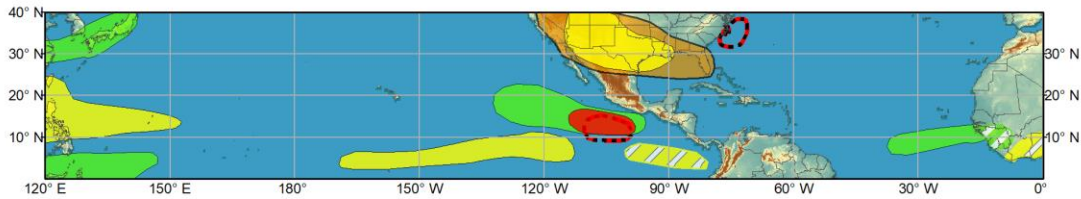




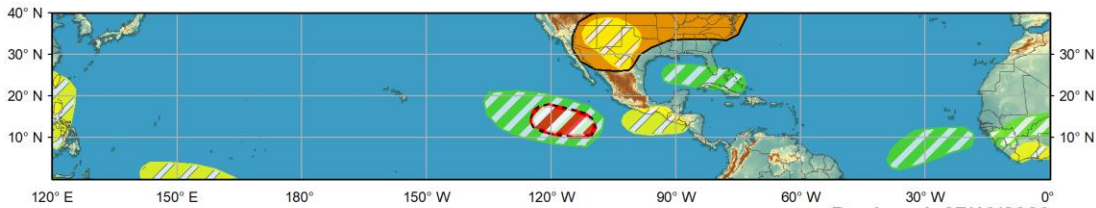
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Jul 11 2020 - Jul 14 2020



## Week 2 - Valid: Jul 15 2020 - Jul 21 2020



Confidence  
High Moderate

Produced: 07/10/2020  
Forecaster: Pugh

- 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.



The MJO has become more coherent during early July with the 200-hPa Velocity Potential anomaly field depicting a Wave-1 pattern of upper-level divergence (convergence) over Africa/Western Indian Ocean (West-Central Pacific). Although there are differences in its predicted amplitude, some dynamical models depict the MJO propagating eastward over the Indian Ocean during the next two weeks. This more organized MJO is unlikely to be a major factor in the updated GTH outlook, but could influence tropical cyclone development across the East Pacific and Atlantic basins during late July and August.

Tropical Storm Fay developed near the coast of North Carolina on July 9. Along and near Fay's track, heavy rainfall and gusty winds are forecast from the Mid-Atlantic coast north to Long Island. Meanwhile, on July 6, Tropical Storm Cristina formed in the East Pacific and could briefly reach hurricane strength before moving over cooler waters. A strong tropical wave recently emerged off the coast of Central America and environmental conditions are favorable for tropical cyclone (TC) development as this wave tracks westward. As of 11am PDT on July 10, the National Hurricane Center states there is a 70 percent chance of TC development with this tropical wave from July 10 to 14. In the wake of a Kelvin wave, another TC is expected to develop across the East Pacific later from July 15 to 21.

Modifications to the favored areas of above- and below-average rainfall from the previous outlook are based on predicted tracks of ongoing and predicted tropical cyclones along with recent CFS and ECMWF precipitation output. During July 15 to 21, above-average rainfall was added to the Bahamas, Cuba, and southern Florida due to a decrease in 500-hPa heights and enhanced moisture with easterly surface flow. Strong subtropical ridging continues to favor above normal temperatures throughout much of the continental United States with the most anomalous heat shifting north during the outlook period.

The original discussion released July 7 follows.

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Analysis of the evolution of upper-level velocity potential anomalies suggest that the MJO is weak and incoherent. A broad envelope of convection continues to be observed over the Indian Ocean, with some of the deepest convection associated with equatorial Rossby wave activity over the Arabian Sea. Conversely, suppressed convection prevails over many parts of the Maritime Continent and the West Pacific associated with a low frequency signal. For the upcoming Week-1 and Week-2 outlook periods, there are some disparities in the dynamical models with respect to the evolution of the intraseasonal signal. The GEFS favors a slower eastward evolution, with a slight increase in amplitude followed by a rapid weakening of the signal in Phase 2 by early Week-2. The ECMWF appears to be more on-board with reemerging MJO activity over the western Indian Ocean, with several ensemble members indicating a continued eastward propagation of the signal into phases 3 and 4 during Week-2.

Two tropical cyclones (TC's) formed during the past week. TC Edouard peaked at 40kts and expired over the Atlantic basin yesterday, and TC Cristina formed within the last 24 hours in the East Pacific. The National Hurricane Center (NHC) forecasts Cristina to continue tracking to the west-northwest while gradually strengthening into a Hurricane later this week. For week-1, NHC is monitoring an area of low pressure over the southeastern U.S. which is expected to move into the western Atlantic and possibly develop into a TC later in the week. With models and TC tools becoming more supportive of development, a moderate confidence region has been added to the outlook. Regardless of formation, heavy precipitation is likely and flash flooding is possible for many coastal areas extending from South Carolina to the mid-Atlantic. In the Indian Ocean, TC tools have also been favoring possible TC formation in the Arabian Sea during early Week-1. However, there is disagreement in the model ensembles relative whether the low will remain on land, and a TC area is not added to the outlook. Regardless, heavy precipitation is likely over the Arabian Sea, and for coastal areas of Indian and Pakistan. During late week-1 and early week-2, GEFS and ECMWF ensembles and TC tools support TC formation in the

eastern Pacific in the wake of TC Cristina. To address the uncertainty in the timing of formation, moderate confidence regions are posted for weeks-1 and week-2 in the eastern Pacific.

The precipitation outlook during the next two weeks is based on dynamical model consensus from the CFS and ECWMF models. Outside of the enhanced precipitation associated with TC activity, above-average rainfall is favored over parts of the western Indian Ocean and the Maritime Continent with below-average rainfall expected across parts of central India, Southeast Asia, and the western Pacific during weeks 1 and 2. In the Western Hemisphere, above-average rainfall is favored over the tropical Atlantic. Above-average temperatures are likely over the Desert Southwest and Southern Plains associated with anomalous mid-level ridging over the CONUS.

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