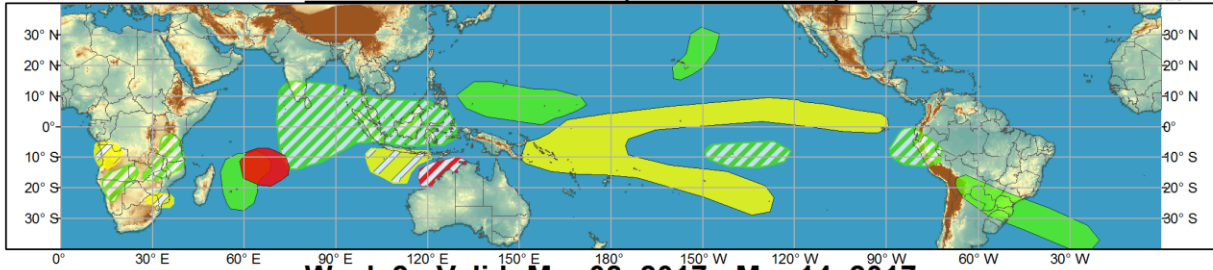




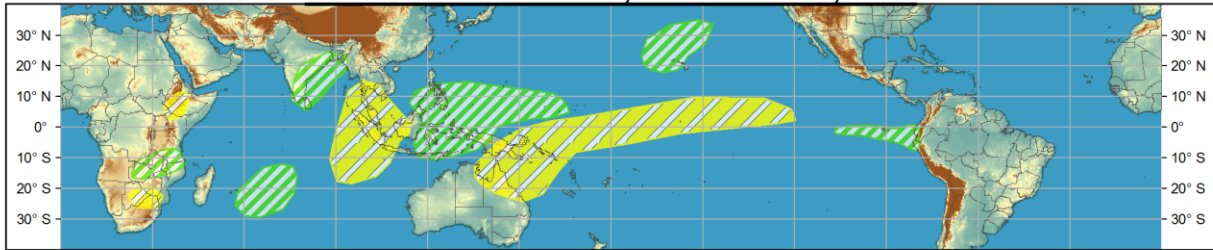
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Mar 01, 2017 - Mar 07, 2017



Week 2 - Valid: Mar 08, 2017 - Mar 14, 2017



Produced: 02/28/2017

Forecaster: Baxter

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.



The MJO has remained active during the past week, with the RMM-based index and the CPC velocity potential index both indicating a robust signal centered over Africa and the Indian Ocean. Anomalous upper-level divergence associated with the MJO is now stretching from the Atlantic to the Indian Ocean. Anomalous upper-level divergence has persisted over South America where there appears to be some low-frequency component at work. Enhanced convection has also developed over the far western Pacific associated with an atmospheric Kelvin wave that is propagating ahead of the main MJO envelope. Over the central and eastern Pacific, there is likely constructive interference between the MJO and the remnant low-frequency state. Equatorial Rossby waves are also contributing to the pattern of convection observed from the Indian Ocean to the West Pacific.

The MJO signal is forecast to weaken over the next several days according to the consensus among the dynamical models. Notably, the UKMET ensemble system maintains eastward propagation of a coherent MJO signal during Week-1, but it is an outlier. During Week-1, the MJO being in phase 2/3 is leveraged to support the precipitation outlook. By Week-2 uncertainty related to the MJO and the evolving base state make for a difficult outlook.

Tropical Storm Eight formed over the South Pacific on 22 February and dissipated the same day. Tropical cyclone (TC) formation is most likely during Week-1 over the southwestern Indian Ocean, where the various dynamical model ensemble means are in good agreement. This is some uncertainty with respect to the forecast track, however, with the ECMWF favoring a track nearer to Madagascar than the GEFS. There is a moderate risk of TC formation off the Kimberley Coast of Australia. Despite many false alarms from the GEFS this season in that region, there is enough support from the ECMWF ensemble system to warrant a moderate confidence shape. During Week-2, signals for TC formation are weak.

Areas favoring above- or below-average rainfall are depicted in Week-1 based on the consensus of model guidance, which is somewhat consistent with MJO phase 2/3 tropical precipitation composites. Parts of South America are expected to be fairly active, as well as a small region of the far eastern Pacific where SSTs remain well above-average. Suppressed convection is favored for much of the equatorial Pacific, except for the region east of the Philippines where enhanced convection is more likely due to ongoing Kelvin Wave and equatorial Rossby wave activity. Above-average rainfall is more likely over parts of the eastern Indian Ocean and Maritime Continent, based on the MJO, model guidance, and the remnant low-frequency state. Parts of Hawaii are forecast to see above-average rainfall during the period.

The forecast for Week-2 is more uncertain, with the state of the MJO amidst the evolving background expected to become unclear. Enhanced convection is likely over the Maritime Continent, where any potential remaining MJO signal would constructively interfere with the remnant low-frequency pattern. Model guidance broadly supports below average rainfall extending from the far southeastern Maritime Continent to the central Pacific, as well as over parts of the Indian Ocean. Some westward propagation of convective anomalies is forecast for this area due to equatorial Rossby wave activity. Anomalous troughing northwest of Hawaii favors above-average rainfall during Week-2 over western parts of the state.

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