Although the amplitude of the CPC velocity potential MJO index increased over the previous several days, there is little evidence for any robust eastward propagation of an intraseasonal signal. Tropical cyclone activity over the eastern Pacific and suppressed convection associated with Rossby Waves over the western Pacific are contributing to the projections on the MJO indices.

Tropical Storm Marie formed south of Mexico, so the high confidence tropical cyclone formation region was removed from the updated Week-1 outlook. Marie is forecast to become a major hurricane over the next several days as it moves to the west-northwest. Dynamical models continue to suggest that additional cyclogenesis is possible over the eastern Pacific during the Week-2 period, so the high confidence region was maintained and expanded to reflect the latest guidance. Dynamical models favor an enhancement of the North American Monsoon region during Week-1, with heavy rainfall possible over northwestern Mexico.

The National Hurricane Center continues to monitor a tropical disturbance near the Virgin Islands, maintaining an 80 percent chance of tropical cyclone development over the next five days. The
potential for additional tropical cyclogenesis over the eastern Atlantic during the remainder of Week-1 has diminished, but dynamical models continue to indicate a potential for new development during Week-2.

Elsewhere, forecasts for large scale areas of above- or below-average precipitation were adjusted to be consistent with the latest dynamical model guidance.

The original discussion released August 19 follows.

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The MJO remained weak during the past week as indicated by the RMM Index and the CPC velocity potential based index. There continues to be some evidence of an eastward propagating intraseasonal signal, apparent in the evolution of an envelope of suppressed convection over the western Pacific and enhanced convection over the Indian Ocean. Other coherent modes of subseasonal convective variability, including pronounced Rossby Wave activity, are interfering with the intraseasonal signal. Tropical cyclone and monsoonal activity are also playing roles in the tropical convective pattern. There is considerable spread among the dynamical model MJO Index forecasts, with some models indicating increasing amplitude over the Western Hemisphere with no eastward propagation, and other models weakening the signal. Impacts from forecasted tropical cyclones or other evolving subseasonal modes are likely complicating the RMM Index evolution. Statistical models are generally unsupportive of robust canonical MJO activity. Based on recent observations and the dynamical and statistical model solutions, the MJO is not anticipated to play a large role in the evolution of the tropical convective pattern during the next two weeks, although the intraseasonal signal may contribute to continued suppressed (enhanced) convection over the West Pacific (Indian Ocean).

Hurricane Karina and Tropical Storm Lowell developed over the eastern Pacific on 13 August and 18 August, respectively. Karina weakened to tropical storm strength while moving on a westward track, and is forecast to continue moving slowly westward during the next several days before recurving rapidly northeastward, remaining well east of Hawaii. NHC forecasts bring Lowell on a northwesterly track well west of the Baja Peninsula during the next five days. The eastern Pacific is anticipated to remain extremely favorable for development, and late August is a climatologically active period for the basin. Therefore, there is a high potential for additional tropical cyclogenesis during the upcoming two
weeks. Dynamical model ensembles cluster tropical cyclone tracks closer to the Mexican coast than recently observed tracks.

Over the Atlantic, a pair of tropical waves are moving westward east of the Lesser Antilles. There is a possibility for one of these waves to develop during the next several days. Additionally, dynamical models indicate a low to moderate potential for additional easterly waves emerging over the Atlantic later during Week-1 or during Week-2 to develop into tropical cyclones near or west of the Cape Verde islands. Based on these model solutions as well as a forecasted relaxation of recent large scale unfavorable conditions over the eastern Atlantic, a moderate potential for tropical cyclogenesis is indicated over the Atlantic MDR during both Week-1 and Week-2. Additionally, some model forecasts indicate the presence of a stalled frontal boundary over the Gulf of Mexico or southeastern CONUS, which can occasionally trigger tropical cyclogenesis closer to the U.S. coast.

During Week-1, interactions between the weak intraseasonal signal and Rossby Wave activity over the Maritime Continent favor suppressed convection over a large area extending from southeastern Asia through the west-central Pacific, including the Philippines. These signals also favor decreased West Pacific tropical cyclone activity. Enhanced convection associated with Kelvin Wave activity or the intraseasonal signal is forecast over parts of the Indian Ocean and southern India. Widespread enhanced convection is anticipated over the eastern Pacific, partly associated with ongoing and forecasted tropical cyclone activity. An active African monsoon is forecast to contribute to enhanced convection over western Africa and increased easterly wave activity over the eastern Atlantic.

During Week-2, the CFS and GFS indicate a potential for enhanced convection over the eastern Indian Ocean and western Maritime continent, possibly due to Kelvin Wave activity or the slower evolution of the weak intraseasonal signal. Suppressed convection is anticipated to continue across the Philippines and western Pacific, with enhanced convection due to tropical cyclone activity and the evolving low frequency ENSO state favored over the eastern Pacific.