

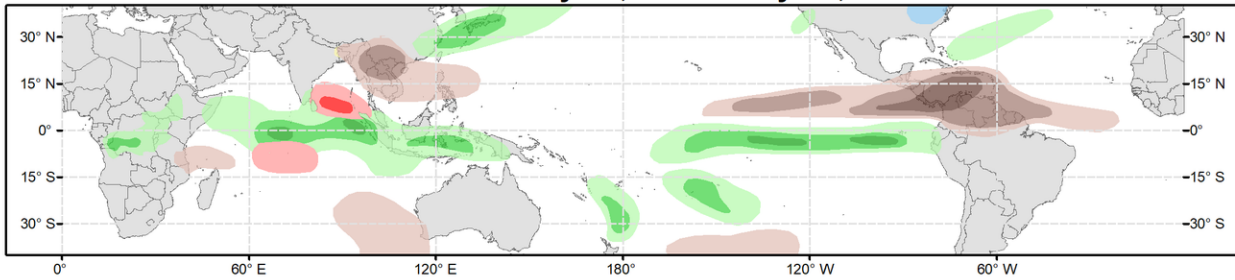


Global Tropics Hazards Outlook

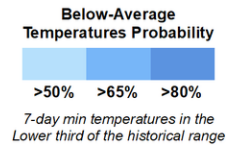
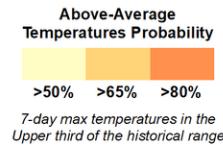
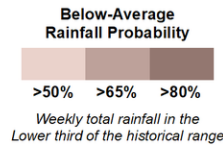
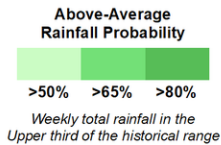
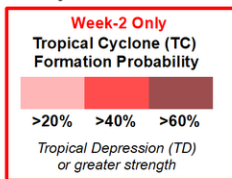
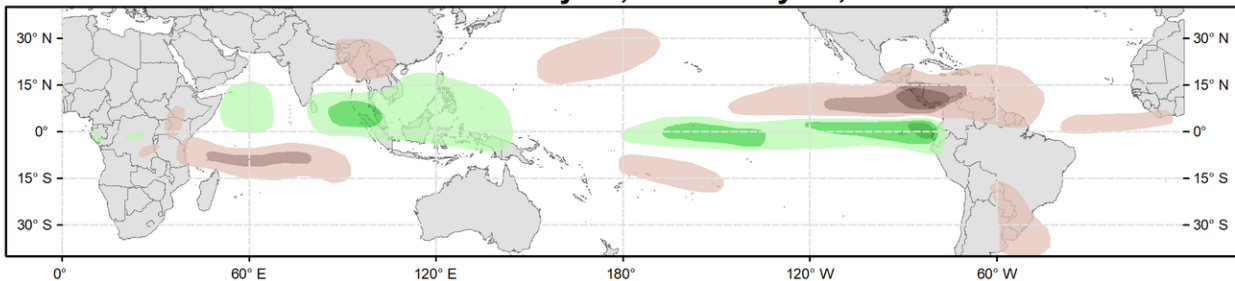
Climate Prediction Center



Week 2 - Valid: May 03, 2023 - May 09, 2023



Week 3 - Valid: May 10, 2023 - May 16, 2023



Issued: 04/25/2023
Forecaster: Novella

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.

Well organized MJO activity remains evident in the upper-level velocity potential anomaly fields, where the leading edge of the enhanced convective envelope has crossed the Prime Meridian during the past week. This is reflected in the RMM index which indicates an eastward propagating signal over the Western Hemisphere and has recently entered phase 1 at an increased amplitude. As has been the case with several RMM based forecasts since last week, a gradual loss of amplitude and a less coherent MJO is favored while nearing the Indian Ocean. However, there is low confidence in these solutions, given the eastward propagating signal nonetheless favored in the models, and the upper-level velocity potential forecasts which have been a reliable indicator for the continued MJO activity in the last few months. These fields continue to favor a well-defined wave-1 pattern remaining established across the global tropics during the next several weeks where the enhanced phase is expected to be generally focused over the Indian Ocean during week-2 and over the Maritime Continent by week-3. In light of this guidance, and the atmospheric signatures associated with the long-lived La Nina continuing to wane, the MJO is expected to be the dominant driver of convective anomalies throughout the tropics and provide an large-scale environment conducive for tropical cyclone (TC) development in the Indian Ocean and western Pacific during the outlook period. Although extratropical linkages become less clear during the boreal spring, there is some historical support for Maritime Continent MJO events leading to increasing mid-level heights and above-normal temperature over the central and eastern U.S. later in May.

During the past week, one TC developed in the western Pacific. TC Sanvu formed on 4/19 near 158E/8N and peaked at 45kts before dissipating this past weekend. For week-1, the Joint Typhoon Warning Center (JTWC) is monitoring the remnants of Sanvu as the low-level circulation is expected to track westward during the

next several days. However, the JTWC maintains low chances for reformation which is also supported by the latest deterministic solutions later this week.

For week-2, anomalous lower-level westlies look to become established along the equatorial Indian Ocean tied to the enhanced phase of the MJO. Probabilistic TC genesis tools continue to indicate increased chances for development south of the equator near 70E, and a broad area of slight (20%) chances for TC formation are posted. North of the equator, increased chances TC development also exist over the Bay of Bengal where ensembles favor decreased shearing and potential Rossby wave activity. This region climatologically experiences an uptick in TC genesis by early May, and given support from the probabilistic tools as well as historical TC composites which depict above-normal chances for development during phase 3 and 4 MJO events during Apr-Jun, 40% chances are posted to the east of Sri Lanka with a broader area of 20% chances issued from approximately 80E to 100E. Although there are some indications of potential TC formation in the probabilistic tools during week-2 over the western Pacific, no corresponding TC area is highlighted, however, this basin looks to become more favorable later in May.

The precipitation outlooks for weeks 2 and 3 are based on a consensus of GEFS, ECMWF, CFS and Canadian dynamical model guidance, and historical MJO composites. Above-normal temperatures are forecast over southeast Asia where calibrated reforecast guidance from the GEFS and ECMWF depicts increased chances for maximum daytime temperatures exceeding 100 degrees F during week-2. Conversely, unseasonably cold temperatures are forecast over parts of the eastern U.S. tied to amplified troughing favored early in May, where near freezing temperatures may adversely impact developing springtime agriculture. 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.