Global Tropics Hazards And Benefits Outlook

October 14, 2013

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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: ENSO-neutral
- Outlook: The chance of El Niño is at 60-65% during the Northern Hemisphere fall and winter.

**MJO and other subseasonal tropical variability:**
- The MJO remained weak with atmospheric circulation not coherent with a robust MJO. Equatorial Rossby waves, Kelvin Waves, and tropical cyclones are having a larger impact on the overall pattern.
- Most dynamical model MJO index forecasts depict an amplification and eastward propagation during Week-1, with deamplification and westward movement during Week-2. Not consistent with MJO activity.

**Extratropics:**
- The extended range forecast for the U.S. is not likely to be largely impacted directly by the MJO. Recurring tropical cyclones may result in amplification over the North Pacific and potential moisture influxes to the southwest US. Tropical Storm Ana is likely to impact to the Hawaiian Islands.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center


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: 10/14/2014
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.
Not coherent with MJO activity.
Wheeler-Hendon based analyses of model forecasts indicate a strengthening projection of other modes onto the MJO.

Models indicate convection aligns with MJO phase 8-1.
Average Conditions when the MJO is present (May-Sep)

CAVEAT: These panels are representative of robust MJO events.
Evolving ENSO contributing.

Equatorial Rossby Waves to impact Africa, the Indian Ocean, and the East Pacific.

Kelvin Wave to impact ePAC and ATL.
October Tropical Storm Formation by MJO phase
Tropical Cyclone Formation Potential for the 5-Day Period Ending 8:00 am EDT Sun Oct 19 2014
Chance of Cyclone Formation in 5 Days:  ▲ Low < 30%  ▁ Medium 30-50%  ▉ High > 50%
X indicates current disturbance location; shading indicates potential formation area.

Tropical Cyclone Formation Potential for the 5-Day Period Ending 5:00 am PDT Sun Oct 19 2014
Chance of Cyclone Formation in 5 Days:  ▲ Low < 30%  ▁ Medium 30-50%  ▉ High > 50%
X indicates current disturbance location; shading indicates potential formation area.
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

**Hurricane Gonzalo**
Tuesday, October 14, 2014
11 AM EDT Advisory 9
NWS National Hurricane Center

**Current Information:**
- Center Location: 20.3 N 65.2 W
- Max Sustained Wind: 110 mph
- Movement: NW at 13 mph

**Forecast Positions:**
- Tropical Cyclone
- Post-Tropical

- Sustained Winds:
  - D < 39 mph
  - S 39-73 mph
  - H 74-110 mph
  - M > 110 mph

**Potential Track Area:**
- Day 1-3
- Day 4-5

**Watches:**
- Pink: Hurricane
- Yellow: Trop. Storm

**Warnings:**
- Red: Hurricane
- Blue: Trop. Storm
Tropical Storm Ana

Tuesday October 14, 2014
5 AM HST Advisory 4
NWS Central Pacific Hurricane Center

Current Information:
- Center Location: 13.4 N 143.3 W
- Max Sustained Wind: 50 mph
- Movement: NW at 5 mph

Forecast Positions:
- Tropical Cyclone
- Post-Tropical

Sustained Winds:
- D < 39 mph
- S 39-73 mph
- H 74-110 mph
- M > 110 mph

Potential Track Area:

Day 1-3

Day 4-5

Watches:
- Pink Hurricane
- Yellow Trop.Storm

Warnings:
- Red Hurricane
- Blue Trop.Storm

Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.
Connections to U.S. Impacts
Week 2 – Temperature and Precipitation

8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 13 OCT 2014
VALID OCT 21 – 27, 2014

8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 13 OCT 2014
VALID OCT 21 – 27, 2014
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