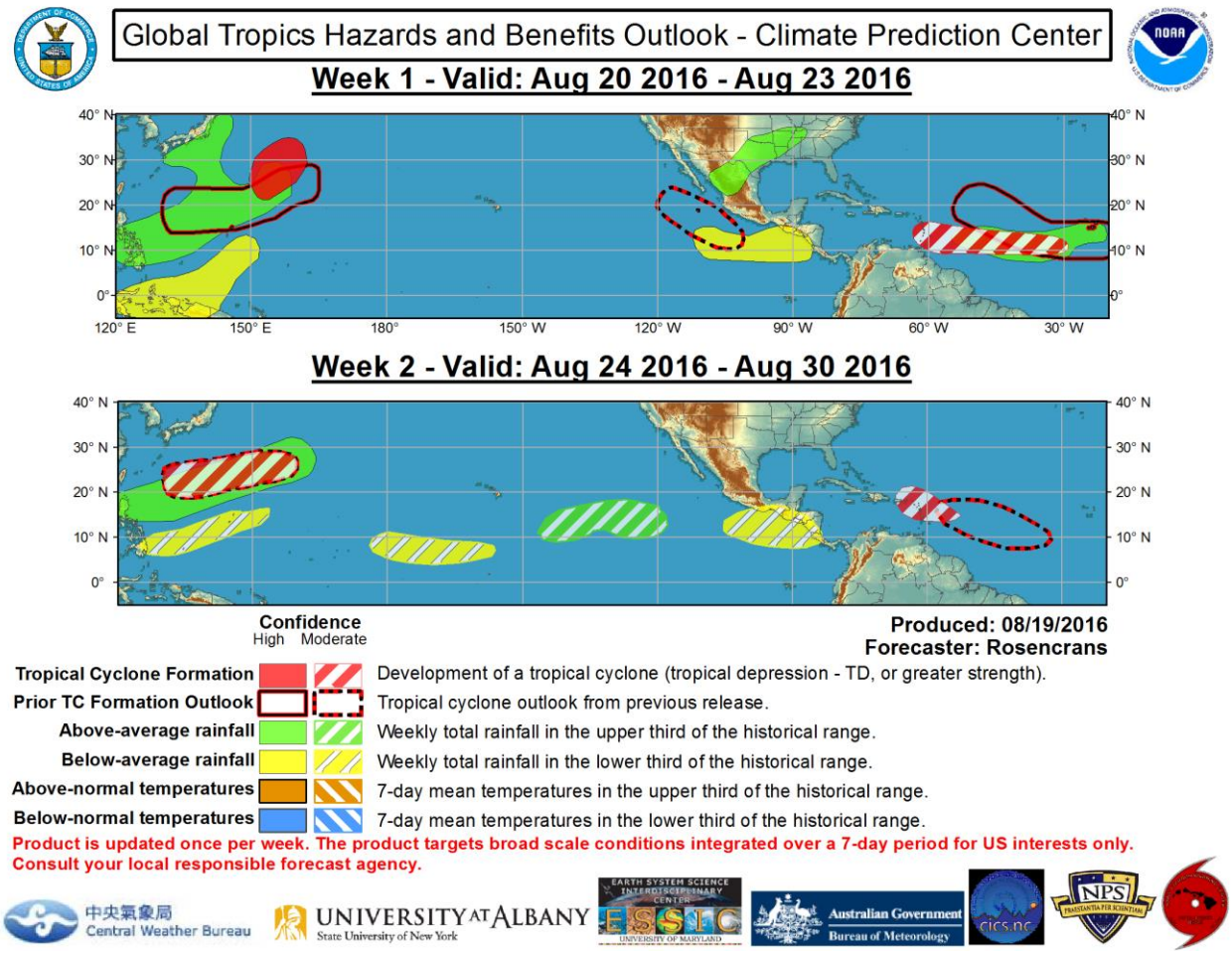

The strongest and largest area of anomalous convection remained over the western Pacific. That convection projects onto the MJO indices which indicate a signal over the western Pacific. This area is not propagating eastward, so the earlier MJO event has likely come to a close after settling over the western Pacific.

Tropical Storm Fiona developed over the Central Atlantic and is forecast to track northwestward toward Bermuda. Tropical Storm Kay developed near Baja California, and is expected to move northward then westward away from the coast. The western Pacific remained active with Tropical Storms Dianmu, Mindulle, and Lionrock developing during the last few days. Tropical Storms Lionrock and Mindulle are forecast to impact Japan, although uncertainty about track forecasts is high when tropical cyclones interact. Going forward, the National Hurricane Center has two areas of potential formation during the next 5 days. One area near 12N/30W has a 50% chance for developing into a tropical cyclone, while an area further east has only a 30% chance of developing. The area to the east is not indicated on CPC's map as 30% is a low threat of formation. Tropical cyclone formation odds remain enhanced over the western Pacific during the next 10 days. Tropical cyclone formation odds are slightly enhanced near the Lesser Antilles during days 5-7.

Odds of above average rains are enhanced over the western Pacific, including Japan, the Phillipines and the Northern Mariana Islands from Aug 20-23. Closer to the equator, below average rains are favored over the Maritime Continent. Below averages rains are favored over the eastern Pacific, in the wake of tropical storm Kay. Flow around a subtropical high is likely to provide copious moisture from Northern Mexico to the Tennessee Valley. Easterly waves moving over the Central Atlantic and the heightened potential for tropical cyclone formation raise the odds for above average precipitation across that region.

For days 5-11, enhanced rainfall is likely over the western Pacific from the Philippines northeastward, and over the central Pacific where a Kelvin wave is likely to influence the pattern. Below averaga rains are likely for Central America and over the equatorial West Pacific.

---------- Previous discussion follows ----------

Over the previous week the MJO shifted from the Maritime Continent into the Western Pacific in both the RMM and CPC velocity potential-based indices. Discrepancies developed however in regards to the amplitude of the MJO signal, with the RMM index indicating gradual strengthening while the velocity potential-based index suggests relative weakness. A robust monsoon trough near 20N in the western Pacific appears that to be interacting with the intraseasonal MJO signal may be the source of some of these discrepancies. Over the forecast period dynamical model guidance generally supports an atypical westward shift of the MJO signal, potentially returning to over the Maritime Continent. This westward shift may be tied to the enhanced phase of an equatorial Rossby wave forecast to develop across the western Pacific or active tropical cyclone activity expected within the monsoon trough. Some guidance does suggest continued growth of the MJO signal within the RMM framework, however once again questions persist as to how much of this signal is explicitly coming from the MJO.

During the past week Tropical Storm Chanthu developed over the western Pacific and is forecast to make landfall and impact Japan near the outset of the forecast period. Elsewhere in the western Pacific the Joint Typhoon Warning Center (JTWC) is highlighting tropical cyclogenesis potential for two existing disturbances. The first is currently located east of the Hainan Peninsula near 20N/115E that is expected to track near the coastline and is given a moderate chance of development on the outlook, assuming it

does not form before the valid outlook period. The second disturbance targeted by JTWC is near 20N/160E and could develop as it moves west-northwest over Week-1. A high risk of tropical cyclogenesis is forecast for much of the northern monsoon trough encompassing the preceding storm and any subsequent depression development within this favorable environment throughout the week. One such disturbance may become a tropical depression west of Guam on the 19th or 20th. Further east, the Central Pacific Hurricane Center is monitoring a disturbance near 10N/150 W for potential development that could pass south of Hawaii during Week-1, however formation potential currently appears low with a 20% chance of development in the next 48 hours. The National Hurricane Center (NHC) gives a region from 13-17N/105-115W a 50% chance of tropical cyclogenesis through 5 days in the East Pacific, resulting in a moderate likelihood forecast on this product. The best odds of tropical cyclogenesis however appear to be across the eastern North Atlantic, where a tropical wave currently near 10N/30W has a 90% chance of developing over the next 5 days before expected recurvature away from US interests. Behind this system another tropical wave could form later in week-1, thus the high risk shape is extended eastward from NHC's guidance to the African Coast. For more information relating to these systems, guidance is available from the respective regional tropical cyclone centers:

National Hurricane Center: http://www.nhc.noaa.gov/

Joint Typhoon Warning Center: https://metoc.ndbc.noaa.gov/en/JTWC/

Central Pacific Hurricane Center: http://www.prh.noaa.gov/cphc/

The Week-1 forecast features above normal precipitation across the monsoon trough region in addition to areas associated with each of the tropical disturbances mentioned in the preceding paragraph. Dry conditions are favored south of the monsoon front. Mid-latitude frontal acivity is expected to bring a high probability of above-normal rainfall to portions of North and South America. Remaining regions forecast to see enhanced or suppressed rainfall during Week-1 are based primarily on dynamical model guidance.

During Week-2 a moderate risk of tropical cyclogenesis continues throughout the monsoon trough approximately between 20-25N and 130-160W. A moderate tropical cyclogenesis risk also exists during Week-2 in the Atlantic between approximately 7-17N/32-57W associated with the wave earlier described to be entering the Atlantic late in Week-1. Heavy rains are once more favored within the monsoon trough, although shifted slightly northward from Week-1. Anomalous dryness from Week-1 across the Maritime Continent is favored to shift northward towards Guam and the Mariana Islands during Week-2 as the monsoon trough drifts northward. Remaining forecast regions of above- or below-normal precipitation fall in line with dynamical model guidance.

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