

ENSO Update – OCOF 226

16 July 2026



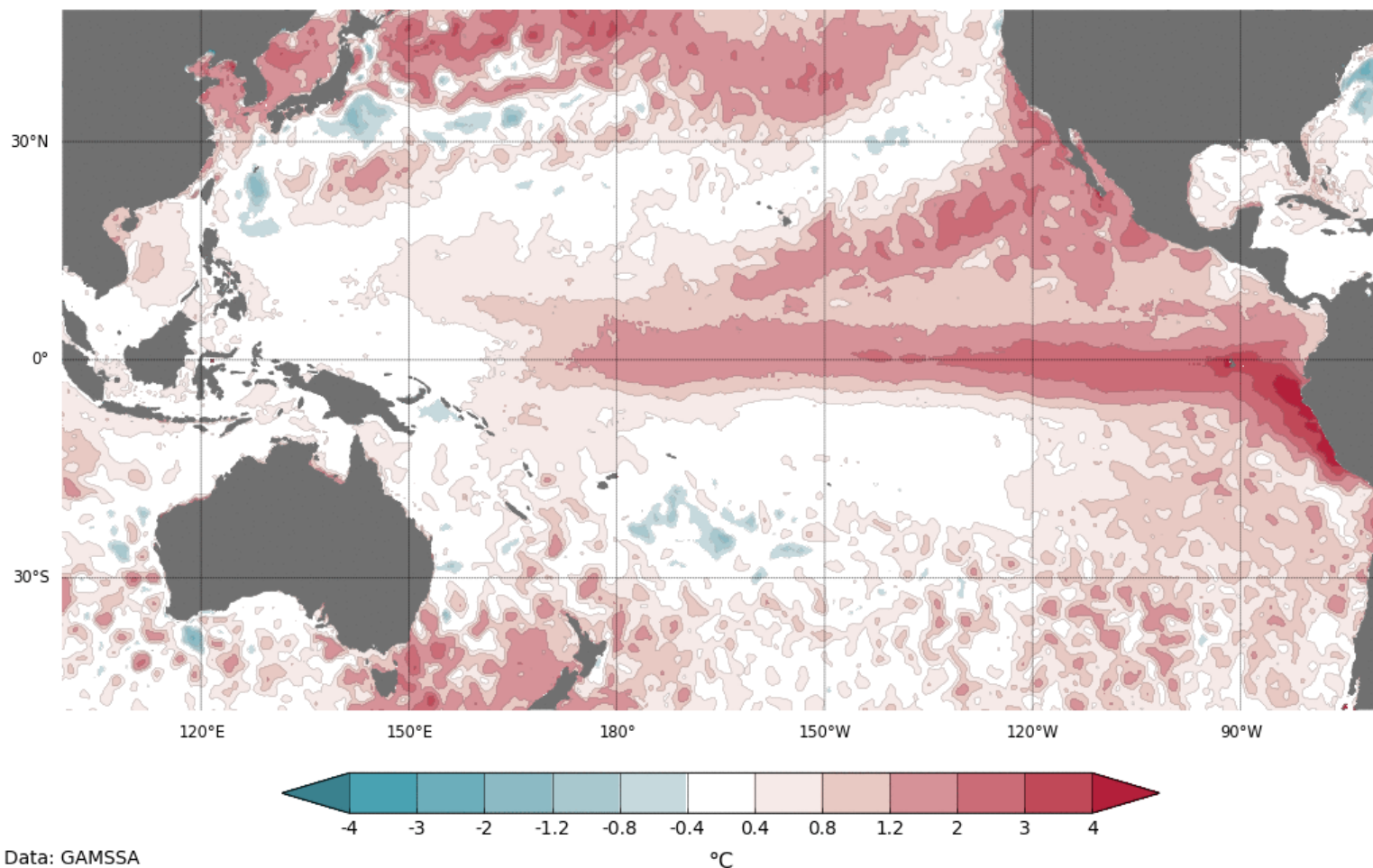
ENSO Update

- El Niño is underway. Sea surface temperatures (SSTs) in the central tropical Pacific are above El Niño thresholds, and atmospheric indicators are also consistent with an El Niño state. Ocean-atmosphere coupling (when the ocean and atmosphere act to reinforce the El Niño state) is evident.
- The latest relative Niño3.4 index value for the week ending 12 July 2026 is +1.47 °C, well above the El Niño threshold (+0.80 °C) and warming by around 0.2 °C over the past fortnight. All models, including the Bureau's, forecast the tropical Pacific to continue warming into the southern hemisphere spring. It is likely this El Niño will persist until at least summer.
- Atmospheric indicators, such as trade winds, pressure and cloud patterns are at levels consistent with El Niño. Trade winds are either reversed or weaker than average across the western tropical Pacific, increased cloudiness is present near the Date Line with decreased cloudiness over the Maritime Continent, and the Southern Oscillation Index (SOI) is strongly negative, with the latest 30-day SOI to 12 July at –25.8.
- Forecasts are pointing towards a strong to very strong El Niño event, based on the extent of warming in the central tropical Pacific. The majority of models indicate this event could peak at levels among the highest observed since 1950.
- A strong El Niño signal in the Niño3.4 region does not necessarily mean strong impacts on Australia's Pacific climate; ENSO is only one of many factors that can influence Australia's Pacific seasonal weather and climate.

OFFICIAL

June 2026 SSTs

Sea surface temperature anomaly: 01/06/2026 to 30/06/2026

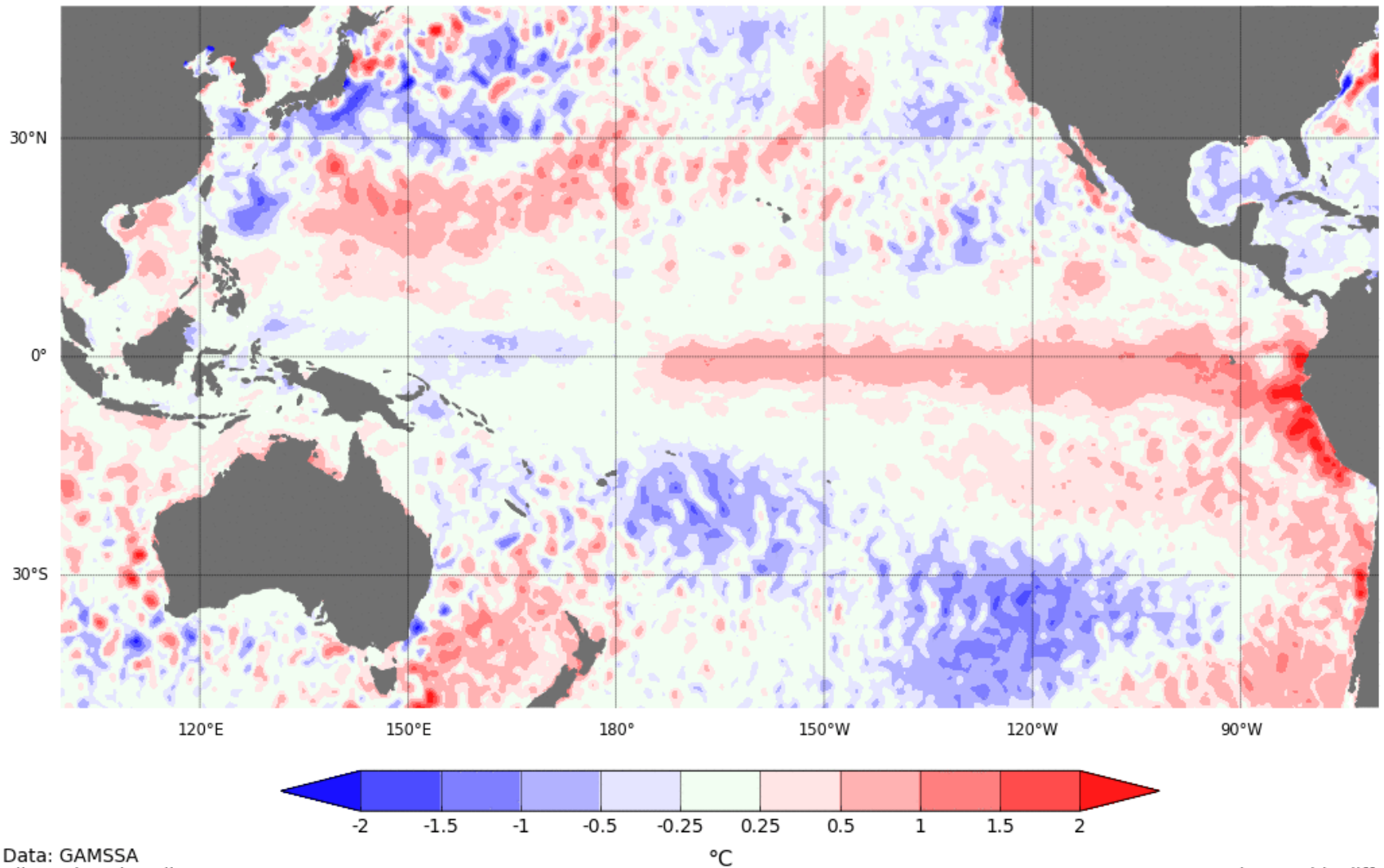


Data: GAMSSA
Climatology baseline: 1991 to 2020
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<http://www.bom.gov.au/climate>

Monthly average: June 2026
Created: 03/07/2026

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

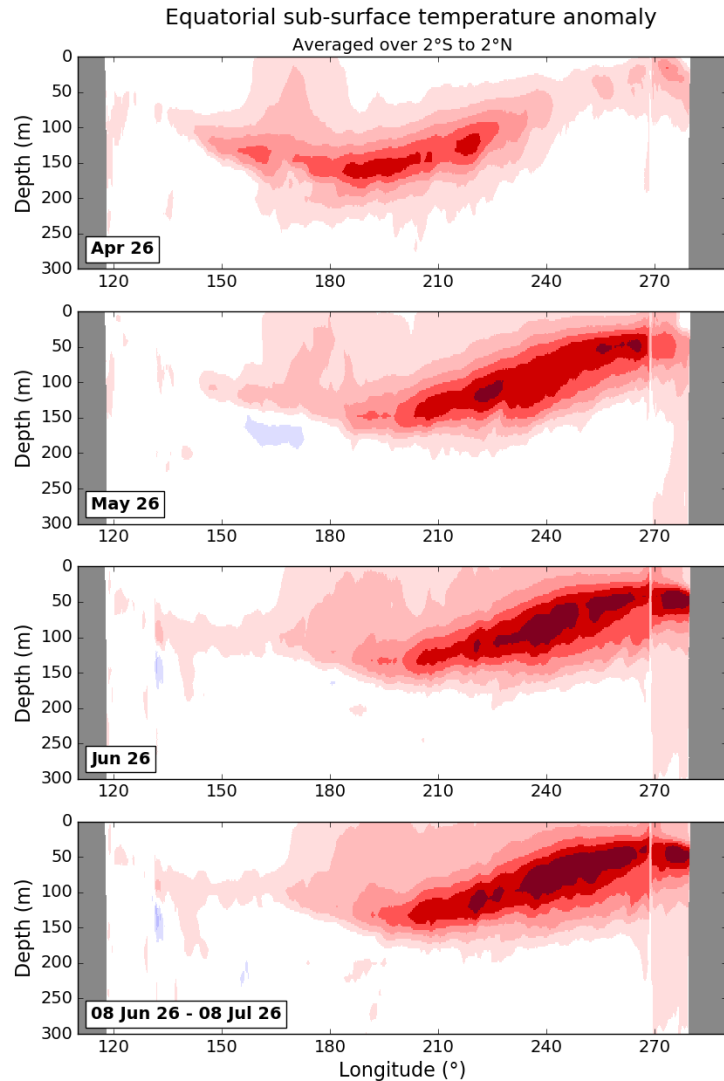


Data: GAMSSA
Climatology baseline: 1991 to 2020
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<http://www.bom.gov.au/climate>

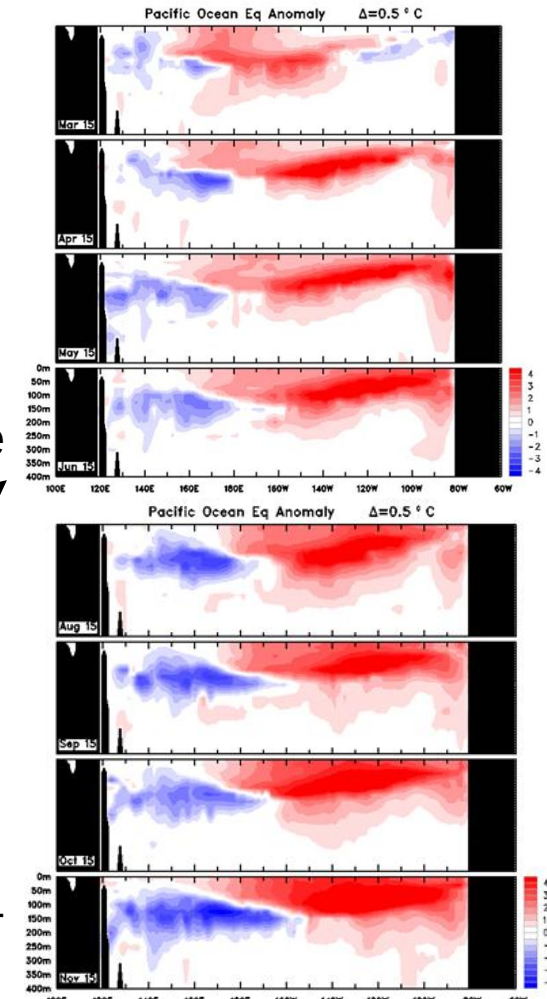
Anomaly monthly difference
Created: 03/07/2026

Equatorial Pacific Sub-surface Profile

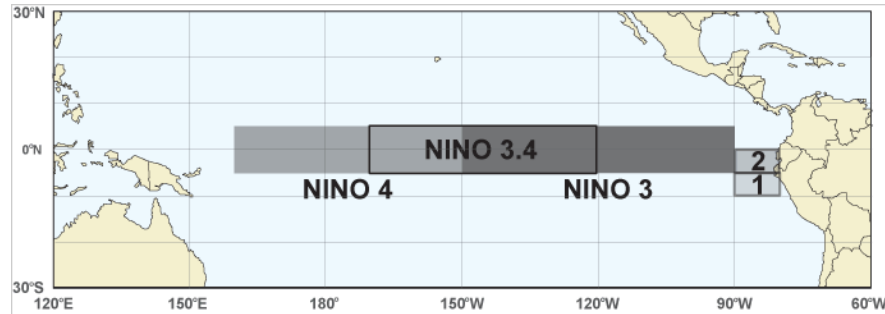


Note:
Different datasets,
colourbars and
climatologies

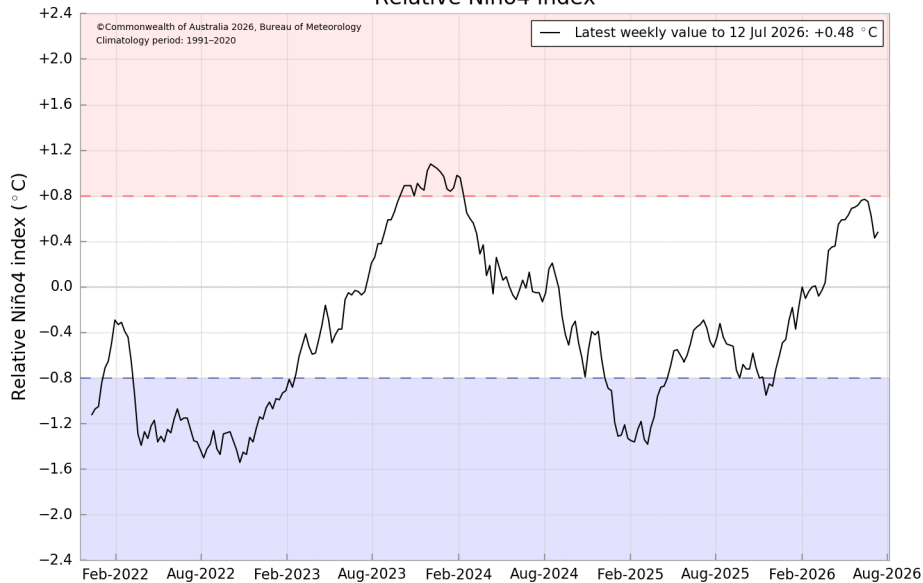
2015



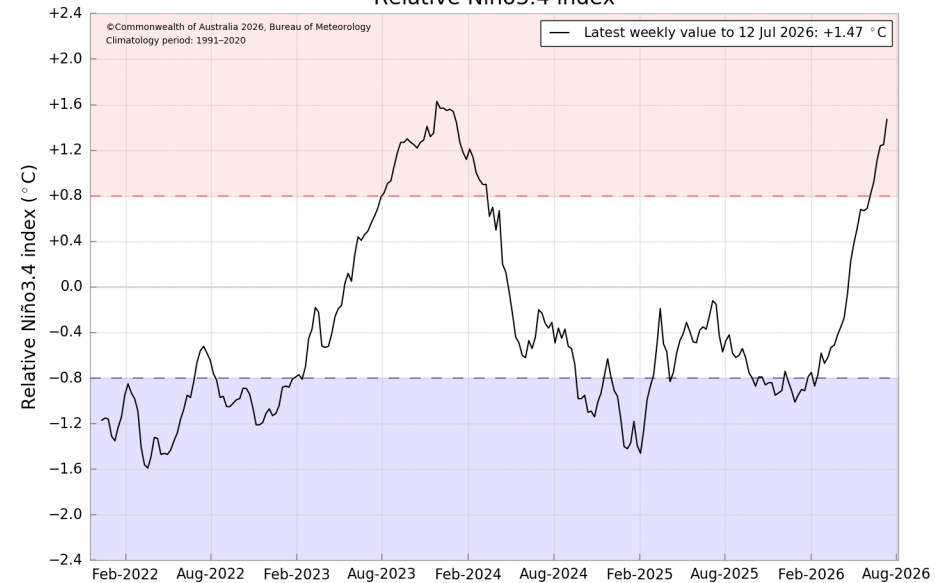
Observed Relative NINO Indices



Relative Niño4 index

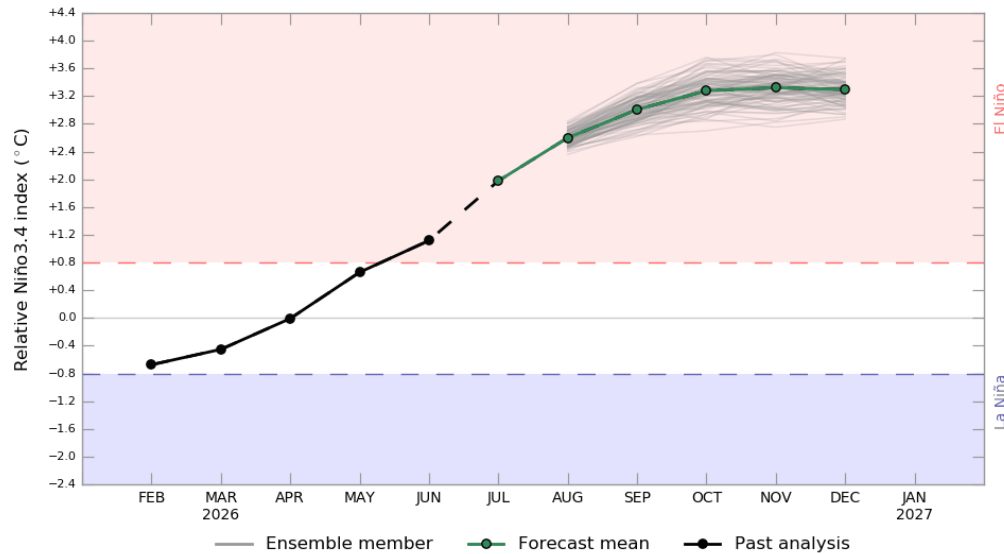


Relative Niño3.4 index



Relative ENSO Outlook

Relative Niño3.4 index



www.bom.gov.au/climate
Commonwealth of Australia 2026, Australian Bureau of Meteorology

Past analysis base period: 1991-2020
Forecast base period: 1981-2018
Model: ACCESS-S2
Model run: 11 Jul 2026



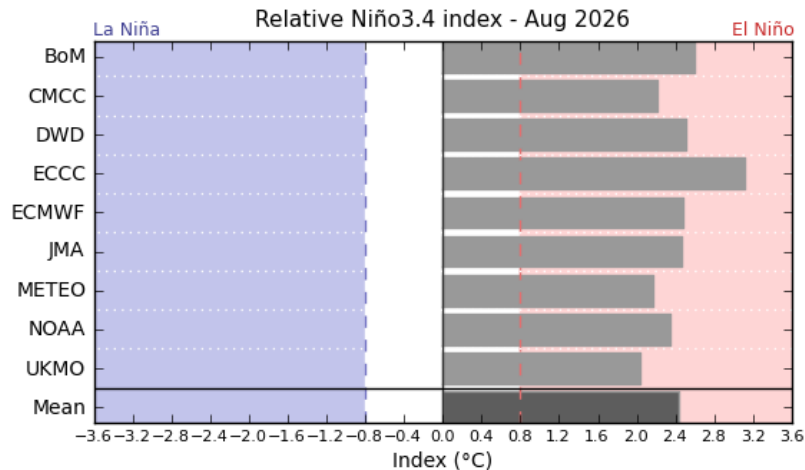
El Niño is underway in the tropical Pacific. El Niño levels are predicted to remain and strengthen over coming months.



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



El Niño is associated with **increased rainfall** across the Eastern and Central Pacific.

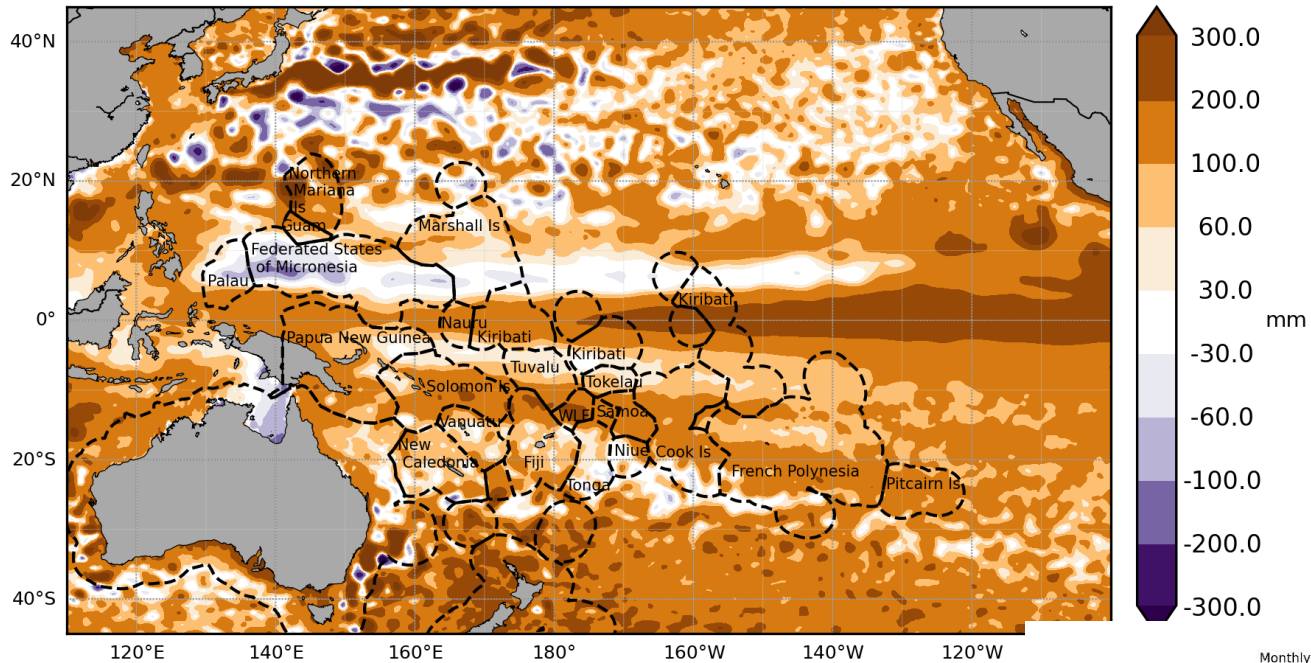


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The Bureau of Meteorology

June 2026 observed Sea Level Anomaly

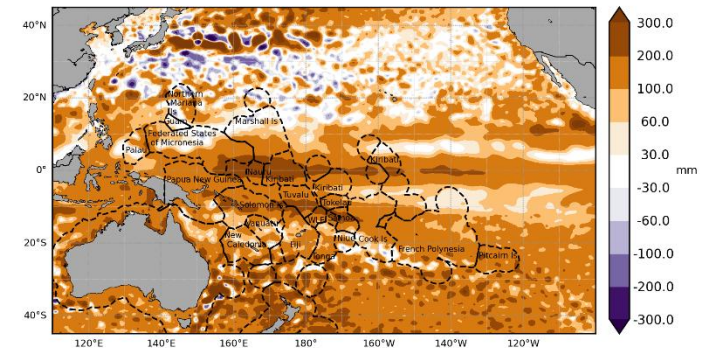
Pacific Islands
Monthly Sea Level Anomaly: June 2026



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E.U. Copernicus Marine
<https://doi.org/10.48670/mos-00149>

Pacific Islands
Monthly Sea Level Anomaly: April 2026



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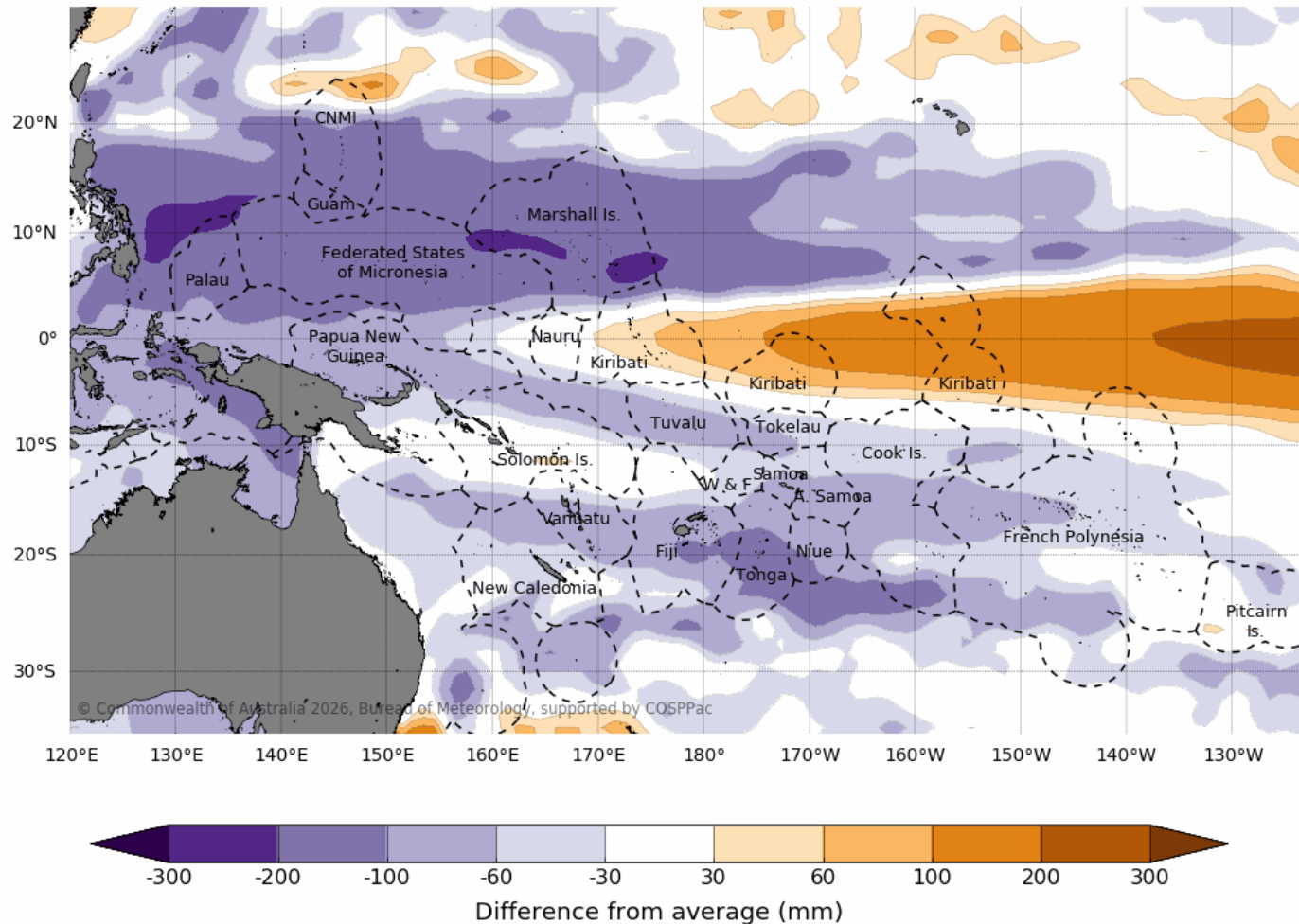
E.U. Copernicus Marine Service Information;
<https://doi.org/10.48670/mos-00149>

Seasonal Outlook: Sea Surface Height Anomaly

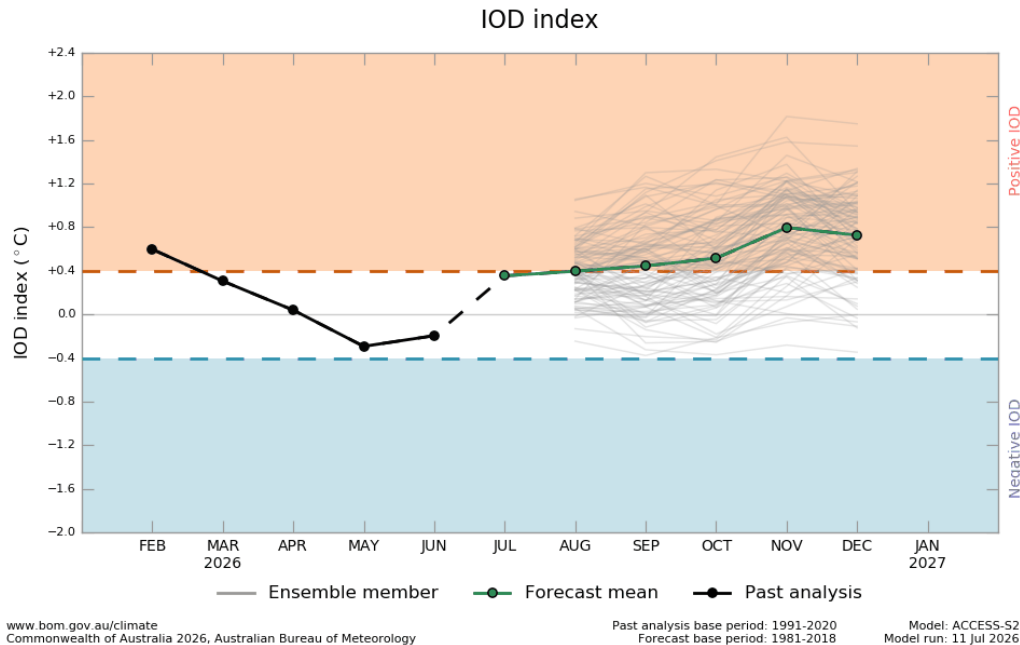
Difference from average sea surface height forecast for
August to October 2026

Base period: 1981-2018
Model: ACCESS-S2

Model run: 06/07/2026
Issued: 08/07/2026



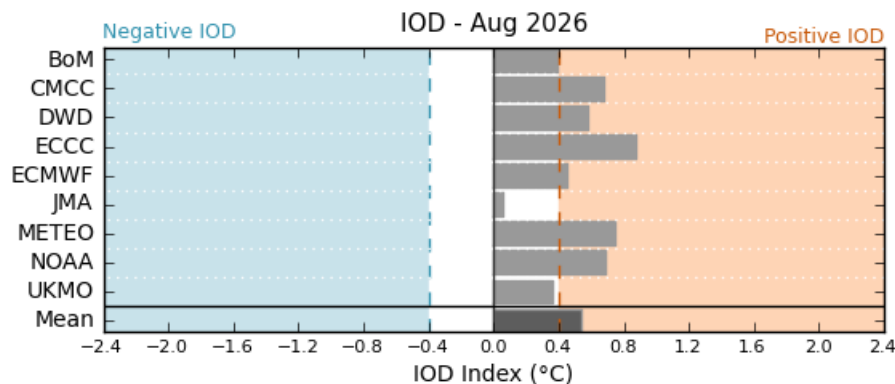
Indian Ocean Dipole (IOD)



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



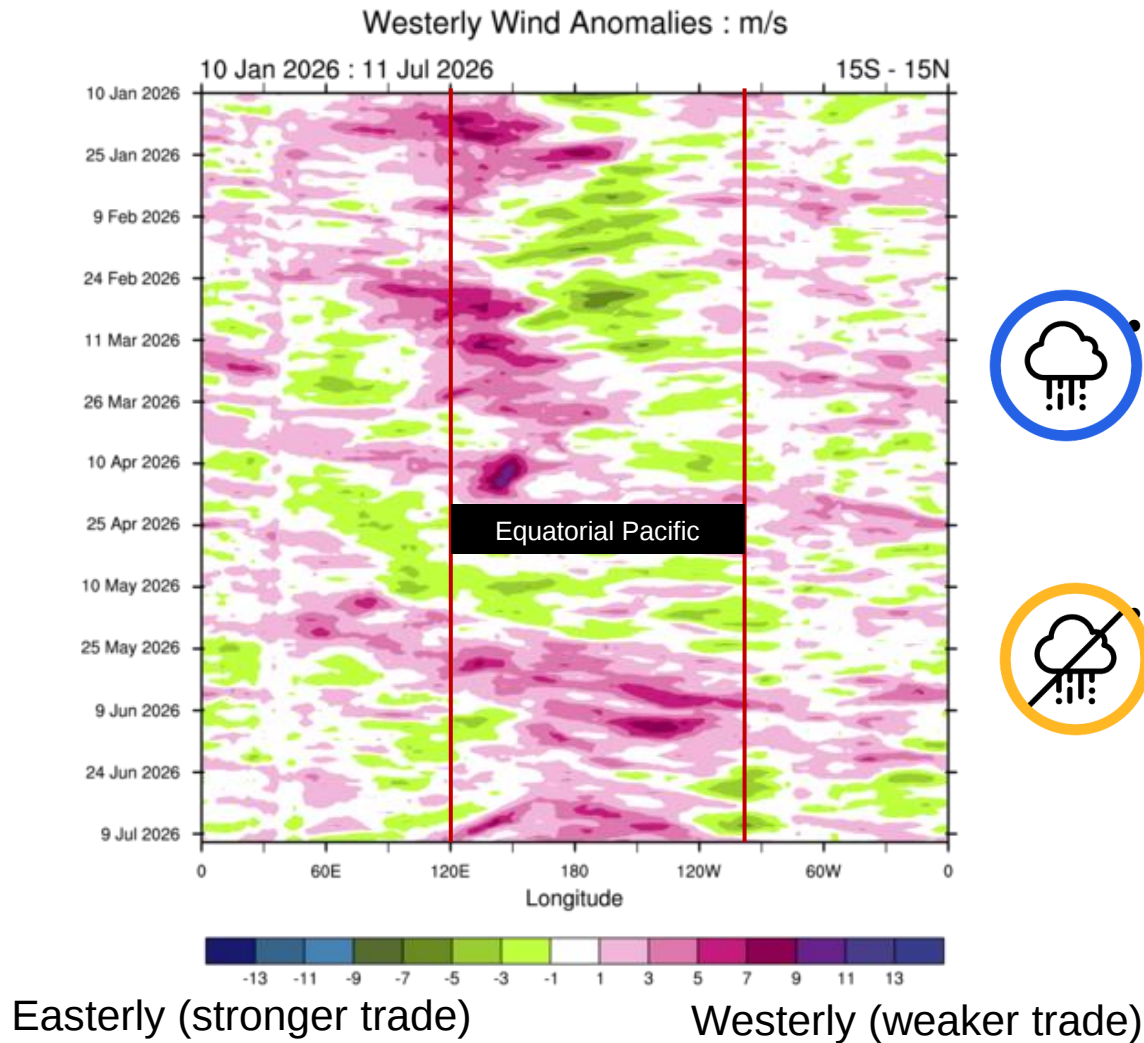
IOD positive is associated with **decreased rainfall** across the far western Pacific.



Atmosphere Outlook



Wind Anomalies



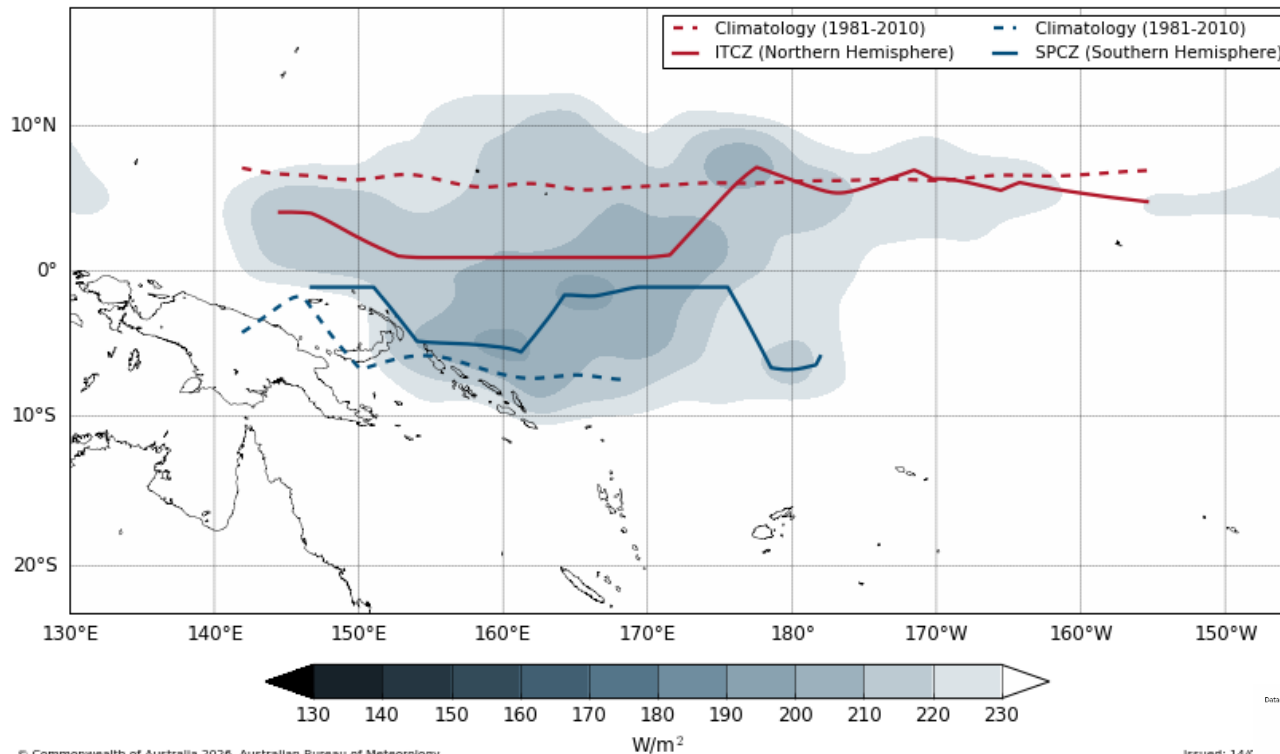
Weaker trade winds (pink) allow for the development of more clouds and potential for rain.



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

ITCZ and SPCZ

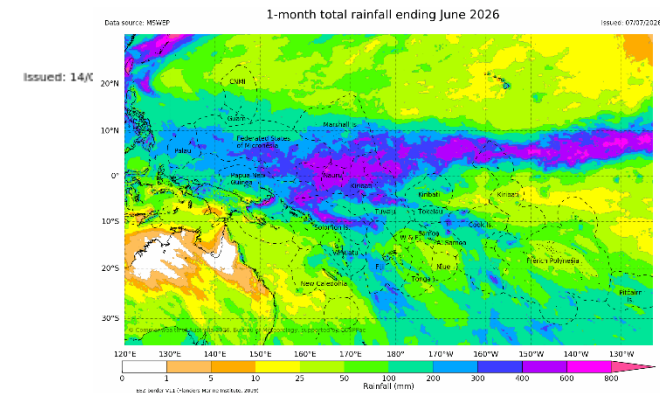
30 Day Average Outgoing Longwave Radiation (OLR) minimum to 2026-07-11



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More clouds

Less clouds



Madden – Julian Oscillation



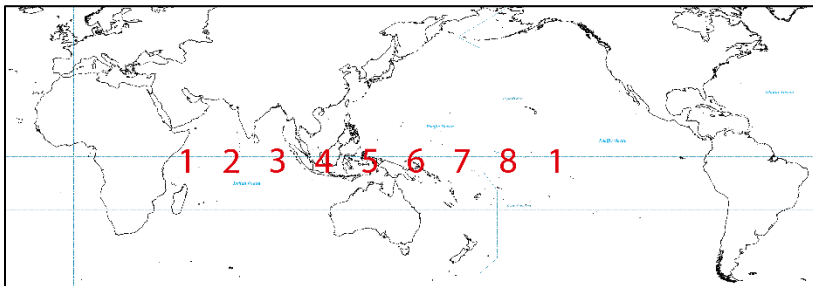
The **MJO** is weak in **Phase 2** Indian Ocean. Preliminary forecast has return to **Phase 6** Western Pacific late March.



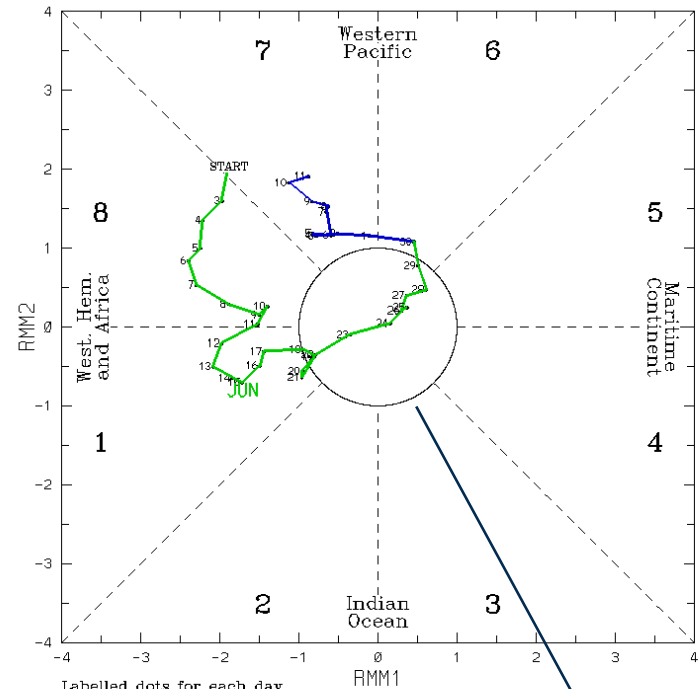
Phases **6, 7 and 8** are typically associated with **increased rainfall** across the Pacific.



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



(RMM1,RMM2) phase space for 2-Jun-2026 to 11-Jul-2026

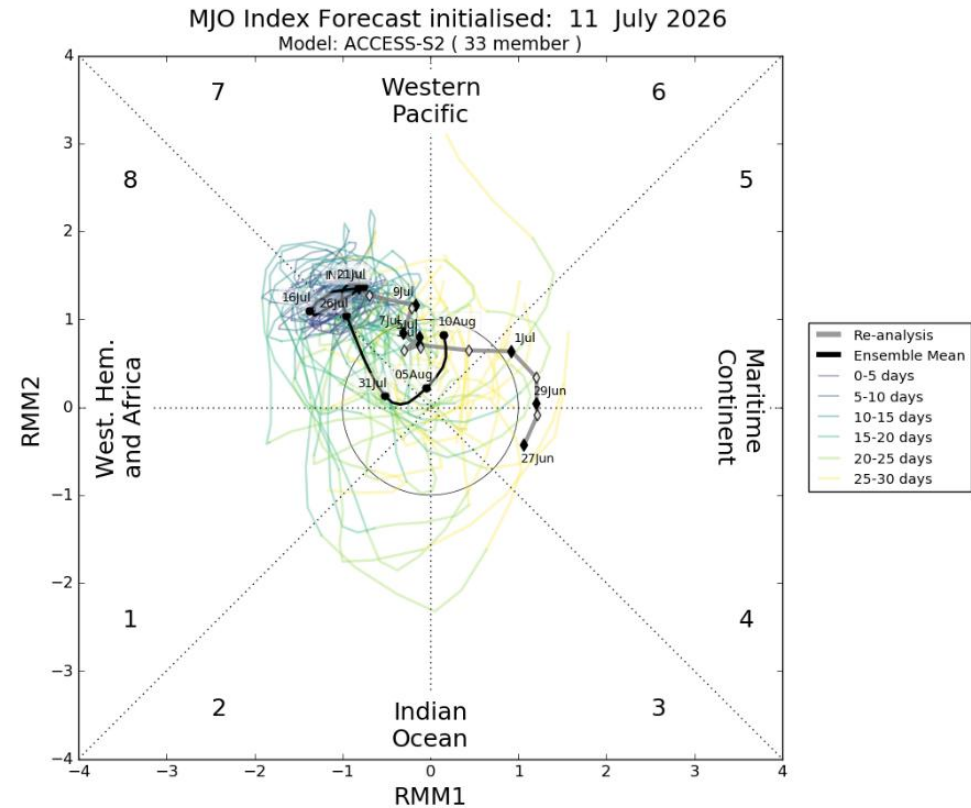
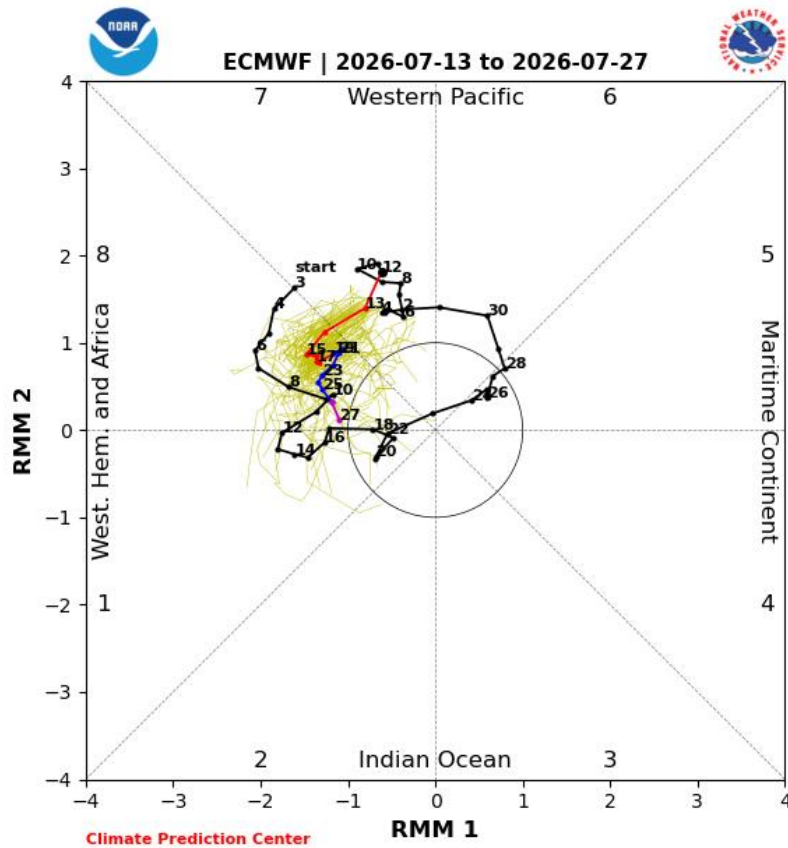


Labelled dots for each day.
Blue line is for Jul, green line is for Jun, red line is for May.

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

Madden – Julian Oscillation



Observed Rainfall – June 2026

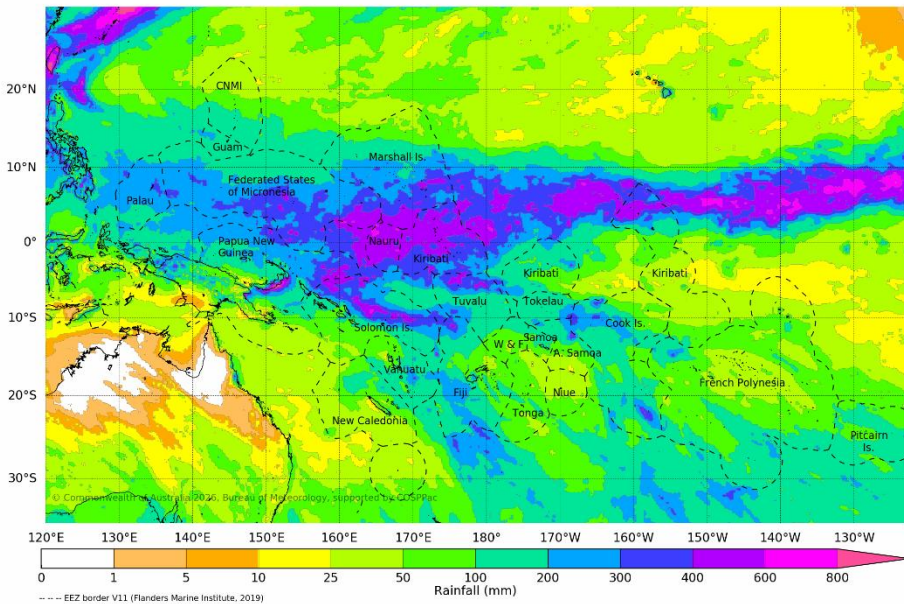
Observed

Percentile

1-month total rainfall ending June 2026

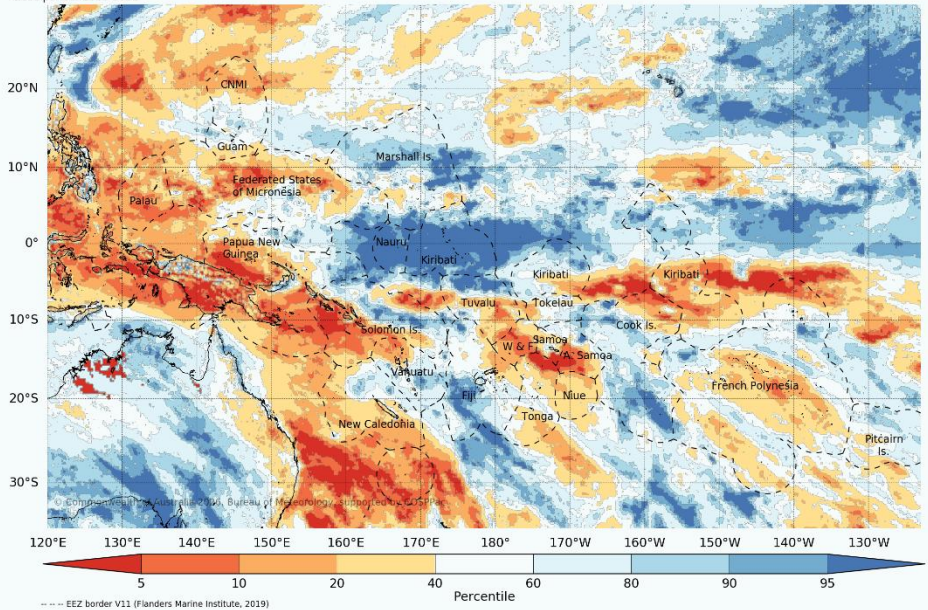
Issued: 07/07/2026

Data source: MSWEP



1-month Percentile to end of June 2026

Issued: 07/07/2026

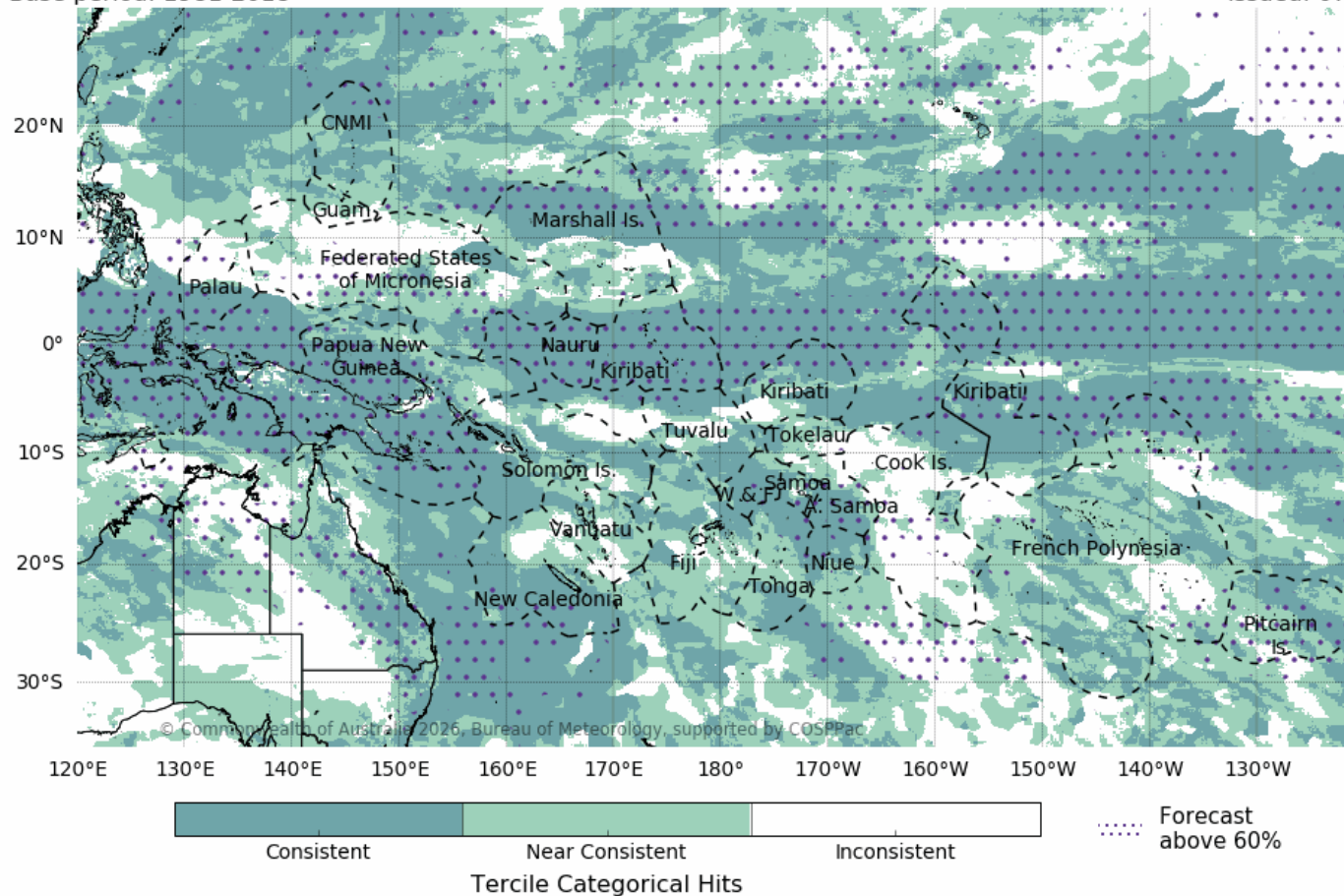
Data source: MSWEP
Base period: 1981-2021

Forecast Verification – June 2026

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

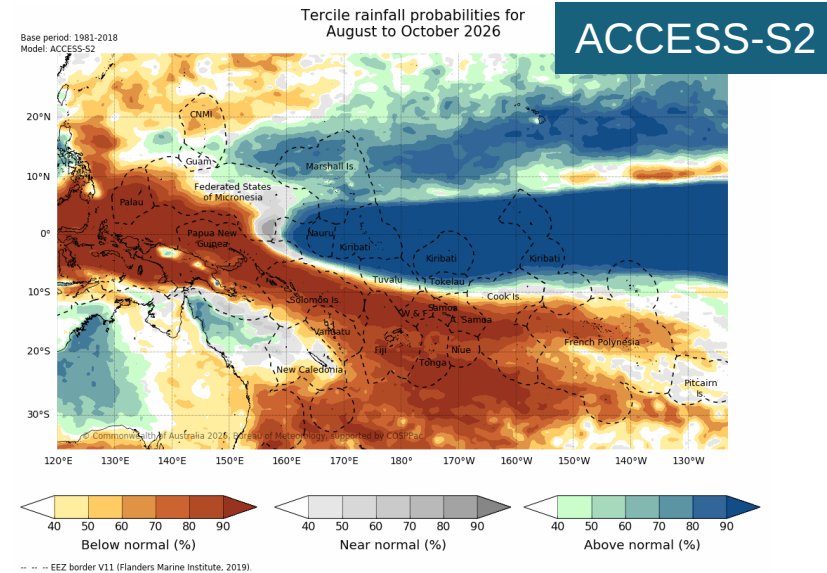
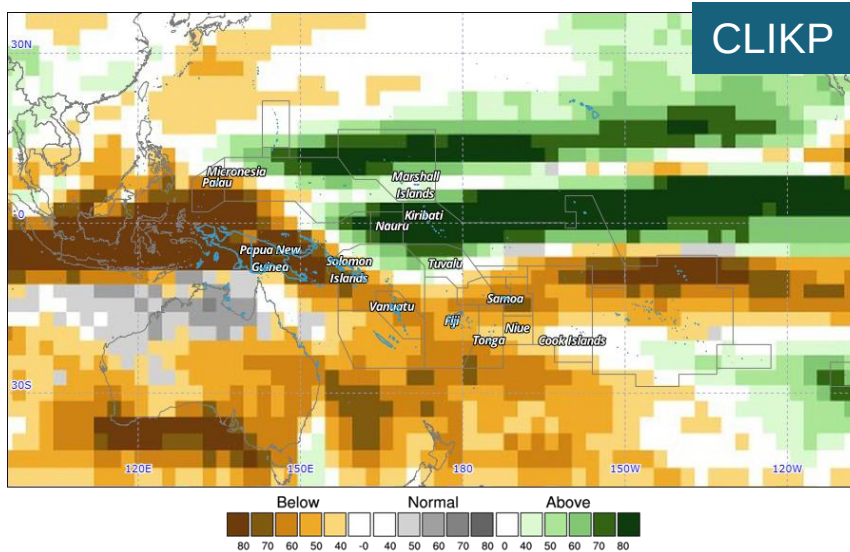
Data source: ACCESS-S2
Observations: MSWEP
Base period: 1981-2018

Model Run: 01/06/2026
Issued: 07/07/2026

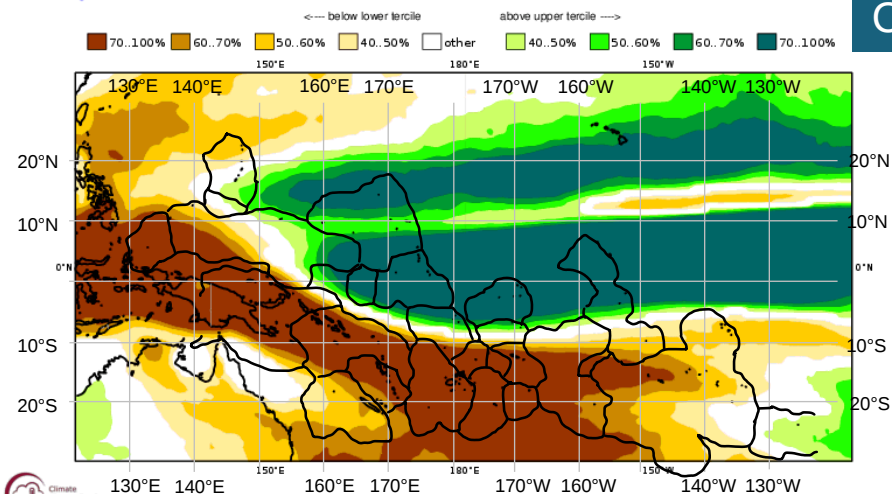


-- -- EEZ border V11 (Flanders Marine Institute (2019))

Model Rainfall Predictions Aug-Oct 2026 (Clikp – JAS)

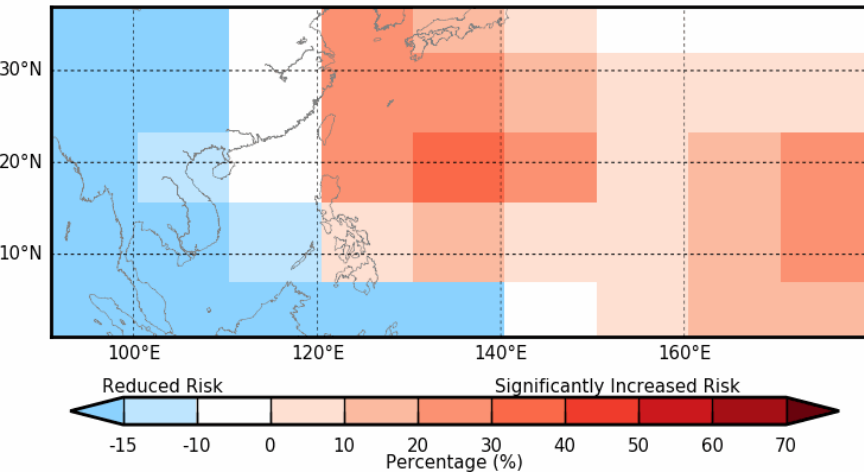


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C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOM
Prob(most likely category of precipitation)
Nominal forecast start: 01/07/26
Unweighted mean



TC Outlooks

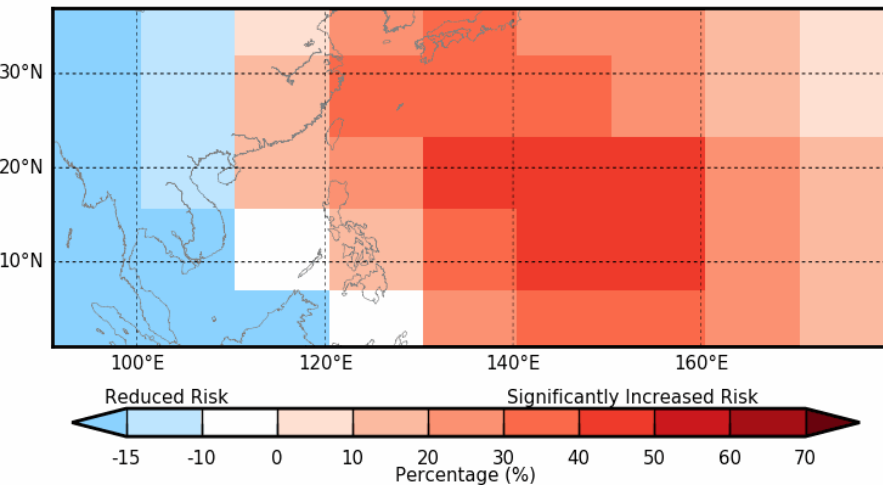
Difference from normal chance of Tropical Cyclone's in the Northern Pacific
Forecast period: 19/07/2026 - 25/07/2026



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

Model: ACCESS_S2 Model Run: 11/07/2026 Issued: 13/07/2026

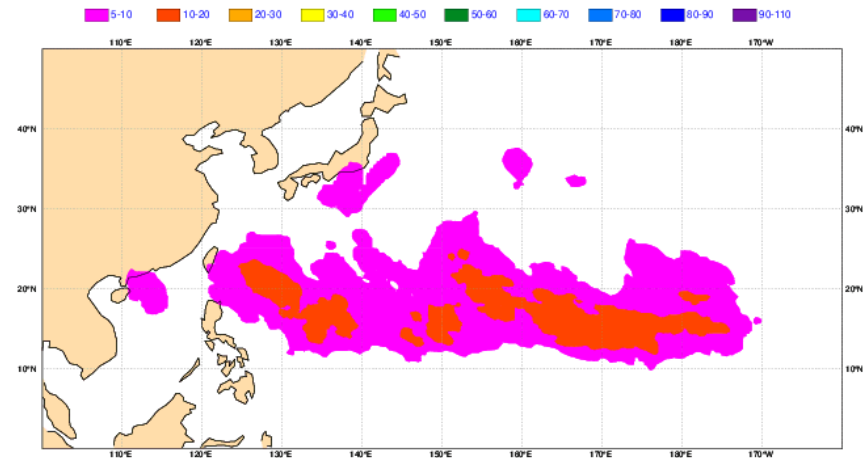
Difference from normal chance of Tropical Cyclone's in the Northern Pacific
Forecast period: 26/07/2026 - 01/08/2026



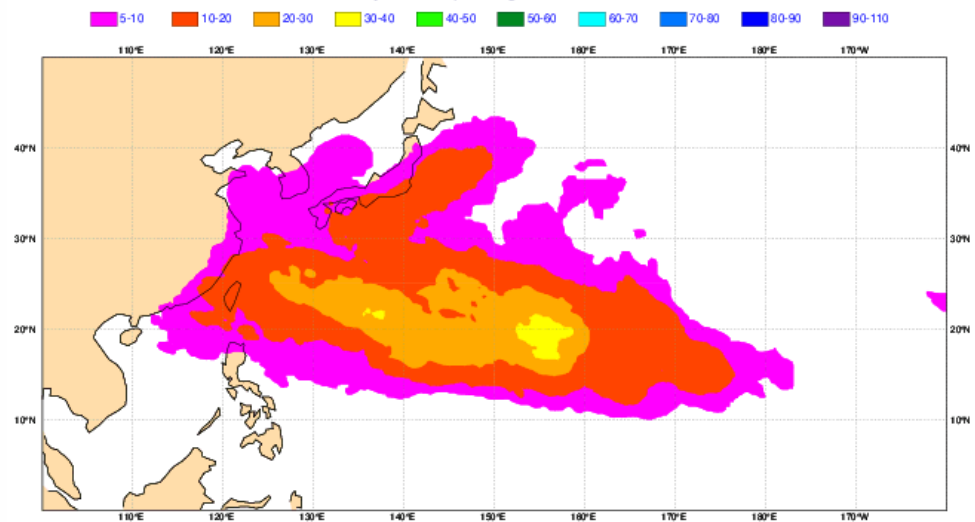
Calibrated Model anomaly probability in overlapping 15 x 20 degree boxes
© Commonwealth of Australia 2026, Australian Bureau of Meteorology

Model: ACCESS_S2 Model Run: 11/07/2026 Issued: 13/07/2026

Weekly mean Tropical Storm Strike Probability. Date: 20260713 0 UTC t+(168-336)
Probability of a TS passing within 300km radius



Weekly mean Tropical Storm Strike Probability. Date: 20260713 0 UTC t+(336-504)
Probability of a TS passing within 300km radius

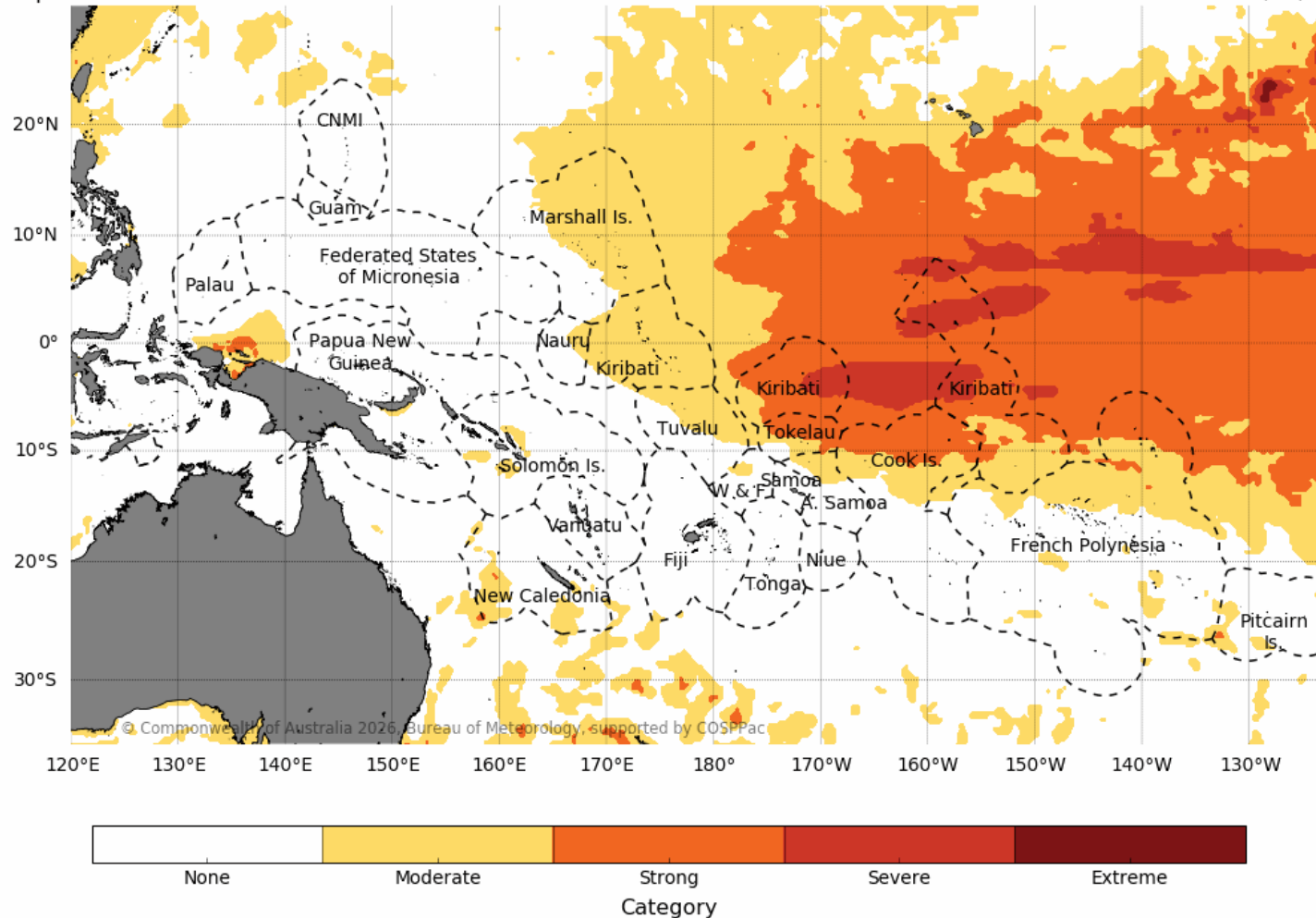


Marine Heatwaves

Marine heatwave category forecast for
August 2026

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

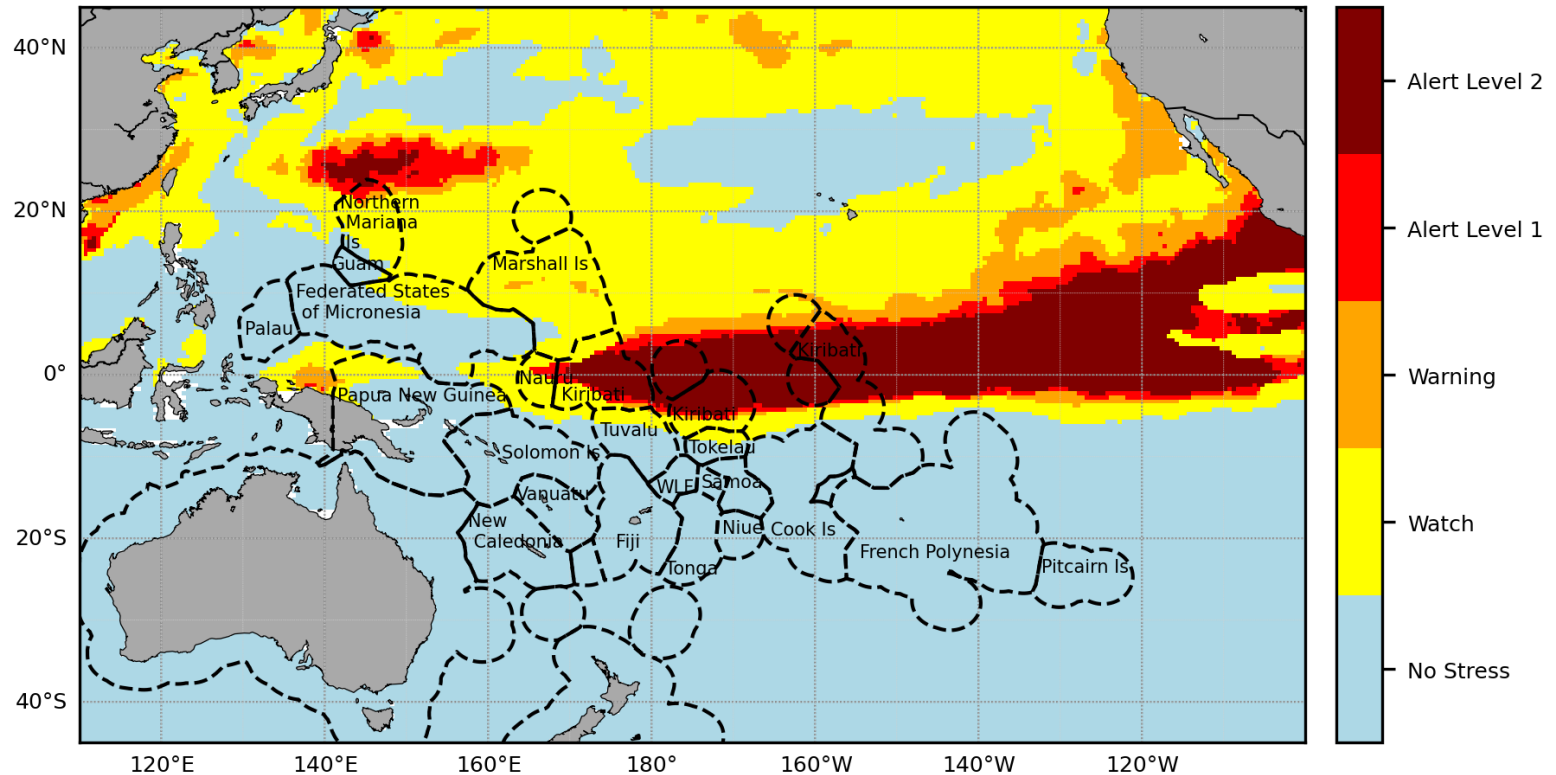
Model Run: 11/07/2026
Issued: 13/07/2026



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

Coral Bleaching

Pacific Islands
4 Week Coral Bleaching Outlook: 27 July 2026



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NOAA

Thank you

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