Global Tropics Hazards And Benefits Outlook
January 13, 2015

Brad Pugh

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:**
- Current: ENSO-neutral (lack of coupling between atmosphere and above-normal SSTs)
- Outlook: There is an approximately 50-60% chance of El Niño conditions during the next two months.

**MJO and other subseasonal tropical variability:**
- The MJO remains active with the enhanced convective phase over the West Pacific.
- Most dynamical model MJO index forecasts depict a continuation of a MJO signal during Week-1 followed by increasing forecast spread.

**Extratropics:**
- The current phase of the MJO supports below normal 500-hpa heights across the Aleutians with downstream ridging over the Northeast Pacific.
- After a warming trend (Week-1) across the CONUS, a signal for a colder temperatures across the central U.S. later in Week-2.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jan 14, 2015 - Jan 20, 2015

Week 2 - Valid: Jan 21, 2015 - Jan 27, 2015

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.

Produced: 01/13/2015
Forecaster: Pugh

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.
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence  Brown: Enhanced Convergence
Wheeler-Hendon based analyses of GFS model forecast indicates a persistent MJO although a smaller amplitude.
Average Conditions when the MJO is present

Phase 2
Phase 3
Phase 4
Phase 5
Phase 6
Phase 7
Phase 8
Phase 1
MJO active over the West Pacific; Equatorial Rossby Wave (ERW) also evident.

Destructive interference with MJO & ERW 120-150E
Favored Areas for TC Development: NCEP GEFS

Days 1-4

Day 5-8

Day 9-12

Day 13-15
Connections to U.S. Impacts
Lagged composites from MJO
5-day intervals

WHMJO Phase 7 z200 Lagged Composite (djf)

WHMJO Phase 7 t850 Lagged Composite (djf)

+5-days
+10-days
+15-days
+20-days
+25-days
Week 2 – Temperature and Precipitation

8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 12 JAN 2015
VALID JAN 20 – 26, 2015

8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 12 JAN 2015
VALID JAN 20 – 26, 2015
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Week 1 - Valid: Jan 14, 2015 - Jan 20, 2015

Week 2 - Valid: Jan 21, 2015 - Jan 27, 2015

Confidence

Development of a tropical cyclone (tropical depression - TD, or greater strength).

Weekly total rainfall in the upper third of the historical range.

Weekly total rainfall in the lower third of the historical range.

7-day mean temperatures in the upper third of the historical range.

7-day mean temperatures in the lower third of the historical range.

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