

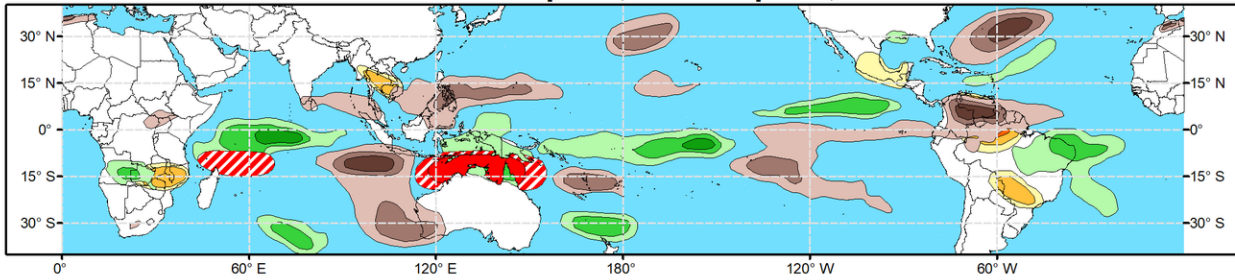


# Global Tropics Hazards Outlook

## Climate Prediction Center

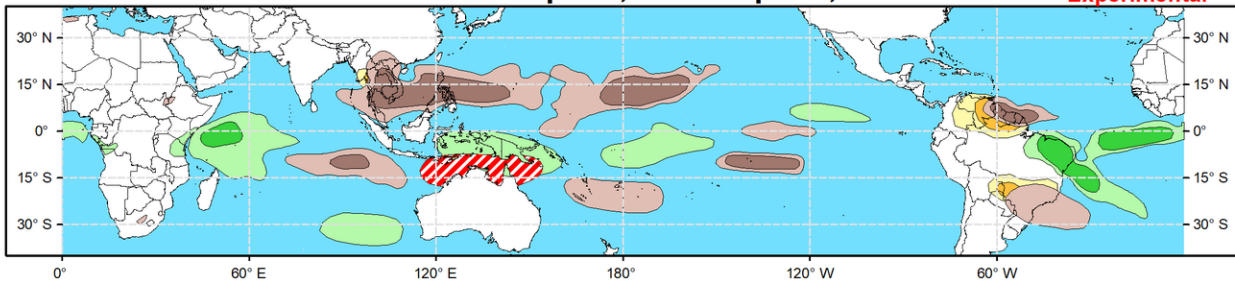


**Week 2 - Valid: Apr 10, 2024 - Apr 16, 2024**

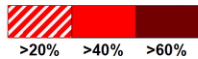


**Week 3 - Valid: Apr 17, 2024 - Apr 23, 2024**

**\*\* Experimental \*\***

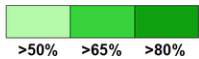


**Tropical Cyclone (TC)  
Formation Probability**



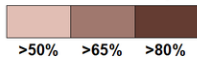
Tropical Depression (TD)  
or greater strength

**Above-Average  
Rainfall Probability**



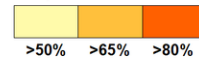
Weekly total rainfall in the  
Upper third of the historical range

**Below-Average  
Rainfall Probability**



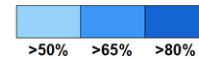
Weekly total rainfall in the  
Lower third of the historical range

**Above-Average  
Temperatures Probability**



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

**Below-Average  
Temperatures Probability**



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

**Issued: 04/02/2024**

**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.**

The Madden Julian Oscillation (MJO) has slowed its eastward propagation during the past week, with the amplitude weakening as it crossed back into the Eastern Hemisphere. The CFS, ECMWF, and GEFs ensembles all predict renewed propagation through the Indian Ocean and into the western Pacific during the 2–3 weeks. As the MJO approaches the Date Line, constructive interference with equatorial Rossby Wave activity is possible. Thereafter, the amplitude of the MJO is more uncertain, with some ensemble members continuing propagation into the Western Hemisphere during late April, while others weaken the intraseasonal signal into the RMM-based unit circle.

An enhanced low frequency signal is noted across the Indian Ocean in the upper-level spatial velocity potential field, with enhanced divergence aloft across eastern Africa and the western Indian Ocean. This is due in part to the slowing of the MJO over the region, although dynamical models persist this low frequency signal throughout April. While an uptick in the Dipole Mode Index (DMI) during March may be suggestive of a reemerging positive Indian Ocean Dipole event, caution is given due to the time of year, and it is more plausible that the low frequency signal can be attributed to several factors including destructive interference between the MJO and other higher frequency modes of variability, in addition to the weakening El Nino.

No new tropical cyclones (TCs) developed during the past week. As the MJO resumes its eastward propagation, TC development chances are forecast to increase along the northern coast of Australia. A 40 percent chance for TC formation is highlighted during week-2, with a 20 percent chance continuing into week-3, supported by increased TC formation probabilities in the GEFs and ECMWF ensembles. Confidence decreases later in April due to the diminishing seasonal climatology. A 20 percent chance of TC development is also posted

across the southwestern Indian Ocean during week-2 due to the persisting low frequency convective signal in that region, although confidence is low and the elevated risk is not continued into week-3.

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 western Indian Ocean, with below-normal rainfall predicted over the eastern Indian Ocean, Maritime Continent, far western Australia, southeastern Asia, and extending over the subtropical western north Pacific. Above-normal rainfall is forecast along the equatorial Pacific during week-2 tied to El Nino, with decreasing chances in week-3. Below-normal rainfall chances also remain elevated across northern South America, with increasing chances for above-normal rainfall over parts of Brazil. 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. Drier than normal conditions across southeastern Asia may also promote increasing chances of above-normal temperatures across parts of the region .

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.