



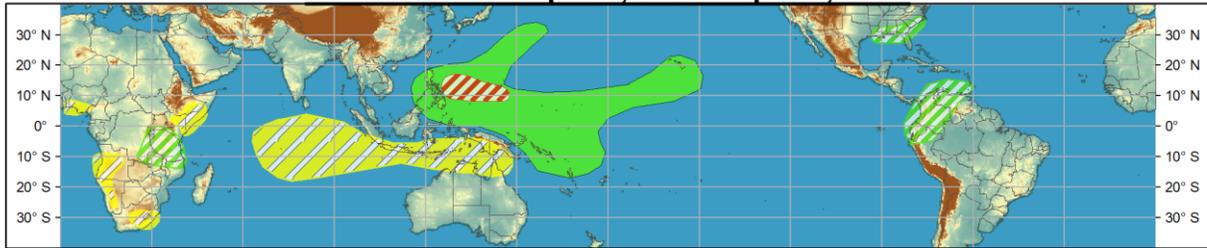
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Apr 07, 2021 - Apr 13, 2021



## Week 2 - Valid: Apr 14, 2021 - Apr 20, 2021



**Confidence**  
 High Moderate

- Tropical Cyclone Formation** ■     Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall**         Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall**         Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures**         7-day mean temperatures in the upper third of the historical range.
- Below-normal temperatures**         7-day mean temperatures in the lower third of the historical range.

**Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.**

Produced: 04/06/2021

Forecaster: Pugh



The MJO strengthened at the beginning of March and it has nearly completed a global circumnavigation since that time. Based on 200-hPa velocity potential, anomalous upper-level divergence recently peaked in strength over the Indian Ocean and was the strongest in magnitude during the past six months. In addition, robust westerly 850-hPa wind anomalies overspread the western Maritime Continent by the beginning of April. These anomalous low-level westerlies are forecast to shift east to the central equatorial Pacific and further diminish and perhaps end the enhanced trade winds that have persisted due to La Nina. The dynamical model consensus depicts a continued MJO propagation eastward over the Pacific during early to mid-April. Forecast confidence remains high that the MJO continues to be a major influence on global tropical rainfall during weeks 1 and 2. Therefore, MJO precipitation composites for phases 6, 7, and 8 were used in drafting this week's outlook.

A couple of tropical cyclones (TCs) developed over the South Indian Ocean at the beginning of April and the MJO likely contributed to the genesis of these TCs. Tropical Cyclone 27S (centered at 16.2S/105.8E on Apr 7) is forecast to remain nearly stationary during the next 72 hours and then dissipate. The Joint Typhoon Warning Center calls for Tropical Cyclone Seroja, at 11.5S/118.9E, to strengthen with maximum sustained winds reaching 105 knots as it tracks southwest and parallels the Kimberley Coast of Australia.

Later in week-1, TC Seroja could make landfall in Western Australia. Just to the west of these ongoing TCs, deterministic model runs continue to indicate that another TC may form early in week-1. Based on a favorable large-scale environment with the enhanced phase of the MJO crossing the West Pacific and support from model guidance, a high confidence of TC development exists over the Coral Sea during week-1. An elevated chance of TC development also is forecast across the West Pacific. Due to uncertainty on timing, a moderate confidence area covers weeks 1 and 2.

Favored areas of above and below median precipitation are based on: predicted tracks of TCs, a model consensus, and MJO precipitation composites (phases 6, 7, and 8). During the next two weeks, above average rainfall is likely across the West Pacific along with parts of the Central Pacific, including Hawaii. Above average rainfall is also favored to affect parts of the Caribbean (week-1) and northern South America (weeks 1 and 2). Once the ongoing TCs across the South Indian Ocean track poleward, below average rainfall is expected to expand east from the Indian Ocean to parts of the Maritime Continent and northern Australia by week-2.

During weeks 1 and 2, an amplifying 500-hPa trough over the eastern U.S. favors above average rainfall across the southeastern United States. This favored area of above average rainfall is also consistent with MJO precipitation composites. For hazardous weather concerns during the upcoming two weeks across the U.S. please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 U.S. Hazards Outlook. Forecasts over Africa are made in consultation with the International Desk at CPC and can represent local-scale conditions in addition to global-scale variability.