

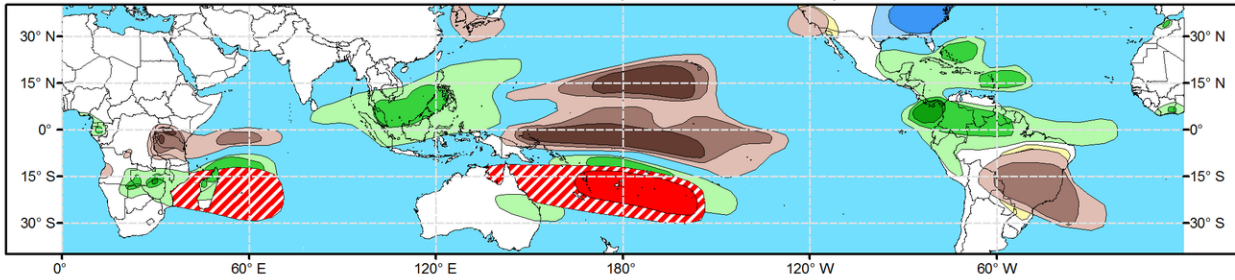


Global Tropics Hazards Outlook

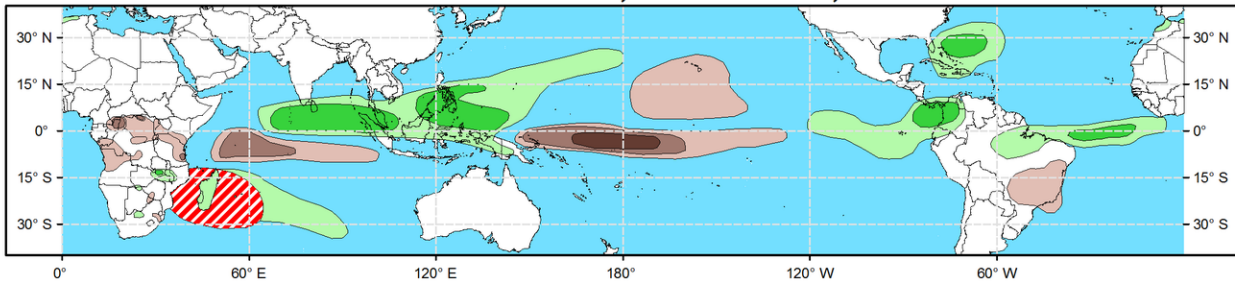
Climate Prediction Center



Week 2 - Valid: Feb 19, 2025 - Feb 25, 2025



Week 3 - Valid: Feb 26, 2025 - Mar 04, 2025



Tropical Cyclone (TC) Formation Probability

>20% >40% >60%

Tropical Depression (TD) or greater strength

Above-Average Rainfall Probability

>50% >65% >80%

Weekly total rainfall in the Upper third of the historical range

Below-Average Rainfall Probability

>50% >65% >80%

Weekly total rainfall in the Lower third of the historical range

Above-Average Temperatures Probability

>50% >65% >80%

7-day max temperatures in the Upper third of the historical range

Below-Average Temperatures Probability

>50% >65% >80%

7-day min temperatures in the Lower third of the historical range

Issued: 02/11/2025
Forecaster: Allgood

This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

A robust MJO event continues during early February, with both the RMM-based and CPC upper-level velocity potential based MJO indices depicting a high amplitude signal with consistent eastward propagation. The enhanced convective phase of this intraseasonal signal is currently crossing the West Pacific, where it is beginning to destructively interfere with the La Niña base state. This interference is becoming increasingly apparent as a less coherent presentation on spatial maps of upper-level velocity potential anomalies. While dynamical model forecasts show suppressed convection continuing to reign along the Equator near the Date Line, the MJO may contribute to a temporary weakening of the enhanced trade wind regime across the Pacific, and the teleconnections between the MJO activity and the extratropical base state appear to be significantly more robust than the ENSO response. Dynamical model forecasts of the MJO index consistently show an amplified MJO signal crossing the Western Hemisphere during Week-2. The signal becomes more diffuse among the ensemble systems during Week-3, with differences in the phase speed and amplitude of the MJO signal, but the majority of the guidance continues to depict an eastward propagating signal. Therefore, the MJO is favored to continue playing a substantive role in the evolution of the global tropical convective pattern. As the signal potentially returns to the Indian Ocean, constructive interference with the cold ENSO base state may result in a trade wind surge across the Pacific basin.

Although only one tropical cyclone formed since February 5, TS-16P just south of New Caledonia, the southern hemisphere tropics remains extremely active, with four ongoing systems. Three tropical cyclones are ongoing in the Indian Ocean basin: TC Talia over the south-central Indian Ocean, Vince over the southwestern Indian Ocean, and TS-17S just north of Australia's Kimberley Coast. Both TCs Talia and Vince are forecast to recurve over open waters, with

minimal threat to land. TS-17S, however, is forecast to gradually intensify prior to landfall over Western Australia, bringing significant rainfall, wind, and storm surge impacts to the Kimberley Coast. During Week-2, dynamical model guidance and composites of historical tropical cyclone activity during MJO events show an area of enhanced favorability for tropical cyclogenesis over the South Pacific, extending from the Gulf of Carpentaria and Coral Sea across Fiji and American Samoa and extending well east of the Date Line. This region may remain favorable into early Week-3, but dynamical model guidance becomes increasingly diffuse, and anticipated MJO activity would increase unfavorability for additional development. Tropical cyclone formations are also possible through the forecast period in the vicinity of Madagascar, either over the southwestern Indian Ocean or the Mozambique Channel. MJO composites show increased favorability during the Week-3 period.

Forecasts for above- and below-average precipitation are based on a continued La Niña response - particularly the high confidence region of suppressed rainfall along the Equator near the Date Line - and anticipated MJO activity crossing the Western Hemisphere during Week-2, and potentially the Indian Ocean during Week-3. A skill weighted consensus of operational dynamical model guidance was used to enhance the details and probabilities of above- and below-average precipitation. Below-average precipitation in the vicinity of Hawaii may be due in part to MJO activity, and persistent ridging in the vicinity of the US West Coast favors below-average precipitation across the Southwest. Dynamical models depict an area of suppressed rainfall and hot temperatures across central and southern Brazil. Forecasts over Africa were made in conjunction with the CPC International Desk.

For hazardous weather conditions in your area during the coming two-week period, please refer to your local NWS office, the Medium Range Hazards Forecast produced by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook.