Global Tropics Hazards And Benefits Outlook

10/30/2018

Brad Pugh

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
Tropical Storm Yutu

Dates: 11/21 - 11/30 2018
Maximum Wind Speed: 180 mph
Minimum Pressure: - mb
US Landfall Category: 
Deaths:

Max wind intensity: 180mph
Strongest tropical cyclone of 2018
Super Typhoon Yutu
Synopsis of Climate Modes

**ENSO: (October 11, 2018 Update)**

- ENSO Alert System Status: [El Niño Watch](#)

- El Niño is favored to form in the next couple of months and continue through the Northern Hemisphere winter 2018-19 (70-75% chance).

**MJO and other subseasonal tropical variability:**

- The MJO remained weak during the past week with the low-frequency state (developing El Niño) the major influence but signs of a developing MJO.

- Dynamical models indicate a strengthening MJO with eastward propagation from the Western Hemisphere to the Indian Ocean during early to mid-November.

**Extratropics:**

- The MJO is not anticipated to influence the mid-latitudes during early November but could have more of an influence later in the month.

- No recurving typhoons in the West Pacific and tropical cyclones that develop in the East Pacific are not expected to affect the Southwest.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Oct 31, 2018 - Nov 06, 2018

Week 2 - Valid: Nov 07, 2018 - Nov 13, 2018

Confidence

<table>
<thead>
<tr>
<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.

Produced: 10/30/2018
Forecaster: Pugh

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.
Continued organized MJO event apparent in upper-levels.

MJO became incoherent during mid to late October.

A couplet of anomalous convergence and divergence recently developed from the Maritime Continent and Pacific.
GFS and ECMWF models are in good agreement for fast eastward propagation from Phases 8/1 to 3/4 by late Week-2.

- GFS model may have too much influence from a kelvin wave.
7-day CHI200 with CFS forecasts

- 2-Oct to 8-Oct: Observed
- 30-Oct to 5-Nov: CFS Forecast
- 9-Oct to 15-Oct: Observed
- 6-Nov to 12-Nov: CFS Forecast
- 16-Oct to 22-Oct: Observed
- 13-Nov to 19-Nov: CFS Forecast
- 23-Oct to 29-Oct: Observed
- 20-Nov to 26-Nov: CFS Forecast

Contours at -2, -6 x10^6 m^2 s^-1

- MJO
- Kelvin x2
- Low
- ER

ncics.org/mjo

Tue 2018-10-30 1024 UTC

Carl Schreck (cjschrec@ncsu.edu)
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 Oscar**
Tuesday October 30, 2018
11 AM AST Advisory 15
NWS National Hurricane Center

**Current information:**
- Center location: 29.7 N 57.7 W
- Maximum sustained wind: 100 mph
- Movement: NNE at 14 mph

**Forecast positions:**
- Tropical Cyclone
- Post/Potential TC
- S 39-73 mph
- H 74-110 mph
- M > 110 mph

**Potential track area:**
- Day 1-3
- Day 4-5

**Watches:**
- Hurricane
- Trop Stm

**Warnings:**
- Hurricane
- Trop Stm
Five-Day Graphical Tropical Weather Outlook
National Hurricane Center Miami, Florida

Next 5 days: 30% 10% 30%

Central Pacific

Current Disturbances and Five-Day Cyclone Formation Chance:

- ☒ < 40%
- ☒ 40-60%
- ☒ > 60%

Tropical or Sub-Tropical Cyclone:
- ○ Depression
- ● Storm
- ★ Hurricane
- ○ Post-Tropical Cyclone or Remnants

11:00 am PDT
Tue Oct 30 2018
Days 1-4

Days 5-8

Days 9-12

Days 13-15
Atlantic Basin Climatology

- Hurricanes and Tropical Storms
- Hurricanes

NOAA
No sign of TC development in the typical hot spot during early Nov
Connections to U.S. Impacts
Major pattern change at mid to high latitudes of Northern Hemisphere
Week 2 – Temperature and Precipitation

Consolidated 8-14day tmean issued 20181030
valid 20181107 - 20181113

Consolidated 8-14day precip issued 20181030
valid 20181107 - 20181113
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