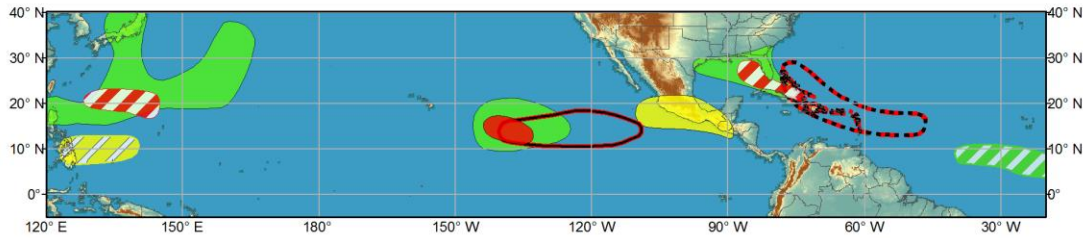




# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Aug 27 2016 - Aug 30 2016



## Week 2 - Valid: Aug 31 2016 - Sep 06 2016



Confidence  
High Moderate

Produced: 08/26/2016  
Forecaster: Artusa

- 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 updated GTH map for August 27-30 continues to favor tropical cyclogenesis in the far western Pacific (moderate confidence), the east-central Pacific (high confidence), and from just north of Hispaniola to the eastern Gulf of Mexico (moderate confidence) in the Atlantic basin. These areas of anticipated tropical cyclogenesis are based on several factors. In the western North Pacific, it is based on the expected collation of the monsoon trough, enhanced upper-level divergence, and a weak intra-seasonal signal, and also has some support from the Central Taiwan Bureau (CTB) Tropical Cyclone (TC) Tracker. In the east-central Pacific, showers and thunderstorms have become more organized over the past few days in association with a broad area of low pressure, according to the National Hurricane Center. This area of disturbed weather in the general vicinity of the Intertropical Convergence Zone (ITCZ) is predicted to move westward or west-northwestward, with tropical development considered likely over the next day or two. In the Atlantic basin, a weak and disorganized area of low pressure currently moving across the Bahamas and Cuba is forecast to continue its west-northwest motion into the eastern Gulf of Mexico. There is much uncertainty as to the future path and intensity of this system. Upper-level winds are currently unfavorable for intensification, though this may change as the disturbance moves into the eastern Gulf of Mexico. Relatively minor adjustments were made to the anticipated areas of above-average and below-average rainfall indicated on the GTH Outlook issued on Tuesday. Two areas of particular note are the Gulf of Mexico and eastern and central low-latitude

Atlantic. The first area of predicted above-average rainfall over the general vicinity of the Gulf of Mexico is largely related to the uncertainty in the track of the current disturbance over the Bahamas and Cuba, in addition to a weak low pressure system that is forecast to develop over the central Gulf of Mexico and move towards Texas in the next few days. The above-average rainfall indicated on the map over the low-latitude central and eastern Atlantic is associated with the ITCZ and/or any weak tropical waves.

During August 31-September 6, only minor tweaks were made to the GTH Outlook that was issued on Tuesday. Exceptions include the addition of a tropical cyclogenesis region (moderate confidence) in the low-latitude eastern Pacific, and the addition of an area of above-average rainfall (moderate confidence) across the low-latitude central and eastern Atlantic. Both areas have support from the CTB TC tracker tool, and the latter area has support from both the CFS and ECMWF precipitation forecasts from August 31-September 6.

----- The original forecast discussion follows -----

The MJO is currently weak and incoherent. The recent uptick in tropical storm activity this past week across this region has aliased into the MJO band. This makes it difficult to separate out the convective contributions from tropical cyclones and from the MJO itself. Dynamical model guidance generally suggests a westward shift in the tropical convection from the western North Pacific towards the Maritime Continent during the next two weeks, with some weakening possible.

The global tropics have been very active this past week with tropical cyclone activity. In the western North Pacific, severe tropical storm Chanthu (August 11-17) developed out of a depression located about 430 miles west-northwest of Guam, eventually making landfall in Hokkaido, Japan at peak intensity with maximum sustained winds of 65 mph. Tropical storm Dianmu (August 15-19) started its life cycle as a tropical depression about 120 miles east-southeast of Hong Kong. Dianmu then tracked westward, bringing heavy rains and peak winds of 45 mph to the province of Hainan. Ongoing severe tropical storm Lionrock began as a depression about 430 miles northwest of Wake Island on August 16th. The Joint Typhoon Warning Center (JTWC) in Honolulu forecasts Lionrock to slowly work its way northward towards southern Japan, but then recurve northeastward well off the coast of Honshu, reaching a peak intensity near 85 mph (gusts to 100 mph) on August 26-27. Typhoon Mindulle began as a tropical depression northwest of Guam on August 17th, and moved generally northward towards Japan. Tokyo received heavy rain, flooding, and strong winds from this system on August 21-22. Unofficial peak wind estimates of 78 mph (gusts to 100 mph) were reported. Tropical Storm Kompasu (August 17-21) started as a tropical depression east of the northern Mariana Islands, and eventually

passed just east of Misawa Air Base in northern Honshu, making landfall in Hokkaido. Peak winds of 40 mph were observed with this system.

On the opposite side of the Pacific basin, Kay began as a tropical depression about 570 miles west of the southern tip of Baja California. As of today, August 23rd, peak winds with Tropical Storm Kay have been about 40 mph, with gusts to 50 mph. Kay continues to move northwestward and westward, well away from any land masses. In the Atlantic basin, 2 tropical systems formed in the past week, and one remains a significant tropical wave. Fiona became a tropical depression on August 17th some 500 miles north-northeast of the northern Leeward Islands. Only modest strengthening occurred during the ensuing four days, resulting in a brief period of one-minute sustained winds of 50 mph, before weakening back to a depression. Tropical storm Gaston began as a low pressure area west of Cape Verde, which developed a closed circulation on August 22nd and became a tropical depression. As of this writing (August 23rd), maximum winds are 50 mph, with gusts to 65 mph. The National Hurricane Center in Miami forecasts Gaston to strengthen today (August 23rd) and reach hurricane intensity on August 24th as it continues to move in the general direction of Bermuda. Finally, yet another tropical system (unnamed at the present time), is located several hundred miles east of the Leeward Islands. This tropical wave, with its large region of disorganized showers and thunderstorms, is expected to move into a more favorable environment over the next few days, especially once it reaches the area encompassing Hispaniola and the Bahamas. Regardless of whether or not this tropical wave becomes a named system, heavy rains, gusty winds, and possibly flash floods and mudslides, are a good bet across the northern Leeward Islands, and the eastern Greater Antilles over the next several days.

Predicted tropical cyclone activity during the Week-1 period includes the eastern Pacific (high confidence) and from several hundred miles east of the Leeward Islands northwestward towards the Bahamas (moderate confidence). During Week 2, tropical cyclone development is favored across the western North Pacific south of Japan (related to the anticipated upper-level divergence and convective signal in this region), and also across the low latitude Atlantic. Both areas are assigned moderate confidence. The following links provide additional tropical cyclone information:

National Hurricane Center: <http://www.nhc.noaa.gov/>

Joint Typhoon Warning Center: <https://metoc.ndbc.noaa.gov/en/JTWC/>

Central Pacific Hurricane Center: <http://www.prh.noaa.gov/cphc/>

The Week 1 precipitation forecast favors below average rainfall (moderate confidence) in the low latitude South Indian Ocean and in the vicinity of the Philippines. These are locations where the CFS and ECMWF dynamical precipitation guidance are in agreement. Below average rainfall is also favored (high confidence) near the coast of Central America and southern Mexico, in the subsidence wake of expected

East Pacific tropical cyclone activity. Odds favor above average rainfall over the western North Pacific (primary region of expected convection), and over the tropical eastern Pacific due to tropical cyclone activity (high confidence).

The Week 2 precipitation forecast favors below average rainfall (moderate confidence) over the equatorial Indian Ocean, and over the central North Pacific south and southwest of the Hawaiian archipelago. These areas are predicted by both the CFS and ECMWF precipitation guidance. Above average rainfall is favored over the western North Pacific, which is due to expected tropical cyclone activity and the presence of the monsoon trough.

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