

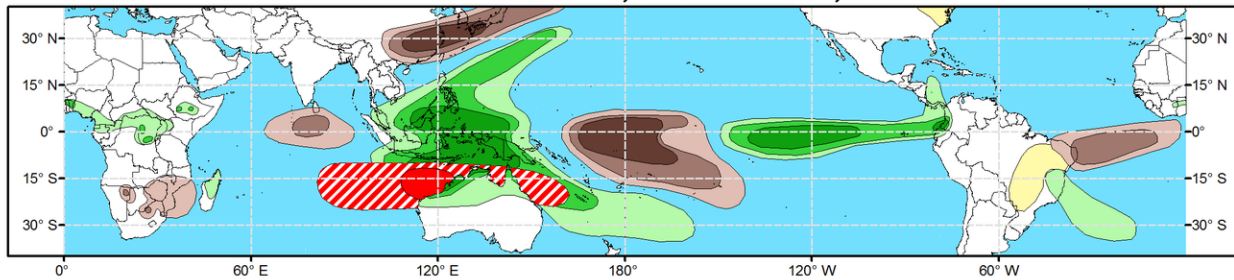


Global Tropics Hazards Outlook

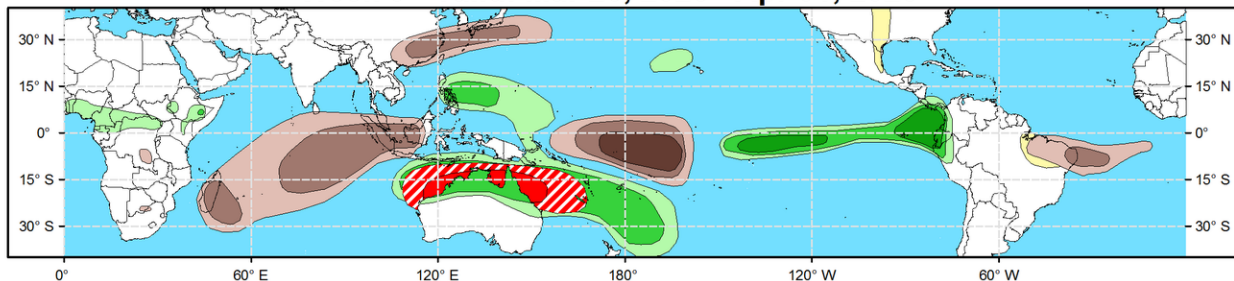
Climate Prediction Center



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



Week 3 - Valid: Mar 26, 2025 - Apr 01, 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: 03/11/2025
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.

During the past week, the spatial structure of upper-level velocity potential anomalies became increasingly coherent, presenting a Wave-1 structure with eastward propagation of the broad-scale anomaly field. This activity corresponded to an amplification of the RMM-based Madden-Julian Oscillation (MJO) index. Therefore, an active MJO appears to have re-emerged from the chaotic pattern at the end of February, with the enhanced convective phase now centered over Africa. Dynamical model MJO index forecasts depict an amplified signal propagating across the Indian Ocean during Week-1, reaching the Maritime Continent during Week-2, and a more uncertain evolution by Week-3. In addition to this intraseasonal signal, a complex low-frequency base state is also contributing to the global tropical convective pattern. La Nina conditions continue, with below-average SSTs and enhanced trade winds west of 150W. Across the east-central and far eastern Pacific, however, persistent low-level westerlies have resulted in a shallow surface layer of above-average ocean temperatures, more typical of an El Nino event. These above-average SSTs are resulting in enhanced convection along the Equator over the eastern Pacific, extending over western South America and portions of Central America, while suppressed convection remains fixed near the Date Line. This highly unusual ENSO structure is likely to influence the MJO evolution as the enhanced signal reaches the Pacific, and may partly explain the uncertainty in the dynamical model guidance.

Two tropical cyclones formed in the past week over the southern Indian Ocean, continuing a highly active tropical cyclone season for the basin. Tropical Storm Ivone formed on March 8 well east of Madagascar, and has been meandering over open waters during the last several days. No direct impacts to land are anticipated in association with this system. Later on March 8, Tropical Cyclone Jude formed closer to Madagascar, clipping the northern portion of the island

and eventually making a second landfall over Mozambique at Category-1 intensity on the Saffir-Simpson scale and bringing widespread wind and flooding impacts. During the outlook period, an area of enhanced favorability for tropical cyclogenesis is forecast to progress from the south-central Indian Ocean to the eastern portion of the basin - the vicinity of northern Australia - during Week-2. The highest probabilities for formation based on historical MJO events and dynamical model guidance exist near the Kimberley Coast and Pilbara Coast of Western Australia. During Week-3, this area of enhanced favorability shifts slightly eastward, with higher probabilities for formation building across the Gulf of Carpentaria and Coral Sea. Development over the northwestern Pacific is also possible, especially during Week-3, but confidence is too low to include a hazard on this outlook.

Forecasts for above- and below-average precipitation are based on an analysis of historical MJO activity for phases corresponding to the outlook, which are a Maritime Continent event during Week-2, and a West Pacific event during Week-3. The ENSO base state is also favored to contribute to suppressed rainfall near the equatorial Date Line, while the warm SSTs across the eastern Pacific favor enhanced rainfall, with high probabilities for persistent enhanced rainfall across western South America, which could generate flooding concerns. An active pattern is also favored for much of the Maritime Continent, including Australia following a break during the last week or two. Forecasts across the Western Hemisphere lean more heavily on a skill weighted consensus of dynamical model guidance, as MJO anomalies tend to be weaker in these regions. Forecasts over Africa are made in coordination with CPC's 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.