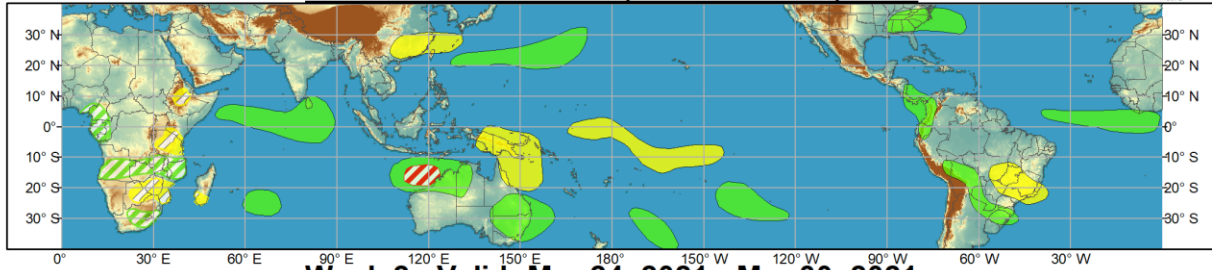




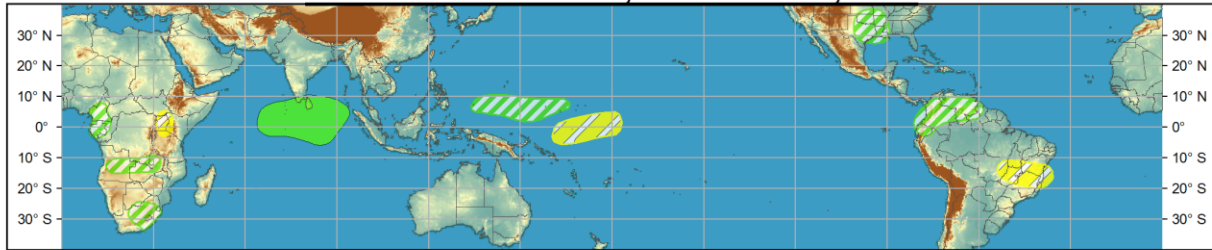
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Mar 17, 2021 - Mar 23, 2021



Week 2 - Valid: Mar 24, 2021 - Mar 30, 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: 03/16/2021

Forecaster: Novella



中央氣象局
Central Weather Bureau



UNIVERSITY AT ALBANY
State University of New York



Australian Government
Bureau of Meteorology



The MJO remains active with the enhanced phase currently propagating across the Western Hemisphere. Since late February, the RMM index indicates that the intraseasonal signal gradually gained amplitude following a period of destructive interference with the La Nina base state and equatorial Rossby wave activity, which both contributed to a weaker presentation in RMM space. The MJO signal continues to appear most coherent in the upper levels, as velocity potential anomalies show a clear eastward progression of the enhanced and suppressed convective envelopes during the last week. There is fair agreement in the dynamical models which favor the continued eastward propagation of the MJO in phase 1 during week-1. The GEFS is the most robust with the intraseasonal signal, as several ensemble members depict a strong event that crosses the Indian Ocean and enters the Maritime Continent by the end of March. However, the ECMWF and CFS models maintain a lower amplitude event that weakens in phase 1 and falls within the RMM unit circle before reaching the Indian Ocean during week-2. In light of this, there is uncertainty regarding extratropical impacts during late March, as any impacts linked to the MJO are likely to be confined to the tropics.

No tropical cyclones (TCs) formed during the last week. Since forming on 4 March, Subtropical Storm Habana remains over the southern Indian Ocean and the Joint Typhoon Warning Center (JTWC)

forecasts Habana to eventually dissipate to the east of Mauritius by the start of week-1. In the southeastern Indian Ocean, there is agreement among the GEFS and ECMWF ensembles featuring an area of deepening low pressure off the Kimberley Coast of Australia by the upcoming weekend. Probabilistic TC tools continue to show some support for tropical cyclogenesis in the region, and a moderate confidence region is issued for week-1. Farther east across the South Pacific, there is model support for an area of deepening low pressure over French Polynesia during week-1; however, TC formation does not appear likely given the infrequency of TCs in the region and with the suppressed phase of the MJO anticipated to be over this part of the basin. For week-2, the greatest potential for TC formation is over the Bay of Bengal associated with Rossby wave activity predicted late in the outlook period. While there is modest support in probabilistic TC tools, there continues to be large ensemble spread and poor run-to-run continuity in the deterministic guidance. Given the uncertainty at this lead, and that tropical cyclogenesis is not climatologically favored in the northern Indian Ocean during late March, there is insufficient confidence to post a TC formation area at this time but this region will be monitored in subsequent outlooks.

The precipitation outlook during the next two weeks is based on the consensus among the CFS, GEFS and ECMWF ensemble means, the low frequency state, MJO composites, and anticipated TC tracks. Enhanced precipitation is favored over the southeastern U.S. associated with a frontal system early in week-1. Above-normal precipitation is also favored to continue over portions of Central and South America where the additional precipitation is likely to exacerbate saturated ground conditions over flood affected areas of Columbia and Bolivia. Across the Pacific, below-normal precipitation is likely to persist across the central equatorial Pacific tied to the ongoing La Nina. Farther east, there is good model support for enhanced precipitation over the equatorial Indian Ocean through the end of March, with above-normal precipitation also favored over parts of eastern Australia during week-1. The enhanced convection over the Indian Ocean would be consistent with MJO activity.

For hazardous weather concerns during the next 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 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.