

There appears to have been some organization of a coherent MJO signal over the past one to two weeks, though other convective variability continues to make for a complicated picture. The RMM index and the CPC MJO index place the enhanced MJO phase over the western Maritime Continent with modest amplitude, though pronounced eastward propagation has been slow to develop. The latest time-longitude OLR and velocity potential diagrams (filtered for various modes of tropical variability) suggest that the enhanced phase of an equatorial Rossby wave is constructively interfering with the MJO signal but inhibiting obvious eastward propagation. Based on recent observations, statistical guidance, and dynamical model guidance, propagation of a weak, but coherent, MJO signal is favored over the upcoming one to two weeks.

Tropical Storm Don formed in the North Atlantic near 11N/53W on 17 July. It is forecast to remains a fairly weak and disorganized storm as it takes notably southern track near 12N over the next one to two days. There was a somewhat unexpected flurry of activity over the East Pacific basin during the past week. Hurricane Fernanda was well forecast to develop and became a major hurricane, with peak winds at 125 kts on 15 July. Fernanda is forecast to dissipate rapidly over the coming days, though its remnants could bring locally heavy rainfall to the Hawaiian Islands later in Week-1. Tropical Storm Greg formed on

17 July near 14N/105W, and is forecast to remain a tropical storm before becoming post-tropical this weekend. On 18 July, Tropical Depression Eight developed near 15N, 119W. This system is expected to become Tropical Storm Hilary, but is expected to remain fairly weak as it tracks generally westward over the next week. The latest NHC discussion suggests there is some possibility that it becomes absorbed by Tropical Storm Greg. Tropical Storm Talas formed over the South China Sea in the West Pacific basin on 15 July. It was a short-lived storm reaching peak winds of 50 kts.

There is a moderate confidence of TC formation in each of the three major Northern Hemisphere basins during Week-1. The best chance of formation is likely in the East Pacific, where the various models are consistently showing tropical cyclogenesis. Over the West Pacific, on either side of the Philippines, the ECMWF and GEFS ensemble systems continue to hint at one or two tropical cyclones developing over the next week. These systems are forecast to be on the weaker side, though the threat lingers into Week-2. Over the Atlantic basin, a borderline moderate confidence shape is depicted over the main development region, though the latest model guidance has not been particularly bullish on development. During Week-2, other than the shape in the West Pacific, only a low risk of formation persists in the East Pacific, potentially related to the remnant of Tropical Storm Don moving westward into the Pacific. In the wake of the recent uptick in activity, the ongoing MJO is expected to favor a reduction in activity over that region by Week-2.

Above-average rainfall is most likely during Week-1 for a northwest to southeast tilted region extending from northern India to the West Pacific. This shape is well indicated by model guidance and consistent with ongoing MJO evolution. Above-average rainfall is also expected associated with ongoing and forecast TC activity over the East Pacific basin. Below-average rainfall is favored over the Indian Ocean, again consistent with forecast MJO evolution and dynamical model guidance. Elsewhere, shapes are based largely on the model consensus between the ECMWF, the GEFS, and the CFS.

During Week-2, some eastward propagation is noted based on forecast MJO activity, but all shapes are depicted with moderate confidence given continued uncertainty. Below-average rainfall is more likely over Central America based on forecast MJO evolution and the ECMWF dynamical model forecast, while the potential for lingering TC activity increases the odds for above-average rainfall over the East Pacific. A reversal from above- to below-average rainfall is indicated for parts of India and Southeast Asia from Week-1 to Week-2.

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.