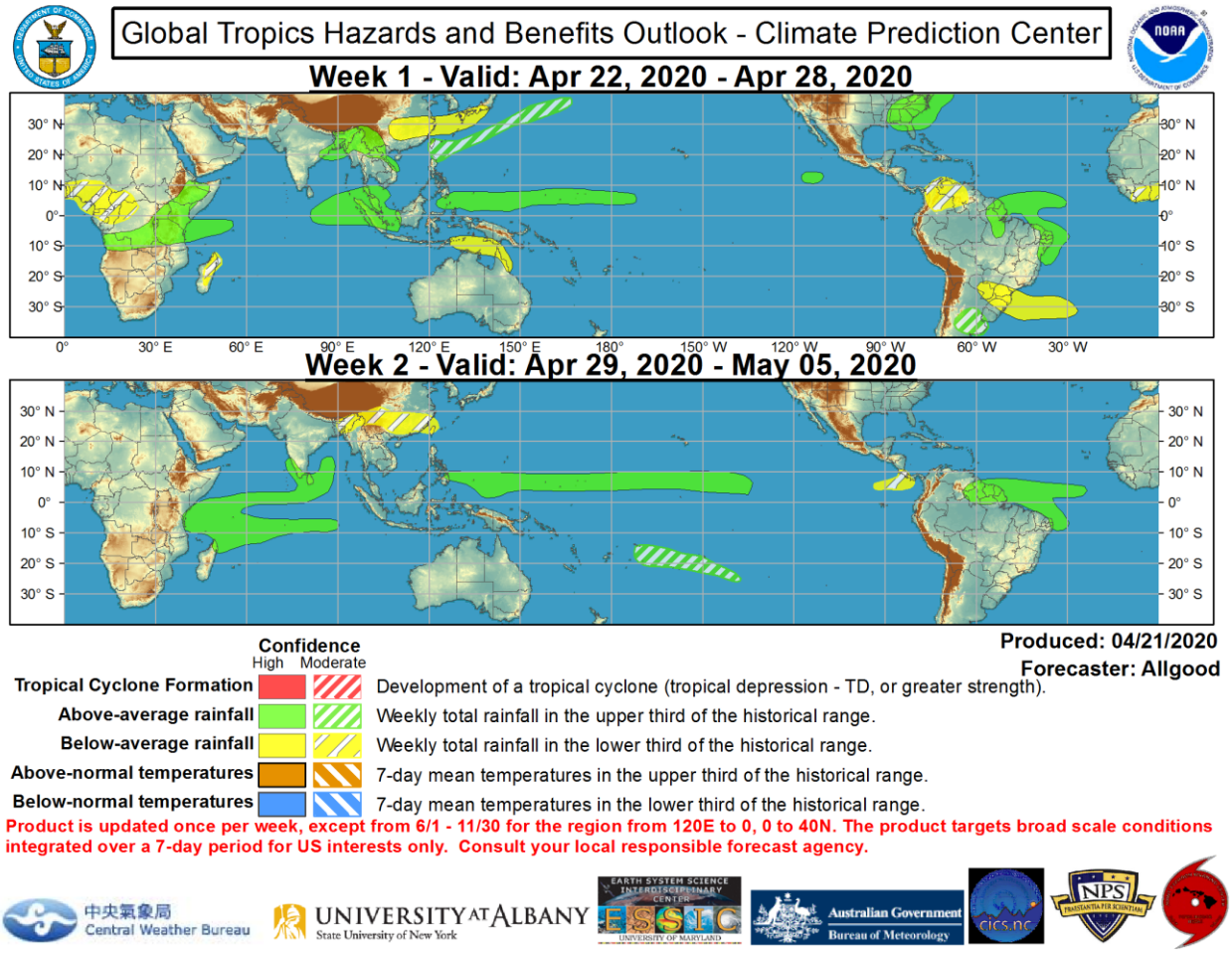

As discussed last week, a coherent intraseasonal signal has been circumnavigating the Tropics at a phase speed consistent with Kelvin wave activity, with the strongest footprint evident in the upper-level velocity potential pattern. The 200-hPa velocity potential anomalies continue to exhibit an organized Wave-1 structure, with the enhanced phase now over Africa and the far western Indian Ocean. Over the Pacific, the trade winds have become enhanced, which may erode the low frequency signal driven by above-normal SSTs above an increasingly shallow thermocline. Midlatitude wave breaking from both hemispheres onto the equator has resulted in an equatorial Rossby wave near the Date Line, which may destructively interfere with the intraseasonal signal during Week-2 as it emerges over the Pacific. Dynamical model RMM-based MJO index forecasts are in good agreement, and depict the intraseasonal signal traversing the Indian Ocean basin during Week-1, followed by a pronounced "left turn" into the unit circle, which may indicate interference from the aforementioned Rossby wave. Based on the continued fast phase speed of the signal, the time of year, and the potential for destructive interference in Week-2, the MJO is not anticipated to play a substantial role in the evolution of the midlatitude pattern.

Tropical Storm Jeruto developed well southeast of Diego Garcia on 14 April and dissipated rapidly in an increasingly high shear environment. April is a climatologically quiet time of year for tropical cyclone formations worldwide, and dynamical model forecasts for the next two weeks bear out this relative inactivity. A few GEFS ensembles depict a tropical cyclone developing over the Bay of Bengal during Week-2, but confidence remains too low to depict a formation hazard on the outlook. Elsewhere, tropical cyclogenesis is not anticipated during the outlook period.

Forecasts for enhanced and suppressed precipitation are based on a consensus of the CFS and ECMWF ensemble means, and reflect the ongoing low frequency state modulated by the rapidly propagating intraseasonal signal. In particular, enhanced rainfall over the North Pacific ITCZ as well as northeastern Brazil and the adjacent tropical Atlantic are indicative of the low frequency base state. During Week-1, enhanced rainfall is forecast across central Africa, the western Maritime Continent, and parts of Southeast Asia, contrasting with suppressed rainfall favored for East Asia, Japan, and north of Australia. Dynamical models, particularly the CFS, show a potential for suppressed rainfall over northwestern South America, while the boundary between a Northeast U.S. trough and a ridge over Florida provides a focus for potentially heavy rainfall across the Southeast.

During Week-2, a break in the widespread heavy rainfall and severe weather is possible for the Southeast CONUS. Convection initiated by the intraseasonal signal over the Indian Ocean is favored to persist by the dynamical models, with a possible northward extension to southern India and Madagascar. Drier conditions are favored for Southeast Asia, while the ECMWF shows the potential for enhanced rainfall extending from the vicinity of American Samoa through French Polynesia.

Forecasts over Africa are made in consultation with CPC's international desk as well as dynamical model consensus, and can represent local-scale conditions in addition to global-scale variability.