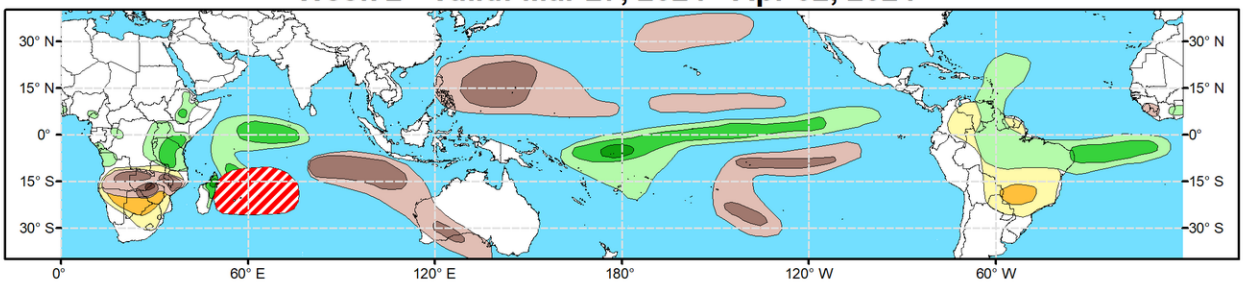
Global Tropics Hazards Outlook

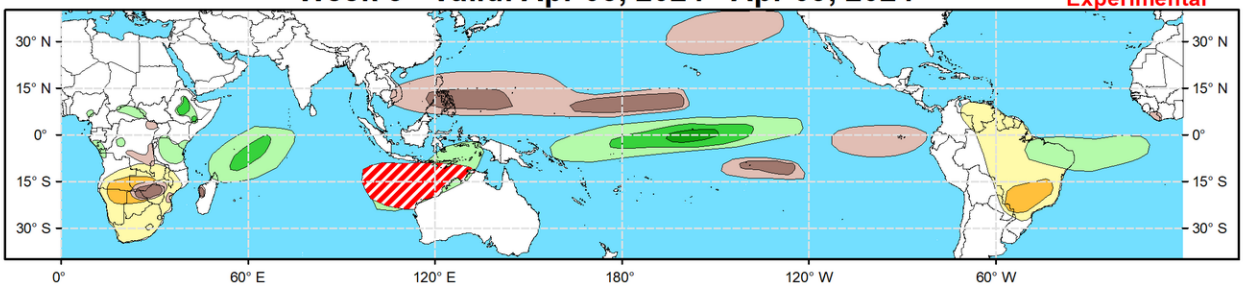
Climate Prediction Center

Week 2 - Valid: Mar 27, 2024 - Apr 02, 2024



Week 3 - Valid: Apr 03, 2024 - Apr 09, 2024

** Experimental **



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: 03/19/2024

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.

A robust MJO event continues to unfold, with the enhanced convective phase now crossing the Western Pacific. During the past week or so, widespread enhanced convection overspread the eastern Indian Ocean and western Maritime Continent, which is a departure from the weakening ENSO base state. Dynamical models are in good agreement with tight ensemble clustering that strong MJO activity continues to propagate eastward from the Western Pacific and into Western Hemisphere over the next two weeks, though it should be noted that the forecasted phase speed is on the fast end of the MJO frequency range . As the suppressed phase of the MJO is moving into the Maritime Continent, this tends to suppress tropical cyclone (TC) activity in the Australia and South Pacific regions, which have been active recently.

One TC formed over the last week. On March 15 TC Megan formed in the Gulf of Carpentaria. It intensified quickly, reaching category 1 strength, and came ashore into northern Australia on March 18. The Joint Typhoon Warning Center (JTWC) expects Megan to dissipate in the next day or so, but indicate that the system will be closely monitored for signs of regeneration.

Consensus among the model ensembles depicts the MJO in phases 8 and 1 during week-2, which would slightly favor TC genesis in the southwest Indian Ocean. This is also supported by the ECMWF extended range TC genesis forecast, so a slight risk (>20% probability) for TC genesis is posted east of Madagascar. The MJO in phase 8 or 1 tends to suppress TC activity for the Australia and South Pacific regions, which have been quite active lately. Model solutions diverge by week-3 but generally still indicate eastward propagation of the MJO signal into the Indian Ocean, which would once again begin to favor TC genesis off the northwest coast of Australia for 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 precipitation continues for the Equatorial Central and Eastern Pacific for both weeks, a response to the El Nino conditions, while suppressed precipitation is favored to the north and south of the El Nino-enhanced precipitation. Above-normal precipitation is indicated for portions of northern South America for week-2, and above-normal temperatures are likely for much of Brazil during both weeks. Above-normal temperatures are also favored for much of southern Africa throughout the forecast period. Suppressed convection and below-normal precipitation is most likely for portions of the Maritime Continent and eastern Indian Ocean in week-2, while above-normal precipitation is favored over the western Indian Ocean as the next MJO cycle begins.

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.