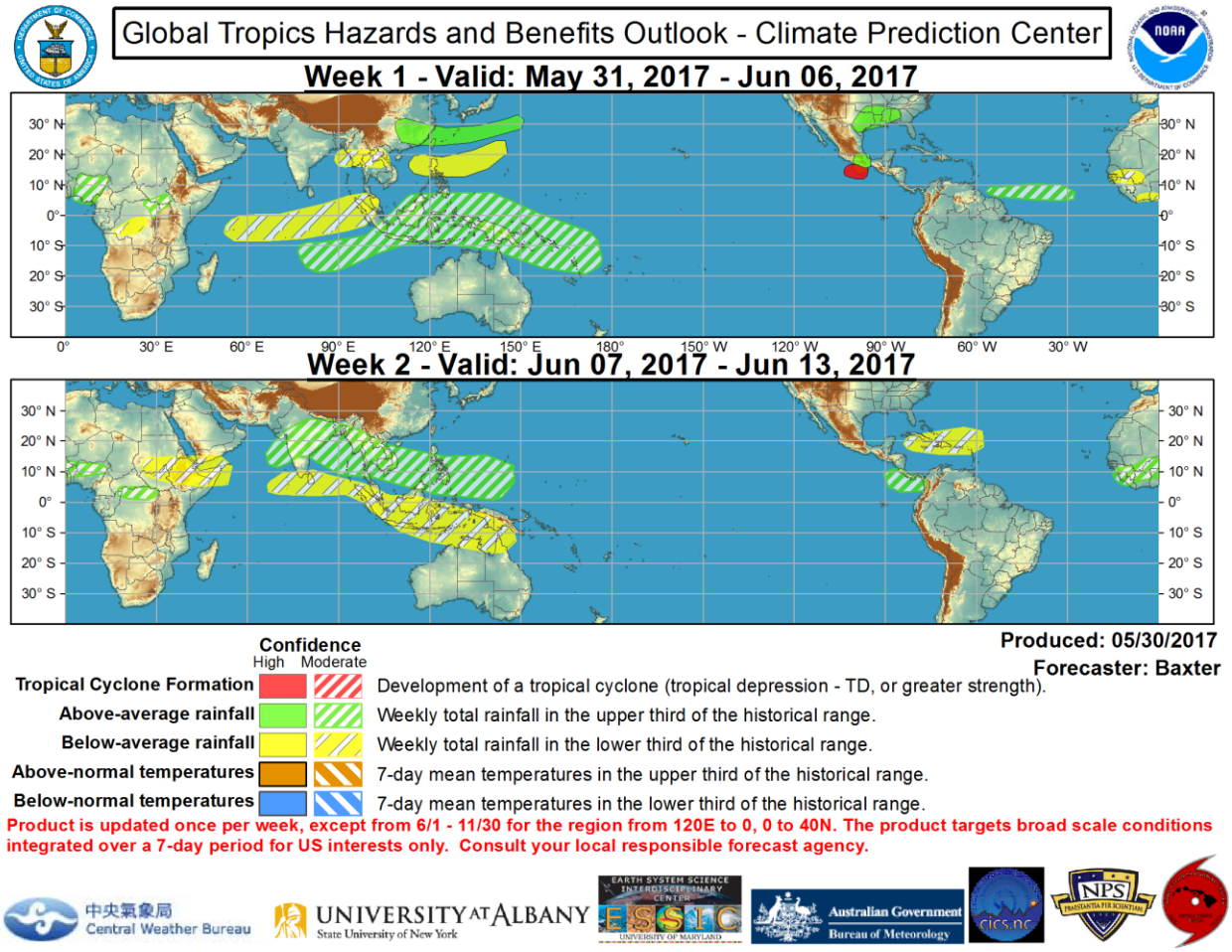

The RMM index and CPC velocity potential MJO index each depicted a generally weak MJO signal over the past week, though the former now places the MJO enhanced phase over the Indian Ocean. The complex evolution of the intraseasonal tropical convective pattern is due to interference among the three primary modes of variability now evident across the global tropics: the lower-frequency MJO signal, atmospheric Kelvin waves, and westward-moving variability related to a tropical cyclone and an equatorial Rossby wave. The combined effect of these patterns of variability has been to obscure the main MJO signal and to enhance convection over the Indian Ocean. At the same time, the wave-1 structure of the global velocity potential anomalies has broken down. Statistical mode decomposition suggests that the lower-frequency MJO signal is approaching the western Maritime Continent.

Dynamical model forecasts are in generally good agreement on the forecast evolution of the MJO, but their solution is far from canonical. The models generally forecast eastward propagation across the Maritime Continent before weakening the signal, with the GEFS placing the enhanced phase over Africa and the western Indian Ocean by the end of Week-2, in what is likely to be a statistical result based on interference with the other modes of variability. The ECMWF solution is more consistent with canonical MJO evolution and is slightly favored over the other guidance.

Tropical Cyclone Mora formed over the Bay of Bengal and made landfall early on 30 May over southeastern Bangladesh before weakening. Tropical cyclogenesis is likely during Week-1 over the East Pacific, where a tropical disturbance is currently being monitored. This disturbance is forecast to drift northward toward southwestern Mexico over the coming days while strengthening into a tropical cyclone. The National Hurricane Center currently places the odds of tropical cyclogenesis at 80% over the next five days. During Week-2, there is some model support for tropical cyclogenesis over the Bay of Bengal. However, this would be highly dependent on the advancing position of the southwest monsoon, which would historically inhibit formation by the second week of June over the Bay of Bengal. At this time, the odds of formation are too low to depict on the map.

The Week-1 outlook for precipitation is informed largely by dynamical model consensus as well as the expected evolution of the MJO. Enhanced convection is more likely over the Maritime Continent and parts of the southeastern Indian Ocean. This region is broadly supported by state of the MJO and model consensus, albeit with moderate confidence. Enhanced rainfall is favored with high confidence along the Mei-yu Front, as well as over portions of the south-central U.S. where deep tropical moisture is forecast to interact with mid-latitude dynamics. Below-average rainfall is favored over parts of Southeast Asia and the equatorial Indian Ocean.

The Week-2 precipitation outlook emphasizes the large scale patterns manifest in the dynamical model consensus as well as MJO composites. Using RMM phases 4-5 as characteristic of the expected MJO evolution, a broad northwest to southeast region favoring above-average rainfall is indicated across southeastern Asia to the Northwest Pacific. Below-average rainfall is more likely southeast of this region; the ECMWF reforecast-calibrated rainfall probabilities are most in line with this general idea. Areas of moderate confidence of the East Pacific and western Atlantic are based on dynamical model consensus and generally orthogonal to the MJO composites.

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