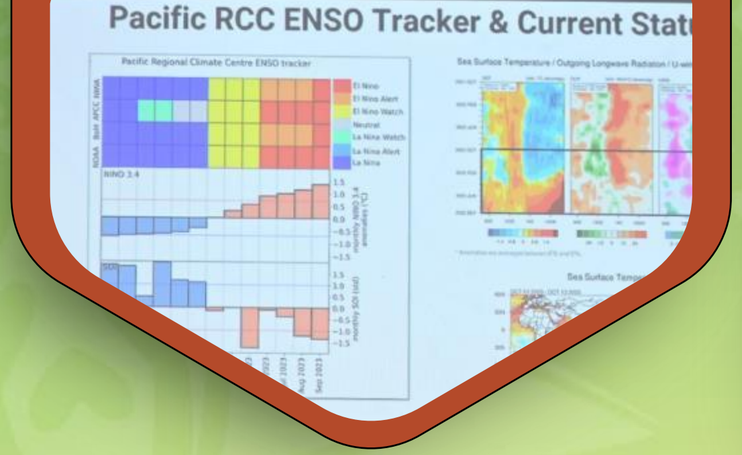

17th SESSION
PACIFIC ISLANDS CLIMATE OUTLOOK FORUM
(PICOF-17)

22 - 23 October, 2025

Port Vila, Vanuatu

WMO

PACIFIC REGIONAL CLIMATE CENTRE NETWORK

Looking back: Ocean

April to September 2025

James Potemra
University of Hawaii

WMO
PACIFIC REGIONAL CLIMATE CENTRE NETWORK

Expectations from last PICOF

As of mid-March 2025, the equatorial Pacific was transitioning from weak La Niña conditions to an ENSO-neutral state.

- SST in the Niño 3.4 region were close to average
- The ENSO plume forecast indicated a high probability (91%) for ENSO-neutral conditions through Sep-Nov 2025.
- For Oct-Dec 2025 and Nov-Jan 2025/26, it was estimated that there was no strong preference for any category, although La Niña was slightly favored over ENSO-neutral.

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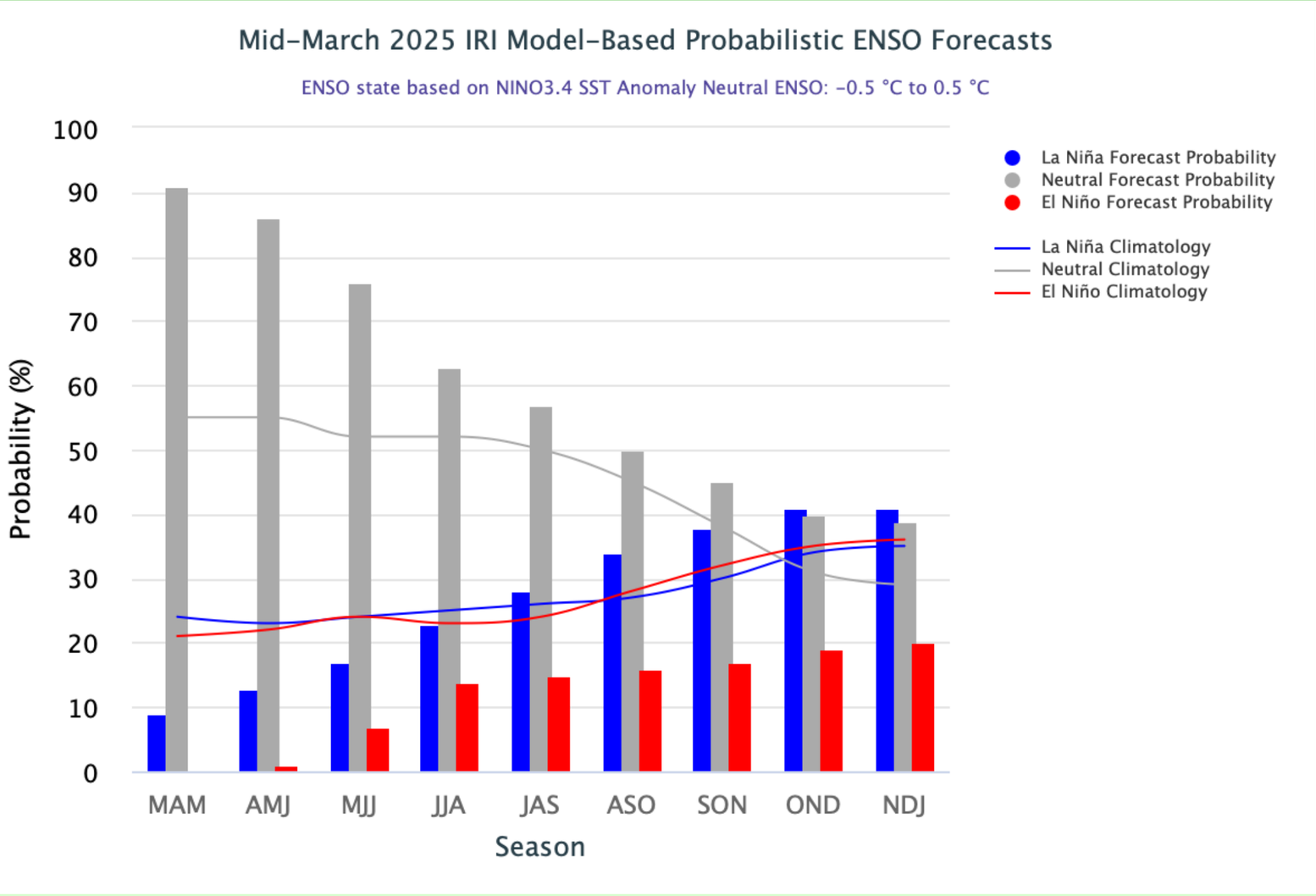
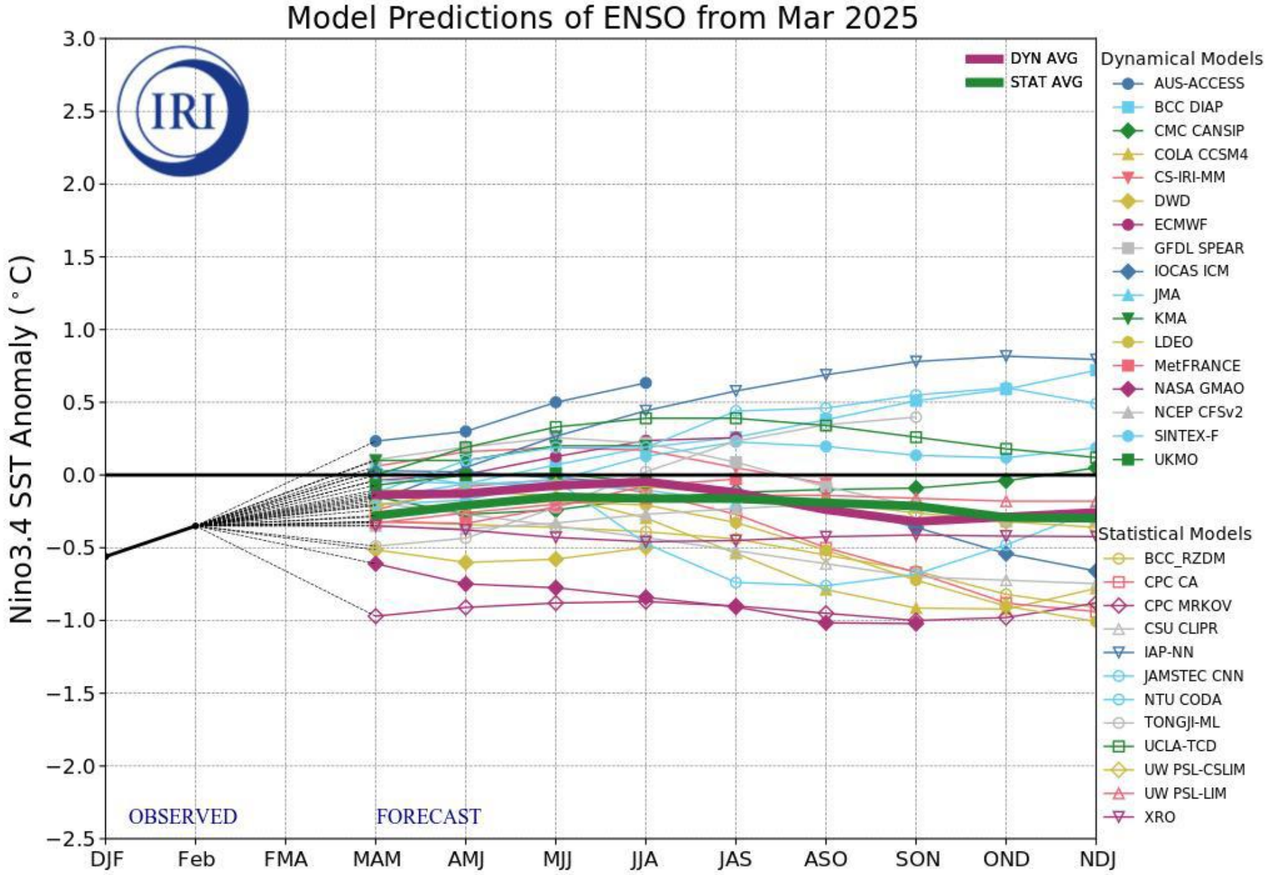


Source: https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/

WMO PACIFIC REGIONAL CLIMATE CENTRE NETWORK



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PICOF-16 Outlook

- The Pacific was expected to enter neutral or possible mild La Niña conditions
- North Pacific expected to see slightly higher SST's (1°C) while most locations neutral to 0.5°C
- Sea level anomalies also low, high in the western N. Pacific then dropping
- Coral stress to continue

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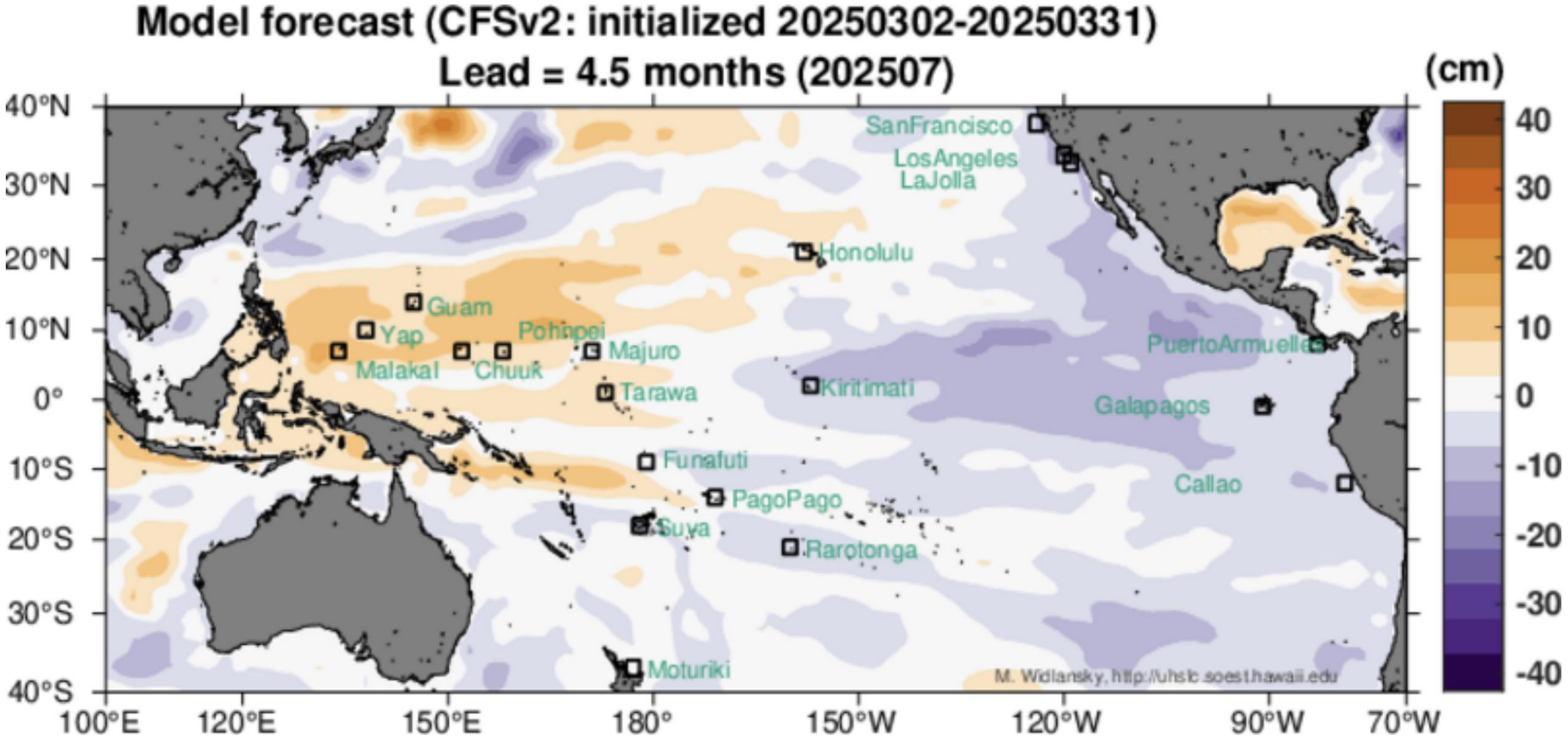

Source: https://uhslc.soest.hawaii.edu/sea-level-forecasts/

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Actual ocean conditions from last PICOF

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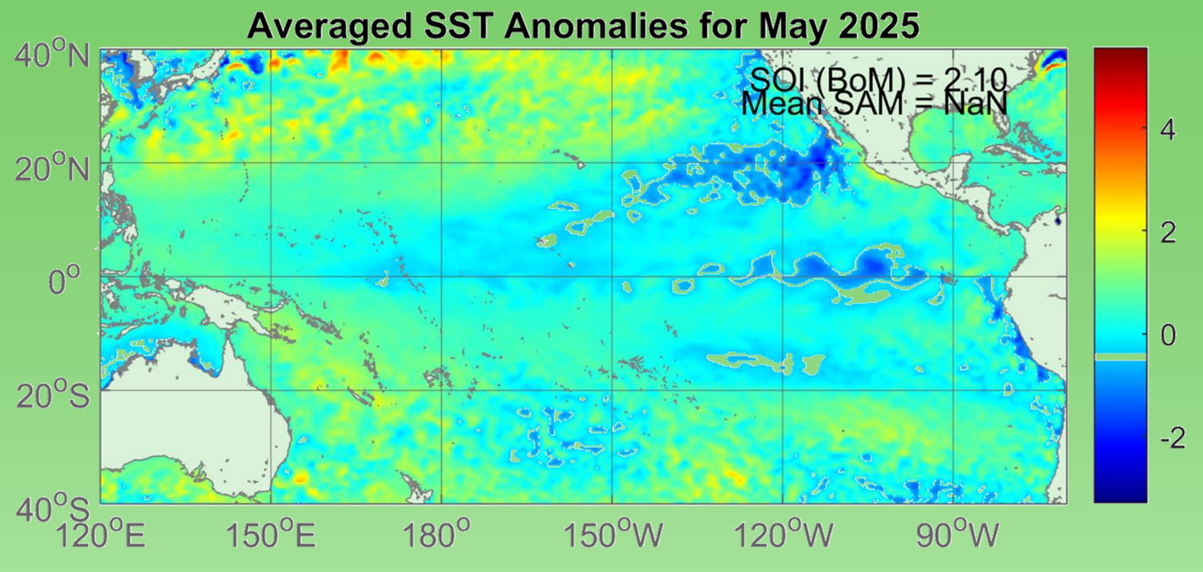
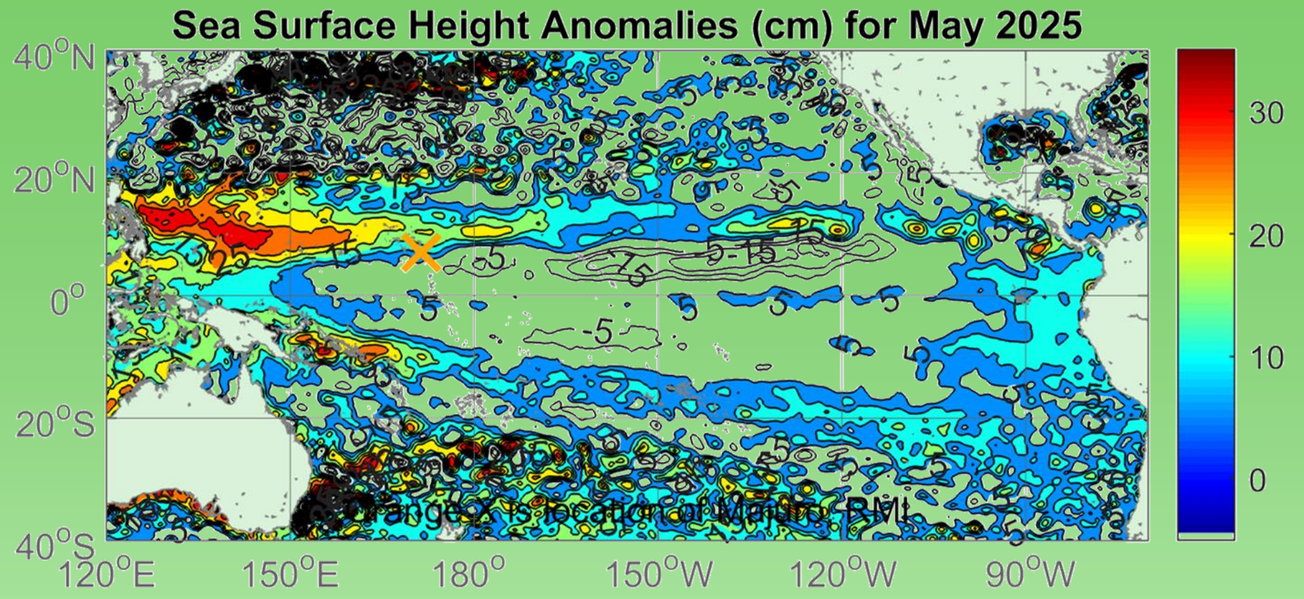
PACIFIC REGIONAL CLIMATE CENTRE NETWORK

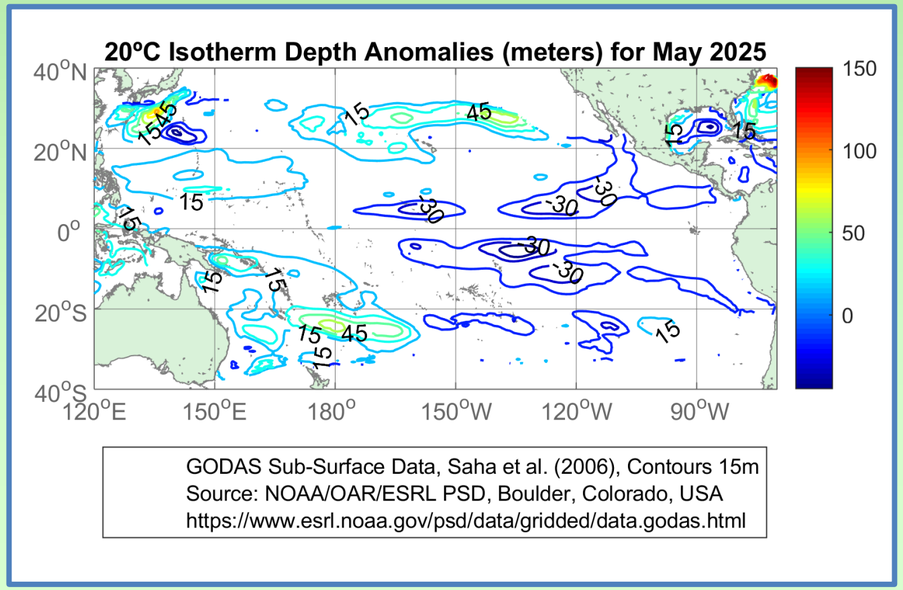


DOISSTv2.1, Huang et al (2021), Contours 0.5 deg C
(30-year normal 1991-2020) - 0.25°x0.25° Resolution



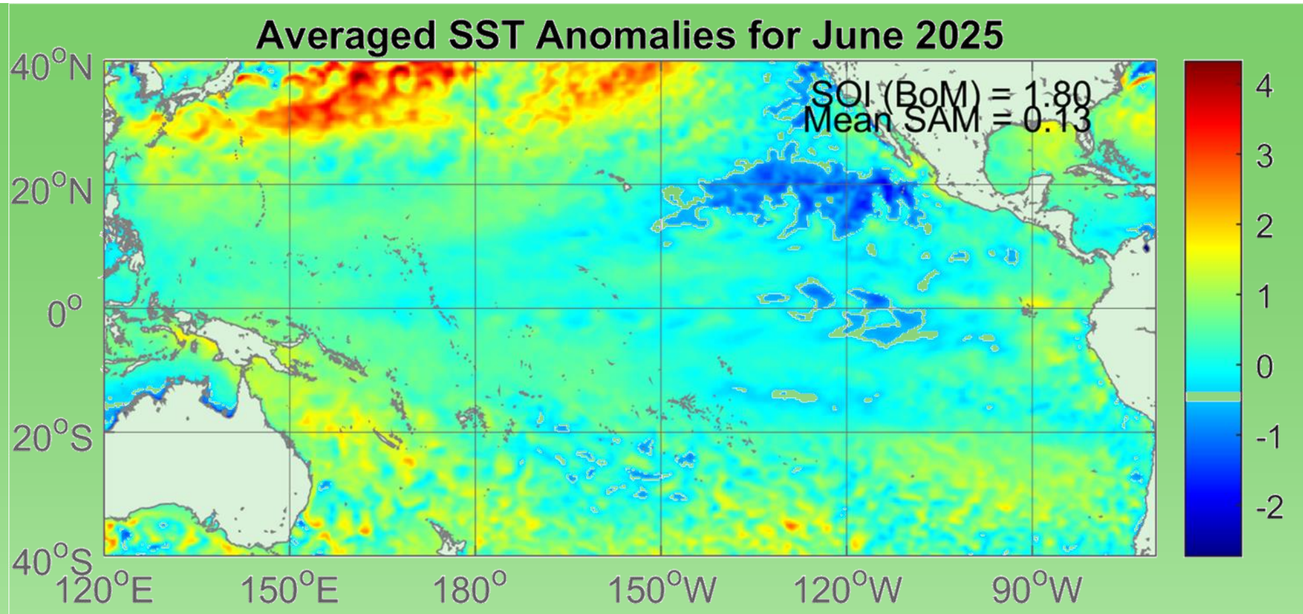
Contours at 5 cm (20-year normal 1993-2012)
Source: NOAA Coast Watch
Orange X is location of Majuro, RMI

MAY 2025



GODAS Sub-Surface Data, Saha et al. (2006), Contours 15m
Source: NOAA/OAR/ESRL PSD, Boulder, Colorado, USA
https://www.esrl.noaa.gov/psd/data/gridded/data.godas.html

WMO PACIFIC REGIONAL CLIMATE CENTRE NETWORK



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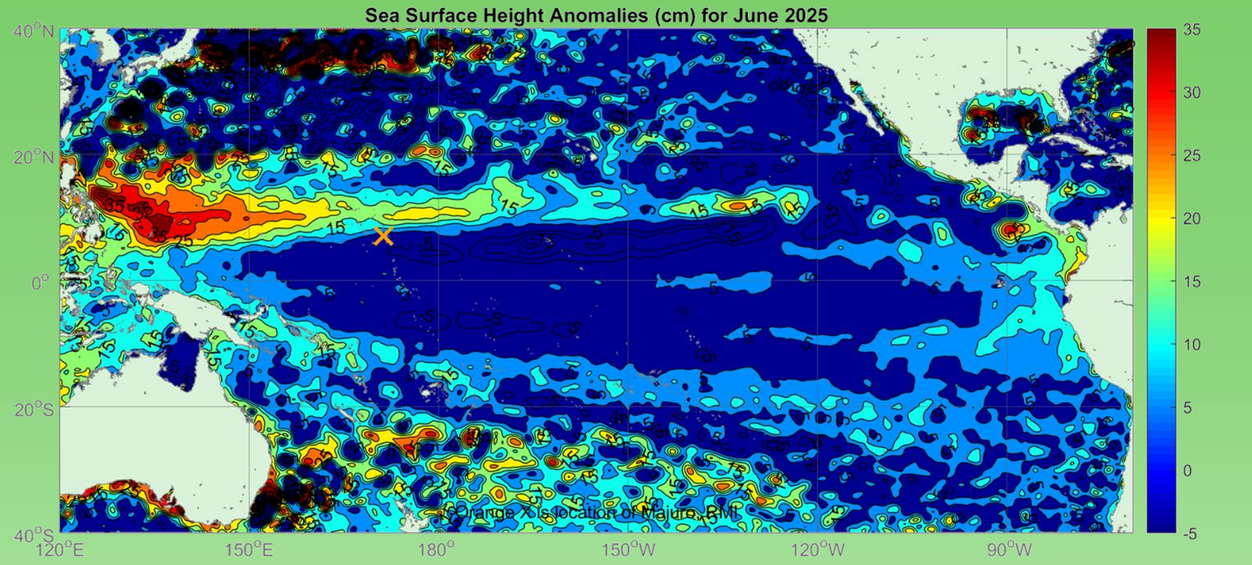

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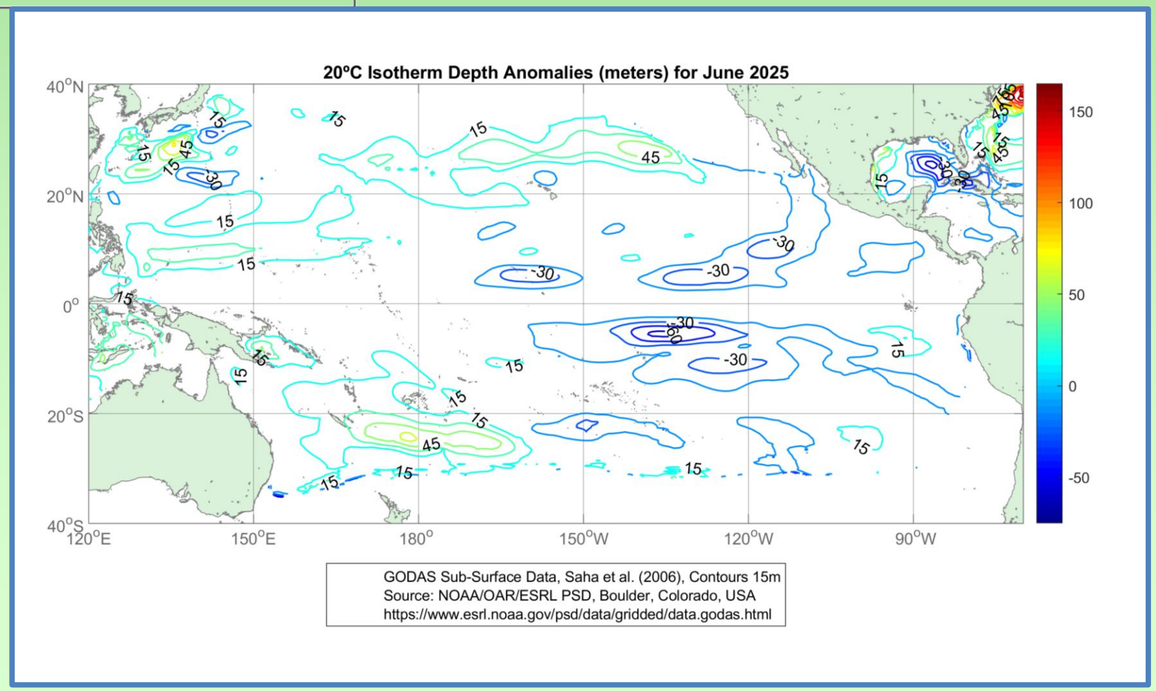
JUNE 2025



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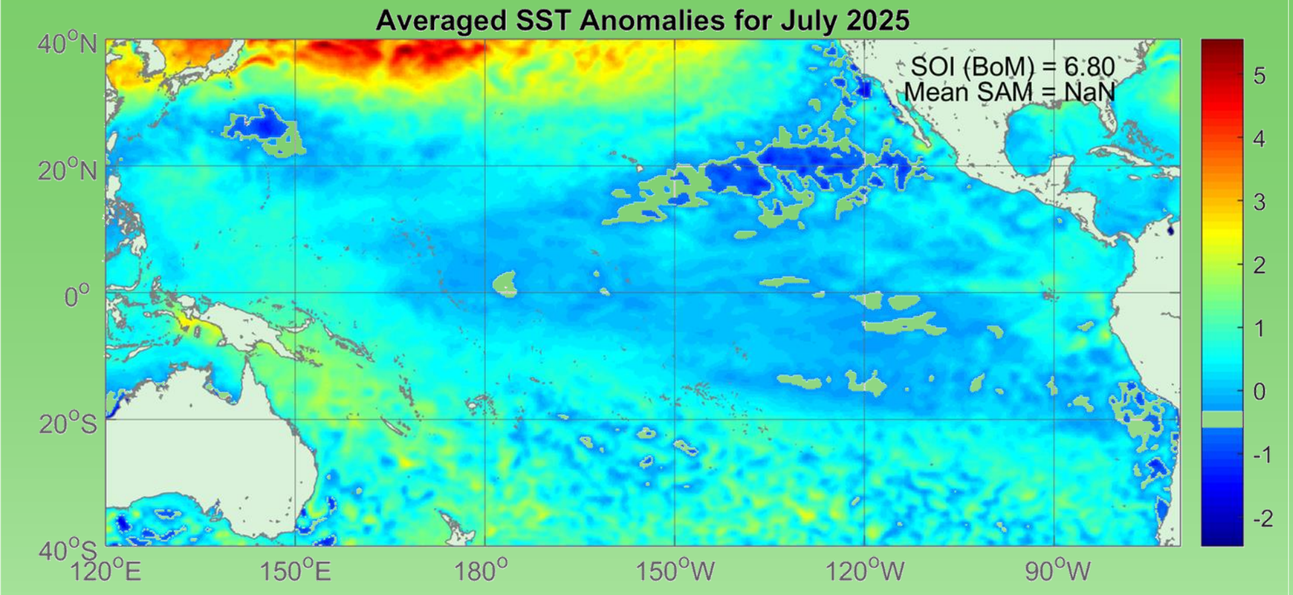
WMO PACIFIC REGIONAL CLIMATE CENTRE NETWORK

JULY 2025



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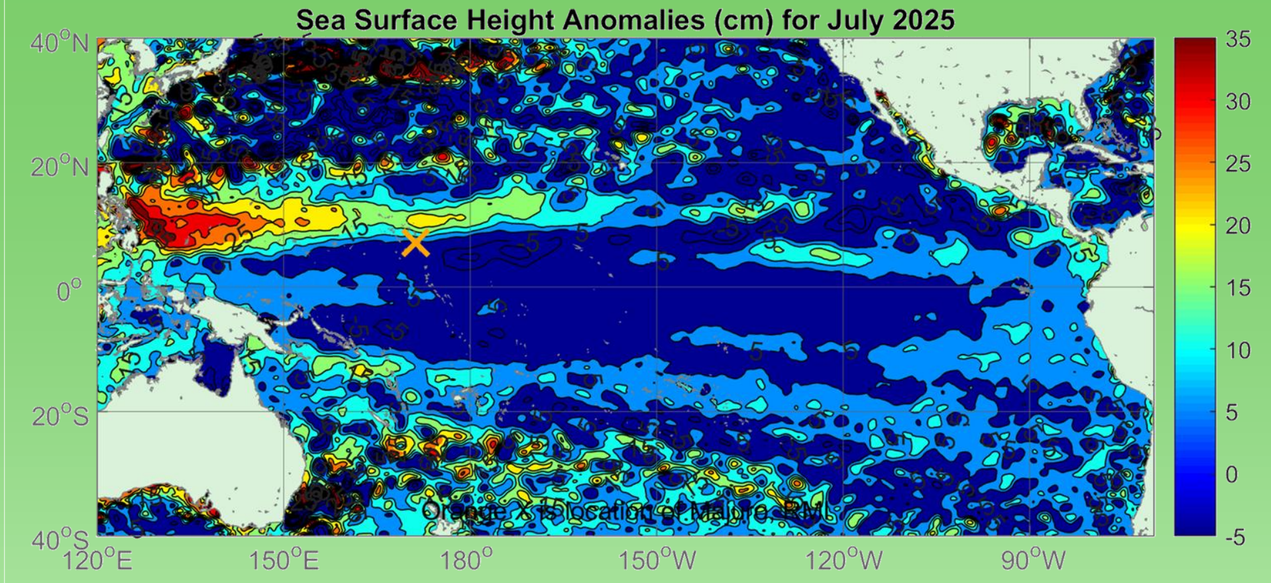

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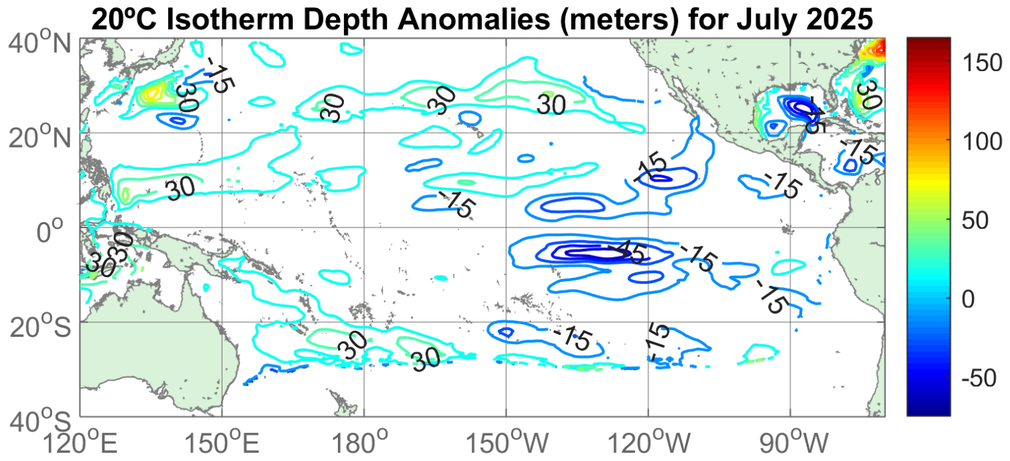

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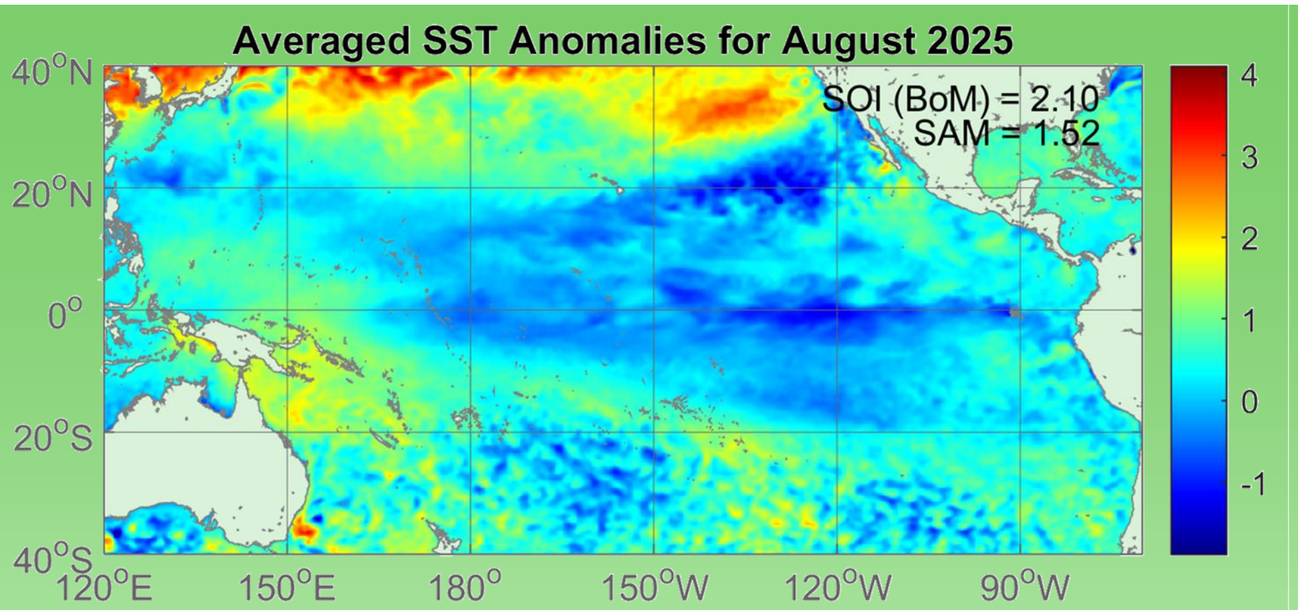

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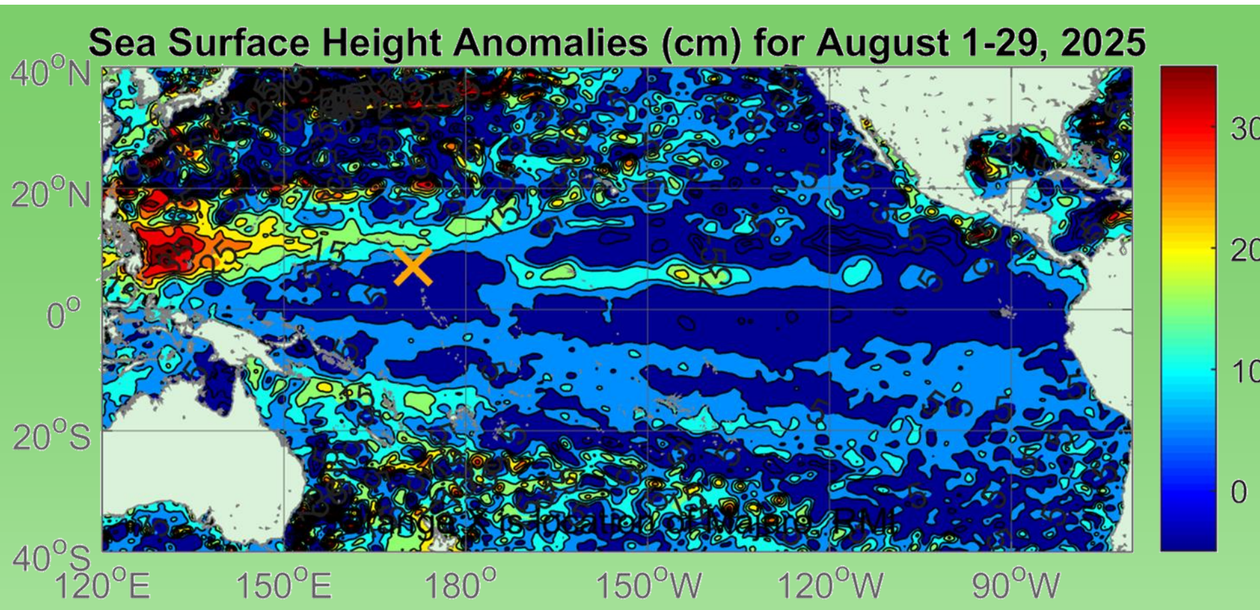

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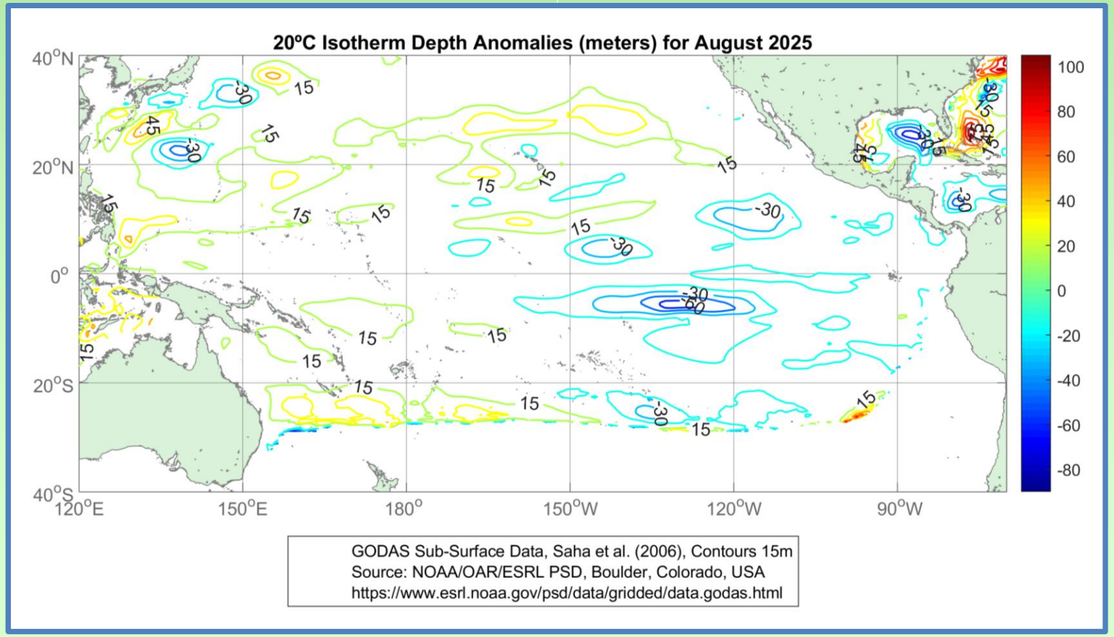
AUGUST 2025



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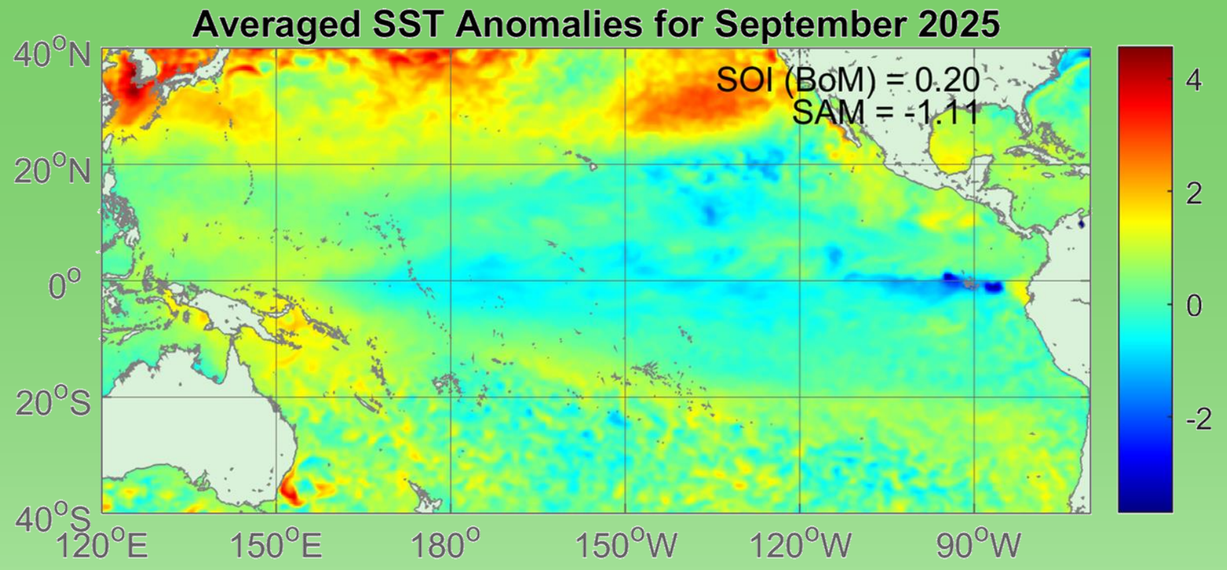

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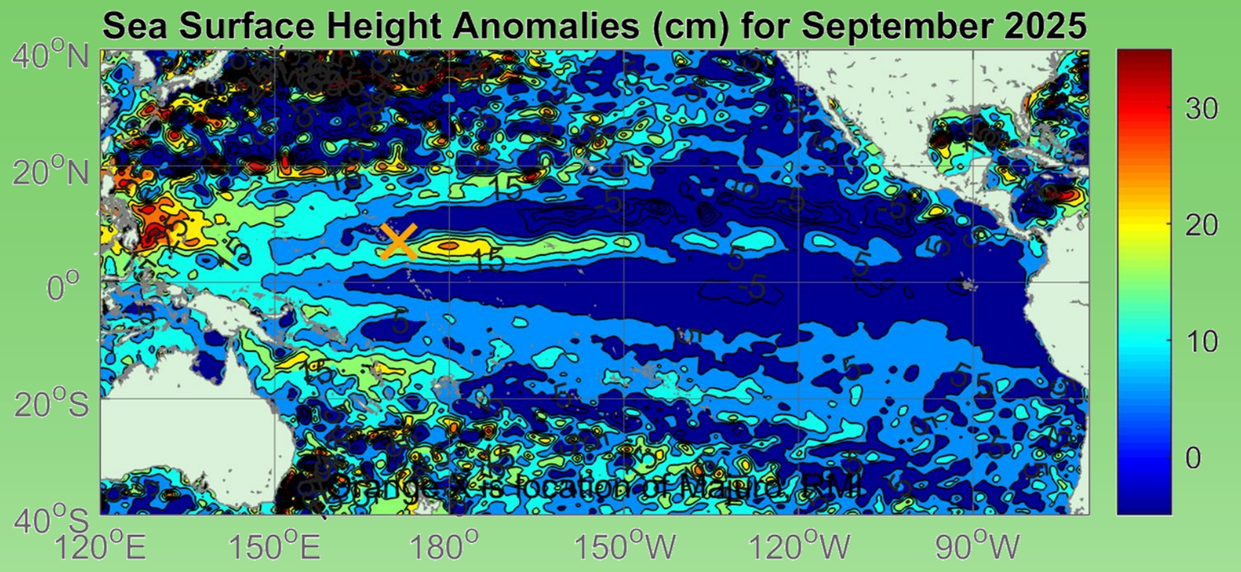

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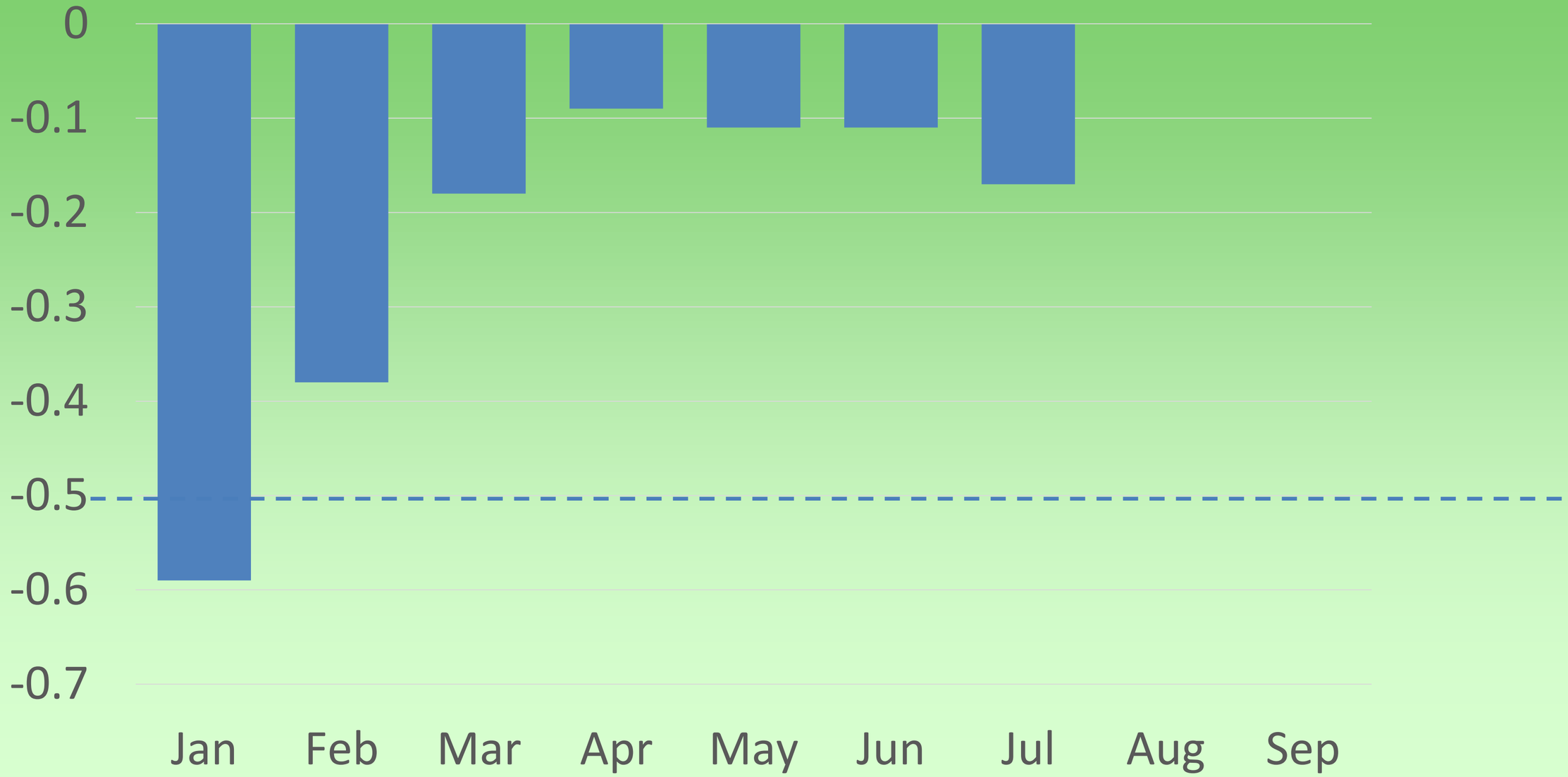
SEPTEMBER 2025

WMO PACIFIC REGIONAL CLIMATE CENTRE NETWORK

2005 NOAA ONI



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PACIFIC REGIONAL CLIMATE CENTRE NETWORK

PICOF-16 Outlook

ENSO Alert System Status: La Niña Advisory

- La Niña conditions are present.*
- Equatorial sea surface temperatures (SSTs) are mostly below average across most of the Pacific Ocean.
- Atmospheric anomalies over the tropical Pacific Ocean are consistent with La Niña.
- La Niña conditions are present and favored to persist through December 2025 - February 2026, with a transition to ENSO-neutral likely in January-March 2026

  * (55% chance)

WMO PACIFIC REGIONAL CLIMATE CENTRE NETWORK

:

PICOF-16 Outlook

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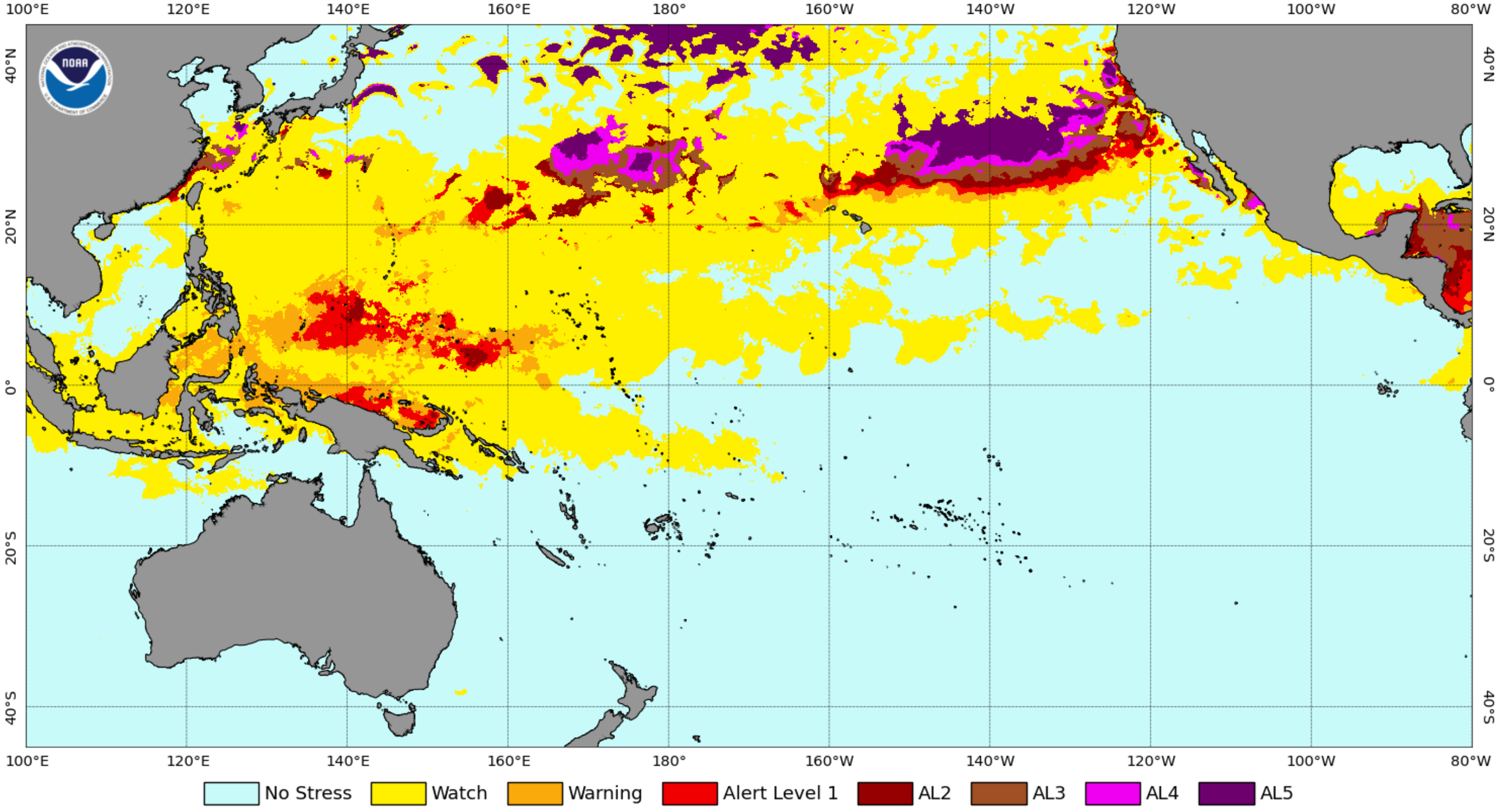
NOAA Coral Reef Watch Daily 5km Bleaching Alert Area 7-day Maximum (v3.1) 18 Oct 2025



THANK YOU!

jimp@hawaii.edu

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PACIFIC REGIONAL CLIMATE CENTRE NETWORK