Global Tropics Hazards And Benefits Outlook
March 25, 2014

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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


7-Day Average OLR Anomaly

2014/03/17 - 2014/03/23
Synopsis of Climate Modes

**ENSO:**
- ENSO-neutral is expected to continue through the Northern Hemisphere spring 2014, with about a 50% chance of El Niño developing during the summer or fall.

- ENSO Alert System Status: El Niño Watch

**MJO and other subseasonal tropical variability:**
- The MJO weakened considerably during the past week, and the atmospheric circulation pattern is no longer consistent with robust MJO activity.

- Dynamical model MJO index forecasts differ on the amount of eastward propagation of the remaining signal, with some models indicating a complete breakdown (westward movement) during Week-2. Statistical tools indicate a weak signal, and little to no propagation beyond the Indian Ocean.

**Extratropics:**
- The extended range forecast for the U.S. is not expected to be impacted greatly by the MJO. The current outlooks favor continued below-normal temperatures and above-median precipitation across the northern tier of the CONUS with above-normal temperatures across the southwest. Below-median precipitation is favored across much of the four corners region and southern Great Plains.
Pattern is not coherent with MJO activity.

Evidence of other modes of variability.
MJO Observation/Forecast

MJO Index Forecast for 25Mar2014-08Apr2014

Western Pacific

NCEP	GFS	BC

ECMWF

UKMET

GFS

ECMWF

UKMET
Average Conditions when the MJO is present (Nov-Mar)
MJO signal much less robust (Area near 90E is dry in obs, wet in statistical forecast)

Atmospheric Kelvin waves and background state to be main drivers.
March Tropical Storm Formation by MJO phase

Phase 1 (38 days) 7 storms
Phase 4 (72 days) 12 storms
Phase 7 (81 days) 16 storms
Phase 2 (111 days) 17 storms
Phase 5 (77 days) 17 storms
Phase 8 (92 days) 8 storms
Phase 3 (108 days) 11 storms
Phase 6 (78 days) 16 storms
Null (322 days) 40 storms
NORTH INDIAN 1891 - 1989
AVERAGE NUMBER OF DAYS PER SEASON WITH TROPICAL CYCLONE WINDS
>= 34 KNOTS: 16
>= 64 KNOTS: 3

SOUTHWEST INDIAN 1947 - 1988
AVERAGE NUMBER OF DAYS PER SEASON WITH TROPICAL CYCLONE WINDS
>= 34 KNOTS: 66
>= 64 KNOTS: 21

AUSTRALIA/SE INDIAN 1958 - 1988
AVERAGE NUMBER OF DAYS PER SEASON WITH TROPICAL CYCLONE WINDS
>= 34 KNOTS: 36
>= 64 KNOTS: 11
Connections / U.S. Impacts
US Composites based on MJO Phase

Indicates a shift toward warmer conditions across the central and southwest CONUS. Signal is weak at best.

Would also support dryness over the southwest.

Signal is weak at best.
Week 2 – Temperature and Precipitation
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Mar 26, 2014 - Apr 01, 2014

Week 2 - Valid: Apr 02, 2014 - Apr 08, 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.

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Forecaster: Rosencrans

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.