

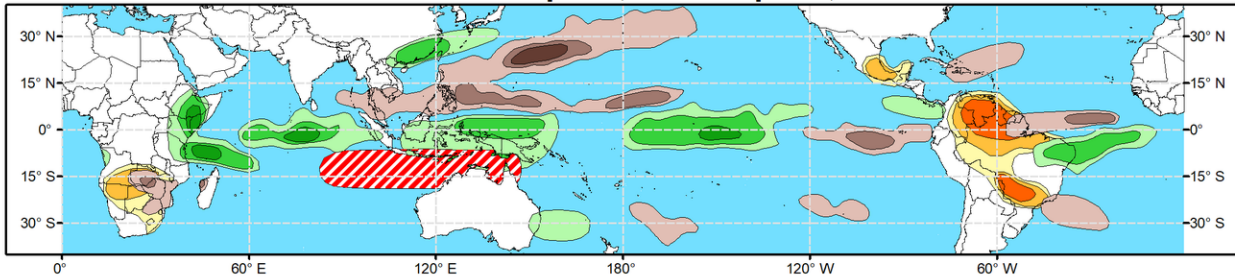


Global Tropics Hazards Outlook

Climate Prediction Center

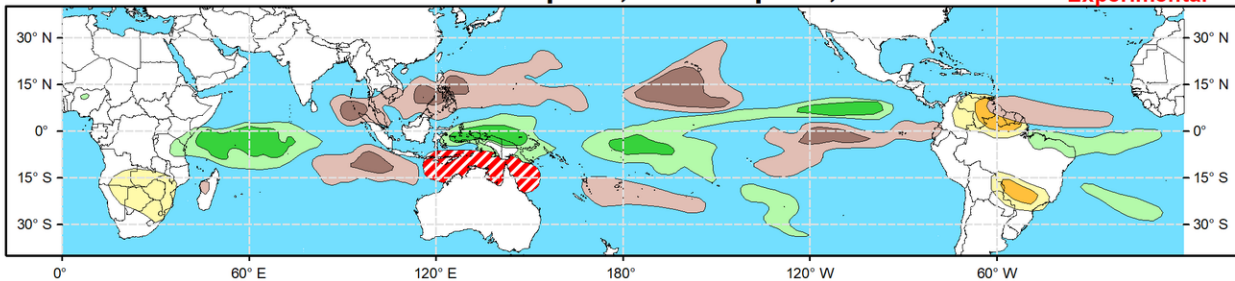


Week 2 - Valid: Apr 03, 2024 - Apr 09, 2024



Week 3 - Valid: Apr 10, 2024 - Apr 16, 2024

**** Experimental ****



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: 03/26/2024
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.

A robust Madden Julian Oscillation (MJO) signal has circumnavigated the globe during the past month and now resides across the Western Hemisphere (phase 1), with a well defined wave-1 asymmetry pattern in the global upper-level velocity potential field. This MJO event has led to significant upwelling across the Equatorial Pacific resulting in SSTs continuing to decrease, along with an increase of below-normal subsurface temperatures, reflective of a weakening El Nino. The MJO is forecast to return to the Indian Ocean by early April, with the CFS, GEFs, and ECMWF ensembles indicating a continued eastward propagation toward the Maritime Continent and far Western Pacific by week-3. Ensemble variability increases in the models, with some individual members weakening the MJO into the RMM-based unit circle, although others maintain a higher amplitude into mid-April. Uncertainty in the RMM-based forecast can be attributed to the 120-day mean removal which includes the +IOD event this past fall, and the uncertainty regarding the transition out of El Nino.

The only tropical cyclone (TC) formation in the past week was Gamane on 3/26 just to the northeast of Madagascar. During week-2, enhanced TC development chances (20 percent or greater) are forecast to shift toward the eastern Indian Ocean and along the northern coast of Australia. Higher probabilities were considered due to MJO composites, but uncertainty in the MJO strength along with generally weak signals for TC development in the dynamical guidance supported keeping probabilities low. By week-3, dynamical guidance depicts increased signals for TC formation near and along the northern coast of Australia, and decreasing chances over the eastern Indian Ocean as more suppressed convection builds in the wake of the MJO. However, only 20 percent or greater probabilities for TC formation are indicated across the northern Australia coast as the diminishing seasonal climatology by week-3 precludes higher probabilities.

The precipitation outlook for weeks 2 and 3 is based on potential TC activity, the anticipated state of the MJO, and a skill-weighted consensus of GEFS, CFS, Canadian, and ECMWF ensemble mean solutions. Above-normal rainfall is favored across the Equatorial Indian Ocean, extending into the Maritime Continent during week-2, consistent with the MJO propagation. A drying trend is likely across some of these areas by week-3, although the emergence of a low-frequency signal across the Indian Ocean is likely to persist above-normal rainfall chances across portions of eastern Africa and the western Indian Ocean. Above-normal precipitation chances remain elevated for the Equatorial central and eastern Pacific for both weeks due to El Nino. Above-normal temperatures are favored across parts of southern Africa, and Central and South America, with some of these areas having maximum temperatures greater than 35 deg C (95 deg F), exacerbating water supply concerns.

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. Forecasts made over Africa are made in coordination with the International Desk at CPC.