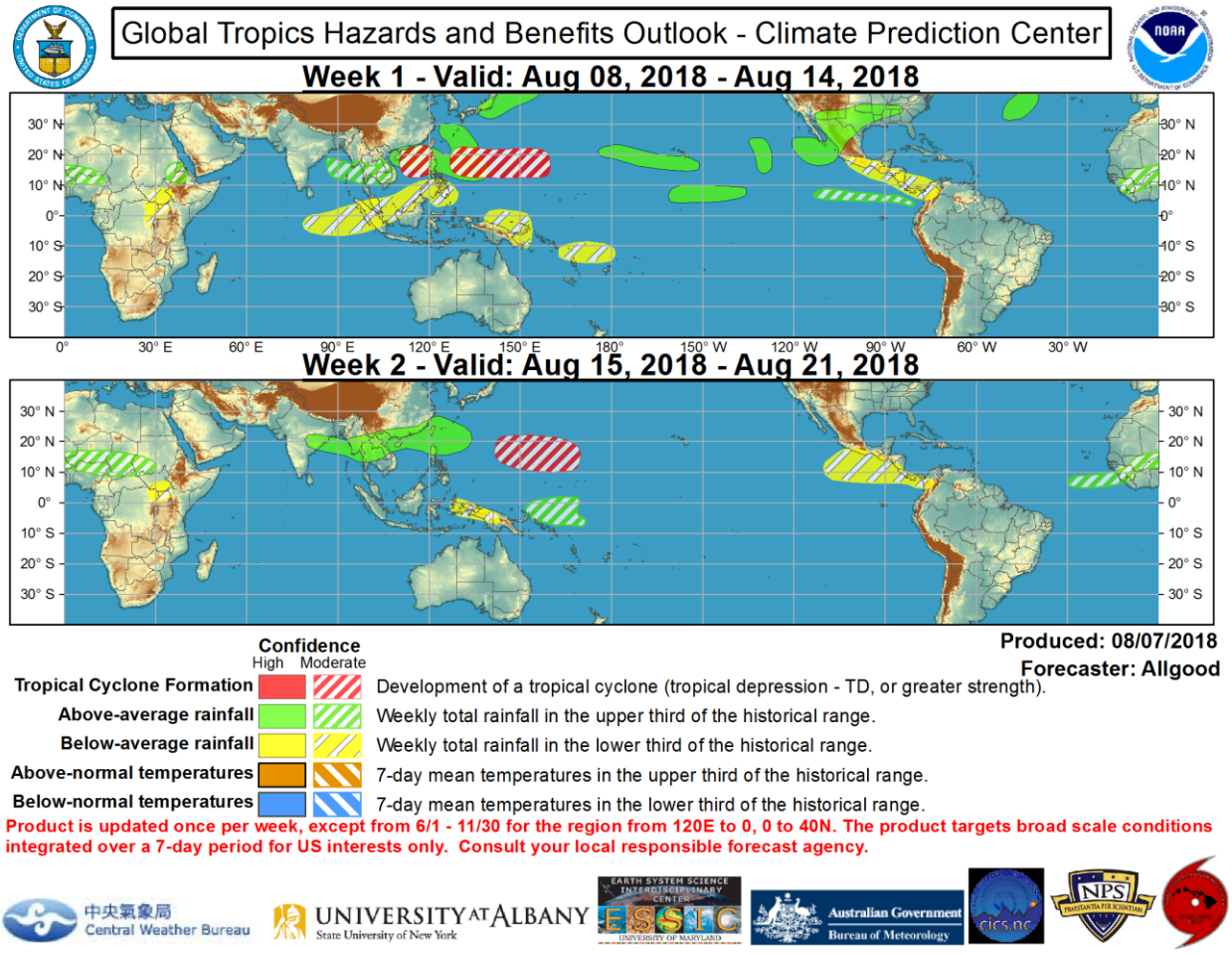

The large-scale global tropical pattern has been fairly stationary over the past week, reflecting conditions similar to a West Pacific intraseasonal event. Widespread convection continues across East and Southeast Asia and across the Pacific, and propagation has had more of a northward component than an eastward one. The RMM-based MJO index has been somewhat erratic, but has remained outside of the unit circle over the past few days in Phases 6 or 7. The CPC velocity potential based MJO index also indicates an enhanced (suppressed) convective phase over the Pacific (Western Hemisphere), which is similar to the position of the MJO during mid-July. Analyses of low-level zonal wind anomalies reflect a persistent regime of weakened trade winds across the equatorial Pacific, part of which is due to tropical cyclone activity, but may also indicate a shifting atmospheric base state towards El Nino conditions. Additionally, a robust, convectively coupled Kelvin wave is currently crossing the Maritime Continent to the West Pacific. Dynamical model MJO index forecasts generally depict weak to no MJO activity over the next two weeks. The GEFS shows a weak-amplitude signal crossing the Western Hemisphere rapidly, with an intensification over the Indian Ocean by the end of Week-2. This may be due to the Kelvin wave. The ECMWF shows no MJO activity whatsoever during the forecast period, but many ensemble members run at the monthly time scale depict a return of enhanced West Pacific activity during late August. Based on both recent observations and the dynamical model forecasts, the MJO is anticipated to remain weak during the upcoming two weeks, and a robust Western Hemisphere

event transitioning to the Indian Ocean, which could yield more favorable conditions for Atlantic tropical cyclone development, seems unlikely.

The entire Pacific basin has been extremely active during the past week. Hurricane Hector, which formed over the East Pacific at the end of July, is currently expected to pass south of the Hawaiian islands early in the period at hurricane intensity. A Tropical Storm Watch is in effect for the Big Island, as some wind and rain impacts are possible, especially if the storm tracks on the north side of the current guidance. Further east, Tropical Storm Ileana formed on 4 August near the southern coast of Mexico, but dissipated a few days later. Hurricane John formed a day later just west of Tropical Storm Ileana's position, and is forecast to continue strengthening to major hurricane intensity well west of the Yucatan Peninsula before weakening over cooler water north of 25N. Tropical Storm Kristy developed far from land west of 125W, and is anticipated to also attain hurricane intensity while taking a generally northward track well to the east of Hawaii. Over the West Pacific, Typhoon Shanshan is nearing the coast of Japan, and may bring wind and rain impacts to Tokyo before weakening and recurving quickly to the northeast. The Joint Typhoon Warning Center is also monitoring Tropical Depression 18W, which formed northwest of Guam, and is anticipated to move generally northwestward to the East China Sea while slowly intensifying. Just before the release of this outlook, Subtropical Storm Debby formed over the North Atlantic well northeast of Bermuda, and is forecast to move generally northward without substantial intensification.

During the forecast period, continued West Pacific tropical cyclone development is favored, while no additional storms are anticipated to develop over the East Pacific. There is moderate confidence for the formation of a tropical cyclone over the South China Sea during Week-1, with most GEFS ensemble members bringing the potential cyclone generally northward towards the coast of southern China. There are two areas of potential development over the Northwest Pacific during Week-1, one east of the Philippines, and a second area near or just east of Guam. Confidence in formation within either of these regions is low to moderate, but given the presense of a broad trough in the region, a large moderate confidence forecast shape covering both regions was included in the outlook. During Week-2, a quiet pattern is anticipated to continue over the East Pacific and Atlantic basins, while a moderate potential for tropical cyclone development across a broad portion of the Northwest Pacific in the vicinity of Guam continues.

Given the high degree of uncertainty regarding the evolution of the intraseasonal signal, the forecasts for above- and below-average rainfall were based primarily on a consensus between the CFS and ECMWF, as well as official guidance from the NHC and JTWC where precipitation is due to existing tropical cyclones. During Week-1, wet weather is favored to continue across parts of Southeast Asia, the South China Sea, the northern Phillippines, and along the eastern coast of Japan, while near to below-average rainfall is anticipated across parts of the equatorial Maritime Continent in the wake of the

Kelvin wave. Areas of enhanced rainfall due to tropical cyclones and an enhanced ITCZ are forecast across parts of the central and eastern Pacific. A broad swath of heavy rainfall is forecast over northwestern Mexico, and parts of the U.S. Southwest, southern Plains, and lower Mississippi Valley, while below normal rainfall is favored along Mexico's southern coast and Central America, partly due to subsidence in the wake of Hurricane John.

During Week-2, model divergence increases while forecast confidence decreases. A northward propagation of convection from Week-1 is favored across East and Southeast Asia, while confidence in suppressed convection over the equatorial Maritime Continent decreases. The ECMWF depicts a small region of enhanced convection along the Equator just west of the Date Line. Over the Western Hemisphere, suppressed convection across the far East Pacific basin is favored to continue. There is also a potential for continued enhanced monsoonal activity across northwestern Mexico and the U.S. Southwest, but a forecast shape was not included in this outlook due to substantial differences in coverage from the GEFS and ECMWF.

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