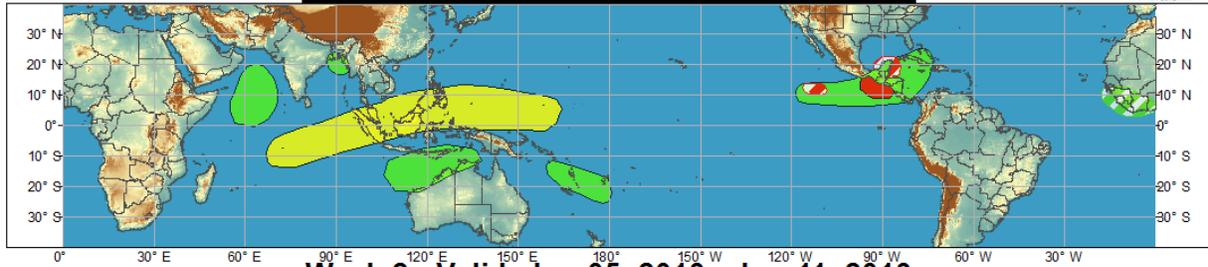




# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: May 29, 2013 - Jun 04, 2013**



**Week 2 - Valid: Jun 05, 2013 - Jun 11, 2013**



Produced: 05/28/2013

Forecaster: Baxter

Confidence		
High	Moderate	
		<b>Tropical Cyclone Formation</b> Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



For the past seven to ten days, as observed by both the Wheeler and Hendon RMM index and CPC's velocity potential index, the MJO signal has been weak. The spatial distribution of convective anomalies, therefore, has been dominated by low-frequency patterns as well as other sub-seasonal variability, especially atmospheric Kelvin waves.

A second early season tropical cyclone is poised to develop in the early hours of this forecast period. Should it develop as expected, Tropical Storm Barbara would likely make landfall in southern Mexico in the next day or two. Monitor forecasts from NHC for the latest updates. Regardless of whether that disturbance becomes a named system or not, the potential for major flooding exists for much of Central America due to a combination of tropical disturbances, an anomalously northward displaced ITCZ, and, to lesser extent, large scale sub-seasonal forcing, including the MJO.

Dynamical model MJO index forecasts indicate a weak signal early in Week-1 giving way to a stronger signal emerging in Phases 1 or 2 later in the week, though there is some discrepancy between models. Models also suggest some eastward propagation is likely during Week-2. Already there are some signs of

reorganization over the Western Hemisphere, though the velocity potential signature suggests a Wave-2 structure rather than the more canonical, Wave-1 structure of the MJO. This is at least partly due to interference by other modes.

The Week-1 outlook is based primarily on anomalous convection associated with sub-seasonal modes of variability, dynamical model forecasts, and, to lesser extent, MJO composites. Additionally, ongoing convection in some areas is forecast to continue into Week-1. A large swath favoring below-median precipitation is depicted across much of the eastern equatorial Indian Ocean, Maritime Continent, and western Pacific, due to a combination of suppressed phases of an Equatorial Rossby (ER) wave, atmospheric Kelvin wave, and the MJO. Convection over the northwestern Indian Ocean and Arabian Sea is likely to be enhanced by a Kelvin wave during Week-1, favoring continued wetter-than-average conditions for that region. There is a possibility that TC development could occur late in Week-1 or early in Week-2, but low confidence precludes depiction on the map. Above-average rainfall is favored across parts of the southeastern Indian Ocean near northwestern Australia where there has been some low-frequency tendency for enhanced convection. Enhanced rainfall in parts of the South Pacific is favored due to lingering MJO forcing and model guidance.

A current area of disturbed weather in the Bay of Bengal favors above-median rainfall for that region. Tropical cyclogenesis is possible with this system, though it is expected to move onshore rather early in the week, reducing the odds of TC development. The East Pacific is also forecast to remain active due to model guidance, MJO, and low-frequency variability. TC development is possible over the northwestern Caribbean and southern Bay of Campeche where the large-scale environment is favorable due to the anticipated phase of the MJO and an anomalous ridge centered over southeastern North America which could serve to reduce the environmental wind shear. However, it appears that development is most likely late in Week-1 or during Week-2. Regardless of TC development, an area of above-average rainfall is favored for much of the Caribbean and Central America. As mentioned previously, a tropical cyclone is expected to form over the East Pacific, near southern Mexico, at the very beginning of this outlook period. There is a moderate risk for additional TC development farther west in the East Pacific basin associated with the ongoing disturbance in that region.

The Week-2 outlook is based largely on the expectation of a renewed organization of the MJO with its enhanced phase centered across Africa propagating eastward into the Indian Ocean. Low frequency variability and model guidance are also used to create the outlook. Above-average (below-average) rainfall is favored across much of the western Indian Ocean (western Pacific) due to the forecast MJO phase. Uncertainty with respect to the MJO leads to reduced confidence in these areas. Wetter-than-average conditions are also favored across parts of western and central Africa based largely on MJO composites. The Caribbean is forecast to remain active into Week-2, with the threat of TC development lingering near the Yucatan Peninsula.

