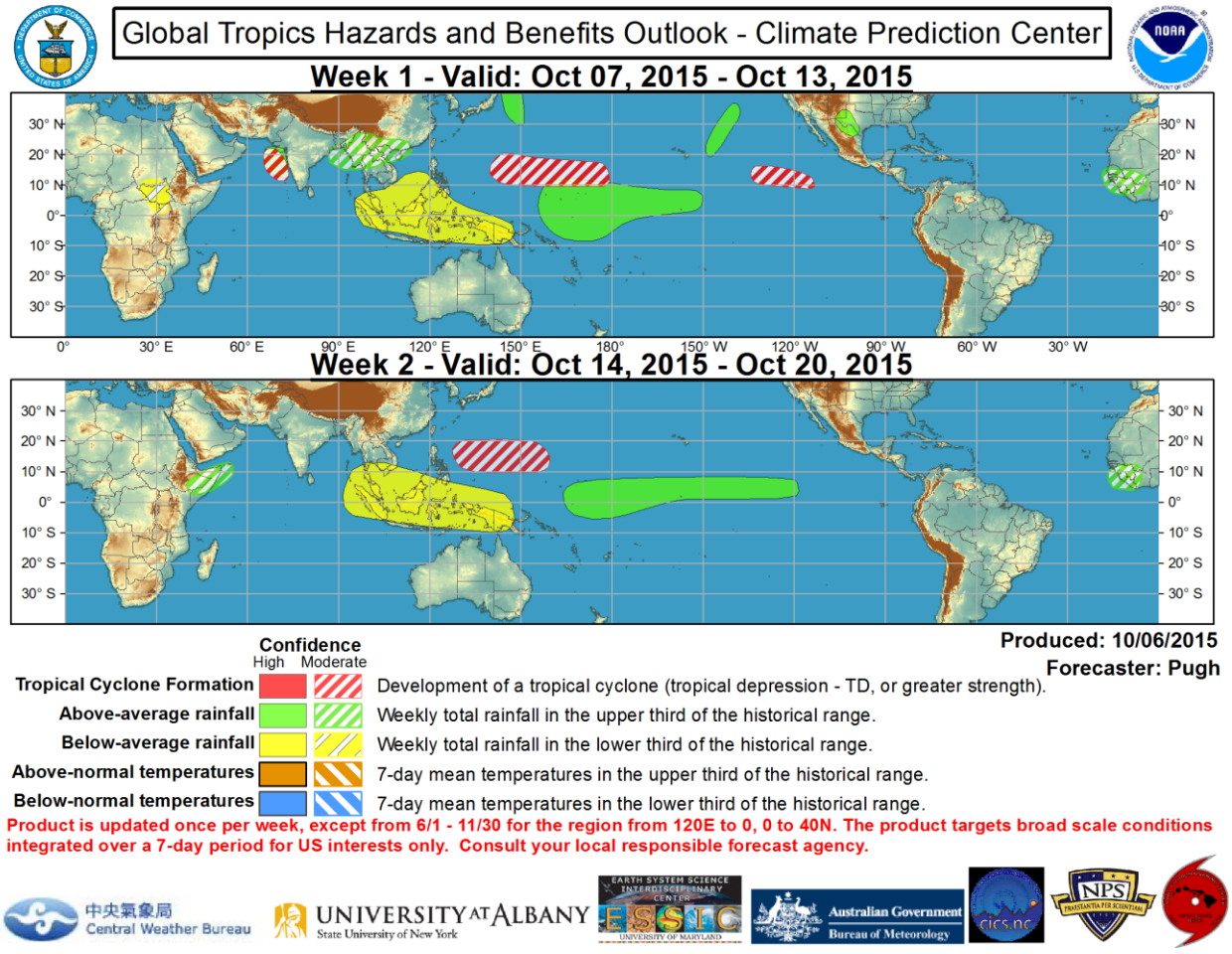

The ongoing, strong El Nino continues to remain the major contributor to large scale tropical convective anomalies. The Wheeler-Hendon RMM MJO index indicates a slight increase in the amplitude of the index which is likely related to tropical cyclones, while the CPC MJO index based on 200-hpa Velocity Potential features a stationary pattern of upper-level divergence/convergence consistent with El Nino. Dynamical models and statistical tools favor a continued weak MJO signal during the next two weeks.

Tropical Storm Joaquin strengthened to a Category-4 Hurricane on October 1 as it remained nearly stationary over the central Bahamas. Although Joaquin moved northeast and well offshore of the U.S. East Coast, tropical moisture interacting with anomalous easterly flow and an upper-level trough across the Southeast resulted in widespread, torrential rainfall and flooding across the Carolinas during early October. Rainfall amounts in excess of 20 inches were observed across South Carolina.

Tropical Storm Oho developed to the southeast of Hawaii and is forecast to rapidly track north and east of the Hawaiian Islands during the next couple of days. Meanwhile, in the West Pacific, Typhoon Choi-wan originated near 20N-165E and turned north. Although it is expected to track east of Japan, it could

bring heavy rainfall to Hokkaido in northern Japan. A Tropical Depression developed near 15N-125E and became Tropical Storm Mujigae before tracking west across Luzon, bringing heavy rainfall to the northern Philippines along its track. Tropical Storm Mujigae emerged across the South China Sea, where it rapidly strengthened and was classified as a Category-4 Typhoon, then made landfall a few hundred miles to the southwest of Hong Kong on October 4.

Anomalous rainfall during the next two weeks is based on El Nino and model guidance. Above-(below-) average rainfall is likely to persist across parts of the Central and East Pacific (Maritime Continent). During Week-1, above-average rainfall is favored along the expected tracks of tropical cyclones east of Hawaii and Japan. Above-average rainfall is likely across the upper and middle Rio Grande Valley as an upper-level low slowly tracks east. Ongoing convection and model guidance support above-average rainfall from southwest China west to the northern Bay of Bengal. This convection may be enhanced from the remnant moisture associated with the recent landfall of Typhoon Mujigae in southern China.

During Week-1, moderate confidence exists for tropical cyclone (TC) formation across the eastern Arabian Sea where a low-level circulation with convection is currently located. The GFS model indicates a slight decrease in surface pressure as this disturbance shifts north. The most likely area for TC development during the next two weeks is the West Pacific from 10-20N and near the Date Line west to 130E. Moderate confidence is depicted for weeks 1 and 2 due to uncertainty on the timing of TC development the West Pacific. Meanwhile, a tropical wave of low pressure is located 1000 miles southwest of the Baja California peninsula. Moderate confidence for TC development exists for this tropical wave in the East Pacific as it moves west during Week-1. Recent GFS model runs continue to favor TC development across the western Caribbean Sea late in Week-2. This is a region that typically becomes more active during October. However, high wind shear associated with the ongoing El Nino is expected to limit the chances for development across this region at this time.

Forecasts for Africa are done in collaboration with CPC's Africa Desk and based on model forecast guidance and regional scale anomaly features.