Global Tropics Hazards And Benefits Outlook

February 11, 2014

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Outline

1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts
Outlook Review

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO:**
- ENSO-neutral is expected to continue through the Northern Hemisphere spring 2014

**MJO and other subseasonal tropical variability:**
- The MJO remained weak during the past week, with more localized subseasonal features such as tropical cyclone activity over the SW Indian Ocean and Kelvin Waves influencing the global tropical convective pattern and also masking a base state favoring enhanced convection over the Western Pacific.

- Dynamical model MJO index forecasts generally support rapid eastward propagation of convective anomalies to the western Pacific during the upcoming two weeks, but it is not clear that this indicates a coherent MJO pattern.

**Extratropics:**
- The AO/NAO are forecast to remain slightly positive, while the PNA is forecast to remain negative.

- The extended range forecast for the U.S. aligns well with composites of the typical extratropical response to anomalous convection over the Indian Ocean, favoring ridging over the eastern CONUS.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 12, 2014 - Feb 18, 2014

Week 2 - Valid: Feb 19, 2014 - Feb 25, 2014

Confidence
High  Moderate

Tropical Cyclone Formation
Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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.

Produced: 02/11/2014
Forecaster: Allgood

Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.
Anomalous convection in the Indian Ocean (TC), although not widespread, produced a robust atmospheric response, as observed in the 200-hPa VP anomaly field.
CPC Index depicts enhanced phase over IO, RMM Index over Maritime Continent.
Dynamical models bring the RMM Index into the western Pacific by Week-2, with a propagation speed on the high end of the MJO envelope.
Average Conditions when the MJO is present (Nov - Mar)

CAVEAT:
Suppressed convection over the Maritime Continent, western Pacific has masked a low-frequency pattern favoring enhanced convection over the western Pacific.
Connections to U.S. Impacts
PNA: Observed & ENSM forecasts

500mb Z (Obs: 15Oct2013 - 11Feb2014)  PNA index
mean = 0.1946

AO: Observed & ENSM forecasts
1000mb Z (Obs: 15Oct2013 - 11Feb2014)  AO index
mean = 0.7372

NAO: Observed & ENSM forecasts
500mb Z (Obs: 15Oct2013 - 11Feb2014)  NAO index
mean = 0.2109
Lagged composites based on a Phase-4 MJO.

Note strong ridging over the eastern CONUS during the Week-2 period.

The pattern change may be short lived if anomalous convection refires over the western Pacific.
Week 2 – Temperature and Precipitation
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 12, 2014 - Feb 18, 2014

Week 2 - Valid: Feb 19, 2014 - Feb 25, 2014

Preliminary

Produced: 02/11/2014
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- Weekly total rainfall in the lower third of the historical range.

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