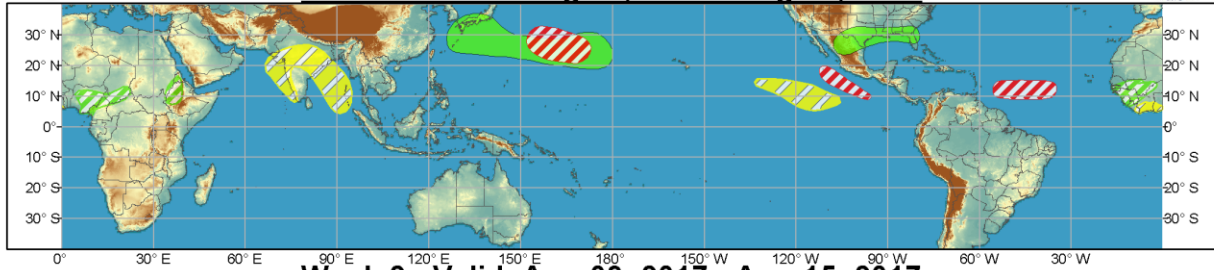




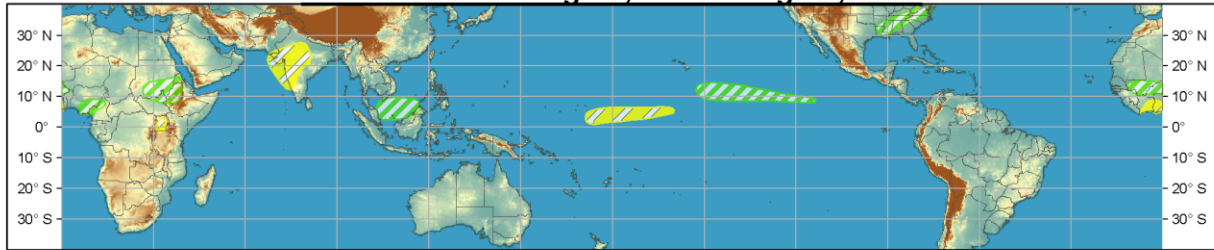
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Aug 02, 2017 - Aug 08, 2017



Week 2 - Valid: Aug 09, 2017 - Aug 15, 2017



Confidence
High Moderate

- Tropical Cyclone Formation** ■ ▨ Development of a tropical cyclone (tropical depression - TD, or greater 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.

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.

Produced: 08/01/2017
Forecaster: Artusa



During the past week, the atmosphere remained largely consistent with an active MJO, with the convectively enhanced phase over the Maritime Continent/western Pacific. Both the RMM-based MJO index and the CPC velocity potential index indicate enhancement of upward vertical motions near 110E-140E. Hovmöller diagrams of OLR indicate a broad, eastward moving anomaly in the same region, though the frequency-wavenumber analysis applied to that OLR data attributes the convection to a mix of westward moving features (equatorial Rossby waves) in addition to the MJO, eastward moving Kelvin waves, and the low-frequency signal (for the more stationary convective components). During the past week, a fairly strong Kelvin wave propagated eastward over the equatorial Pacific, and is expected to remain active as it continues to propagate eastward across the Atlantic basin during Week-1. Most dynamical models predict the subseasonal signal over the Maritime Continent and western Pacific will be largely affected by westward propagating modes of variability through Week-1, with a few models (such as the ECMWF) suggesting possible development of a weak subseasonal signal in Week-2 over the Indian Ocean. This potential Week-2 signal is thought to be related to the Kelvin wave expected to traverse the Atlantic basin and Africa during Week-1. Statistical guidance such as the Constructed Analog predicts a more stationary convective anomaly couplet, with enhanced convection remaining over the Maritime Continent and western Pacific during Week-1 which then weakens during Week-2, and suppressed convection across the Indian Ocean for the 2-week period.

The forecast intraseasonal evolution would support tropical cyclone (TC) activity over the Pacific and Atlantic basins during Week-1. Some of this expected TC activity could spill over into the Week-2 period. Tropical cyclogenesis is forecast during Week-1 over the western Pacific (related in part to the larger-scale monsoon gyre), and over the eastern Pacific and the Atlantic MDR (Main Development Region) during Week-1, seeded by the convectively-coupled Kelvin wave (CCKW) currently located in the vicinity of phases 7,8. The predicted Atlantic TC area will also depend on the availability of robust African easterly waves (AEW) moving through that area.

During Week-1, above-average rainfall is most likely over the western Pacific, near the predicted paths of any TCs. As of August 1st, the ECMWF and GFS models predict heavy rain (associated with Typhoon Noru) to move across, and south of, southern Japan later in Week-1. Above-average rainfall is also forecast over northern Mexico, much of Texas, and the Gulf Coast region. The Weather Prediction Center (WPC) anticipates rainfall amounts in the 2-5 inch range across this region. Below-average rainfall is forecast over much of India and the Bay of Bengal, in the convectively suppressed portion of the MJO and low-frequency signals. Drier-than-average conditions are also possible over the eastern tropical Pacific, related to subsidence associated with any TC activity.

During Week-2, the dry signal over India is forecast to continue, and below-average rainfall is also possible just north of the equator in the vicinity of the Date Line. Wet signals are forecast over the southeastern contiguous U.S. in a band that stretches from about Louisiana to Delaware (related to frontal activity), over the central and eastern tropical Pacific (where the GFS and ECMWF rainfall forecasts generally agree), and over portions of the Maritime Continent (related to the low-frequency signal).

Forecasts over Africa are made with moderate confidence in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.