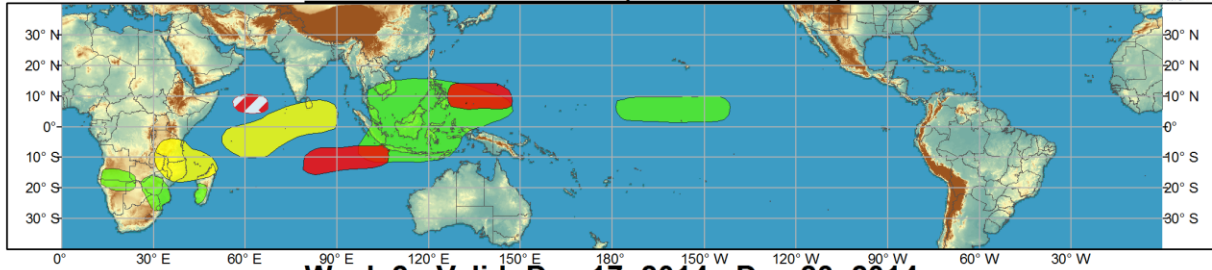




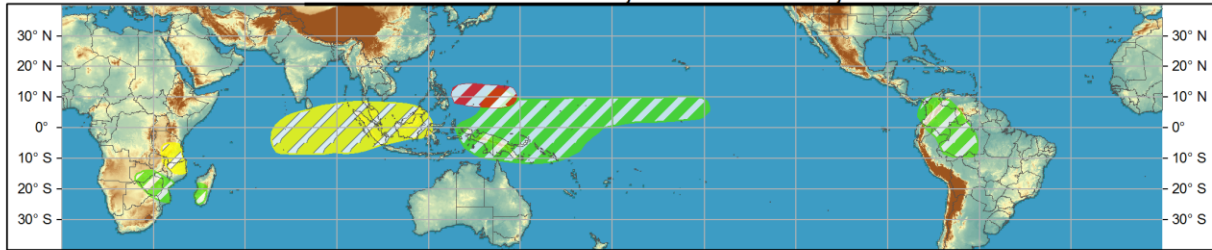
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 10, 2014 - Dec 16, 2014



Week 2 - Valid: Dec 17, 2014 - Dec 23, 2014



Confidence
High Moderate

- Tropical Cyclone Formation** ■ ▨ Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall** ■ ▨ Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall** ■ ▨ Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures** ■ ▨ 7-day mean temperatures in the upper third of the historical range.
- Below-normal temperatures** ■ ▨ 7-day mean temperatures in the lower third of the historical range.

Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Produced: 12/09/2014

Forecaster: Gottschalck



There is a complicated situation evolving across the global Tropics during the next couple of weeks. We continue to see above average SST's in the central and eastern Pacific consistent with El Nino like conditions. Enhanced convection in these areas, however, remains quite marginal and in fact suppressed convection has been observed near the Date Line more often than not over the last several weeks. The MJO remained active during the past week with both the RMM index and the CPC Velocity Potential index indicating robust activity as the enhanced convective phase has entered the western Pacific Ocean. Some observational indicators do show, however, a less coherent signal in recent days than the past few weeks. An equatorial Rossby wave (ERW) is also present across the western Pacific and will play a role in the forecast as well.

Over the past week, suppressed convection was observed across parts of the Indian Ocean and South America as well as near the Date Line along the equator as previously mentioned. Enhanced rainfall was evident across the Maritime continent (MC) and parts of the far western Pacific. Typhoon Hagupit made landfall in the central Philippines over the weekend and continues to track generally westward.

Moving forward, the majority of the dynamical model RMM forecasts of the MJO indicate a weakening of the MJO signal later during Week-1. It is unclear how much, if any, interference from the ERW is playing in disrupting the MJO signal in these forecasts. It is too early to favor an end to the current MJO activity given this and the fact that above average SSTs in the central Pacific would be very conducive for eastward propagation of enhanced convection into these areas.

The outlook favors continued MJO activity, although uncertainty is quite high during the Week-2 period. The dynamical model precipitation forecast from the CFS for Week-1 does not indicate clear, organized patterns of anomalous precipitation for the region from the MC to the Date Line and is a pattern not consistent with MJO evolution into the Pacific, as many regions across the west Pacific are forecast to see suppressed rainfall. The CFS precipitation forecasts for the Indian Ocean basin are more consistent with the continuation of MJO activity, however. This official forecast favors an evolution consistent to that shown by the OLR coherent modes statistical forecast with maintains some eastward propagation.

The combination of the MJO and the ERW enhanced phase favors above average rains for the Philippines and the western MC. The track of Typhoon Hagupit also favors enhanced rainfall extending westward to parts of southeast Asia. Dynamical model forecasts are in good agreement for a westward extension of above average rainfall that extends into the southern Indian Ocean where a threat for tropical cyclone development also is highlighted. The MJO and model guidance favor potential tropical cyclogenesis east of the Philippines as well during the period. The suppressed phase of the MJO and model guidance supports below average rainfall for much of the Indian Ocean and southeast Africa. Model guidance indicates a risk for tropical development in the southern Arabian Sea.

Entering Week-2, forecast confidence is low as there is high uncertainty as to the extent to which the MJO signal remains robust and shifts eastward to the central Pacific and interacts with the above average SSTs in the area. Enhanced convection is forecast to shift eastward to cover parts of the eastern MC and SPCZ and to east of the Date Line in the central Pacific north of the equator, consistent with El Niño like conditions. Suppressed rainfall is also forecast to propagate somewhat eastward from Week-1. Tropical cyclogenesis remains favored for the western north Pacific. MJO composites and other statistical forecasts support above average rainfall for areas in northwest South America.

It is quite difficult to ascertain impacts to the U.S. from the ongoing subseasonal tropical variability during the next few weeks given the uncertainty in whether the convective signature of the MJO continues eastward to the central Pacific or decays. The strongly positive NAO and El Niño like conditions appear to be dominating the current and forecast mid-latitude circulation anomalies.