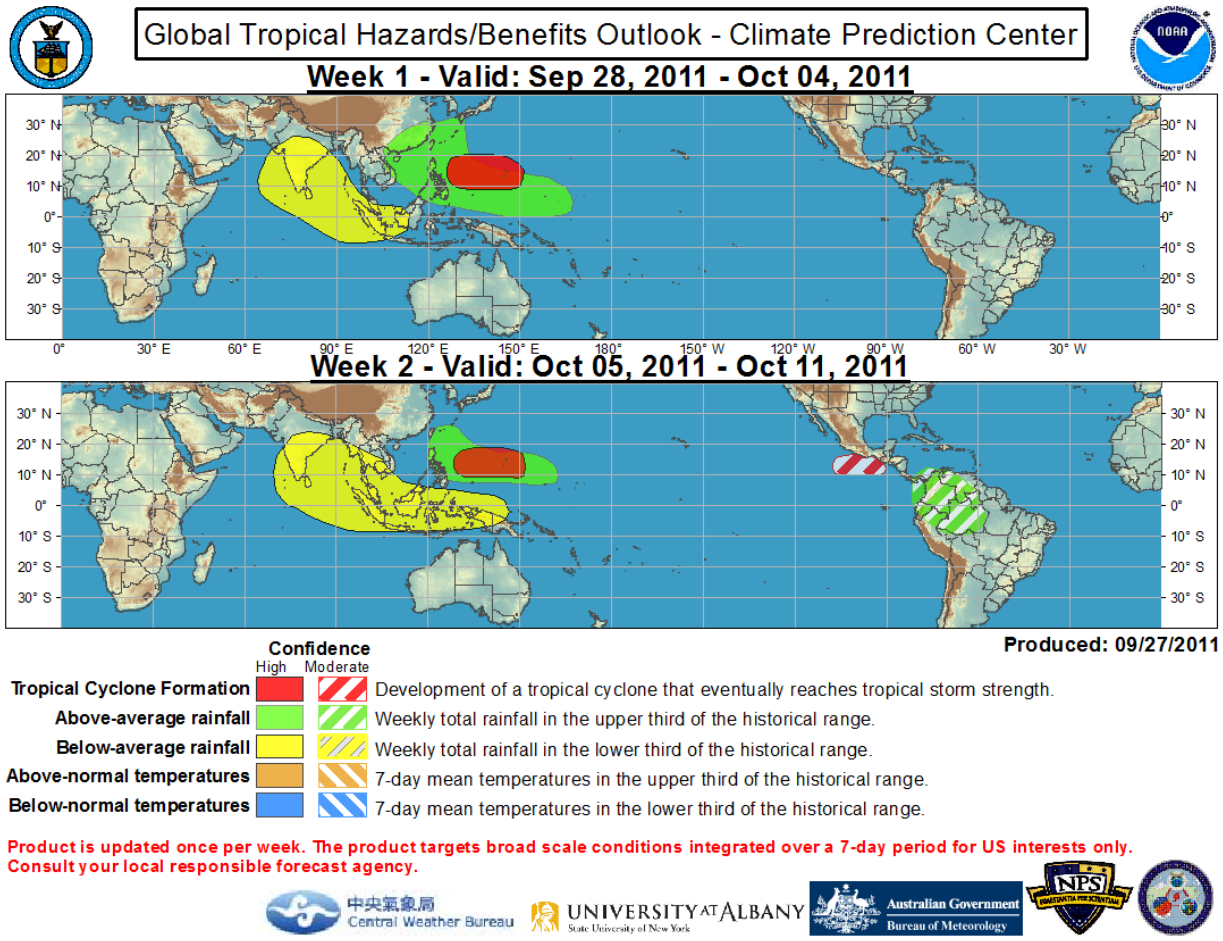

The MJO strengthened during the past week and this appears to be the primary mode of subseasonal coherent tropical variability ongoing. Atmospheric Kelvin wave and equatorial Rossby wave activity are playing lesser roles at the current time. The enhanced convective phase of the MJO is currently centered over the eastern Maritime continent. The Asian monsoon circulation remained enhanced over the first portion of the past week, but has weakened in recent days.

Enhanced convection was observed from the Bay of Bengal to the western Pacific with drier-than-average conditions already developing across India and parts of the Indian Ocean. The WH MJO index showed an increase in amplitude and irregular eastward propagation over the past week and this behavior, in general terms, was well forecast by most operational model forecasts one week ago. It was an active period for tropical cyclone activity as storms developed in the western and eastern Pacifc and the eastern Atlantic basins.

The MJO is forecast to remain active for the next two weeks and its enhanced phase is forecast to shift from the far eastern Maritime continent across the western Pacific. The amplitude of the MJO index forecasts indicates at least moderate strength activity for the next two weeks.

For Week-1, enhanced rainfall is forecast from southeast China and across the western Pacific Ocean while suppressed rainfall is favored from India to the western Maritime continent primarily associated with the MJO. Typhoon Nesat and its remnants also will contribute to enhanced rainfall later in the period for parts of Southeast Asia and southeast China. Tropical cyclone activity remains favored across the western Pacific east of the Philippines associated with the MJO and this activity is farther south than that seen earlier in the season. Hurricane Hillary in the eastern Pacific is moving northward toward the U.S., but is forecast to weaken. There is potential for remnant moisture from Hillary to increase the threat for above average rainfall and potential localized flash flooding across the southwest U.S. and southern Rockies. There is high model spread with this event so confidence is generally low.

During Week-2, with eastward propagation of the MJO signal, the large scale areas of enhanced and suppressed convection shift eastward over the eastern Hemisphere. Tropical cyclone activity remains favored over the western Pacific. The MJO may begin to increase the chances for tropical cyclone activity across the eastern Pacific late during Week-2 as well as elevate chances for above-average rainfall over parts of southern Central America and northwest South America.

For the U.S., the forecast MJO phase during this time of the year favors above-normal temperatures across portions of the central U.S. and adds support to current model forecasts in this area during the next 1-2 weeks. The current MJO activity is expected to contribute considerable energy and moisture to a strong Pacific Jet and favors much above-average precipitation across the Pacific Northwest during late Week-1 and Week-2.