Global Tropics Hazards And Benefits Outlook
February 18, 2014

Stephen Baxter

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 showed some signs of strengthening, though several observational indicators are not consistent with coherent MJO activity. Enhanced (suppressed) convection is centered over the West Pacific (Africa/Indian Ocean).
- Dynamical model MJO index forecasts generally support eastward propagation through the West Pacific during Week-1, followed by a stationary signal during Week-2. This is likely due to the prominence of the low-frequency mode that has been shifting slowly eastward toward the West Pacific during the past couple of months.

**Extratropics:**
- The extended range forecast for the U.S. aligns well with composites of the typical extratropical response to anomalous convection over the West Pacific, namely, an anomalous trough in the northern Pacific and a downstream ridge over northwestern North America.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

**Week 1 - Valid: Feb 19, 2014 - Feb 25, 2014**

Preliminary

**Week 2 - Valid: Feb 26, 2014 - Mar 04, 2014**

Preliminary

**Produced: 02/18/2014**

**Forecaster: Baxter**

**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.

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.
The velocity potential field has become more coherent over the past few weeks.
Both indices are consistent with convection over the West Pacific.
Dynamical models propagate the signal eastward during Week-1, then remain stationary thereafter.
MJO/Kelvin activity interrupted the low-frequency signal.
Connections to U.S. Impacts
Lagged composites based on a Phase-7 of the RMM index.

Note the ridging over northern North America will undercutting across the CONUS.
Week-2 500-mb forecast height anomalies from the GFS superensemble.
Week 2 – Temperature and Precipitation
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 19, 2014 - Feb 25, 2014

Week 2 - Valid: Feb 26, 2014 - Mar 04, 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: 02/18/2014
Forecaster: Baxter

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.