

EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP/NWS

10 July 2025

ENSO Alert System Status: Not Active

Synopsis: ENSO-neutral is most likely through the late Northern Hemisphere summer 2025 (56% chance in August-October). Thereafter, chances of La Niña conditions increase into the fall and winter 2025-26, but remain comparable to ENSO-neutral.

During June 2025, ENSO-neutral continued, with near-average sea surface temperatures (SSTs) prevailing across most of the equatorial Pacific Ocean (Fig. 1). The latest weekly Niño SST index values ranged from 0.0°C to +0.4°C (Fig. 2). Subsurface temperature anomalies were weakly positive and nearly unchanged from last month (Fig. 3), with mostly above-average temperatures established along the thermocline (Fig. 4). Over the east-central and eastern equatorial Pacific Ocean, low-level wind anomalies were easterly and upper-level wind anomalies were westerly. Convection remained enhanced over Indonesia (Fig. 5). Collectively, the coupled ocean-atmosphere system in the tropical Pacific reflected ENSO-neutral.

The IRI predictions indicate ENSO-neutral is most likely through the Northern Hemisphere winter 2025-26 (Fig. 6). In contrast, the North American Multi-Model Ensemble favors the onset of La Niña conditions during the Northern Hemisphere fall, though lasting a shorter duration than NOAA's requirement of five consecutive overlapping 3-month seasons. While the subsurface equatorial Pacific remains above average, easterly trade winds are predicted to strengthen in the coming month, which could portend cooler conditions. In summary, ENSO-neutral is most likely through the late Northern Hemisphere summer 2025 (56% chance in August-October). Thereafter, chances of La Niña conditions increase into the fall and winter 2025-26, but remain nearly equal to ENSO-neutral (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 14 August 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.

Climate Prediction Center
National Centers for Environmental Prediction
NOAA/National Weather Service
College Park, MD 20740

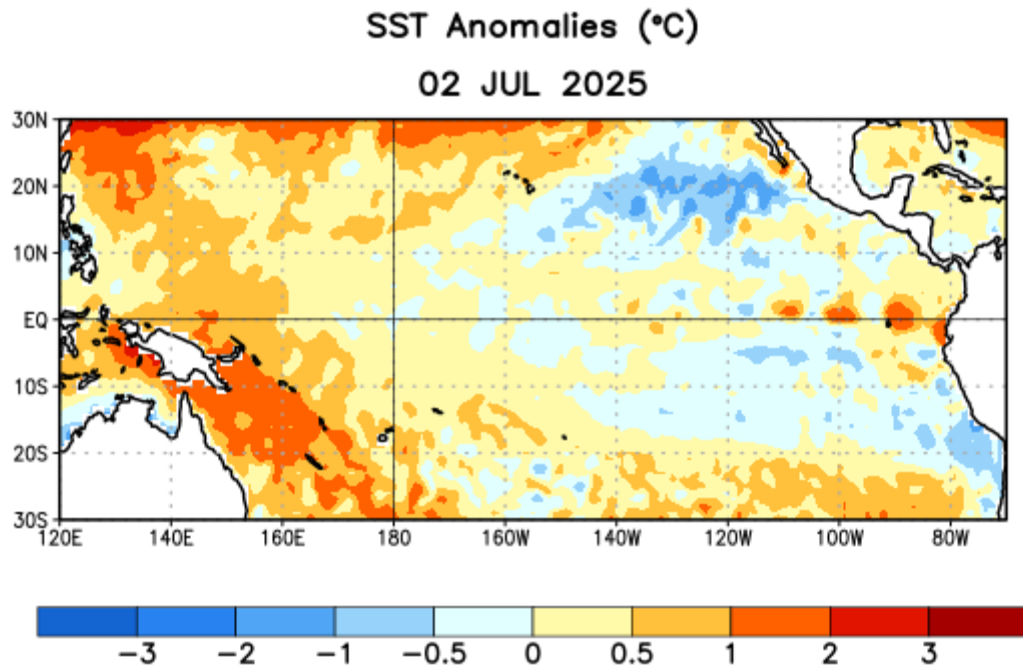


Figure 1. Average sea surface temperature (SST) anomalies (°C) for the week centered on 2 July 2025. Anomalies are computed with respect to the 1991-2020 base period weekly means.

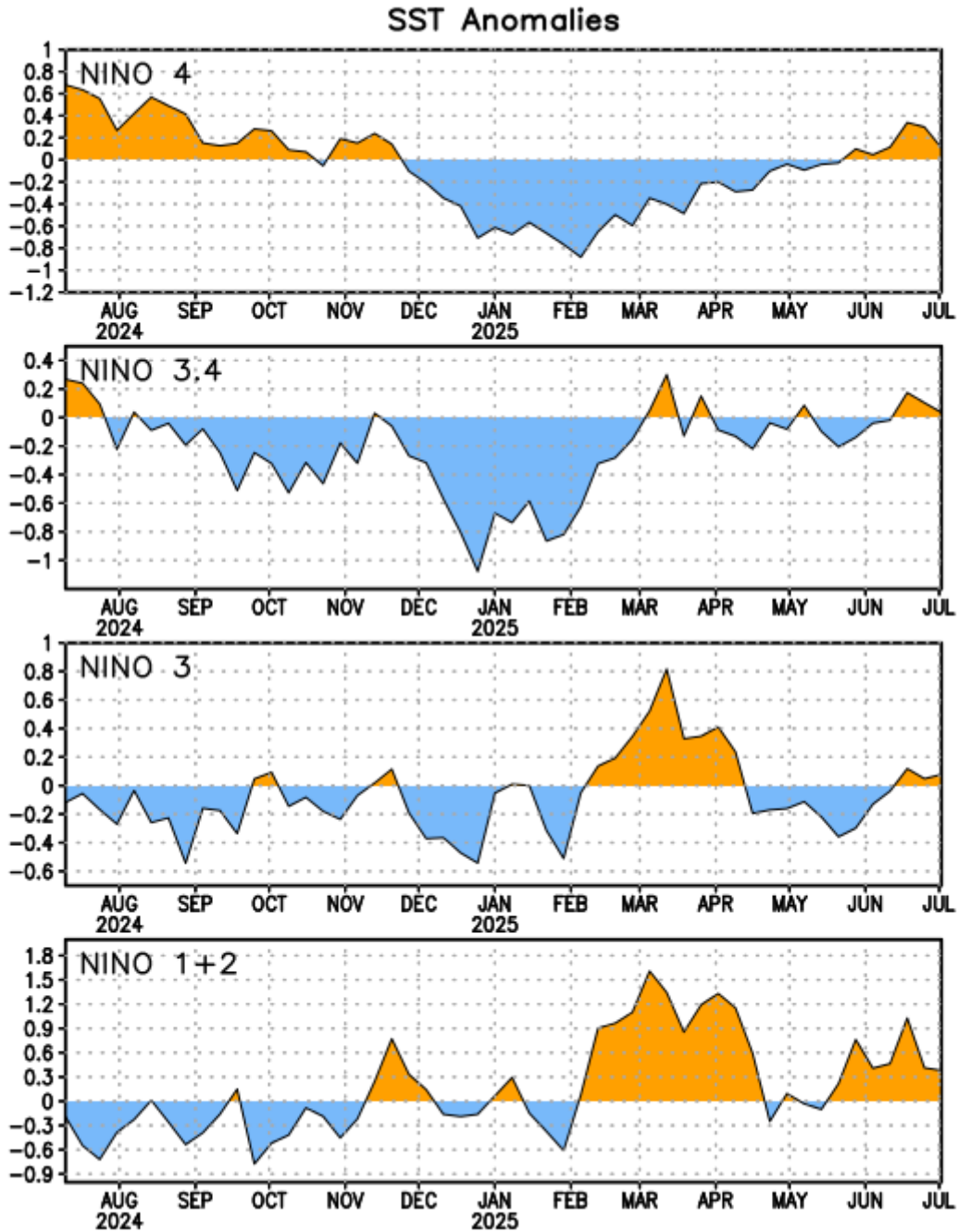


Figure 2. Time series of area-averaged sea surface temperature (SST) anomalies ($^{\circ}\text{C}$) in the Niño regions [Niño-4 (5°N - 5°S , 150°W - 160°E), Niño-3.4 (5°N - 5°S , 170°W - 120°W), Niño-3 (5°N - 5°S , 150°W - 90°W), Niño-1+2 (0° - 10°S , 90°W - 80°W)]. SST anomalies are departures from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

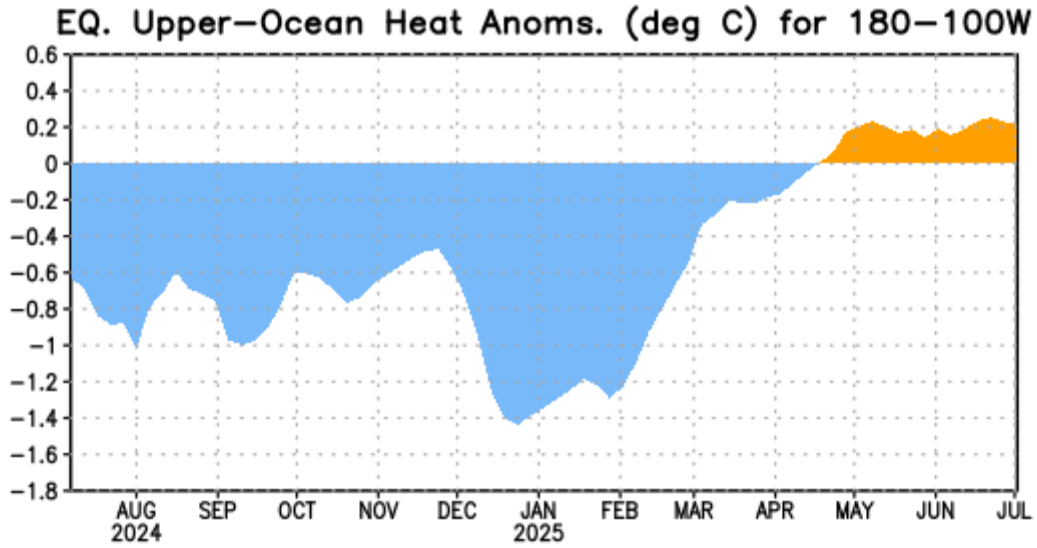


Figure 3. Area-averaged upper-ocean heat content anomaly ($^{\circ}\text{C}$) in the equatorial Pacific (5°N - 5°S , 180° - 100°W). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

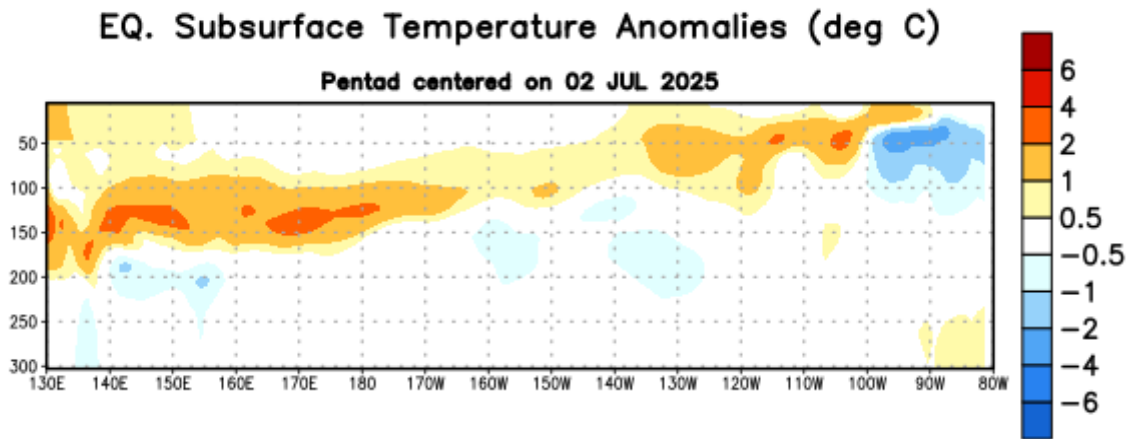


Figure 4. Depth-longitude section of equatorial Pacific upper-ocean (0-300m) temperature anomalies ($^{\circ}\text{C}$) centered on the pentad of 2 July 2025. Anomalies are departures from the 1991-2020 base period pentad means.

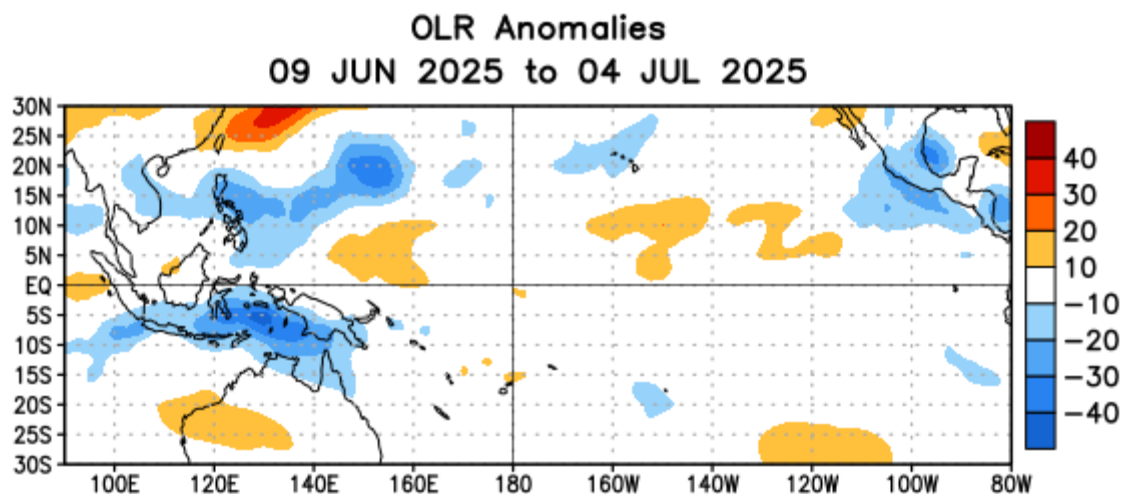


Figure 5. Average outgoing longwave radiation (OLR) anomalies (W/m^2) for the period 9 June – 4 July 2025. OLR anomalies are computed as departures from the 1991–2020 base period pentad means.

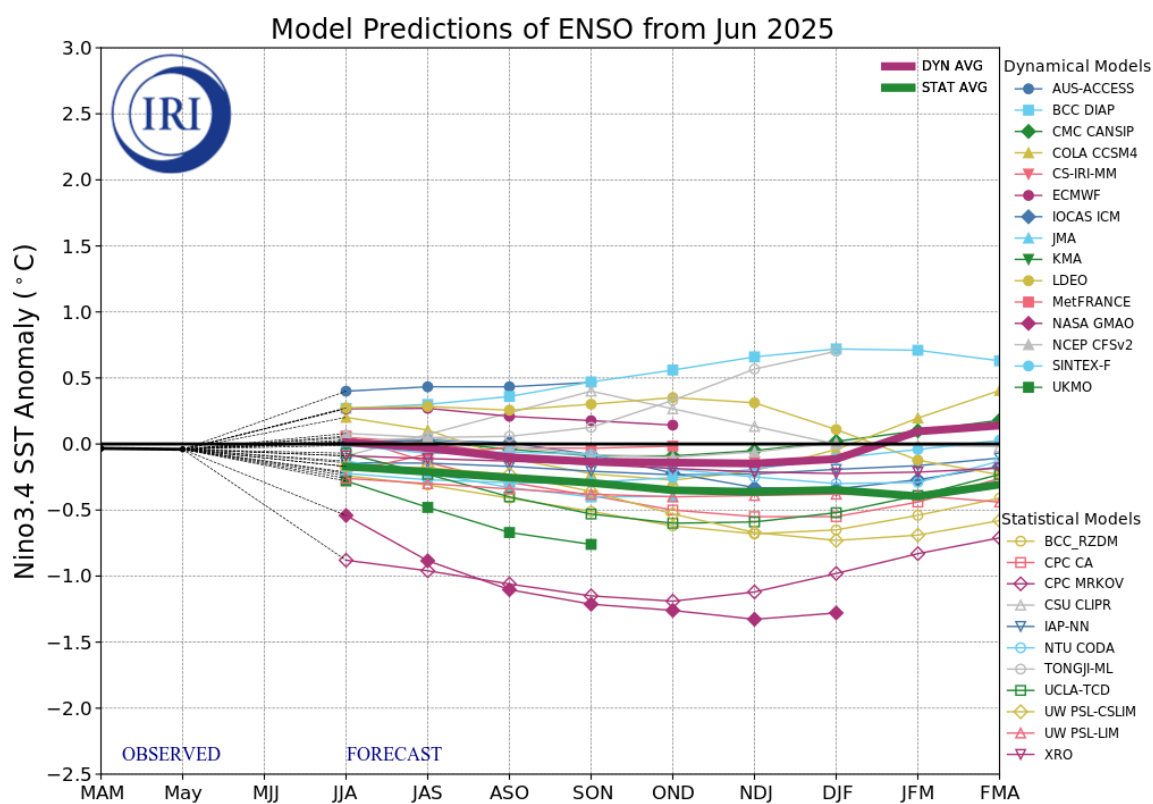


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N – 5°S , 120°W – 170°W). Figure updated 20 June 2025 by the International Research Institute (IRI) for Climate and Society.

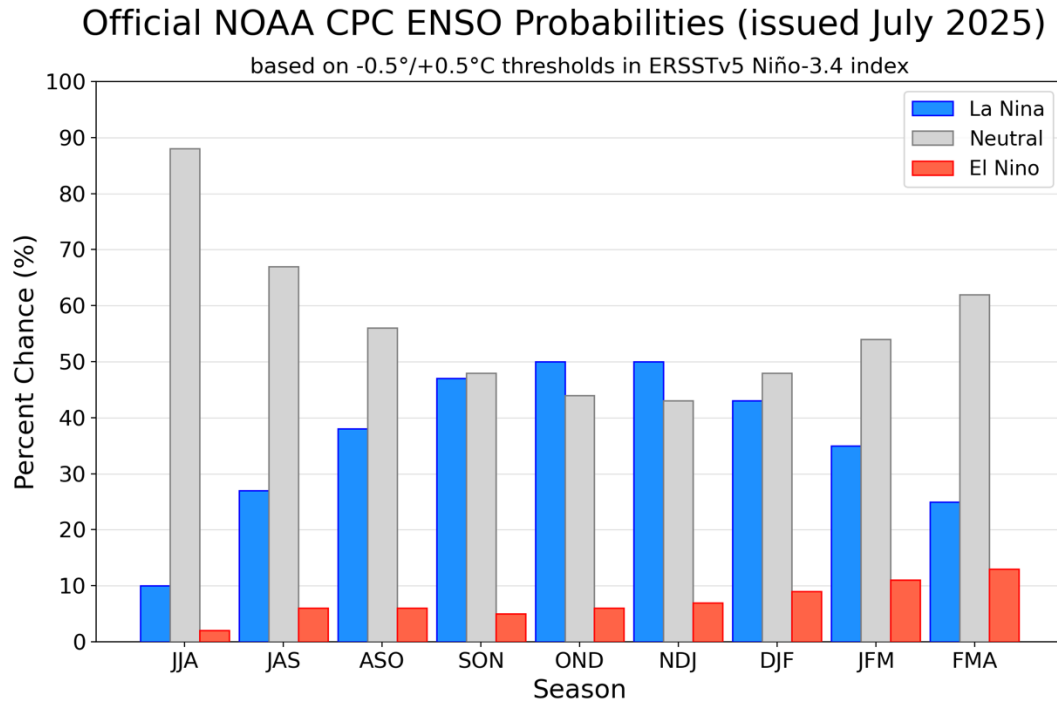


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index (5°N - 5°S , 120°W - 170°W). Figure updated 10 July 2025.