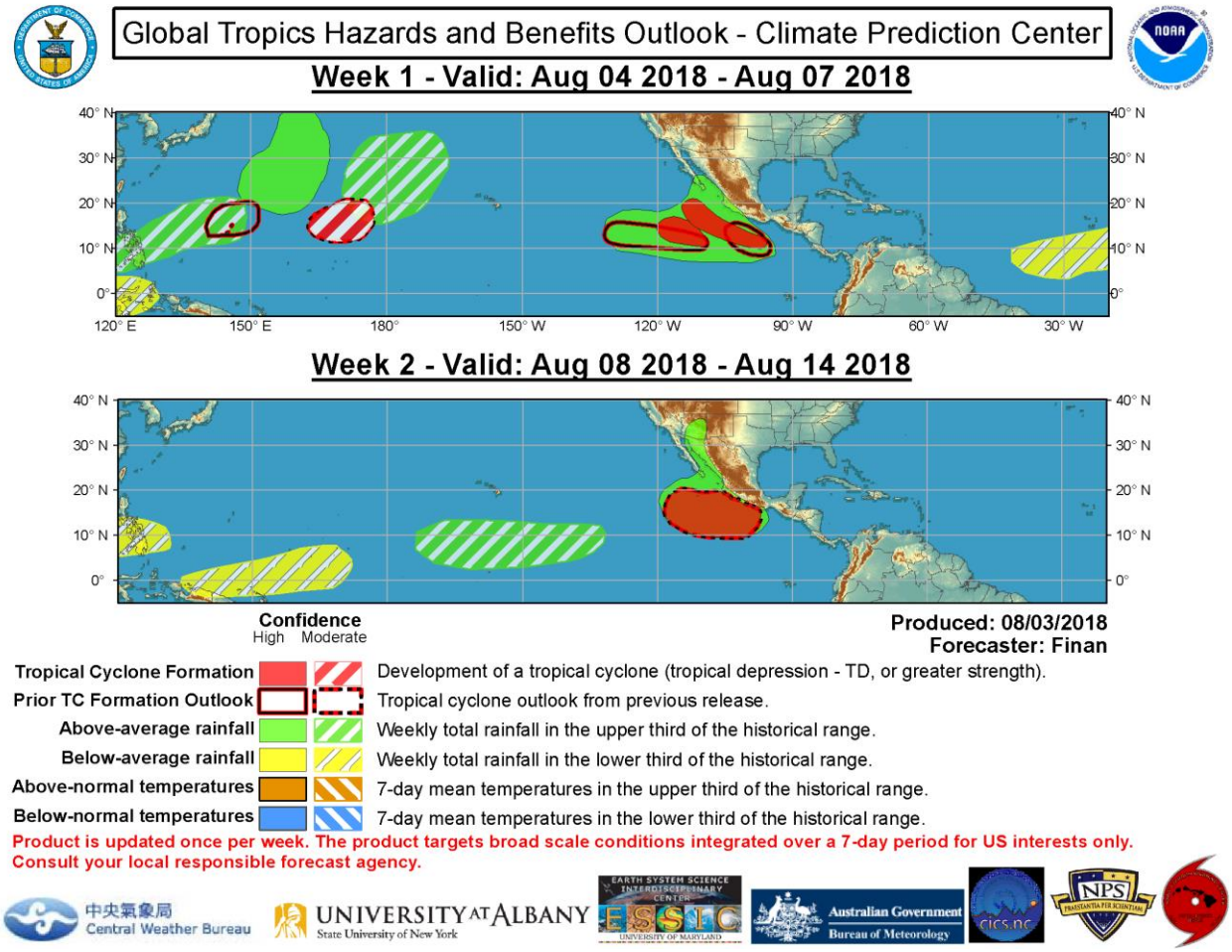


The amplitude of the MJO signal on the RMM index has continued to decrease, falling back within the unit circle over the past few days. Forecasts from dynamical models indicate a possible resurgence of strength of the signal; however, propagation eastward is likely minimal and the signal even retrogrades in some of the forecasts. The upper-level patterns have become more cohesive, showing a stronger Wave-1 pattern in the 200 hPa velocity potential field than earlier this week; however, the lower level fields are still not reflecting an MJO imprint. Due to this, TC activity and higher frequency variabilities are still likely to be more impactful on the tropics through the next week and a half.

As discussed earlier this week, the eastern Pacific is expected to become a hotspot for tropical cyclone (TC) activity over the next two weeks. In the previously forecasted high confidence area this week, Hurricane Hector formed on the first valid day of the period. National Hurricane Center (NHC) is forecasting that Hector is likely to become a major hurricane within the next few days. With this Friday update, two other areas of possible TC formation are forecast for the 5 day time period. Model agreement is good for a TC formation from a disturbance closer to central America, which is forecast to

track northward just west of the Baja peninsula. For the second region, model guidance again is in good agreement about a formation tracking further westward, toward the central Pacific in Week-1. A third disturbance is also currently being highlighted by NHC on their 5-day outlook; however, confidence in a TC formation is low at this time. The region of forecast above average precipitation has been expanded to account for likely impacts of the additional systems. For Week-2, confidence in continued TC activity in the Eastern Pacific has been upgraded to high, due to several forecast TC formations in both the GFS and ECMWF models.

In this updated outlook, the forecast for the western Pacific was altered to reflect the formation of Tropical Storm Shanshan, which formed within the high confidence region that was previously highlighted. Model guidance shows possible TC formations within the next two weeks further east the in western Pacific, maintaining the moderate confidence forecast for Week-1. Timing and tracks for these possible formations are varied in the models. Overall, there is expected to be a lull in the western Pacific TC activity over the next two weeks. Due to uncertainity in MJO activity and it's weakening signal, areas of below average rainfall have been altered based on forecasts from model guidance.

The original discussion from this week's forecast follows.

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The RMM index indicates that the MJO signal remains in Phase 6 currently after a period of rapid decay over the past week. The signal remained relatively stationary on the RMM index and in many of the spatial fields. The widespread enhanced convection over the Western Pacific basin, which has remained entrenched since early July, is expected to shift eastward over the next two weeks as the weakened MJO enhanced signal moves further into the eastern Pacific. Suppressed convection is forecast to move over the Maritime Continent. The previously seen Wave 1 pattern in the upper level velocity potential fields has broken down over the past week due to Rossby and Kelvin wave activity building over Africa and the eastern Indian Ocean. These shorter signals are expected to stay strong and propagate eastward, possibly interfering with the weakened MJO signal. MJO activity is likely to continue through the next two weeks, propagating eastward into phases 7/8, though there is unlikely to be a resurgence of amplitude on the RMM index due to the dominating signals of the higher frequency modes of variability. The low frequency state is also starting to become a larger influence on the tropics and likely to further dampen the MJO signal.

The Western Pacific is expected to stay active during Week-1, before the suppressed convective signal moves in, lessening the likelihood for tropical cyclone (TC) development for the Week-2 period. With input from JTWC, two areas of possible formation are highlighted for Week-1; an area near Guam where there is high confidence for a TC formation toward the middle of Week-1 and an area of moderate confidence further east toward the central Pacific toward the end of Week-1. If formed, these systems will likely be short-lived, due to their expected tracks northward toward the mid-latitudes. The Eastern Pacific is also expected to become more active over the next two weeks. NHC has highlighted an area of possible formation near 115-125 W that has a 70% chance of formation in the next 5 days. A second disturbance, closer to the western coast of Central America (100 W), has high confidence of formation through Week-1. Models indicate that the basin is likely to remain active in Week-2. A broad area with moderate confidence in formation has been forecast, covering a region similar to that which is likely to be active for Week-1.

The precipitation patterns forecast for Week-1 largely stem from impacts of the current MJO signal. The western Pacific is expected to continue to experience enhanced convection, along with impacts from an active basin in Week-1. An area of high confidence is shown where model agreement is good and currently, a tropical depression formed within the past 24 hours. Areas of moderate confidence of above normal precipitation are in line with possible TC formations and a transitional area over the eastern Maritime Continent, as the suppressed phase of the MJO moves in. For the eastern Pacific, renewed TC activity and the enhanced pattern of the MJO as it moves into Phase 7/8 in Week-1 contribute to an area of high confidence for much above normal precipitation. Impacts from this moisture surge are forecast to influence parts of the Southwest US, which is shown in the Week 2 Extended Range Forecast and US Hazards Forecast. Upper-level convergence and dynamical model guidance support below average rainfall for the central Atlantic.

Confidence in the forecast for Week-2 is overall low, as there is uncertainty in the MJO influence and higher frequency variabilities (Kelvin and Rossby wave activity) are likely to play a larger role in the tropics. Several regions of below average rainfall are expected over the Maritime Continent as the previously entrenched enhanced convection shifts eastward. This shift of the enhanced convective envelope leads to a forecast of above average rainfall for parts of the central and eastern Pacific. TC activity in the eastern Pacific basin is expected to continue to influence monsoon rains over the Southwest. Forecasts over Africa are made in consultation with the CPC international desk, and can represent local-scale conditions in addition to global-scale variability.