

FOURTH PACIFIC MINISTERIAL MEETING ON METEOROLOGY

PMMM-4

Nuku'alofa, Tonga • 15, 16 September 2026

Agenda Item 6.1: State of El Niño in the Pacific

Presenter: Salesa Nihmei (SPREP)

Weather Ready for a Secured and Sustainable Pacific



PACIFIC
METEOROLOGICAL
COUNCIL



SPREP
Secretariat of the Pacific Regional
Environment Programme



WORLD
METEOROLOGICAL
ORGANIZATION

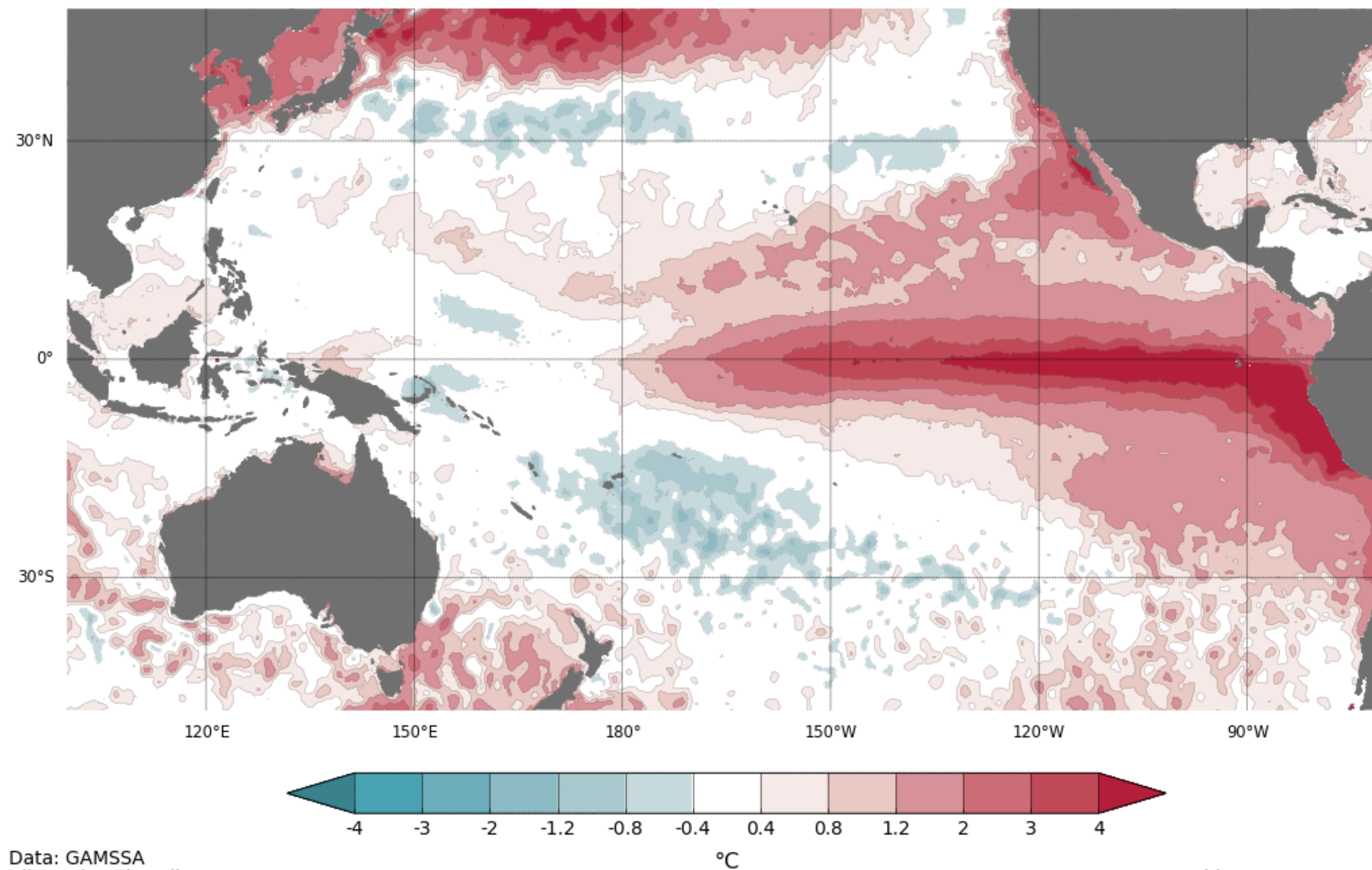
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Purpose of the Paper

1. Report on the status of the 2026 strong El Niño and potential impacts in the western Pacific.
2. Regional Climate Center Network: **SPREP** (RCC Coordinator), **BOM** (Chair), ESNZ, SPC, APCC, Meteo-France and CSIRO

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Sea surface temperature anomaly: 01/08/2026 to 31/08/2026



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

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

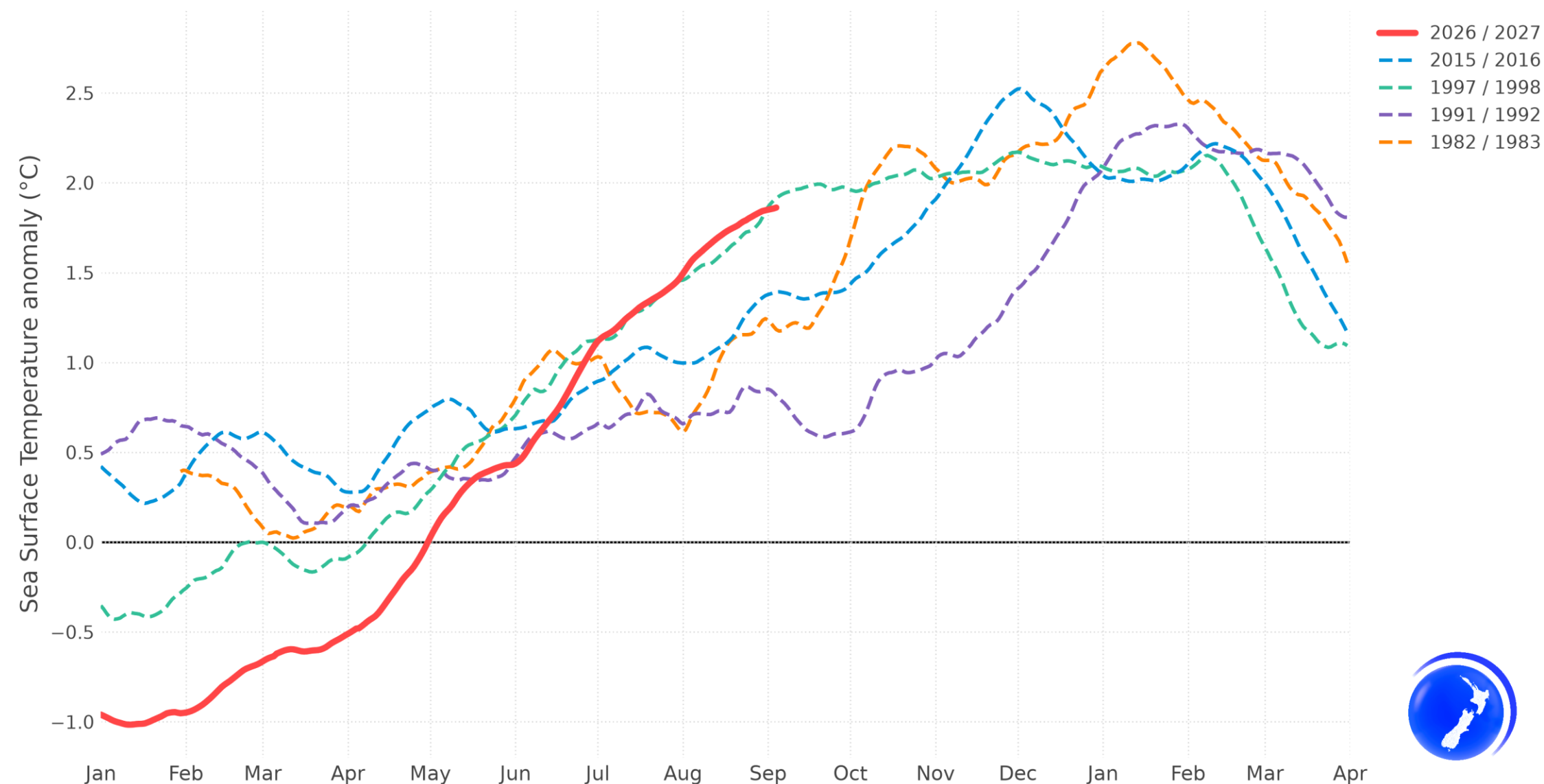
Monthly average: August 2026
Created: 03/09/2026

- Pacific RCC Network members declared El Niño developed in the tropical Pacific in June 2026
- Ocean and atmosphere indicators show a strong El Niño exists at the present time

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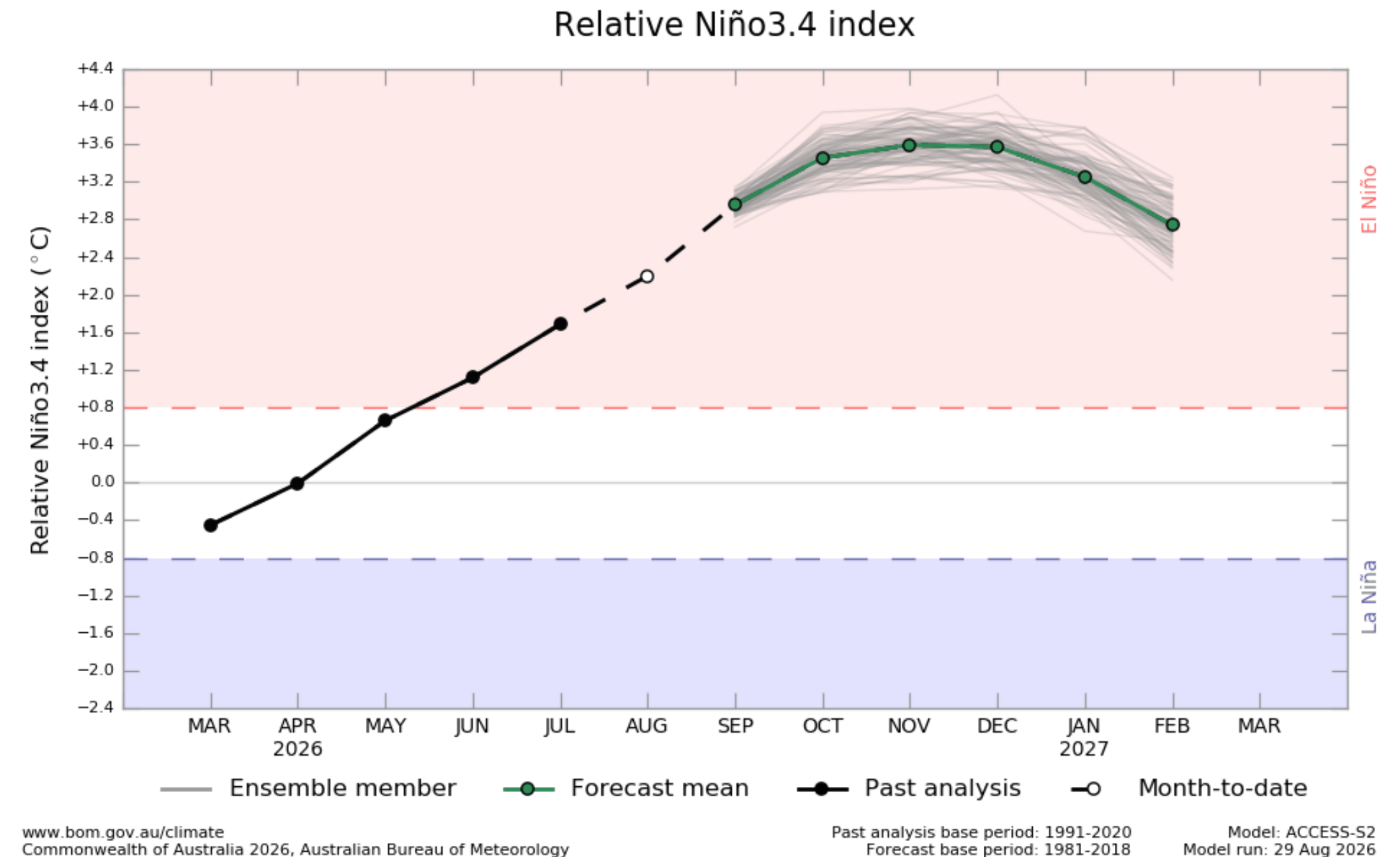
El Niño strength tracker

Sea surface temperature anomalies in the central equatorial Pacific for the 30 days period to 04 September 2026, relative to the tropical average



Source: Earth Sciences New Zealand | Relative Oceanic Nino 3.4 Index, using daily OISST v2.1 data to 04 September 2026

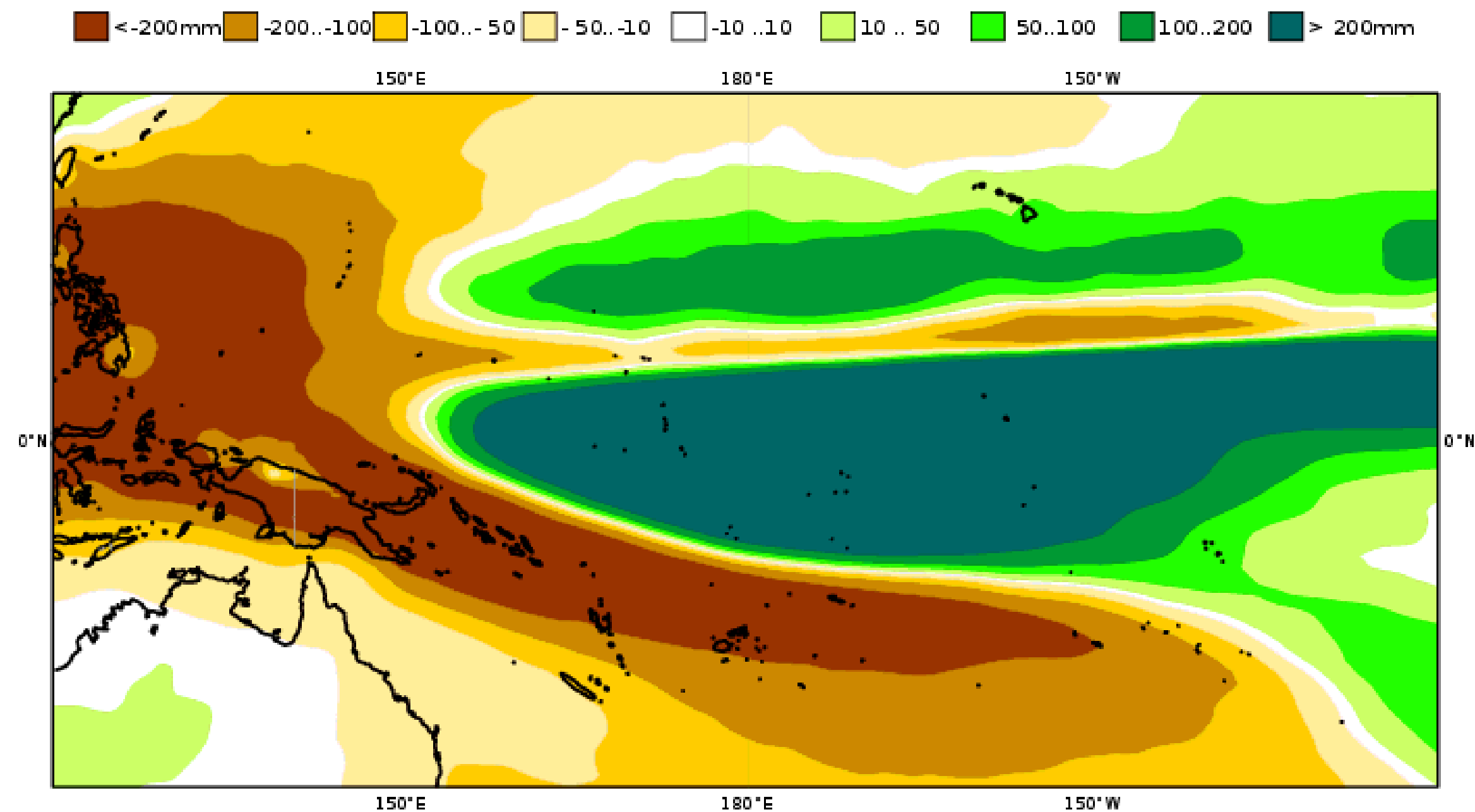
- El Niño is already one of the strongest in the last half century (see red line in left graph)
- Australian ACCESS-S and other models show El Niño continuing to strengthen in the coming months (below graph).
- Likely to peak in late 2026 or early 2027 and persist into March to May 2027



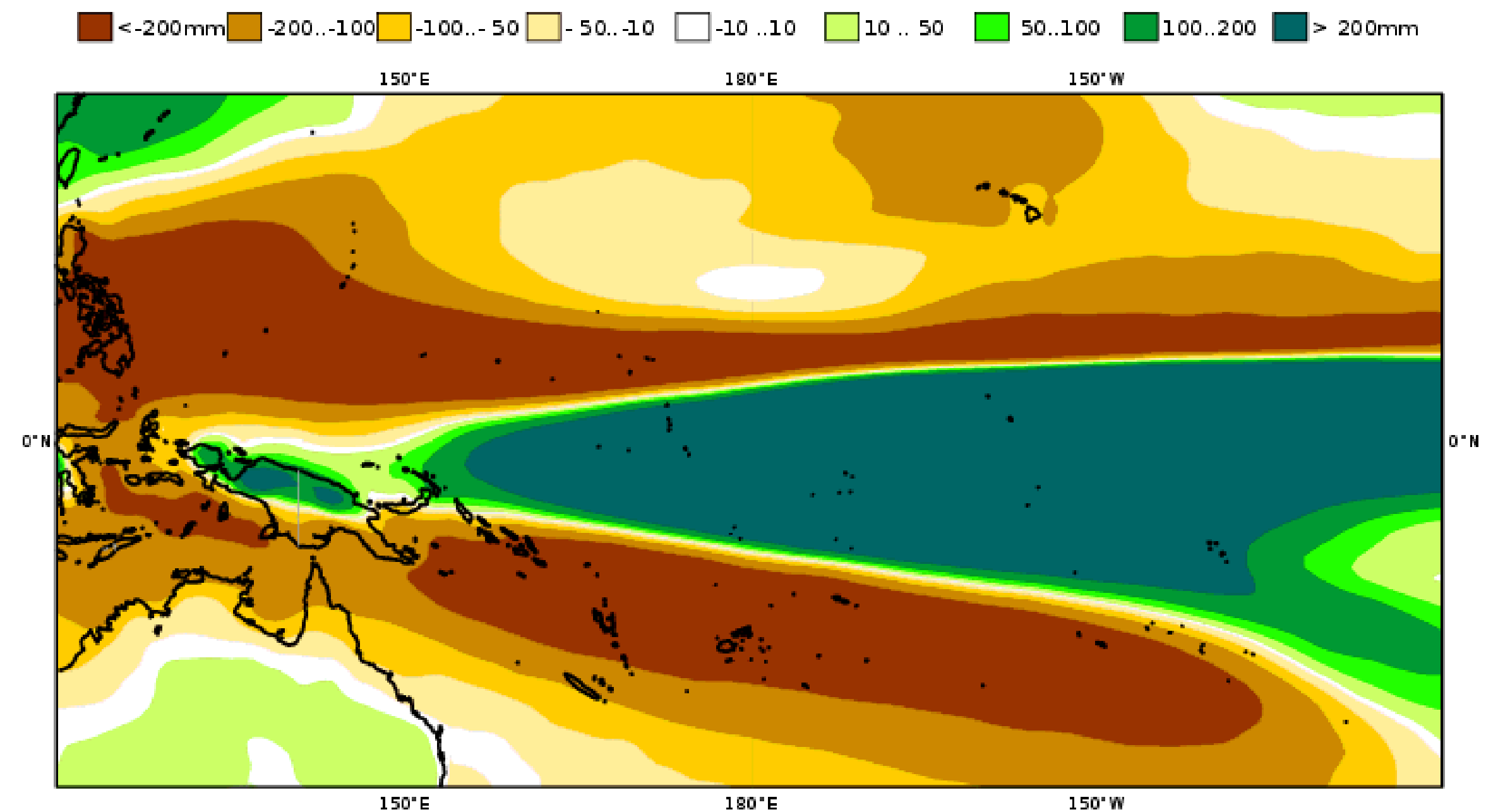
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Rainfall outlooks for Sept-Nov 2026 and Nov 2026-Jan 2027

C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOM
Mean precipitation anomaly SON 2026
Nominal forecast start: 01/08/26
Variance-standardized mean



C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOM
Mean precipitation anomaly NDJ 2026/27
Nominal forecast start: 01/08/26
Variance-standardized mean



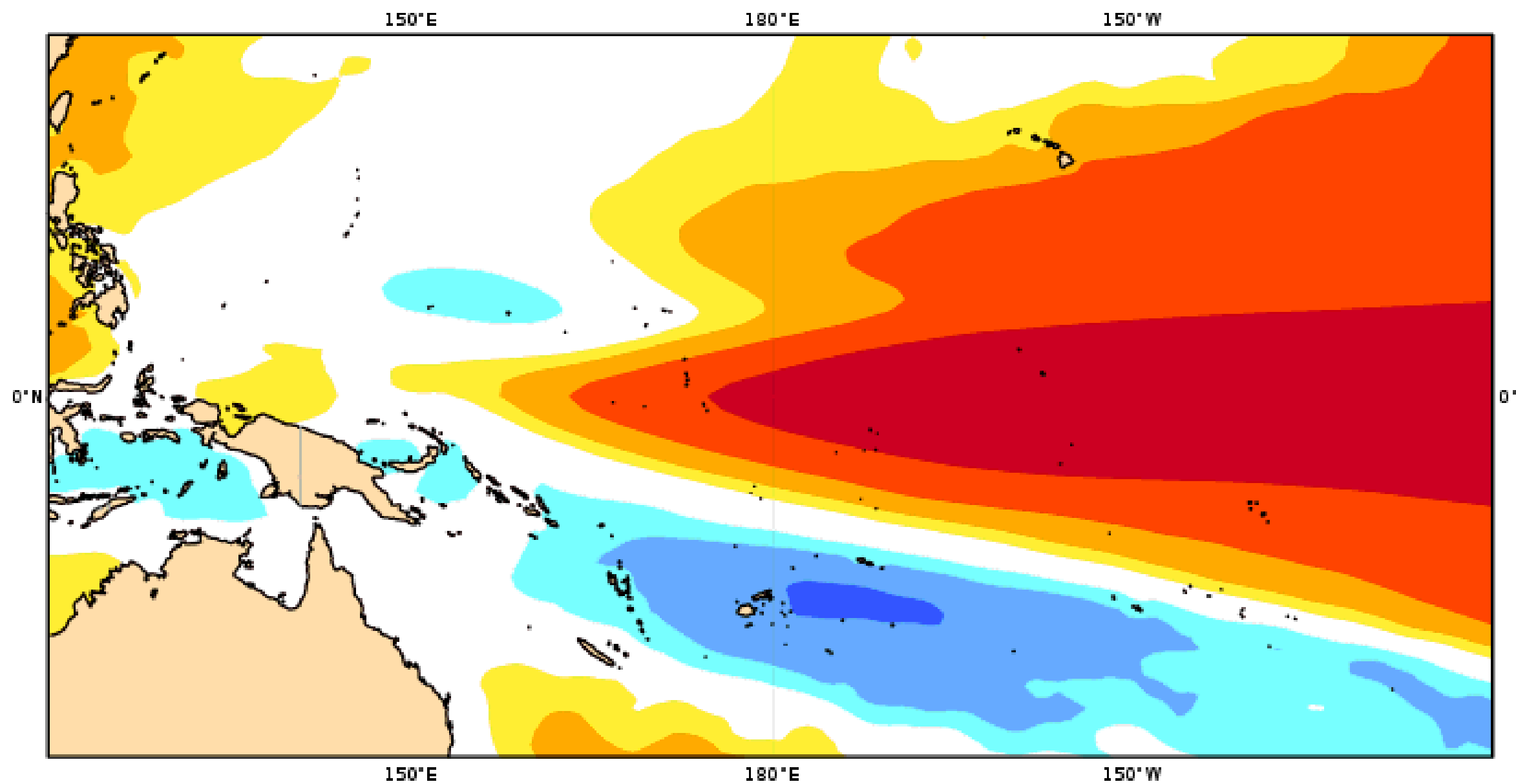
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Ocean surface temperature outlooks for Sept-Nov 2026 and Nov 2026-Jan 2027

C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOI
Mean forecast SST anomaly SON 202

Nominal forecast start: 01/08/26
Variance-standardized mean

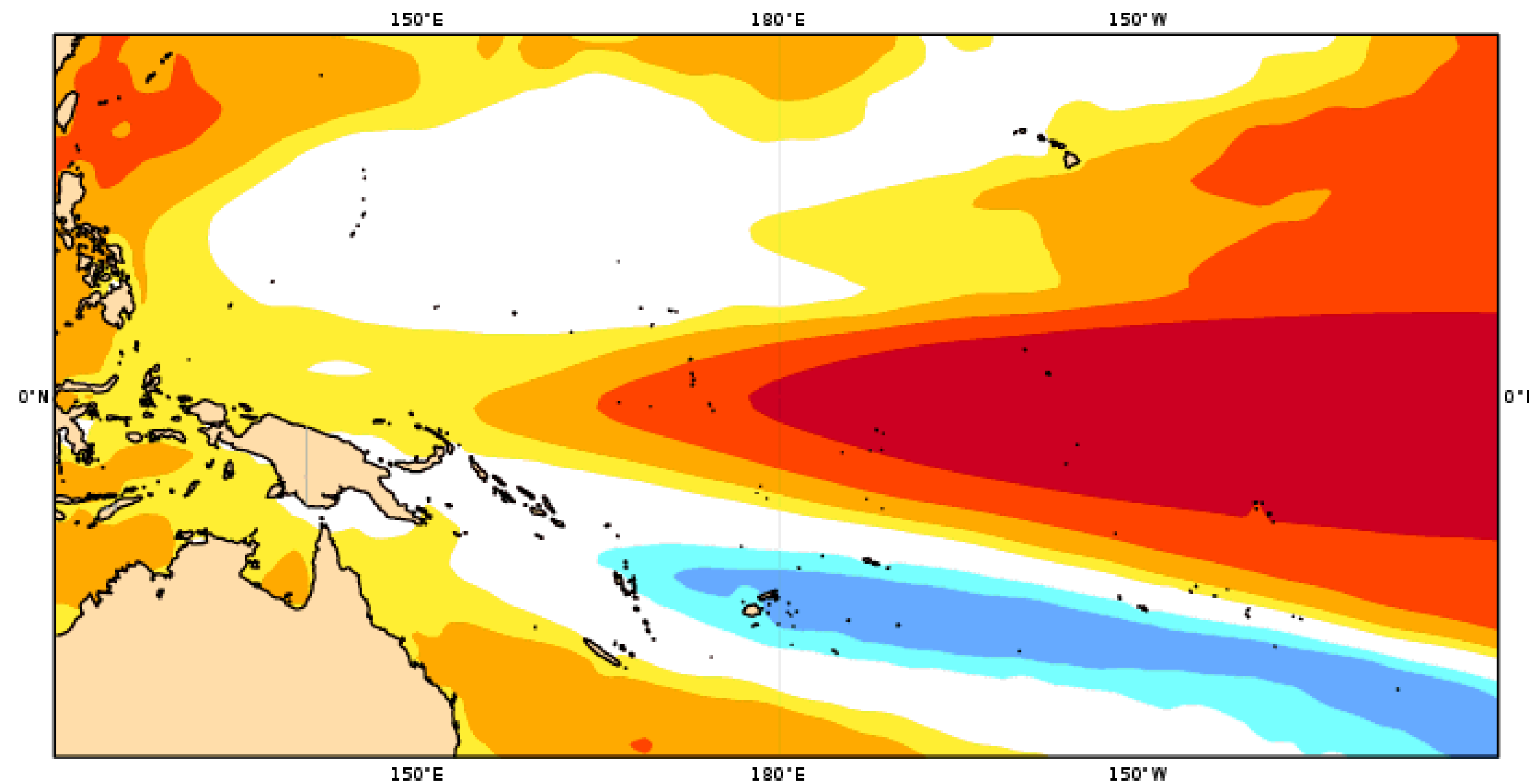
■ <-2.0°C ■ -2.0...-1.0 ■ -1.0...-0.5 ■ -0.5...-0.2 ■ -0.2...0.2 ■ 0.2...0.5 ■ 0.5...1.0 ■ 1.0...2.0 ■ > 2.0°C



C3S multi-system seasonal forecast ECMWF/Met Office/Météo-France/CMCC/DWD/NCEP/JMA/ECCC/BOM
Mean forecast SST anomaly NDJ 2026/27

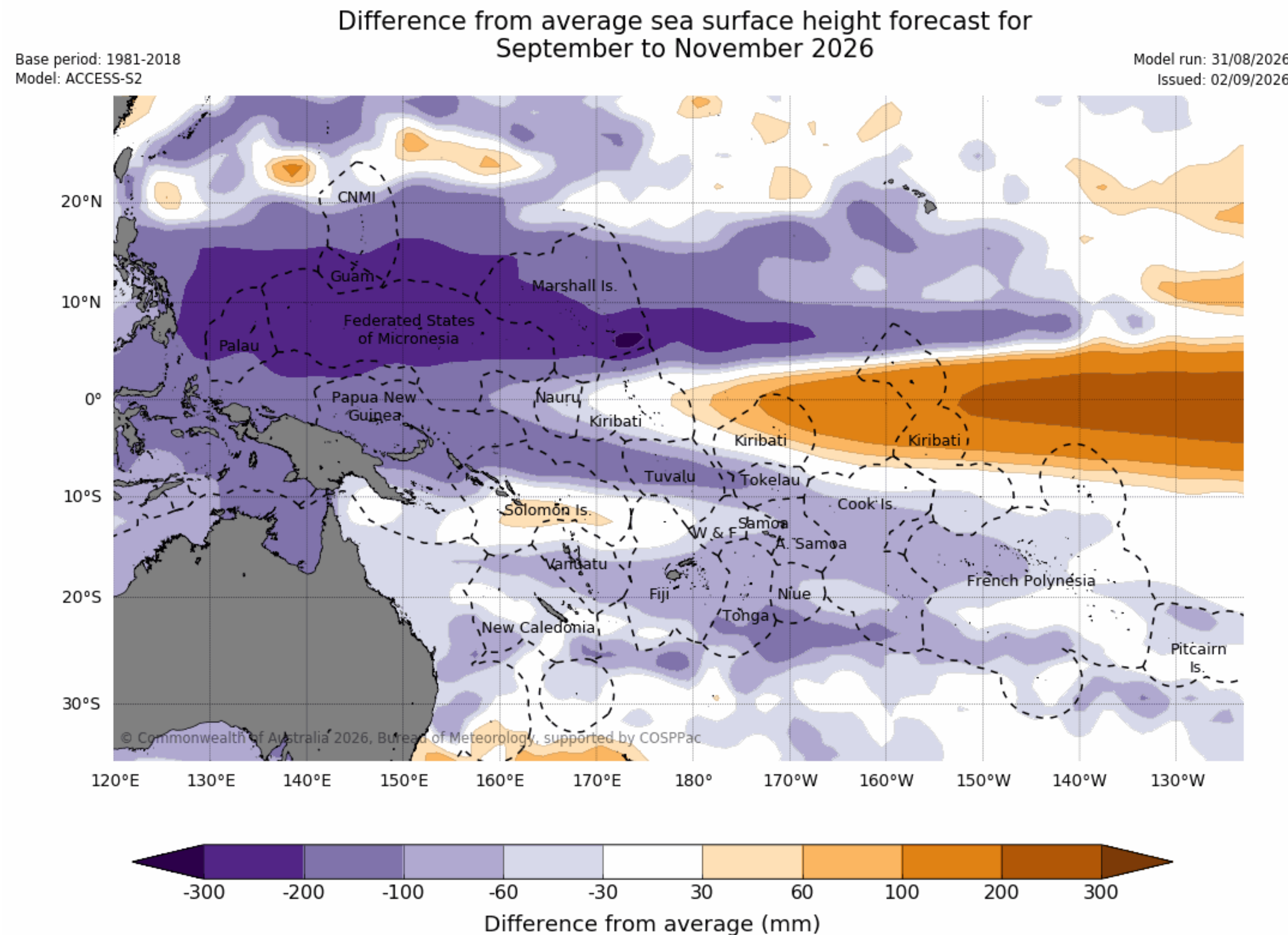
Nominal forecast start: 01/08/26
Variance-standardized mean

■ <-2.0°C ■ -2.0...-1.0 ■ -1.0...-0.5 ■ -0.5...-0.2 ■ -0.2...0.2 ■ 0.2...0.5 ■ 0.5...1.0 ■ 1.0...2.0 ■ > 2.0°C



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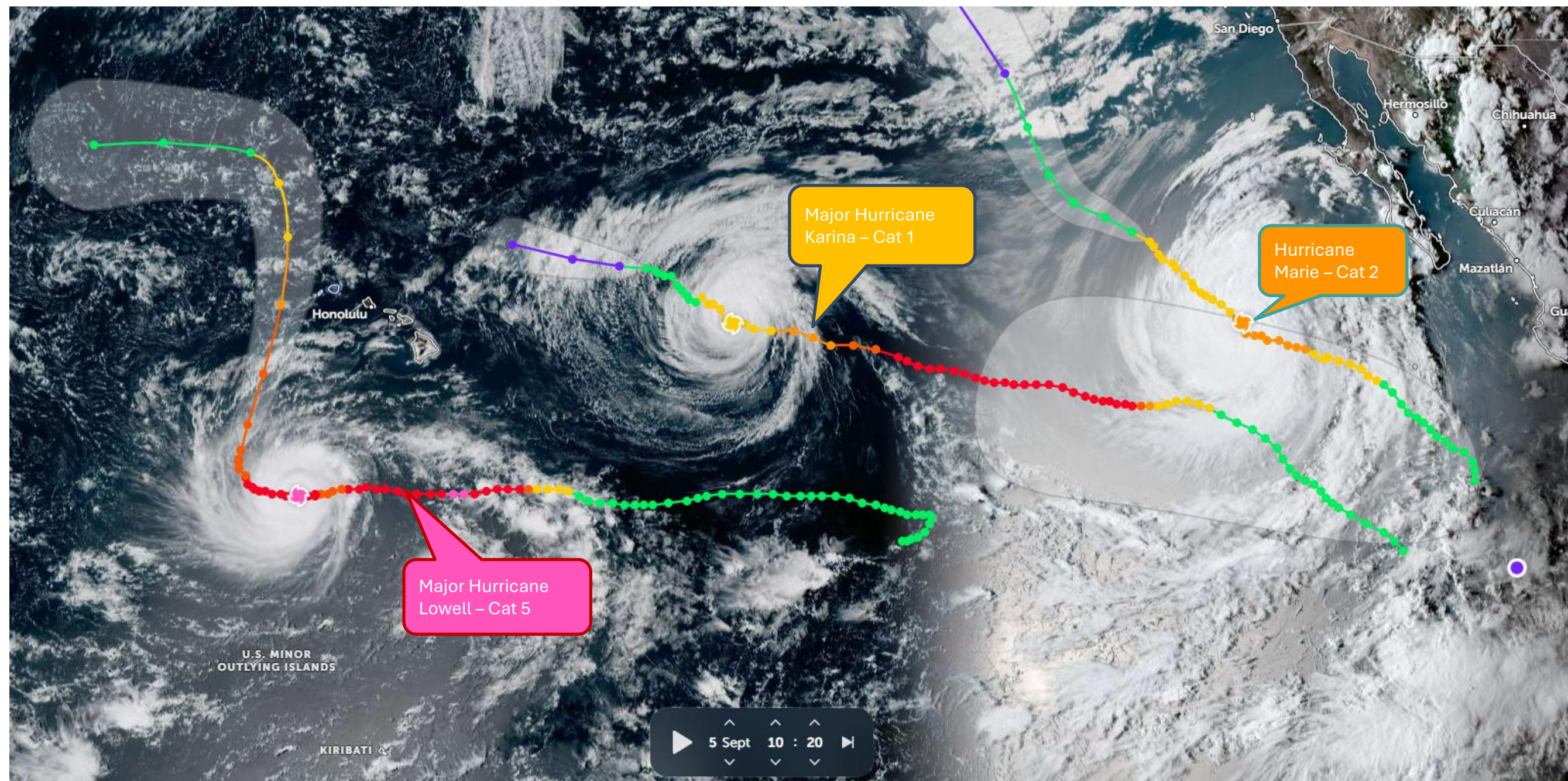
Sea Level outlook for Sept-Nov 2026



- Australian ACCESS-S model predicts sea level to be more than 30 cm below normal in parts of Palau, FSM and RMI
- This could be associated with exposed coral reefs and mangrove forests
- Above normal sea level predicted for the central tropical Pacific. More than 10 cm above normal in central and eastern Kiribati
- Greater risk of inundation during a King tide and/or passage of a storm

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North Pacific Tropical Cyclone Activity 2026 to date



Colorado State University Northern Hemisphere Tropical Cyclone Activity for 2026 (as of 12 Sept.)

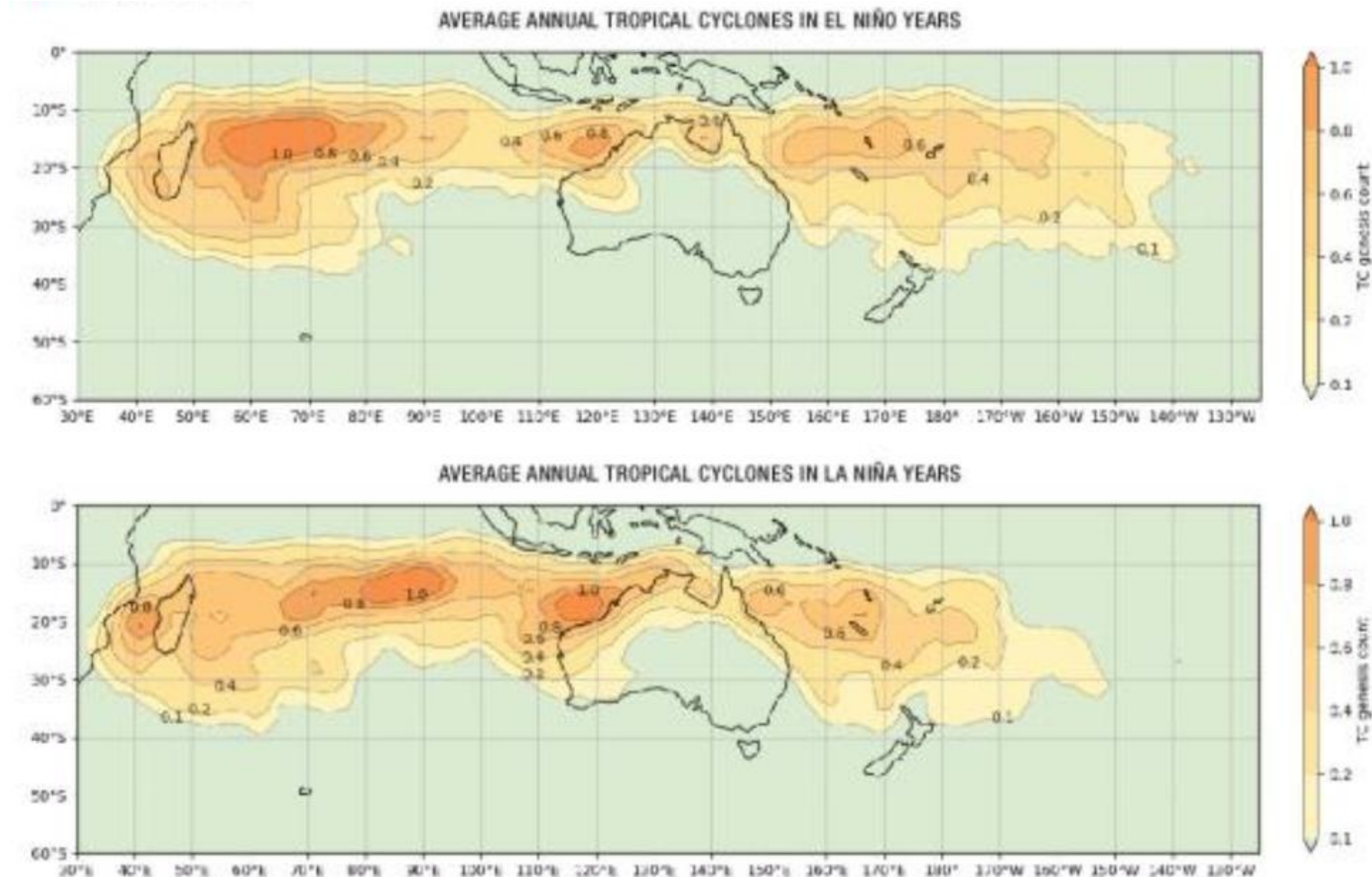
Basin	Named Storms in 2026	Long-term average (1991-2020)
Northeast Pacific (East of 180°)	16	11.5
Northwest Pacific (West of 180°)	20	15.5

Sourced from <https://tropical.atmos.colostate.edu/Realtime/>.

- **Central North Pacific (Hawaii):** official hurricane season ends **30 November**.
- **Northeastern Pacific:** official hurricane season also ends **30 November**.
- **Northwestern Pacific** (including areas around Micronesia, Palau and the Philippines): there is **no official end date** because tropical cyclones can occur year-round, although activity normally declines substantially toward the end of the year.

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Tropical Cyclones in the Pacific (Nov-Apr)



(BOM)

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El Niño historical impacts



Vanuatu drought: Toddler's death believed to be country's first fatality linked to worsening crisis

By Pacific affairs reporter Liam Fox

Weather

Posted 23 Sep 2015 at 2:25pm, updated 23 Sep 2015 at 2:27pm



Cyclone Pam caused devastation on Tanna Island six months ago. (Reuters: Edgar Su)



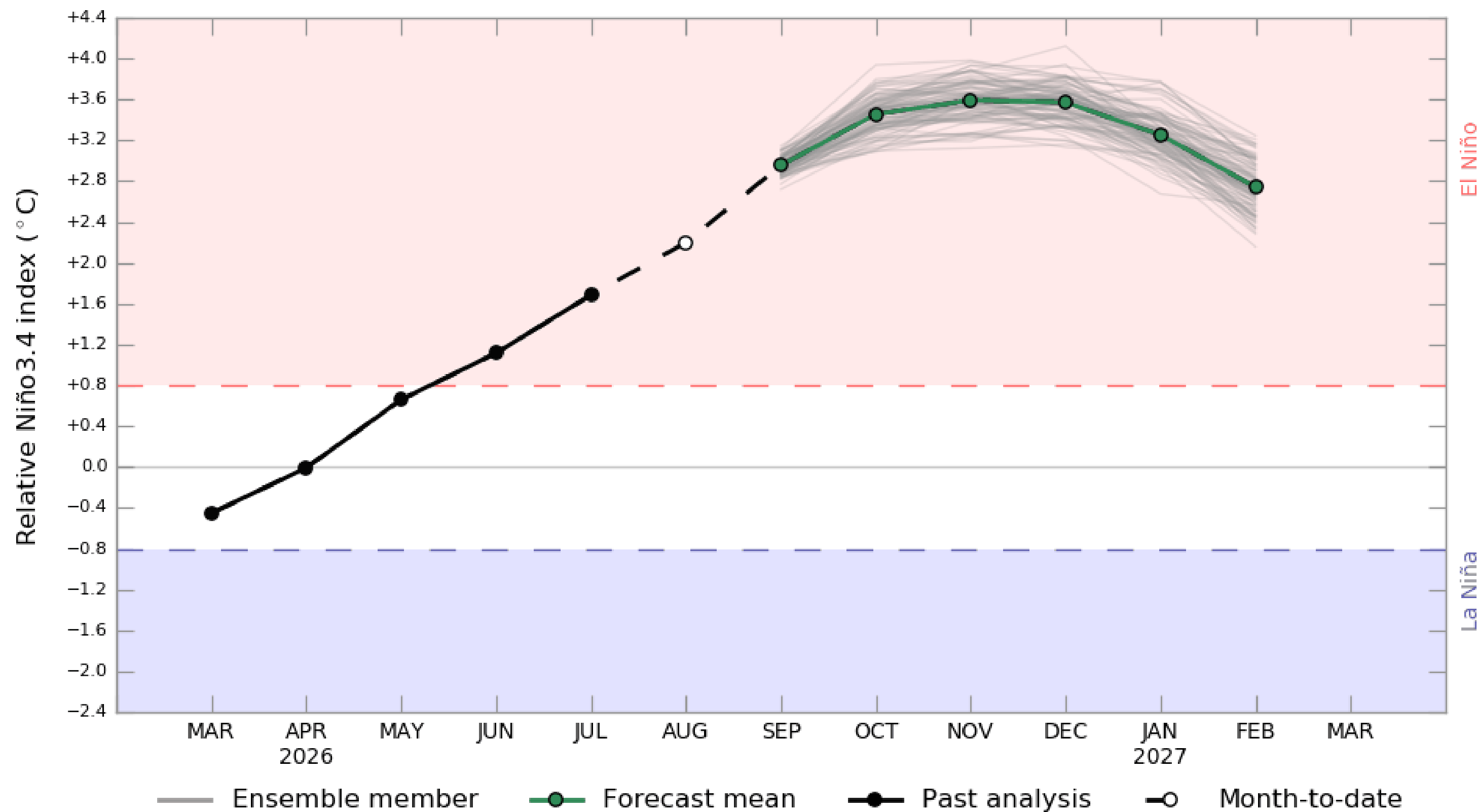
Vanuatu Enters Dry Season with El Niño Warning



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Lagged impact

Relative Niño3.4 index



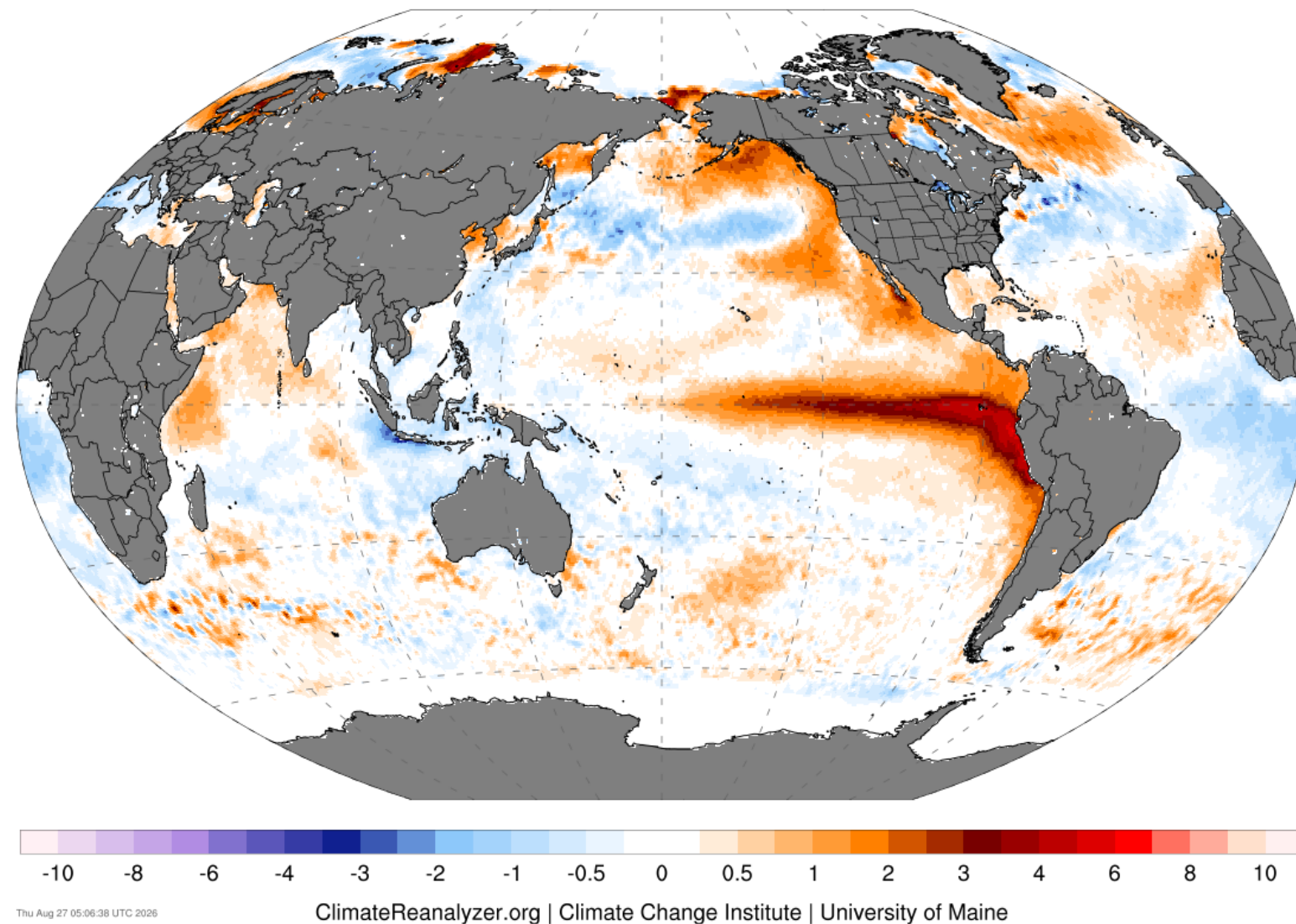
- As mentioned previously El Niño likely to continue into March to May 2026
- Impacts for the strong 1982 and 1997 El Niño events continued for several months after the event has ended in the central South Pacific
- Concern as dry season is from May to October 2027

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July 1997

Sea Surface Temperature Anomaly (°C)
July 1997 - 1991-2000

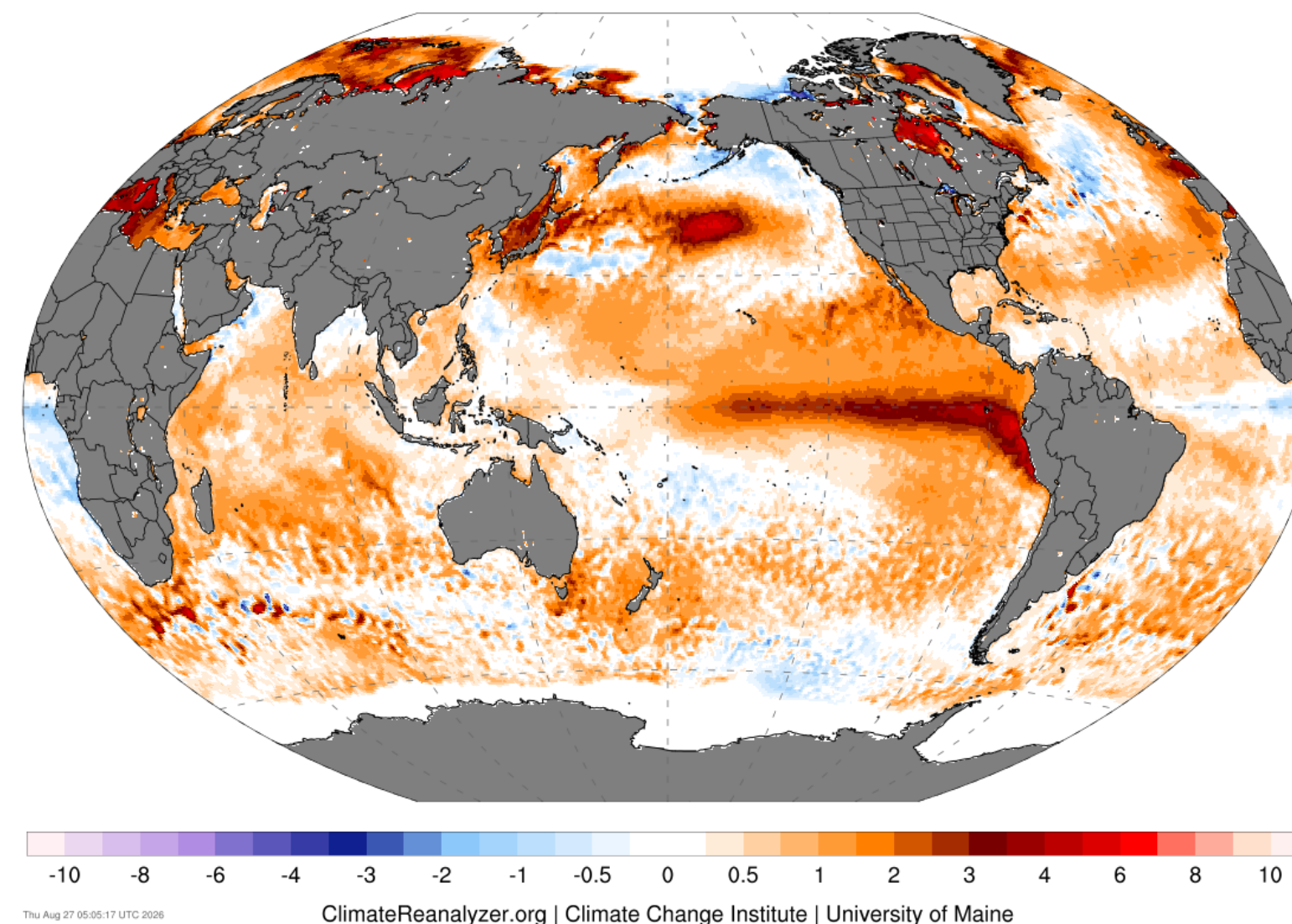
ECMWF ERA5 (0.5x0.5 deg)



July 2026

Sea Surface Temperature Anomaly (°C)
July 2026 - 1991-2000

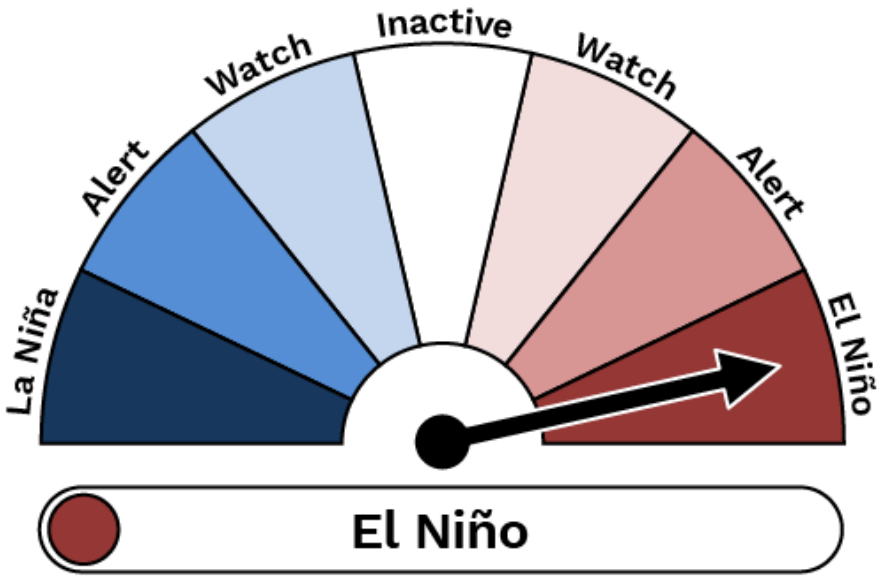
ECMWF ERA5 (0.5x0.5 deg)



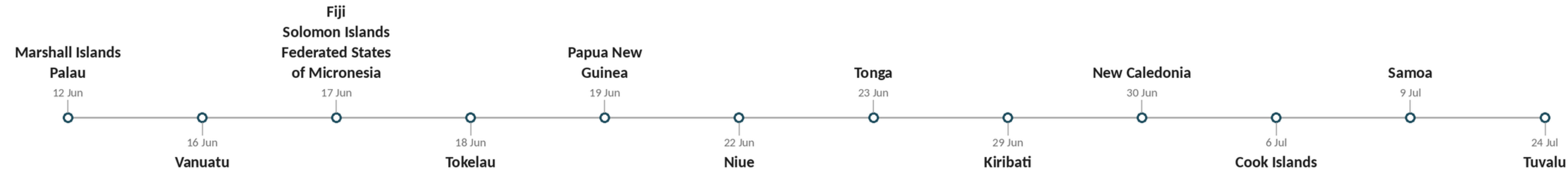
- Some uncertainty with potential impacts
- El Niño taking place in a warmer world compared to 1982 and 1997
- Warmer than normal ocean surface temperature in Indian and western Pacific Ocean in July 2026
- Uncertain how these warm ocean temperatures will influence impacts

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Timeline of El Niño in the Pacific by NMHSs



El Niño Statements by Pacific NMHSs 2026



Source: Pacific El Niño Updates WhatsApp Community | SPREP Climate Science and Information Programme

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Regional Snapshot: Melanesia

PNG: frost damage confirmed in Chimbu's Gembogl; NARI drought alarm; K70m preparedness funding submitted

Solomon Islands: water rationing warnings; fishers travelling further for tuna

Vanuatu: water tanks distributed to northern communities; bushfire risk flagged

Fiji: EAR Watch confirms El Niño underway; very dry conditions in Rotuma and Cikobia; hydropower and fuel-cost exposure

New Caledonia: Meteo France puts El Niño phase probability at 100% for Aug–Oct 2026



El Nino threat puts EFL on edge

Local News, News | Published: June 25, 2026 | Last Updated: June 25, 2026 | By Rakesh Kumar

Listen to this article:



EFL CEO Fatiaki Gibson. Picture: SUPPLIED

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Regional Snapshot: Micronesia

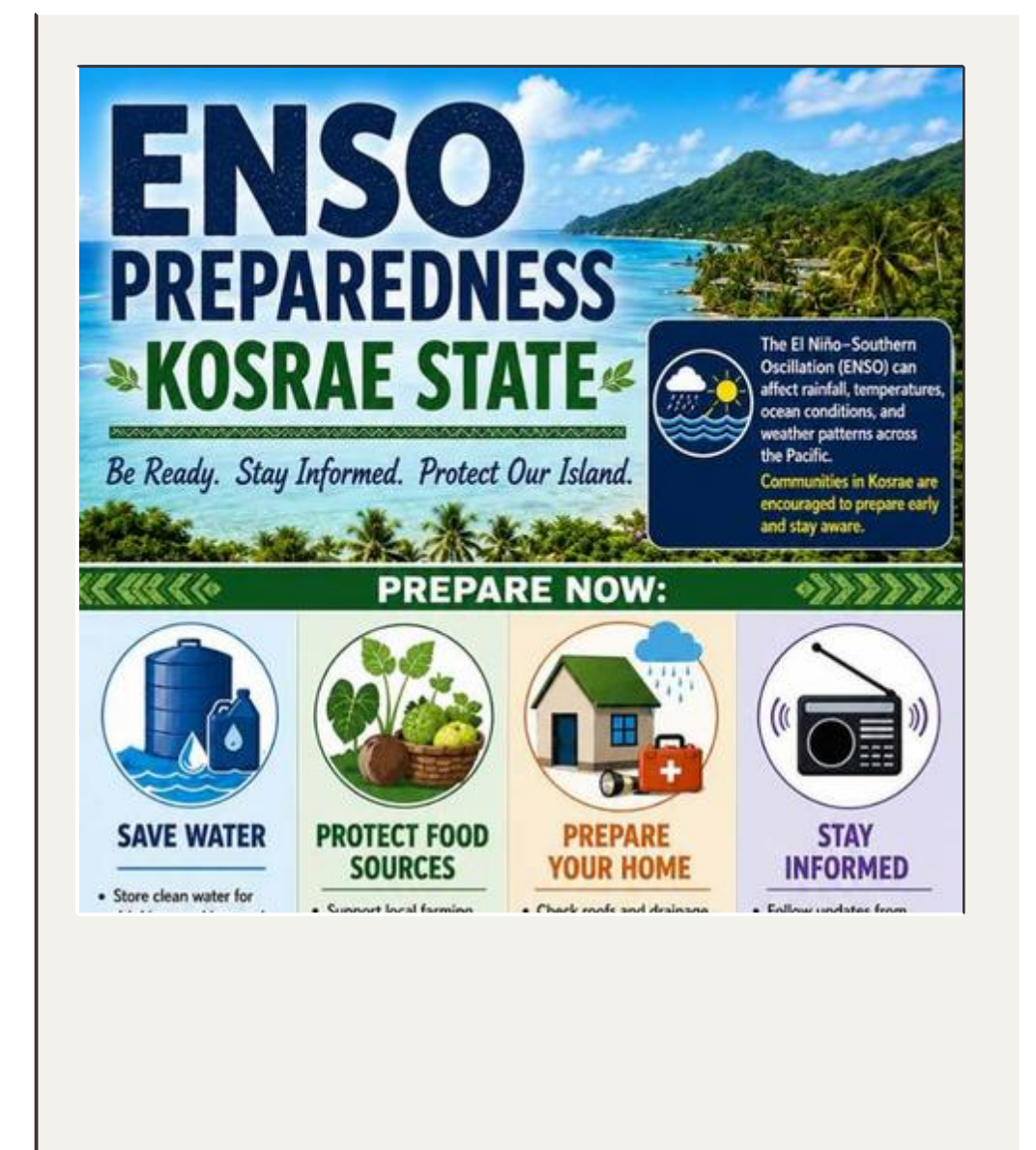
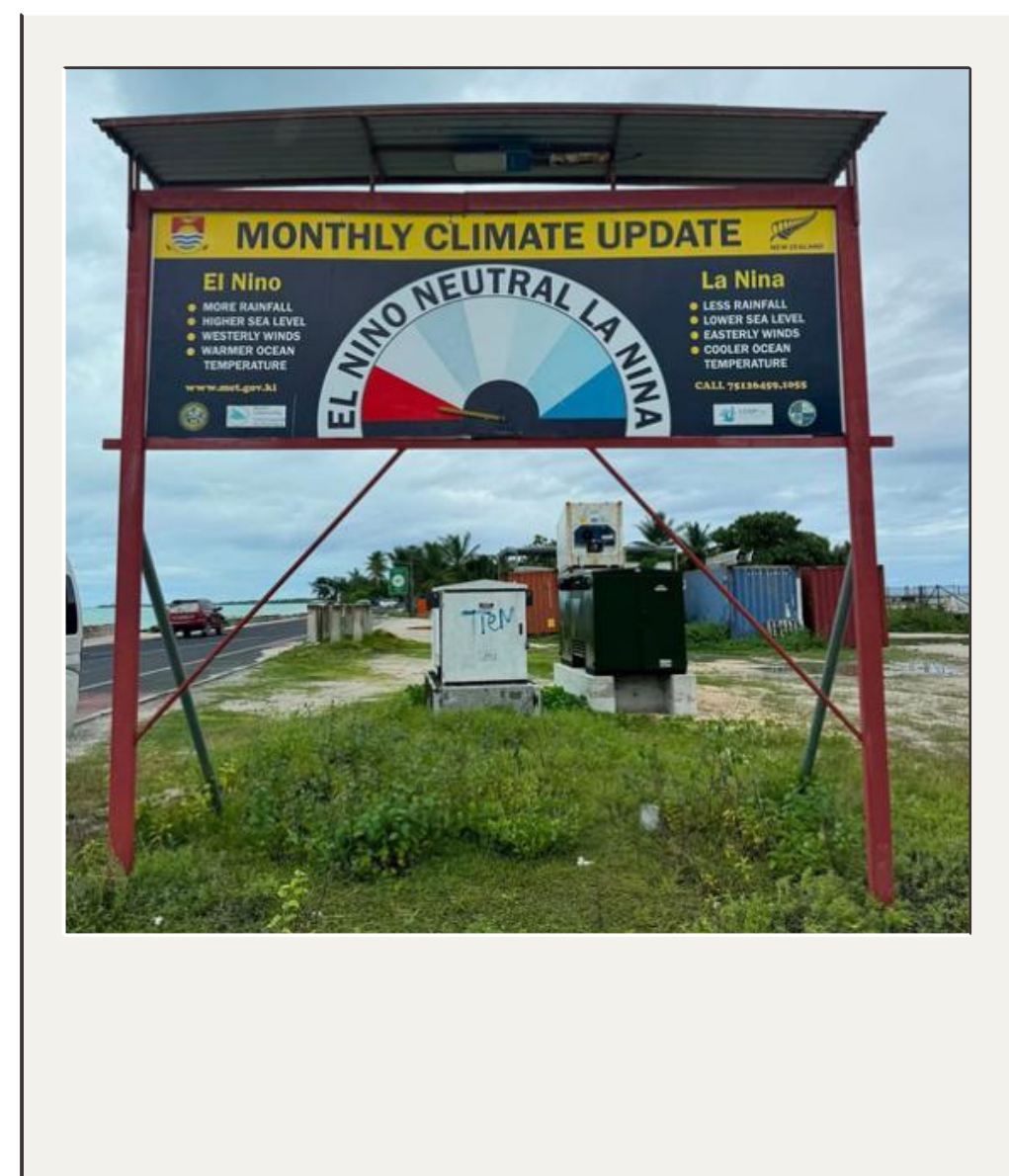
Palau: national statement issued 15 June, among the earliest in the Pacific

Kiribati: three-tier drought alert system; warmer waters may draw tuna closer, a rare positive signal

Marshall Islands: El Niño Advisory in effect from 11 June; tropical storm risk flagged alongside drought

FSM: Yap reported water discoloration and fish deaths,

Nauru: had not issued a statement as of 30 August, 2026



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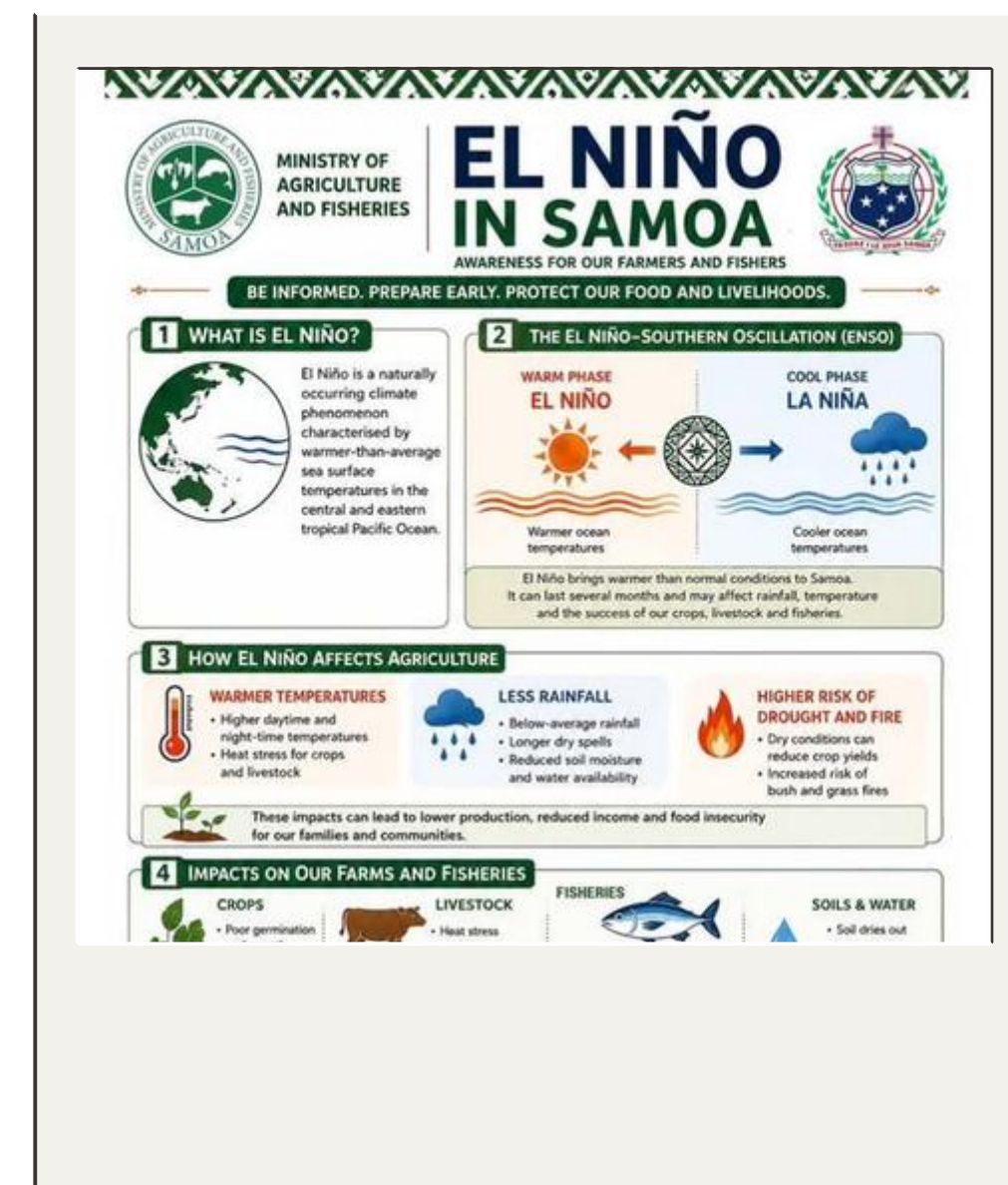
Regional Snapshot: Polynesia

Niue: declared 22 June; five effects named directly, including bushfire and health risk

Tonga: Drought Warning for Ha'apai; desalination units distributed by the PM

Samoa: statement issued 9 July, later than most Pacific NMHSs

Cook Islands and American Samoa: general ENSO education material published, not country-specific statements



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How are we supporting (Region)

- Ocean Climate Outlook Forum (OCOF) on a monthly basis
 - Monthly regional Climate Bulletins – supporting national bulletins
 - Pacific Climate Outlook Forum (PICOV) in PNG in October 2026
 - National Climate Outlook Forums
-
- COSPPac (AUS/NZ), CLIMSA (EUR), UNEP CIS-Pac (GCF), ROK-PI CLIPS (KOR)
 - Members of the RCC Network: SPC, BOM, ESNZ, APCC

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Coordination is Reported More often than Plans

SPC–UNDRR stocktake: 23 responses from 13 Pacific countries and territories | 20 Aug–13 Sep 2026

RESPONDENTS REPORTING A PLAN OR MECHANISM

21/23

National coordination
mechanism

13/23

National El Niño
preparedness plan

9/23

Sector contingency /
response plan

MOST REQUESTED PARTNER SUPPORT

19/23

Funding

15/23

Water security

13/23 each

Technical assistance, logistics
& emergency coordination

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Recommendations

The Meeting is invited to:

- **Note** that El Niño is fully established and will peak in November 2026 to January 2027 but impacts are expected to persist to later in 2027.
- **Note** that both oceanic and atmospheric indices reflect values consistent with a strong El Niño, with further intensification likely.
- **Note** historical impacts and Pacific might expect similar impacts in the region. Drier than normal west and south Pacific while wetter than normal central and eastern equatorial Pacific.
- **Request** Ministers to continue roll out awareness and preparatory measures
- **Recommend** Ministers to present a paper to Council of Ministers on El Niño to allocate budgetary support for preparedness and response.