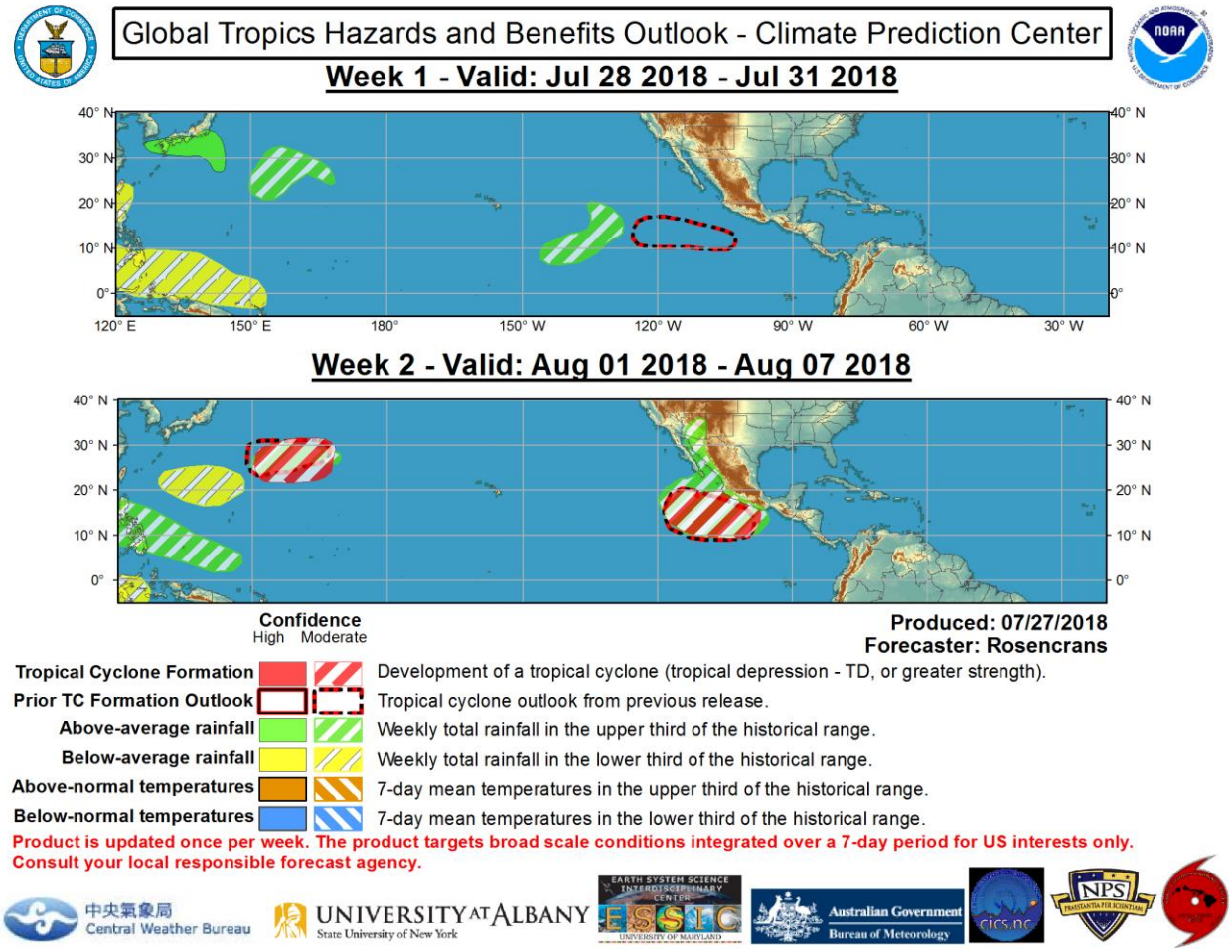

The coherence of the upper-level and lower-level wind patterns with a robust MJO and wave-1 structure has decreased since Monday. The RMM based index reflects this via decreasing amplitude, while the CPC velocity potential index is maintaining a stronger signal, as the CPC index is keyed only to the upper-levels. Given the increasing misalignment of upper and lower levels, dynamical and statistical based predictions of the RMM index indicate a continued weakening signal.

The updated GTH outlook reflects a decreased potential for eastern Pacific tropical cyclone formations during the remainder of Week-1, given that TD Nine and TS Gilma both formed. NHC has a 20 percent chance of formation during the next 5 days over the eastern Pacific, from roughly 120W to 100W. During the 5-11 day period, models continue to indicate a slight increase in the odds for tropical cyclone formation, consistent with the upper-level signal from the MJO continuing to influence the East Pacific. Elsewhere, only minor changes were made to predicted areas for increased odds of tropical cyclone formation.

Moisture from recent and predicated East Pacific tropical activity is likely to stream northward into the Southwest, so minor modifications were made to that predicted moisture plume. Elsewhere, only minor modifications were made to the predicted areas of above/below average rainfall.

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

The RMM index indicates an MJO active phase over the Western Pacific. Multiple tropical cyclones are being warned on over the Western Pacific, so the over signal is slightly lagging, spatially, the upper-level signal, which as diagnosed by the CPC index, is moving into the central and eastern Pacific. Daily velocity potential anomalies are in a wave-1 configuration with the most intense enhanced divergence (convergence) over the eastern Pacific Ocean (Indian Ocean).

Model forecasts of the RMM index indicate a rapid decrease in amplitude, likely the result of competing centers of action from the East Pacific and a re-emergence of the West African Monsoon as the subsident phase moves further east across the Indian Ocean. The statistical predictions of the RMM do not indicate the weakening, and the model precipitation fields are consistent with a continued eastward movement, enhancing precipitation over the East Pacific and Americas by Week-2. The GTH outlook favors the continued signal, rather than the rapid decay implied in the dynamical models.

During Week-1, JTWC indicates low confidence (approximately 10 percent) for additional tropical cyclone formation from 5N to 30N, 145E to 165E, well east of the current systems. The National Hurricane Center indicates low confidence in formation over the eastern Pacific from near 105W to 120W, from approximately 10N to 15N. The CPC outlook extends beyond 5 days, and the signal over the eastern Pacific continues through Week-2, so a moderate risk of tropical cyclone formation is included in both periods over the East Pacific. Formation is not expected over the Atlantic, though conditions are likely to become more favorable, through the period.

Above normal rainfall is likely near the remaining path of TD Son-tinh over southern China and northern Vietnam, with the potential for remnant moisture to influence more of Southeast Asia. Near the path of TD 15, which at this time is forecast to move toward central, and TS Wukong, which is forecast to move

toward northern Japan, heavy rains are also possible. As the MJO signal moves toward the eastern Pacific, rainfall is likely to enhance along the East Pacific ITCZ, with some moisture streaming northward into Mexico and potentially the southwest CONUS during Week-2. During Week-1, the South Asian Monsoon is likely to be less active from a precipitation viewpoint.

During Week-2, the South Asian monsoonal rains are likely to remain depressed, though less than during Week-1. Over the Indian Ocean and Maritime Continent, below average rains are favored, associated with the predicted subsident phase the MJO.

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