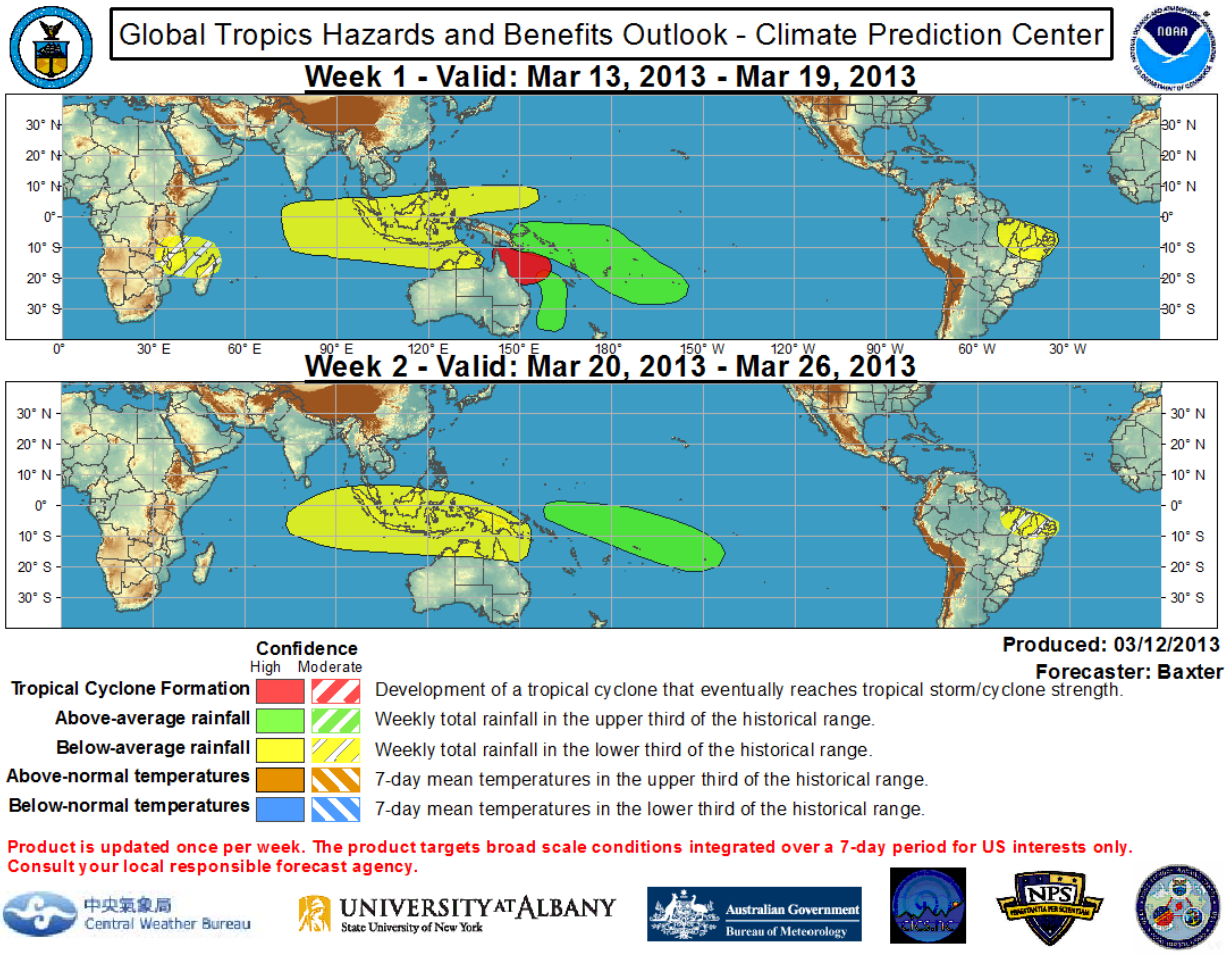

The MJO remained active over the past week with the enhanced convective phase centered over the western and central Pacific. In addition to the MJO, equatorial Rossby (ER) wave activity has contributed to suppressed convection over the eastern Indian Ocean, in phase with the MJO background state. Suppressed convection continued for parts of northeastern Brazil, where low-frequency drying has occurred recently. The superposition of other modes onto the MJO has led to the observed pause in the MJO index in a high RMM-2 state.

There is fairly good agreement among the dynamical model forecasts for the predicted evolution of the RMM index. Most models resume eastward propagation through phases 7 and 8 over the next two weeks. This is also supported by one of the better statistical tools, the constructed analog, which linearly predicts the evolution of the MJO index based on similar events throughout the historical record.

The outlook is primarily based on impacts associated with the MJO and, to a lesser extent, other subseasonal modes of tropical variability. The forecasts are adjusted by model guidance where deemed helpful especially during Week-1. For Week-1, above median rainfall is favored for an area extending

from the western Pacific southward across the Date Line, south of the equator. The MJO supports elevated odds for below-median rainfall for portions of southeastern Africa, Madagascar, the eastern Indian Ocean, and much of the Maritime Continent. The ER wave and an atmospheric Kelvin wave contribute to more uncertainty over much of Africa and the western Indian Ocean. The MJO and current areas of disturbed weather continue to favor tropical cyclogenesis for waters northeast of Australia. The narrow region depicting enhanced odds for above-median rainfall that extends southward from the Coral Sea is due to the forecast track of Tropical Cyclone Sandra, which is expected to weaken as it drifts southward. Below-median rainfall continues to be favored over northeastern Brazil due to model forecasts and recent low-frequency trends.

During Week-2, the forecast is based largely on phase 8 MJO composites. Suppressed convection is forecast to shift slowly eastward across the entire Maritime Continent and northern Australia. Above-median rainfall shown in Week-1 is forecast to shift subtly eastward across much of the central Pacific along and south of the Equator. Suppressed rainfall is still favored for parts of northern Brazil, supported by model guidance and recent trends.

The observed circulation from Southeast Asia into the north-central Pacific is consistent with MJO-related convection over the western tropical Pacific. A jet extension is now evident at 200 hPa, suggesting that any MJO forcing will be in phase with the current and forecast negative annular mode over the next couple of weeks.