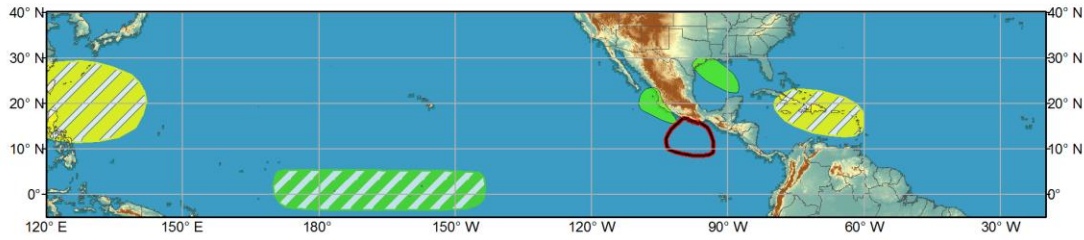




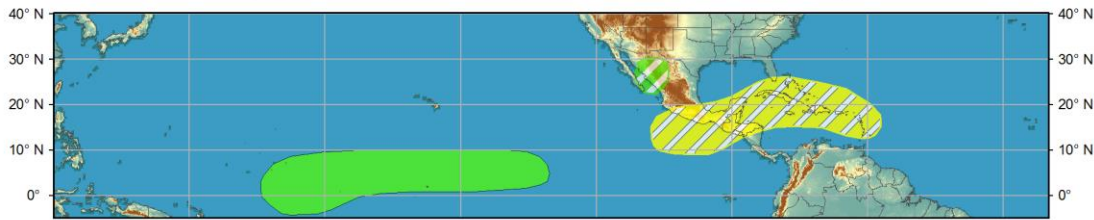
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Jun 13 2015 - Jun 16 2015



## Week 2 - Valid: Jun 17 2015 - Jun 23 2015



Confidence  
High Moderate

Produced: 06/12/2015  
Forecaster: Pugh

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Prior TC Formation Outlook** Tropical cyclone outlook from previous release.
- 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. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



The MJO remains coherent as its enhanced phase continues to propagate east across the Indian Ocean, while the suppressed phase of the MJO progresses across the Western Hemisphere. A robust Atmospheric Kelvin Wave is currently crossing the West Pacific. Dynamical model MJO index forecasts are in reasonably good agreement in depicting a continued eastward propagation with decreasing amplitude as the enhanced phase of the MJO reaches the Maritime Continent during mid-June.

Tropical Storm Carlos developed in the East Pacific this week and is forecast by the National Hurricane Center to become the third hurricane of the 2015 season. Above-average rainfall is likely along the track of Carlos through June 16. Above-average rainfall is also favored across northern Mexico from June 17-23 as the moisture associated with Carlos spreads north. Meanwhile, an upper-level trough is shifting west across the Gulf of Mexico. Above-average rainfall is expected with this upper-level trough along and offshore of the Texas Gulf Coast. No changes were made to the favored areas of below-average rainfall from the previous outlook since the CFS model and MJO precipitation composites support that forecast.

----- Previous discussion follows -----

The RMM-based and CPC velocity potential MJO indices indicate a strengthening signal since the beginning of June. The 200-hPa Velocity Potential anomalies are currently consistent with a coherent MJO, and an eastward propagation is observed during the past week. Other modes of tropical convective anomalies are apparent in the OLR field, including an atmospheric Kelvin Wave that likely contributed to the development of a tropical cyclone in the Arabian Sea.

Dynamical model MJO index forecasts differ on the propagation of the MJO signal during the next two weeks. The Canadian and ECMWF models depict the enhanced phase of the MJO progressing into the Phases 3 and 4 (eastern Indian Ocean to the western Maritime Continent) with a decrease in amplitude due to destructive interference with the ongoing El Nino. The GFS model favors the background state of El Nino as the more dominant factor. Based on these forecasts, the Atmospheric Kelvin Wave and MJO are expected to influence anomalous convection during Week-1 with the ongoing El Nino becoming the major player by the end of Week-2.

Tropical Storm Ashobaa developed in the Arabian Sea on June 7 and is forecast to track west towards Somalia during Week-1. Therefore, a small area of above-average rainfall is predicted along its track. Elsewhere, a tropical cyclone is likely to form in the East Pacific at the beginning of Week-1 and is expected to track north into southern Mexico, where above-average rainfall is favored. The GFS model has consistently indicated a surge of tropical moisture spreading north across the Gulf of Mexico from June 10-16. Due to support from the CFS model, above-average rainfall is forecast from the Yucatan Peninsula north to the central Gulf Coast during Week-1. It should be noted the ECMWF model has a much drier solution for these areas with the subtropical ridge shifting west.

Anomalous rainfall across the remainder of the global tropics during the next two weeks is based on current satellite imagery, MJO precipitation composites (Phases 3 and 4), model consensus, and the ongoing El Nino. Destructive interference between the enhanced phase of a MJO signal and the background state is expected to yield near average rainfall across much of the Maritime Continent although above (below) average rainfall is expected across parts of Sumatra (the Philippines, Taiwan, and West Pacific). Convection decreased rapidly over the equatorial Pacific recently as upper-level convergence increased across this region. Later in Week-1, above-average rainfall is favored to return to the equatorial central Pacific as the suppressed phase of the MJO exits. During Week-2, the background state of El Nino coupled with the enhanced phase of the MJO favor high confidence of above-average rainfall across the equatorial Central Pacific. Model guidance along with MJO precipitation composites

support below-average rainfall across the far East Pacific, Central America, and the Caribbean during Week-2.