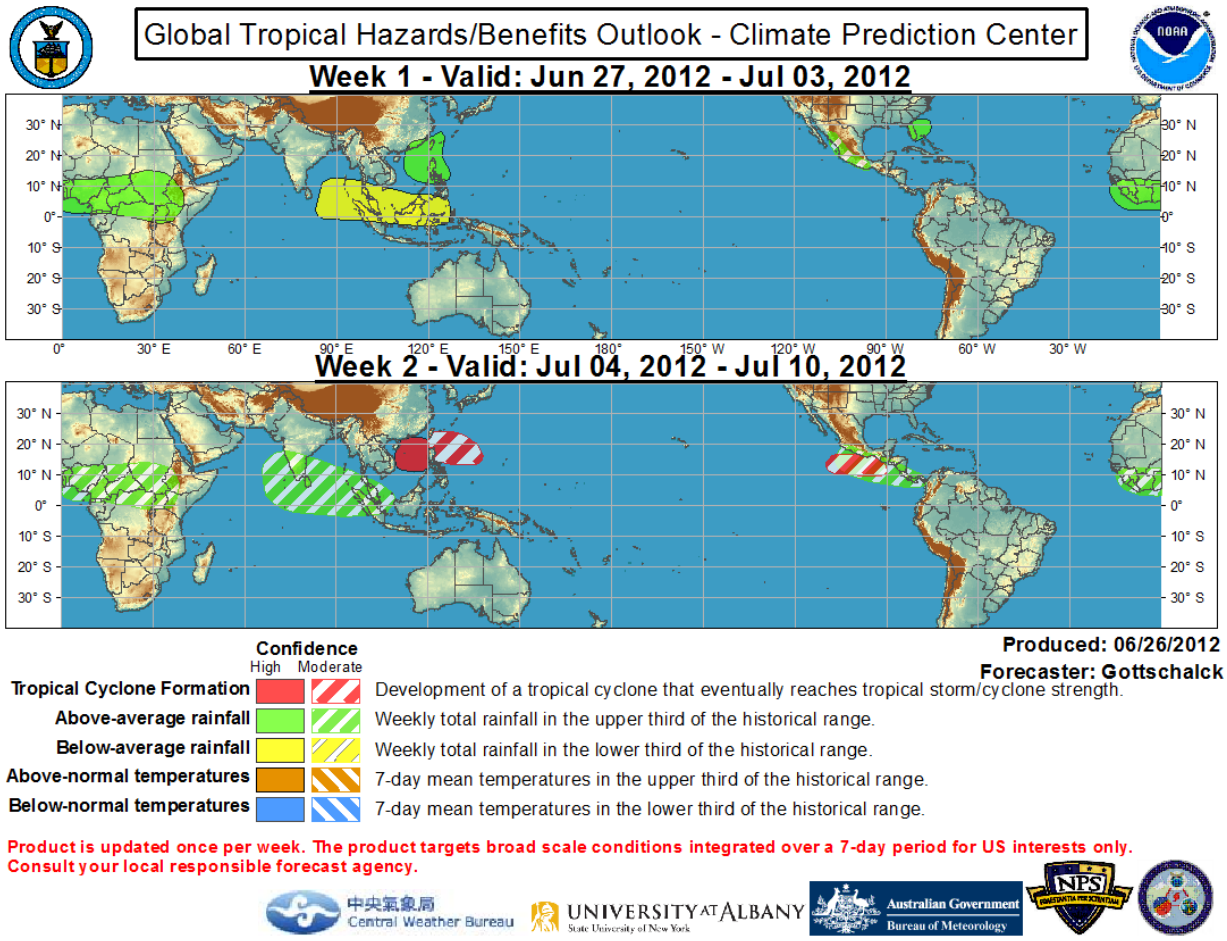

The MJO remained active during the past week, but its strength is generally weak. Other modes of coherent subseasonal tropical variability are present as well and continue to contribute considerably to the patterns of anomalous tropical convection during the past week. The enhanced phase of the MJO is centered across Africa.

Two equatorial Rossby waves (ERW) are present, one centered across the Indian Ocean and the other across the eastern Pacific. The suppressed phase of the latter has helped to decrease convection near the Americas. Atmospheric Kelvin wave (KW) activity is evident in two locations, one emanating from the far western Pacific and another crossing Africa. The KWs are exciting convection across the western Pacific and Africa at the current time and the Pacific equatorial Rossby wave has contributed to a burst in westerly wind anomalies along with a westward shift. The suppressed phase of this ERW has contributed helped to a decrease in convection across the Americas in recent days.

Tropical storm Debby developed in the central Gulf of Mexico tthis past week and is slowly moving to the Florida peninsula and has resulted in very heavy rainfallo for areas across the eastern Gulf Coast states and the Florida peninsula during the past several days.

There is large spread in forecasts of the MJO index from dynamical models over the next two weeks as the MJO signal is generally weak and contributions from other forms of tropical subseasonal coherent tropical variability continue to impact these forecasts. Statistical forecast methods tend to favor the enhanced phase of the MJO to enter the Indian Ocean during Week-2. Based on the latest observations and model forecasts, the MJO is forecast to remain generally weak during the next 1-2 weeks.

The outlook reflects the combination of the different modes subseasonal variability and numerical model guidance.

Early during Week-1, heavy rains are expected over the extreme southeast U.S. and the Florida Peninsula associated with the slow movement of Tropical Storm Debby. This system is expected to reemerge in the Atlantic later this week and has some potential for redevelopment. Model guidance favors an increase in monsoonal moisture and precipitation for parts of Mexico during Week-1. The MJO, KW activity and model guidance favor an active period for the African monsoon so above-average precipitation is favored.

Tropical depression 7W has recently developed east of the Philippines and its latest forecast track favors above average rainfall for the northern Philippines, parts of the South China Sea and extreme southeast China along with periods of gusty winds and rough seas.

The suppressed phase of the ERW and model guidance support elevated chances for below-average rainfall for a region spanning ther eastern Indian Ocean into the western Maritime continent.

For Week-2, the MJO and model guidance support continuation of an enhanced period of the African monsoon. A combination of subseasonal variability favors above-average rainfall for parts of the Indian Ocean, southern India and the western Maritime continent. Tropical cyclone activity is favored for the South China Sea and the far western Pacific at relatively high latitudes.

Progression of a KW eastward favors a reemergence of enhanced rainfall across parts of the eastern Pacific, Mexico and Central America along with increasing chances for tropical cyclogenesis in the east Pacific basin.