Global Tropics Hazards And Benefits Outlook
11/3/2020

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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

Goni – 10/28
Atsani – 11/2
Eta – 10/31

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO**: (8 October, 2020 Update)  
*next update on 12th of Nov.!

- ENSO Alert System Status: [La Niña Advisory](#)

- La Niña is likely to continue through the Northern Hemisphere winter 2020-21 (~85% chance) and into spring 2021 (~60% chance during February-April).

**MJO and other subseasonal tropical variability:**

- The RMM index places the active phase of the MJO over the Pacific.

- Most models forecast the MJO to weaken as it propagates over the cold La Nina waters of the Central and East Pacific.

- A Kelvin wave will likely aid (re)development of the MJO over the Indian Ocean during Week-2. The CFS is especially bullish about this event, but the ECMWF is not.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Nov 04, 2020 - Nov 10, 2020

Week 2 - Valid: Nov 11, 2020 - Nov 17, 2020

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: 11/03/2020

Forecaster: MacRitchie

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.
Enhanced convection over the Maritime Continent is related to both the active MJO and La Nina patterns.

Typhoon activity has ramped up within the broad area of enhanced convection in the WPAC.

Convection over the WPAC is slightly weaker as the MJO moves eastward.
Both models predict the MJO to weaken as it moves eastward.

Though neither model's ensemble mean suggests a strong MJO in Week-2, several ensemble members do.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
**MJO** is forecast to weaken as it moves eastward.

**Kelvin wave** is forecast to assist with MJO development in Week-2.

**Low frequency** contours depict ENSO cold conditions.
7-day USHEAR with CFS forecasts

Contours at 4, 12 m/s

ncics.org/mjo  Carl Schreck
carl_schreck@ncsu.edu  Tue 2020-11-03 1122 UTC
November Tropical Storm Formation by MJO phase

- Phase 1 (65 days): 21 storms
- Phase 2 (60 days): 16 storms
- Phase 3 (69 days): 8 storms
- Phase 4 (77 days): 17 storms
- Phase 5 (72 days): 20 storms
- Phase 6 (91 days): 12 storms
- Phase 7 (68 days): 11 storms
- Phase 8 (60 days): 14 storms
- Phase 9 (330 days): 66 storms
Connections to U.S. Impacts
PNA: Observed & ENSM forecasts

500mb Z (Obs: 07Jul2020 - 03Nov2020) PNA index

- mean = 0.3648

500mb Z (7day Forecast) PNA index

- mean = 0.3206
- cor(w/obs) = 0.8193

500mb Z (10day Forecast) PNA index

- mean = 0.2794
- cor(w/obs) = 0.4278

500mb Z (14day Forecast) PNA index

- mean = 0.1547
- cor(w/obs) = 0.0758
AO: Observed & ENSM forecasts

1000mb Z (Obs: 07Jul2020 - 03Nov2020)  AD index
mean=-0.0565

1000mb Z (7day Forecast)  AD index
mean=-0.3975  cor(w/obs)=0.8069

1000mb Z (10day Forecast)  AD index
mean=-0.4341  cor(w/obs)=0.6576

1000mb Z (14day Forecast)  AD index
mean=-0.4752  cor(w/obs)=0.2430
Week 2 – Temperature and Precipitation

Since we are in an amplified, stable pattern today’s outlooks are likely to be similar.
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