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MAREX[↑]

Weather risk update: El Niño gathers strength



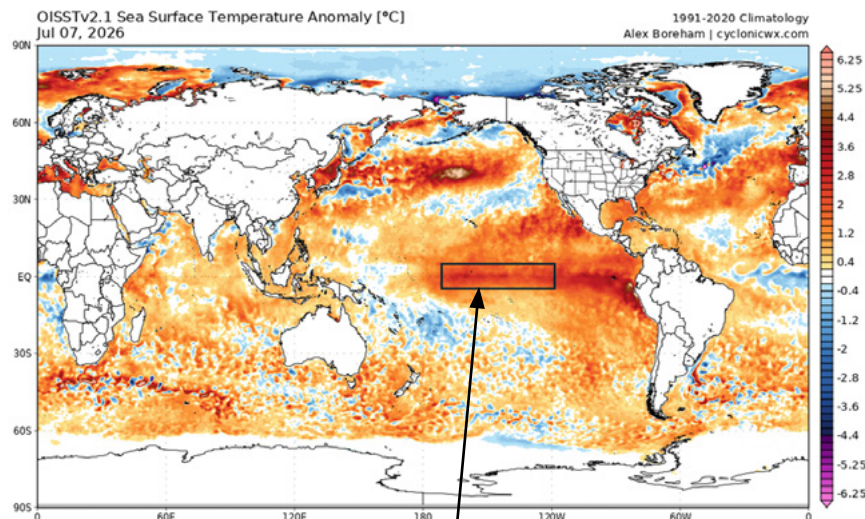
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El Niño is present, with both oceanic and atmospheric indicators consistent with El Niño conditions. NOAA will release its monthly ENSO outlook today. Given recent model updates and warming in June, NOAA may increase the likelihood of a very strong El Niño developing this year in their outlook, which currently stands at 63%.

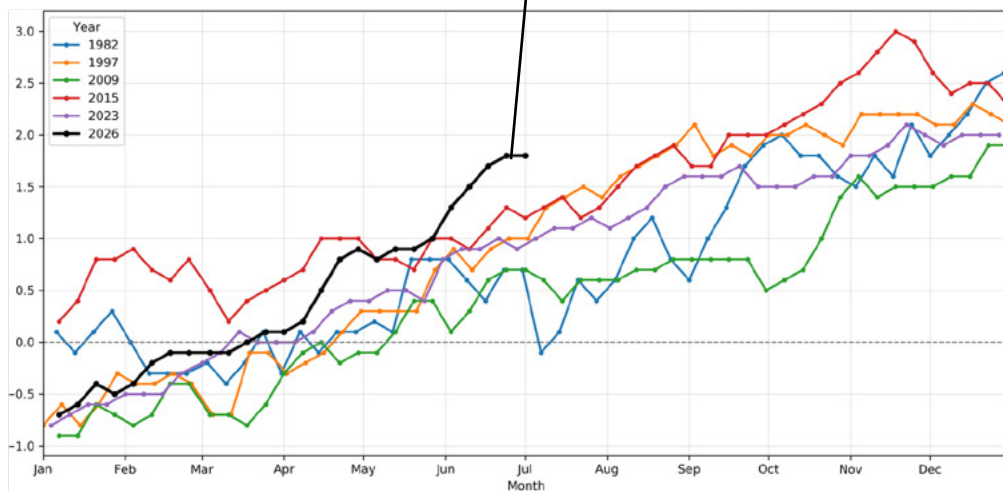
Over the next few pages, we discuss warming Pacific Ocean temperatures, the atmospheric response to this warming, the latest ECMWF and NMME ENSO forecasts, and finally near-term conditions, which remain supportive of further warming in the Niño 3.4 region and El Niño-like weather patterns over the next month.

Sea surface temperatures in the central-eastern equatorial Pacific Ocean warmed quickly during the first half of June, as shown in the chart below. SST anomalies in the Niño 3.4 region reached 1.8°C in the last week of June, while daily sea surface temperatures are near 2°C above normal as of July 7th. This is ahead of the warming seen during previous very strong El Niño events, such as 2015, 1997, and 1982. However, when using the relative index, shown on the next page, the current event is more comparable with these historic events. The relative index compares Niño 3.4 temperatures with the broader tropical Pacific to help account for long-term ocean warming.

Global sea surface temperature anomaly: July 7th



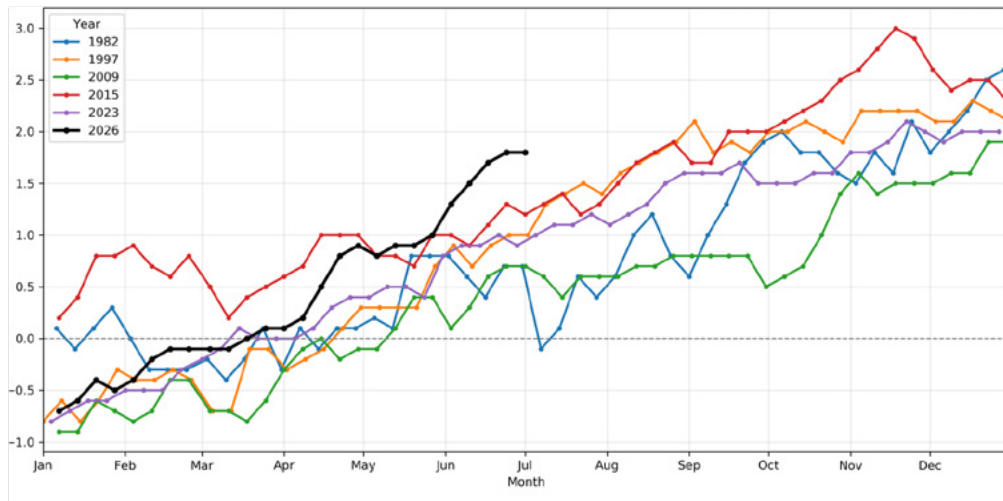
Weekly SST anomaly Niño 3.4 region



Weekly SST anomalies in the Niño 3.4 region during El Niño years. Data: OISSTv2 SST anomalies (NOAA)

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Weekly relative SST anomaly Niño 3.4 region



Weekly SST anomalies in the Niño 3.4 region during El Niño years. Data: OISSTv2 SST anomalies (NOAA)

Atmospheric response to the warming

To assess the atmospheric component of El Niño, one useful index to consider is the Southern Oscillation Index. The SOI measures large-scale fluctuations in air pressure between the western and eastern Pacific. As shown below, the 30-day running average of the SOI dropped into negative territory in April 2026. Sustained values below -7 are typically associated with El Niño, and the index has been firmly negative since mid-May.

Another useful measure is the Multivariate ENSO Index Version 2, which combines sea surface temperatures and four atmospheric variables to assess ENSO conditions. Positive MEI values, above 0.5, reflect El Niño conditions.

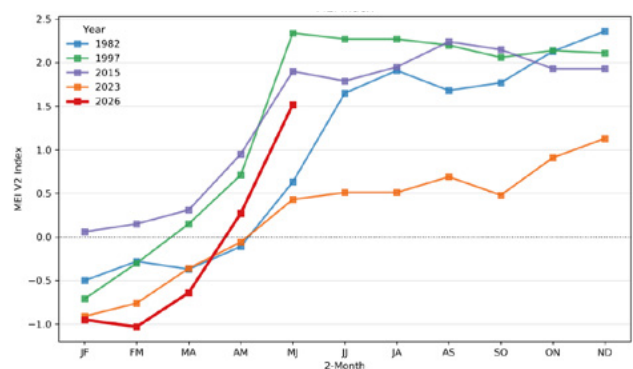
The MEI jumped to 1.5 in May–June, placing it well within El Niño territory. This suggests a stronger atmospheric response than in 2023, and one that is broadly comparable to 2015.

30-day running average of the SOI



Source: Australian Bureau of Meteorology

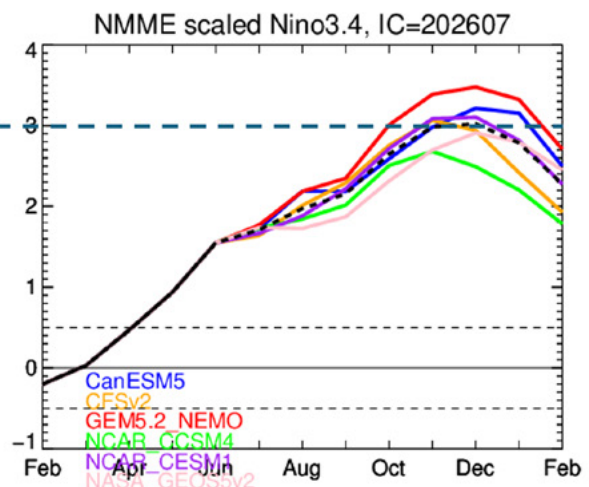
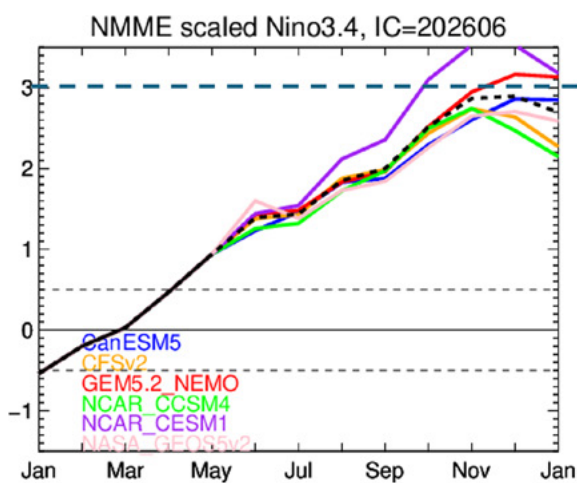
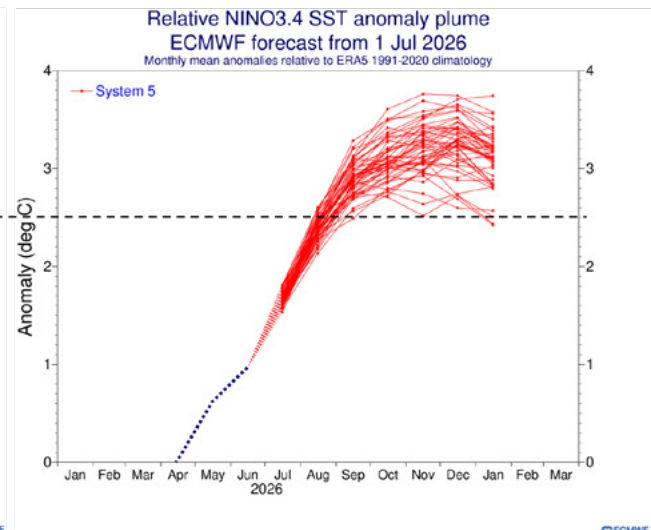
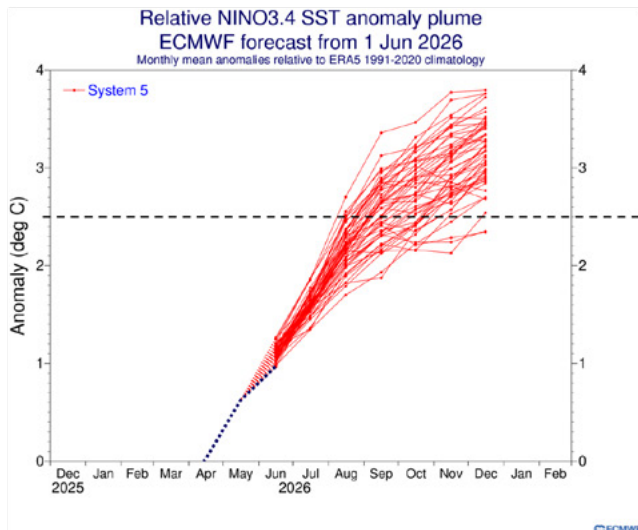
MEI index



Source: NOAA, data: MEI.v2 values (JRA3Q)

July updates

- The ECMWF and NMME updates were released in the first week of July. We are now beyond the spring predictability barrier, when long-range ENSO forecast skill typically improves.
- With the July updates both models have trended toward slightly warmer SST anomalies developing in the Niño 3.4 region by the end of the year. The ECMWF forecast, displayed below, uses relative SST anomalies, and all ensemble members now indicate a very strong El Niño developing by late 2026; three consecutive months of anomalies above 2.5°C.
- The NMME ensemble mean, shown using traditional Niño 3.4 SST anomalies rather than the relative index, reaches 3°C above normal in November–December. The forecast for the relative index reaches 2.64 °C in Oct – Dec.
- Both models show warm SST anomalies peaking between November – December, followed by cooling in early 2027.



Source: ECMWF, NMME

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- The CFS velocity potential forecast, shown below, indicates where large-scale rising and sinking motion is expected across the tropics. Over the next month, sinking motion is forecast over the Indian Ocean, while rising motion is forecast over the central and eastern Pacific, where sea surface temperatures are warmer than normal. This pattern is typical of El Niño.
- Westerly winds are also expected to continue supporting warming across the central and eastern Pacific over the next month. Forecast rainfall patterns over the next few weeks are broadly consistent with El Niño-like conditions, with a return to drier conditions in western India through mid-July. Over the next 30 days, relatively dry conditions are forecast across much of Indonesia, while above-normal rainfall is expected in southern Brazil.

