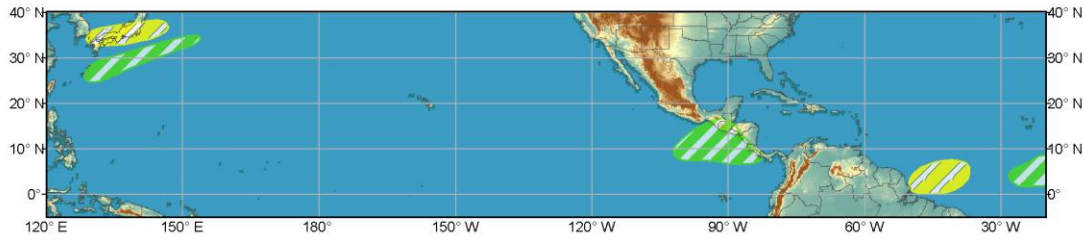




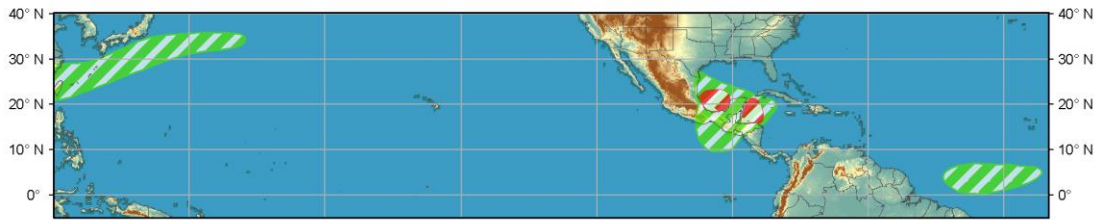
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jun 10 2017 - Jun 13 2017



Week 2 - Valid: Jun 14 2017 - Jun 20 2017



Confidence
High Moderate

Produced: 06/09/2017
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 global tropics have been relatively quiet this past week, since the dissolution of minimal Tropical Storm Beatriz on June 2, not far west of the Gulf of Tehuantepec in southern Mexico. For the Week-1 period, there are two low-risk areas (hence no shapes drawn on map) being monitored for possible tropical development. The first is over the extreme eastern Pacific, just south of Mexico's Gulf of Tehuantepec, where a broad area of low pressure is being monitored by NHC. The second low-risk area includes the Philippines and adjacent portions of the South China Sea and Philippine Sea. The Joint Typhoon Warning Center (JTWC) notes that since there is only a weak low-level circulation center, scattered convection, and marginal upper-level conditions predicted for the next 24 hours, tropical cyclone potential is considered low. A statistical mode decomposition tool shows this area may be associated with an equatorial Rossby Wave in the near-term. During Week-2, deterministic ECMWF, GFS, and Canadian model guidance all point to potential formation of a tropical cyclone near the Yucatan Peninsula; either over the far northwestern Caribbean Sea, or the Bay of Campeche. This is attributed, at least in part, to a kelvin wave which is expected to pass through this region several days earlier. In addition, a fairly broad area of above-average rainfall is favored throughout this region.

The MJO forecast remains uncertain given forecast interference between the MJO signal, and other intraseasonal variability. The GEFS-based RMM MJO index currently indicates a very low amplitude signal, which is predicted to gradually amplify over the Africa/western Indian Ocean area during the next two weeks. Areas favoring above- and below-average rainfall were updated based on the latest dynamical model consensus.

----- The original forecast discussion (issued 6 June) follows below -----

Both the RMM-based and CPC velocity potential-based MJO indices depicted an MJO signal during the past week over the eastern Indian Ocean and Maritime Continent region. At the 850-hPa level, westerly wind anomalies expanded over western and central portions of the North Indian Ocean, and also from the South China Sea and Taiwan eastward out over the western North Pacific Ocean. These are important factors in the traditional onset of the summer monsoon in India. Outgoing longwave radiation (OLR) anomalies (which serve as important proxies for the observed distribution and magnitude of tropical convective anomalies) during the past few weeks depict enhanced convection across much of the Indian Ocean and Maritime Continent region, and suppressed convection across most of the remainder of the global tropics. During the past two months, atmospheric kelvin waves have been a dominant mode of tropical variability around the globe.

Most dynamical models predict a weak, incoherent sub-seasonal signal during Week-1, and the possible re-emergence of a more substantial signal over the Indian Ocean during Week-2. A few solutions indicate the potential re-emergence of a strengthening intraseasonal signal over Africa. The statistical RMM-based OLR anomaly prediction depicts a very different evolution of the pattern, with increasing subsidence expected over the Indian Ocean during Week-2, and slightly enhanced convection limited primarily to the western and central Pacific.

Tropical cyclone activity has not been observed across the global tropics since the dissolution of minimal Tropical Storm Beatriz in the extreme eastern Pacific on June 2. At this time, there are no tropical cyclone shapes (with moderate or high confidence) depicted on the maps for Weeks 1 and 2. There are two low confidence regions of potential tropical cyclogenesis; the extreme eastern Pacific (generally off Guatemala, El Salvadore, and Nicaragua, Weeks 1 and 2), and the southwestern Gulf of Mexico/Bay of Campeche (Week-2). For the Bay of Bengal, climatology favors increasing shear across the region associated with the South Asian Monsoon, and therefore the sharp reduction in stronger tropical cyclone activity until later in October and November. Until then, climatology favors an occasional, weak, monsoon depression.

The Week-1 outlook for precipitation is informed largely by dynamical model consensus (GFS, CFS, and ECMWF models) as well as the expected evolution of the MJO. Above-average precipitation is more likely over the Bay of Bengal, the Philippines and the nearby South China Sea, related to the expected evolution of the MJO. Above-average rainfall is also predicted across portions of the western North Pacific, the central South Pacific, and from Florida northeastward out over the western North Atlantic (all attributed to mid-latitude influences), the extreme eastern North Pacific and the extreme eastern North Atlantic (from anticipated easterly waves/tropical disturbances). Most of these regions are assigned moderate confidence, except for the above-average rainfall expected over the central South Pacific, and parts of the Southeast U.S., where high confidence is assigned. Two areas of below-average rainfall (moderate confidence) are favored over the low-latitude North Indian Ocean, and from southern China east-northeastward out over the western Pacific.

The Week-2 precipitation outlook emphasizes the larger scale patterns manifest in the dynamical model consensus, and the potential re-emergence of a more significant sub-seasonal signal over the North Indian Ocean. Above-average rainfall is anticipated over the northern Bay of Bengal and adjacent land areas (moderate confidence), while below-average rainfall is predicted over central and eastern portions of the low-latitude North Indian Ocean (moderate confidence).

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