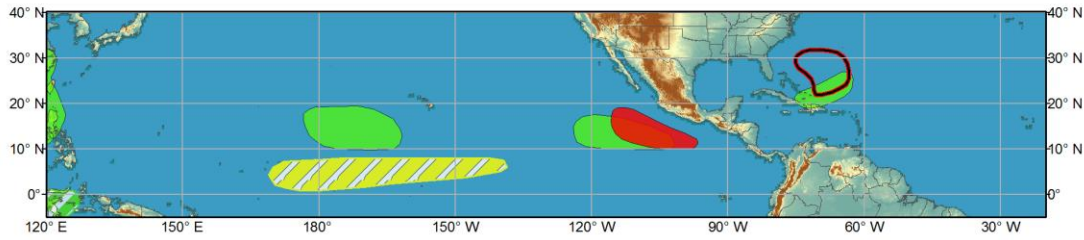




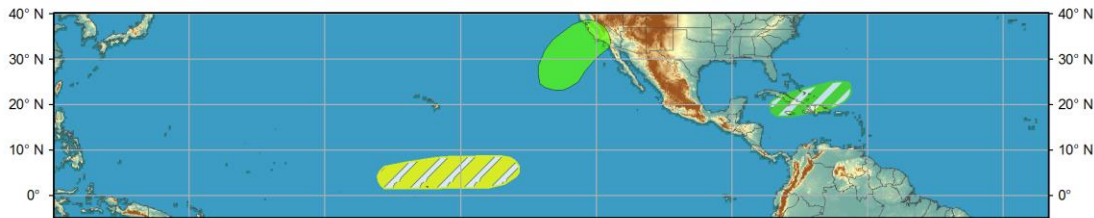
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Oct 22 2016 - Oct 25 2016









Week 2 - Valid: Oct 26 2016 - Nov 01 2016



Confidence
High Moderate

Produced: 10/21/2016
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.



A weak MJO signal persisted according to the Wheeler-Hendon RMM index and the CPC index based on the 200-hpa velocity potential. The GFS model continues to indicate an increase in amplitude of the MJO index across the western Hemisphere, but there is no support for this solution from the Canadian and ECMWF ensemble members. Changes to the previous outlook, released on October 18, are based on the latest GFS, CFS, and ECMWF models along with considerations of the evolving low-frequency base state.

As of October 21, an area of low pressure, centered several hundred miles south-southeast of Cape Hatteras, North Carolina, is expected to merge with an approaching cold front and chances for tropical cyclone development across the western Atlantic have decreased. A surface trough is likely to bring above-average rainfall to the southeast Bahamas, Turks and Caicos, and parts of Hispaniola from October 22 to 25.

The ITCZ, from 10-15N in the east and central Pacific, remains convectively active. Based on satellite imagery and model consensus, above-average rainfall is favored for parts of the east Pacific and also southwest of the Hawaiian Islands. A broad area of low pressure is located a few hundred miles

southwest of the Gulf of Tehuantepec and environmental conditions are forecast to favor tropical cyclone development across the east Pacific (10-20N/100-115W) by October 25.

A brief amplification of an upper-level trough over the eastern United States is forecast to push a cold front south into the Caribbean Sea by October 26. This frontal boundary is expected to provide the focus for a continuation of above-average rainfall across parts of Hispaniola and also eastern Cuba and Jamaica from October 26 through November 1. An amplified upper-level trough near the West Coast of the United States coupled with enhanced moisture from the east Pacific is likely to result in above-average rainfall across California and parts of the east Pacific from October 26 to November 1. Elsewhere, cooler-than-normal SSTs favor below-average rainfall across the equatorial central Pacific through the beginning of November.

The previous discussion released on October 18 follows.

The MJO signal remained weak during the past week, according to the Wheeler-Hendon RMM index and the CPC index based on the 200-hpa velocity potential. The base state may be interfering with a MJO signal that is attempting to propagate east across the Pacific Ocean. Dynamical model forecasts provide varying outcomes with the evolution of the MJO as the base state continues to play a significant role. Therefore, uncertainty remains high on how much influence the MJO has on anomalous convection or mid-latitude teleconnections during the next two weeks.

During the past week, a pair of typhoons developed in the West Pacific. Typhoon Sarika crossed the northern provinces of the Philippines on October 15 and 16 with high winds and heavy rainfall. Typhoon Sarika continued to track east across the South China Sea and made a second landfall on Hainan Island on October 18. As Sarika struck the Philippines, another tropical cyclone, Haima, developed in the West Pacific and rapidly intensified. As of October 18, Typhoon Haima is approaching the northern Philippines with maximum sustained winds of 130 knots. The aforementioned tropical cyclones are likely to bring above-average rainfall to the northern Philippines, Taiwan, and southern China during the next week. The GFS model indicates rainfall amounts locally exceeding 200mm across coastal areas of southeast China.

Following an active first half of the month, tropical cyclone development is not favored across the West Pacific during the next two weeks. A short-lived tropical cyclone may develop in the northeast Bay of Bengal early in Week-1, but chances are too low to highlight an area on the map. Elsewhere, a low chance of tropical cyclone development exists across the east-central Pacific (10-15N/135-145W) during

the next five days. An area of low pressure, currently northeast of the Turks and Caicos, is forecast to intensify and become a subtropical or tropical cyclone as it moves north early in Week-1. This disturbance is forecast to interact with a cold front and remain offshore of the eastern United States.

The highest confidence for above-average rainfall during Week-1 exists across areas that are likely to be influenced by tropical cyclones, including the northern Philippines, Taiwan, southern China, and the western Atlantic. The ITCZ is expected to remain convectively active near 10 degrees N in the east-central Pacific with suppressed convection closer to the equator. The base state and model consensus favors below (above)-average rainfall across southeast India, Sri Lanka, and parts of the southern Indian Ocean (parts of the Maritime Continent and equatorial Indian Ocean).

The GFS model remains most bullish with a strengthening MJO signal over the Western Hemisphere during Week-2. This solution has some support from Canadian and ECMWF ensemble members. An amplifying trough, near the East Coast of the United States, is expected to result in a cold front pushing well south into the southeast Bahamas and Cuba by the beginning of Week-2. This residual boundary along with a potential contribution from the MJO elevate the chances for above-average rainfall across parts of Cuba, Hispaniola, Jamaica, and the Caribbean Sea. The favored areas of anomalous rainfall across the remainder of the global tropics are generally related to the base state and model consensus.

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