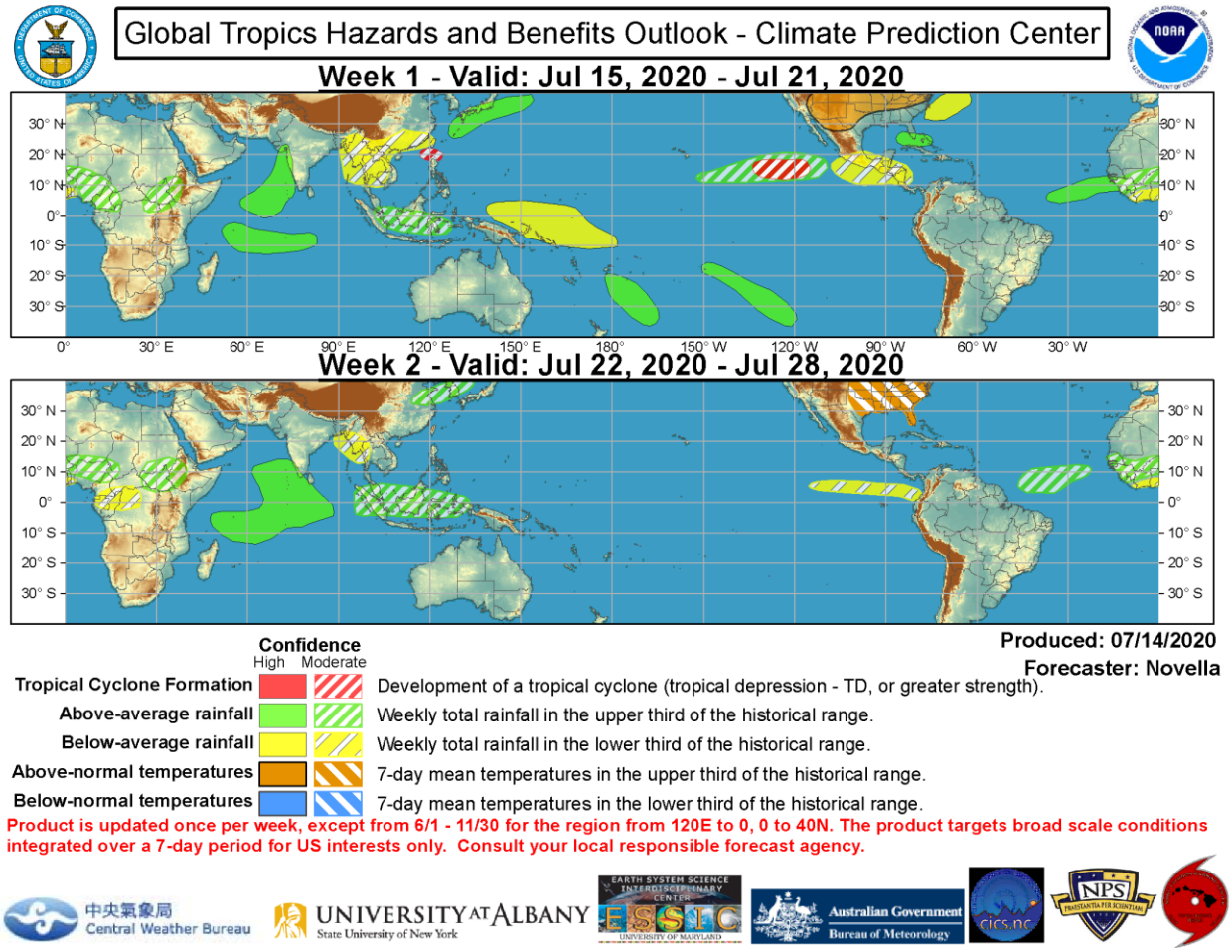

The MJO has become better organized with some eastward propagation of the intraseasonal signal during the past week. Upper-level velocity potential anomalies currently show a better defined pattern, with a broad envelope of enhanced divergence (convergence) aloft extending from the eastern Atlantic to the Indian Ocean (western Pacific to the eastern Pacific). Notably, much of the deep convection is located along the eastern periphery of the enhanced envelope which is likely associated with Rossby wave activity over Southeast Asia and the Indian subcontinent. Objective filtering of the recent OLR and velocity potential fields also depict Kelvin wave activity over the northern Indian Ocean. Despite the better organized pattern as of late, most dynamical models favor a rapid weakening of the intraseasonal signal during the next several days, with diverging solutions in the ensemble means for the remainder of the outlook period. Some model ensemble members suggest some reemergence during week-2, but large disparities exist relative to the phase location and timing. As a result, there is reduced confidence in the predicted state of the MJO and its associated impacts on the tropics.

There were two named tropical cyclones (TCs) that formed during the past week. In the Atlantic, tropical storm Fay formed near the coast of North Carolina on 7/9. Once over the Gulf Stream, Fay tracked northward along the eastern seaboard, bringing locally heavy rainfall, damages to infrastructure, and

floods over parts of the Southeast, mid-Atlantic and Northeast. Yesterday, tropical depression six-E formed in the eastern Pacific. The National Hurricane Center (NHC) forecasts six-E to track westward and gradually dissipate over open waters as it encounters cooler waters and a high shear environment during the next few days.

In the western Pacific, the Joint Typhoon Warning Center (JTWC) is monitoring a disturbance over the northern Philippines (99W). There is agreement in the models for development during early week-1 and a TC shape is posted in the outlook. If formation is realized, the disturbance is likely to quickly dissipate as it is expected to encounter a high shear environment and become absorbed in the Meiyu front. Father east, models have been signaling another potential formation area near Guam (135-155E), however, there is little to no support in TC tools and no TC area is posted. Following the formation of tropical depression six-E in the eastern Pacific, both GFS and ECMWF deterministic guidance continue to show the potential for another TC form near 120-125W late in week-1. Although support in the TC tools has been mixed, a moderate confidence area for TC formation has been added to the outlook. Across the Atlantic, there has been good run-to-run continuity with an easterly wave propagating out West Africa late in week-1 with an area of strengthening low pressure in the Main Development Region. While this is expected to enhance rainfall in the region, there continues to be low probability for TC development at this time. These areas will continue to be monitored and any necessary adjustments will be included in the update on Friday.

The precipitation outlook during the next two weeks is based on dynamical model consensus from the CFS and ECWMF models. Above-average rainfall is favored over parts of the western Indian Ocean and the Maritime Continent with below-average rainfall expected across parts of Southeast Asia during weeks 1 and 2. Above-average temperatures remain likely over much of the CONUS associated with anomalous mid-level ridging.

Forecasts over Africa are made in consultation with the International Desk at CPC, and can represent local-scale conditions in addition to global-scale variability.