

The MJO remained active during the past week with the enhanced phase moving across the eastern Pacific. Forecasts from many of the available dynamic models indicate continued eastward propagation with a weakening signal during Week-2.

The circulation associated with the Indian Monsoon was below normal strength (Webster-Yang Monsoon Index) and a monsoon depression moved westward across northern India. A break in the North American monsoon continued through this week.

Tropical Storms Kai-tak (western Pacific) and Hector (eastern Pacific) formed during the past week. Tropical Storm Hector is not forecast to impact major land areas while Tropical Storm Kai-tak is expected to make landfall across the northern Philippines. Tropical Storm Kai-tak is then likely to make a secondary landfall over southeast China, near Hong Kong. The official Global Hazards Outlook for Week-1 (August 16-22) indicates above-average rains across the Philippines and southeast China, associated with Kai-tak. Additional areas of above-average rains are indicated over northern India, associated with westward moving monsoon depressions, and over southern India, associated with an atmospheric Kelvin Wave. The MJO is expected to contribute to drier than average conditions from Southeast Asia to near Papua New Guinea, while above-average rains are expected across Central America, the Caribbean, portions of the Southwest U.S., and over the African Sahel. Model forecasts exhibit some disagreement with the track of a surge of tropical moisture from the Gulf of Mexico. The deterministic GFS and the GFS ensemble mean both indicate significant moisture moving northward over southern Texas, but forecasts from the ECMWF and NAM move the vorticity centers and associated moisture to the west, across Mexico.

During Week-1, tropical cyclone formation is more likely than average across the western north Pacific, in an area displaced to the north from the climatological average formation locations. Additionally, tropical (or sub-tropical) storm formation is likely across the central Pacific.

During Week-2 (August 23-29), the Global Hazards Outlook indicates continued wet conditions across the Indian Ocean, southeast China, Central America, and western Africa. Model forecasts indicate the development of an area of above-average rains across the central equatorial Pacific, most likely in response to an Equatorial Rossby Wave and an increase in local sea-surface temperatures. Belowaverage rains are indicated across much of the Maritime Continent and western Pacific out to the Date Line. The most likely areas for tropical cyclone formation are the eastern Pacific, close to the coast of Mexico, and across the main development region of the tropical Atlantic.