

The MJO weakened during the past week and exhibited little propagation. Enhanced convection (inferred from negative OLR anomalies) was evident over India, across Southeast Asia, portions of the Maritime Continent, and the western North Pacific. Suppressed convection (positive OLR anomalies) was measured over the Indian Ocean, Central and North America, and portions of Western Africa. The current 200-hPa velocity potential maps indicate a wave-2 structure along the equator, with the influence of an atmopheric Kelvin Wave evident over Africa. The enhanced convection associated with the MJO is located over the western North Pacific, and as such, the Wheeler-Hendon (WH) MJO index indicates an active MJO in phase 6. The CPC MJO Index, like the WH MJO index, depicts very little eastward propagation during the past week.

Super Typhoon Danas formed on Oct 3 near Guam and moved northwest, with maximum wind speeds reaching 125 knots. Super Typhoon Danas is forecast to impact the Korean Peninsula and Japan before weakening late this week. Farther east, Tropical Storm Narda formed near 13N, 119W. Tropical Storm Narda is not forecast to impact any major land mass. Tropical Storm Karen developed over the Gulf of Mexico then quickly dissipated before making landfall.

Dynamical model forecasts of MJO evolution based on the Wheeler-Hendon Index depict a range of solutions, from a nearly stationary signal over the western North Pacific to a rapid progression with convection moving to the Western Hemisphere. Statistical models such as the Constructed Analog favor eastward propagation and a weakening signal. Uncertainty about the future state of the MJO is elevated this week. Based on current observations and model inputs, continued slow propagation of a weak MJO is anticipated during the upcoming two-week period.

The precipitation outlooks are based on MJO composites and input from both the GFS and CFS models. Enhanced rainfall is favored from northern India, across southeast Asia to the western North Pacific. Suppressed rainfall is likely to spread from the Indian Ocean to the Maritime Continent, remaining confined near the equator. Suppressed rainfall is favored over the African Sahel due to the suppressed phase of the MJO and a more zonal component to the low-level winds which will transport moisture inland, east of the Gulf of Guinea. Elevated chances for tropical cyclogensis are forecast to continue over the western North Pacific, an area centered on Guam, with lower confidence and lower odds of formation over the eastern Bay of Bengal near Andoman and Nicobar Islands. Tropical cyclone formation odds are also enhanced over the eastern Pacific, from 100W to 120W, south of 20N, due in part to a Kelvin Wave forecast to move across that region. A tropical wave is currently moving across the tropical Atlantic, and has small odds of becoming a tropical storm.

Above-average rainfall is likely to continue across the western North Pacific due to the slow-moving MJO. Additionally, suppressed rainfall is favored across much of South Asia and the Maritime Continent during Week-2. No specific threat area for tropical cyclogensis is highlighted during Week-2.