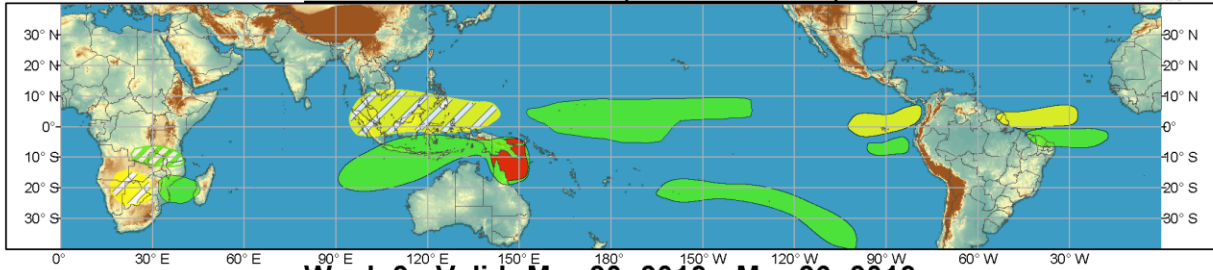




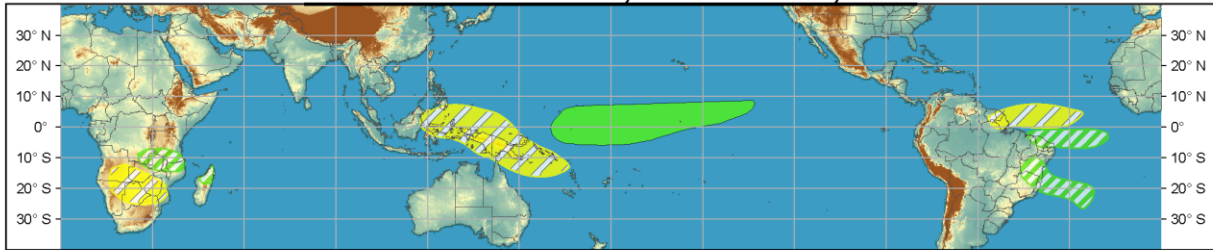
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Mar 13, 2019 - Mar 19, 2019



## Week 2 - Valid: Mar 20, 2019 - Mar 26, 2019



|                                   |               |                                                                                    |
|-----------------------------------|---------------|------------------------------------------------------------------------------------|
| <b>Confidence</b>                 |               | <b>Produced: 03/12/2019</b>                                                        |
|                                   | High Moderate | <b>Forecaster: MacRitchie</b>                                                      |
| <b>Tropical Cyclone Formation</b> |               | Development of a tropical cyclone (tropical depression - TD, or greater strength). |
| <b>Above-average rainfall</b>     |               | Weekly total rainfall in the upper third of the historical range.                  |
| <b>Below-average rainfall</b>     |               | Weekly total rainfall in the lower third of the historical range.                  |
| <b>Above-normal temperatures</b>  |               | 7-day mean temperatures in the upper third of the historical range.                |
| <b>Below-normal temperatures</b>  |               | 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.**



The MJO continues to perplex model guidance as it propagates over the Maritime Continent. Last Tuesday, the MJO was in RMM Phase 3 over the eastern Indian Ocean with a moderate amplitude. The GEFS, ECMWF, and CAN dynamical models all forecasted the MJO to move slightly further east, barely into Phase 4, and weaken to within the unit circle by today. None of the models were correct here; the MJO has been in Phase 4 for the better part of the past week. Its amplitude is still outside of the unit circle; though models continue to forecast its imminent demise. The circulation component of the MJO signal, especially in the low-level wind field, is stronger than its OLR component and there is no obvious reason for the MJO to break down as it continues to propagate east. SSTs in the central Pacific remain above normal in an El Nino state and models are in good agreement that anomalous convection over the anomalously warm SSTs will persist into the foreseeable future, which provides a favorable environment to the MJO. Since there is no clear reason for the MJO to weaken, this forecast marginalizes the dynamical model guidance for tropical Pacific rainfall and assumes that the MJO will be in Phases 4 and 5 during Week-1 of the forecast period, and assumes especially high uncertainty in the state of the MJO during Week-2.

Tropical Cyclone Idai is located in the Mozambique Channel and forecast by JTWC to track inland towards Beira. There is a high probability of above average rainfall along the storm's track during Week-1 and a moderate probability of continued above average rainfall during Week-2 throughout that region. This is a strong storm and interested parties are encouraged to consult their local weather forecasting agency for the latest information. Both the GFS and ECMWF predict a tropical cyclone to develop off the southeastern coast of Papua New Guinea during Week-1, so a high confidence hazard has been issued for this potential storm.

There are a few high probability areas of above-average rainfall forecast during Week-1 over the southern Maritime Continent, equatorial central Pacific, and the south-central Pacific. In addition to model agreement, these forecast regions are supported by the anomalously warm SSTs due to El Nino and the forecast state of the MJO. The state of the MJO is too uncertain in Week-2 to continue the MJO-related anomalous rainfall areas, but there is high confidence that SSTs will remain high during Week-2 and therefore above-average rainfall will continue over the central Pacific.

Models are also in good agreement of below-average rainfall over the Maritime Continent in both Weeks 1 and 2, but these forecasts are only likely to verify if the MJO remains strong. Therefore, our confidence in that aspect of the forecast is only moderate. The southern shift in the ITCZ that's been in place during the past several weeks, is also forecast to continue off the South American coast.

Forecasts over Africa are made in coordination with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.