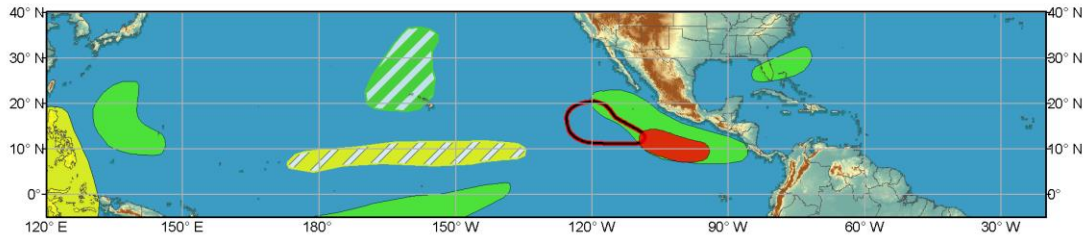




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Nov 21 2015 - Nov 24 2015



Week 2 - Valid: Nov 25 2015 - Dec 01 2015



Confidence
High Moderate

Produced: 11/20/2015
Forecaster: Allgood

- 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 remained weak during the past several days, with no amplitude indicated on the CPC velocity potential based index, and a non-propagating signal over the Indian Ocean on the RMM MJO index. An equatorial Rossby Wave, partly associated with Typhoon In-fa, continued propagating slowly westward across the West Pacific, while a Kelvin Wave appears to be propagating across the Indian Ocean. Dynamical models generally do not support robust MJO activity during the next week or so, as the ECMWF is the only model showing eastward propagation of the RMM Index over the Indian Ocean, which is likely associated with the Kelvin Wave rather than robust MJO activity. If the Kelvin Wave manages to remain coherent as it crosses the Maritime Continent, it may begin constructively interfering with the El Nino signal over the Pacific during Week-2.

Tropical Storm Rick developed over the East Pacific well south of Mexico, and the National Hurricane Center forecasts dissipation of the system over the open ocean during the next several days. An area of disturbed weather emerging over the far East Pacific from Central America has a high potential for tropical cyclogenesis over the next 5 days, which is earlier than indicated in the initial outlook released on 17 November. Therefore, the Week-2 moderate potential TC development shape was removed from the updated outlook, and replaced with a high confidence shape during Days 1-4 that matches the latest

NHC 5-day TWO product. No additional tropical cyclone development is anticipated across the GTH update region, although there is a low potential for new TC development across the West Pacific basin during the Week-2 period, possibly just west of the Date Line.

Forecasts for regions of above or below normal rainfall were adjusted to reflect the latest dynamical model guidance.

The previous discussion issued on 17 November 2015 follows.

The MJO signal broke down during the past week, with the CPC velocity potential based MJO index depicting little to no amplitude. The RMM-based MJO index continues to be outside of the unit circle, but with a rapid westward propagation that is inconsistent with MJO activity. Several factors are interfering with the intraseasonal signal, including a resurgence of El Nino convection over the eastern Pacific, a slow moving equatorial Rossby Wave (ERW) west of the Date Line, and a relatively stationary enhanced convective signal over the central Indian Ocean. Time-longitude plots of upper-level velocity potential anomalies suggest a fast eastward propagating feature, either the remnant MJO enhanced phase or Kelvin Waves, over the central and eastern Pacific, which is constructively interfering with the El Nino base state.

Dynamical model RMM Index forecasts generally favor a continued projection of the index over the Indian Ocean during the next week or two. The GFS and UKMET show no additional eastward propagation, while the ECMWF depicts some eastward propagation of a weakening signal. Overall, the MJO is not anticipated to play a significant role in the evolution of global tropical convective patterns during the next two weeks, although persistent convection over the central Indian Ocean may generate Kelvin Waves that propagate rapidly across the Maritime Continent to the West Pacific.

In association with the ERW mentioned above, Tropical Storm In-Fa developed over the West Pacific, just southeast of Pohnpei Island in the Federated States of Micronesia. Forecasts from the Joint Typhoon Warning Center bring In-Fa on a west-northwestward track while intensifying during the next several days, with a potential for typhoon impacts across the Caroline Islands and Guam. Longer range dynamical model track forecasts suggest that In-Fa will recurve well east of the Philippines during late Week-1 or early Week-2. A second disturbance associated with the ERW is currently just south of the

Solomon Islands. Development of this system is unlikely due to an unfavorable shear environment. Elsewhere during Week-1, dynamical model guidance strongly favors the development of a tropical cyclone over the south-central Indian Ocean during Week-1. Tropical cyclogenesis is also possible in association with a disturbance in the Bay of Bengal as it moves slowly near the eastern coast of India. Over the eastern Pacific, increasingly favorable environmental conditions support the likely development of a late season tropical cyclone in association with a broad area of low pressure south of Mexico between 110W and 120W. During Week-2, dynamical models favor a moderate potential for additional out-of-season tropical cyclone development over the eastern Pacific closer to Mexico's southern coast. Forecasted environmental conditions across the West Pacific during Week-2 make additional tropical cyclogenesis possible, but dynamical models do not currently depict any specific formation locations.

During Week-1, enhanced (suppressed) convection is forecast across the east-central South Pacific and eastern North Pacific (Maritime Continent and the north-central Pacific). The CFS and ECMWF also favor an area of enhanced rainfall near western Hawaii. During Week-2, enhanced convection is favored across much of the equatorial Pacific, with dynamical models continuing to forecast a narrow region of suppressed convection along 10N over the central Pacific, as well as across the central Maritime Continent. Areas of enhanced rainfall are anticipated to persist across parts of the northern Indian Ocean.

Forecasts for Africa are done in collaboration with CPC's International Desk and based on model forecast guidance and regional scale anomaly features.