

The MJO strengthened during the past week and propagated quickly eastward across the Maritime Continent and western Pacific. The fast movement is likely related to an atmospheric Kelvin wave. During the past week, enhanced convection was observed across parts of the Indian Ocean, Maritime Continent, and western Pacific. Suppressed convection was observed over the central Pacific and the tropical Atlantic. Tropical Storm Guchol developed in the northwest Pacific and is moving northwestward toward the Philippines and Taiwan.

The latest forecasts of the MJO index from dynamical models indicate a coherent MJO signal during the next two weeks. An eastward moving Kelvin wave is currently moving across the Pacific, which is likely contributing to the forecast fast MJO propagation during week-1. There is low spread among the models with the magnitude of the MJO signal. The week-1 outlook is based primarily on MJO composities keyed to phases 6 and 7, and the week-2 outlook is based on phase 8.

During Week-1, the enhanced phase of the MJO and model guidance favor enhanced rainfall for parts of northwest Pacific, eastern Pacific, and central America. Some model guidance also supports elevated

chances of above-average rainfall for the Gulf of Guinea region. Suppressed convection is forecast from southern India through the western half of the Maritime Continent and also for part of east-central Africa, in accordance with MJO composites and most model guidance. Many models are indicating tropical cyclone development may occur in the eastern Pacific and are developing one or more low level circulations during this time. Some models are also developing a low level circulation in the western Caribbean late during week-1, although there is greater consensus it may develop during week-2. Tropical cyclone development is consistent with the enhanced phase of the MJO moving across the region.

For Week-2, suppressed convection is forecast to continue across the eastern Indian Ocean, southern India, and the western Maritime Continent. It is expected to expand eastward to Papua New Guinea as the core of the suppressed phase of the MJO moves eastward during this time. Enhanced convection is forecast to continue across the northwest Pacific, eastern Pacific, and Central America, consistent with MJO composities. The forecast enhanced low level westerly anomalies associated with the departing MJO signal increases chances for tropical cyclone development east of the Philippines. The odds for tropical cyclone development across the northwest Caribbean and southern Gulf of Mexico are expected to be elevated due to the enhanced phase of the MJO. This includes areas near the Bahamas and the Yucatan Peninsula of Mexico. Some models develop a low level circulation in this region. Enhanced convection is also forecast for the Gulf of Guinea associated with the MJO and anomalous low level convergence in the area.