Week 1 - Valid: Sep 20, 2017 - Sep 26, 2017
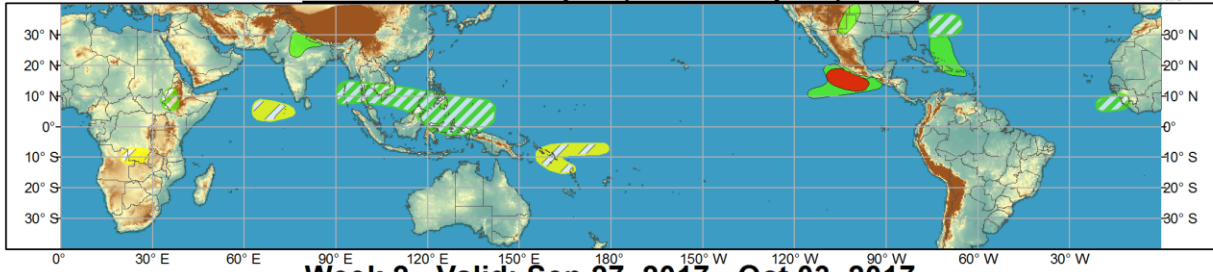
Week 2 - Valid: Sep 27, 2017 - Oct 03, 2017

Produced: 09/19/2017
Forecaster: Pugh
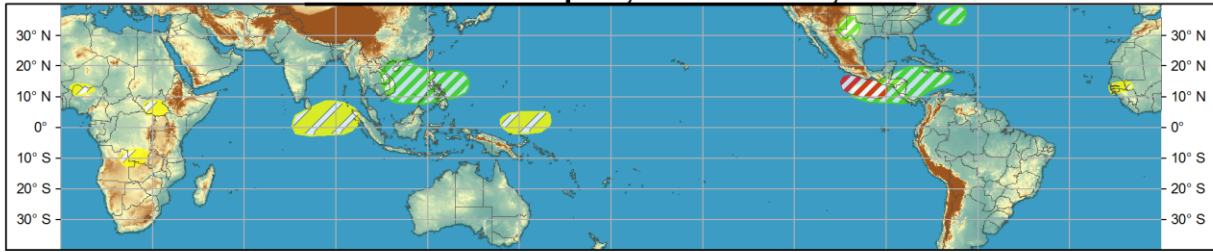
Confidence
High   Moderate

Tropical Cyclone Formation	(red) (red hatched)	Development of a tropical cyclone (tropical depression - TD, or greater strength).
Above-average rainfall	(green) (green hatched)	Weekly total rainfall in the upper third of the historical range.
Below-average rainfall	(yellow) (yellow hatched)	Weekly total rainfall in the lower third of the historical range.
Above-normal temperatures	(orange) (orange hatched)	7-day mean temperatures in the upper third of the historical range.
Below-normal temperatures	(blue) (blue hatched)	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.

中央氣象局 Central Weather Bureau   UNIVERSITY AT ALBANY State University of New York   ESSIC EARTH SYSTEM SCIENCE INTERDISCIPLINARY CENTER UNIVERSITY OF MARYLAND   Australian Government Bureau of Meteorology   cics.nc   NPS PRAESTANTIA PER SCIENTIAM

The MJO was weak during mid-September, according to the Wheeler-Hendon RMM index and the CPC index based on the 200-hpa Velocity Potential. The consensus among dynamical model forecasts indicates a weak MJO signal through late September. Tropical cyclones, an atmospheric Kelvin wave, and the low frequency base state are likely to be the major influences on anomalous rainfall patterns across the global tropics.

As of 11am EDT on September 19, Hurricane Jose is located over the western Atlantic (36.5N/71.7W) and moving north. Although Jose is likely to remain offshore of the East Coast, the large cyclone will continue to cause gusty winds and large swells along Long Island and the southeast New England coastline.

Hurricane Maria formed to the east of the Leeward Islands, and rapidly intensified to become a Category 5 hurricane on September 18 as it approached Dominica. Maria became the 2nd Category 5 hurricane of the 2017 Atlantic season. Maria is likely to affect the U.S. and British Virgin Islands and Puerto Rico as a dangerous major hurricane during the next 48 hours. Heavy rainfall is likely to trigger life-threatening

flash flooding and mudslides across these areas. The above-average rainfall area during Week-1 is consistent with the predicted track of Maria. Forecast confidence in the exact area for above-average rainfall decreases to moderate near the 30th parallel, reflecting the increasing ensemble spread as Maria gains latitude. Please refer to the National Hurricane Center for the latest updates and forecasts on Hurricane Maria.

A pair of tropical cyclones (Norma and Otis) developed over the East Pacific during the past week and both are forecast to dissipate soon. A trough of low pressure is currently located near the southern coast of Mexico. Environmental conditions are conducive for tropical cyclone (TC) development. Based on good model agreement and continuity, high confidence of TC development exists across the East Pacific during Week-1. Above-average rainfall is also likely for this region of the East Pacific. Elsewhere across the global tropics, model guidance indicates only weak signals for TC development east of the Philippines and over the South China Sea.

In the wake of a predicted Kelvin wave, conditions appear to remain favorable for another tropical cyclone (TC) to form over the East Pacific during Week-2. The GFS and ECMWF models support TC genesis in the outlined area (moderate confidence). Although the latest model guidance backed off on TC development over the Atlantic Basin during Week-2, this area will be closely monitored in the updated outlook issued on Sep 22. At this time, the most likely time for TC formation would be late in Week-2, at the beginning of October, anywhere from east of the Lesser Antilles to the western Caribbean Sea. During October, the typical area for TC genesis shifts from the main development region of the Atlantic to the western Caribbean.

A mid-latitude upper-level trough, slow-moving cold front, and an influx of subtropical moisture are likely to result in above-average rainfall across the southern Great Plains and upper Rio Grande Valley of the United States. Above-average rainfall is expected to linger across these areas through the early parts of Week-2. Meanwhile, across the tropical Eastern Hemisphere, the favored areas of above and below-average rainfall are based on the consensus between the CFS, ECMWF, and GFS models along with the low-frequency base state. During Week-1, a monsoon low is expected to shift west and enhance rainfall amounts across Madhya Pradesh and Uttar Pradesh of India.

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