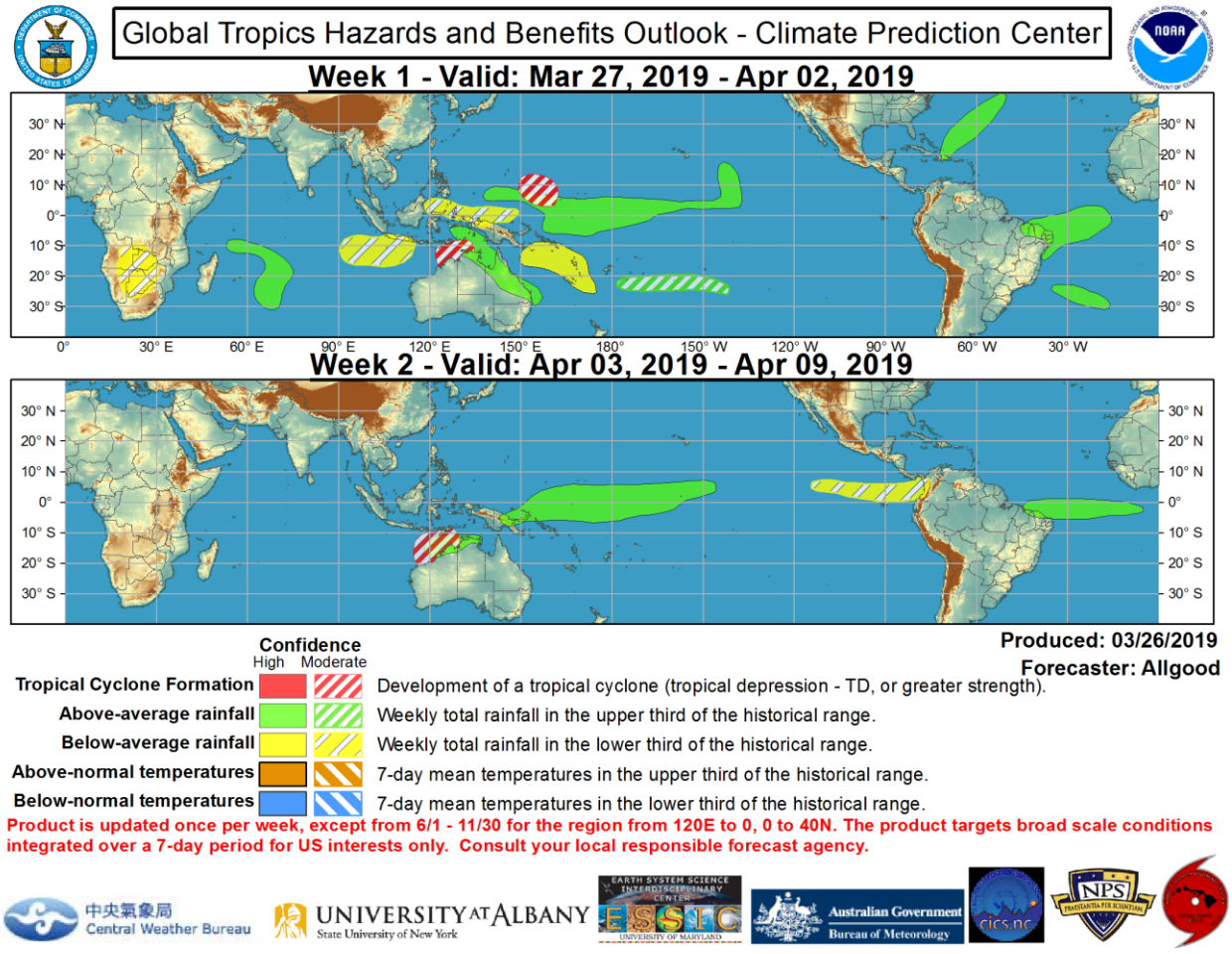

The MJO was weak during the past week, with the amplitude well inside the unit circle on the RMM-based MJO index. The CPC velocity potential based MJO index continues to show a low-amplitude signal, with the enhanced convective phase slowing over the Pacific. Other modes, including multiple tropical cyclones over the Indian Ocean and near Australia, a robust convectively coupled Kelvin wave over Africa, and midlatitude wavebreaking disrupting the atmospheric response to tropical convection over the Pacific are competing with the intraseasonal oscillation, which may explain the inability of the RMM index to track the signal. Additionally, as the remnants of the MJO enhanced phase enter the Pacific, the convective signal aligns well with the El Nino base state, which is damped in the RMM index due to the removal of the 120-day mean state. The MJO appears most robust in the OLR anomaly field, which is most closely tied to convection, while the zonal wind fields are not aligned well with a canonical MJO response. Dynamical model MJO index forecasts generally support a continuation of little MJO activity over the next two weeks, with outlying ensemble members emerging from the unit circle in opposing phases, indicating high uncertainty. Based on the lack of coherency in the wind field and these dynamical model forecasts, the MJO is not anticipated to play a substantial role in the evolution of the global tropical convective pattern. The ENSO base state will likely be the primary driver of the larger-scale convective anomalies, and any remnant MJO convection may promote enhanced convection over

the western and central Pacific, which could in turn further disrupt the trade winds and reinforce the warm SST anomalies further east.

Cyclone Veronica formed near the Kimberley Coast of Australia, and, along with Cyclone Trevor, caused considerable wind and flood damage across northern Australia. It peaked at Category-3 intensity on the Saffir-Simpson scale, and recently dissipated near Exmouth, Western Australia. Cyclone Joaninha formed over the southwestern Indian Ocean during the past week, and is currently at Category-4 intensity on the Saffir-Simpson scale, passing east of Port Mathurin. Cyclone Joaninha is forecast to continue moving southeast or southward, and will lose intensity over the next several days. Elsewhere, the Navy of Brazil issued advisories on Tropical Storm Iba, an extremely rare instance of a tropical cyclone over the South Atlantic. Tropical Storm Iba is forecast to weaken rapidly as it moves away from the eastern coast of Brazil. During the next two weeks as the remnant MJO signal moves over the Pacific, tropical cyclone formation is possible over the Northwestern Pacific, east of Guam. There is moderate confidence for formation in this region during Week-1. Later in Week-1, an area of disturbed weather north of Australia is anticipated to move along the Kimberley Coast. There is a moderate potential for tropical cyclogenesis in association with this disturbance, either at the end of Week-1 or during Week-2. No other tropical cyclone formations are anticipated, although there is a low potential for formation over the South Pacific near or east of the Date Line and around 20S.

Forecasts for enhanced or suppressed rainfall were made using a consensus of dynamical model forecasts, and an analysis of the primary modes of tropical convection. During Week-1, enhanced rainfall in association with tropical cyclones or their remnants is favored over the southwestern Indian Ocean, across Northern Australia and Queensland, and over the South Pacific. The remnant MJO signal and ENSO favor enhanced (suppressed) convection over the central Pacific (parts of the Maritime Continent), while dynamical models strongly favor enhanced convection over the tropical Atlantic and northeastern Brazil. A midlatitude trough may bring enhanced rainfall to Hispaniola and parts of the North Atlantic.

During Week-2, uncertainty regarding the evolution of the global tropical convective pattern outside of enhanced convection associated with ENSO increases substantially, resulting in reduced coverage. A disturbance or potential tropical cyclone may bring additional wind and rainfall to Australia's Kimberley Coast, while dynamical models favor suppressed convection across the equatorial East Pacific and western South America. Enhanced precipitation along the equator over the Atlantic is favored as well.

Forecasts over Africa are made using dynamical model guidance and in coordination with the CPC international desk, and can represent local-scale conditions in addition to global-scale variability.