Global Tropics Hazards And Benefits Outlook

July 28, 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 a greater than 90% chance that El Niño will continue through Northern Hemisphere winter 2015-16, and around an 80% chance it will last into early spring 2016.

**MJO and other subseasonal tropical variability:**
- The MJO is weak and not likely to impact tropical variability during the next 2 weeks.

- Most dynamical model MJO index forecasts depict a westward moving signal during the next 2 weeks, with the strongest signal emerging over the western Pacific, likely in response to tropical cyclone activity, so uncertainty is high.

**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 Niño and tropical cyclone activity near Baja California.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 29, 2015 - Aug 04, 2015

Week 2 - Valid: Aug 05, 2015 - Aug 11, 2015

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
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: 07/28/2015
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.
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence  Brown: Enhanced Convergence

Base state and transient features evident.

Wave-1 structure broke down.
Wheeler-Hendon based analyses of model forecasts indicate some convection east of the Date Line, then a weak signal emerging over the West Pacific in Week-2.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
Low frequency likely to dominate pattern more than MJO.

Some indications of Rossby ave near 170E.

MJO indicated by red lines

Kelvin Wave to impact ePAC.
August Tropical Storm Formation by MJO phase

- Phase 1 (101 days) 38 storms
- Phase 2 (79 days) 31 storms
- Phase 3 (51 days) 27 storms
- Phase 4 (40 days) 12 storms
- Phase 5 (117 days) 40 storms
- Phase 6 (101 days) 50 storms
- Phase 7 (43 days) 17 storms
- Phase 8 (26 days) 17 storms
- Null (466 days) 189 storms
Graphical Tropical Weather Outlooks

No Disturbances

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 Aug 2 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.

Tropical Cyclone Formation Potential for the 5-Day Period Ending 11:00 am PDT Sun Aug 2 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.
Days 1-4

Day 5-8

Day 9-12

Day 13-15

Invest TD8E & Follow-on

Ptntl Week-2 TD
Connections to U.S. Impacts
Lagged composites from MJO
5-day intervals

NOT APPLICABLE DURING WEAK MJO EVENTS.
Week 2 – Temperature and Precipitation

8-14 Day Outlook
Temperature Probability
Made 27 Jul 2015
Valid Aug 04 – 10, 2015

8-14 Day Outlook
Precipitation Probability
Made 27 Jul 2015
Valid Aug 04 – 10, 2015
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 29, 2015 - Aug 04, 2015

Week 2 - Valid: Aug 05, 2015 - Aug 11, 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.

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