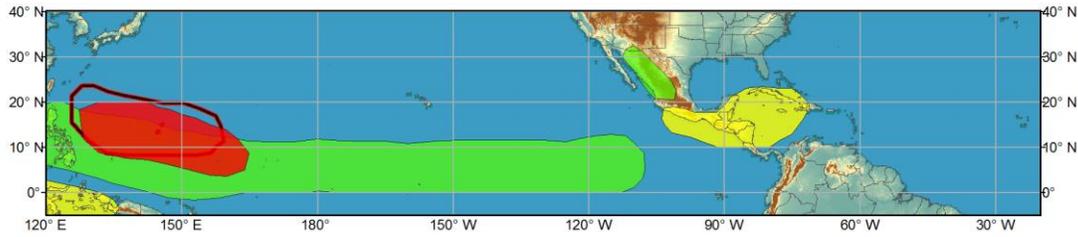




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jun 27 2015 - Jun 30 2015



Week 2 - Valid: Jul 01 2015 - Jul 07 2015



Confidence
High Moderate

Produced: 06/26/2015
Forecaster: Gottschalck

- 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 update to the GTH outlook on 6/26 reflects only minor changes from the previous outlook. The MJO remains active and forecasts for its evolution remain consistent from that showed earlier this week. Only minor adjustments were made to precipitation highlighted areas. A slight increase in eastward extent and coverage is indicated in the update for parts of the Maritime continent and a slight northward shift in the above median precipitation area during Week-2 across the western Pacific. Also, the above median precipitation region along the equatorial was extended to approximately 110 W in both periods consistent with the latest model guidance. Only minor changes were made to tropical cyclone genesis regions from the earlier outlook.

Previous discussion follows

The MJO remained active during the past week with the enhanced convective phase now centered over the Maritime continent (MC) as indicated by both the RMM and CPC velocity potential indices. A strong atmospheric Kelvin wave is also evident in the data with its enhanced convective phase currently crossing the eastern Pacific. The MJO enhanced phase is currently destructively interfering with the El Nino base state as enhanced convection is evident over much of the region in close proximity to the MC.

Over the past week enhanced convection was observed in a tilted pattern from India southeastward across Southeast Asia to the MC eastward to the central Pacific. The large region is due to combinations of the enhanced phase of both the MJO and the KW as well as the El Nino base state. Suppressed convection was observed across the equatorial Indian Ocean, the western Pacific east of the Philippines and areas of the Caribbean. Tropical cyclone Kujira developed in the South China Sea during the past week and made landfall in southern China on the 22nd with minimal impact.

Dynamical model RMM forecasts offer considerable forecast spread for the future evolution of the MJO signal in the coming two weeks but most to first order forecast eastward propagation of an MJO signal of varying amplitudes into the western Pacific over the period. Of the solutions with the largest amplitude in Week-2, the ensemble GFS and ECMWF shift the signal to Phase 7 by the end of the two week period. Issues resolving the KW evolution versus the slower MJO envelope may in part be responsible for the varying solutions amongst the solutions.

The Week-1 forecast illustrates a large area of enhanced convection from India southeastward to the western Pacific and then eastward to the east-central Pacific based on contributions from the MJO and El Nino and consistent with model guidance from the GFS, CFS and ECMWF. The MJO and El Nino are expected to constructively interfere and likely promote widespread enhanced convection over much of the Pacific basin during the next few weeks. MJO composites and model guidance support suppressed rainfall across the Gulf of Guinea section of Africa and much of the equatorial Indian Ocean to the central MC. Active convection and a favorable environment associated with the MJO favors tropical cyclogenesis east of the Philippines. The El Nino base state and model guidance supports the forecast of suppressed rainfall for portions of Mexico, Central America and the Caribbean. Enhanced rainfall is forecast for northern Mexico based primarily on model guidance. A tropical cyclone is likely to form very early in the period in the Arabian Sea and impact the Indian subcontinent.

The forecast pattern during Week-2 is similar to that depicted for Week-1 but with some eastward and northward propagation of the highlighted areas in the Eastern Hemisphere. Suppressed convection is forecast from southern India across the MC with the region of enhanced convection stretching from Southeast Asia to the eastern Pacific. Tropical cyclone development is favored across a large region in

the central Pacific during the period. Enhanced (suppressed) convection remains forecast for northern Mexico into the southwest U.S. (proximity to the Caribbean) in Week-2.