

The MJO remains fairly weak, though any enhanced phase is likely over the Pacific based on the CPC velocity potential based index. There is likely some destructive interference between the intraseasonal signal and the low-frequency state which favors persistent drying over much of the equatorial central Pacific. Dynamical model forecasts generally depict little in the way of a coherent MJO signal over the next two weeks, though the GEFS is an outlier with an eastward propagating signal over the Pacific indicated by the RMM-based index from the GEFS forecasts.

Tropical Sarika formed east of the Philippines and is forecast to become a typhoon before making landfall over the northern Philippines, then tracking westward toward Hainan. Another tropical cyclone (TC) is expected to form later today or tonight near 145E between 8N and 10N. This system is currently forecast by dynamical models to track generally west-northwestward over the next week.

A moderate risk for TC formation is indicated over the East Pacific for the next few days based on the latest guidance from the National Hurricane Center. The Central Pacific Hurricane Center is currently

monitoring a tropical disturbance approaching the Date Line between 10N and 15N that has a 50% chance of development during the next 48 hours.

The TC risk indicated in the western Caribbean in the original forecast is removed, though a broad region of unsettled weather associated with forecast upper-level troughing remains in the forecast. A low risk of formation remains over this region, and this will be reevaluated during the next forecast cycle on Tuesday.

Regions favoring above- or below-average rainfall are adjusted based on the latest forecast TC tracks as well as the most recent model consensus between the CFS and the ECMWF.

The previous discussion, issued on Tuesday, October 11, follows:

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Recent observations and the RMM-based and CPC velocity potential-based MJO indices depict little eastward propagation of a coherent intraseasonal signal during the past few days. The negative phase of the Indian Ocean Dipole (IOD) and a possibly developing cold ENSO base state continue to strongly influence the pattern, favoring enhanced convection over the Maritime Continent. Any enhanced phase of the subseasonal signal is likely over the Pacific based on the CPC velocity potential index, where it is destructively interfering with the low-frequency state. There is some evidence of a westward propagating equatorial Rossby wave over the eastern Indian Ocean and western Maritime Continent. Kelvin wave activity continues across the West Pacific and may increase the potential for tropical cyclone development early in the period.

In the Atlantic basin, Hurricane Matthew proved to be an impactful storm for the southeastern United States, while Hurricane Nicole continues to spin over western Atlantic, and is forecast to move northeastward over the coming days. Tropical cyclogenesis is indicated by multiple dynamical modeling systems late in Week-1 or early in Week-2 over the western Caribbean Sea, and a moderate confidence shape is indicated for that region. This is broadly consistent with the forecast evolution of the tropical convective pattern over the coming 7-10 days. The National Hurricane Center is currently monitoring two tropical disturbances over the East Pacific; each has a moderate chance of formation over the next several days. Farther west, one or two tropical cyclones could form during Week-1, the best chance associated with a tropical wave initially near 10N, 160W. Over the West Pacific, Tropical Storm Aere and Typhoon Songda formed during the past week. The former dissipated over the South China Sea while the latter is forecast to recurve over the North Pacific. Two areas are being monitored for tropical cyclogenesis in Week-1. The best odds of formation exist east of the Philippines early in the week, and a lower risk of formation is indicated later in the week east of that region. The storm forecast to develop east of the Philippines could track across the South China Sea.

Regions favoring above- or below-average rainfall during Week-1 are based on the consensus between the ECMWF and CFS ensemble systems, as well as forecast tropical cyclone tracks. Generally enhanced (suppressed) convection is favored across the Maritime Continent (central Pacific). Equatorial Rossby wave activity is expected to contribute to enhanced convection over parts of the Indian Ocean in Week-1.

For Week-2 forecast shapes are based largely on the low-frequency state given a lack of coherent MJO activity forecast by statistical or dynamical models. Model consensus between the ECMWF and CFS ensemble systems is also used during this period. The only area favoring tropical cyclogenesis during Week-2 is over the western Caribbean, a carryover from the Week-1 period.

Forecasts over Africa are generally made in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.