

EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP/NWS

11 September 2025

ENSO Alert System Status: **La Niña Watch**

Synopsis: A transition from ENSO-neutral to La Niña is likely in the next couple of months, with a 71% chance of La Niña during October - December 2025. Thereafter, La Niña is favored but chances decrease to 54% in December 2025 - February 2026.

ENSO-neutral continued in August 2025, with near-to-below average sea surface temperatures (SSTs) observed across the central and eastern equatorial Pacific Ocean (Fig. 1). The latest weekly Niño SST index values ranged from -0.4°C to -0.2°C (Fig. 2). Negative subsurface temperature anomalies (averaged from 180° - 100°W) strengthened (Fig. 3), with below-average temperatures prevailing from the surface to 200m depth in the central and eastern Pacific (Fig. 4). Low-level wind anomalies were easterly across most of the equatorial Pacific, while upper-level wind anomalies were westerly over the western and eastern equatorial Pacific. Convection was enhanced over Indonesia and was suppressed near the Date Line (Fig. 5). Collectively, the coupled ocean-atmosphere system reflected the continuation of ENSO-neutral.

The IRI multi-model predictions slightly favor ENSO-neutral through the Northern Hemisphere winter 2025-26 (Fig. 6). However, all available models from the North American Multi-Model Ensemble favor La Niña to emerge and persist through the winter. Based on this guidance and recently observed trends across the surface and subsurface equatorial Pacific, the team also favors La Niña to develop. In summary, a transition from ENSO-neutral to La Niña is likely in the next couple of months, with a 71% chance of La Niña during October - December 2025. Thereafter, La Niña is favored but chances decrease to 54% in December 2025 - February 2026 (Fig. 7).

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center website ([El Niño/La Niña Current Conditions and Expert Discussions](#)). A probabilistic strength forecast is [available here](#). The next ENSO Diagnostics Discussion is scheduled for 9 October 2025. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

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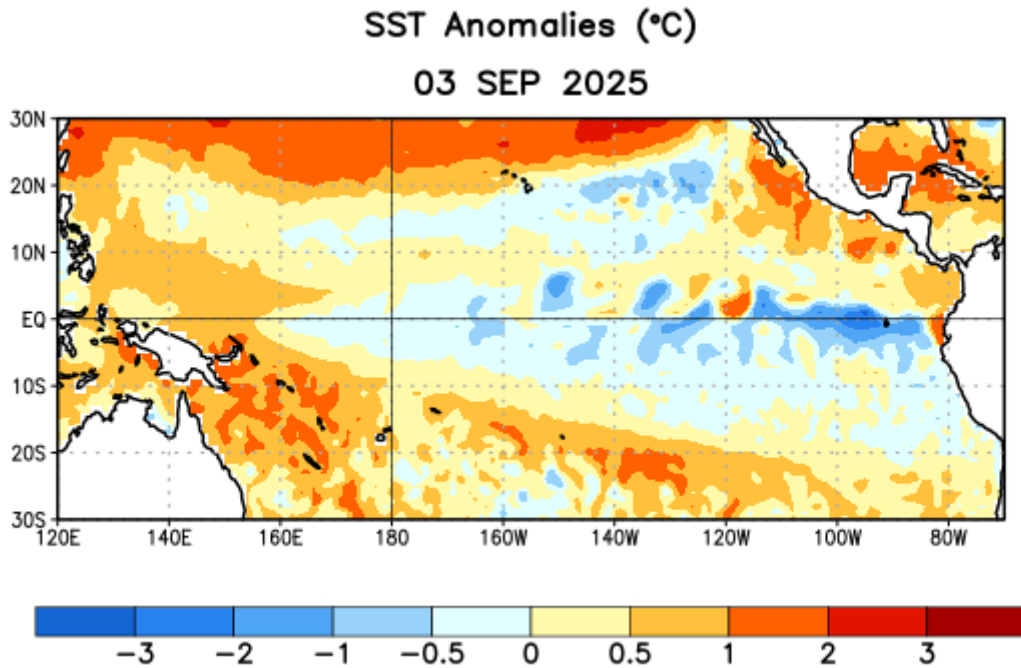


Figure 1. Average sea surface temperature (SST) anomalies (°C) for the week centered on 3 September 2025. Anomalies are computed with respect to the 1991-2020 base period weekly means.

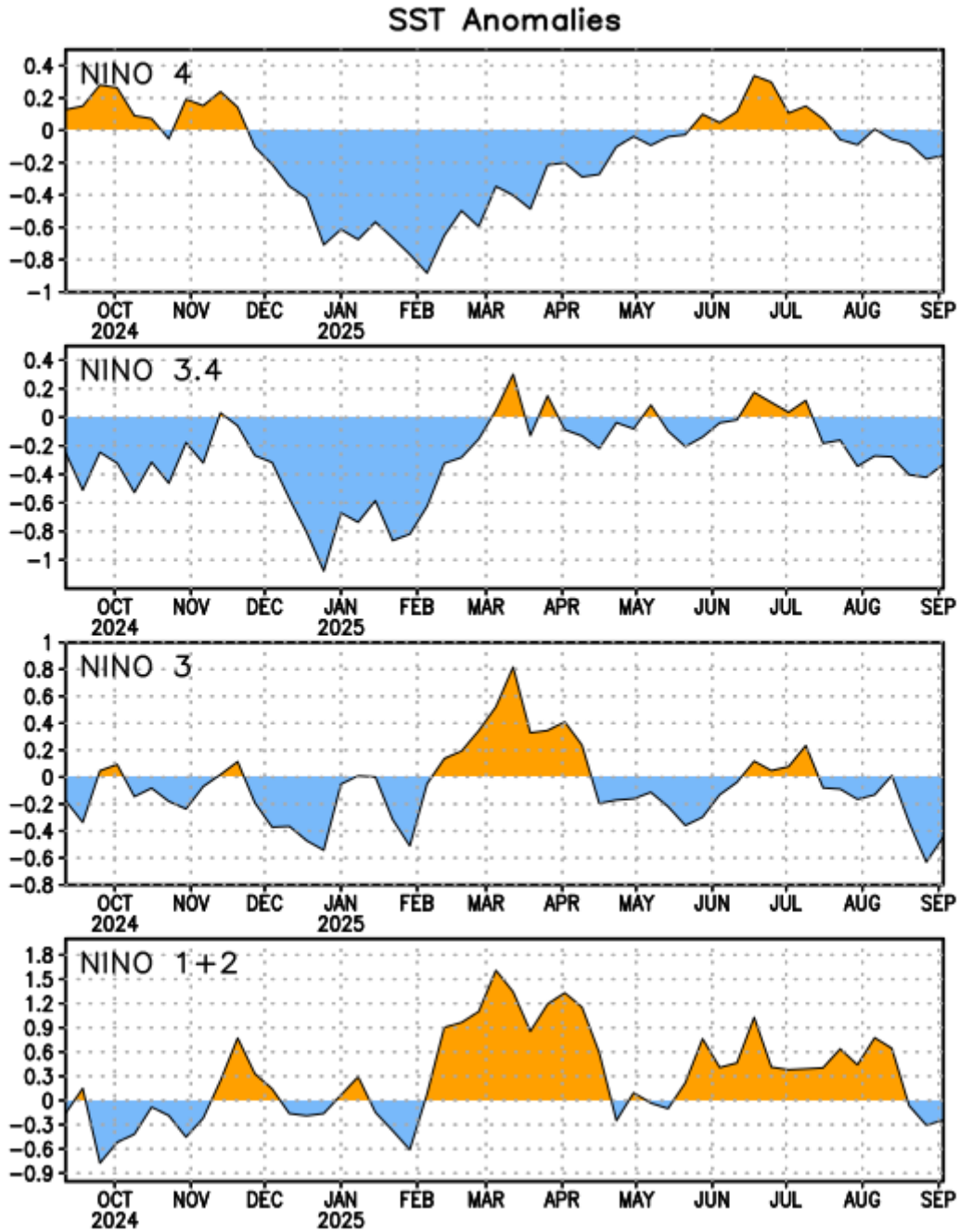


Figure 2. Time series of area-averaged sea surface temperature (SST) anomalies ($^{\circ}\text{C}$) in the Niño regions [Niño-4 (5°N - 5°S , 150°W - 160°E), Niño-3.4 (5°N - 5°S , 170°W - 120°W), Niño-3 (5°N - 5°S , 150°W - 90°W), Niño-1+2 (0° - 10°S , 90°W - 80°W)]. SST anomalies are departures from the 1991-2020 base period weekly means.

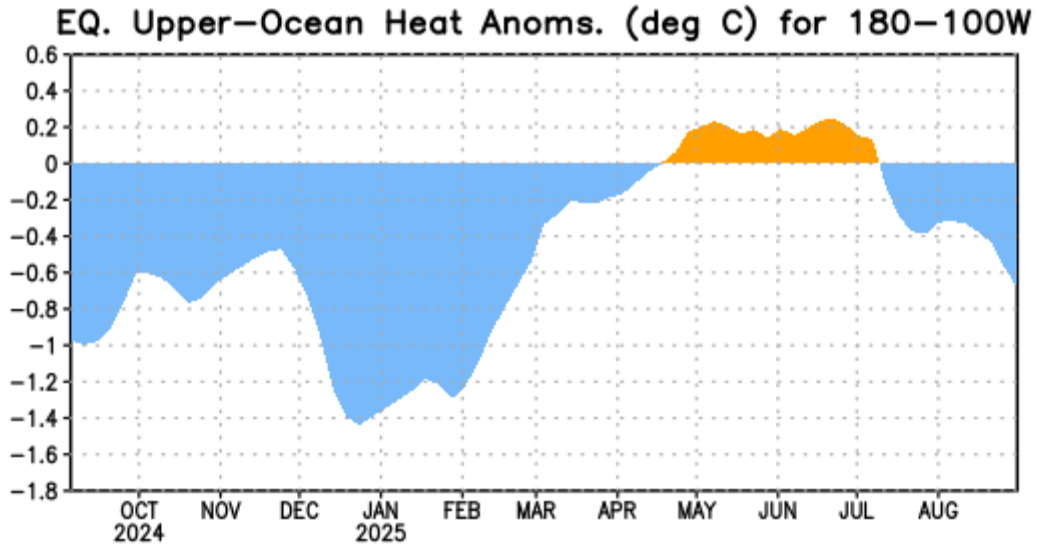


Figure 3. Area-averaged upper-ocean heat content anomaly ($^{\circ}\text{C}$) in the equatorial Pacific (5°N - 5°S , 180° - 100°W). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

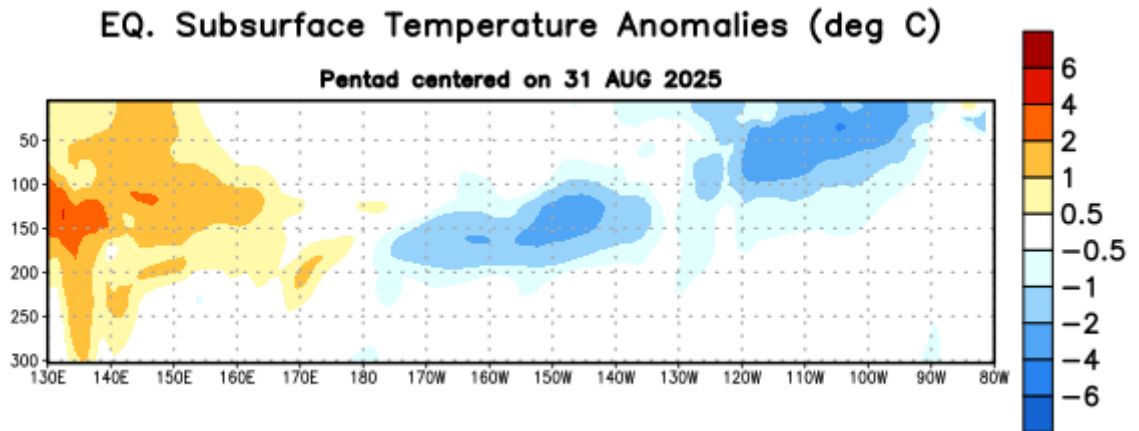


Figure 4. Depth-longitude section of equatorial Pacific upper-ocean (0-300m) temperature anomalies ($^{\circ}\text{C}$) centered on the pentad of 31 August 2025. Anomalies are departures from the 1991-2020 base period pentad means.

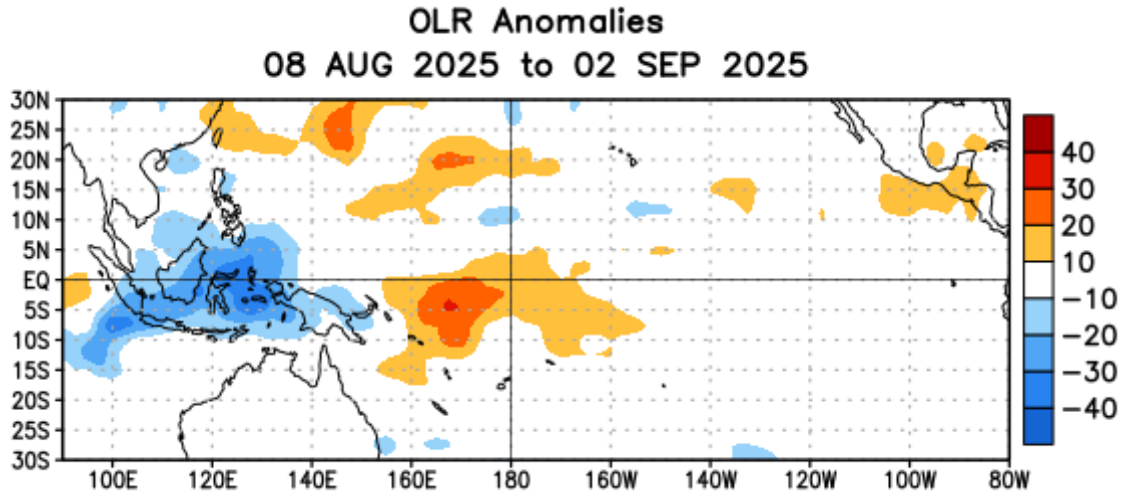


Figure 5. Average outgoing longwave radiation (OLR) anomalies (W/m^2) for the period 8 August – 2 September 2025. OLR anomalies are computed as departures from the 1991-2020 base period pentad means.

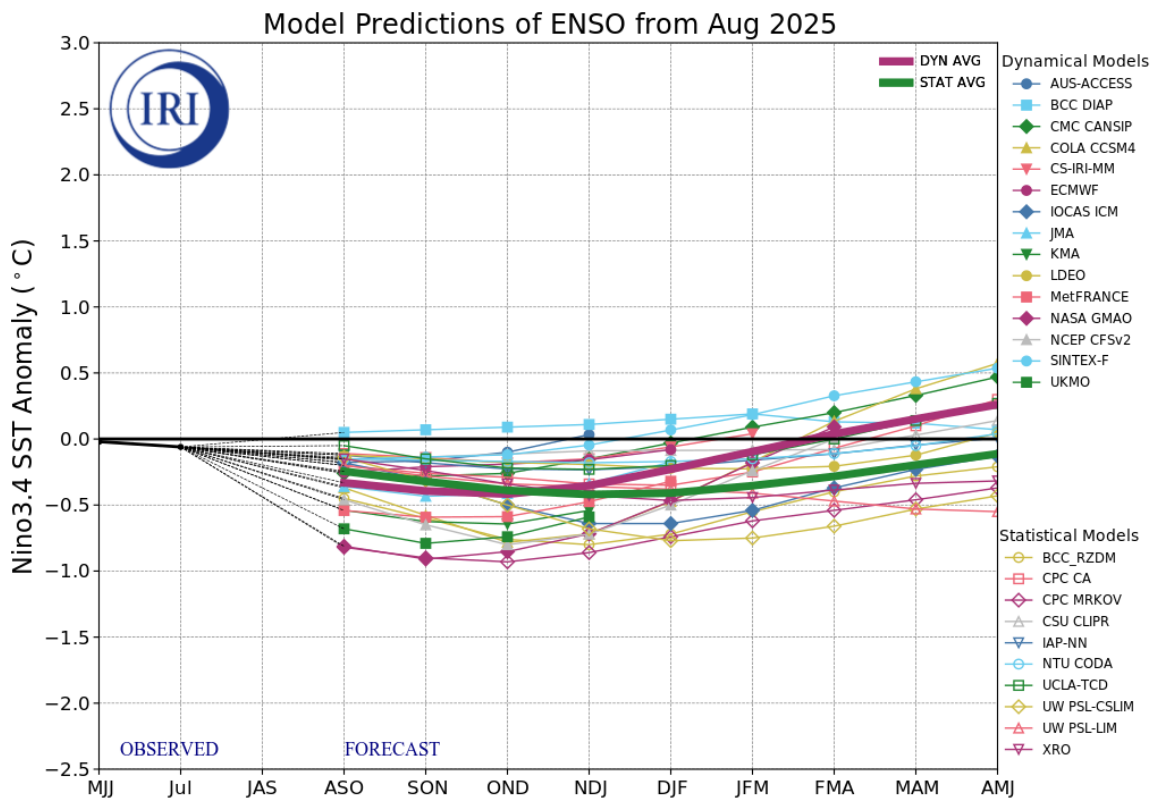


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region ($5^{\circ}N$ - $5^{\circ}S$, $120^{\circ}W$ - $170^{\circ}W$). Figure updated 19 August 2025 by the International Research Institute (IRI) for Climate and Society.

Official NOAA CPC ENSO Probabilities (issued September 2025)

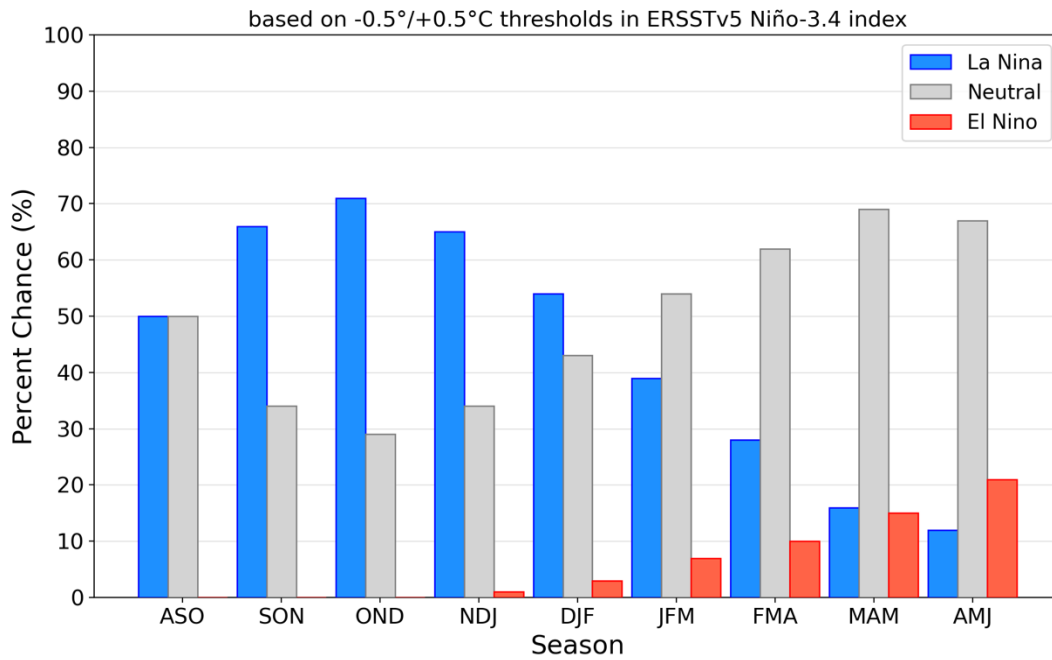


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index (5°N - 5°S , 120°W - 170°W). Figure updated 11 September 2025.