

OFFICIAL

# ENSO Update – OCOF 227

18 August 2026



OFFICIAL

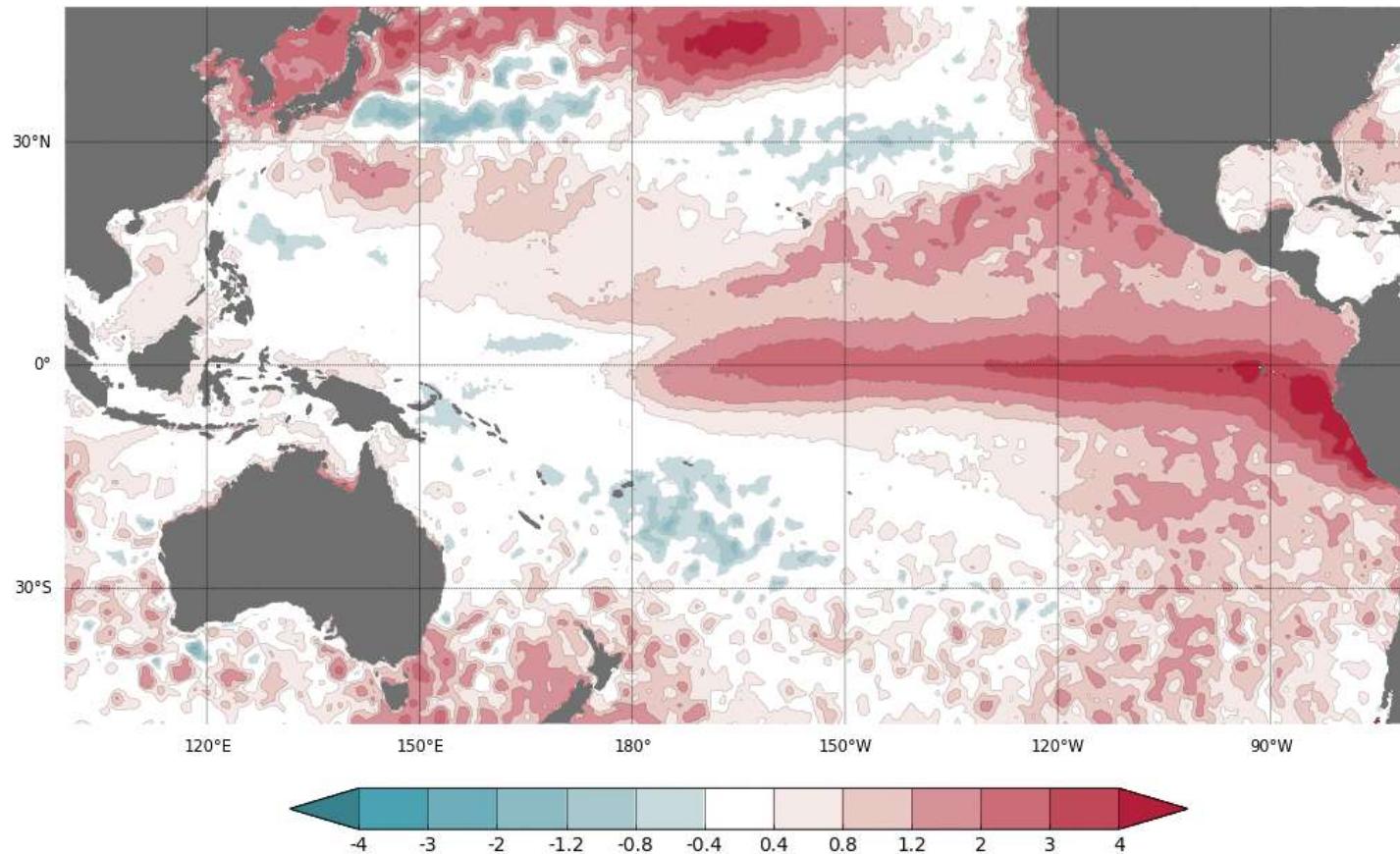
## ENSO Update

- El Niño is firmly established. Both oceanic and atmospheric indices now reflect values consistent with a strong El Niño, with further intensification likely during spring.
- The latest relative Niño3.4 index value for the week ending 9 August 2026 is +2.20 °C, well above the El Niño threshold (+0.80 °C). This latest value is indicative of a strong El Niño.
- All models, including the bureau's, forecast the tropical Pacific to continue warming through the southern hemisphere spring, likely peaking in late spring or summer. Given its current strength, in addition to the typical life cycle of an El Niño, this event is expected to persist into autumn 2027.
- Further warming is supported by excess heat in the sub-surface with equatorial upper ocean heat anomalies during July 2026 the highest on record (for all months on record since 1979).
- Atmospheric indicators, such as trade winds, pressure and cloud patterns are currently indicative of a strong El Niño. Trade winds are either reversed or weaker than average across the western tropical Pacific, and cloudiness is enhanced near the International Date Line and suppressed over the Maritime Continent.
- The Southern Oscillation Index (SOI), a measure of the atmospheric component of ENSO, remains strongly negative, with the latest 30-day SOI to 8 August at –25.6, significantly below the El Niño threshold of –7. The July average SOI of –29.1 was the most negative July value on record.
- Forecasts are pointing towards a very strong El Niño event, based on the extent of warming in the central tropical Pacific (Niño3.4). Models indicate this event is likely to see SSTs in this region peak at levels above the warmest observed since 1950.

OFFICIAL

## July 2026 Observed SSTs

Sea surface temperature anomaly: 01/07/2026 to 31/07/2026



Data: GAMSSA  
Climatology baseline: 1991 to 2020  
© Commonwealth of Australia 2026, Australian Bureau of Meteorology

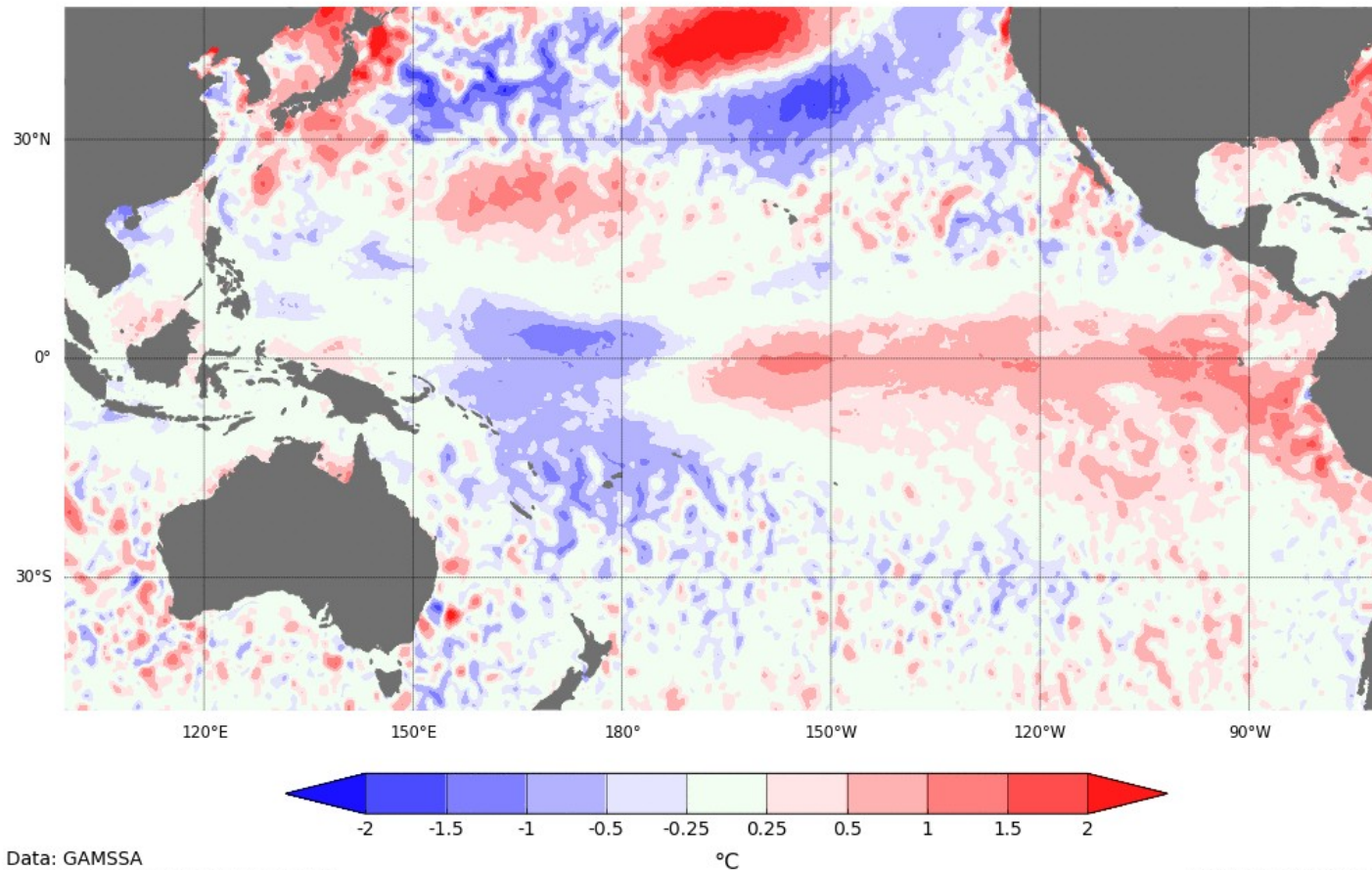
<http://www.bom.gov.au/climate>

Monthly average: July 2026  
Created: 03/08/2026

OFFICIAL

## July – June SSTs

Change in the monthly SST anomaly: July-2026 - June-2026



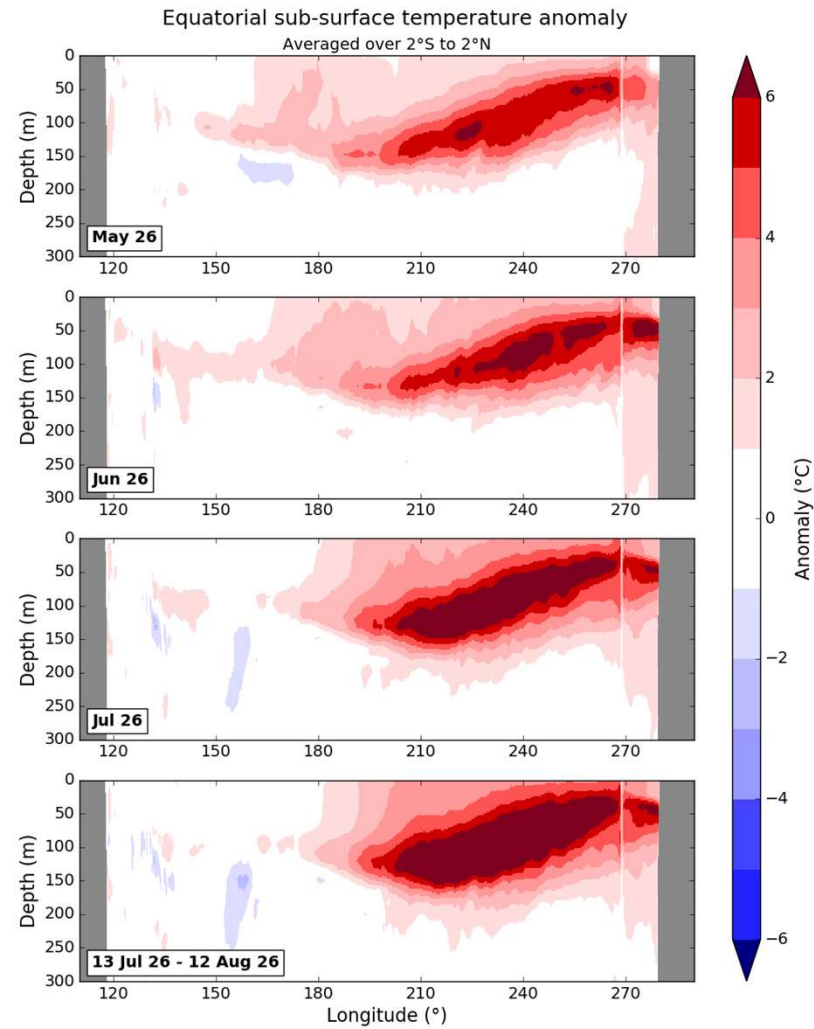
Data: GAMSSA  
Climatology baseline: 1991 to 2020  
© Commonwealth of Australia 2026, Australian Bureau of Meteorology

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

Anomaly monthly difference  
Created: 03/08/2026

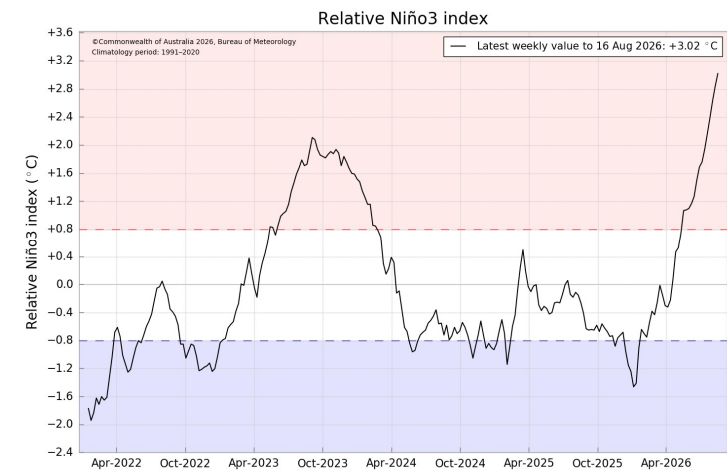
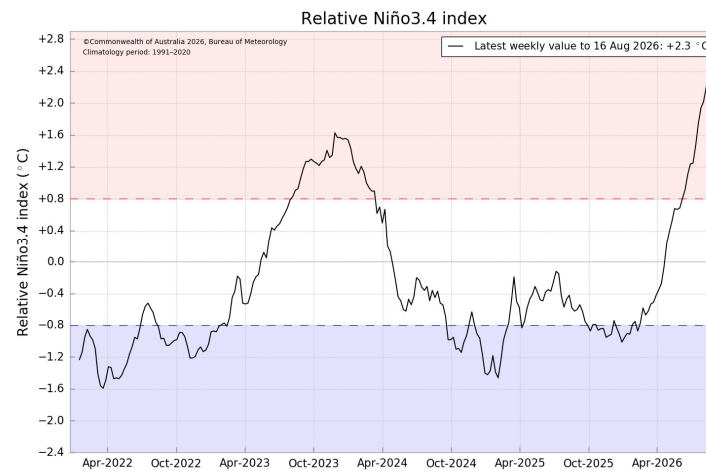
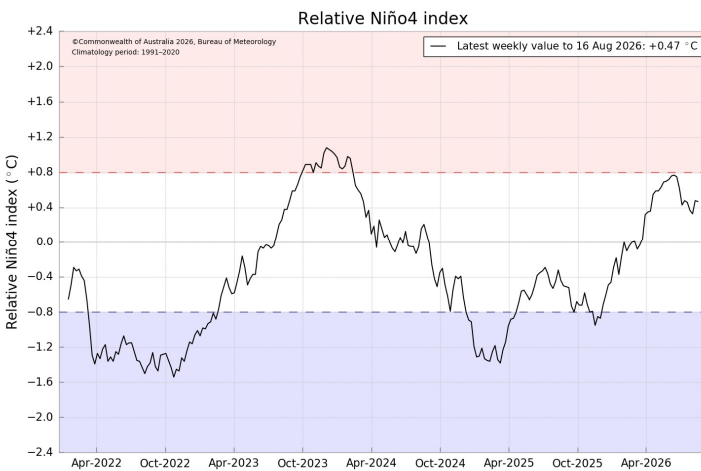
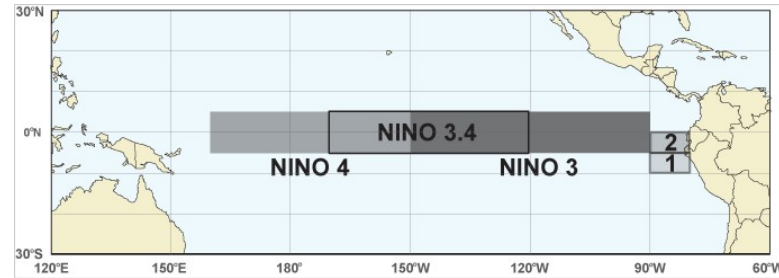
OFFICIAL

# Equatorial Pacific Sub-surface Profile



OFFICIAL

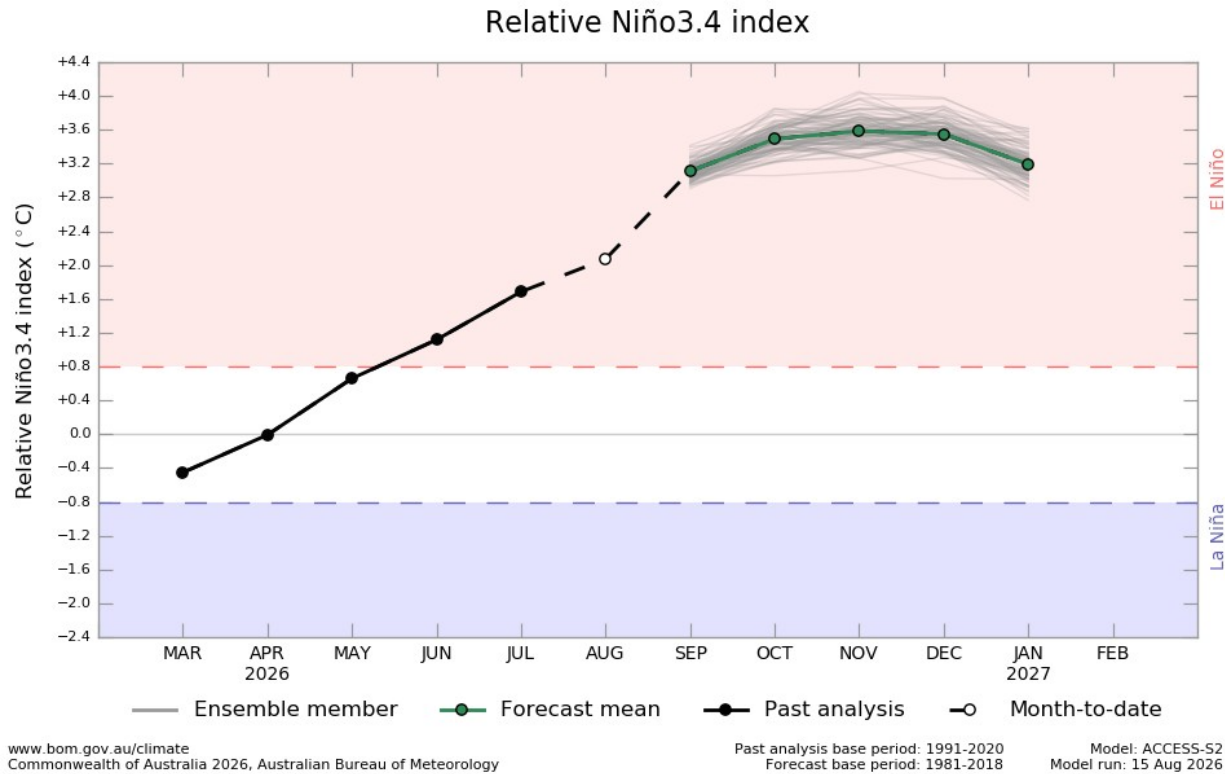
# Observed Relative NINO Indices



OFFICIAL

OFFICIAL

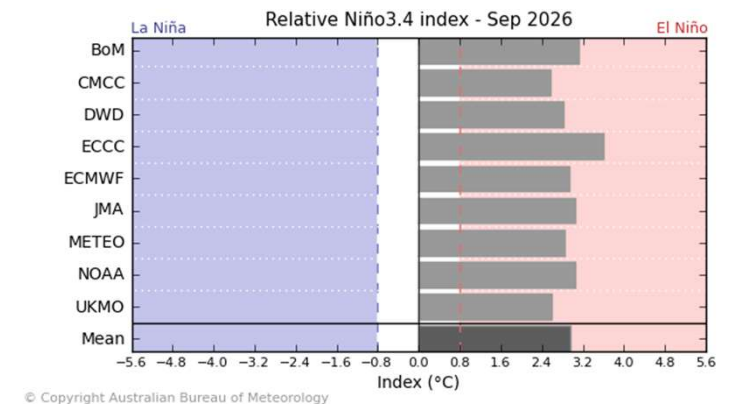
## Relative ENSO Outlook



**La Nina** is associated with **increased rainfall** across the far western Pacific.



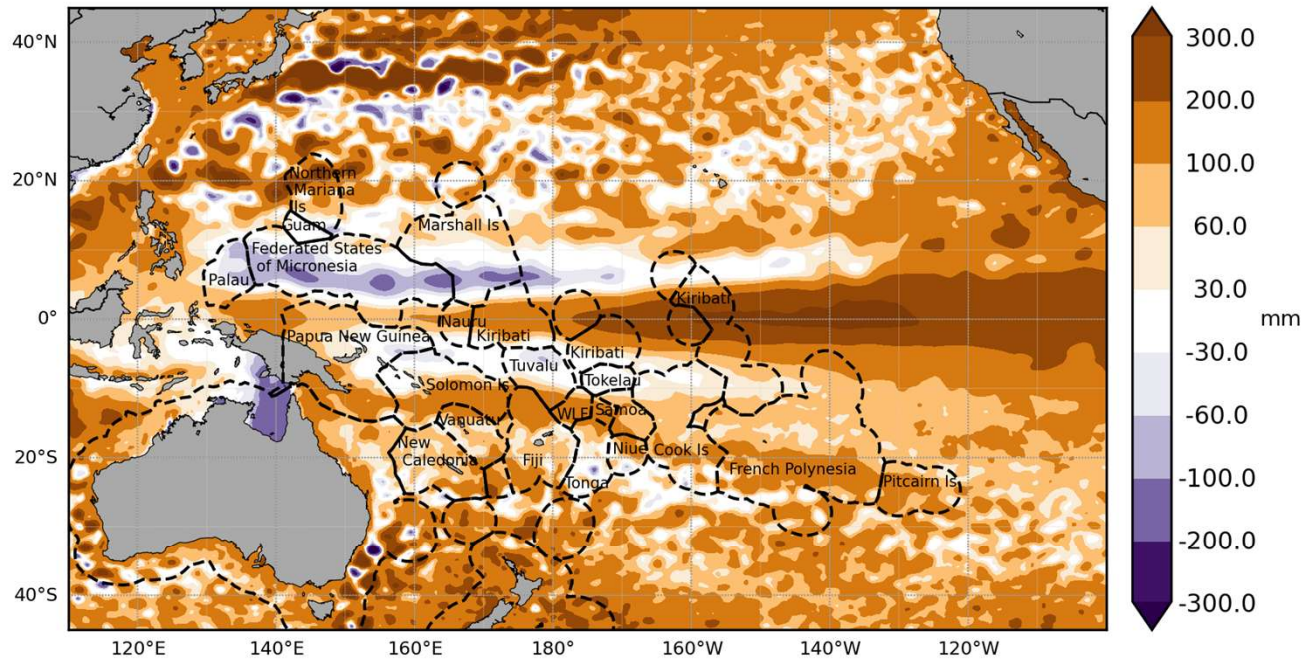
**El Nino** is associated with **decreased rainfall** across the far western Pacific.



OFFICIAL

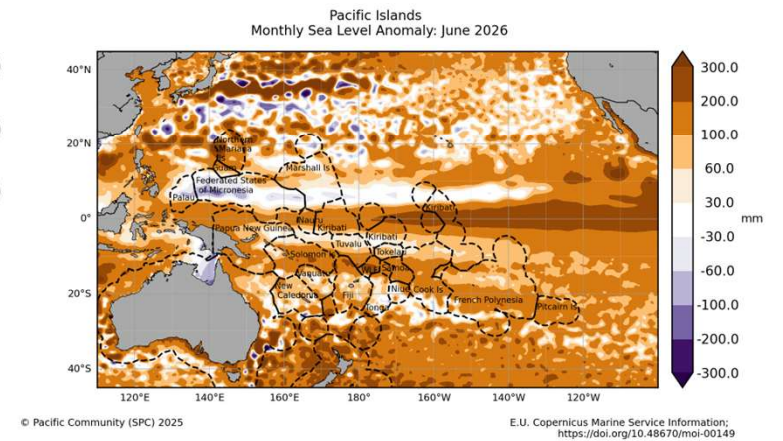
# July 2026 Sea Level Anomaly

Pacific Islands  
Monthly Sea Level Anomaly: July 2026



© Pacific Community (SPC) 2025

E.U. Copernicus Marine Service Information;  
<https://doi.org/10.48670/moi-00149>



© Pacific Community (SPC) 2025

E.U. Copernicus Marine Service Information;  
<https://doi.org/10.48670/moi-00149>

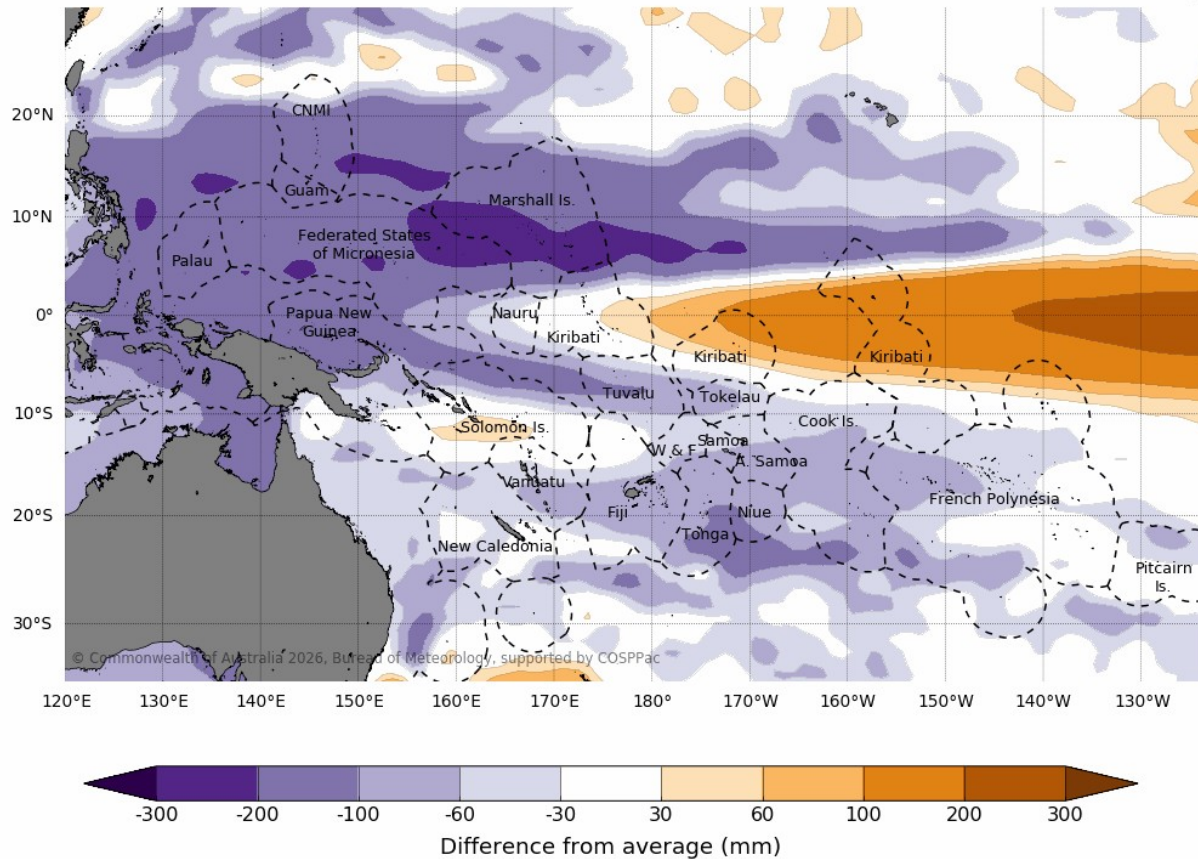
OFFICIAL

# Seasonal Outlook: Sea Surface Height Anomaly

Difference from average sea surface height forecast for  
September to November 2026

Base period: 1981-2018  
Model: ACCESS-S2

Model run: 10/08/2026  
Issued: 12/08/2026



**Decrease in average SSH**



**Increase in average SSH**

-- -- EEZ border V11 (Flanders Marine Institute, 2019).

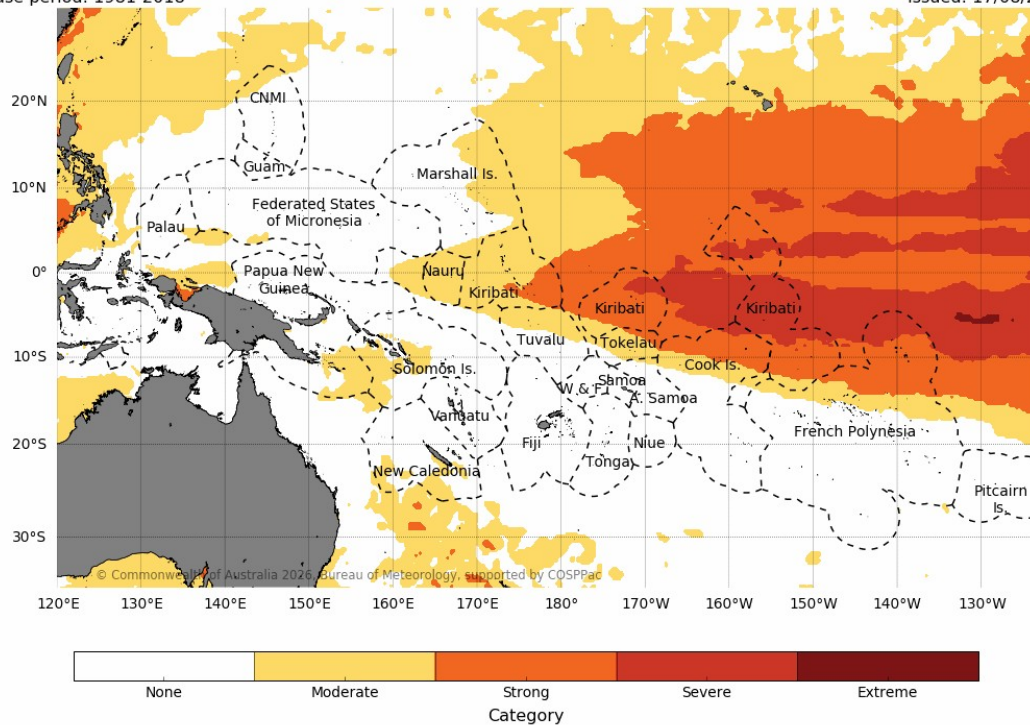
OFFICIAL

## Marine Heatwaves

Marine heatwave category forecast for  
September to November 2026

Data source: ACCESS-S2  
Base period: 1981-2018

Model Run: 15/08/2026  
Issued: 17/08/2026



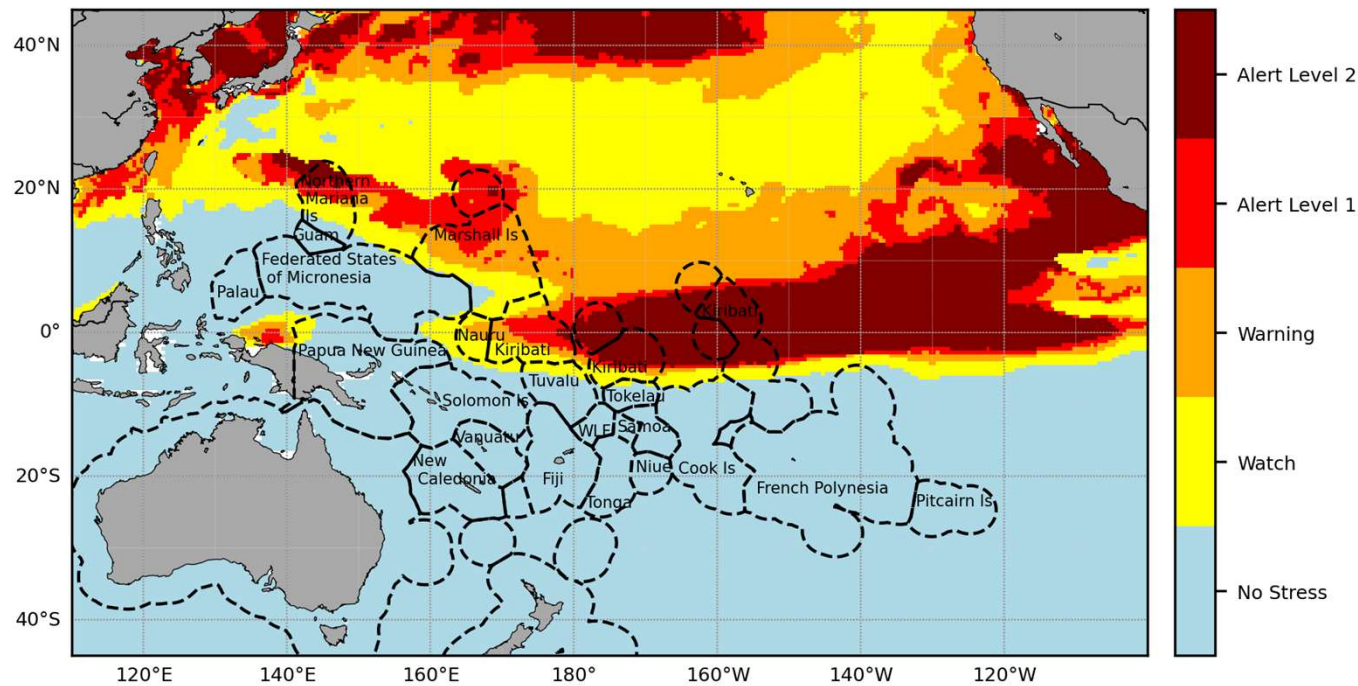
**Marine Heatwaves** are prolonged periods of anomalously high sea surface temperature (SST).

Impacts from marine heatwaves include death of marine flora and fauna, mass coral bleaching and reduces capacity for provision of ecological goods and services.

OFFICIAL

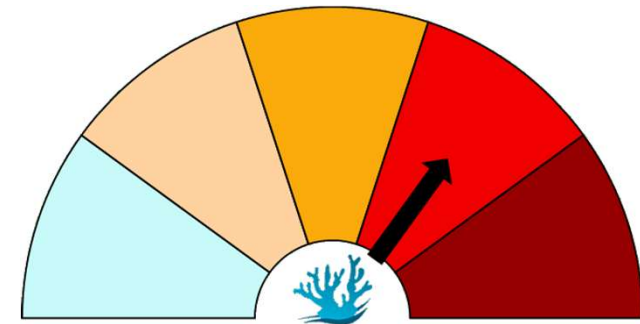
# Coral Bleaching

Pacific Islands  
4 Week Coral Bleaching Outlook: 24 August 2026



© Pacific Community (SPC) 2025

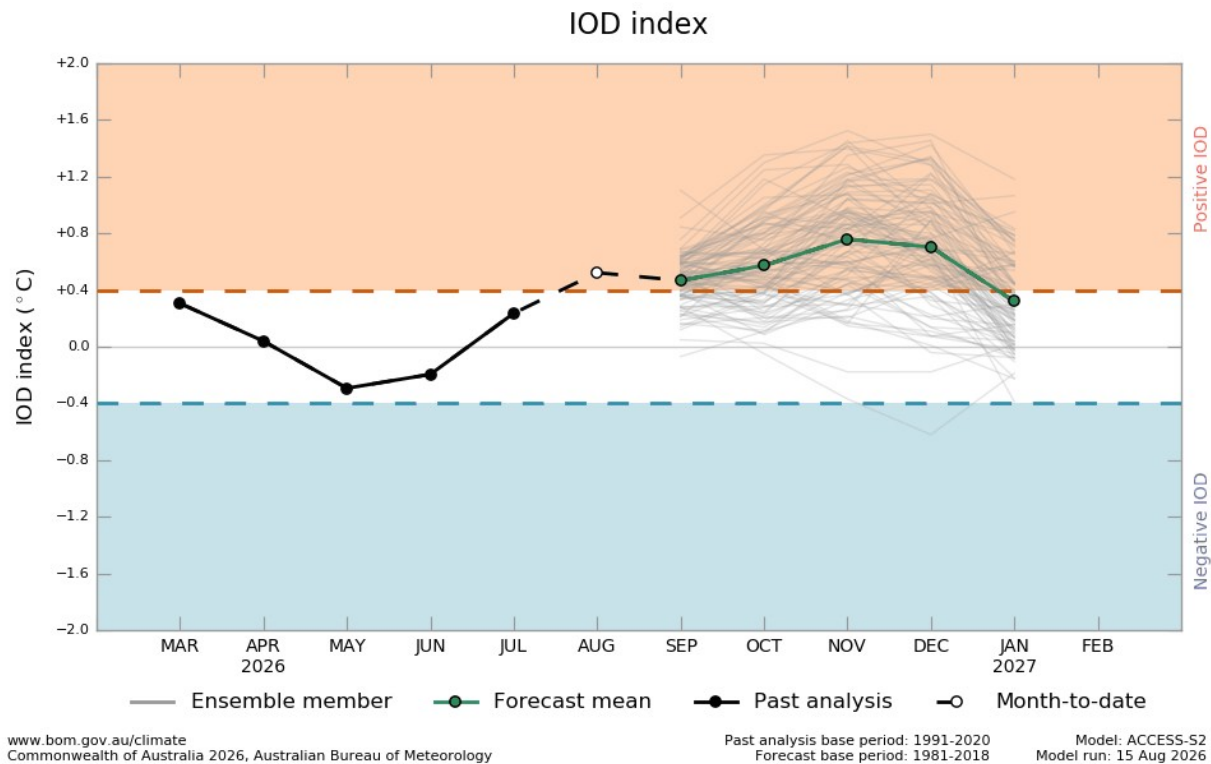
NOAA



| Alert Level             | Effect                   |
|-------------------------|--------------------------|
| No Data                 | No alert data available  |
| No Stress               | No thermal stress        |
| Bleaching Watch         | Low-level thermal stress |
| Bleaching Warning       | Coral bleaching possible |
| Bleaching Alert Level 1 | Coral bleaching likely   |
| Bleaching Alert Level 2 | Coral mortality likely   |

OFFICIAL

## Indian Ocean Dipole (IOD)



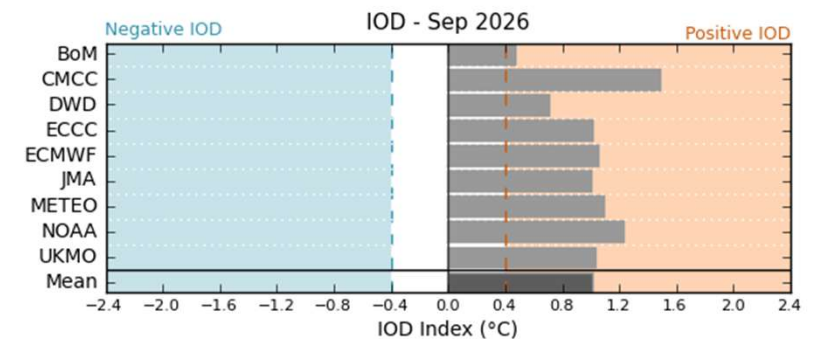
The peak of the **IOD** is **Sep-Oct** in the southern hemisphere. Decaying with the onset of the monsoon.



**IOD negative** is associated with **increased rainfall** across the far western Pacific.



**IOD positive** is associated with **decreased rainfall** across the far western Pacific.



© Copyright Australian Bureau of Meteorology

OFFICIAL

# Atmosphere Outlook



OFFICIAL

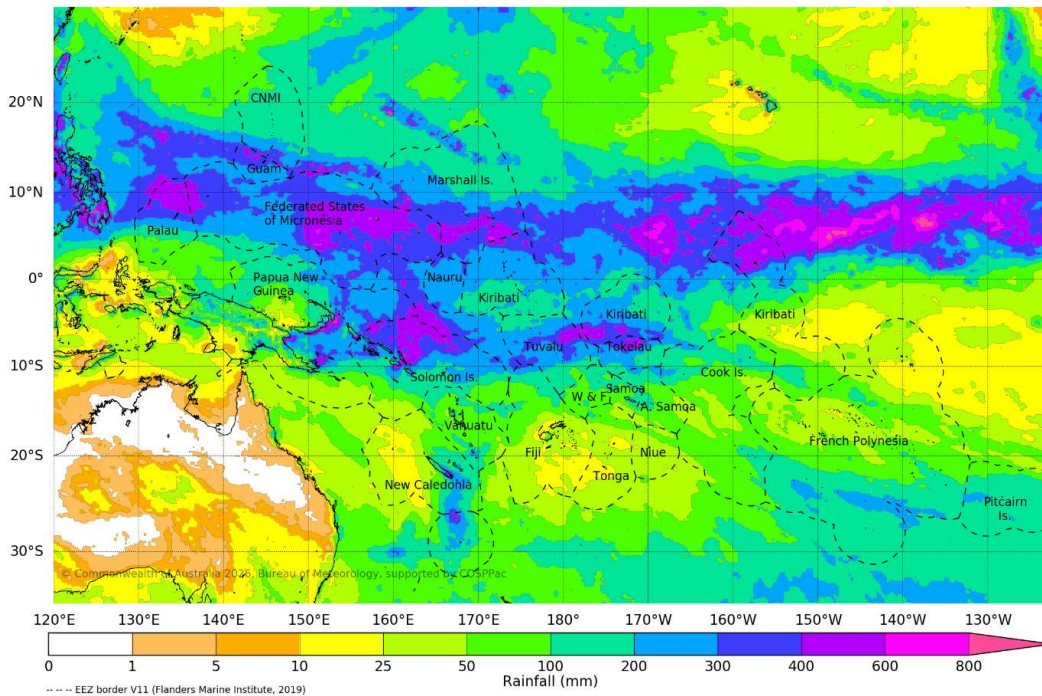
# Observed Rainfall – July 2026

Observed

1-month total rainfall ending July 2026

Data source: MSWEP

Issued: 07/08/2026

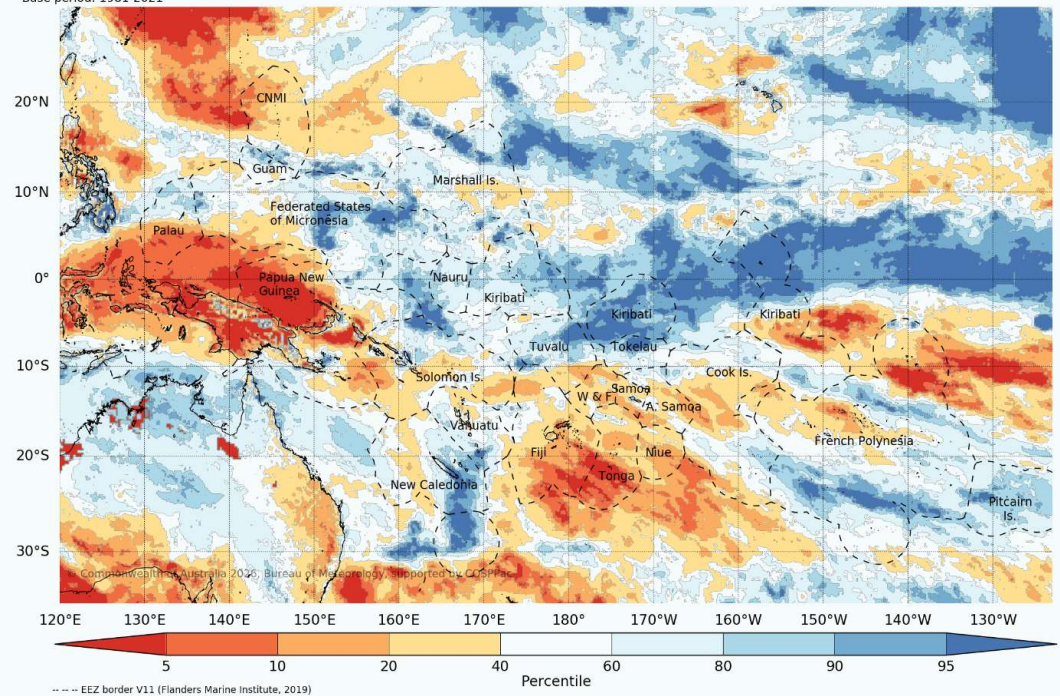


Percentile

1-month Percentile to end of July 2026

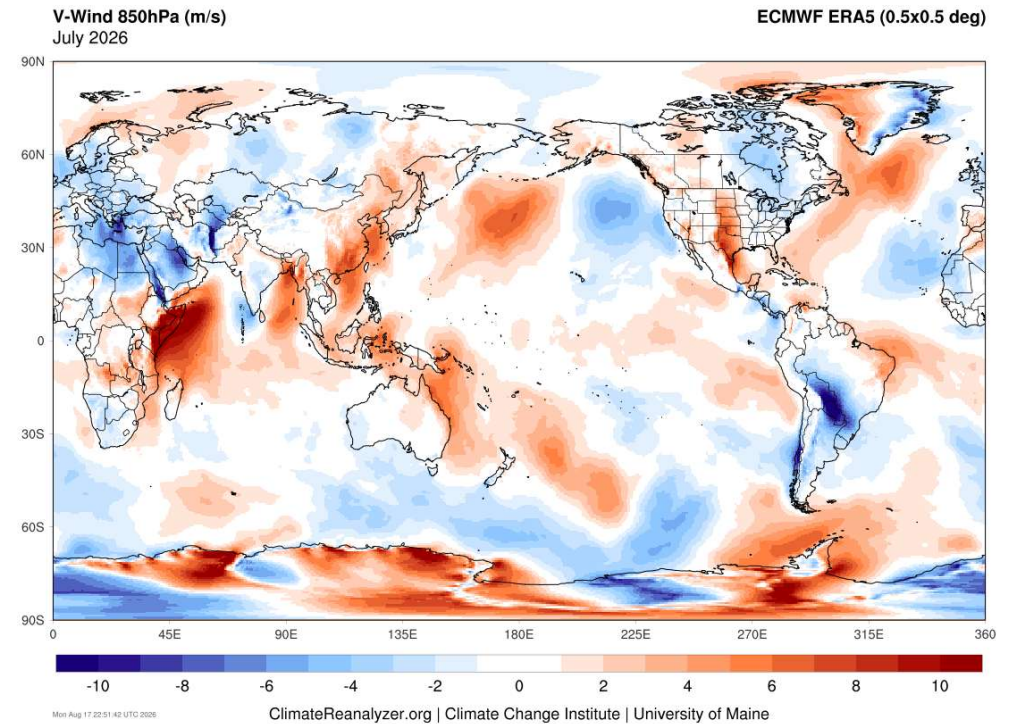
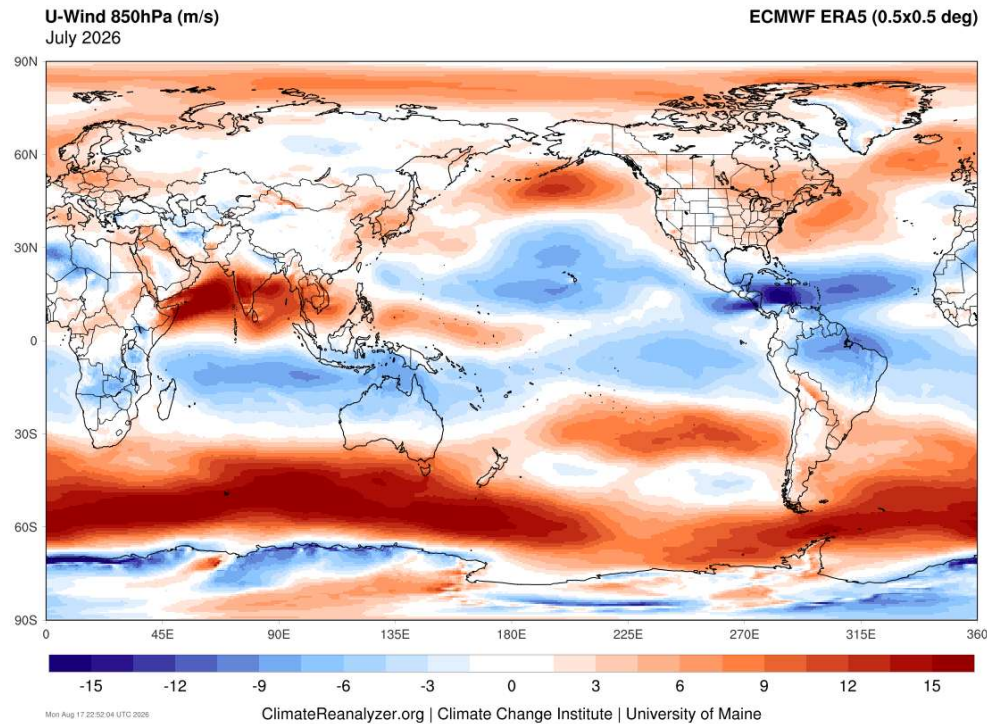
Data source: MSWEP  
Base period: 1961-2021

Issued: 07/08/2026



OFFICIAL

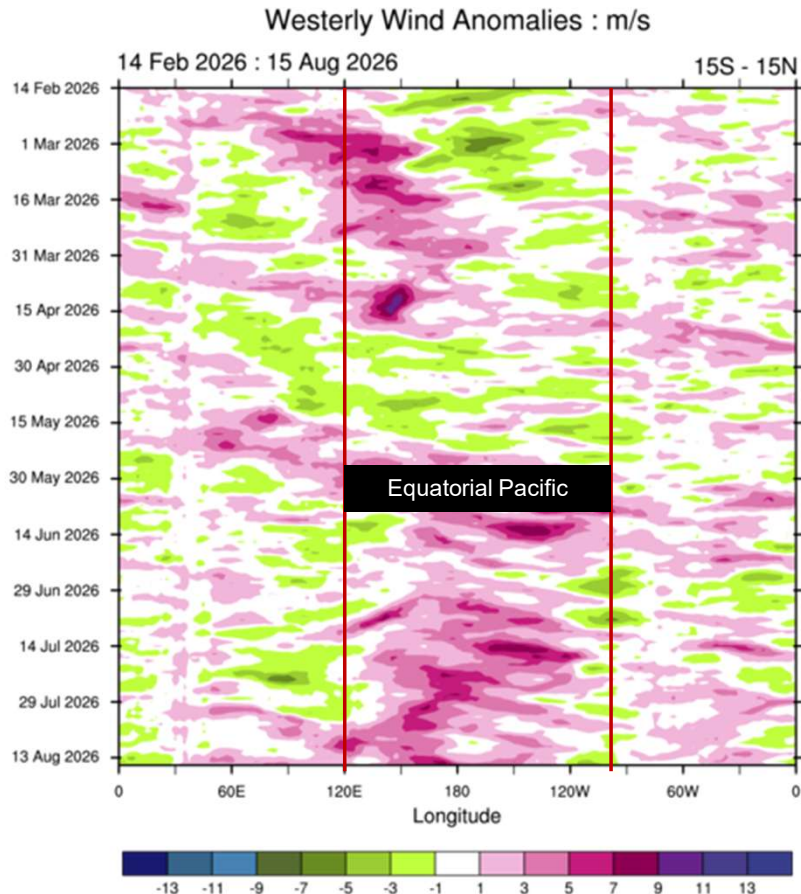
## Wind observations – July 2026



- U winds: east-west component of the wind vector, positive (red) u-wind value means air moves toward the east
- V winds: north-south component of the wind vector, positive (red) v-wind value means air moves towards the north

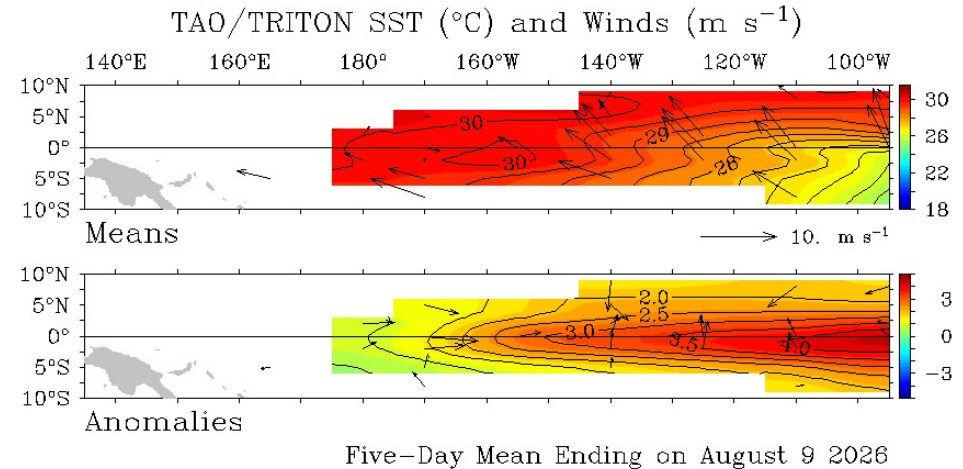
OFFICIAL

## Wind Anomalies



Easterly (stronger trade)

Westerly (weaker trade)



Weaker trade winds (pink) allow for the development of more clouds and potential for rain.



Stronger trade winds (green) hinders cloud development and the potential for rain.

(C) Copyright Commonwealth of Australia 2026. Bureau of Meteorology

The Bureau of Meteorology

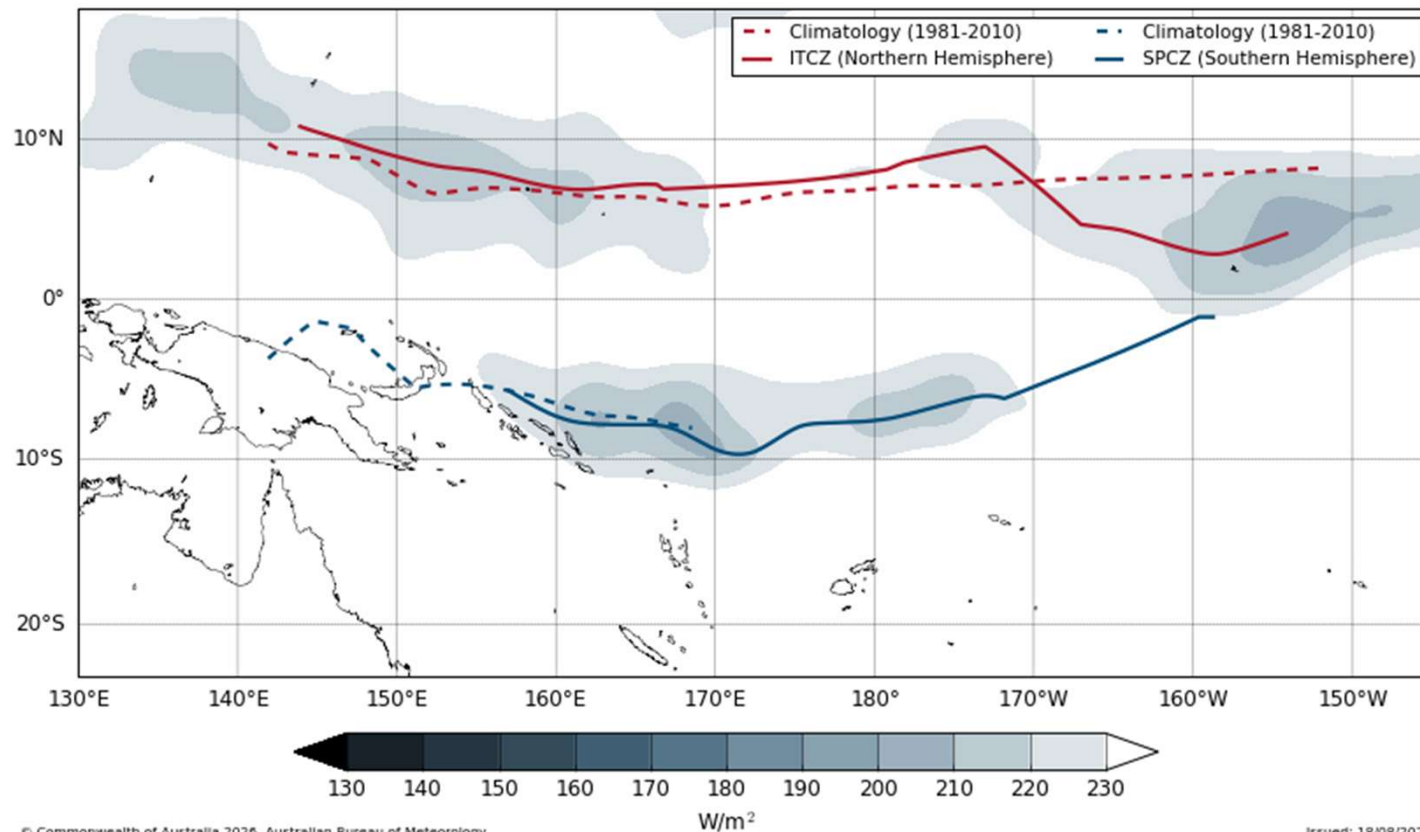
OFFICIAL

16

OFFICIAL

## ITCZ and SPCZ

30 Day Average Outgoing Longwave Radiation (OLR) minimum to 2026-08-15



More clouds

Less clouds

The Bureau of Meteorology

OFFICIAL

**Intertropical Convergence Zone (ITCZ)** is the area around the equator where trade winds from the northern and southern hemisphere collide. This area consists of high convection systems that can bring, rainfall, thunderstorms and tropical cyclones to Pacific Islands.

**South Pacific Convergence Zone (SPCZ)** is an area in the southern Pacific that has high convective activity. Likewise, when active the SPCZ can bring, rainfall, thunderstorms and tropical cyclones to South Pacific Islands.

OFFICIAL

## Madden – Julian Oscillation



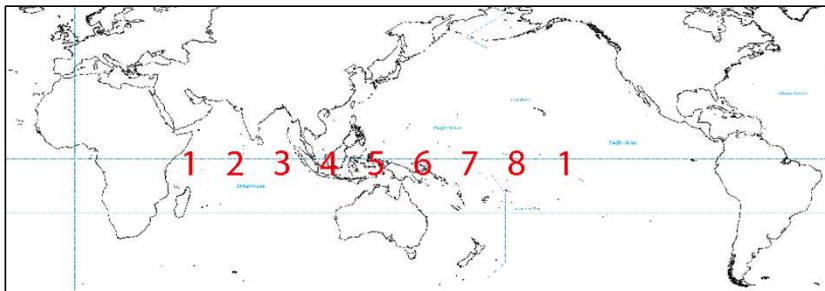
The **MJO** is in **phase 6**.



Phases **6, 7 and 8** are typically associated with **increased rainfall** across the Pacific.

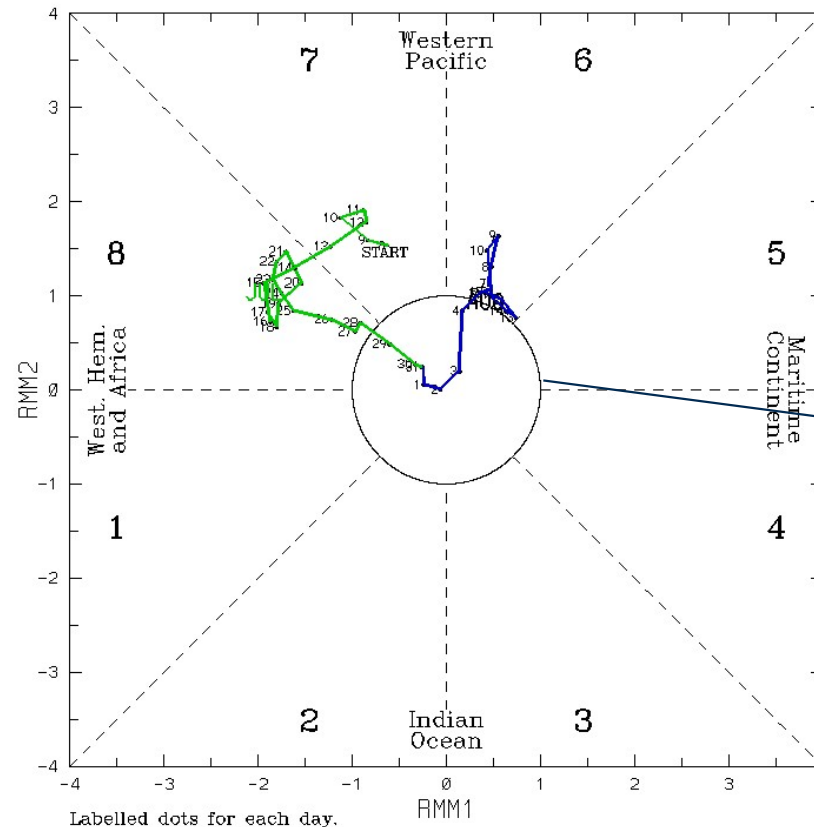


Phases **2, 3 and 4** are typically associated with **decreased rainfall** across the Pacific.



The Bureau of Meteorology

(RMM1,RMM2) phase space for 7-Jul-2026 to 15-Aug-2026



Labelled dots for each day.  
Blue line is for Aug, green line is for Jul, red line is for Jun.

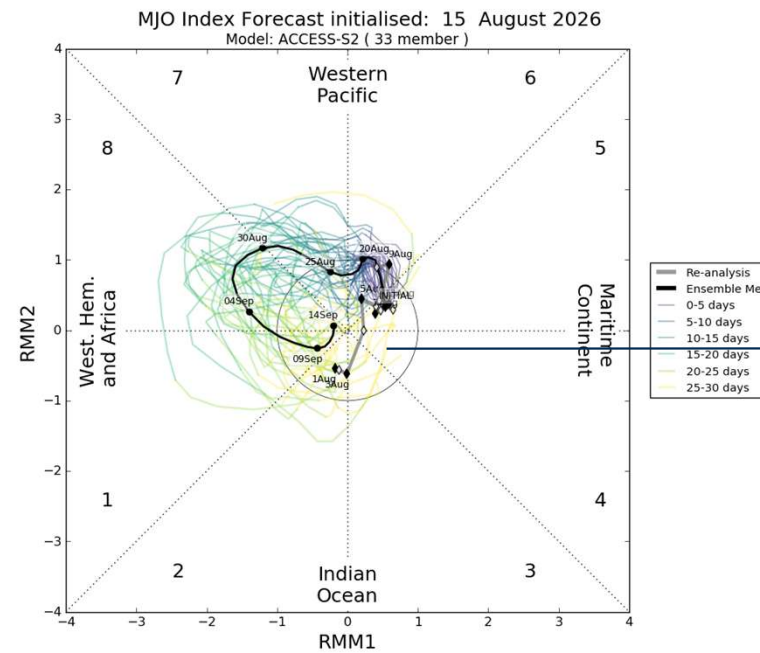
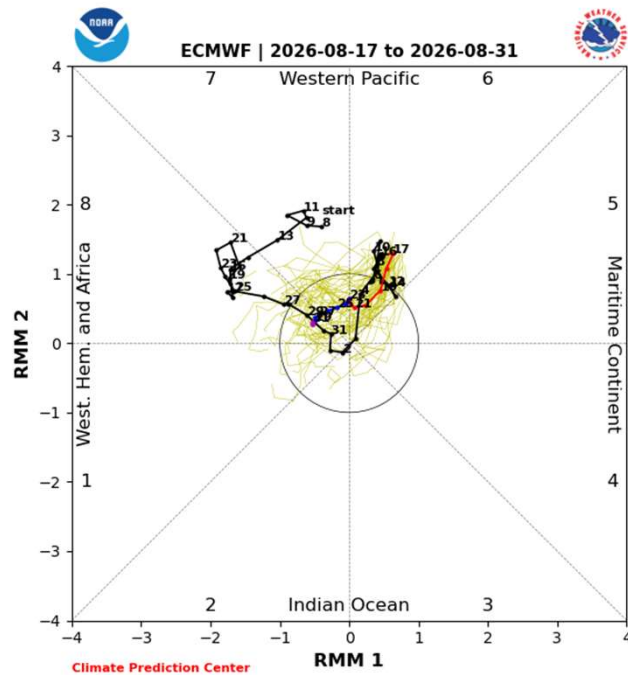
(C) Copyright Commonwealth of Australia Bureau of Meteorology

Unit circle:  
If inside the  
unit circle the  
MJO signal  
is weak

OFFICIAL

OFFICIAL

## Madden – Julian Oscillation



**Unit circle:**  
If inside the unit circle  
the MJO signal is  
weak.

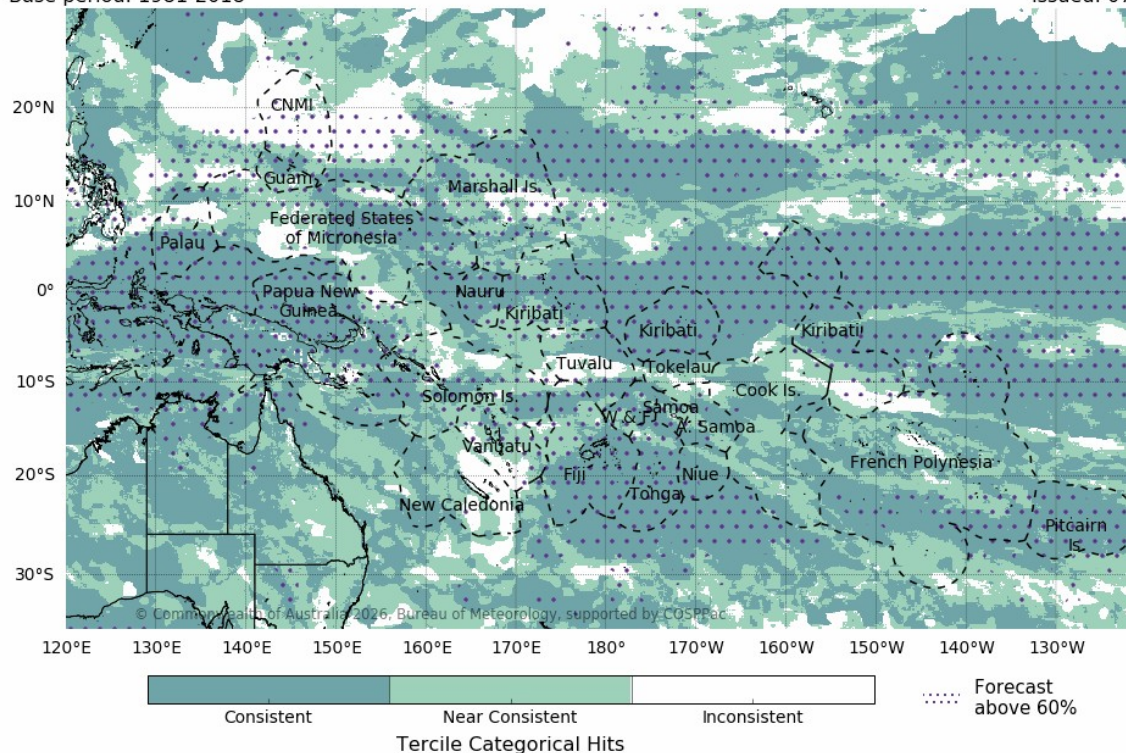
OFFICIAL

## Outlook Verification – July

Near real-time tercile verification hit rate: rainfall July 2026

Data source: ACCESS-S2  
Observations: MSWEP  
Base period: 1981-2018

Model Run: 01/07/2026  
Issued: 07/08/2026



**Verification** map is based on the ACCESS-S outlook. The greener the area the outlook picked the correct tercile category.

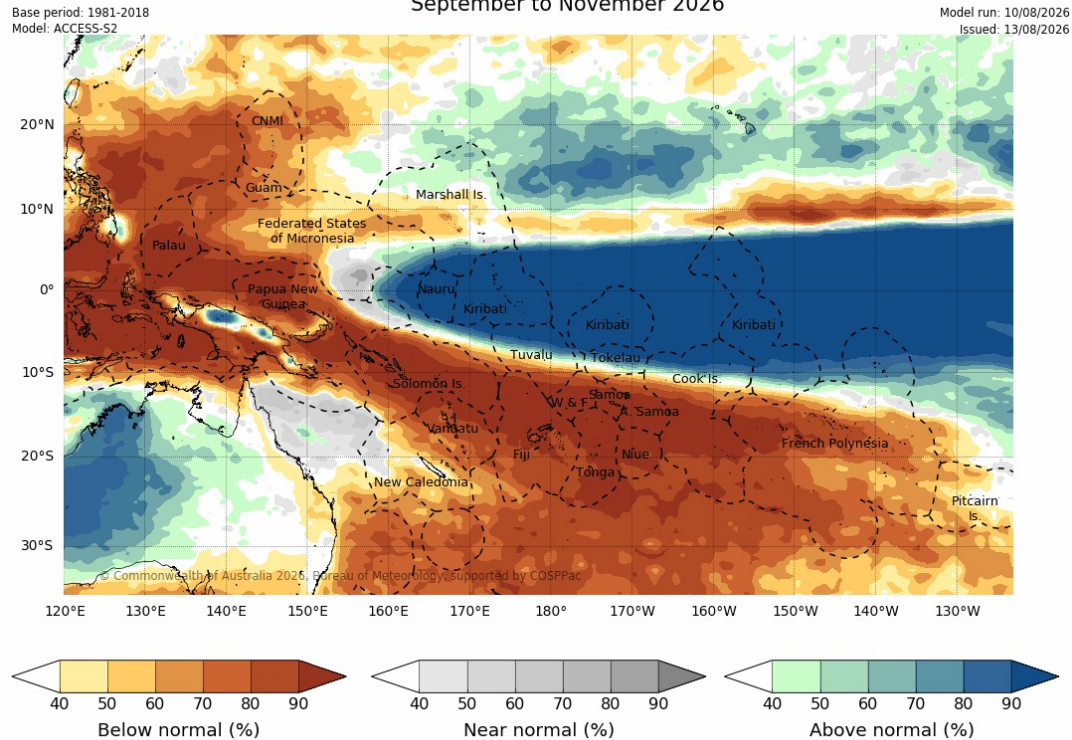
**Dots** identify where there was a strong outlook above 60%.

OFFICIAL

# Model Rainfall Predictions (SON 2026)

ACCESS-S2

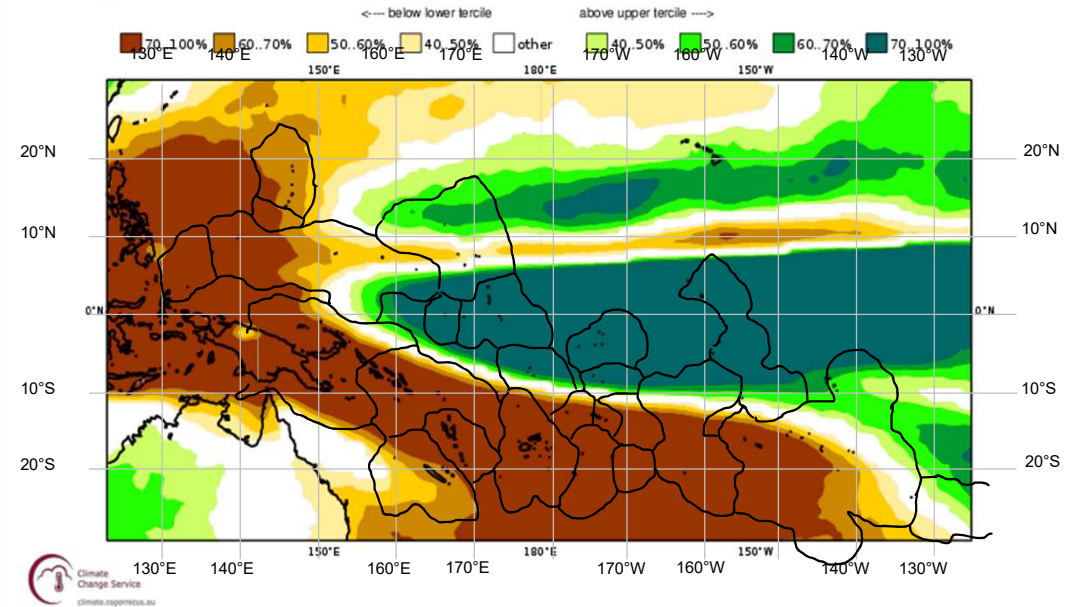
Tercile rainfall probabilities for  
September to November 2026



C3S

C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOM  
Prob(most likely category of precipitation)  
SON 2026

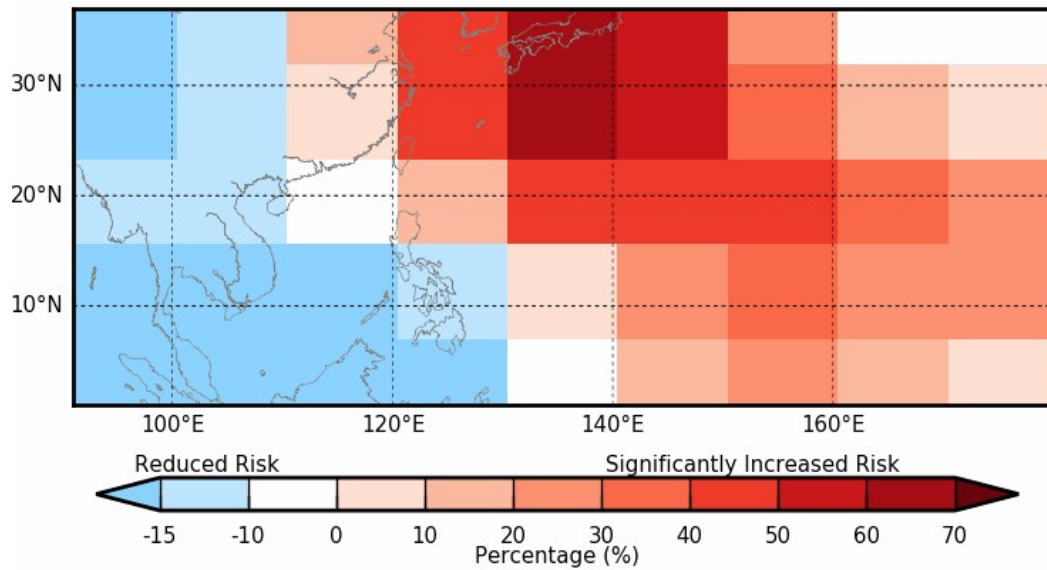
Nominal forecast start: 01/08/26  
Unweighted mean



OFFICIAL

# TC Outlooks

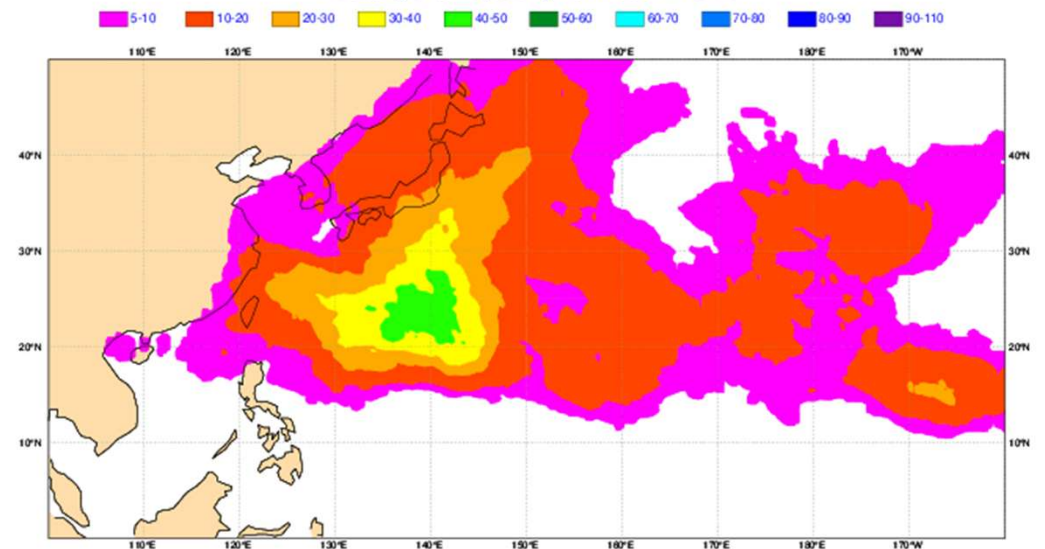
Difference from normal chance of Tropical Cyclone's in the Northern Pacific  
Forecast period: 23/08/2026 - 29/08/2026



Calibrated Model anomaly probability in overlapping 15 x 20 degree boxes  
© Commonwealth of Australia 2026, Australian Bureau of Meteorology

Model: ACCESS\_S2 Model Run: 15/08/2026 Issued: 17/08/2026

Weekly mean Tropical Storm Strike Probability. Date: 20260817 0 UTC t+(168-336)  
Probability of a TS passing within 300km radius



OFFICIAL

# Thank you

[pacificclimateservices@bom.gov.au](mailto:pacificclimateservices@bom.gov.au)

