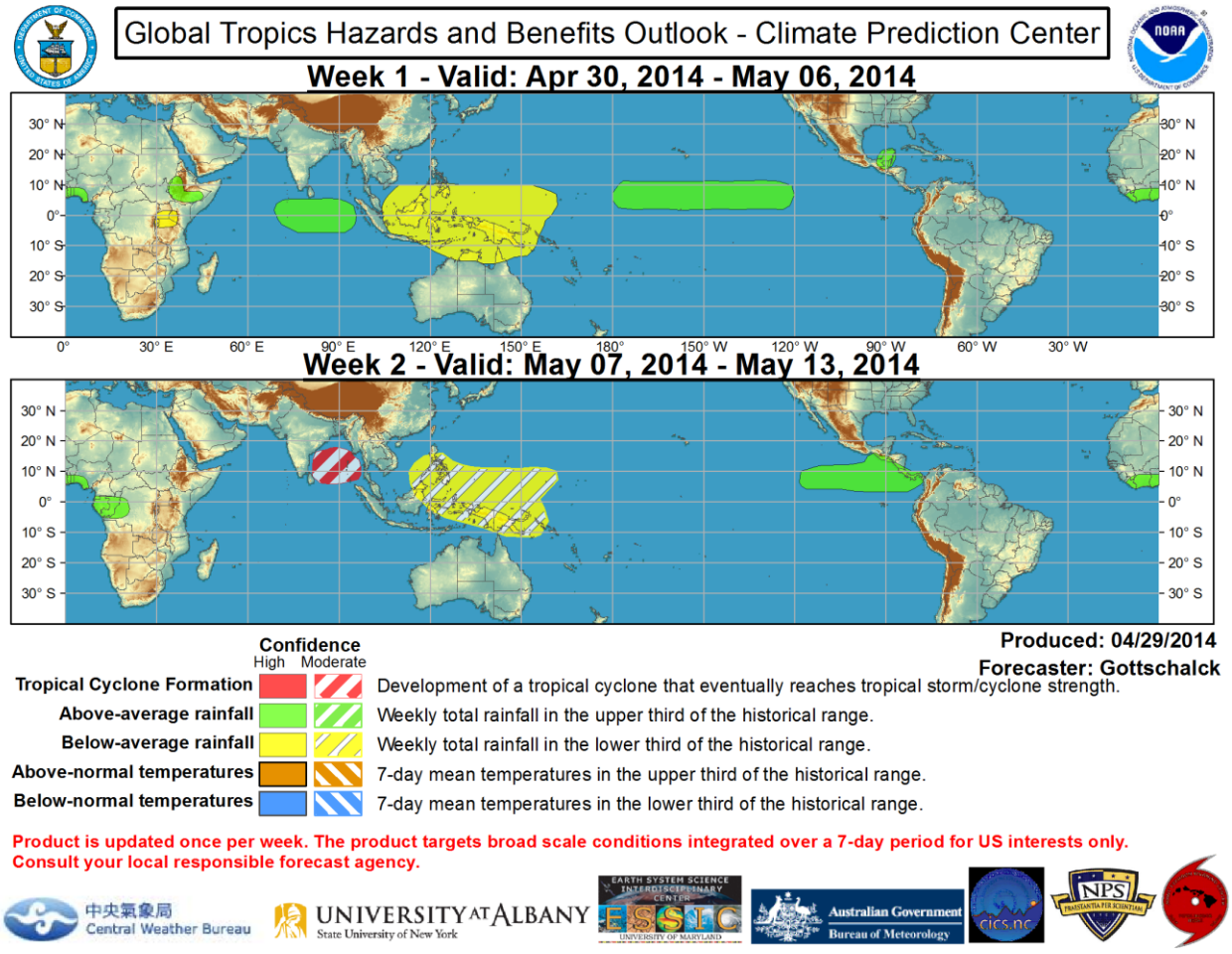

The MJO remains active although it continues to be somewhat ill defined in a number of observational fields due to interaction with the evolving background climate state (i.e. potential El Nino development later this year). The enhanced convective phase of the MJO is currently located across the western hemisphere after assessing all available data and slow eastward propagation continues. The RMM index continues to show little eastward propagation and indicates the MJO enhanced phase to be located in Phases 6/7 or across the west-central Pacific. The RMM index is lagging some other indicators, namely 200-hPa velocity potential, due to low level westerly wind anomalies across the Maritime continent region. As noted above, a slowly evolving base state favoring enhanced convection over anomalously warm sea surface temperatures (SSTs) in the central Pacific remains a significant contributor to the pattern of global anomalous tropical convection. In addition, a robust atmospheric Kelvin wave is entering the Indian Ocean at the current time. Tropical storm Tapah developed east of Guam in the western Pacific Ocean within the last few days.

Most dynamical model MJO index forecasts indicate eastward propagation of a weak-to-moderate MJO signal during the next two weeks. Statistical models currently forecast weak MJO activity moving forward. Based on the latest observations and primarily dynamical model forecasts, the MJO is forecast

to remain active with the enhanced phase shifting towards Africa and later potentially the Indian Ocean. The suppressed phase of the MJO is likely to continue below-average convection for the Maritime continent and far western Pacific and later temper convection across the west-central Pacific where convection has been enhanced in recent weeks due to increasing sea surface temperatures. The interaction of this base state and the suppressed phase of the MJO may effectively cancel and result in near average and more unorganized convection during Week-2.

During Week-1, an atmospheric Kelvin Wave is projected to move across the Indian Ocean and this along with currently above average SSTs favors enhanced convection across the equatorial Indian Ocean. This activity may also leave in its wake favorable conditions for potential tropical cyclone development in the Bay of Bengal during the Week-2 period, although confidence is somewhat low. Potential tropical cyclone development is also indicated in CFS tropical cyclone development tools. For precipitation, it is unclear whether the Indian Ocean will remain active during the Week-2 period, so no area is highlighted at this time.

The forecast MJO phase and model guidance favors enhanced rainfall for areas in the Gulf of Guinea region of Africa throughout the two week period. Short-term model guidance favors wet conditions for southern Brazil during Week-1. Moreover, enhanced rainfall is also favored for some areas of Central America and southern Mexico throughout this period, primarily near the Yucatan Peninsula in Week-1 and further south near coastal areas of Central America during Week-2. Although prior to the start of the east Pacific hurricane season, some threat exists for tropical cyclone development off the coast of Central America and southern Mexico during Week-2. Both the GFS and CFS model guidance indicate this but the threat is considered low so early in the year and this will be re-evaluated next week.