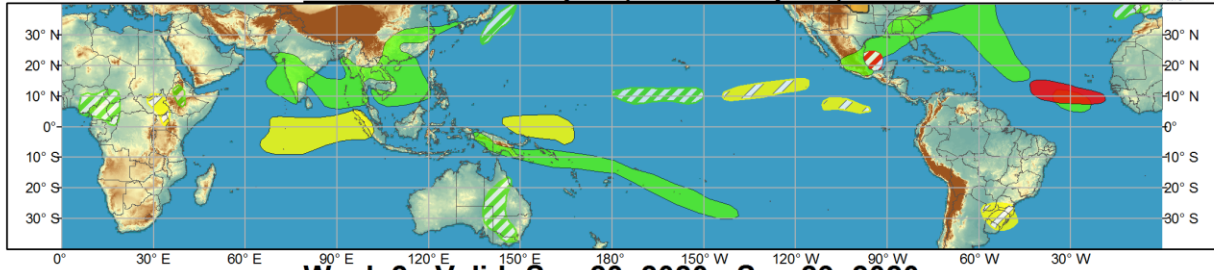




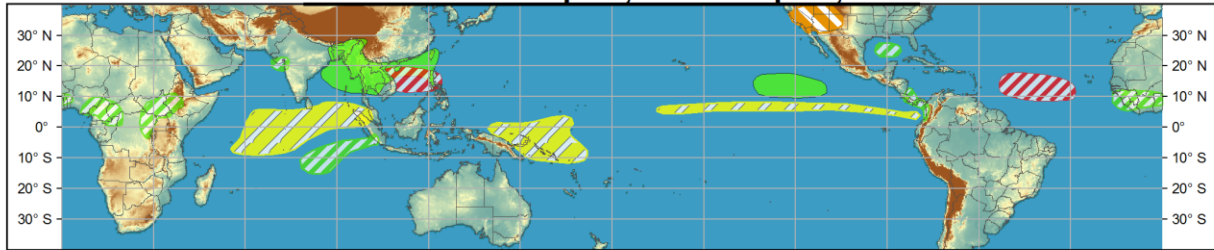
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Sep 16, 2020 - Sep 22, 2020



## Week 2 - Valid: Sep 23, 2020 - Sep 29, 2020



**Confidence**  
High Moderate

- Tropical Cyclone Formation** ■ ▨ Development of a tropical cyclone (tropical depression - TD, or greater strength).
- 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.

Produced: 09/15/2020

Forecaster: Allgood

Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



The MJO remained weak during the past week as reflected on the RMM-based MJO index, though there are indications that the signal is still present over the eastern Indian Ocean and the far western Maritime Continent in the upper levels. The CPC velocity potential based MJO index depicts a much slower propagation of the upper-level anomaly field, due in part to interference from the La Nina base state and ongoing tropical cyclone activity over the Atlantic. Dynamical model MJO index forecasts are in good agreement supporting renewed eastward propagation of a fairly weak MJO signal over the Maritime Continent during Week1, with possible emergence over the West Pacific by Week-2. Despite this advancing intraseasonal signal, the low frequency suppressed convective signal over the Pacific will likely play the greater role, and there is considerable uncertainty regarding the evolution of the MJO once it reaches the Pacific. Therefore, although dynamical models depict a somewhat quieter period of tropical cyclone activity over the Atlantic basin during Week-2 which would be consistent with MJO activity, there is no clear signal favoring increased shear.

There are currently four active tropical cyclones over the Atlantic basin, and one tropical cyclone over the East Pacific. In addition to Hurricane Paulette, which formed last week and brought wind, rain, and surge impacts to Bermuda, Hurricane Sally formed over the eastern Gulf of Mexico and is currently near the northeastern Gulf Coast, and Tropical Storms Teddy and Vicky formed over the main development region (MDR) between the Cape Verde Islands and the Lesser Antilles. Due to a slow forward motion, Hurricane Sally is expected to produce historic rainfall and flash flooding along the Alabama Gulf Coast and the western Florida Panhandle. It is forecast to begin moving northeastward, and a swath of torrential rainfall is expected to spread across inland southern Alabama, northern Georgia, and South Carolina. Tropical Storm Teddy is forecast to strengthen to major hurricane intensity on the Saffir-Simpson scale while moving generally northwestward over the open waters of the central Atlantic. Tropical Storm Vicky is favored to dissipate over the next several days over the eastern Atlantic. Over the East Pacific, Tropical Storm Karina is currently well west of Mexico, and is forecast to gradually weaken over open water. Additionally, Tropical Depression 13-W formed over the South China Sea just west of the Philippines. The Joint Typhoon Warning Center (JTWC) forecasts this system to strengthen to typhoon intensity before making landfall over Vietnam, with impacts also possible across Hainan Province in China.

During Week-1, additional tropical cyclogenesis over the Atlantic MDR is favored, with the National Hurricane Center (NHC) forecasting a 70-percent chance of a tropical cyclone forming over the eastern MDR by Day-5. Additionally, disorganized convection will persist over the southern Gulf of Mexico during much of Week-1. Although the NHC currently shows a 20-percent chance of tropical cyclogenesis in this area through Day-5, the latest operational run of the GFS depicts a closed low in the Bay of Campeche over the weekend. Therefore, moderate confidence for new tropical cyclogenesis over the Bay of Campeche is depicted on this outlook for Week-1. Steering currents are currently weak across the Gulf of Mexico, making future track forecasts complex and uncertain. During Week-2, despite the lack of a clear signal in the MDR, climatology and ongoing La Nina conditions suggest that the environment will remain conducive for additional tropical cyclogenesis. Therefore, a moderate confidence area is included across the central MDR during Week-2. As boreal autumn progresses, tropical cyclone formations over the eastern MDR become less likely climatologically, and the favored region shifts towards the Caribbean. Dynamical models do not currently depict an active pattern over the western portions of the Atlantic basin, but these areas will continue to be monitored. Elsewhere, continued enhanced monsoonal rainfall during Week-2 may provide an opportunity for additional tropical cyclogenesis in the vicinity of the Philippines, similar to the current position of TD-13W. Although vertical shear currently remains too high, there is a slight chance for tropical cyclone development over the Bay of Bengal during late Week-2, although any formation would most likely occur during Week-3, beyond the range of this outlook.

Forecasts for above- and below-median precipitation were made using a consensus forecast of the bias-corrected ECMWF and CFS ensembles. Enhanced monsoon rainfall is anticipated across the southern half of India and much of Southeast Asia, with tropical cyclone activity bringing potentially heavy rainfall to parts of southern China and Vietnam. Consistent with an eastward propagating MJO over the Maritime Continent, suppressed convection is favored across the equatorial Indian Ocean, and enhanced SPCZ activity is favored, but La Nina conditions may limit the extent of enhanced rainfall across the North Pacific ITCZ. During Week-2, enhanced rainfall is favored to extend from the Bay of Bengal and Southeast Asia eastward across the South China Sea to Taiwan and the northern Philippines, while suppressed rainfall is forecast to persist over the equatorial eastern Indian Ocean. The ECMWF also favors enhanced rainfall over the southeastern Indian Ocean. Also during Week-2, areas of enhanced rainfall are forecast across parts of the East Pacific and the Gulf of Mexico, and although tropical cyclogenesis is not currently indicated, these areas will be monitored. Across the Atlantic basin, precipitation forecasts largely follow the predicted tropical cyclone tracks.

During Week-1, excessive heat is favored for parts of the central U.S. Extensive smoke coverage over the West may keep daytime temperatures below excessive heat criteria. During Week-2, there is a moderate potential for renewed excessive heat across parts of the Southwest U.S.

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