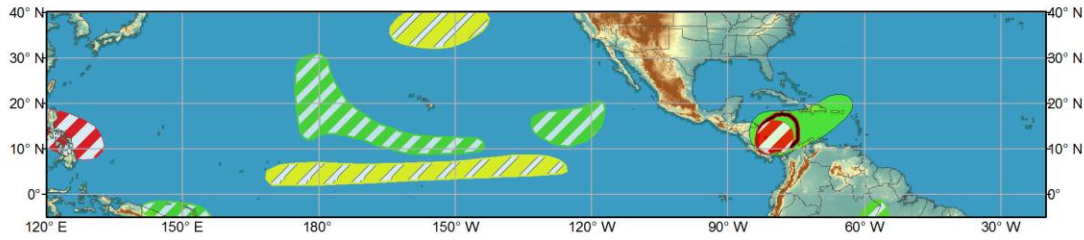




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Nov 19 2016 - Nov 22 2016



Week 2 - Valid: Nov 23 2016 - Nov 29 2016



Confidence
High Moderate

Produced: 11/18/2016
Forecaster: CPC

- 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 CPC Velocity Potential (VP) index and the RMM index both key in on rapidly propagating intraseasonal signals across phases 8 and 1 (Western Hemisphere and Africa). The convectively suppressed phase is located from the eastern Indian Ocean across the Maritime Continent to the western Pacific.

Tropical Cyclone (TC) season across the North Atlantic and East Pacific basins is nearing its climatological end (November 30th). At the present time (November 18th), there is little TC activity to speak of, with only one disorganized area of cloudiness and showers located across the southwestern Caribbean Sea. The National Hurricane Center predicts a low (10-percent) chance of this system becoming a TC within the next 2 days, and a medium (60-percent) chance of this system becoming a TC within the next 5 days. This disturbance is expected to slowly strengthen into a tropical depression early next week, but prospects for additional strengthening beyond a depression remain very uncertain. In the western North Pacific, there is medium confidence of a TC forming just east of the Philippines late in the week-1 period. Thereafter, any TC that does form is expected to traverse the Philippines and continue westward into the South China Sea. This scenario has the support of a number of tools, some of which include the Taiwan CWB Typhoon Tracker tool, the 0z deterministic ECMWF run, the 6z and 12z deterministic GFS

runs, and the CFS predicted TC tracks for weeks 1 and 2. The general idea is that a depression could form near and east of the Philippines late in the week-1 period, then track west over the islands into the South China Sea. At this point, the system is forecast to intensify into a Tropical Storm before crossing the coast of Vietnam. No new TCs are predicted to develop during the week-2 period across the domain.

Above-average rainfall is anticipated across central and eastern portions of the North Pacific during the week-1 period (moderate confidence), as predicted by a consensus between CFS and ECMWF model precipitation forecasts. A moderate confidence area for expected above-average rainfall is also indicated from the southwestern Caribbean to Hispaniola, Puerto Rico, and the U.S. Virgin Islands. This is attributed to potential development of a TC in the southwestern Caribbean. Two moderate confidence areas of below-average rainfall are favored during week-1. The first area is over a narrow swath of the low-latitude North Pacific between about 170E-125W, and the second area is over the temperate North Pacific between about 33N-41N/165W-143W.

The predicted week-2 rainfall anomaly forecast is significantly more uncertain than that for week-1. Above-average rainfall is anticipated with moderate confidence over much of the tropical North Pacific, from just north of the Marshall Islands eastward to 130W-125W. The western half of this predicted area ranges from about 8N-13N, while the eastern half varies from about 9N-20N. An area of below-average rainfall is forecast equatorward of the previously noted wet area between approximately 153W-129W.

----- The original discussion is shown below -----

The MJO remains active as monitored by both the RMM index and CPC Velocity Potential (VP) index. The enhanced phase is currently over the Pacific and the Americas after a rapid eastward propagation from phase 5 (eastern Maritime Continent region) over the past week. This was due in part to an atmospheric Kelvin wave. Dynamical and statistical models continue to forecast eastward propagation of a coherent wave-1 signal over the next week or so. Thereafter, uncertainty increases as the dynamical guidance weakens the signal over Africa and the western Indian Ocean.

Tina was a short-lived tropical system that developed over the eastern Pacific on November 13, and briefly attained minimal tropical storm intensity (35 knots). In the western North Pacific, Tropical Depressions 27 and 28, and minimal Tropical Storm Ma_On briefly developed during the past week.

During the week-1 forecast period, a tropical depression is expected to form over the southwestern Caribbean Sea with high confidence (NHC has an 80-percent chance of development during the next 5-days). This potential system is predicted to slowly move towards the northeast, with enhanced precipitation and potential wind impacts affecting the southwestern and central Caribbean region. The only tropical cyclone development predicted during the week-2 forecast period is just east of the Philippines, indicated by the GFS model and Taiwan's Central Weather Bureau. The embryonic low pressure center that is thought to be the seedling for this tropical cyclone is expected to continue westward across the Philippines and into the South China Sea.

Areas of above-average rainfall are anticipated during week-1 across the tropical Northern Indian Ocean (related to a fast-moving intraseasonal signal), from portions of Micronesia southeastward across the Solomon Islands to Vanuatu and New Caledonia (related to the evolving La Nina base state), the central South Pacific, and over Brazil. All these predicted areas of above-average rainfall are of moderate confidence, and are forecast by the latest CFS and ECMWF precipitation predictions for week-1. The anticipated area of above-average rainfall over the southwestern and central Caribbean Sea is due to potential tropical cyclone activity as discussed above. Below-average rainfall is expected over portions of the Bay of Bengal and Maritime Continent.

In week-2, areas of above-average rainfall are predicted just northeast of Papua New Guinea, and in a narrow band from just north of the Marshall Islands in the tropical North Pacific eastward to near 125W. A fairly small area of below-average rainfall is possible southeast of Hawaii, from about 150W-130W, 4N-7N. These areas reflect a consensus between the CFS and ECMWF model predictions, the evolving La Nina base state, and potentially fast-moving Kelvin Wave activity.

Forecast shapes over Africa are made in consultation with the Africa Desk at CPC, and often reflect more regional scale variability in addition to large-scale climate factors.