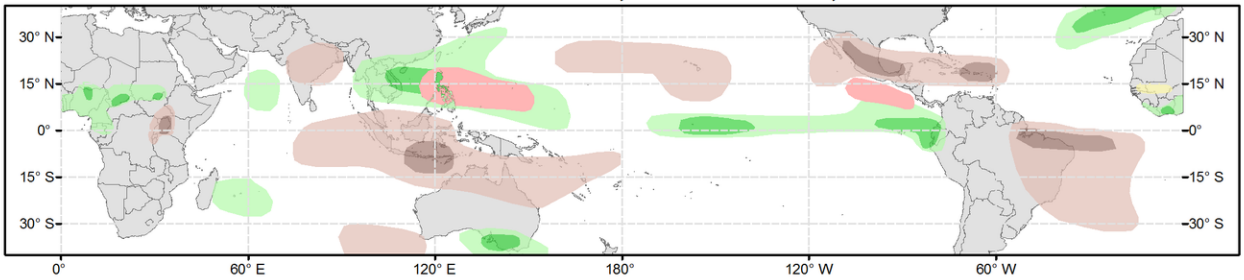
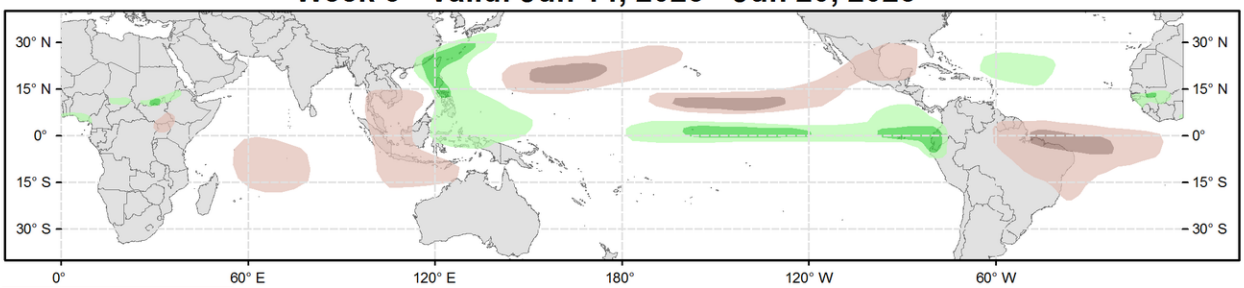
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Jun 07, 2023 - Jun 13, 2023



Week 3 - Valid: Jun 14, 2023 - Jun 20, 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: 05/30/2023
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 continued to be active despite interference from Typhoon Mawar and is currently at the edge of phases 7 and 8 in RMM space, with the enhanced convective envelope over the Eastern Pacific and the Americas. Ensemble model solutions for the RMM index generally agree on continued propagation of the MJO signal through the week-3, although there is a wide range on the amplitude of the signal. Regardless of amplitude though, the week 2 and 3 forecast for the MJO is favorable for development of tropical cyclones (TCs) over the Eastern Pacific.

There were no new TCs that formed in the last week. Typhoon Mawar continues to be active in the Western Pacific basin. Mawar is currently northeast of the Philippines and is moving slowly northward. In the coming week it is forecast to track northeast near Okinawa and become extratropical as it continues south of the main islands of Japan. For the latest information concerning Typhoon Mawar please refer to the Joint Typhoon Warning Center (JTWC).

During week-2 the consensus among model guidance places the MJO in phases 1-2 (Western Hemisphere/Africa) which generally enhances probabilities of TC formation for the Eastern Pacific basin. It is still early in the season and in some ways the synoptic picture over Mexico is more reminiscent of early spring than the beginning of June, but nonetheless both the ECMWF and GEFS TC guidance indicate the potential for a mid-June TC. Additionally, despite phase 2 being less favorable in the Western Pacific for TCs, the ECMWF also has increased chances for TC genesis during week-2. Finally, the northern Indian Ocean (both Bay of Bengal and Arabian Sea) is being highlighted for the potential of TC genesis. Internal forecast tools favor week-2 for formation, while the medium-range ECMWF solutions suggest week-1 is most likely. Due to this discrepancy in timing, the potential for TC genesis over the Indian Ocean is not included in

the forecast at this time.

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. Above-normal precipitation continues for the Equatorial Eastern Pacific and the coasts of Ecuador and Peru for both weeks, which is likely to worsen antecedent wet conditions in the region. The Western Pacific is also favored for above-normal precipitation, while portions of the Maritime Continent and northern Australia tilt towards drier conditions, especially during week-2. Below-normal precipitation is also favored for the Caribbean and Mexico for week-2, as well as for eastern Brazil for both weeks.

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.