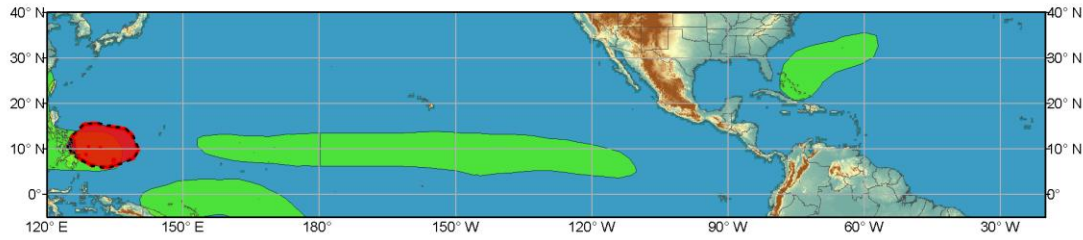




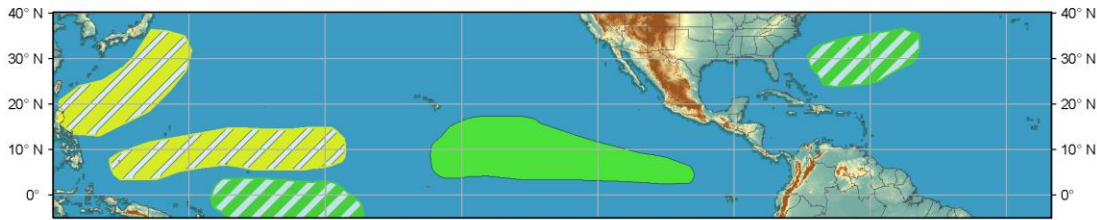
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Nov 17 2018 - Nov 20 2018**



**Week 2 - Valid: Nov 21 2018 - Nov 27 2018**



**Confidence**  
High Moderate

**Produced: 11/16/2018**  
**Forecaster: Maurin**

- 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.**



Through the past three days, the MJO signal has continued propagation into Phase 5, but seen a decrease in amplitude. Dynamical model guidance still supports eastward propagation, though guidance on the amplitude of the signal on the RMM index is varied. The GEFS predicts a resurgence of strength in the signal over the next few days, after a brief period of westward propagation, while the ECMWF maintains an amplitude near the edge of the unit circle. The signal is most robust in the upper-level wind field, which is leading the other components by a phase. Influences from the intraseasonal signal on the OLR field are likely to continue to dampen with the emerging base state.

Updates to the original forecast are minimal, especially since the Eastern Pacific and Atlantic basins seem to be winding down for the tropical cyclone season. No threats for TC formation are currently forecast for these regions. For the Western Pacific, the possible TC formation east of the Philippines has been upgraded from moderate to high likelihood. The dynamical models remain in good agreement for a formation from this system. For Week-2, blocking at the higher latitudes in the North Atlantic are likely to lead to a series of shortwave troughs across the central north Pacific. There is moderate confidence that the above normal rainfall from Week-1 will continue into Week-2 for this region.

The discussion from the original forecast follows.

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The intraseasonal signal remained active through the past week, propagating through phase 3 and into phase 4. Kelvin wave activity likely contributed to the fast speed of this signal. In the OLR fields, the suppressed convective envelope shifted toward the Western Pacific, while the enhanced convection over the Indian Ocean expanded over the eastern Maritime Continent. Dynamical model forecasts of the RMM index over the next week show continued propagation into phase 5/6 and a rapid decay back inside the unit circle toward the end of Week-1, though statistical guidance is not as robust on the decay. The likelihood of a transition to El Nino has been upgraded to an 80% chance for the boreal winter. As the strength of this low frequency signal grows, the MJO signal is expected to become less dominant in the tropical circulation, especially as the suppressed convective envelope moves further into the Pacific and destructively interferes with the base state. A growing El Nino can bias the RMM index toward a Phase 7/8 structure, which may be what is being seen in the current model forecasts. As of this outlook, it is likely the MJO signal will dampen in amplitude over the next two weeks as it moves through Phases 5/6 in Week-1 and 7/8 in Week-2, though not as drastically as seen in the dynamical models.

The Indian Ocean basin has been active over the past week in the wake of the enhanced convective envelope of the MJO. Tropical Storm Bouchra formed on Nov 10 in the South Indian Ocean near 90 E and likely will be short lived. Tropical Storm Gaja, ongoing in the Bay of Bengal, is forecast to track eastward over the Indian peninsula through Week-1. As the MJO's suppressed convective envelope continues to expand westward toward the Maritime Continent, the Indian Ocean is forecast to be quiet through the next two weeks. The Atlantic and eastern Pacific basins are winding down their hurricane seasons as we approach the end of November. The National Hurricane Center is currently monitoring a disturbance in the western Caribbean, but have downgraded the likelihood of a tropical cyclone forming in the next 5 days to low. The only basin forecast to have any activity through the next two weeks is the western Pacific basin, while the enhanced convective envelope remains over the Maritime Continent and western Pacific. Model guidance shows agreement on possible tropical cyclone formation from a wave centered around 130 E; however, the forecast remains a moderate chance due to model run inconsistency.

Precipitation forecasts for Week-1 are mostly derived from impacts of the MJO or tropical cyclone activity. The Indian peninsula is expected to have above normal rainfall with the forecast track of Gaja.

Another small region of enhanced precipitation is expected over Madagascar, where the forecast models show good agreement. With the MJO signal forecast to be in phases 5/6 in Week-1, suppressed convection is expected for the Indian Ocean, leading to below normal precipitation. Both the MJO signal and the developing base state support above normal precipitation along the equatorial Pacific, as well as parts of the western Pacific. Regardless if the tropical wave currently being monitored in the western Pacific basin forms into a closed low, it is still likely to cause above normal precipitation for the Philippines and the South China Sea. Model guidance, as well as MJO composites for phases 5/6, support below normal precipitation for Brazil.

For Week-2, suppressed convection is likely over the Maritime Continent, moving into the western Pacific as the MJO signal is forecast to further propagate into phases 7/8. Below normal precipitation is expected for parts of these regions, with high confidence over the western Maritime Continent and moderate further west, depending on how quickly the signal moves. In the southwestern Pacific, the above normal precipitation from Week-1 is expected to propagate further south. There is high confidence in the forecast for above normal precipitation along the equatorial eastern Pacific, supported by both the propagating MJO signal and the emerging base state. Brazil is likely to change to wetter than normal conditions with the impacts from enhanced convection due to the intraseasonal signal.

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