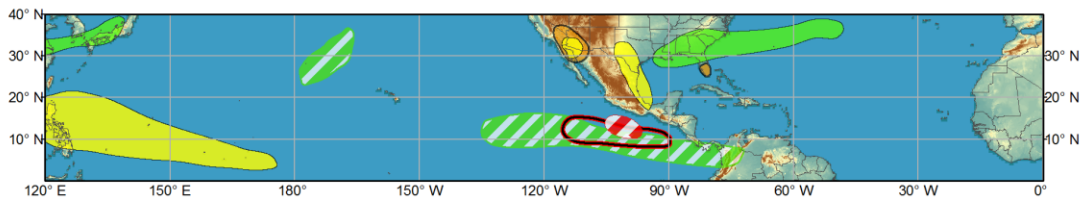




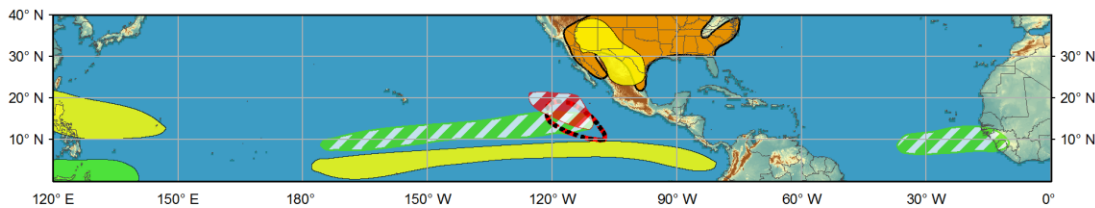
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 04 2020 - Jul 07 2020



Week 2 - Valid: Jul 08 2020 - Jul 14 2020



Confidence
High Moderate

Produced: 07/03/2020
Forecaster: Harnos

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Prior TC Formation Outlook** Tropical cyclone outlook from previous release.
- Above-average rainfall** Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall** Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
- Below-normal temperatures** 7-day mean temperatures in the lower third of the historical range.

Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



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The thinking from the original forecast remains largely on track. Models have converged around the idea of the MJO emerging over the Indian Ocean in the next day or two, followed by eastward propagation toward the Maritime Continent throughout July. The Kelvin waves originally crossing the Western Hemisphere and Africa have dissipated since the original outlook, with a lone Kelvin wave approaching the Date Line in the Pacific. With the decay of the Kelvin wave over the Western Hemisphere, tropical cyclone (TC) development chances in the East Pacific have decreased since the release of the initial outlook.

The National Hurricane Center is monitoring two areas for possible TC formation in the East Pacific. The first is near 107W/14N with a 20% (30%) chance of developing over the next 48 hours (5 days), resulting in it being left off the updated outlook. The second area is forecast to develop between 10-15N and 95-105W, with a near 0% (40%) chance of formation through Sunday (next Tuesday), resulting in moderate confidence of TC formation on our update. The Atlantic continues to look quiet during the next 11 days, with the disturbance some models were previously suggesting could form off the East Coast this weekend now likely being over land. Late in Week-2 the deterministic GFS and some ensemble members hint at a front stalling across the Southeast with the possibility of a TC forming off of the Central Gulf

Coast. These Gulf of Mexico TC formation outcomes are currently outliers, but will be monitored going forward. Forecasts across the U.S. are updated in line with the latest outlooks from the Weather Prediction Center during Week-1, while the Week-2 outlook over the U.S. closely mirrors CPC's Week-2 U.S. Hazards product.

----- The original discussion from Tuesday, 30 June follows below. -----

A murky picture emerges from objective decomposition of the global tropics into canonical modes of tropical variability. In recent weeks convectively-coupled Kelvin waves have been the dominant eastward propagating mode, but there are signs of a lower frequency mode moving slowly eastward over the western Indian Ocean since mid-June. Forecasts of the RMM index tend to emphasize this slower-moving center over the next two weeks, with a robust signal in Phase 2 during Week-1 and some decay while in Phases 2/3 during Week-2. Other notable modes of variability include periodically enhanced and suppressed convection over the West Pacific tied to Rossby wave activity and an evolution toward a low frequency state favoring suppressed convection east of the Maritime Continent since April. Despite this, the El Nino-Southern Oscillation remains neutral while no La Nina-based headlines are yet being issued by NOAA.

The only tropical cyclone (TC) to develop globally during the past week was Tropical Depression 4 in the East Pacific near 21N/113W. This system is forecast to be short-lived as it drifts northwestward toward cooler waters. The National Hurricane Center (NHC) is presently anticipating low pressure forming between 10-15N in the East Pacific over the next several days, with a 20% chance of this disturbance becoming a TC by Sunday. Another disturbance is possible in the wake of this system, possibly developing into a TC near 10N/90W over the weekend. Given the close proximity and possible overlapping tracks of these systems, they are combined into one TC formation region with high confidence of development. Should the second system not develop late in Week-1, there is a chance it happens early in Week-2, resulting in a moderate confidence of TC formation area near the western portion of the Week-1 region. There is some chance late in Week-2 for another system spinning up near 10N/90W indicated by the ECMWF and Canadian ensembles, but not with enough confidence to account for this in the forecast. In the Atlantic, there is some suggestion that a TC could form off the Southeast over the weekend before tracking northeastward. If this system were to form there is some uncertainty regarding whether it would be subtropical or tropical. Regardless, there is insufficient confidence to introduce a formation area on the graphic with this disturbance. While it remains early in the season for main development region formation in the Atlantic, model guidance suggests broadly favorable conditions here during Week-2. A system forming here very late in Week-2 or early in Week-3 cannot be ruled out.

Precipitation outlooks highlight modes of variability such as the possibly nascent MJO over the Indian Ocean (high confidence for above-normal rains in both weeks), Kelvin wave activity (high confidence for above-normal rains for the East Pacific during Week-1, with moderate confidence for above-normal rains off the west coast of Africa in both periods), and the low frequency state (high confidence for below-normal rains east of the Maritime Continent in both weeks, and dryness over the South China Sea with moderate confidence in Week-1 and high confidence in Week-2). The low frequency state also favors above-normal rains across parts of the Maritime Continent through South Pacific, with high confidence for this in both periods. The North American Monsoon onset continues to appear delayed, with high confidence for below-normal rains in Week-1 and moderate confidence for below-normal rainfall during Week-2. East of this region, anomalous mid-level ridging is forecast to result in moderate confidence for above-normal temperatures. The dry and warm pattern anticipated over the Southern High Plains appears likely to magnify flash drought concerns for the region.

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