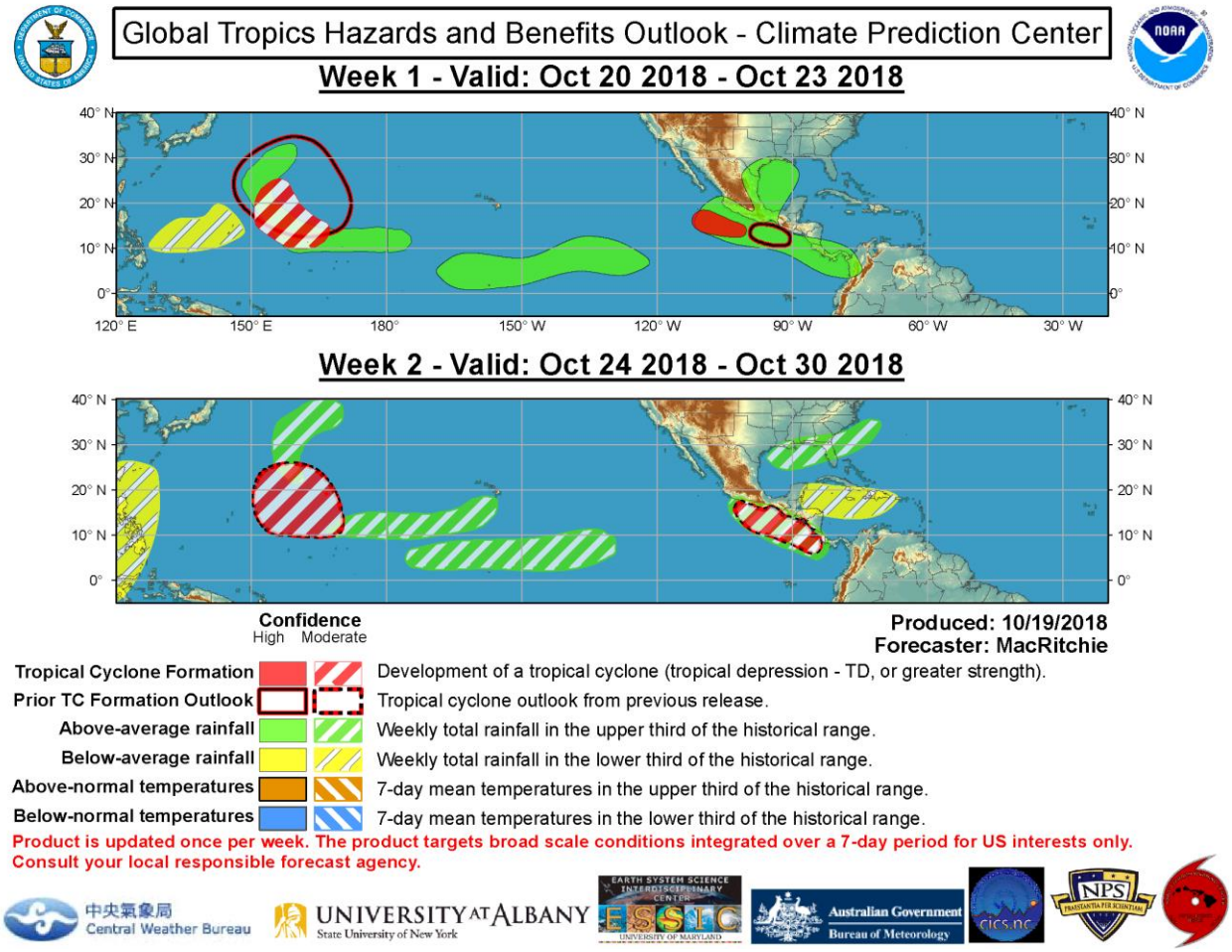

There have been few changes made to the forecast since Tuesday, October 16. The MJO remains weak and model forecasts have not changed meaningfully over the past few days. The region of potential Week-1 TC genesis in the West Pacific has been trimmed a bit to better match the latest guidance. The forecast area for western Pacific TC genesis in Week-2 hasn't been modified since Tuesday, but the latest guidance suggests that the strongest threat for development in this area will be during the first day or two of Week-2 before disappearing quickly.

Tropical depression Twenty-Three-E formed in the East Pacific Friday morning (October 19). The National Hurricane Center predicts that it will reach tropical storm strength soon and track northwest over the next five days. There is another area of low pressure to the northwest of this storm, which looks ripe for development. This region has been added to the GTH forecast with a high confidence of development over the next five days.

---------- Original Discussion from October 16, 2018 is below: ----------

The subseasonal and low-frequency states of the equatorial Pacific are especially interesting this week. The MJO is allegedly in Phase 2, but has weakened substantially over the past few days. Dynamical guidance is in good agreement that it will continue to weaken over the next few days and then re-emerge in Phases 8/1 by the middle of Week-2. However, these forecasts are complicated by the developing El Nino in the Pacific.

El Nino development is usually characterized by convection shifting east of the Warm Pool, leading to positive OLR anomalies over the Maritime Continent/Warm Pool region. Anomalous low-level westerlies are also common in this area during an El Nino as the trade winds weaken (and sometimes reverse sign). The anomalous OLR and low-level winds are spatially and temporally similar to an MJO signal, which can project on to the RMM index. Even if an MJO manages to form under these conditions, the eastward shift in convection and warm SSTs that accompany an El Nino often makes it difficult for the MJO to remain convectively coupled as it passes the Maritime Continent. These similarities are likely to partially explain the models' inability to propagate the MJO through its full cycle. Since it's especially difficult to both evaluate the current state of the MJO and forecast the MJO into Week-2, it has taken a background role in this week's forecast.

There is a high risk of tropical cyclone formation in the West Pacific between 150-170E as multiple lows rotate clockwise around a fairly stationary high pressure system in the area. Both the GFS and ECMWF models suggest that at least one of these lows will develop into a TC in that region during both Week-1 and Week-2. Above-average rainfall is expected to along those tracks during both forecast weeks.

The Eastern Pacific remains active as well with high confidence of a tropical cyclone forming during Week-1 and a moderate confidence of formation during Week-2, especially towards the end of the period. Instablity in this region, and in the Gulf of Mexico, is expected to lead to significant rainfall during the forecast periods as well.

The evolution of El Nino, as well as the potential for MJO development during Week-2, favor below-average rainfall over the Maritime Continent and above-average rainfall in the western Indian Ocean.

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