Global Tropics Hazards And Benefits Outlook

October 27, 2015

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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:**
- Current: [El Niño Advisory](#)
- Outlook: There is an approximately 95% chance that El Niño will continue through Northern Hemisphere winter 2015-16, gradually weakening through spring 2016.

**MJO and other subseasonal tropical variability:**
- Some MJO indices are indicating a signal over the western Indian Ocean.
- Other measures indicate that variability is associated with a Kelvin Wave.

- Most dynamical model MJO index forecasts depict some weakening and eastward propagation of an MJO signal during the next two weeks.

**Extratropics:**
- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by the MJO, but more likely impacted by the ongoing El Nino and tropical cyclone activity.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

**Week 1 - Valid: Oct 28, 2015 - Nov 03, 2015**

**Week 2 - Valid: Nov 04, 2015 - Nov 10, 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: 10/27/2015

Forecaster: Rosencrans

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.
Base state evident.

Eastward shift in base state.
Wheeler-Hendon based analyses of model forecasts indicate an signal over the Indian Ocean.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events, with all phases of ENSO.
Low frequency likely to dominate pattern.

Some tools indicate MJO activity displacing low-frequency mode.

Indian Ocean rainfall also increased during Oct of 1932 and 1997.
Graphical Tropical Weather Outlooks

No new tropical cyclones are expected during the next five days.

Tropical Cyclone Formation Potential for the 5-Day Period Ending 2:00 pm EDT Sun Nov 1 2015
Chance of Cyclone Formation in 5 Days: ▼ Low < 40% ▲ Medium 40-60% ■ High > 60%
X indicates current disturbance location; shading indicates potential formation area.

No new tropical cyclones are expected during the next five days.

Tropical Cyclone Formation Potential for the 5-Day Period Ending 11:00 am PDT Sun Nov 1 2015
Chance of Cyclone Formation in 5 Days: ▼ Low < 40% ▲ Medium 40-60% ■ High > 60%
X indicates current disturbance location; shading indicates potential formation area.
Connections to U.S. Impacts
AO: Observed & ENSM forecasts

1000mb Z (Obs: 30Jun2015 – 27Oct2015)  AD index
mean=-0.5659

1000mb Z (7day Forecast)  AD index
mean=-0.6155  cor(w/obs)=0.7905

1000mb Z (10day Forecast)  AD index
mean=-0.5279  cor(w/obs)=0.1653

1000mb Z (14day Forecast)  AD index
mean=-0.4456  cor(w/obs)=-0.2085
Week 2 – Temperature and Precipitation