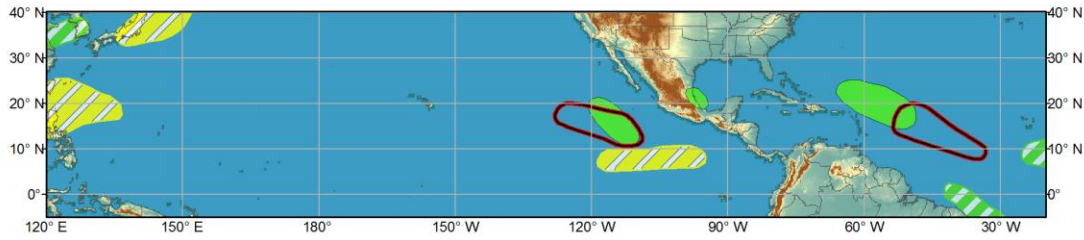




# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Jul 08 2017 - Jul 11 2017**



**Week 2 - Valid: Jul 12 2017 - Jul 18 2017**



Confidence  
High Moderate

Produced: 07/07/2017  
Forecaster: Allgood/Baxter

- 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 over the past several days, with the RMM Index exhibiting low amplitude over the western Indian Ocean that is not reflected in the convective anomaly field. There is little change in thinking regarding the anticipated evolution of the intraseasonal signal. The low amplitude reflected in the index is likely tied to evolution of the base state. The upper-level velocity potential anomaly field shows areas of enhanced divergence over the Maritime Continent and East Pacific. Dynamical model RMM Index forecasts generally show a weak signal over the next two weeks, with the ECMWF the only model depicting some eastward propagation to the Maritime Continent. Given the lack of any robust Indian Ocean signal at present, the MJO is not expected to play a major role in the global tropical convective pattern during this outlook period.

Tropical Depression Four developed over the central Atlantic on 5 July. The depression is currently moving rapidly westward, and is expected to maintain a rapid west-northwesterly track during the next several days. Intensity forecasts from the NHC show no further intensification, with the system anticipated to degenerate as it encounters increasingly dry air. Over the East Pacific, a disturbance currently about 800 miles south of the Baja Peninsula is currently becoming a tropical depression; NHC expects to begin issuing advisories on this system this afternoon, 7 July. Therefore, the forecast shape

has been removed since cyclogenesis is occurring before the start of the period. This system is forecast to track northwestward over time. During the updated Week-2 period, there is a low potential for tropical cyclogenesis over the Atlantic near 10N, 50W. This will be monitored closely over the next several days, as it could impact the Lesser Antilles later next week. Elsewhere, the GEFS ensembles continue to depict potential tropical cyclogenesis over the West Pacific near or west of Guam, but both the ECMWF and CFS show suppressed convection over the region during the outlook period, so confidence is too low to include a shape on the map at this time.

Forecasts for areas of enhanced or suppressed convection were updated in this outlook to reflect the latest dynamical model guidance and anticipated tropical cyclone tracks.

The original discussion released on 4 July follows.

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The Madden-Julian Oscillation (MJO) remained weak during the past seven days, with the RMM index indicating the signal focused towards Africa or the Western Indian Ocean. The signal shift towards the Indian Ocean appears due to the long-term mean removal methodology in CPC's RMM index calculation, as other centers show the RMM index to be negligible, rather than near emerging. Objective filtering of 200-hPa velocity potential anomalies places low frequency enhancement of convection near the Maritime Continent since late May, and tracks an eastward propagating signal from near the Prime Meridian in late April to presently near 140W (too slow to be considered tied to the MJO). Observed convective anomalies are weak throughout the global tropics and generally consistent with Rossby wave activity. Dynamical model ensembles show varied treatment of intraseasonal activity over the next two weeks, but nothing consistent with an emerging MJO signal. As such, any impact from the tropics on the mid-latitudes in the current outlook are anticipated to be solely due to possible tropical cyclone (TC) activity.

Tropical Storm Nanmadol formed in the West Pacific near 21N/127E on 2 July. The system intensity peaked at 60 kt the following day as it recurved through the East China Sea, eventually making landfall at Nagasaki on 4 July. The National Hurricane Center (NHC) is monitoring several areas for possible TC formation in the Atlantic and East Pacific over the coming days. First, an easterly wave near 9N/35W as of 2 PM EDT on 4 July is given a 70% (80%) of becoming a tropical depression in the next 48 hours (5

days) due to its presence over waters above 27 degrees C and anomalously low wind shear in its vicinity. This system is forecast to track west-northwest around the base of the subtropical ridge, eventually recurving to the east of the Bahamas. No impacts are forecast for the U.S. from this system at present. High risk of formation is given to this system in the current outlook. In the East Pacific, NHC is monitoring 3 areas for possible development. The first may become a depression prior to this forecast period, and is presently near 16N/111W with NHC giving a 70% chance of developing over the next 48 hours as it drifts westward. To the southeast of this system, another area is being monitored for TC development in association with a broad low pressure area that currently has minimal convection. Organization for this second system is forecast to gradually increase over the course of the week with NHC giving it a 70% chance of forming over the next 5 days as it tracks westward. The combined areas for the two aforementioned East Pacific systems are combined into one high risk area on the forecast map. A third area is being monitored in the East Pacific by NHC near 12N/100W associated with a disturbance forecast to track west-northwestward off the Mexican coastline. NHC gives this system a 20% chance of becoming a tropical depression over the next 5 days, but confidence is insufficient to be highlighted on the Global Tropical Hazards outlook. Lastly, in the West Pacific a moderate risk of tropical cyclone formation is indicated from the South China Sea through 140E centered on 15N during Week-2 where statistical guidance suggests ideal conditions for a disturbance to develop, while dynamical model guidance also portrays this area as wet during Week-2.

Above-normal precipitation is forecast in association with each of the aforementioned TC formation areas and their subsequent tracks. Moderate confidence of above-normal rains are forecast across eastern India in association with the southwestern monsoon, while a break in precipitation is forecast across southern India resulting in high confidence of below-normal precipitation for this region. The Meiyu front is anticipated to lift into Korea and northern China, bringing moderate confidence of above-normal rains with it. Moderate confidence of below-normal precipitation is forecast across Japan in the wake of Tropical Storm Nanmadol. Above-normal precipitation forecast in the vicinity of the Maritime Continent in both weeks is associated with low frequency conditions that favor enhanced convection. Remaining forecast areas during Week-1 are due to dynamical model consensus between the CFS and ECMWF ensembles.

During Week-2, continued dryness is forecast from the Western Ghats of India southward through the equator with moderate confidence. Lingering moderate confidence of above-normal precipitation is forecast in association with what could be recurving TC Don by Week-2. Ensemble guidance forecasts anomalously dry conditions in the vicinity of Central America in Week-2, which would also help to suppress TC activity in the East Pacific and western Caribbean or Gulf of Mexico.

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

