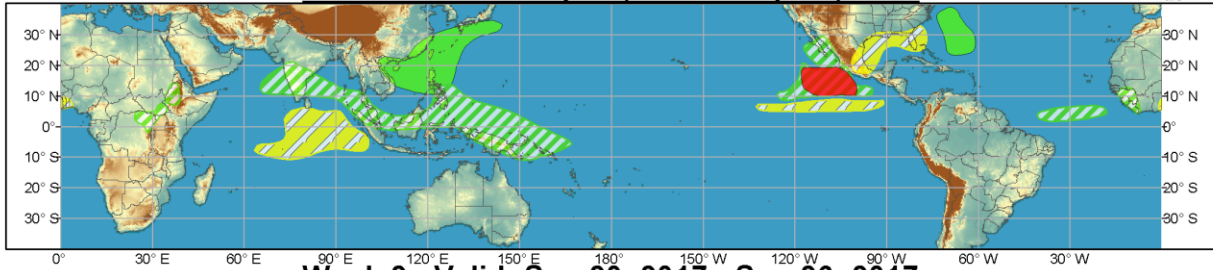




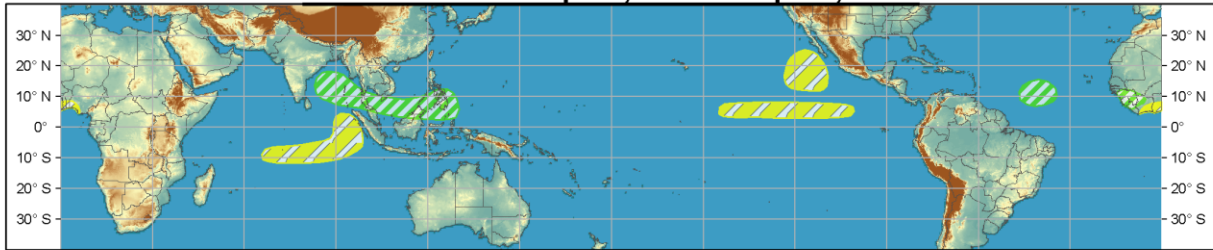
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Sep 13, 2017 - Sep 19, 2017



## Week 2 - Valid: Sep 20, 2017 - Sep 26, 2017



**Confidence**  
High Moderate

- Tropical Cyclone Formation** ■   Development of a tropical cyclone (tropical depression - TD, or greater strength).
- 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, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Produced: 09/12/2017

Forecaster: Artusa



The MJO signal has been weak and largely incoherent during the past 7 days. There has been some Kelvin wave activity across the North Pacific basin, as well as some interference from westward-moving modes of tropical variability (such as equatorial Rossby waves). Most dynamical models predict a low-amplitude, subseasonal signal that moves quickly eastward across the Indian Ocean and western Maritime Continent during Week-1, after which the signal (in RMM space) retreats back inside the unit circle. The bias-corrected GFS solution, which is an outlier, predicts the possible emergence of a weak intraseasonal signal in phase 8 (Western Hemisphere and Africa) in Week-2, which could be associated with Kelvin wave activity. With such a weak MJO signal anticipated during the next two weeks, some tools, such as the Constructed Analog and Ensemble GFS forecasts of outgoing longwave radiation (OLR) anomalies, depict little to no projection of a coherent signal onto the map.

For a time during the past week, there were three hurricanes (Irma, Jose, and Katia) simultaneously in progress over the Atlantic. This is reminiscent of a similar situation in September 2010, when three hurricanes (Igor, Julia, and Karl) were also churning over the Atlantic at the same time. Interestingly, both of these instances (September 2017 and September 2010) included the I, J, and K named storms. Irma developed over the Atlantic Main Development Region (MDR), attained category-5 status (peak

sustained winds ultimately topped out near 185 mph), and affected the Leeward Islands, the Greater Antilles, Florida, and then weakened rapidly over the Southeastern U.S. just prior to the start of this GTH Outlook period. Jose also developed over the Atlantic MDR, attained category-4 status, and grazed the northern Leeward Islands. It is currently (11am AST Sept 12) about 450 miles north-northeast of Grand Turk Island, and maximum sustained winds have decreased to minimal hurricane intensity. Track and intensity projections for Jose will be discussed in the next paragraph. Katia formed over the extreme southwestern Gulf of Mexico, briefly attained category-2 strength, and made landfall in nearby Mexico. The eastern North Pacific was quiet during the past week. In contrast, the western North Pacific experienced Tropical Depression Guchol, Typhoon Talim (peaked at category-1 thus far), and Tropical Depression 21W. The last two systems are still active. Talim is currently (12z Sept 12) near Okinawa, Japan, and TD 21W is just off the west coast of the Philippines.

A less active period for tropical cyclones (TCs) is expected across the global tropics during the next two weeks. The only area of increased odds for tropical cyclogenesis is over the eastern North Pacific during Week-1, where the National Hurricane Center (NHC) predicts a high risk area. This region has the continued benefit of sufficiently warm water and reduced atmospheric wind shear for fostering TC development. Tropical Depression 15E has formed near 16N/116W, and another TC is expected to form well to its east, around 12N/102W. TD-15E is currently (7:45 am PDT on Sept 12) moving westward at 15 mph. In the North Atlantic basin, minimal Hurricane Jose is located (11am AST Sept 12) about 450 miles north-northeast of Grand Turk Island, and is drifting. NHC expects Jose to make a tight clockwise loop and to briefly weaken below hurricane strength, before taking it northwestward. NHC track projections, and most dynamical model guidance keep the center of Jose well off the East Coast of the United States, though coastal areas can still expect ocean swells, dangerous rip currents, and potentially some of the outermost spiral rainbands. No other TCs are foreseen for the next two weeks (with moderate or high confidence) across the Atlantic, but it is important to emphasize that the climatological peak of the Atlantic Hurricane season has just passed (about Sept 10th), and the season is far from over. The potential for Atlantic TC development will be revisited on Friday with the updated GTH outlook. In the western North Pacific, Typhoon Talim is forecast to cross over the southernmost Japanese islands (close to Taiwan), and recurve towards the north and northeast over Honshu. TD-21W (close to the west coast of the Philippines as of 12z, Sept 12th) is predicted to track westward across the South China Sea and Gulf of Tonkin region.

For Week-1, wetter-than-average conditions are expected near the east Asian coast (associated with the two TC's noted above), from the Indian subcontinent east-southeastward across the Maritime Continent region (related to an expected weak subseasonal signal), the far eastern North Pacific (anticipated TC activity), the western Atlantic (associated with Hurricane Jose), and the low-latitude Atlantic (ITCZ and/or easterly waves). Drier-than-average conditions are anticipated over a significant portion of the tropical Indian Ocean, the low-latitude eastern North Pacific, and from parts of Mexico eastward across the Gulf of Mexico and Florida. For Week-2, above-average rainfall is predicted from the Bay of Bengal

east-southeastward across portions of the Maritime Continent (related to a weak subseasonal signal), and the central low-latitude Atlantic (ITCZ and/or easterly waves). Below-average rainfall is forecast over parts of the tropical Indian Ocean, and the eastern North Pacific. The predicted Week-1 and Week-2 rainfall areas are generally consistent with a consensus between CFS and ECMWF model precipitation forecasts. For the eastern North Pacific, the anticipated below-average rainfall is due, in part, to the GEFS forecast of 200-hPa Velocity Potential Anomaly, which favors the convergence of atmospheric mass into this region.

The outlooks over Africa are produced through consultation with CPC's international desk, and can represent local-scale conditions in addition to global-scale variability.