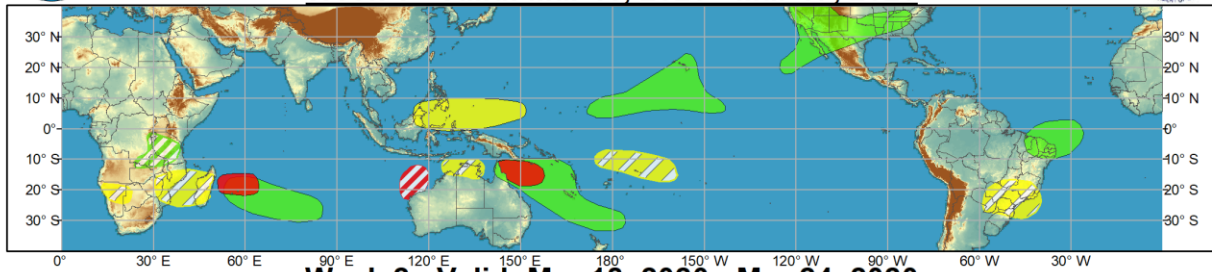




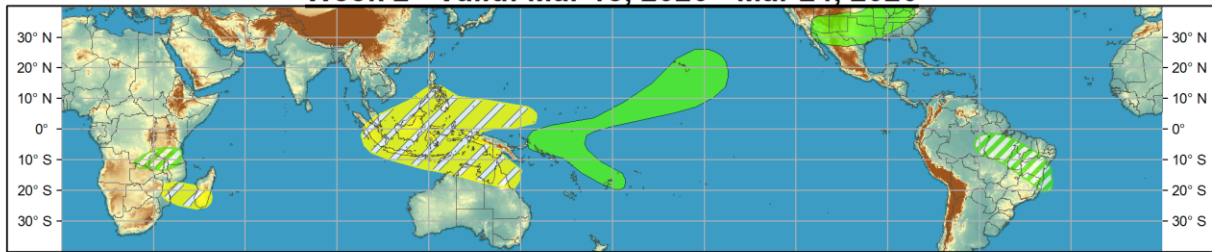
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Mar 11, 2020 - Mar 17, 2020



Week 2 - Valid: Mar 18, 2020 - Mar 24, 2020



Confidence
High Moderate

Tropical Cyclone Formation

Above-average rainfall

Below-average rainfall

Above-normal temperatures

Below-normal temperatures

Development of a tropical cyclone (tropical depression - TD, or greater strength).

Weekly total rainfall in the upper third of the historical range.

Weekly total rainfall in the lower third of the historical range.

7-day mean temperatures in the upper third of the historical range.

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: 03/10/2020

Forecaster: Pugh



The Madden-Julian Oscillation (MJO) became more coherent at the beginning of March and then shifted east to the Maritime Continent during the first week of the month. The RMM index reveals that a weak MJO signal has propagated around the globe in 30 days which is on the fast side for the MJO. A low frequency signal with enhanced convection continues at and surrounding the Date Line, but this region briefly dried out recently due to the suppressed phase of the weak MJO. Dynamical model solutions are in good agreement that either a weak MJO and/or Kelvin wave propagates eastward during the next two weeks. Therefore, enhanced convection is likely to overspread the tropical and subtropical Pacific Ocean during mid-March, while drier conditions gradually return to the Maritime Continent.

The MJO resulted in enhanced convection across the Maritime Continent and northern Australia during early March. The Joint Typhoon Warning Center is currently monitoring two areas for tropical cyclone (TC) development: offshore of the Kimberley Coast of Australia and the Gulf of Carpentaria. Model guidance remains consistent that development is imminent for a low pressure system tracking south to southwest near the Kimberley Coast. The surface low over the Gulf of Carpentaria is forecast to cross into the Coral Sea region and rapidly intensify. The deterministic GFS model runs indicate a very strong tropical cyclone approaching New Caledonia by March 16. Model solutions also indicate a broad area of

surface low pressure over the southwest Indian Ocean that is likely to become a TC during Week-1. There are no favored areas for TC formation during Week-2.

The precipitation outlook during the next two weeks is based on the model consensus among the CFS, ECMWF, and GFS models along with predicted influence from the fast-moving MJO or Kelvin wave crossing the global tropics. During Week-1, high confidence exists for above average rainfall continuing across the central equatorial Pacific and extending north to Hawaii. The subtropical jet over the East Pacific is likely to be enhanced and contribute to above-average rainfall across much of the western and south-central U.S. Above-average rainfall during Week-1 is likely across parts of the Southwest Pacific and South Indian Ocean, due in part to rainfall associated with tropical cyclones. Although a small-scale and relatively weak tropical cyclone (TC) may develop near the Kimberley Coast of Australia, a favored area of above-normal rainfall is not posted since the TC is likely dissipate quickly after formation. The favored areas of below-average rainfall during Week-1 are mostly related to subsidence near likely tropical cyclones. A quick drying trend is expected for the Maritime Continent with high confidence of below-average rainfall across the southern Philippines and parts of the West Pacific.

Early in Week-2, there remains a strong signal for heavy to excessive rainfall across the south-central U.S. as an amplified upper-level trough interacts with enhanced low-level moisture from the East Pacific and Gulf of Mexico. Parts of the Southwest and Central Pacific, including Hawaii, are likely to remain wetter-than normal through Week-2, while chances for above-average rainfall increase across northern South America. A broad area of below-average rainfall is favored across much of the Maritime Continent and northern Australia due to the suppressed phase of the fast-moving MJO or Kelvin wave.

Forecasts over Africa are made in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability. A persistent pattern is forecast during the next two weeks with below (above) average rainfall favored for parts of Mozambique and Madagascar (Tanzania and Zambia).