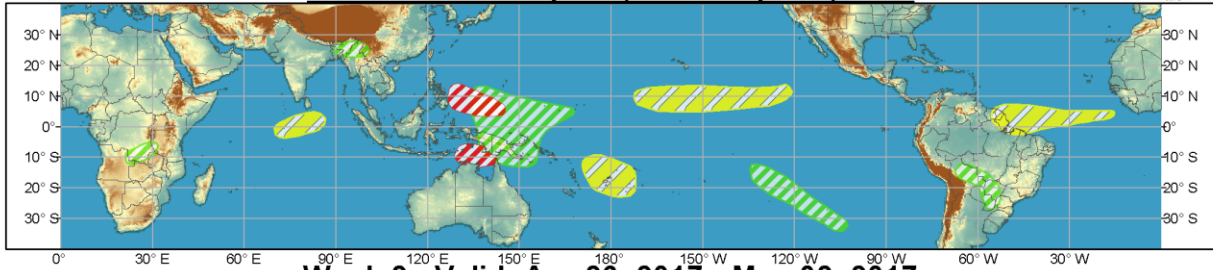




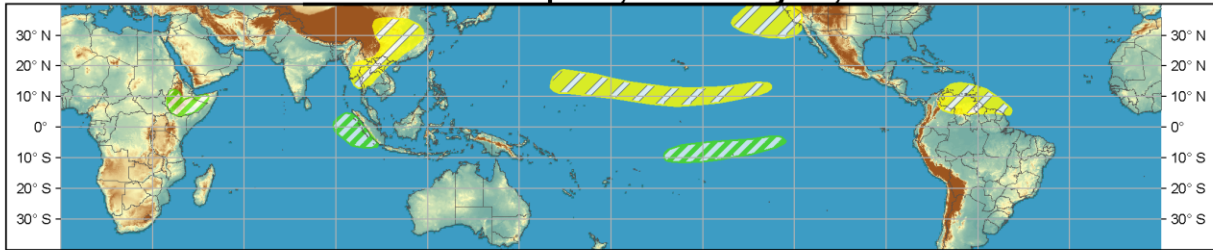
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Apr 19, 2017 - Apr 25, 2017



Week 2 - Valid: Apr 26, 2017 - May 02, 2017



**Confidence**  
High Moderate

<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.

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Forecaster: D.Harnos



Over the prior week the RMM index suggested that a Madden-Julian Oscillation (MJO) event emerged in the Western Hemisphere, but exhibited little to no eastward propagation. The CPC velocity potential-based MJO index is less robust, particularly with the 15-day running mean. The discrepancy appears due to the signal in the RMM index being tied to a Kelvin wave presently in the East Pacific. Dynamical model RMM forecasts are mixed, but those that maintain amplitude of an intraseasonal event in the Western Hemisphere generally lack eastward propagation and instead keep a signal in Phases 7 or 8 throughout the next two weeks. This gives further support to the lack of an active MJO event, and thus any MJO influence on the tropics or subtropics is not anticipated during the forecast period.

A pair of short-lived tropical cyclones developed over the past week: Tropical Depression Two in the West Pacific and Tropical Storm Maarutha in the Bay of Bengal. Tropical Depression 2 formed on 14 April near 11N/130E and brought heavy rains to the Central Philippines before dissipating the next day. Maarutha developed on 15 April and tracked northeastward into Myanmar, making landfall with 35 kt winds. Heavy rains from Maarutha helped yield flash flooding and mudslide concerns across Myanmar.

No circulations are presently apparent in satellite imagery that would suggest near-term tropical cyclone development. The National Hurricane Center is monitoring an extratropical system near 32N/45W for possible development into a subtropical storm, giving this a 30% chance of occurring in the next 5 days. No impacts from this system on the U.S. are anticipated. Dynamical model guidance does track a pair of twin disturbances on either side of the equator late in Week-1, that bear monitoring for tropical cyclogenesis. This appears tied to the potential emergence of a Kelvin wave near 120E by the middle of Week-1, with twin circulations possible off the equator in its wake. The first targeted area stretches from the Philippines eastward to near 145 E between 5-15N with support from both the GEFS and ECMWF ensemble guidance. The second area is the Arafura Sea between approximately Darwin and the eastern extent of the Gulf of Carpentaria, where again each ensemble suite suggests development of a westward tracking system near the end of Week-1. Both areas are given moderate confidence of development, with slightly higher odds presently favored for the disturbance in the West Pacific.

Given the limited sources of observed intraseasonal variability in the tropics aside from the present active Kelvin wave, dynamical model guidance is relied upon heavily in the existing outlook. This limits confidence in forecast features to moderate across the board, due to limited ties between physical phenomena. The best signal appears to be that of an emerging Kelvin wave in the vicinity of the Maritime Continent by the middle of Week-1 that is indicated by dynamical model guidance, with these features typically underestimated by the models. Twin Rossby waves are possible in the wake of this feature, giving rise to the aforementioned tropical cyclogenesis threats, and above-average rainfall for the eastern Maritime Continent and West Pacific. Below-average rainfall is possible in the northern Central Pacific in both weeks centered on 10N, where conditions have been persistently dry the past several weeks. Enhanced convection has been fairly consistent across portions of the South Pacific over the last month, with above-average rains possible for parts of the region in Week-1 and Week-2. Anomalously dry conditions are also anticipated off the west coast of the U.S. during Week-2, along and downstream of an anticipated 500-hPa ridge axis in this vicinity. A drying trend is also anticipated across much of Southeast Asia throughout the forecast period, with below-average rain forecast here during Week-2.

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