

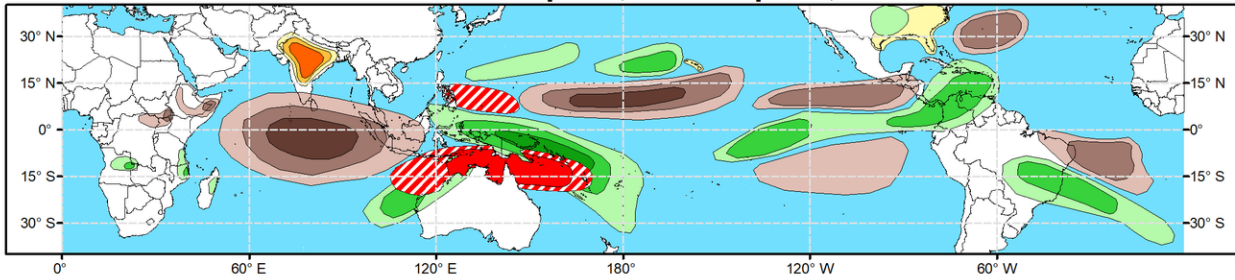


Global Tropics Hazards Outlook

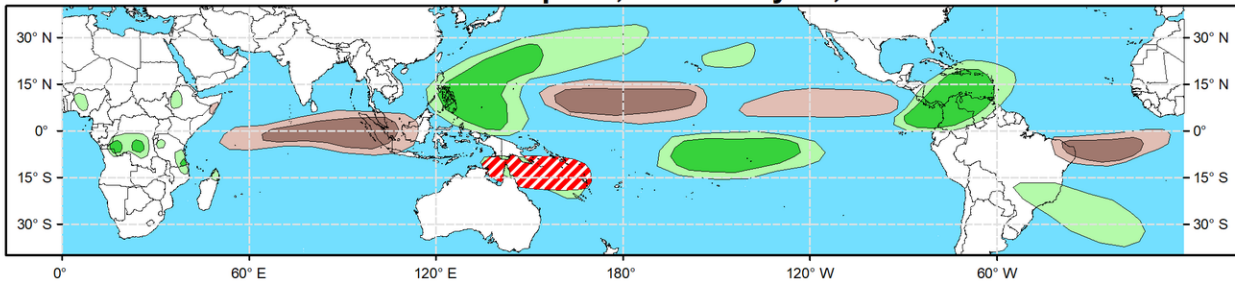
Climate Prediction Center



Week 2 - Valid: Apr 23, 2025 - Apr 29, 2025



Week 3 - Valid: Apr 30, 2025 - May 06, 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: 04/15/2025
Forecaster: Collow

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.

The Madden Julian Oscillation (MJO) has been inactive since late March with the RMM-based index meandering within the unit circle for the past couple weeks, and a convectively coupled Kevin Wave (CCKW) likely to spread enhanced convection across the eastern Pacific by next week. ENSO-neutral conditions have returned to the tropical Pacific further limiting the tropical forcing. The ECENS and GEFS ensembles indicate a re-emergence of the MJO across the Western Pacific by week-2, but this is more likely tied to an enhanced low frequency convective state developing over the region, with limited eastward propagation. Suppressed convective activity is forecast upstream over the Indian Ocean.

Despite the lack of MJO, and a decreasing climatology for tropical cyclogenesis, tropical cyclone (TC) formation was observed in the southern Indian Ocean and South Pacific during the past week. Tropical Cyclone Errol developed on April 11 over the Timor Sea (11 deg S, 128 deg E) and has been moving southwestward offshore the Kimberley Coast of Australia. Tropical Cyclone Tam formed on April 14 near Vanuatu (15 deg S, 168 deg E) and is tracking southward. Additional TC formations are possible in week-1, with Invests 97P and 99S located over the Gulf of Carpentaria and southern Indian Ocean respectively. By week-2, the increasing MJO signal across phases 6 and 7, along with reduced wind shear, support continued enhanced chances for additional TC development, with a 40-60 percent chance highlighted from the Timor Sea eastward through the Coral Sea. A broader 20-40 percent area stretches from off the northwest Australia coast to Vanuatu. By week-3, climatology wanes significantly, and the MJO may shift more into phases 7 and 8. This would favor reduced confidence for TC formation further west, but continued enhanced TC activity is not ruled out across the Gulf of Carpentaria and Coral Sea where 20-40 percent chances are posted.

Across the western north Pacific, individual GEFS and ECENS ensemble members depict surface low pressure tracking to the east of the Philippines tied to the enhanced convective envelope developing over the region. There is some uncertainty regarding the tropical nature of this system versus frontal influence. However, given the favorable convective environment aloft and support from MJO composites, a 20-40 percent chance for TC formation is highlighted over the area. Similar dynamics may continue into week-3 given the nearly stationary convective envelope. However, the uncertainty combined with the longer lead precludes continuing the 20-40 percent risk area, and this time frame will be reassessed next week.

Forecasts for enhanced and suppressed precipitation are mainly based on a consolidated skill weighted blend of GEFS, CFSv2, and ECMWF ensemble systems, anticipated TC tracks, with some consideration of historical MJO composites for Mar-May for phases 6-8. Less emphasis is given to ENSO given the return to neutral conditions. Above-normal rainfall is forecast across the Western Pacific and Maritime Continent, with below-normal rainfall upstream over the Indian Ocean. Surface low pressure across the central Pacific may bring some enhanced rainfall in the vicinity of Hawaii. Above-normal temperatures are favored over parts of India, with daytime maximum temperatures possibly exceeding 100 deg F during week-2. Above-normal temperatures are also predicted across the south-central and southeastern U.S.

Forecasts for Africa are made in coordination with the CPC International Desk. For hazardous weather concerns in your area for the next two weeks, please refer to your local NWS office, the Medium Range Hazards Outlook issued by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook.