

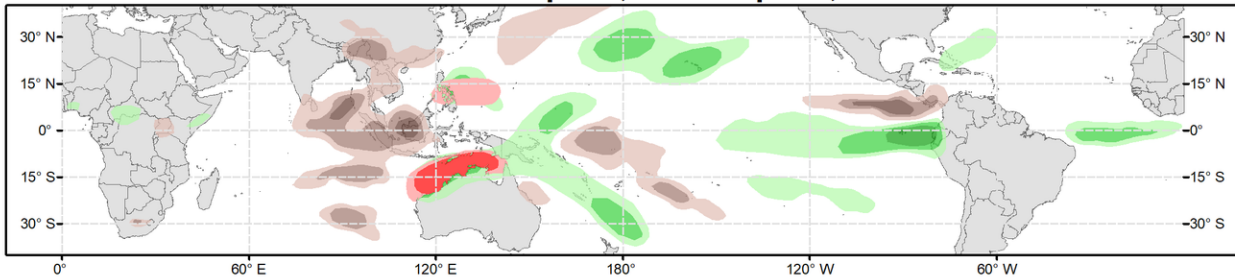


Global Tropics Hazards Outlook

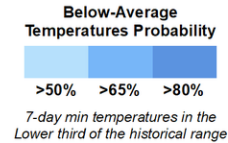
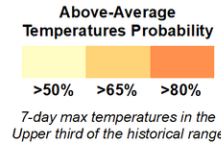
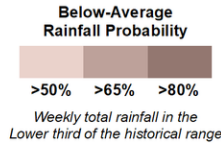
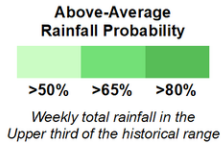
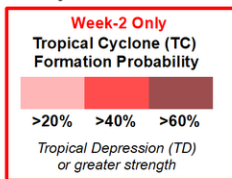
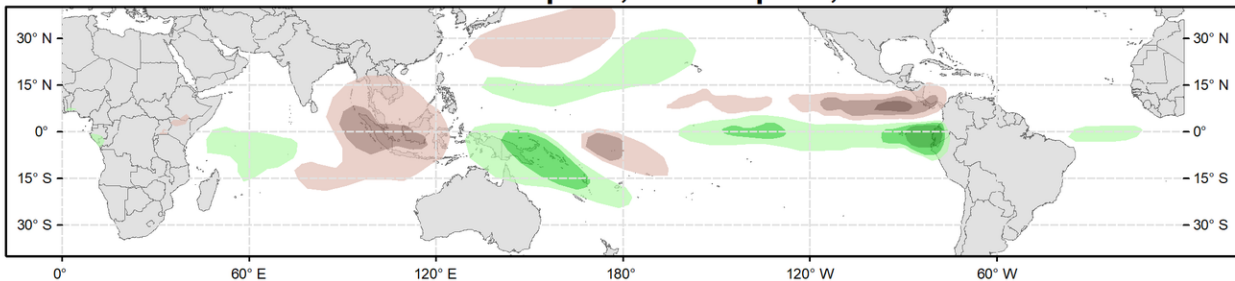
Climate Prediction Center



Week 2 - Valid: Apr 12, 2023 - Apr 18, 2023



Week 3 - Valid: Apr 19, 2023 - Apr 25, 2023



Issued: 04/04/2023
Forecaster: Collow

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.

Following a very strong Madden Julian Oscillation (MJO) over the Western Hemisphere during March, the intraseasonal signal has since retreated back into the RMM-based unit circle. The ECMWF and GEF5 ensembles are in good agreement regarding the MJO emerging over the Western Pacific during the next week, although its evolution during the weeks 2 and 3 period is more uncertain. The spatial upper-air velocity potential pattern depicts enhanced divergence (convergence) aloft across the Western Pacific (eastern Indian Ocean), consistent with the active and suppressed phases of the MJO. However, the pattern is less organized across the Western Hemisphere, with the dynamical models indicating a secondary area of enhanced convection developing across the Atlantic and Africa by mid-April, and the overall global upper-level convective pattern resembling a wave-2 asymmetry. This secondary enhanced convective region could be the result of a Convectively Coupled Kelvin Wave breaking off the main MJO over the Western Pacific, or the MJO propagation itself, with large ensemble variability in the RMM-based MJO forecasts contributing to the uncertainty.

During the past week, Tropical Cyclone Herman developed across the southeast Indian Ocean. The system strengthened into the equivalent of a category-3 hurricane (125-mph) before dissipating to the west of Australia. Continued tropical cyclone (TC) formation is possible across the northwestern coast of Australia, and also over the western North Pacific. This is mainly tied to the forecast strengthening of the MJO over the Western Pacific, but also attributed to the increasing TC climatology over the western North Pacific. TC development is possible prior to the start of week-2 over both of these areas, but the favorable environment aloft should allow for continued increased chances of TC development persisting into week-2. Therefore, a 40 percent chance of TC formation during week-2 is highlighted off the Kimberley Coast of northwestern

Australia extending into the Timor and Arafura Seas, with a 20 percent chance of TC formation indicated in the vicinity of the Philippines and extending to the east.

Forecasts for above- and below-normal rainfall are based on a skill weighted blend of extended range dynamical models and historical MJO composites. Above-normal rainfall continues to be forecast over the eastern equatorial Pacific through week-3, and this may adversely impact parts of southwestern Colombia, Ecuador, and northern Peru, which have experienced floods and landslides due to persistent heavy rainfall. The MJO over the West Pacific is forecast to lead to areas of above-normal rainfall across parts of the Philippines, northern Australia, eastern Indonesia, Papua New Guinea, the Solomon Islands, and Vanuatu. Conversely, the suppressed phase of the MJO favors below-normal rainfall across portions of southeastern Asia, Malaysia, Singapore, western Indonesia, and the eastern Indian Ocean. The MJO is also likely to influence the weather across the extratropics, with above-normal temperatures favored across the contiguous U.S. east of the Rockies during week-2, but with more uncertainty beyond.

For hazardous weather concerns in your area during the next two weeks, please refer to your local NWS office, the Medium Range Hazards forecast from the Weather Prediction Center (WPC), and the CPC Week-2 Hazards Outlook. Forecasts over Africa are made in coordination with the International Desk at CPC.