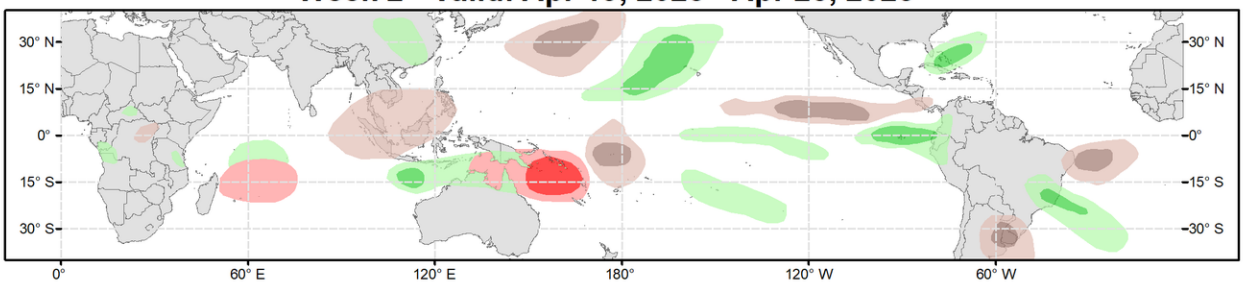
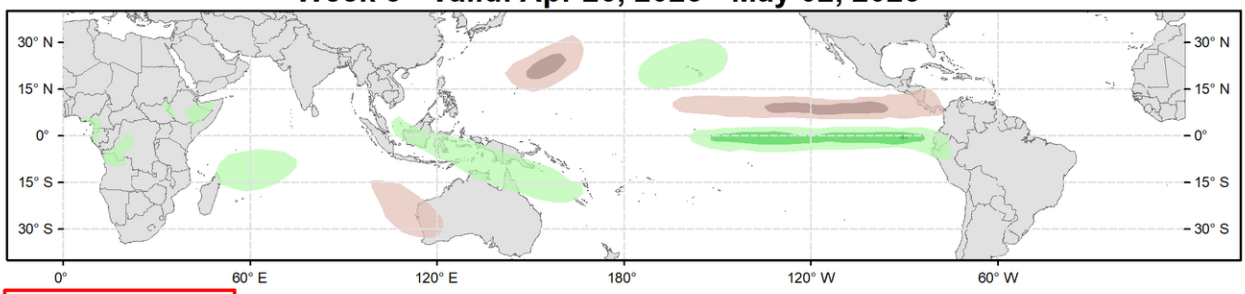
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Apr 19, 2023 - Apr 25, 2023



Week 3 - Valid: Apr 26, 2023 - May 02, 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

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Forecaster: Barandiaran

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 very active since early March and is now the dominant driver of variability in the tropics as any residual influence from the long-lived La Nina base state fades. The RMM index is currently near the phase 6-7 boundary (Western Pacific), and model guidance generally favors a continued eastward propagation of the MJO signal through the week-3 period, although there is considerable disagreement as to the strength of the convective envelope and the speed at which it propagates. Warming of sea surface temperatures in the Tropical Pacific continues with all Nino regions above average, especially Nino 1+2, which is 2.7 C above average.

There has been a slight uptick in tropical cyclone (TC) activity in the last week, with TC Ilsa that formed off the northwest coast of Australia, and an area east of the Philippines currently being monitored by the Joint Typhoon Warning Center, which is favored to spawn another TC in the near future. TC Ilsa is forecast to track southwestward into the northeast Australian coast, increasing in intensity as it does so. For more details on TC Ilsa, please consult your local meteorological agency.

Despite model solutions depicting MJO propagation into the Western Hemisphere during week-2 which would generally be unfavorable to TC formation for the Australia region, guidance from the GEFS and ECMWF favor a continued enhanced chance for TC formation for this region, particularly over the Coral Sea. Ensemble solutions also favor enhanced chances for TC genesis for the southwestern Indian Ocean as the suppressed phase of the MJO moves out of the region.

The precipitation outlook for the next two weeks is based on anticipated TC tracks, the anticipated state of the MJO, and consensus of GEFS, CFS, and ECMWF

ensemble mean solutions. Below-normal precipitation is indicated for portions of Southeast Asia and the western Maritime Continent during week-2, while above-normal precipitation is favored for the eastern Maritime Continent for both weeks. Enhanced precipitation continues for both weeks for the Hawaii region, particularly for week-2. Above-normal precipitation is also likely for the Equatorial Eastern Pacific and the coasts of Ecuador and Peru for both weeks, which will likely exacerbate flooding and landslides already affecting 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.