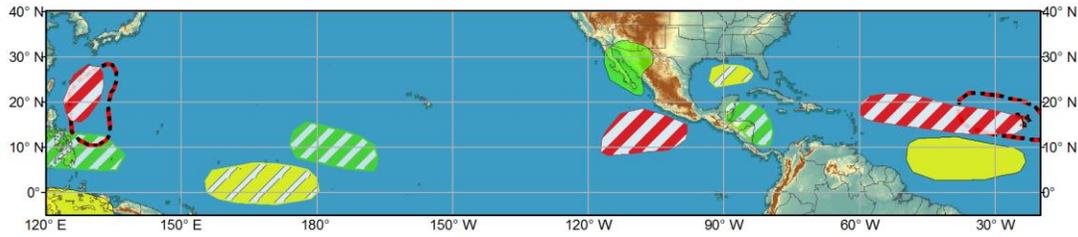




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Sep 06 2014 - Sep 09 2014



Week 2 - Valid: Sep 10 2014 - Sep 16 2014



Confidence
High Moderate

Produced: 09/05/2014
Forecaster: 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 is more robust than in weeks past, but is still not particularly strong. The forecast from earlier in the week was generally on track, though some changes are necessary to account for the latest guidance. Hurricane Norbert in the East Pacific is forecast to move northward just west of Baja California, and is expected to contribute to heavy rains across much of northwestern Mexico and into the southwestern CONUS. The tropical disturbance in the eastern Atlantic that was being monitored for development continues to be, and there is a moderate chance it develops into a tropical cyclone during the remainder of Week-1 as it moves west-northwestward. It is important to note that model guidance does not support a strong storm in any case, and a path that recurves east of North America is most likely given the expected pattern over the next one to two weeks. There are elevated probabilities of a system developing near or west of the Cape Verde islands in Week-2, though this system is likely to recurve fairly early, given the latest model guidance.

In the East Pacific, a broad area of low pressure could develop into a tropical cyclone by the very end of the Week-1 period. This could develop early in Week-2 as well. Odds are enhanced for TC development over the far eastern part of the basin in Week-2, consistent with the previous discussion and the latest model guidance.

A disturbance in the monsoon trough could develop into a tropical cyclone northeast of the Philippines in the next couple of days. This shape has been adjusted only to account for the latest guidance. There is a low chance of TC formation in Week-2 farther east in the West Pacific basin, but only the GEFS favors this solution. The other global ensemble guidance does not indicate cyclogenesis in this region, so it is not depicted on the map at this time.

The original forecast discussion follows:

The MJO remained fairly weak as the atmospheric circulation is not exhibiting a pattern coherent with a strong MJO. The CPC Velocity Potential Index and the Wheeler-Hendon RMM Index both indicate a weak signal consistent with convection centered in the eastern Indian Ocean (IO) and Maritime Continent. There continues to be some evidence of a slow, eastward propagation in the upper-level wind field, but at speeds slower than the MJO. This is also generally true of the OLR field, in which an envelope of suppressed convection has propagated slowly across the Maritime Continent and West Pacific over the last few weeks. Other modes of variability, including equatorial Rossby waves, continue to interfere with the MJO signal, but are not as strong as in weeks past.

Forecasts for the MJO have a moderate amount of spread, with the GFS indicating the predominance of westward moving features, while the ECMWF, Canadian, and JMA, indicate eastward propagation of a weak signal over the Maritime Continent into the far western Pacific. Based on recent observations, the eastward propagation of a weak signal is the preferred solution. The MJO is thus expected to play a small role in the pattern of tropical convection over the next couple of weeks.

Tropical Storm Dolly formed in the Bay of Campeche and is forecast to make landfall in Mexico this evening. Tropical storm Norbert formed in the East Pacific, and is forecast to move northwestward, passing west of Baja California.

Over the Atlantic, tropical cyclone formation is most likely over the far eastern part of the basin later in Week-1, with the current 5-day probability of formation at 30%. Any storm that forms in this region is likely to recurve well to the east of North America. This threat lingers into Week-2, since formation might not occur until next Tuesday or Wednesday. Also, another wave could emerge from Africa by then, with some chance of formation. Again, the forecast tracks of these potential systems appear to be

into the North Atlantic. There is some risk of formation in the western Caribbean/Bay of Campeche later in Week-1, but elevated vertical wind shear and model disagreement suggest that the threat is too low to warrant depiction on the map. This threat will be closely reevaluated on Friday with the GTH update.

In the Pacific basins, tropical cyclogenesis is moderately likely east of the Philippines, as a more organized disturbance in the monsoon trough is forecast to move northward, then northeastward, potentially developing into a tropical cyclone. In the East Pacific, there is a low risk of formation in Week-2, though the weak MJO and enhanced wind shear argue against cyclogenesis. However, models indicate enhanced convection in this region, consistent with atmospheric Kelvin waves moving eastward ahead of the main envelope of convection forecast across the West Pacific.

During Week-1, suppressed convection is likely over the central and eastern IO extending to the western Maritime Continent. Some enhanced convection is likely from Southeast Asia to the eastern Maritime Continent based on model guidance and consistent with weak MJO activity. Above-average rains are likely over the East Pacific and western Caribbean, associated with tropical cyclones and an enhanced monsoon trough over the western Caribbean. The latter could be the source of the aforementioned TC threat later in Week-1. Model consensus strongly indicates drier-than-average conditions over the central and western Atlantic, south of possible TC activity. This suggests that the area for TC formation would be shifted north relative to average.

Suppressed convection is likely to shift eastward across the Maritime Continent in Week-2, consistent with model guidance and any weak MJO progression. Likewise, enhanced convection is expected to shift northeastward across the West Pacific. Above-average rainfall is expected across the East Pacific, consistent with enhanced Kelvin wave activity and model guidance.