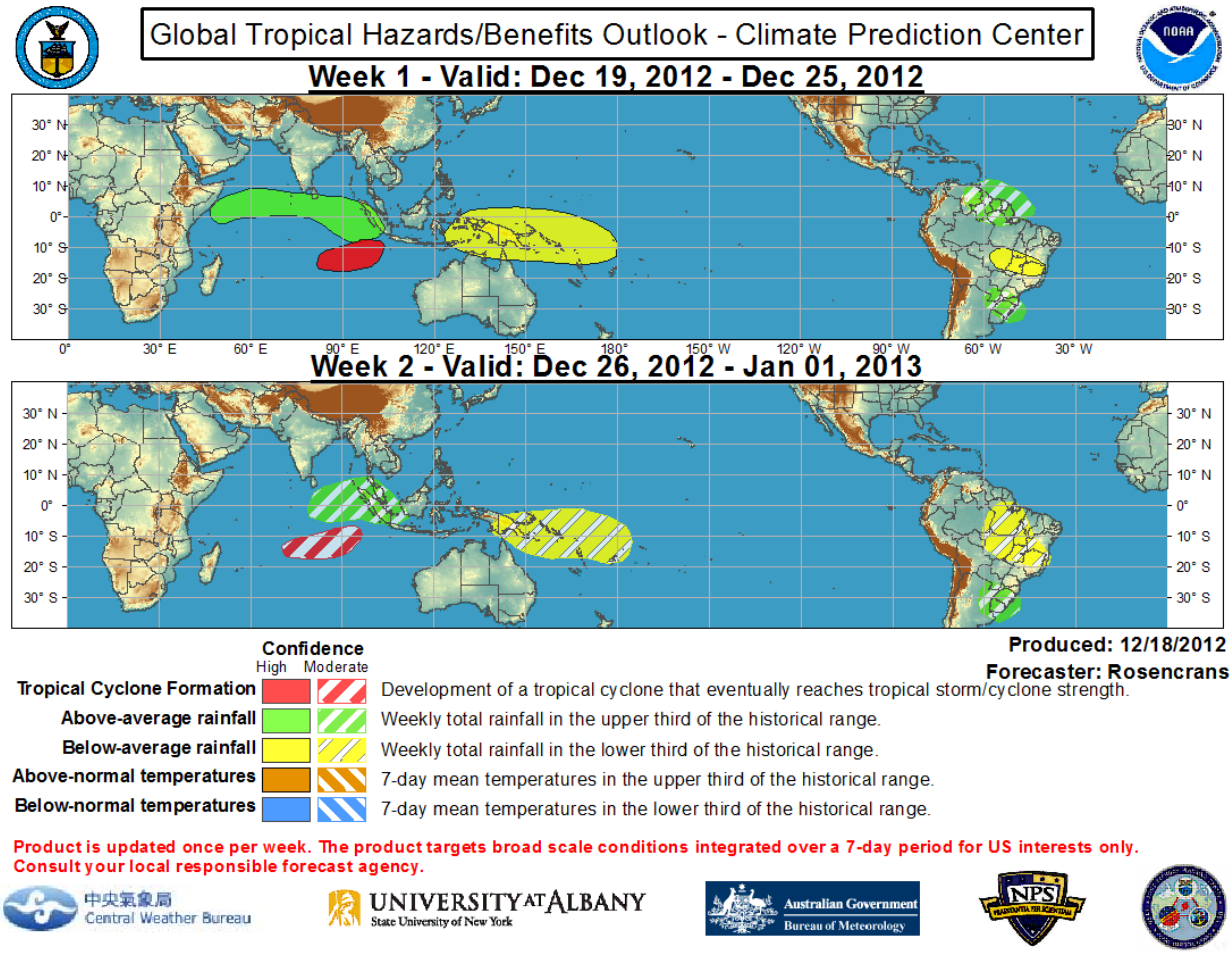

The MJO remained weak, with the Wheeler-Hendon MJO index indicating a slightly stronger signal than last week. Other modes of subseasonal activity remained prevelant, with an Equatorial Rossby Wave (ERW) moving westward near the Date Line, and the remnants of a prior ERW moving across the Indian Ocean. Some analyses (velocity potential at 200-hPa, 850-hPa wind anomalies) are showing signs of becoming better organized on spatial scales consistent with an active MJO. Most of the available model forecasts indicate a slight strengthening of the signal over the Indian Ocean, with eastward propagation through Week-2, which would place the convective signal over the Maritime continent.

Tropical Cyclone Evan formed on 11 Dec 2012, moved southwest during the early portions of last week, then turne southward. Current forecasts indicate a continuation of the southward movement, with slight weakening as the system approaches New Zealand.

The current Global Tropical Hazards/Benefits Outlook for Week-1 is based on a weak, but continuing MJO. Interaction of that forecast MJO with the ERW over the Indian Ocean-Maritime Continent Region should lead to enhanced convection over the northern equatorial Indian Ocean, and near Sumatra, with

the enhanced odds for tropical cyclone formation over the southeastern Indian Ocean. Farther east, over the Maritime Continent and western equatorial Pacific, drier than average conditions are likely in the wake of the ERW and east of the convectively active portion of the MJO. Over Northern South America, an enhanced ITCZ should support increased rains over northern Brazil, Suriname, and west to Venezuela. Farther south, a dry/wet dipole (north/south orientation) is expected to develop as frontal boundaries intrude from the south.

During Week-2, the favored area for tropical cyclone development over the southern Indian Ocean is likely to shift slightly westward, a result of a moistened atmosphere from the convectively active portion of the MJO and the active portion of the ERW. Wetter (drier) than average conditions are likely over the western (eastern) Maritime Continent, with the dry conditions extending toward the Date Line over the southern equatorial Pacific. Further expansion and of dry portion the convective dipole over Brazil is also likely during Week-2, as a drying trend over Brazil is consistent with a propagating MJO in Phase 3.