

# Global Tropics Hazards And Benefits Outlook

11/10/2020

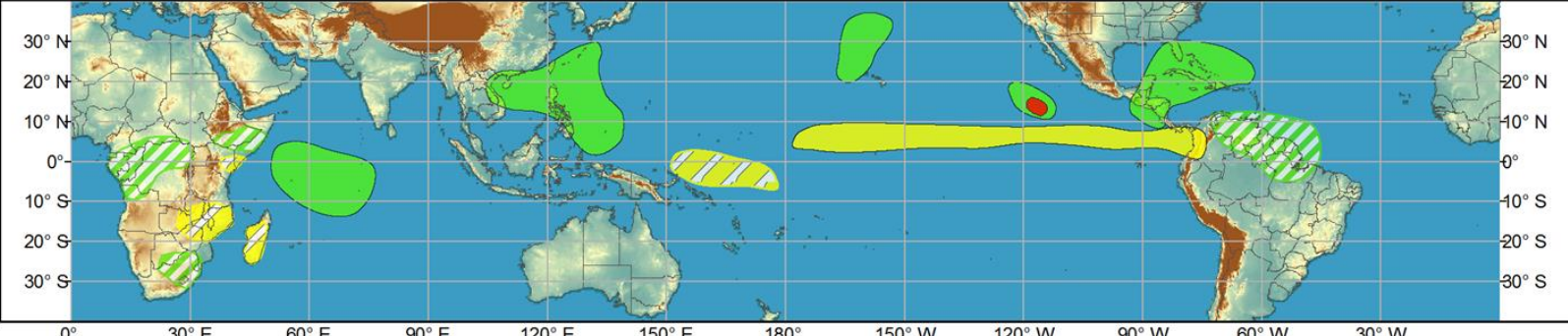
Adam Allgood

## Outline

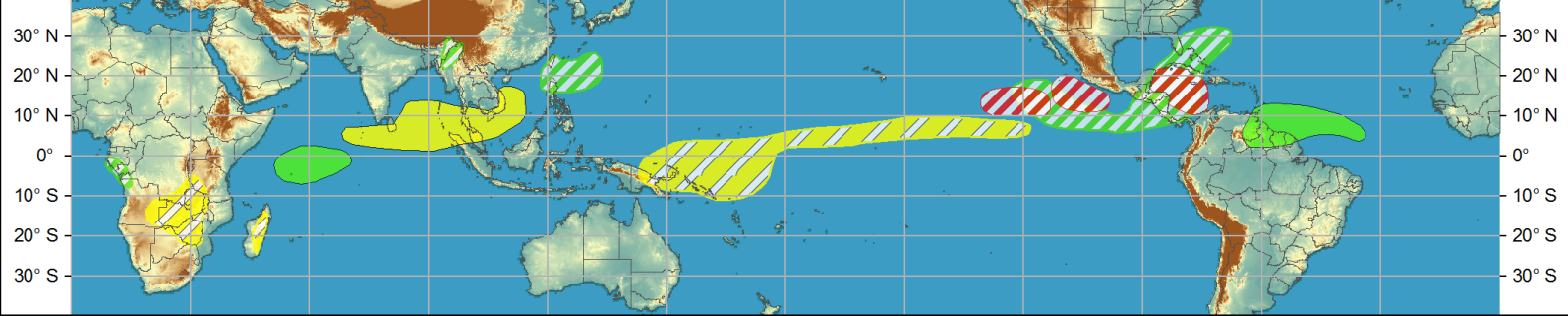
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

# Outlook Review

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



**Week 2 - Valid: Nov 04, 2020 - Nov 10, 2020**

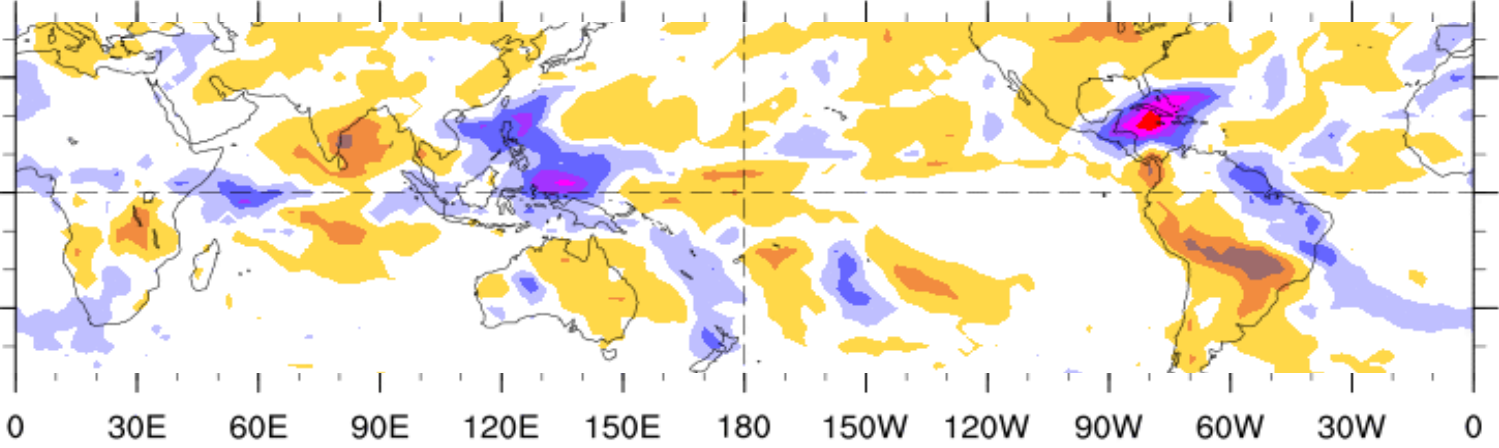


**7-Day Average OLR Anomaly**

**2020/11/02 - 2020/11/08**

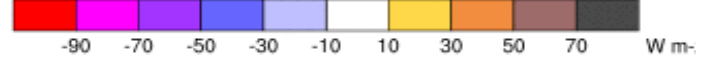
Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain



NOAA/PSL

Base Period: 1981-2010



# Synopsis of Climate Modes

## **ENSO: (October 8, 2020 Update)**

*next update on 12<sup>th</sup> 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).

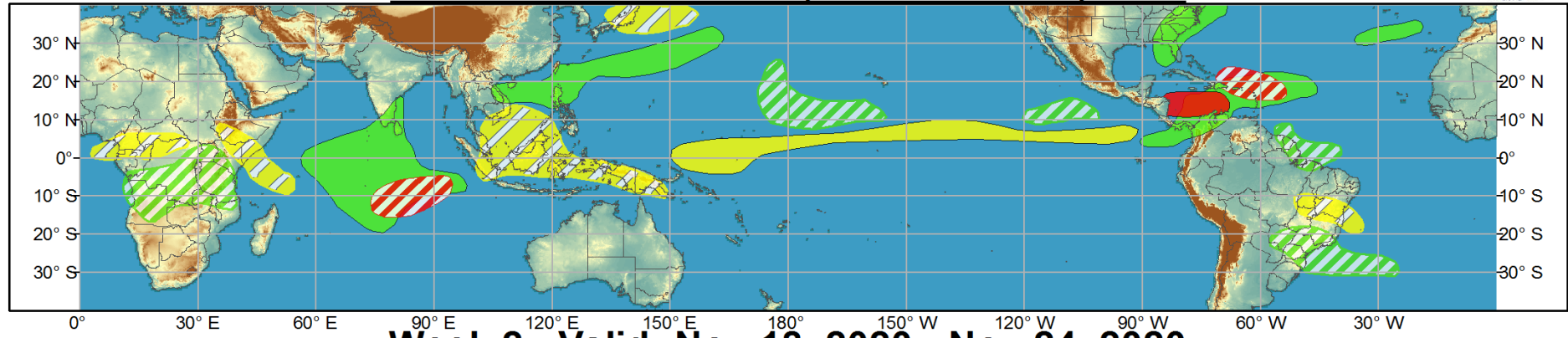
## **MJO and other subseasonal tropical variability:**

- The MJO was weak, as a remnant enhanced phase crossed the Western Hemisphere.
- The La Niña signal continues to dominate the pattern, with persistent convection over the eastern Maritime Continent/far West Pacific resulting in a Wave-2 asymmetry in the upper-level VP anomaly field.
- Dynamical models favor continued propagation of the MJO, and the initiation of a new Indian Ocean event is possible.
- The base state and MJO favor continued western Atlantic TC activity, with increasing chances for an IO TC. In the midlatitudes, the pattern favors troughing (ridging) over western (eastern) North America during late Week-2 and into Weeks 3-4.

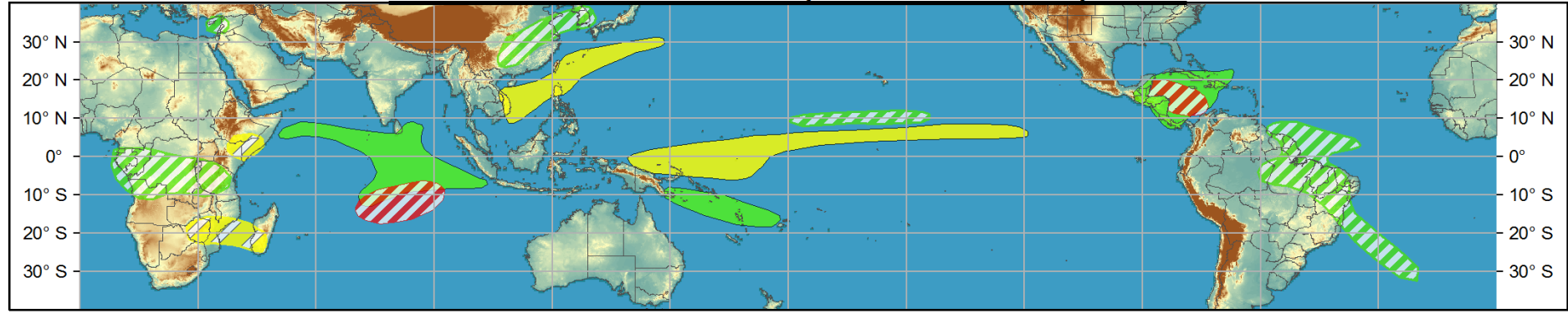


# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

## Week 1 - Valid: Nov 11, 2020 - Nov 17, 2020



## Week 2 - Valid: Nov 18, 2020 - Nov 24, 2020



Produced: 11/10/2020  
Forecaster: Allgood

Confidence		
High	Moderate	
		<b>Tropical Cyclone Formation</b> Development of a tropical cyclone (tropical depression - TD, or greater strength).
		<b>Above-average rainfall</b> Weekly total rainfall in the upper third of the historical range.
		<b>Below-average rainfall</b> Weekly total rainfall in the lower third of the historical range.
		<b>Above-normal temperatures</b> 7-day mean temperatures in the upper third of the historical range.
		<b>Below-normal temperatures</b> 7-day mean temperatures in the lower third of the historical range.

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

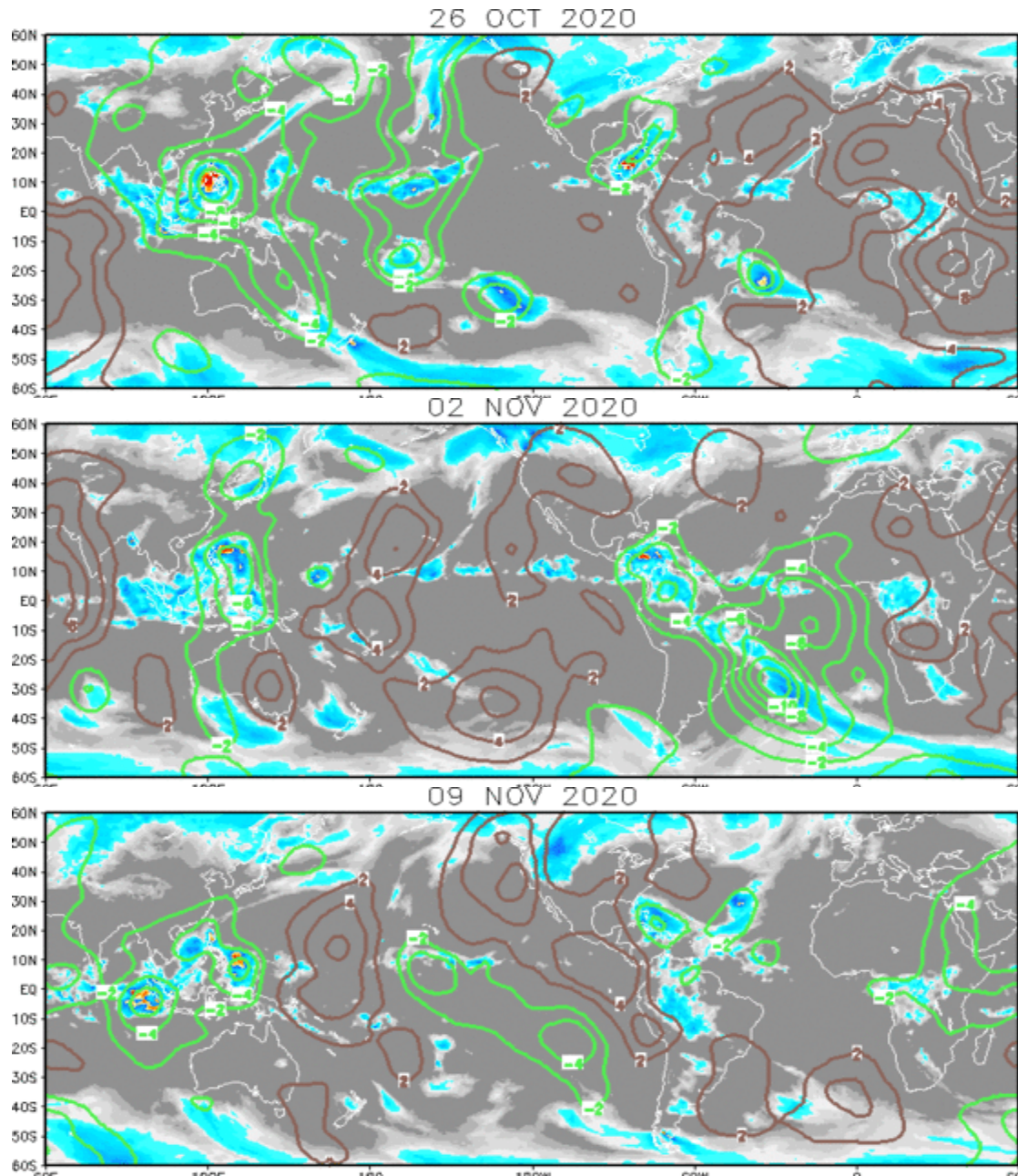
Green: Enhanced Divergence

Brown: Enhanced Convergence

The MJO began to cross the Pacific and interfere with La Niña. Strong TC activity near the Philippines

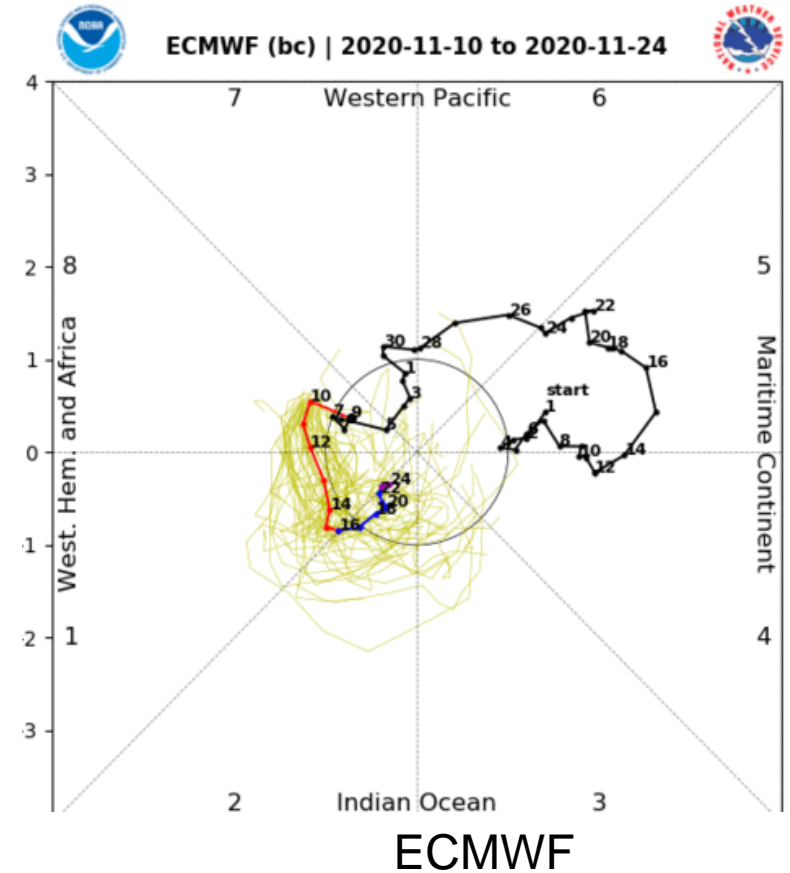
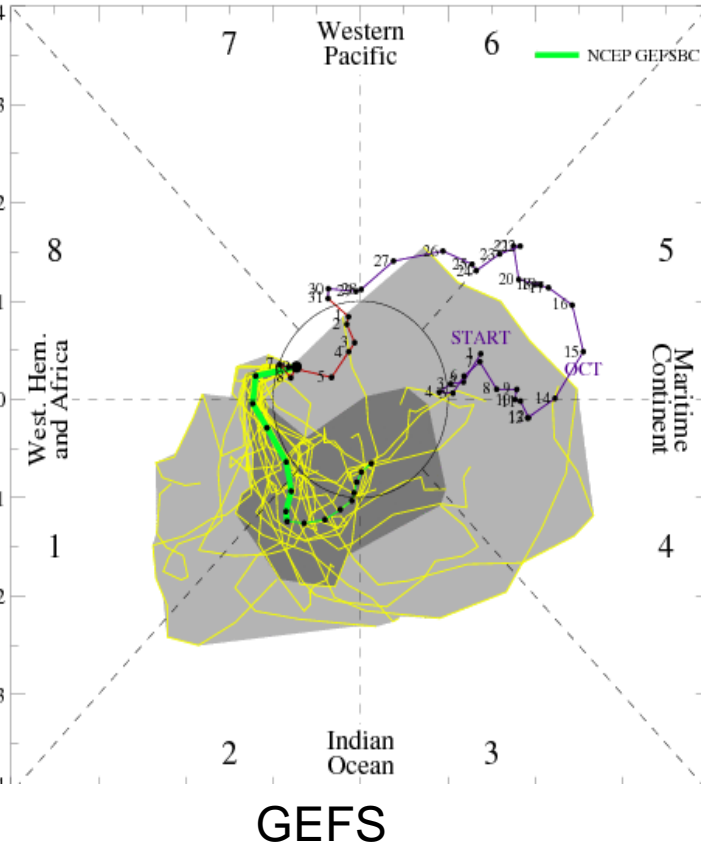
Rapid propagation to the Western Hemisphere, Wave-2 asymmetry apparent.

The pattern remains disorganized, with possible KW activity over the Pacific.



# MJO Observation/Forecast

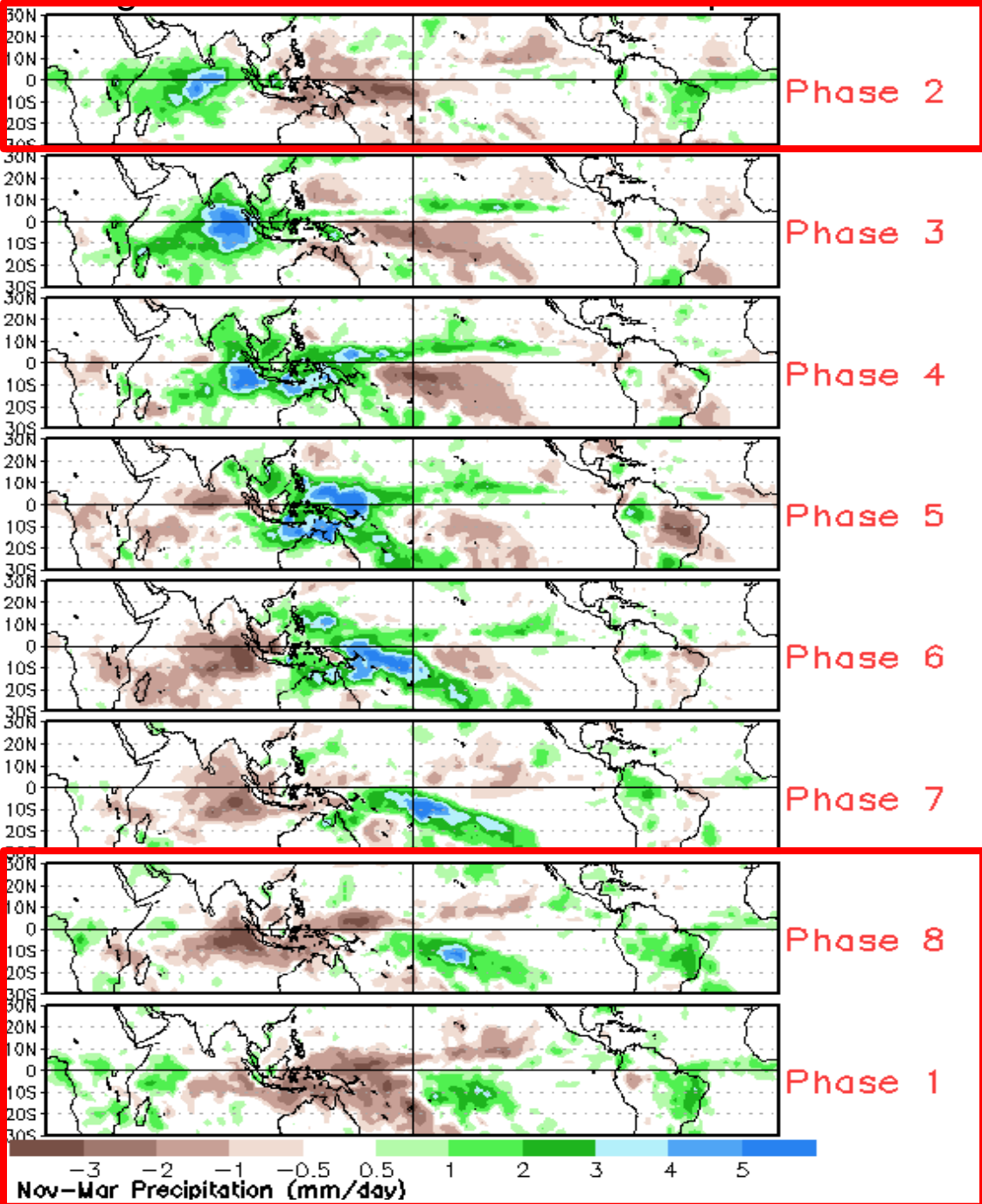
[RMM1, RMM2] forecast for Nov-10-2020 to Nov-24-2020



GEFS and ECWMMF in good agreement supporting renewed eastward propagation.

Uncertainty increases once the signal reaches the Indian Ocean, but numerous ensemble members show a robust MJO event developing.

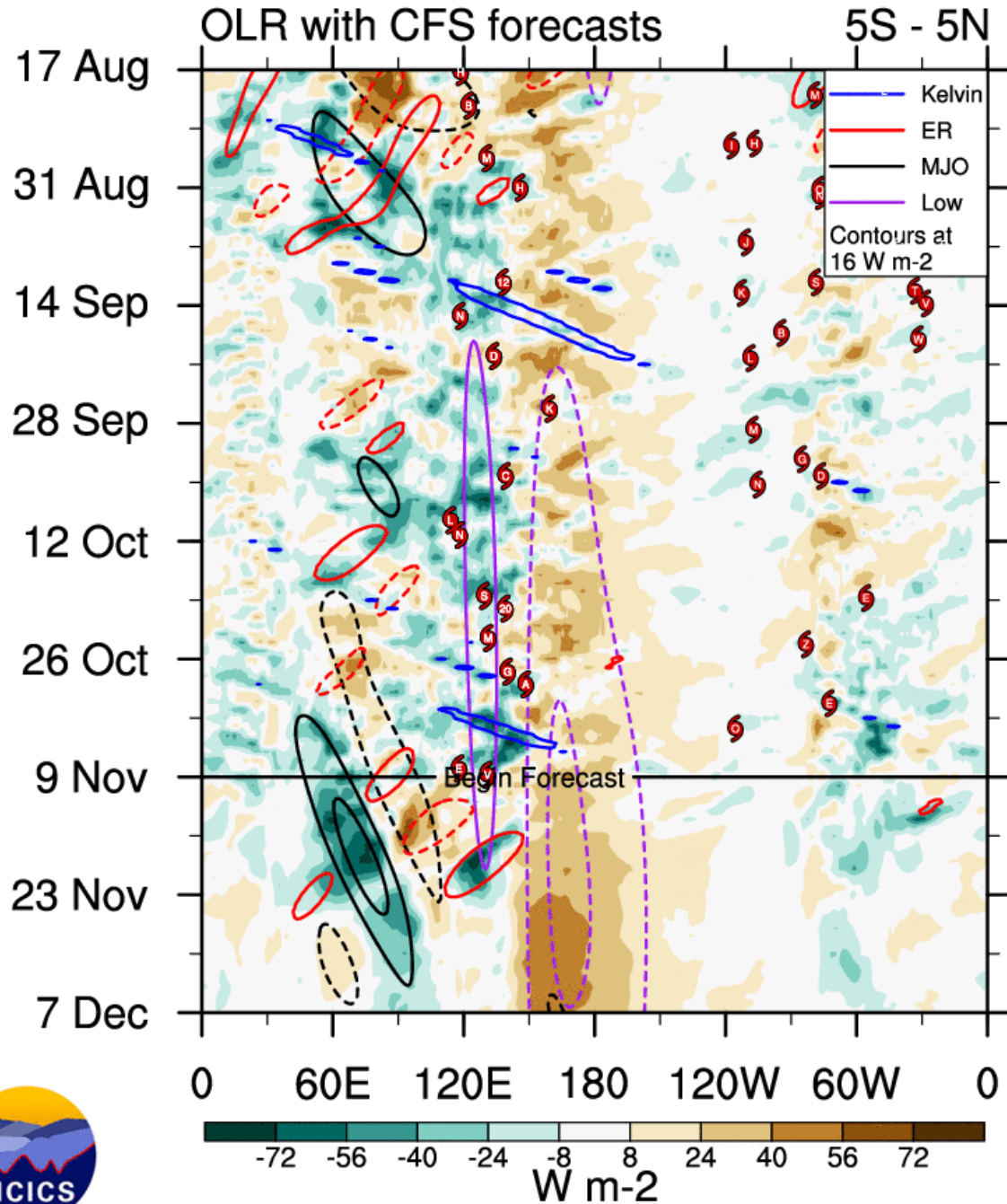
# Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

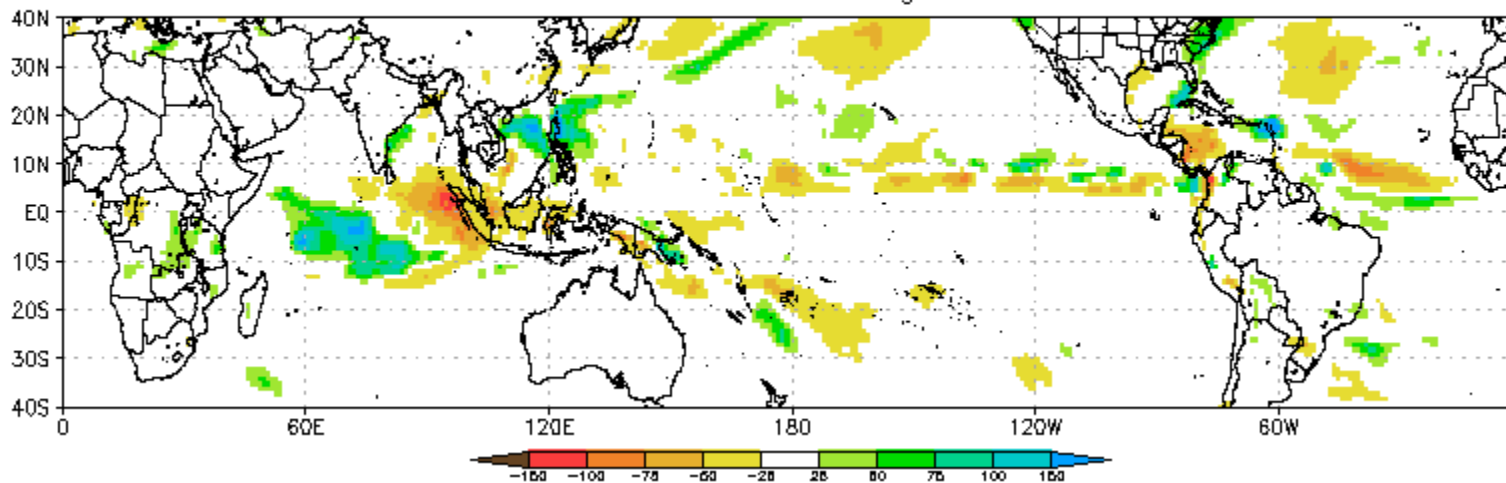
**MJO** activity strongly favored by the CFS.

**Low frequency** contours depict ENSO cold conditions.

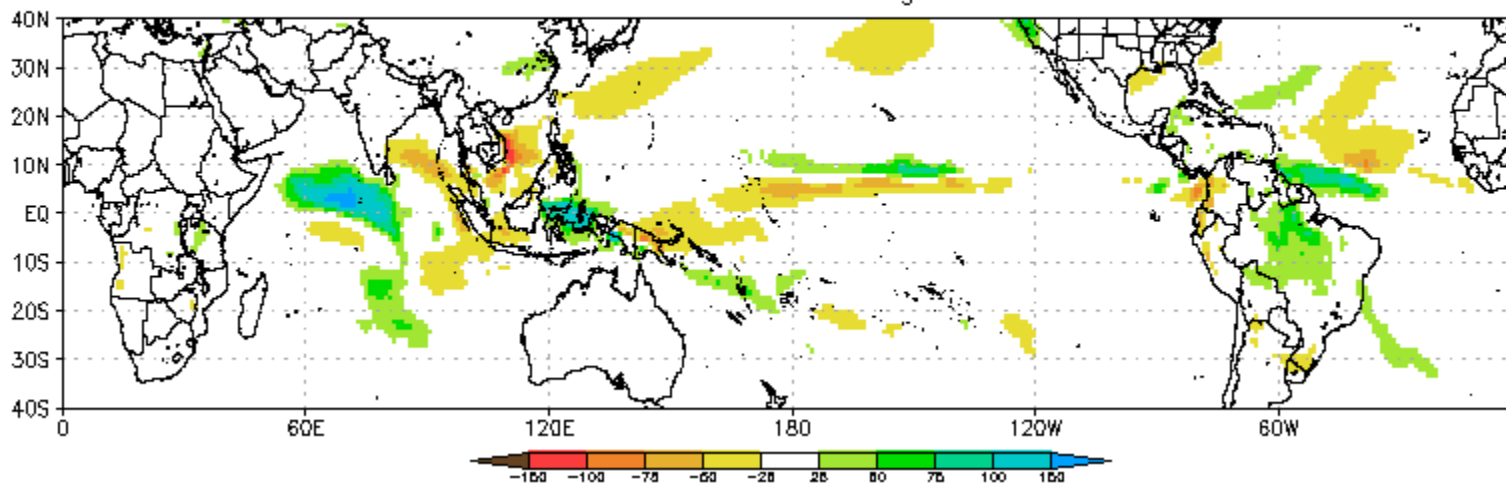




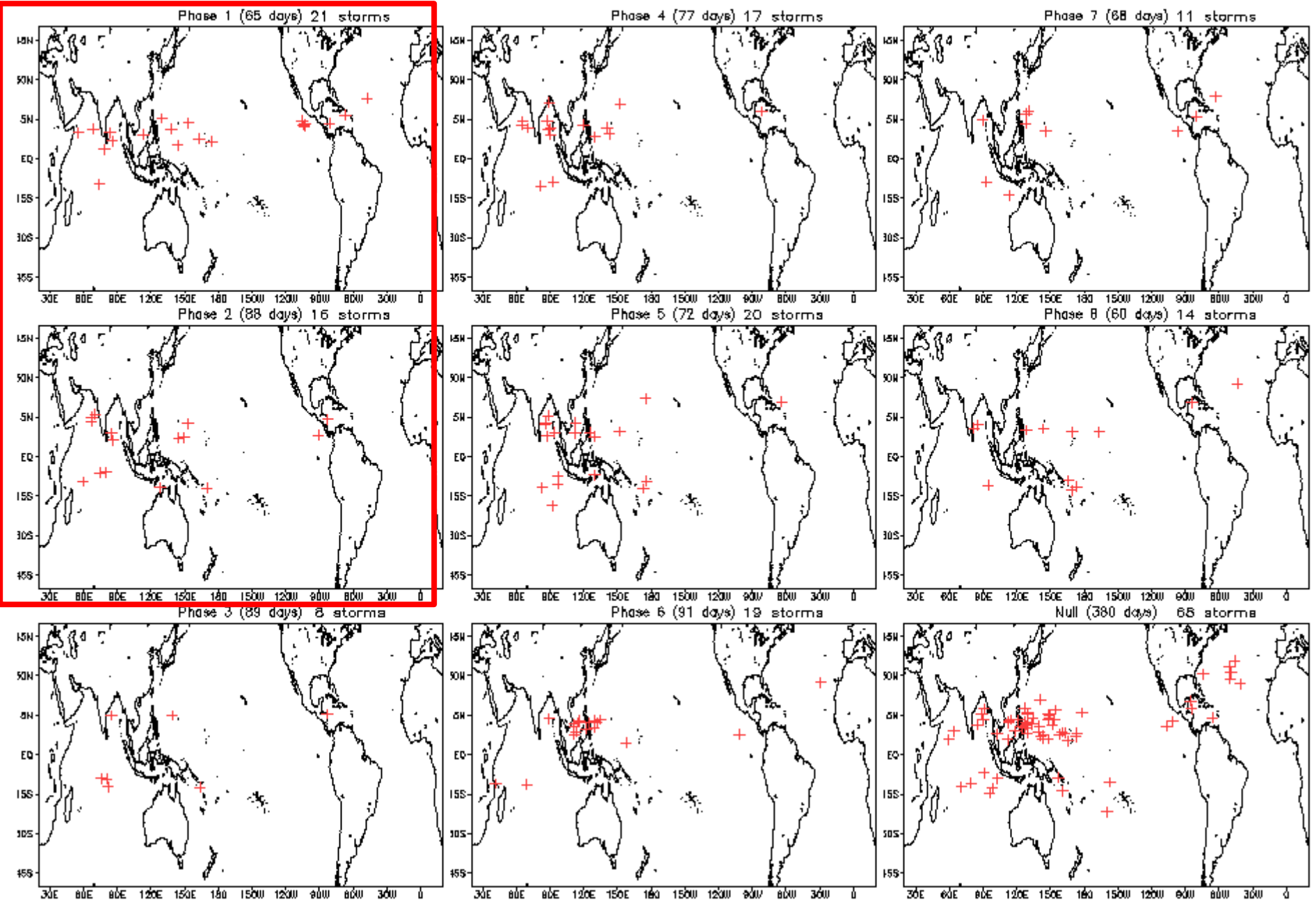
CFS Precipitation Anomalies (mm) Issued 09Nov2020  
Week-1 Forecast Ending 17Nov2020



CFS Precipitation Anomalies (mm) Issued 09Nov2020  
Week-2 Forecast Ending 24Nov2020



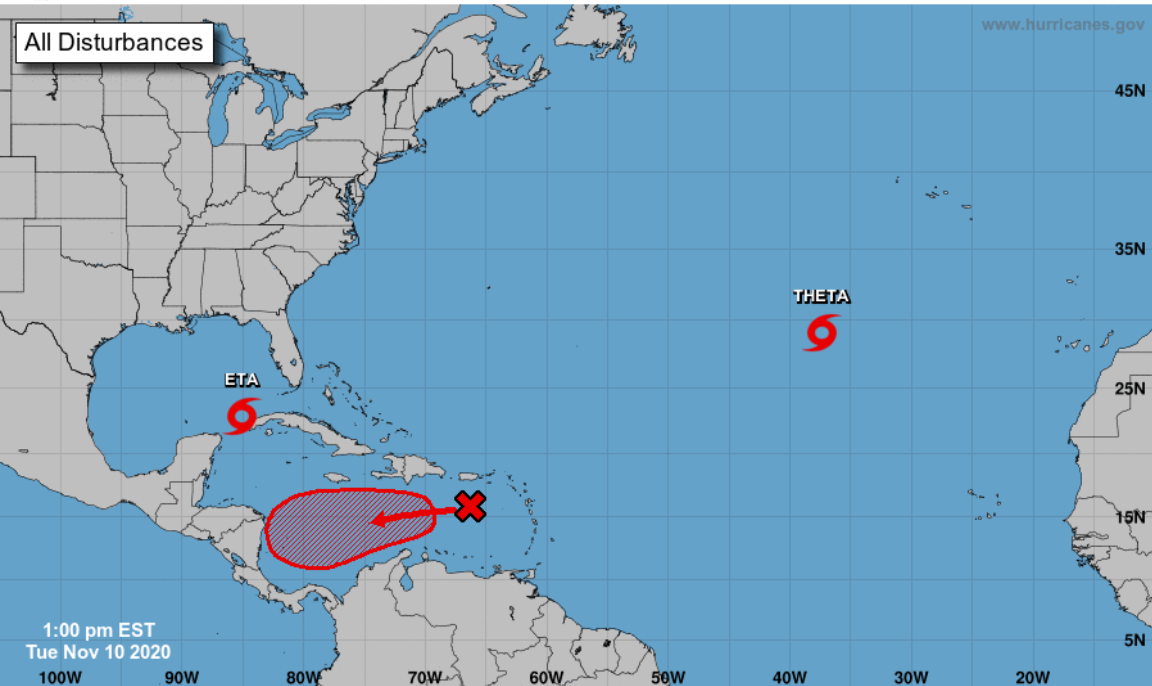
# November Tropical Storm Formation by MJO phase





# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



1:00 pm EST  
Tue Nov 10 2020

100W 90W 80W 70W 60W 50W 40W 30W 20W

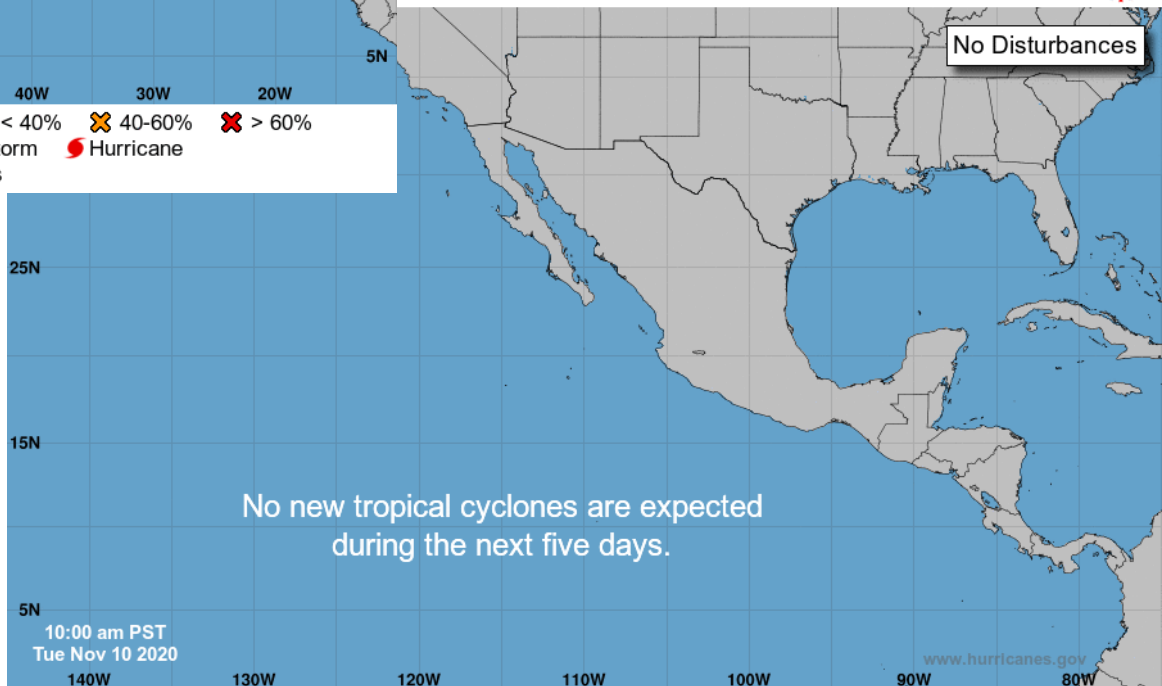
Current Disturbances and Five-Day Cyclone Formation Chance: X < 40% X 40-60% X > 60%

Tropical or Sub-Tropical Cyclone: ○ Depression ◉ Storm ◉ Hurricane

⊗ Post-Tropical Cyclone or Remnants

## Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



No Disturbances

10:00 am PST  
Tue Nov 10 2020

140W 130W 120W 110W 100W 90W 80W

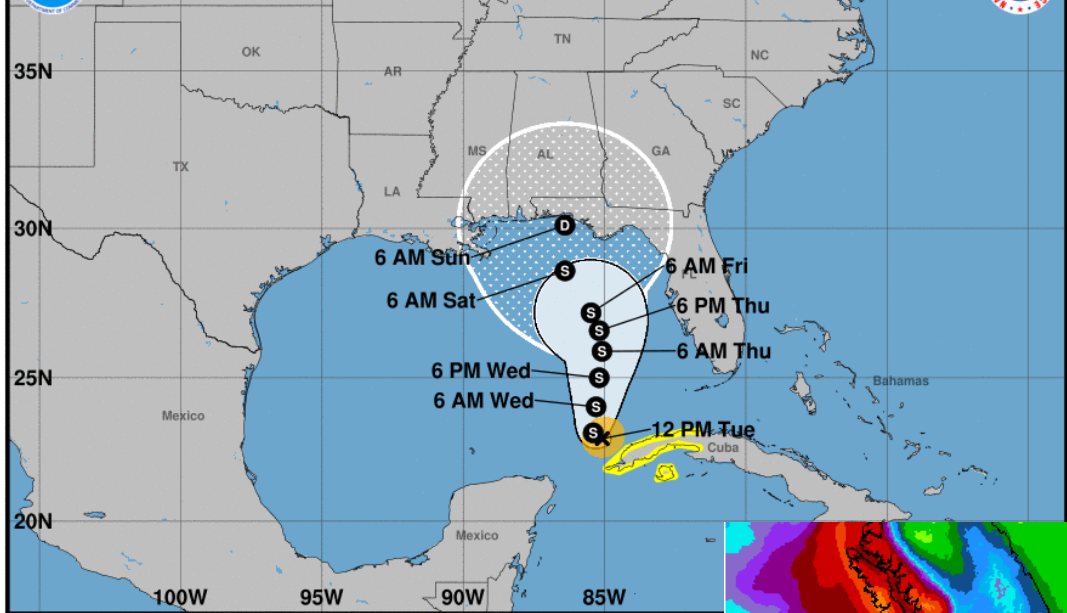
Current Disturbances and Five-Day Cyclone Formation Chance: X < 40% X 40-60% X > 60%

Tropical or Sub-Tropical Cyclone: ○ Depression ◉ Storm ◉ Hurricane

⊗ Post-Tropical Cyclone or Remnants



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.



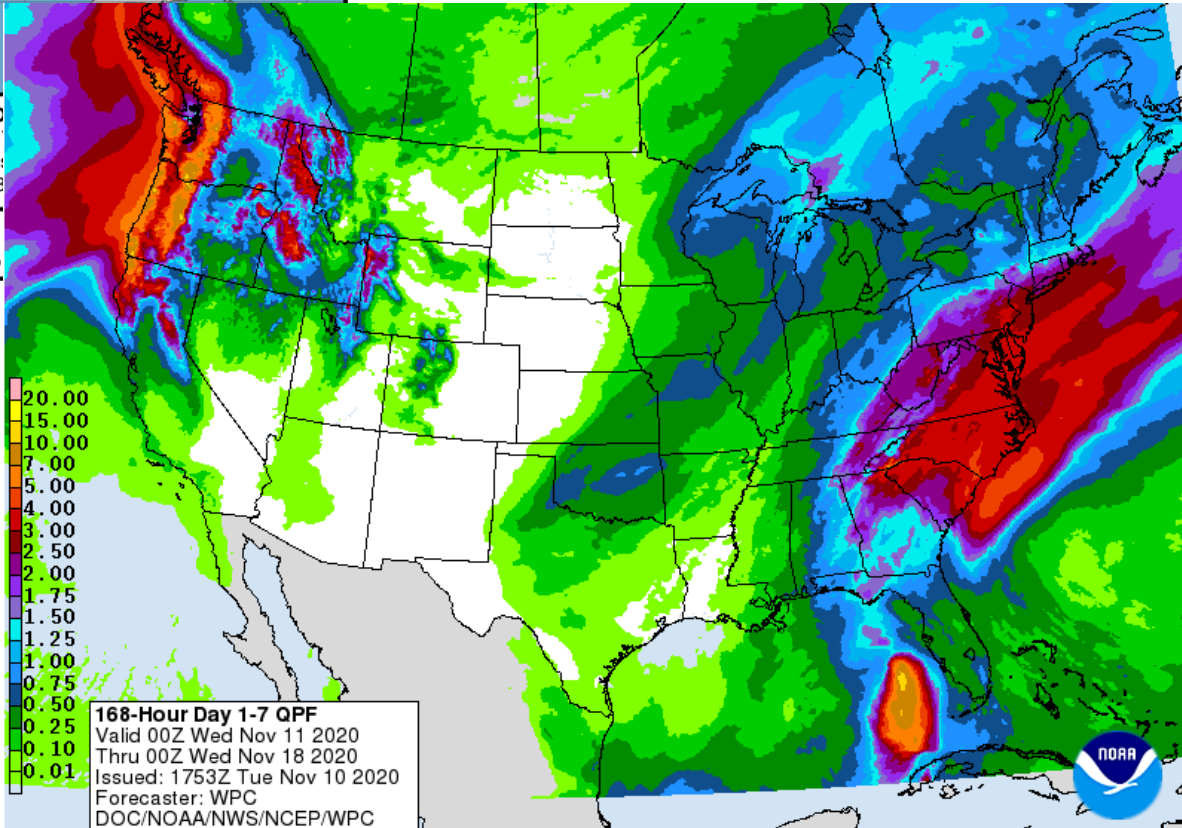
**Tropical Storm Eta**  
 Tuesday November 10, 2020  
 12 PM CST Intermediate Advisory 41A  
 NWS National Hurricane Center

**Current information: x**  
 Center location 22.9 N 85.1 W  
 Maximum sustained wind 60 mph  
 Movement: Stationary

**Potential track area:**  
 Day 1-3 (solid line) Day 4-5 (dotted line)

**Watches:**  
 Hurricane (pink) Trop Stm (yellow)

**Warnings:**  
 Hurricane (red) Trop (blue)





# JOINT TYPHOON WARNING CENTER



ABIO

ABPW

CPHC  
[\(https://www.nhc.noaa.gov/cphc/\)](https://www.nhc.noaa.gov/cphc/)

RMNTS  
TD 24W  
(ETAU)

TS 25W  
(VAMCO)

92S

IMAGE TIME: 10/1745Z  
(PRODUCT OF JTWC/SATOPS)

LOW

TC development unlikely within 24 hours

MEDIUM

TC development likely, but expected to occur beyond 24 hours

HIGH

TC development likely within 24 hours  
(Reference TCFA)

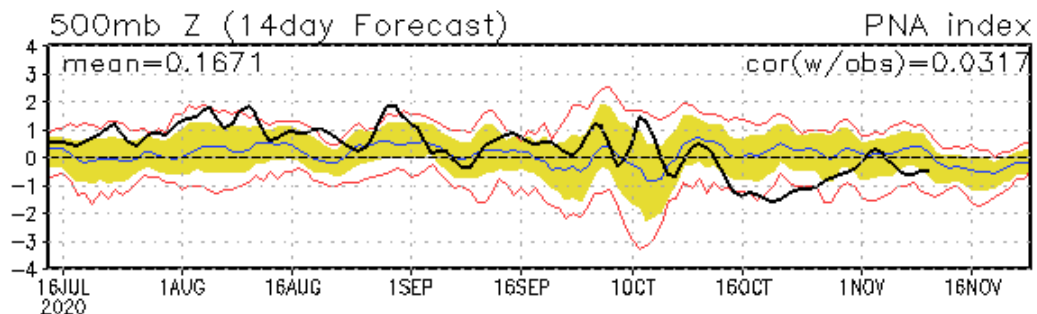
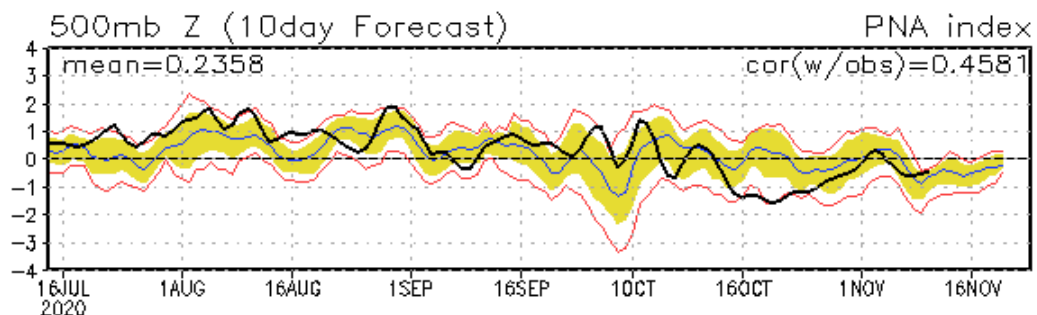
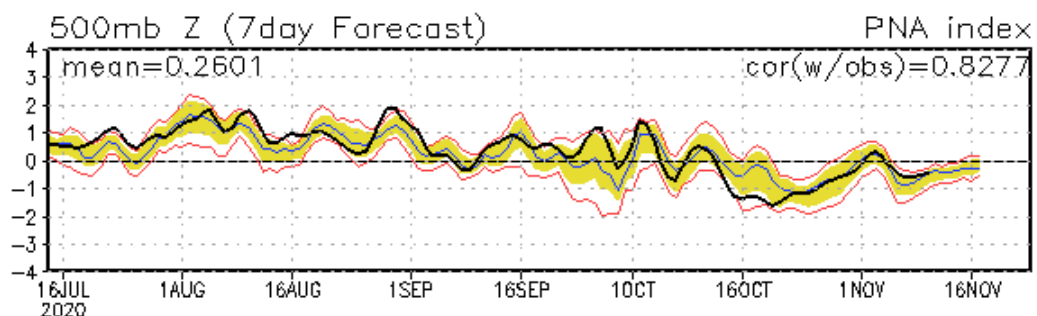
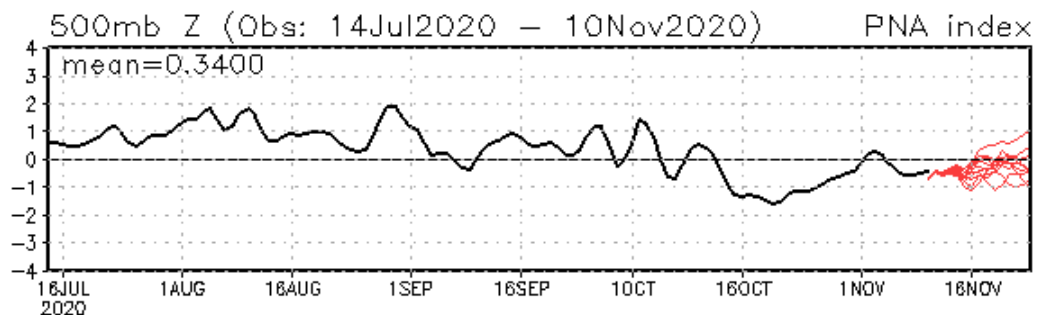
SUB TROPICAL

Monitoring for potential transition to TC. Invest color denotes tropical transition probability

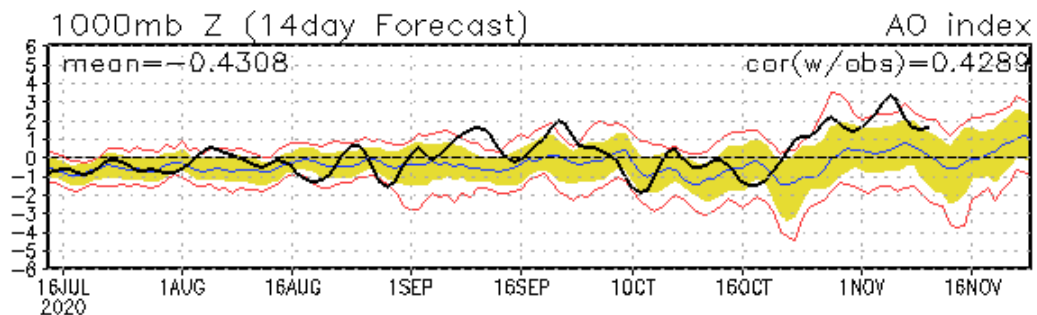
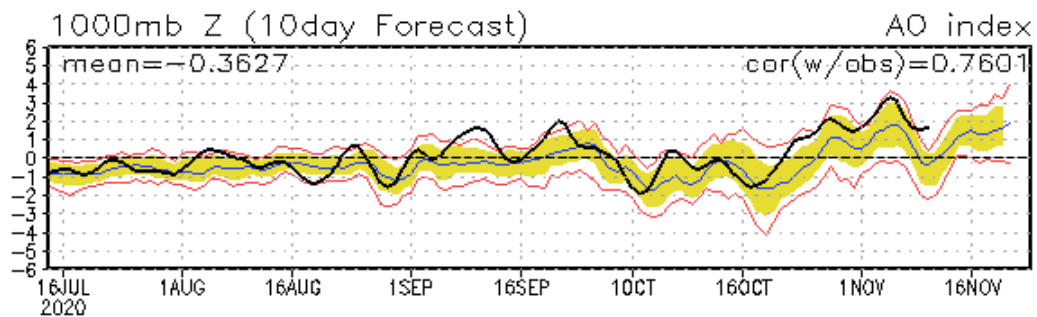
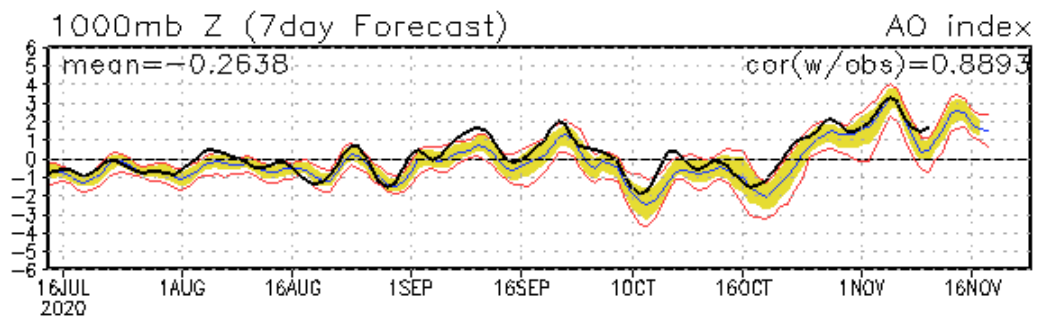
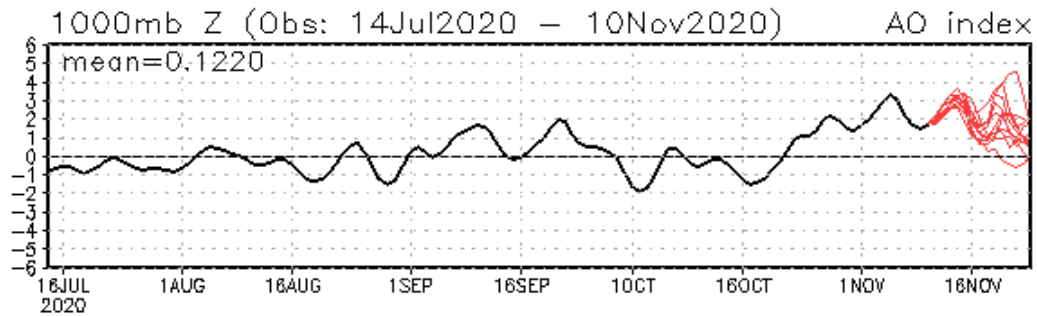
Tropical Cyclone (Reference Warning)

# Connections to U.S. Impacts

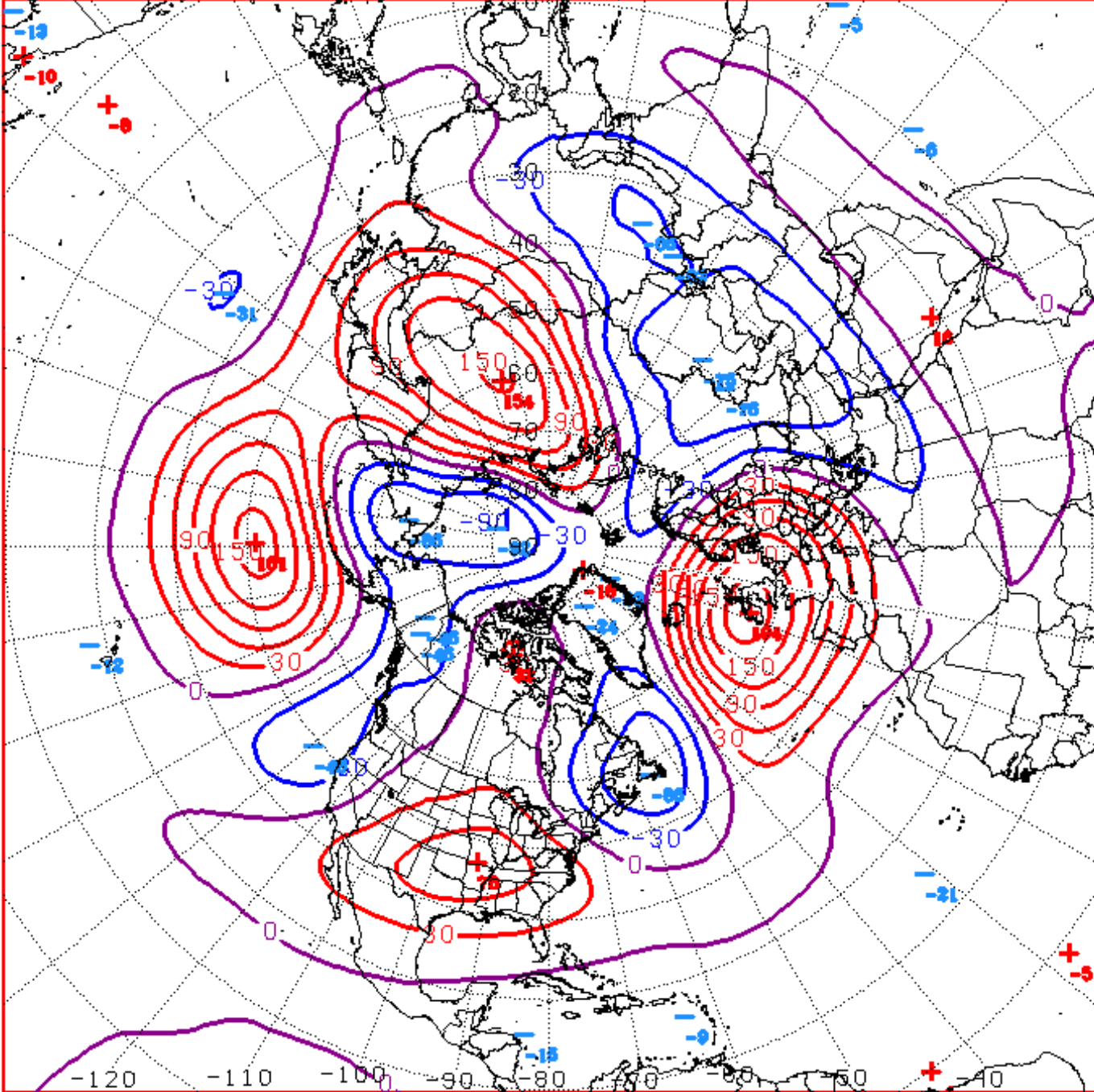
## PNA: Observed & ENSM forecasts



## AO: Observed & ENSM forecasts

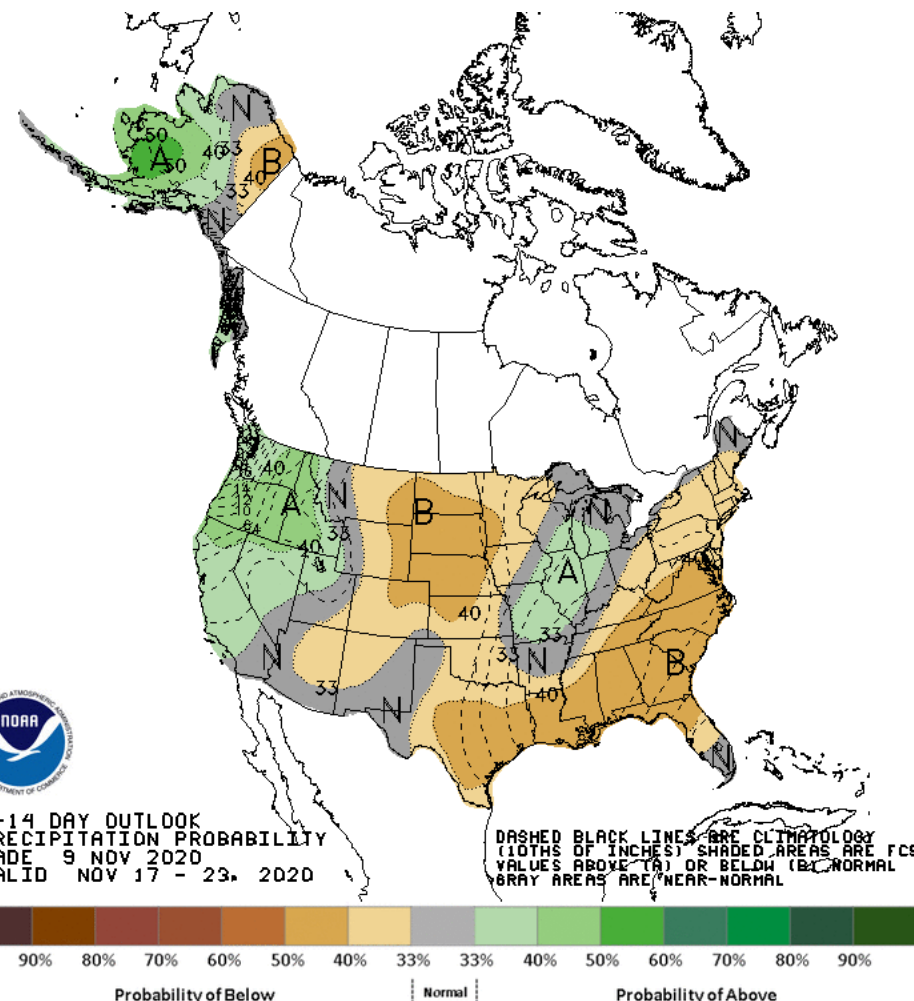
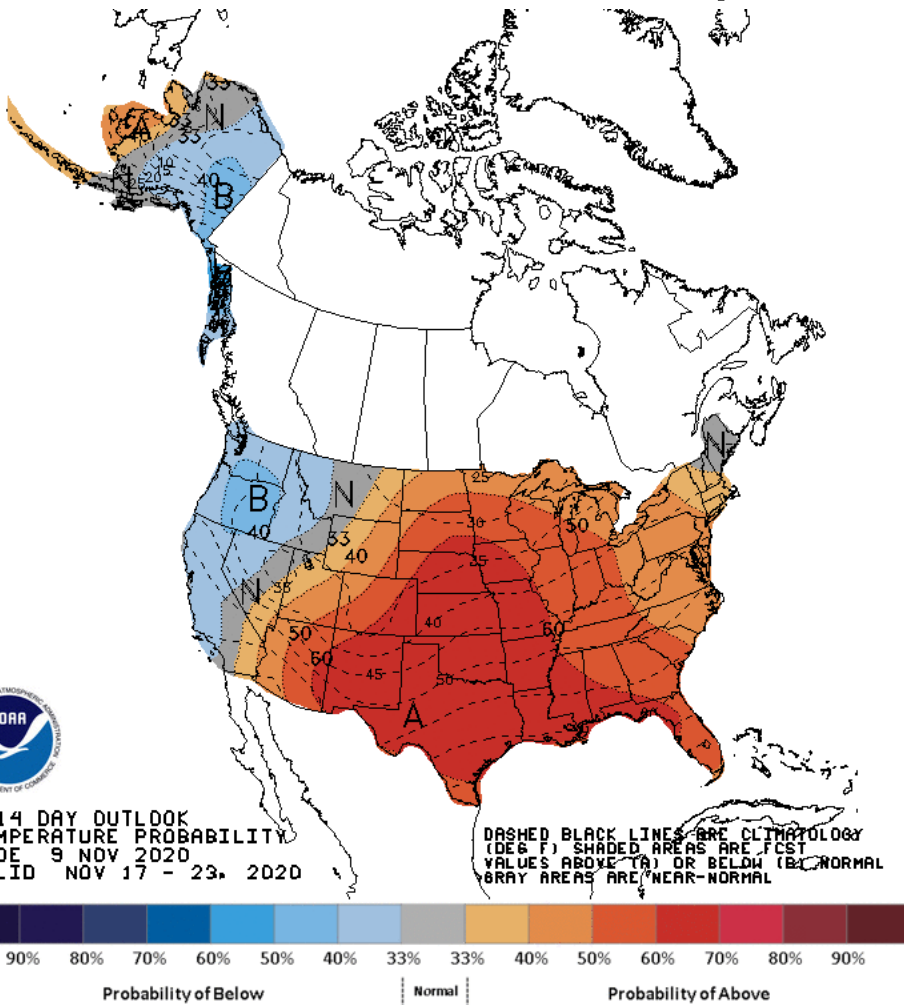






D+11 500 MB ANOMALIES FROM ALZ ENSM  
CPC MAP MADE NOV 10 2020 1448 UTC CNTD NOV 21 2020

# Week 2 – Temperature and Precipitation

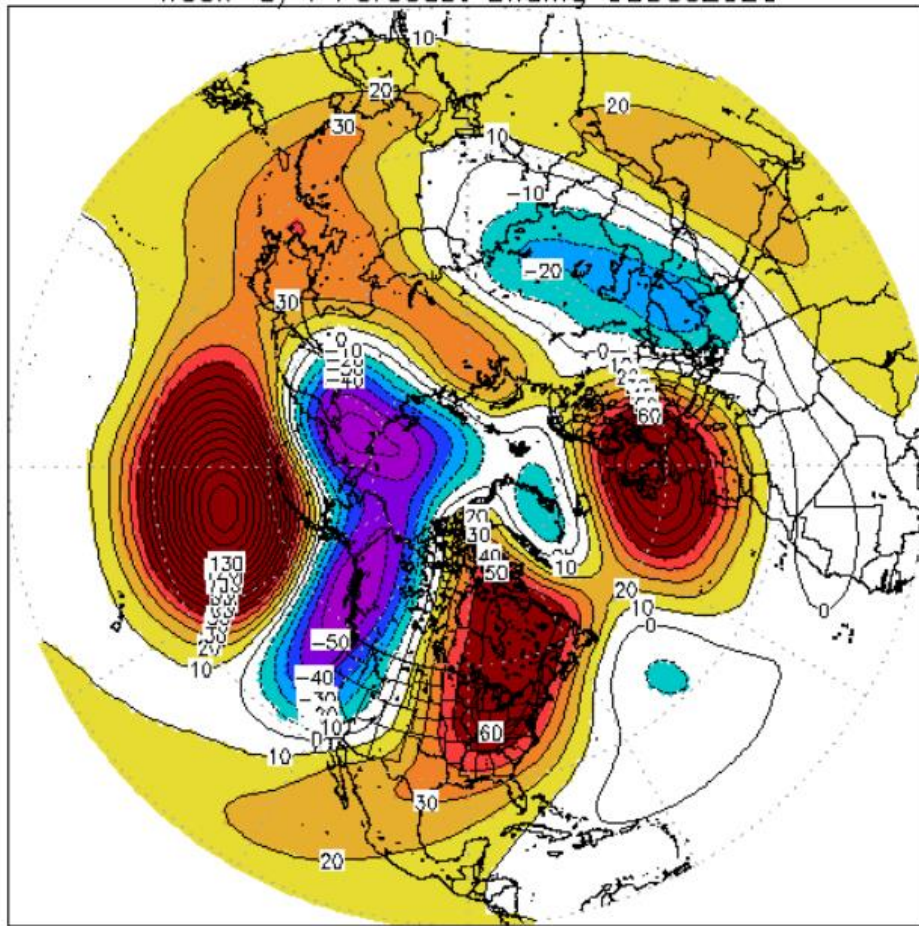


Since we are in an amplified, stable pattern today's outlooks are likely to be similar.

CFS

[Product Description](#)

CFS 500hPa Height Anomalies Issued 09Nov2020  
Week-3/4 Forecast Ending 08Dec2020



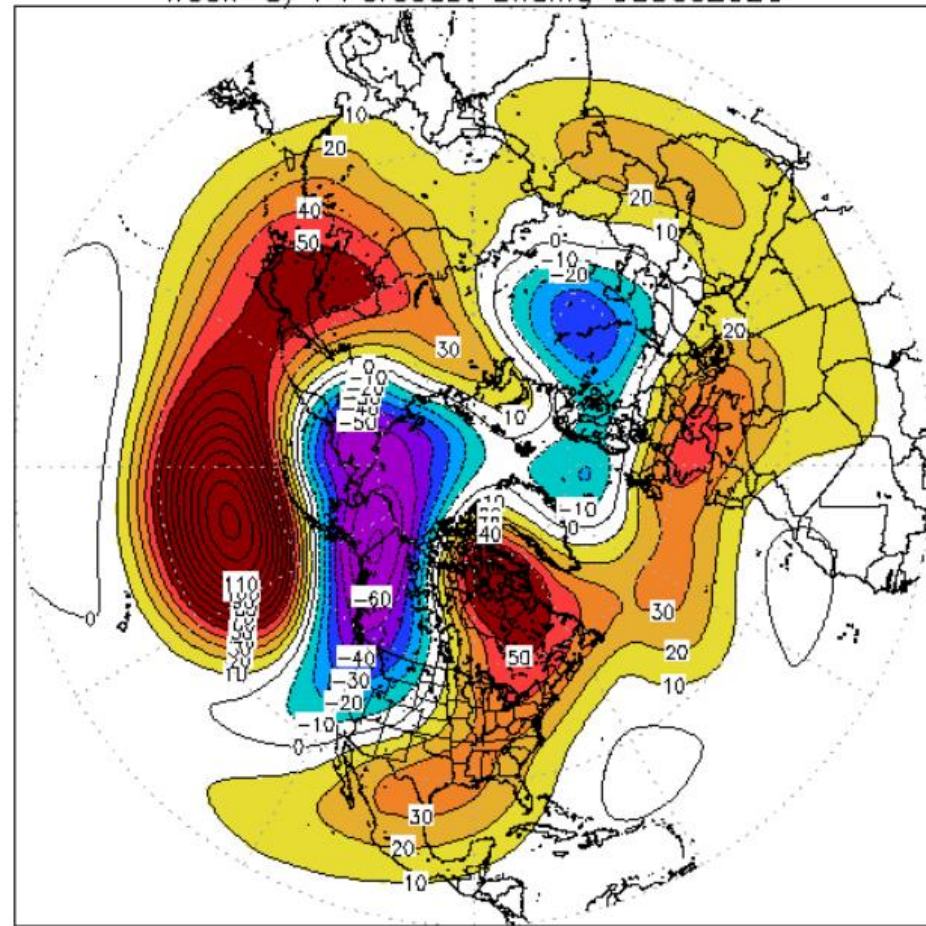
(meters)

-50 -40 -30 -20 -10 10 20 30 40 50

ECMWF

[Product Description](#)

ECMWF 500hPa Height Anomalies Issued 09Nov2020  
Week-3/4 Forecast Ending 08Dec2020



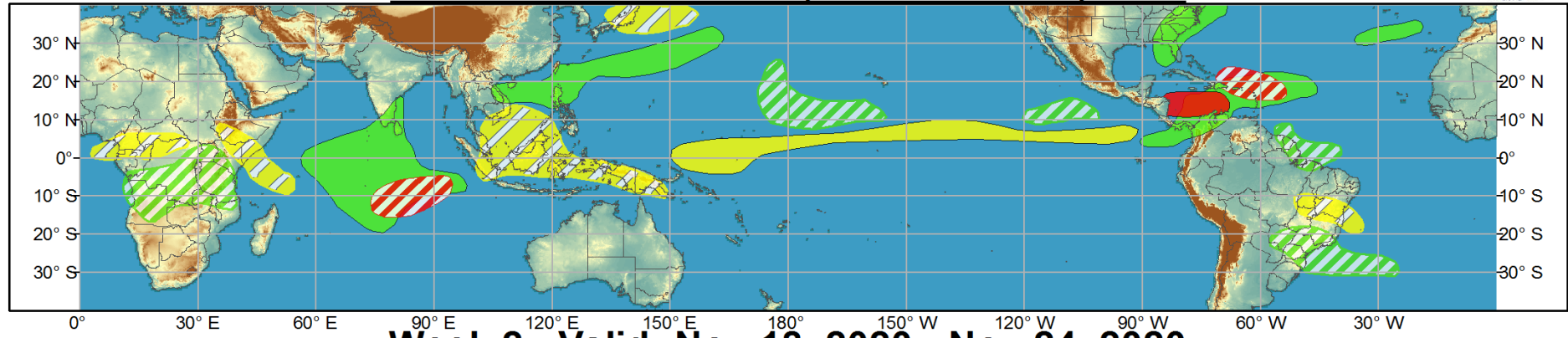
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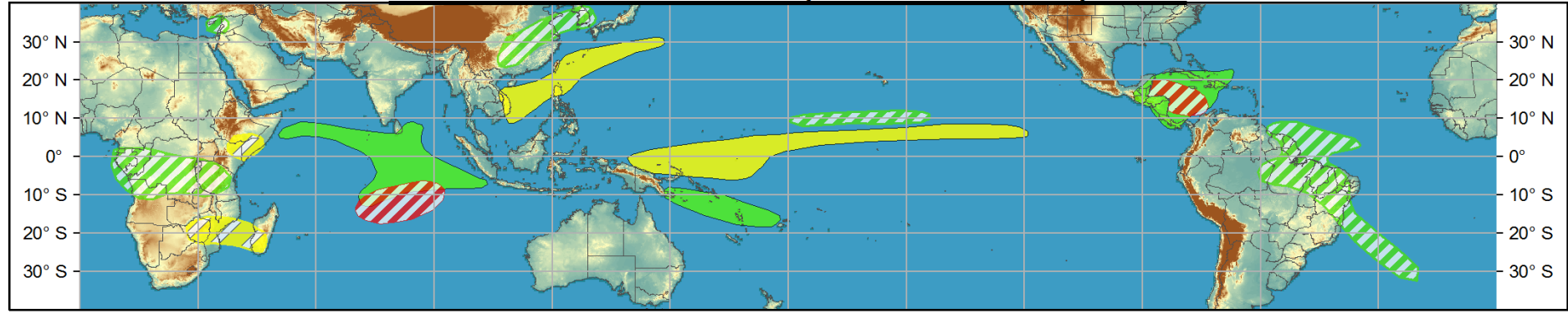


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