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

No tropical cyclones developed last week.

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO:**
- ENSO Alert System Status: [La Niña Advisory](#)
- La Niña is likely (~85-95%) through Northern Hemisphere winter, with a transition to ENSO-neutral expected during the spring.
- Next update to be released this Thursday, February 8th.

**MJO and other subseasonal tropical variability:**
- The MJO remained active, with the enhanced phase crossing the West Pacific.
- Dynamical and statistical models continue the MJO with an eastward propagation across the Pacific (Phases 7 and 8) and some reduction in amplitude during the next two weeks.
- The MJO in Phase 7 supports enhanced tropical cyclone formation probabilities in the South Pacific during Week-1. Tropical cyclone formation odds are generally depressed globally if the enhanced phase of the MJO makes it into the Western Hemisphere.

**Extratropics:**
- A West Pacific MJO event favors a continuation of below-normal temperatures beyond Week-2 across parts of the central and eastern U.S.
- BUT, strong westerlies are forecast across Canada that appear to limit the potential for the U.S. to experience this arctic air.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 07, 2018 - Feb 13, 2018

Week 2 - Valid: Feb 14, 2018 - Feb 20, 2018

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: 02/06/2018
Forecaster: D.Harnos

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.
A coherent Wave-1 pattern with enhanced convection over Indian Ocean through Central Pacific.

Eastward propagation of enhanced phase to the West Pacific, while suppressed phase enters western Indian Ocean.

A complicated pattern with generally enhanced convection across the Western Hemisphere which is consistent with the MJO in the Pacific and a Kelvin wave in the Atlantic.
Models continue to propagate the MJO envelope eastward the next two weeks. The GEFS and CFS are slower than the ECMWF model, as these two models suggest more interaction with Rossby waves (and possibly tropical cyclones). All three models do portray some weakening of the MJO amplitude the next two weeks.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.

Week-1: Phase 7
Week-2: Phase 7/8

CAVEAT: These panels are representative of robust MJO events.
MJO, Rossby waves, and a Kelvin wave all exhibit influences on enhancing convection over the Western Hemisphere.

The Low-frequency pattern is helping enhance suppressed convection with the MJO over the Indian Ocean.
February Tropical Storm Formation by MJO phase

Phase 1 (41 days): 7 storms
Phase 2 (51 days): 7 storms
Phase 3 (89 days): 18 storms
Phase 4 (82 days): 21 storms
Phase 5 (70 days): 14 storms
Phase 6 (92 days): 12 storms
Phase 7 (125 days): 24 storms
Phase 8 (64 days): 13 storms
Null (0 days): 0 storms
Connections to U.S. Impacts
Signs of southern stream of jet enhanced relative to yesterday from Baja through S. Plains.
Week 2 – Temperature and Precipitation

Temp: Likely warmer today in South, East. Maybe some below-normal for N. Plains?

Precip: Likely wetter across South through Ohio Valley; drier for Florida.
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