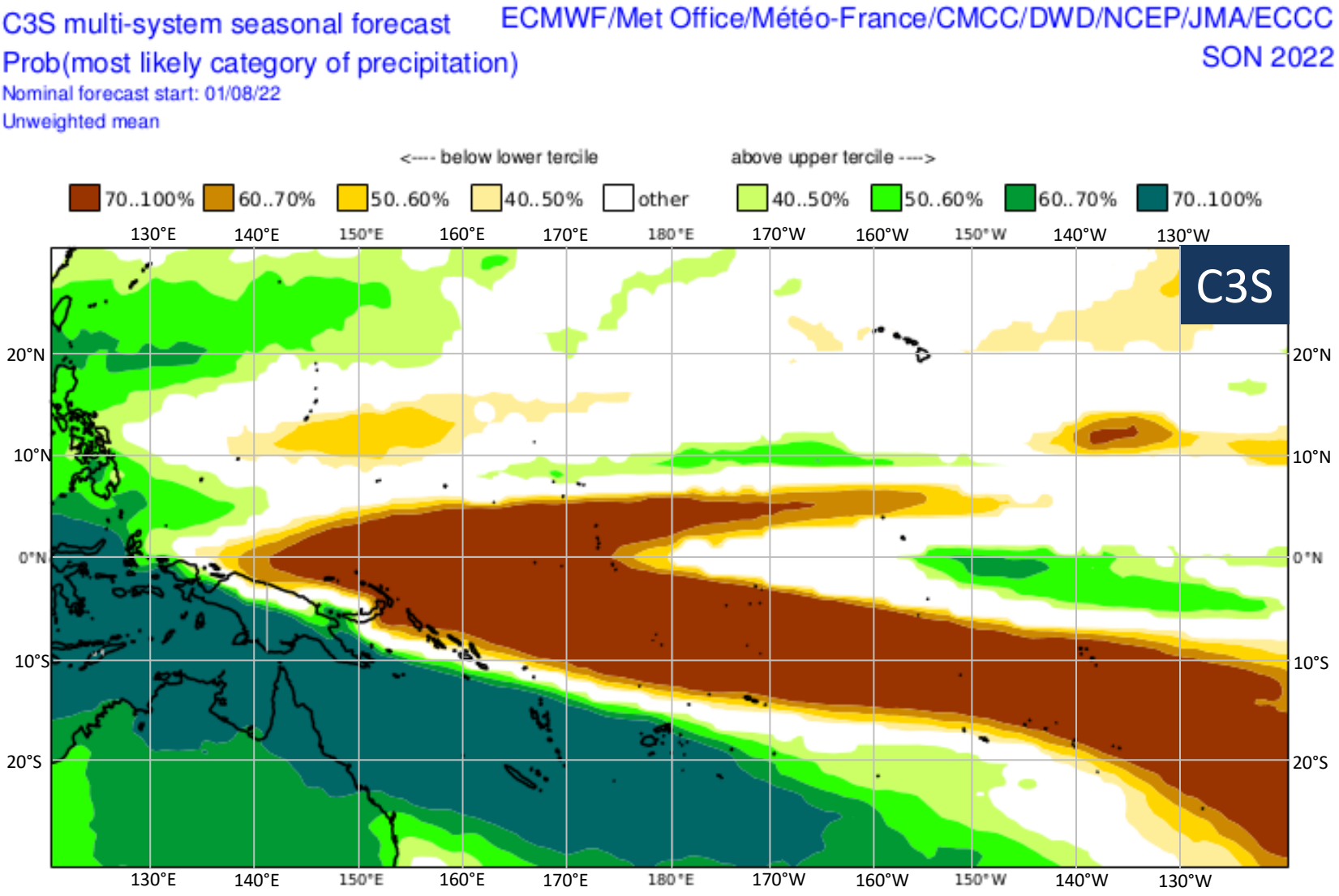


Base period: 1981-2018
Model: ACCESS-S2

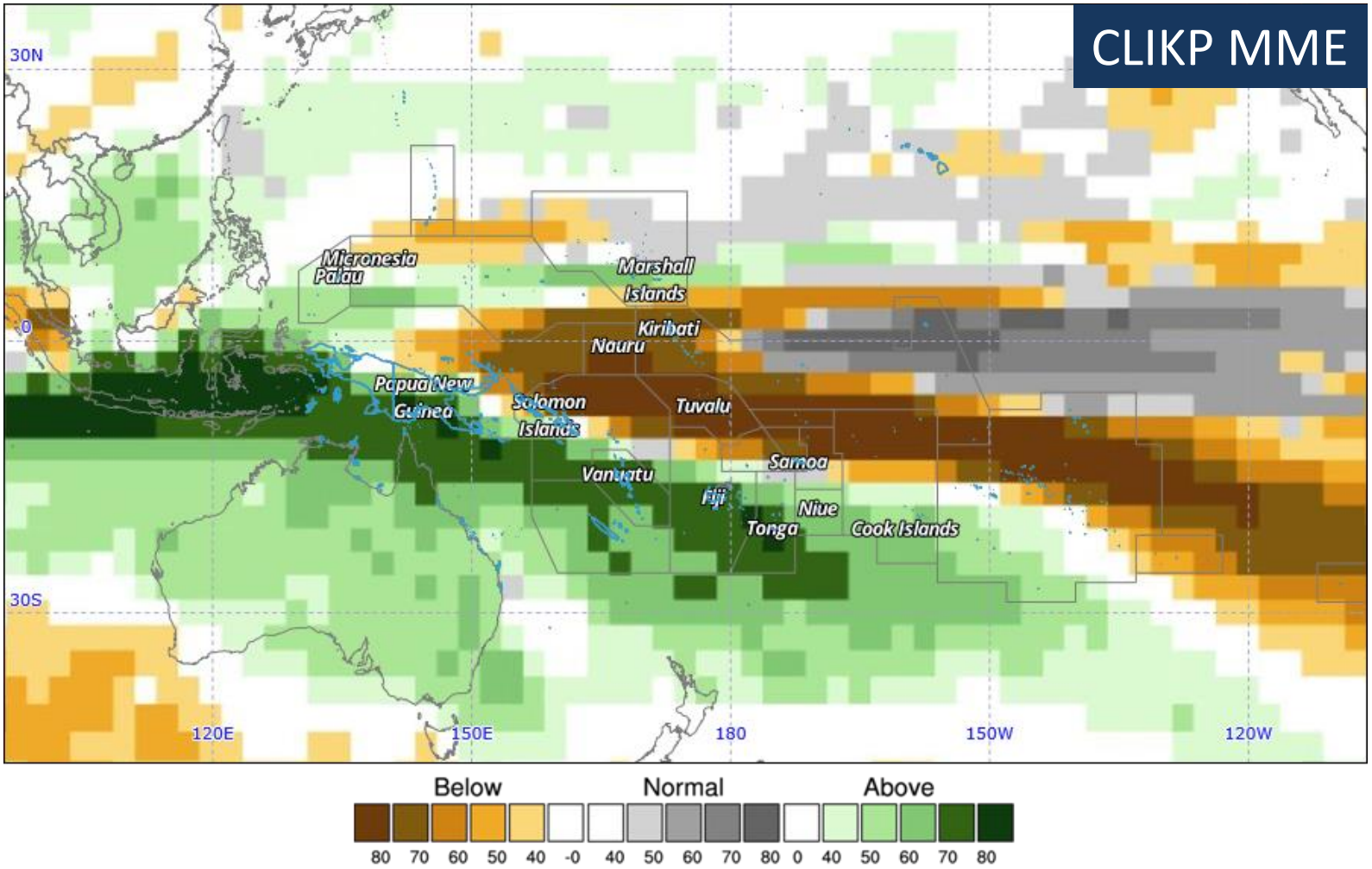
Model run: 29/08/2022
Issued: 01/09/2022

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 (SON)



Model Rainfall Predictions (SON)



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

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

Generated using CLIK® (2022-9-7)

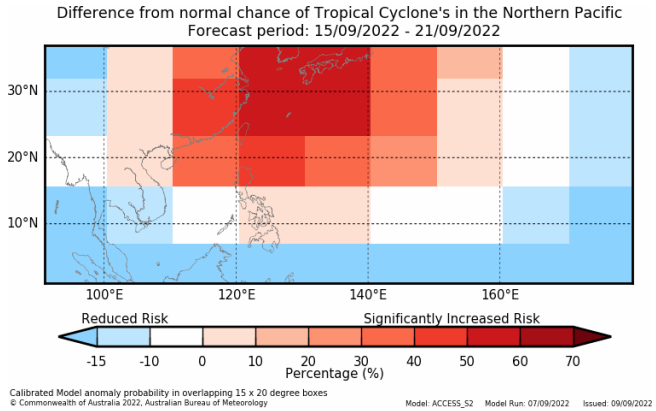
Model Rainfall Predictions (SON)

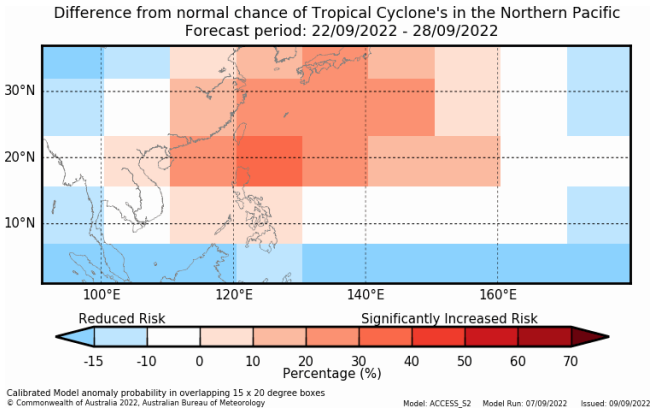
September to November 2022			
	ACCESS-S	C3S	CLIKP
Cook Is North			
Cook Is South			
Fiji West			
Fiji Central			
Fiji East			
Fiji North			
Fiji Rotuma			
FSM West			
FSM Central			
FSM East			
Kiribati West			
Kiribati Central			
Kiribati East			
RMI North			
RMI Central			
RMI South			
Nauru			
Niue			
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						

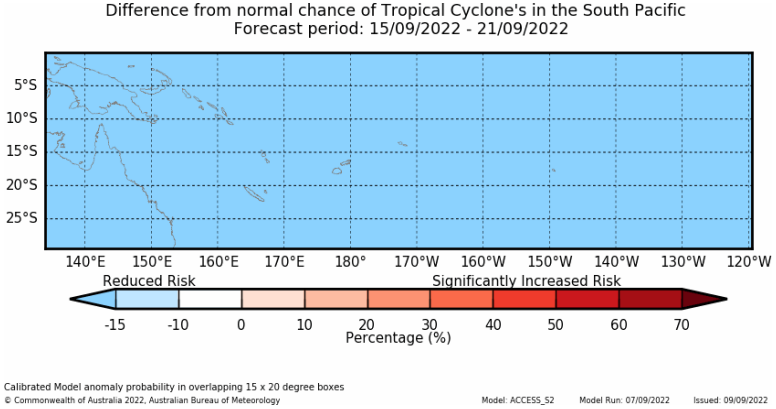
TCC Outlooks

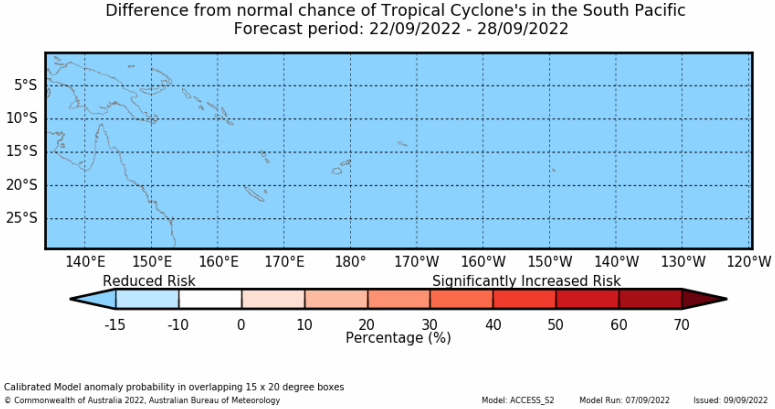
Northwest Pacific





South Pacific





Climate Model Summary