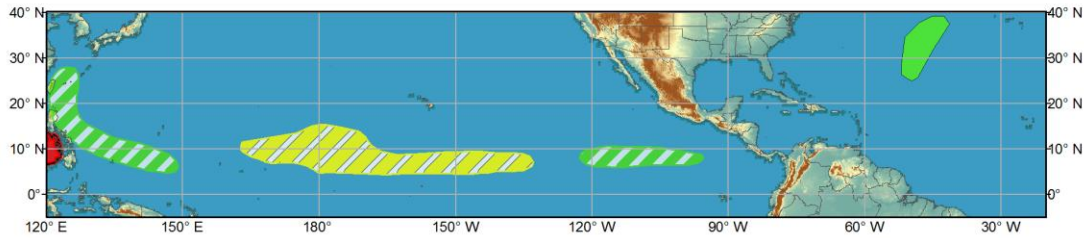




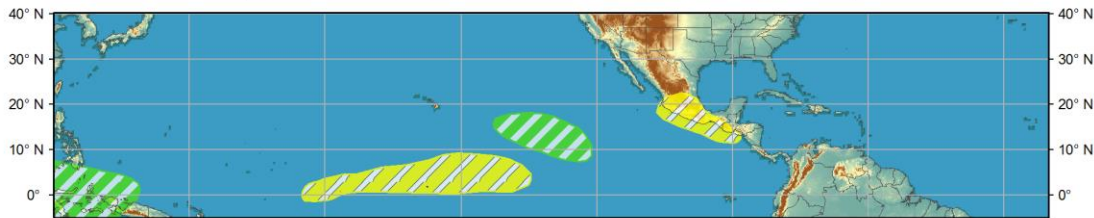
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Nov 04 2017 - Nov 07 2017



Week 2 - Valid: Nov 08 2017 - Nov 14 2017



Confidence
High Moderate

Produced: 11/03/2017
Forecaster: Rosencrans

- 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 related portion of the circulation and tropical convection pattern has weakened during the past 4 days, with the remaining center of enhanced convection now over Africa, and spreading toward the Indian Ocean. Upper-level velocity potential anomalies also reflect that eastward propagation and weakening. Some of the weakening is likely due to destructive interference with the low-frequency signal. Analysis of OLR patterns also reflect a constructive interference from an Equatorial Rossby Wave and the emergence of a Kelvin Wave over the Indian Ocean, which can happen near areas of strong tropical convection.

Some of the models appear to be latching on to the convective signal associated with the Kelvin Wave, as the GEFS, ECMWF, and Environment Canada models all take a signal around the planet in 15 days, too fast for a pure MJO related signal. Some of that is likely due to the way the RMM is calculated and the convection wanting to return to where the low-frequency pattern would support it, over the Maritime Continent.

Tropical cyclone formation odds are not dramatically increased for the eastern Pacific. Over the central Atlantic, the National Hurricane Center depicts a 20 percent chance of tropical cyclone formation during the next 5 days. Beyond day 5, some models do hint at a late season tropical cyclone formation over the eastern Pacific, well off the coast of Mexico near 130W. A weaker disturbance is also indicated between the Philippines and Guam, though confidence is low in tropical cyclone formation, rainfall could be locally enhanced due to the weaker system. Elsewhere, minor modifications were made to the predicted precipitation shapes.

----- Previous discussion, from 10/31, follows -----

The MJO remains active, with moderate amplitude over the Americas/Atlantic Ocean. Both the RMM-based index and CPC Velocity potential index show the event. Additional tropical variability is coming from the low-frequency state and an equatorial Rossby Wave (ERW) currently near the Maritime Continent. Most dynamical models and some statistical tools indicate the active phase of the MJO propagating to the Indian Ocean, where it is likely to more intensely interact with the ERW and the background state. As a result of those interactions, the MJO is forecast to reduce in amplitude, and therefore influence, during the next 2 weeks. The ECMWF model is more aggressive with the reduction in MJO amplitude than the GEFS, indicating a stronger ERW and stronger interaction.

Tropical Storms Selma and Philippe developed during the past week, with Philippe tracking northward from the Caribbean to the Northern Bahamas. Selma moved into Central America and dissipated. During the next week, the highest of tropical cyclone formation are over the South China Sea, near the Gulf of Thailand, where formation is likely within the next 48 hours. For the remainder of the week, tropical cyclone formation odds are elevated for the Bay of Bengal and the South China Sea, due to the impending MJO active phase and the ERW. The threat of tropical cyclone formation over the Bay of Bengal extends into the early portions of week-2. The National Hurricane Center has a low confidence threat of formation over the central Atlantic, near 35N.

During week-1, rainfall is likely to be enhanced over equatorial Africa and the Indian Ocean, as the MJO is predicted to be moving across those regions, though weakening during later week-1. The ERW is likely

to support rainfall over the South China Sea and surrounding landmasses. The low-frequency state supports a forecast for suppressed convection over the central Pacific for week-1.

Above average precipitation is predicted over the Maritime Continent as that is where the remaining MJO signal and the low-frequency state could constructively interfere. Over the central Indian Ocean and eastern Africa, the remains of the ERW are likely to enhance convection. Below average precipitation across central America is forecast, supported by dynamical model output, the predicted state of MJO, the low-frequency state. The low-frequency state also supports a forecast for suppressed convection over the central Pacific for week-2.

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