

The MJO weakened during the past week with other modes of tropical intraseasonal variability influencing anomalous convection throughout the global tropics. During the past week, an equatorial Rossby Wave (ERW) coupled with an atmospheric Kelvin Wave resulted in enhanced convection across the eastern Indian Ocean and western Maritime Continent. Enhanced convection across the south Pacific nearthe Date Line and across parts of the Americas was associated with the weakening MJO. Suppressed convection was observed across the Philippines to the southwest of continued tropical cyclone activity across the west Pacific.

A pair of intense tropical cyclones developed over the west Pacific during the past week. Since September 1, 12 tropical cyclones have formed in this very active basin. Francisco developed east of the Philippines, near 12M 145E, on October 16 and rapidly intensified to a Super Typhoon with maximum sustained winds of 140 knots. Typhoon Lekima originated to the east of Francisco, near 10N 160E. As of October 22, Lekima is forecast to become the second Super Typhoon in less than one week across the west Pacific. Meanwhile, Hurricane Raymond developed in the east Pacific to the west of Acapulco, Mexico. Relatively weak and short-lived Tropical Storm Lorenzo formed near 30N 53W over the Atlantic Ocean. Dynamical model forecasts indicate a continued weak MJO signal during the next two weeks. Therefore, the precipitation outlook for Week-1 is based on current satellite imagery along with guidance from the CFS and GFS models. Currently, a low pressure system is tracking west from the Bay of Bengal to eastern India. Above-average rainfall is favored along the westward track of this low pressure system as it crosses south-central India. It should be noted that a low chance for tropical cyclone development exists across the northeast Arabian Sea when this low pressure system moves offshore from India. Model guidance remains consistent in the development of a tropical cyclone over the southern Indian Ocean early in Week-1. Moderate confidence for below-average rainfall is forecast across the South China Sea and Philippines to the southwest of the pair of tropical cyclones in the west Pacific. This dryness is also consistent with the suppressed phase of an ERW. In contrast, the enhanced phase of the ERW along with expected low-level convergence increases chances for above-average rainfall across the Horn of Africa and parts of Angola. Model guidance favors above-average rainfall across parts of the Americas with the highest confidence in wetness across southern Mexico and Central America. Until Hurricane Raymond begins to track west, torrential rain poses a threat to Acapulco, Mexico. The GFS ensemble members are consistent with an enhanced chance for tropical cyclone development across the east Pacific late in Week-1 or at the beginning of Week-2.

Due to an expected weak MJO signal, the precipitation outlook for Week-2 is based primarily on CFS and GFS model guidance. Above-average rainfall is forecast to continue for parts of the Americas, while below-average rainfall is favored for Angola and northern Zambia. Wet and dry signals are rather weak across the remainder of the global tropics.

The continued recurvature of typhoons over the west Pacific is expected to contribute to the persistent, amplified pattern across the north Pacific and North America through at least the end of October.