

The MJO weakened significantly during the past week, with the tropical circulation pattern not reflective of influence from the MJO. Both the CPC Velocity Potential based index and the Wheeler-Hendon, RMM based index indicate no MJO activity, with both indices indicating westward movement during the past week. The upper-level velocity potential pattern exhibits a wavenumber-3 pattern. The low-frequency, El Nino state continues to be reflected in the circulation pattern, with enhanced divergence over the eastern Pacific, and generally enhanced subsidence over the Atlantic and western Pacific. Low-level and upper-level wind anomalies continue to reflect the low-frequency state as well, with low-level westerly anomalies across much of the western and central eqautorial Pacific Ocean. Some vascillations in the South Asian Monsoon are also evident in time lapse images.

Dynamical model forecasts continue to depict a significant spread in potential outcomes related to the MJO. Most of the global models indicate a westward moving signal, with strengthening over the West Pacific. That signal is likely due to an equatorial Rossby wave currently indicated in some analyses near the Date Line, along with tropical cyclone activity likely to occur over the West Pacific.

Tropical depression 8E formed over the East Pacific on Monday, July 27. The forecast track from the National Hurricane Center takes the depression toward Hawaii, with longer range model guidance indicating a cluster of tracks mostly south of Hawaii. High significant wave heights near Hawaii are likley later this week, but impacts from precipitaiton and wind are too uncertain at this time to depict on the outlook map. Additional tropical cyclogenesis, in the wake of TD8E, is likely later in Week-1 over the East Pacific, as well as over the West Pacific between 145E and 170E. A stalled front across the southeast U.S. could serve as a focal point for tropical cyclone development, later in Week-1, although confidence in the actual development of a tropical depression is low. During Week-2, the favored areas for tropical cyclogensis move eastward over the East Pacific (100W - 120W) and Westward over the West Pacific (125E-150E).

During Week-1, above average rainfall is likely across northern India and southern Pakistan, associated with a pulse in the South Asian Monsoon. The low-frequency state supports above average rains near the Date Line and over the east Pacific, with below average rainfall likely from southern India to the Philippines and Maritime Continent, as well as over the Caribbean, Mexico, and extremem southern Texas.

During Week-2, the low-frequencey state and potential tropical cyclones are likely to dominate the pattern of tropical convection. Below average rains are likely from South Asia to the Maritime Continent, as well as over the South China Sea, with above average rains from the just west of the Date Line to the East Pacific. Dry conditions are likely to prevail from Central America to the Lesser Antilles.

Forecasts for enhanced or suppressed rainfall across Africa are provided in collaboration with CPC's Africa Desk and are based on MJO composites and regional scale anomaly features.