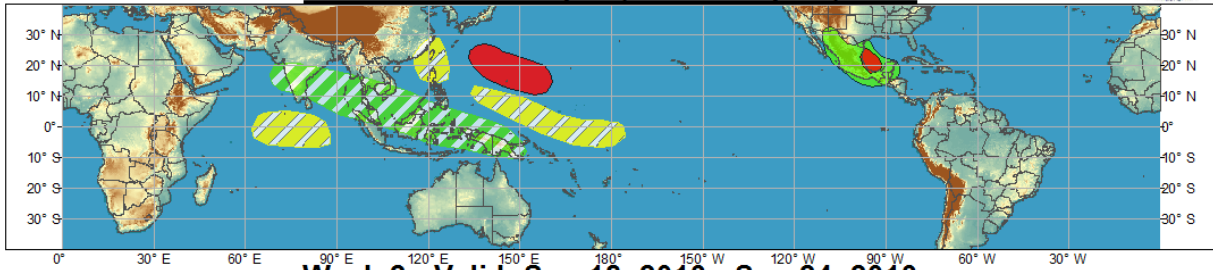




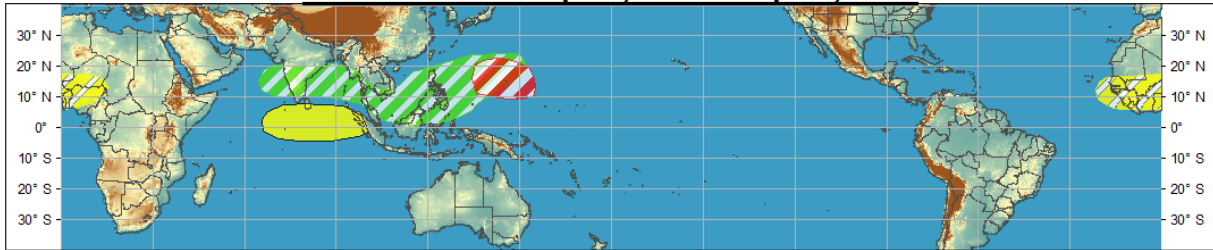
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Sep 11, 2013 - Sep 17, 2013



## Week 2 - Valid: Sep 18, 2013 - Sep 24, 2013



### Confidence

High Moderate

- Tropical Cyclone Formation** Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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.

Produced: 09/10/2013

Forecaster: Baxter

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 remained active during the past week with eastward propagation from the Western Hemisphere to the Indian Ocean (Phase 1 to Phase 2 on the Wheeler and Hendon phase diagram). The velocity potential at 200-hPa reveals a fairly coherent pattern, with large scale upper-level divergence across the Indian Ocean and upper-level convergence across much of the Pacific Basin. The signal breaks down in the Western Hemisphere, however, with enhanced convection across parts of Central America and weak subsidence across equatorial West Africa.

Dynamical model forecasts of the Wheeler and Hendon MJO index indicate a weakening signal during Week-1, possibly due to destructive interference with the suppressed phase of an equatorial Rossby wave across the western Pacific and Southeast Asia. Indeed, there is a tendency in the historical record for MJO events in Phase 2 to not propagate in a way that projects onto Phase 3 of the Wheeler and Hendon diagram. Model forecasts indicate that the signal may reemerge with convection centered across the West Pacific by late in Week-2. This would be consistent with constructive interference between the enhanced MJO phase and the active phase of the aforementioned equatorial Rossby wave.

The precipitation outlooks for both Week-1 and Week-2 are based on MJO composites blended with dynamical guidance from the bias-corrected GFS and CFSv2 ensemble. Additionally, with an active MJO and equatorial Rossby wave, statistical guidance that projects those modes onto the OLR field was also utilized. Moderate confidence is indicated from the Indian Ocean to the Central Pacific during Week-1 where there is uncertainty regarding the strength of the MJO and its interaction with the equatorial Rossby wave. Higher confidence is indicated for Week-1 over parts of Central and North America where model guidance is in good agreement and the forecast signal is especially strong. There is some tendency toward below-average rainfall across parts of western and central Africa, though confidence is too low to depict a shape on the map.

Moderate confidence is indicated for Week-2 except across the equatorial Indian Ocean, where all tools are in good agreement and any interference between the equatorial Rossby wave and the MJO should be more constructive. There is a large amount of uncertainty across most of the Western Hemisphere, where MJO precipitation composites are fairly weak and model guidance is in poor agreement.

Two tropical cyclones, Gabrielle and Humberto, formed in the Atlantic Basin during the past week, which corresponds to a favorable MJO background state. Tropical Storm Lorena formed in the East Pacific. Moving forward, conditions are expected to become more favorable across the West Pacific, where there is high confidence of one or more TCs forming during Week-1. The high-confidence shape encompasses an area where two TCs are possible. There is high confidence that a TC will develop earlier in the week across the western part of the shaded area, while there is moderate confidence of a second TC developing later in the week farther south and east in the shaded area.

A tropical wave is forecast to move into the Bay of Campeche over the next few days, where environmental conditions are expected to be favorable for development. This system is expected to spread heavy rain into parts of Mexico and possibly even into southern Texas.

For Week-2 the only area of enhanced odds for TC development is across parts of the West Pacific. The expected evolution of the MJO is generally supportive of development in this region.