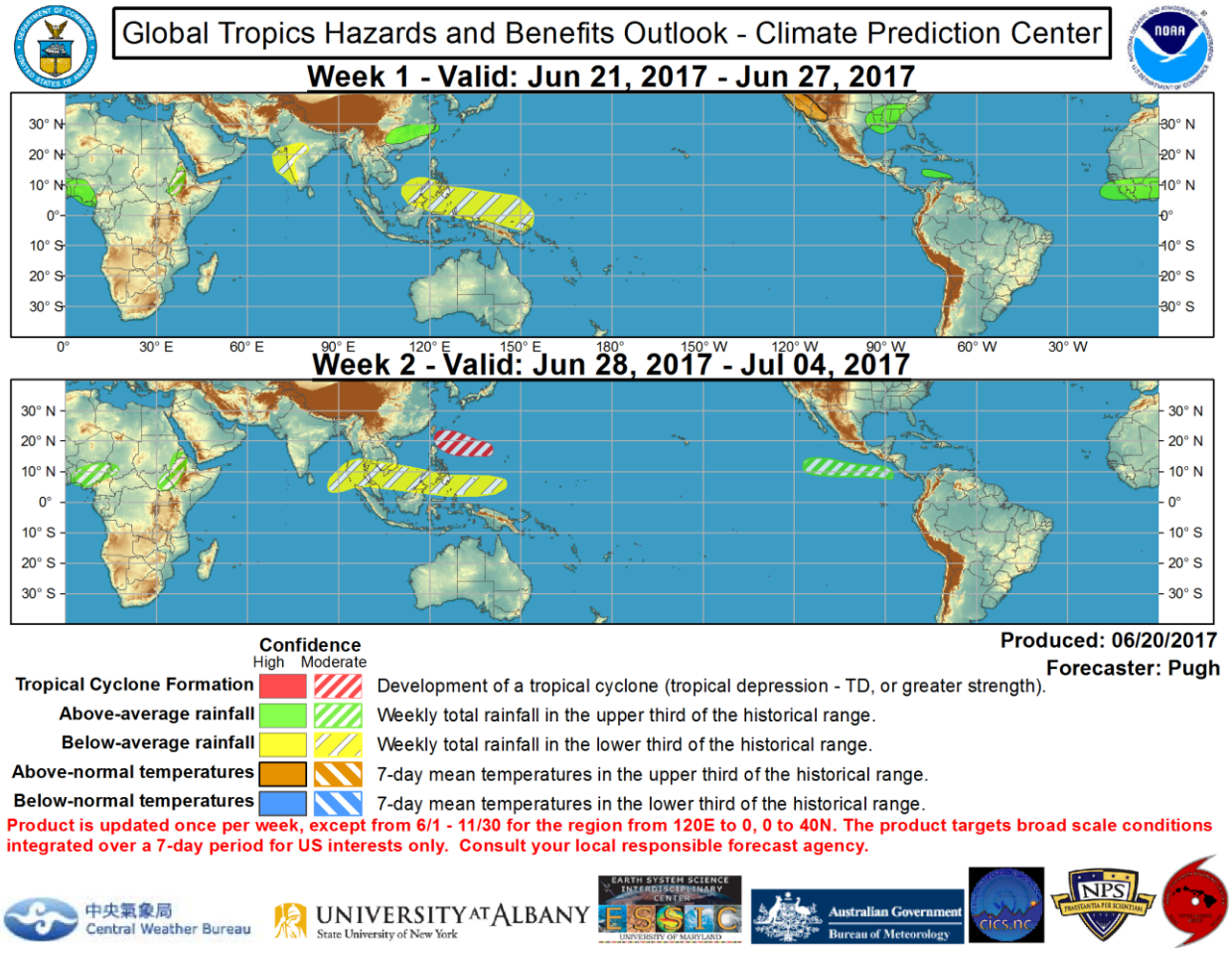

The MJO remained weak during the past week as atmospheric Kelvin waves continue to be the major contributor to anomalous rainfall across the global tropics. Although the amplitude of the RMM index increased recently with the enhanced phase over Africa, the CPC 200-hpa velocity potential index features an incoherent MJO signal. Dynamical model forecasts vary on the evolution of the MJO during the next two weeks. The European ensemble mean depicts a weak to moderate MJO propagating east from Africa to the Indian Ocean, but the GFS model and many of the ensemble members from the Canadian model indicate a continued weak signal with little or no eastward propagation. Based on the model consensus and recent diagnostic tools, the MJO is expected to remain weak during the next two weeks and not play a major role in anomalous rainfall and tropical cyclone activity across the global tropics.

Tropical cyclone development was limited to the Atlantic Basin during mid-June. On June 19, Tropical Storm Bret formed at a low latitude and near the Windward Islands (9.4N/59.8W). This origin of development, so far to the east, is unusual for this time of year. Tropical Storm Bret is forecast to bring heavy rain (2-4 inches, locally more) to Aruba, Bonaire, Curacao, and the northern coast of Venezuela during the next 24 hours before increasing wind shear weakens Bret over the Caribbean Sea. Tropical or

subtropical cyclone development is imminent across the Gulf of Mexico as surface pressures slowly fall and deep convection begins to develop around an area of low pressure. Vertical wind shear, associated with an upper-level low near the Texas Gulf Coast, is expected to limit strengthening of the tropical or subtropical cyclone as it tracks north towards the Gulf Coast. During the next week, heavy rainfall (up to 10 inches or more) is forecast for the western and central Gulf Coast, lower Mississippi Valley, and parts of the southeastern U.S.

An atmospheric Kelvin wave is likely to result in above-average rainfall across parts of western Africa and the Ethiopian highlands. Following an increase in rainfall across central India this past week, model guidance indicates that rainfall associated with the Indian Monsoon will be near or below-average through at least Week-1. Above-average rainfall is likely along a stationary front across southern China during Week-1, while below-average rainfall is favored for parts of the Maritime Continent and West Pacific.

During Week-2, the favored areas of anomalous rainfall are based primarily on guidance from the CFS model due to large uncertainty on the MJO evolution and generally small precipitation anomalies from the European model. The most likely area for below-average rainfall exists across parts of the Maritime Continent, while convection is expected to increase across parts of the East Pacific. Forecast confidence in these precipitation shapes is moderate at best due to uncertainty on how different modes of subseasonal tropical variability interact at this time scale.

The GEFS tool indicates that an area east of Philippines may become more favorable for tropical cyclone development by Week-2. Elsewhere, tropical cyclone activity is expected to be near or below climatology.

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