Global Tropics Hazards And Benefits Outlook
11/22/2016

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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:**

- **La Niña Advisory**

La Niña conditions are present and slightly favored to persist (~55% chance) through winter 2016-17.

**MJO and other subseasonal tropical variability:**

- MJO/intraseasonal signal over the Indian Ocean.

- Dynamical models indicate weakening signal over the Indian Ocean, then divergence on where signal goes (align with La Nina or fade out)

- Kelvin waves also influencing the pattern.

**Extratropics:**

- The extended range temperature and precipitation forecasts for the U.S. aren’t likely to directly reflect MJO influence.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Nov 23, 2016 - Nov 29, 2016

Week 2 - Valid: Nov 30, 2016 - Dec 06, 2016

Confidence
High: Development of a tropical cyclone (tropical depression - TD, or greater strength).
Moderate: Weekly total rainfall in the upper third of the historical range.

Above-average rainfall
Weekly total rainfall in the lower third of the historical range.

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

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

Below-normal temperatures

Produced: 11/22/2016
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.
Robust MJO event has a wave-1 structure for many days now.

There is some evidence of competing signals from interseasonal variability.
Wheeler-Hendon based analyses of model forecasts indicate a continued signal for Week-1, then a weakening signal during Week-2. Near the end of Week-2, model disagreement increases.
Complicated pattern with **MJO** and **Kelvin waves** as the major influences.
November Tropical Storm Formation by MJO phase

Phase 1 (65 days) 21 storms
Phase 2 (68 days) 16 storms
Phase 3 (89 days) 8 storms
Phase 4 (77 days) 17 storms
Phase 5 (72 days) 20 storms
Phase 6 (91 days) 12 storms
Phase 7 (58 days) 11 storms
Phase 8 (60 days) 14 storms
Null (360 days) 68 storms
No new tropical cyclones are expected during the next five days.
Ensemble-based Probability (%) of TC genesis using these global ensembles: NCEP CMC ECMWF
For forecasts during the 00-120h period from initial time = 2016112200
Connections to U.S. Impacts
AO: Observed & ENSM forecasts

1000mb Z (Obs: 26Jul2016 – 22Nov2016)  AD index

mean = -0.2607

1000mb Z (7day Forecast)  AD index

mean = -0.5471  cor(w/obs) = 0.9062

1000mb Z (10day Forecast)  AD index

mean = -0.6576  cor(w/obs) = 0.7590

1000mb Z (14day Forecast)  AD index

mean = -0.8284  cor(w/obs) = 0.3917
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**Week 1 - Valid: Nov 23, 2016 - Nov 29, 2016**

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Confidence

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<th>High</th>
<th>Moderate</th>
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**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.

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