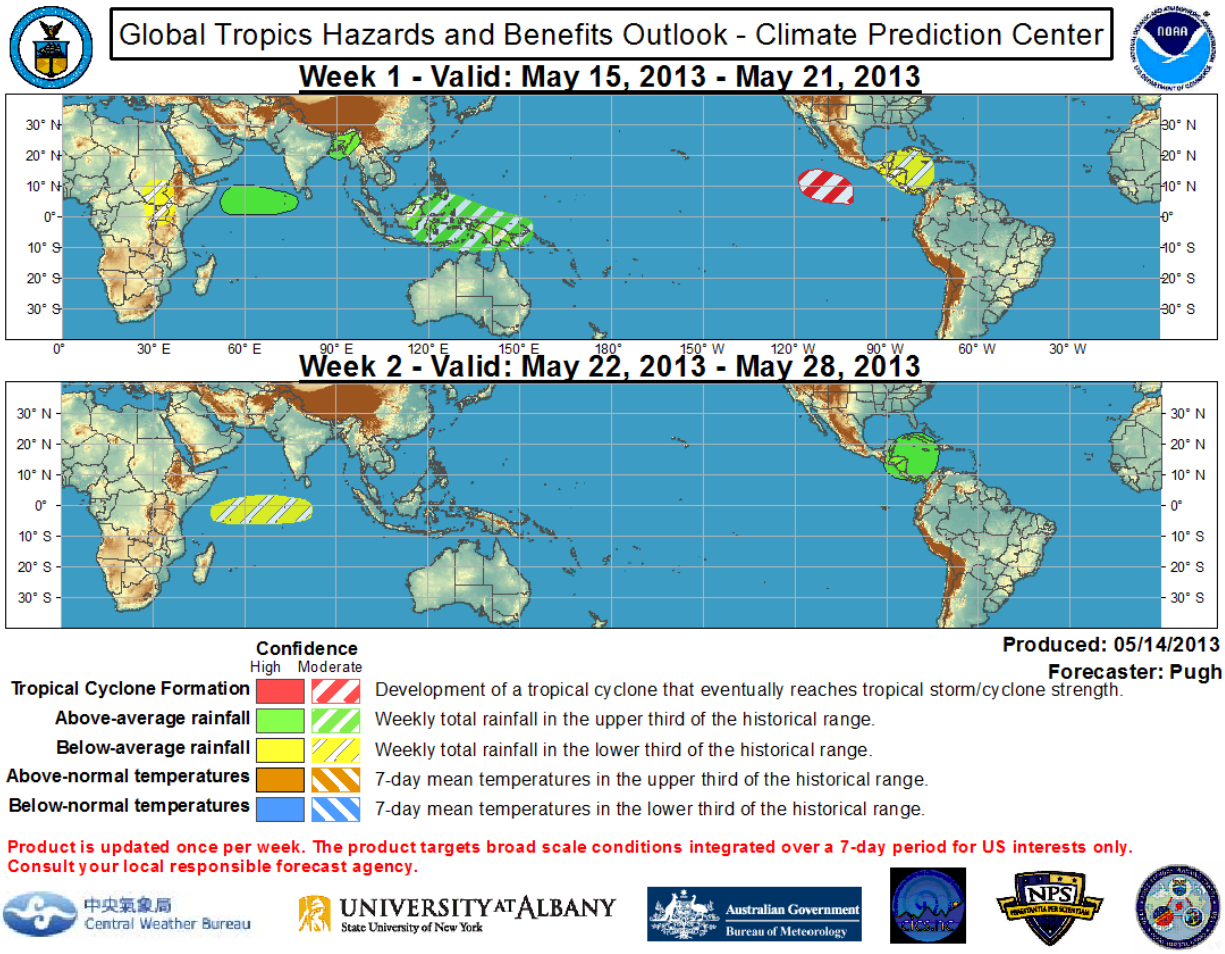

The MJO was active during the past week with the enhanced phase centered over the Indian Ocean. An atmospheric Kelvin wave coupled with the MJO contributed to a pair of tropical cyclones developing across the southern Indian Ocean and Bay of Bengal. Short-lived Tropical Cyclone Jamala developed in the southern Indian Ocean on May 9 but quickly weakened due to vertical wind shear. Meanwhile, Tropical Cyclone Mahasen formed over the very warm waters of the Bay of Bengal on May 11. As of May 14, Tropical Cyclone Mahasen is forecast to track north towards Bangladesh. Please see the latest forecasts from the Joint Typhoon Warning Center.

Dynamical model MJO index forecasts indicate a weakening signal during week-1. The enhanced phase of the MJO is forecast to shift east across the Maritime Continent during week-1 with the suppressed phase over the Americas. Due to a weak MJO signal among the dynamical model MJO index forecasts during week-2, identifying anomalous convection across the global tropics is a challenge beyond week-1.

The Week-1 outlook is based on MJO precipitation composites, dynamical/statistical model forecasts, and where anomalous convection is currently ongoing and likely to persist. Above average rainfall is

likely along the track of Tropical Cyclone Mahasen as it is forecast to affect Bangladesh later this week. MJO precipitation composites and model guidance favor above (below) average rainfall across the Maritime Continent (Central America and the western Caribbean Sea). Ongoing convection, associated with an equatorial Rossby wave, along with model guidance supports the forecast of above average rainfall across the western Indian Ocean. Increased chances for below average rainfall are forecast across the Lake Victoria region of equatorial Africa and southern Sudan due to expected low-level divergence. Meanwhile, enhanced convection is currently observed across the east Pacific. Model guidance indicates the development of a weak surface low in this region early in week-1. Therefore, moderate confidence exists for tropical cyclogenesis during week-1 across the east Pacific.

The Week-2 outlook is based primarily on dynamical model forecasts since uncertainty is high regarding the evolution of the MJO. Models are in reasonably good agreement for above (below) average rainfall across Central America/southwest Caribbean Sea (equatorial western Indian Ocean). Conditions for the formation of an early season tropical cyclone could become favorable by the beginning of June across the southwest Caribbean Sea.