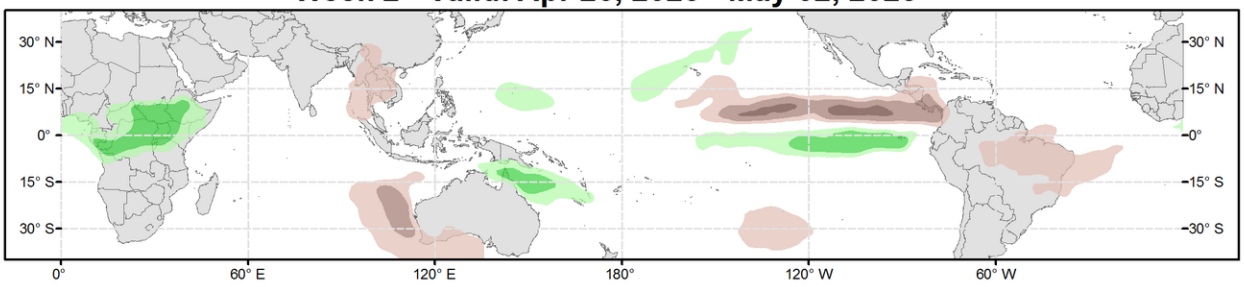
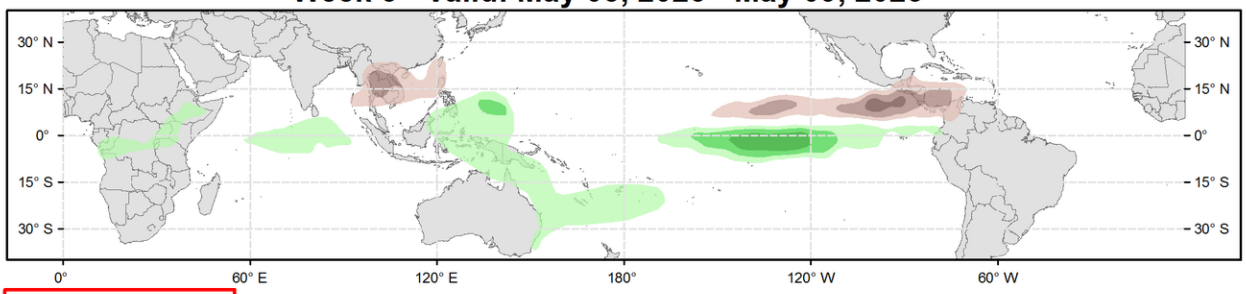
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Apr 26, 2023 - May 02, 2023



Week 3 - Valid: May 03, 2023 - May 09, 2023



Week-2 Only
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: 04/18/2023
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.

The Madden-Julian Oscillation (MJO) remains active, with both the CPC velocity potential and RMM-based MJO indices reflecting a high amplitude signal. The enhanced convective phase is currently traversing the Pacific, resulting in a disruption of the trade winds across the basin. The presentation of the MJO has become somewhat less coherent over the past week, particularly in the OLR field, due to interference with Rossby wave activity over the Maritime Continent and Indian Ocean, a residual suppressed signal near the Date Line, and Kelvin wave activity crossing the Western Hemisphere. Despite this interference, dynamical model MJO index forecasts continue to show a robust signal crossing the eastern Pacific and Western Hemisphere during Week-1. During Week-2, the forecast becomes more uncertain, as the ECMWF shows a potential for renewed Rossby wave interference over the Indian Ocean, and the GEFS exhibits a fast and weak propagation across the Indian Ocean, with the signal reaching the Maritime Continent or even the West Pacific by the end of Week-2. During Week-3, both the GEFS and ECMWF show a more robust MJO signal emerging over the West Pacific. Based on these outlooks, the MJO is favored to remain a dominant driver of broad-scale global tropical convective anomalies during the outlook period, with the signal potentially having a greater impact during Week-3 compared to Week-2. A slow transition from ENSO-neutral conditions to a warmer equatorial Pacific may also be playing a role in the complex evolution of the subseasonal signal.

No new tropical cyclones formed subsequent to powerful Cyclone Ilsa, which made landfall along Western Australia's coast on 13 April near Port Hedland at strong Category-4 intensity on the Saffir-Simpson scale. There is a slight potential for tropical cyclogenesis southeast of Guam during Week-1, which may bring impacts to the vicinity of Guam or nearby islands during the beginning of the Week-2 period. During Week-2, there are no regions favored for tropical

cyclone development, as dynamical models show a fairly quiet pattern and climatological development is low during late April and early May.

The precipitation outlooks for Weeks 2 and 3 are based on a consensus of GEFS, ECMWF, and CFS dynamical model guidance, and canonical precipitation patterns during MJO events propagating from the Maritime Continent to the West Pacific, particularly for Week-3. Below-normal precipitation favored for portions of Southeast Asia and the southeastern Indian Ocean are based on dynamical model guidance and are not consistent with Indian Ocean MJO events. The dry signals in these regions could be due to Rossby wave influence or a faster MJO propagation to the Maritime Continent or West Pacific. Dynamical models also favor a persistent wet pattern for portions of Africa, and wet conditions across the equatorial East Pacific in response to warming sea surface temperatures. Wet conditions may continue to exacerbate flooding conditions across portions of Ecuador and Peru.

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.