



Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jun 15, 2016 - Jun 21, 2016



Week 2 - Valid: Jun 22, 2016 - Jun 28, 2016



Produced: 06/14/2016

Forecaster: Rosencrans

- | Confidence | | |
|------------|----------|--|
| High | Moderate | |
| | | 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.



The MJO strengthened during the past week, with a signal emerging over the Indian Ocean. The CPC velocity potential index and the RMM based index both indicate the enhanced convective phase over the western Indian Ocean. Spatially, velocity potential anomalies indicate enhanced divergence from the Atlantic to Maritime Continent, with enhanced divergence from the Western Pacific to the Americas. Based on OLR observations, there is some influence from a Kelvin wave over Africa during the past week, which is contributing to the emerging signal over the Indian Ocean.

Model forecasts of the MJO indicate a continued signal through Week-1 that moves across the Maritime Continent. During Week-2, model solutions diverge, with the GEFS based solutions depicting a complete breakdown of the signal and 4 other models indicating a continued signal moving to the western Pacific. The GEFS solutions are discounted for the bulk of the outlook this week, given the consensus among the other models.

No tropical cyclones of depression (or greater) strength developed during the last week. The National Hurricane Center has a 50% chance of tropical cyclone formation over the eastern Pacific during the

next 5 days. Some models are also indicating a slight increase in the potential for tropical cyclone formation over the Bay of Campeche with a track to toward the Gulf Coast late in Week-1 to early in Week-2. There are also weak signals over the South China Sea during the latter portions of Week-1 and into Week-2, which would be consistent with the convectively enhanced phase of the MJO moving into the region.

The precipitation outlook during Week-1 is based on CFS and ECMWF model guidance and expectations for a moderate MJO signal in Phases 2-4. The impacts of a Kelvin wave over Africa are also incorporated. Enhanced convection is forecast over the Indian Ocean and western Maritime Continent, with lower confidence of the signal over the eastern Maritime Continent later in Week-1. Drier than average conditions are likely over north-central India, southeast China, and some southern Japanese Islands. Below average rains are also forecast over portions of the central and eastern Pacific. Above normal temperatures are forecast across Southeast Asia and Northwestern Australia during Week-1. Temperatures are forecast to be 8-12 degrees F above normal over Southeast Asia, until the rains set in and break the heat.

The Week-2 outlooks indicates an eastward propagation of the MJO signal, with higher confidence for above average precipitation from India to the eastern Maritime Continent, reduced coverage of below average precipitation over Southeast China, and less coverage for below average precipitation over the western Pacific. Below average precipitation is also forecast near Central America due to the forecast position of the MJO.

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