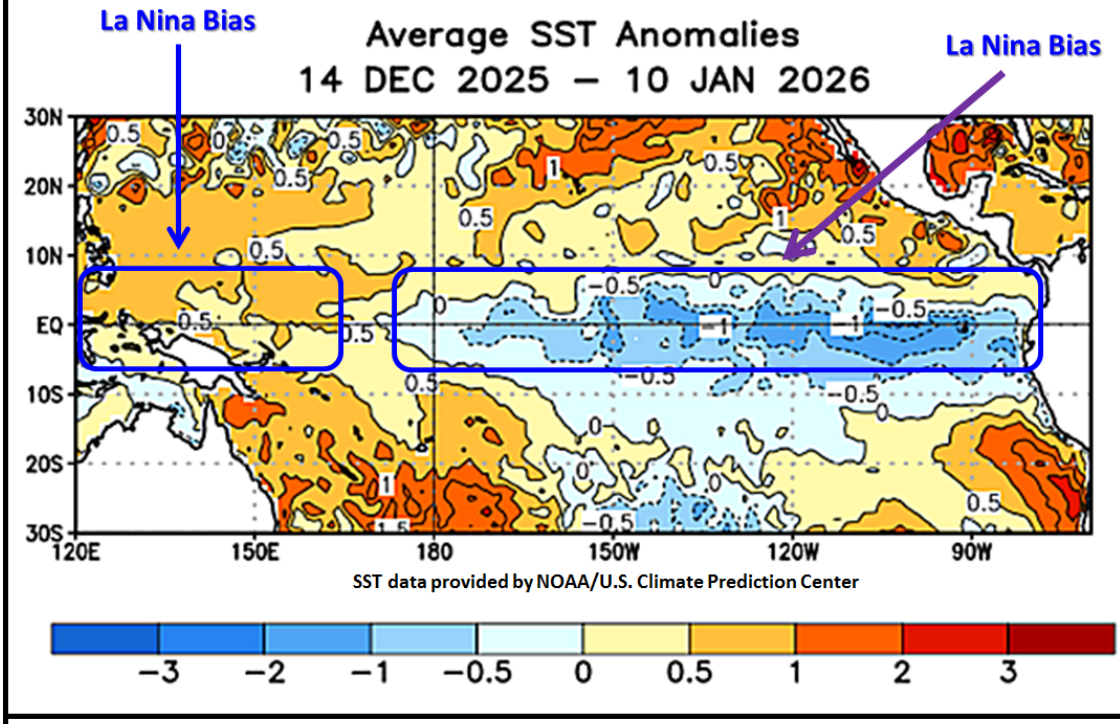
El Nino May Not Arrive As Quickly As Some Models Suggest

By Drew Lerner

Kansas City, January 13 (World Weather Inc.) – La Nina continues in place across the eastern equatorial region of the Pacific Ocean and is likely to linger a little while longer. ***Many computer forecast models have been suggesting that the event will dissipate in the next several weeks and speculation has begun over the possible development of El Nino. World Weather, Inc. believes the U.S. National Oceanic and Atmospheric Administration's (NOAA) CFSv2 ENSO model is being too aggressive with a forecast of El Nino by the end of spring or early summer. A more likely solution is neutral ENSO conditions during spring and early summer and a gradual evolution toward El Nino late in the third quarter or more likely in the fourth quarter of this calendar year.***

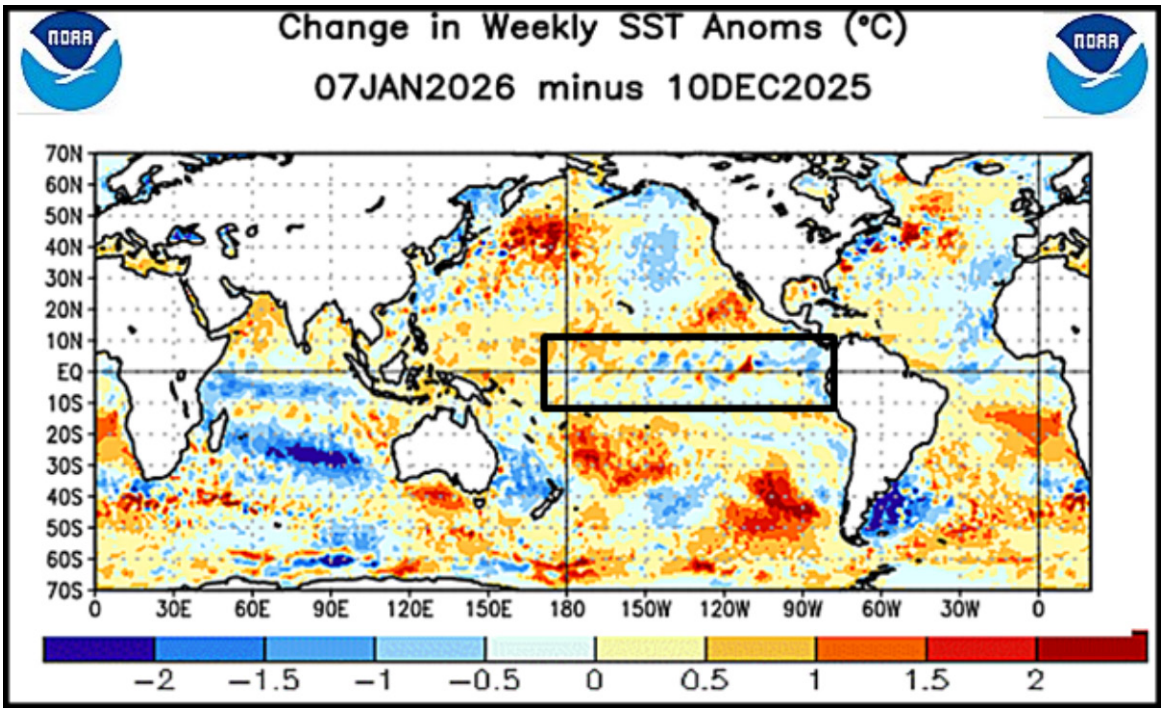


La Nina is still influencing the world's weather, but changes are taking place beneath the surface of the ocean that are likely to change the ENSO phase in the next few months. Warming will end La Nina soon with neutral ENSO conditions through spring.

La Nina conditions remain in place across the tropical Pacific Ocean today, but there is considerable evidence that it will begin a more notable weakening trend in the next few weeks. Subsurface ocean warming has been steadily occurring for the past few weeks and the warmer water has begun to reach the eastern Pacific Ocean where upwelling currents are likely to carry the warmer water to the surface of the ocean in late January and February. These changes should greatly diminish the influence of La Nina as surface water temperatures beging to warm.

This year's La Nina has been weak, but it has certainly contributed to the wet bias in Southeast Asia. The influence has not been traditional in South America, despite the current

dryness in Buenos Aires and La Pampa. La Nina has shown more typical results in North America, although some of the trend in that part of the world is coming more from other prevailing weather patterns rather than La Nina and when La Nina begins to dissipate some of the changes in weather across the United States and Canada may be slow to evolve.



Recent changes in surface ocean temperatures across the tropical Pacific Ocean east of the International dateline show a mixed tendency with parts of the ocean body trending warmer and parts cooling. This mixed pattern change in ocean surface temperatures suggests no definitive trend change misleading some forecasters into believing changes in La Nina are unlikely for a while. However, subsurface ocean temperatures have been changing greatly with a notable trend change toward warming.

A notable transport of warm water from the western tropical Pacific Ocean into the eastern Pacific Ocean deep below the ocean's surface the past few months is extremely important. As the warm water advances to the east it will soon be met with an upwelling current in the ocean that tends to bring subsurface ocean water to the surface. Once the warming trend gets into the eastern Pacific, this upwelling current will bring the warmer water to the surface ending the La Nina event. This process will evolve in late January and early February.

The key to El Nino forecasts are based on the prediction of how much additional warming will occur across the tropical Pacific Ocean in coming weeks and months. The NOAA CFSv2 ENSO model is notorious for overestimating the speed in which ENSO events evolve or dissipate. In January of 2023 and January 2024 this same model predicted La Nina events would evolve by the end of spring or early summer just like the model is now predicting El Nino by the same time. In both predictions the NOAA model missed the forecast by nearly six months with La Nina events developing at the end of each of those years.

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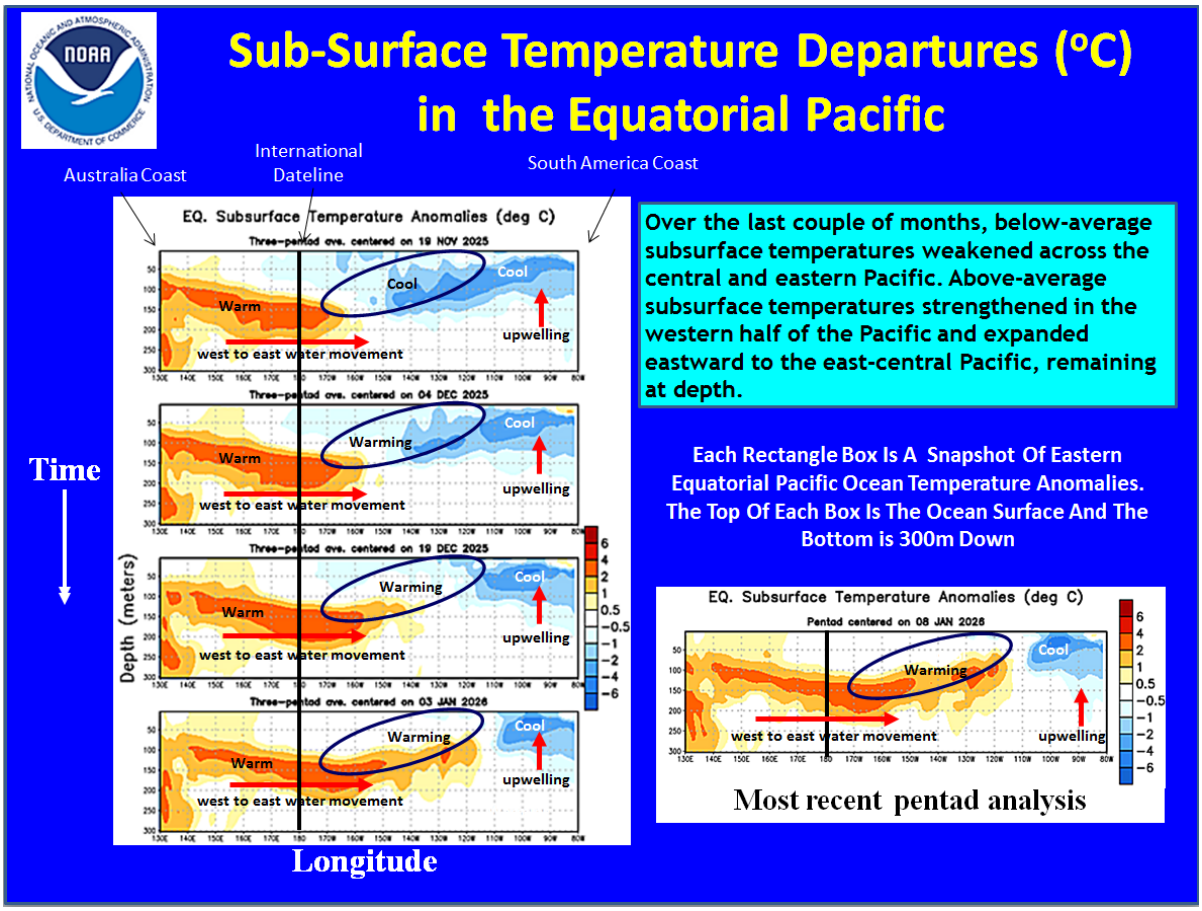
The CFSv2 ENSO model is best used in the first three months of the forecast. After that it tends to have a low verification score especially in forecasts made during the winter for the coming year. With that in mind, much caution is advised when noting that the model has predicted El Nino by summer.



World Weather, Inc. believes the trend toward El Nino will evolve later this year, but confidence in the evolution of El Nino in the next six months is low. It is not an impossible feat, but just a little too aggressive. Analog years have shown this same trend to have occurred in the past and that is one of the reasons for being more conservative with the outlook. Confidence is rising, though that the influence of an El Nino event on world weather in late 2026 and 2027 is relatively high.

Studies have revealed that moving from a La Nina to an El Nino event does tend to induce some atmospheric changes including the development of dryness in parts of Southeast Asia (Indonesia and Malaysia in particular) during the neutral ENSO period between the two events. That suggests that the abundant to excessive rains that have been falling in Indonesia, Malaysia and the Philippines in recent weeks and months will soon be replaced by drier than usual conditions in pockets. This change should show up in the latter part of the second quarter and especially in the third quarter of this calendar year.

Despite some forecasters blaming southern Argentina's dryness on La Nina it is likely coming from a combination of La Nina and other weather patterns. For North America, there is potential that the drier bias in the central and southwestern United States

may linger beyond the demise of La Nina because of a pattern disfavoring precipitation coming from the lunar cycle. That could lead to additional below-normal precipitation in the early spring.

A similar problem with drier and warmer biased weather may impact western Canada this late winter and early spring after La Nina abates, but that will not stop some forecasters from blaming La Nina. These patterns of dryness in North America will breakdown in late spring and a much different pattern should be around in the summer including; frequent rain in western Canada and parts of the northern and western U.S. Midwest, improved rainfall in the Great Plains and returning dryness in the southeastern United States.