

Global Tropics Hazards And Benefits Outlook

11/17/2020

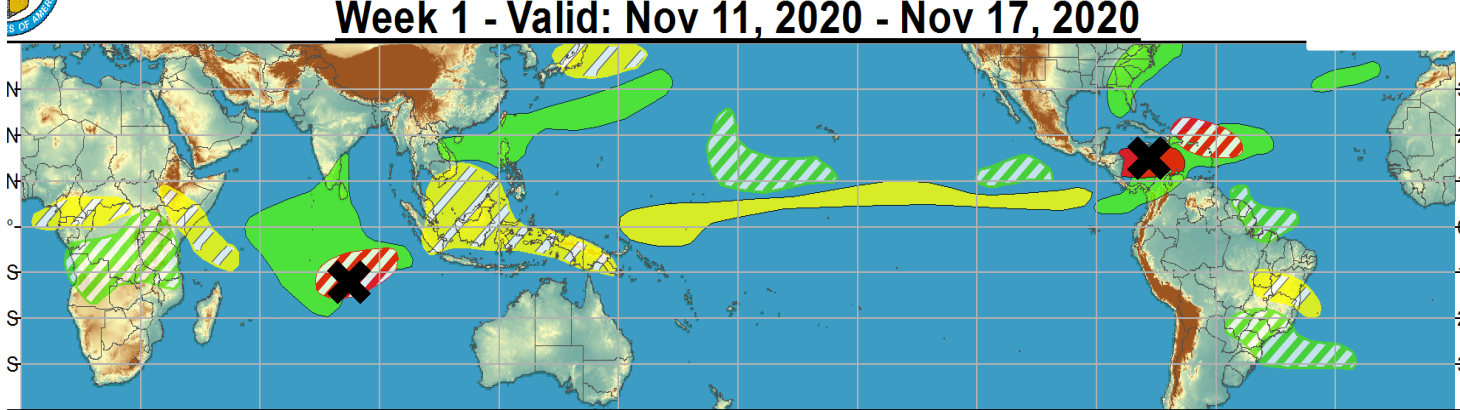
Kyle MacRitchie on behalf of Dan Harnos

Outline

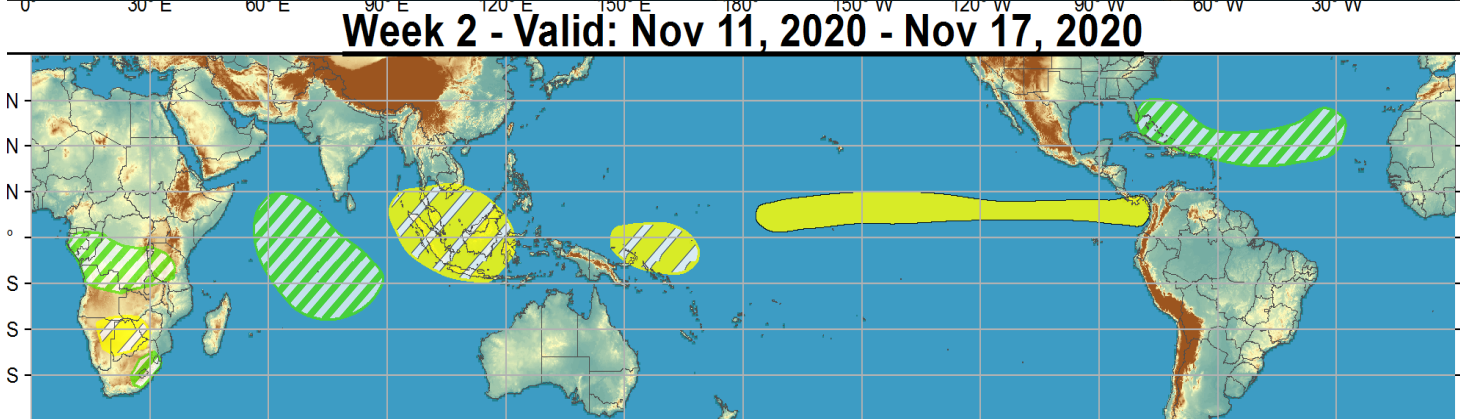
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

ATL: Hurricane Iota
(11/13)

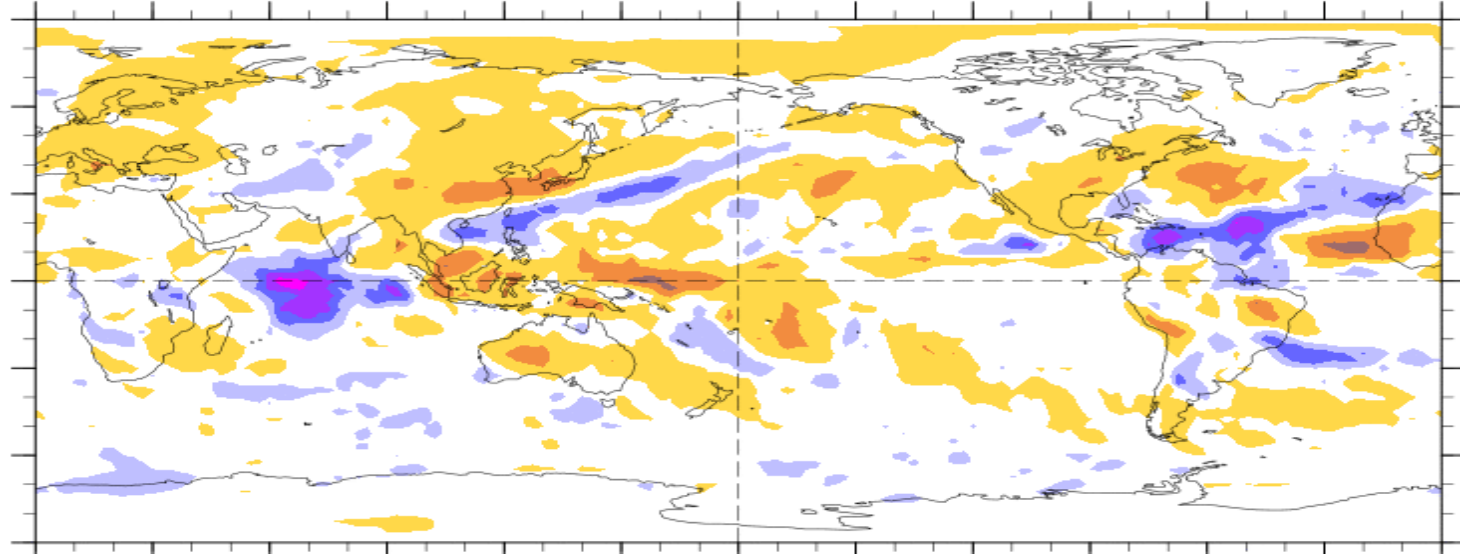


IO: TC Alicia
(11/13)



7-Day Average OLR Anomaly

2020/11/09 - 2020/11/15



Cool shading
More clouds/rain

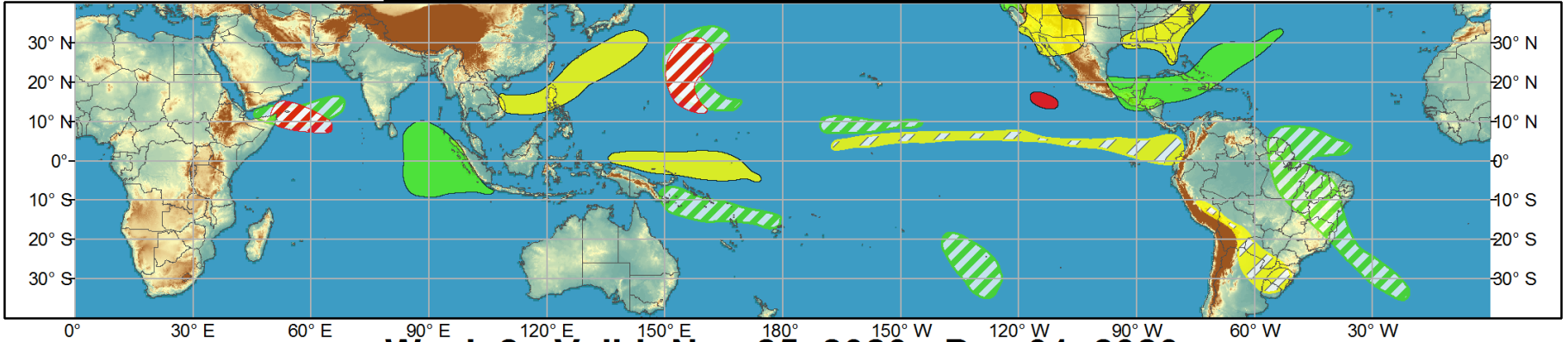
Warm shading
Less clouds/rain



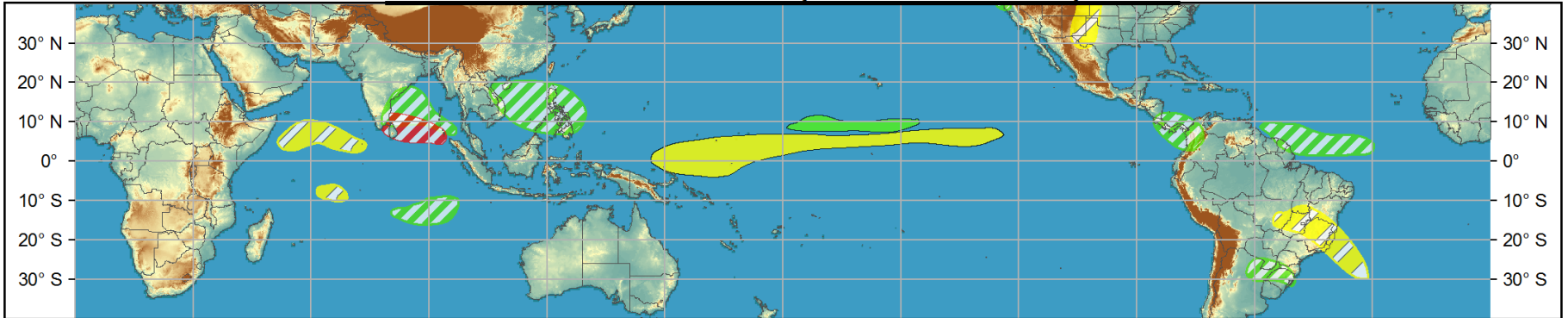
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Nov 18, 2020 - Nov 24, 2020



Week 2 - Valid: Nov 25, 2020 - Dec 01, 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: 11/17/2020
Forecaster: 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.



Synopsis of Climate Modes

ENSO: November 12, 2020 Update

Next update December 10

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

- La Niña is likely to continue through the Northern Hemisphere winter 2020-21 (~95% chance during January-March) and into spring 2021 (~65% chance during March-May)

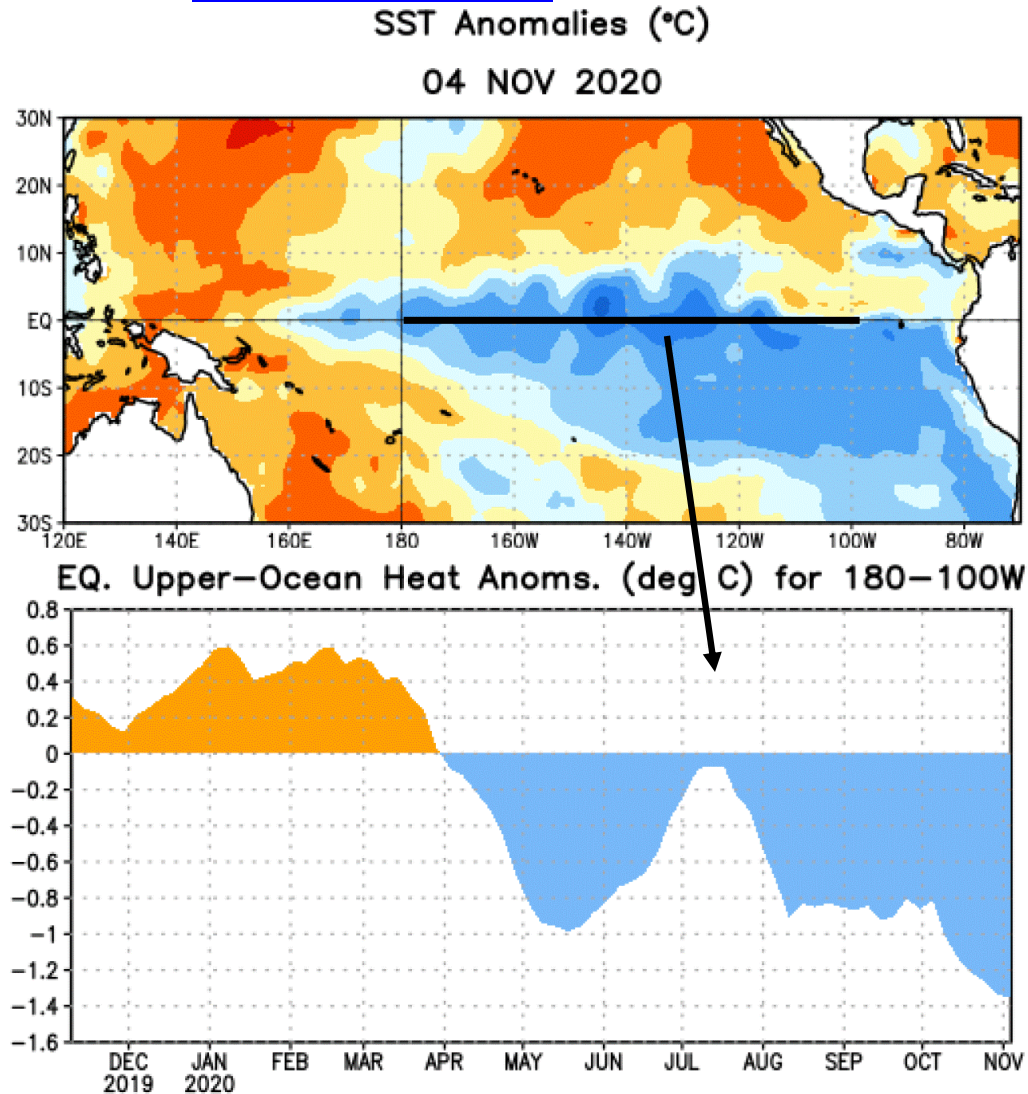
	La Niña		Neutral		El Niño	
Target	< -1.5°C	< -1.0°C	< -0.5°C	> 0.5°C	> 1.0°C	> 1.5°C
OND	50	99	~100	~0	~0	~0
NDJ	54	94	~100	~0	~0	~0
DJF	44	86	99	~0	~0	~0
JFM	25	69	95	~0	~0	~0
FMA	8	41	84	~0	~0	~0
MAM	2	19	65	~0	~0	~0
AMJ	1	9	43	2	~0	~0
MJJ	~0	6	30	8	1	~0
JJA	1	6	28	14	2	~0
	< -1.5°C	< -1.0°C	< -0.5°C	> 0.5°C	> 1.0°C	> 1.5°C

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MJO and other subseasonal tropical variability:

- The active part of the MJO is over the western Indian Ocean, away from the Atlantic, which should reduce the likelihood of more Atlantic TC activity.
- There is poor confidence in the future track of the MJO due to significant ensemble spread within the models.

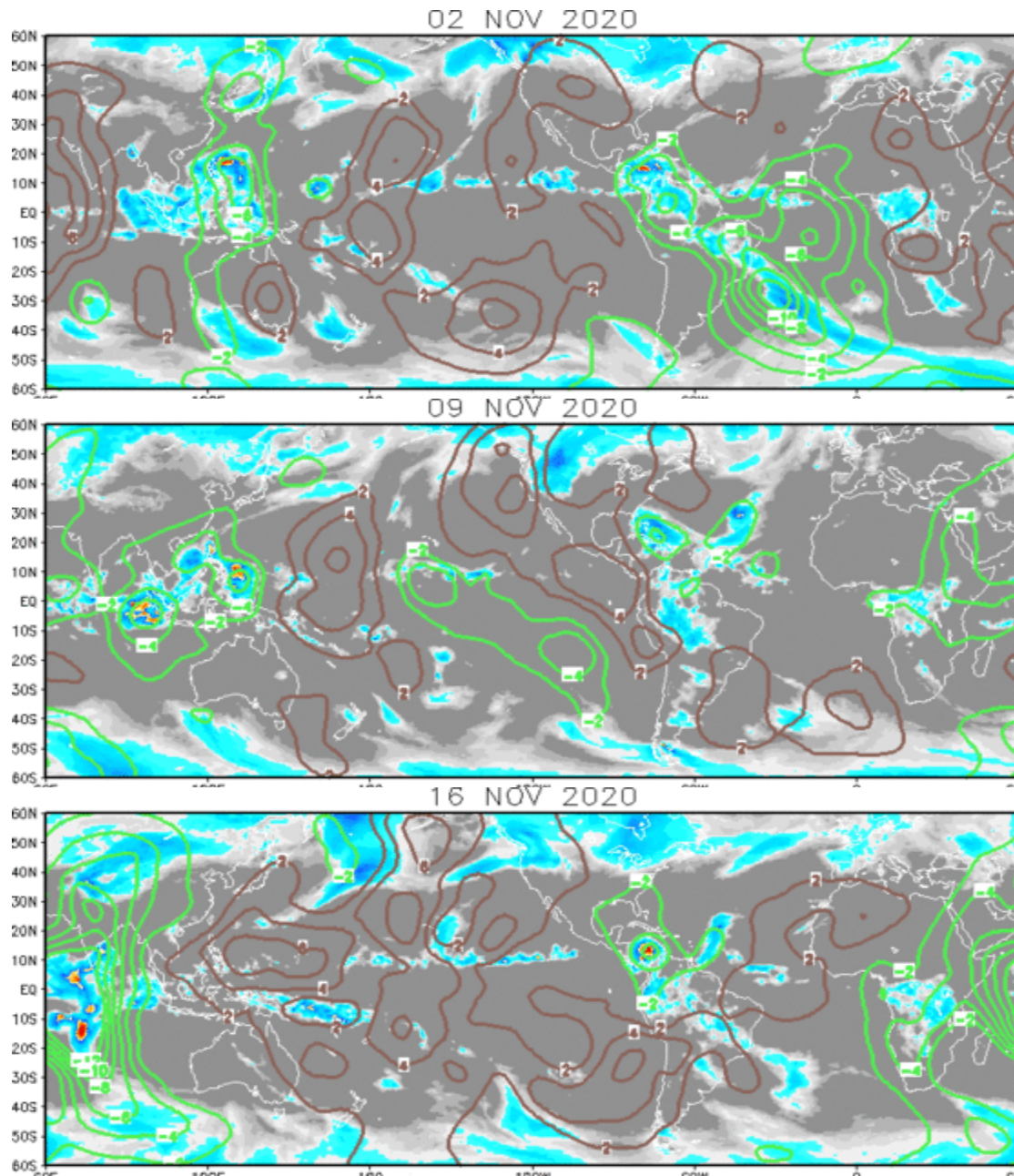
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

Brown: Enhanced Convergence

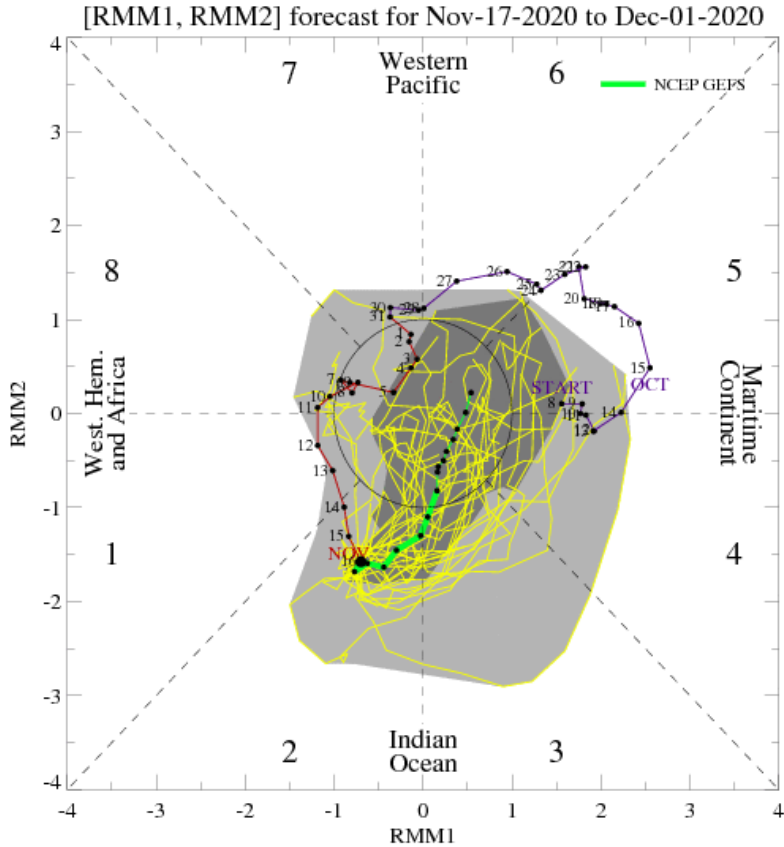
Semi persistent convection over the Maritime Continent associated with La Nina and MJO activity.

Enhanced convection co-located with the active phase of the MJO moving across Africa.

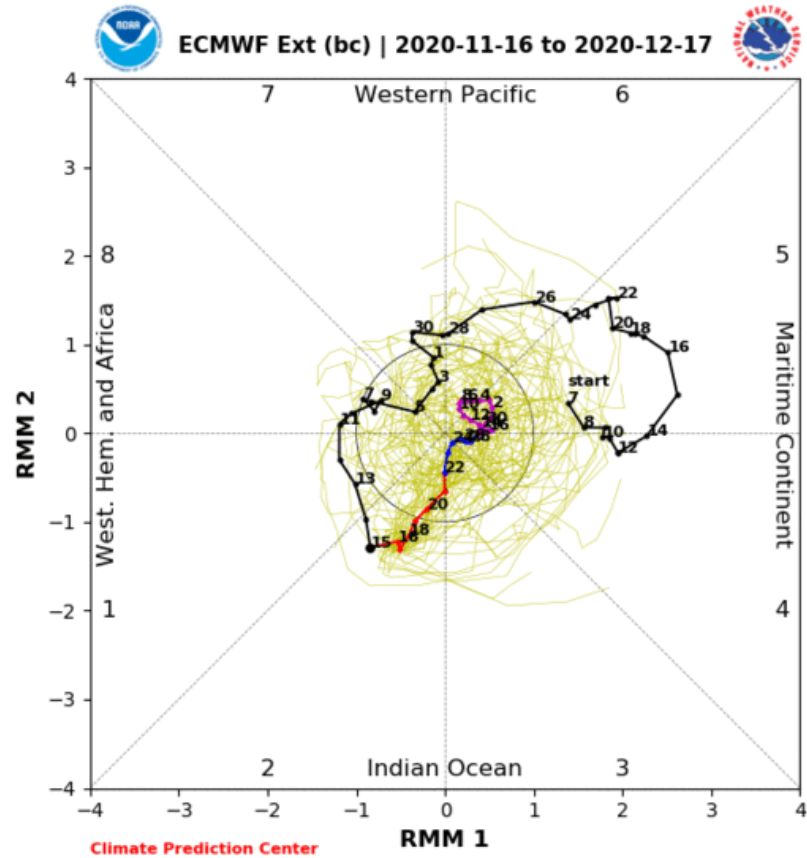


MJO Observation/Forecast

GEFS

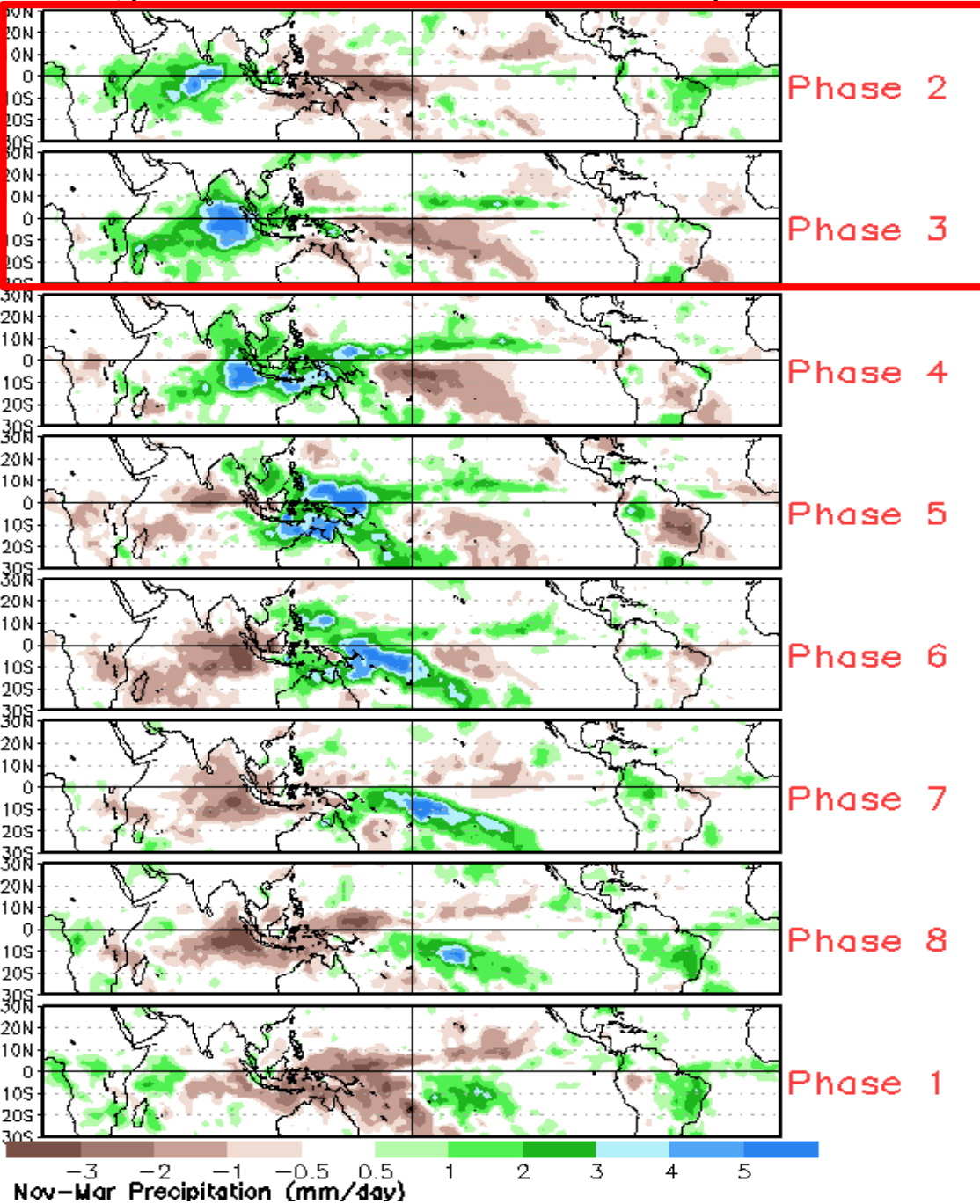


ECMWF



- GEFS and ECMWF ensemble means project a weakening MJO during the next two weeks.
- Significant spread among the ensemble members.
- ECMWF extended run projects the MJO to stay week through early December.

Average Conditions when the MJO is present

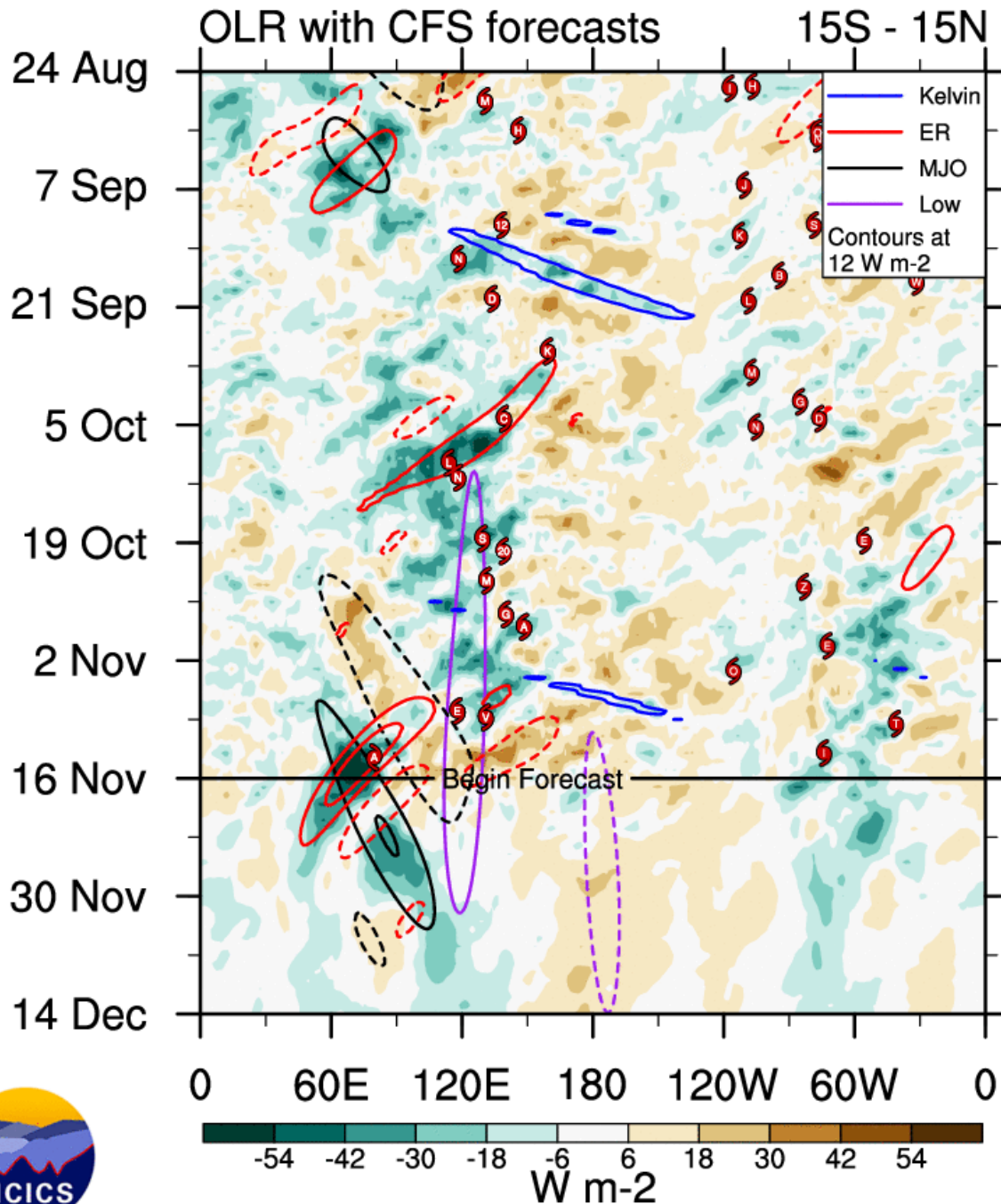


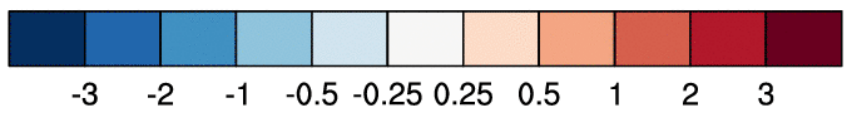
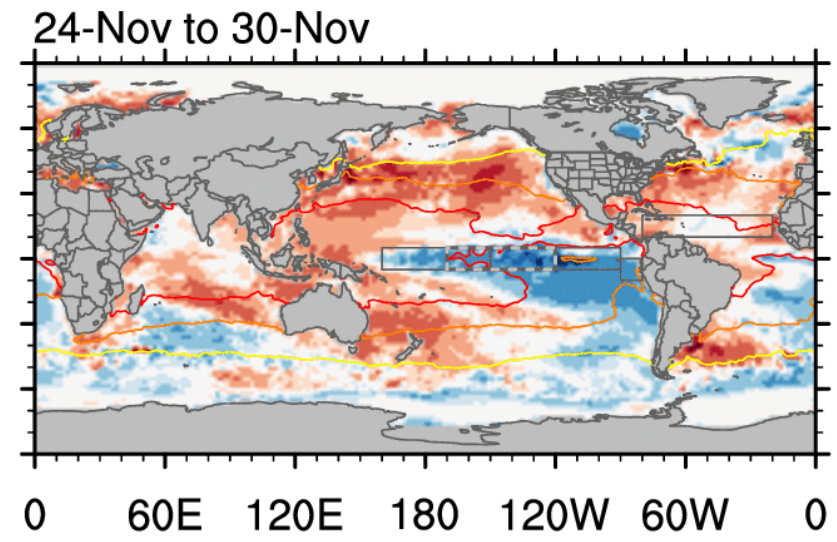
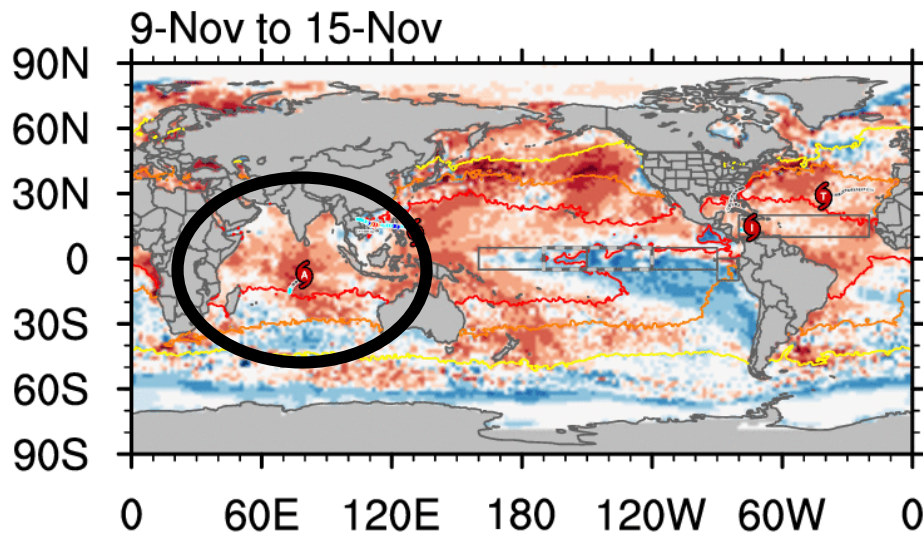
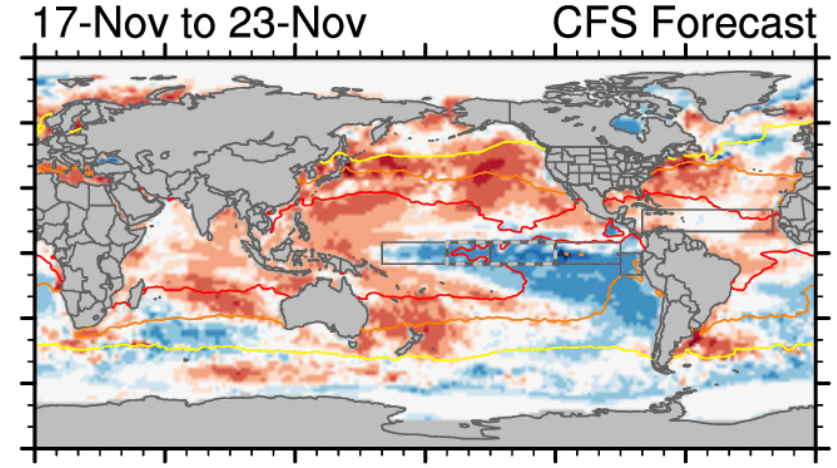
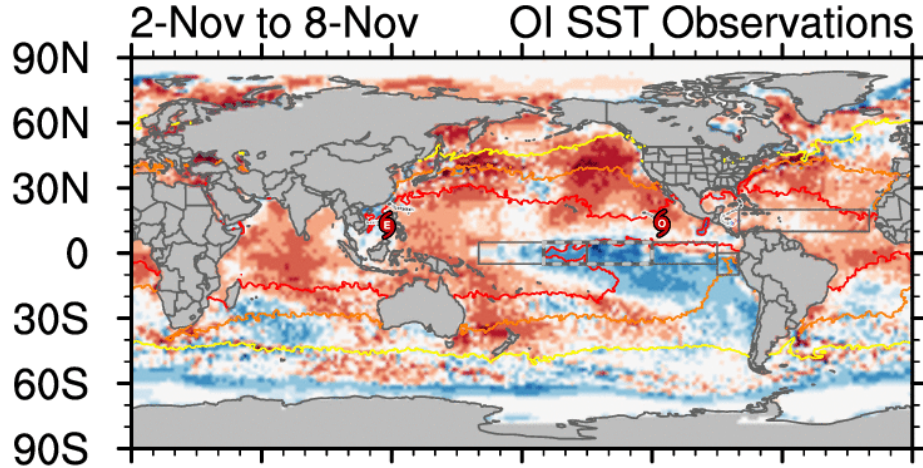
CAVEAT: These panels are representative of robust MJO events.

MJO activity strongly favored by the CFS.

Low frequency contours depict ENSO cold conditions.

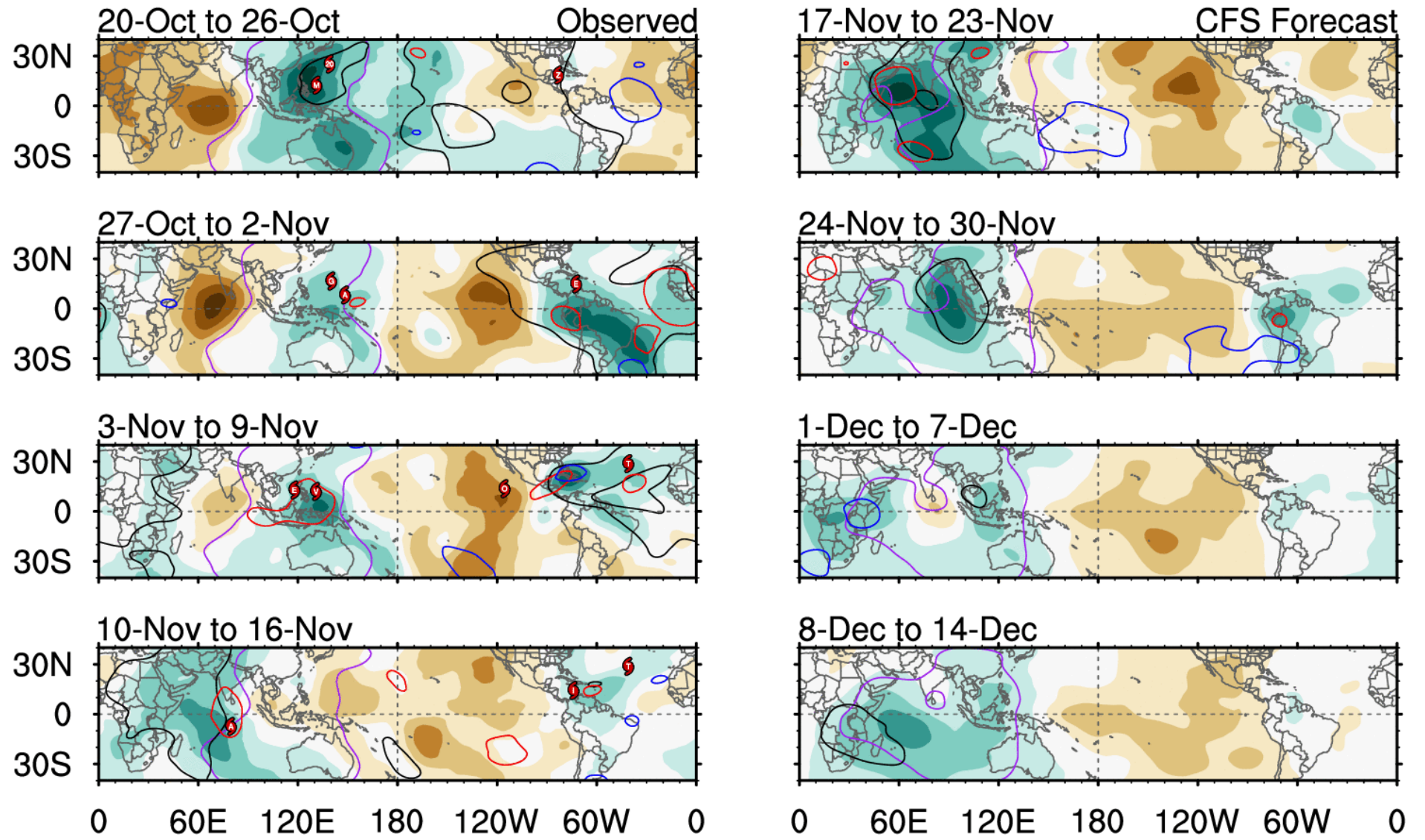
Equatorial Rossby wave activity over the Indian Ocean.





7-day ANOM



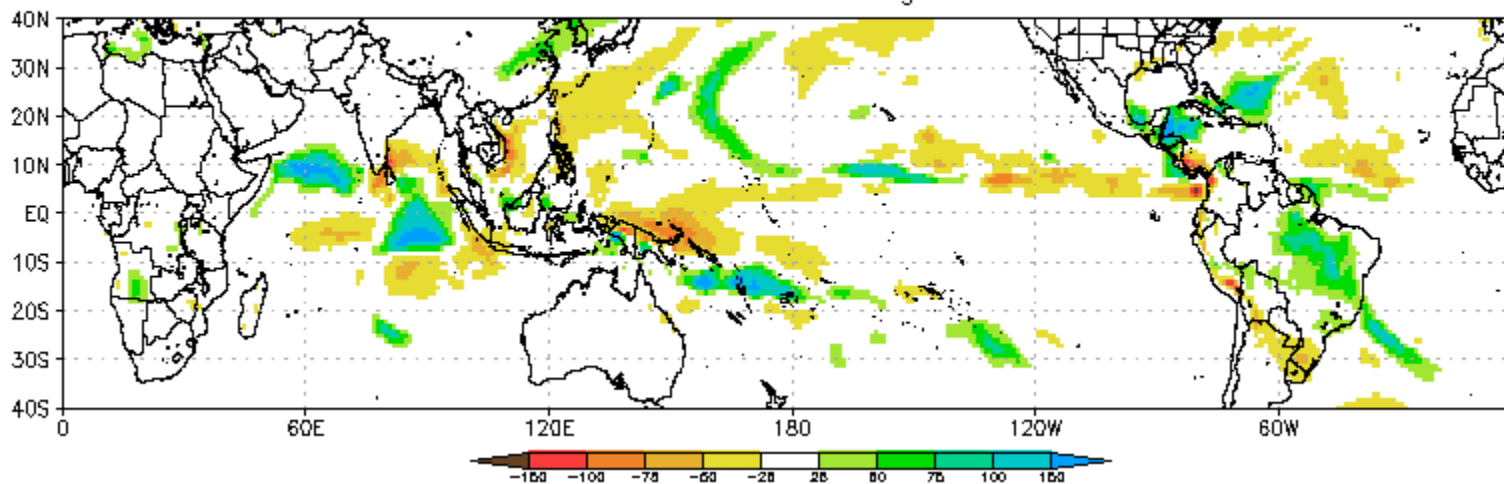


7-day CHI200 with CFS forecasts

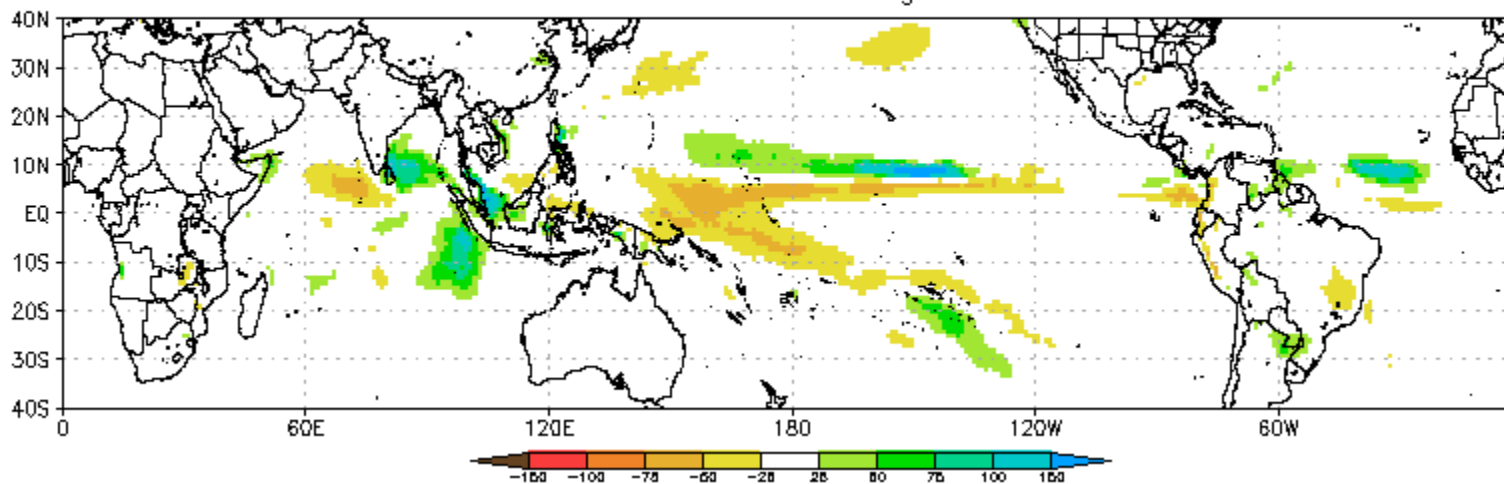


Contours at $-2, -6 \times 10^6 \text{ m}^2 \text{ s}^{-1}$

CFS Precipitation Anomalies (mm) Issued 16Nov2020
Week-1 Forecast Ending 24Nov2020

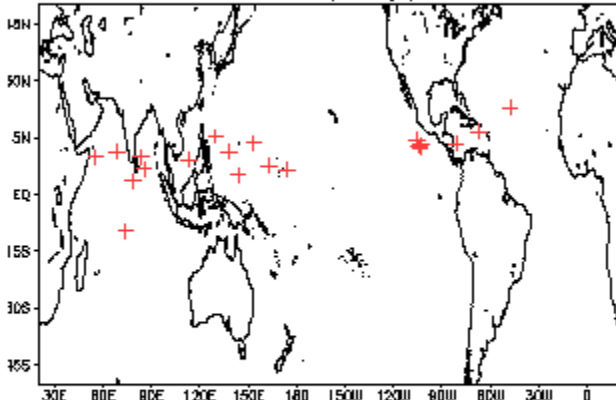


CFS Precipitation Anomalies (mm) Issued 16Nov2020
Week-2 Forecast Ending 01Dec2020

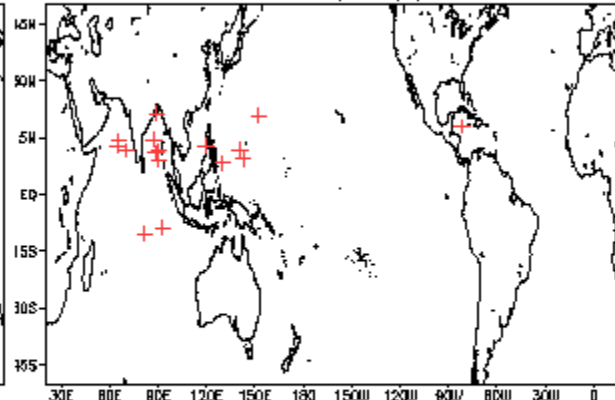


November Tropical Storm Formation by MJO phase

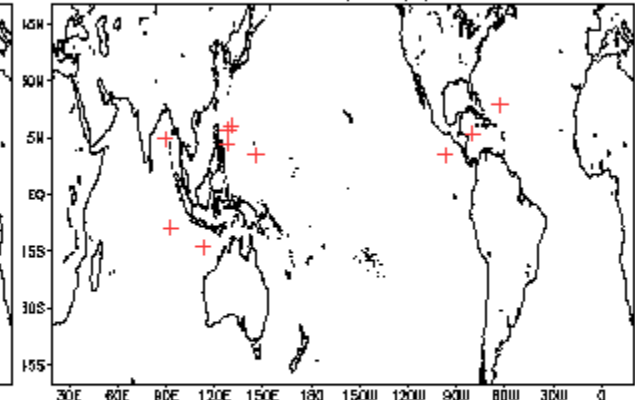
Phase 1 (65 days) 21 storms



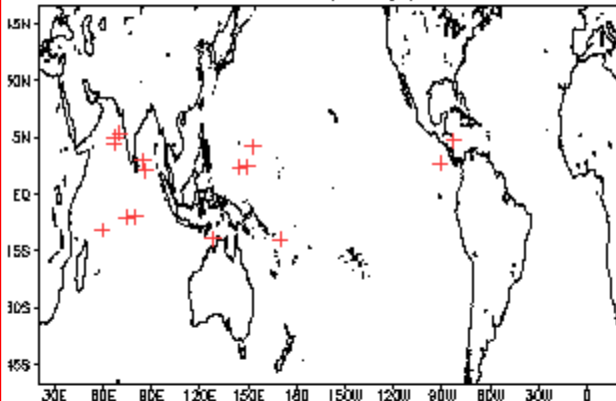
Phase 4 (77 days) 17 storms



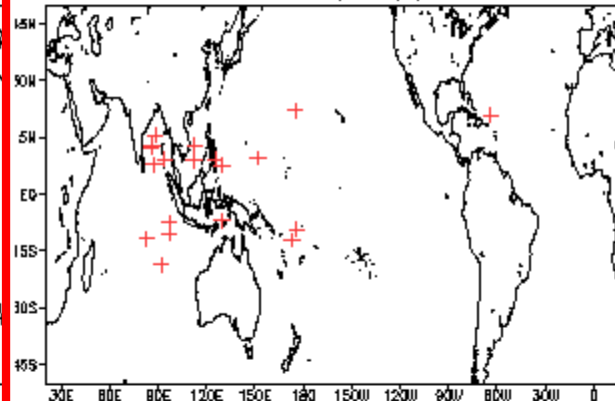
Phase 7 (68 days) 11 storms



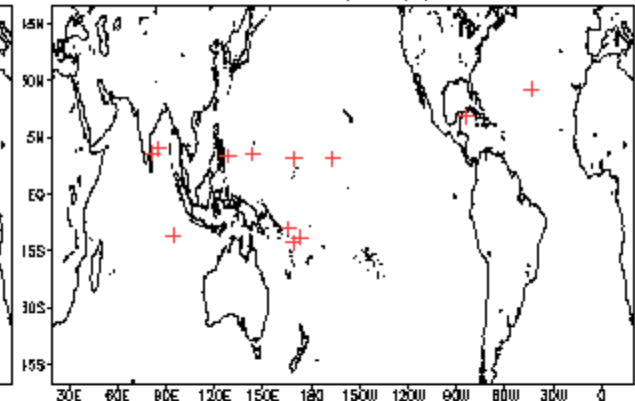
Phase 2 (88 days) 16 storms



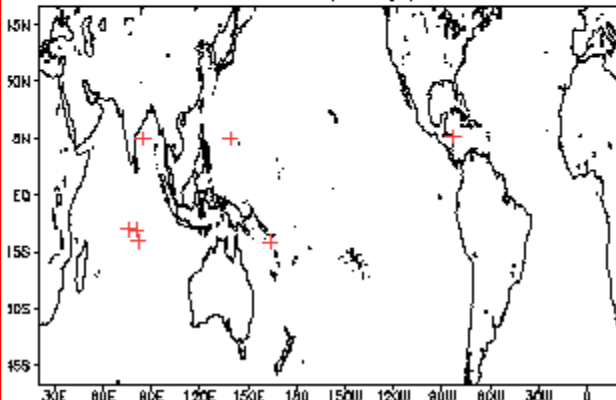
Phase 5 (72 days) 20 storms



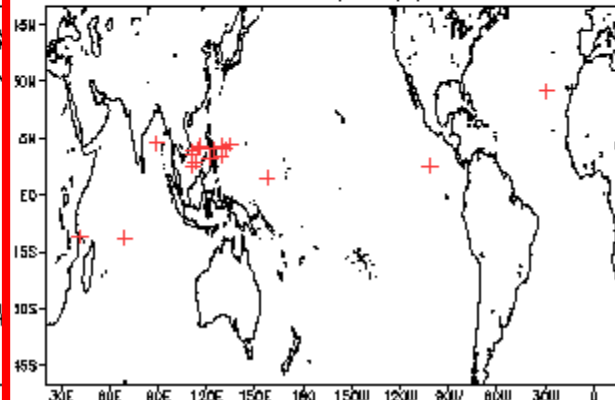
Phase 8 (60 days) 14 storms



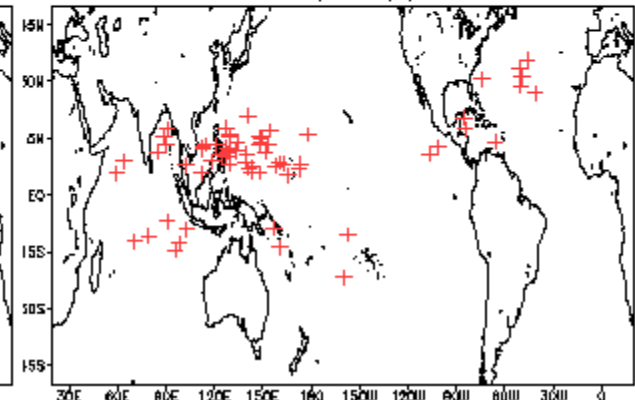
Phase 3 (89 days) 8 storms



Phase 6 (91 days) 19 storms



Null (380 days) 65 storms





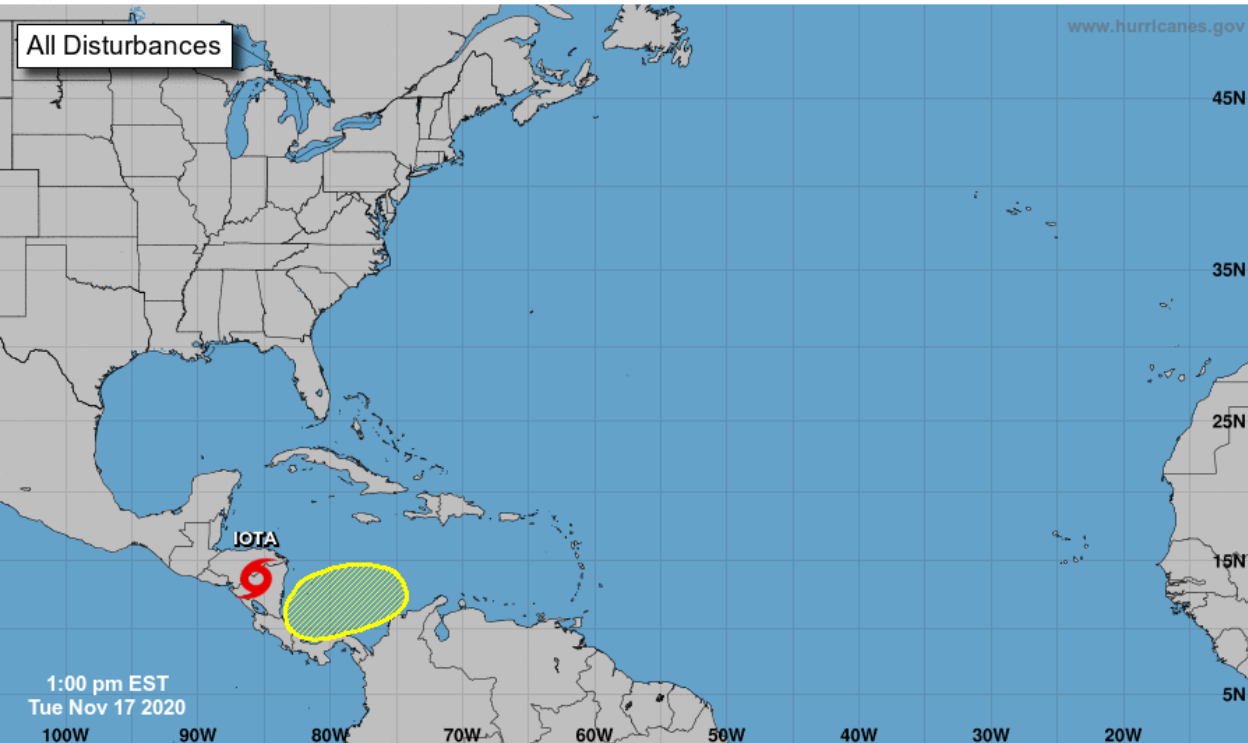
Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

All Disturbances



1:00 pm EST
Tue Nov 17 2020

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

Current Disturbances and Five-Day Cyclone Formation Chance:
 Tropical or Sub-Tropical Cyclone:
 X < 40% X 40-60% X > 60%
 O Depression O Storm O Hurricane
 O Post-Tropical Cyclone or Remnants

Tropical Weather Outlook

National Hurricane Center Miami, Florida



All Disturbances



10:00 am PST
Tue Nov 17 2020

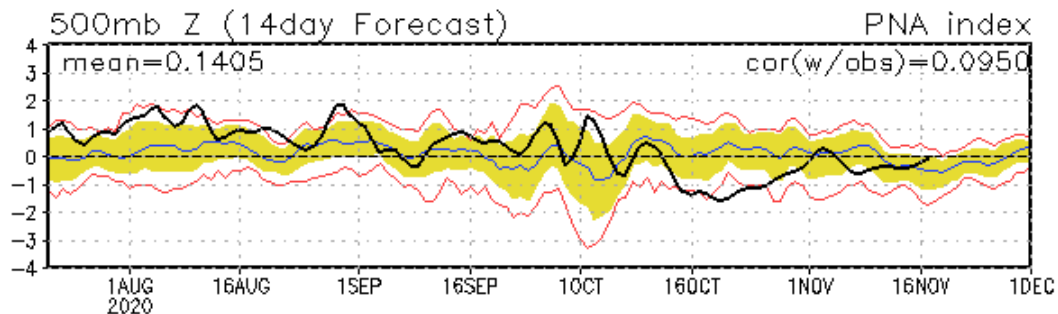
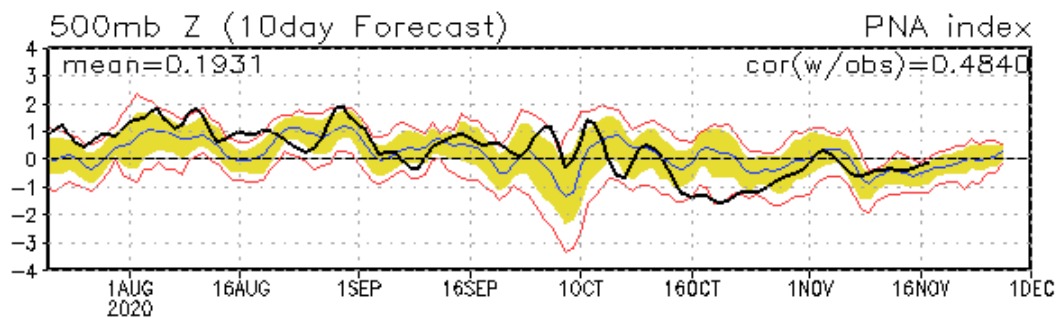
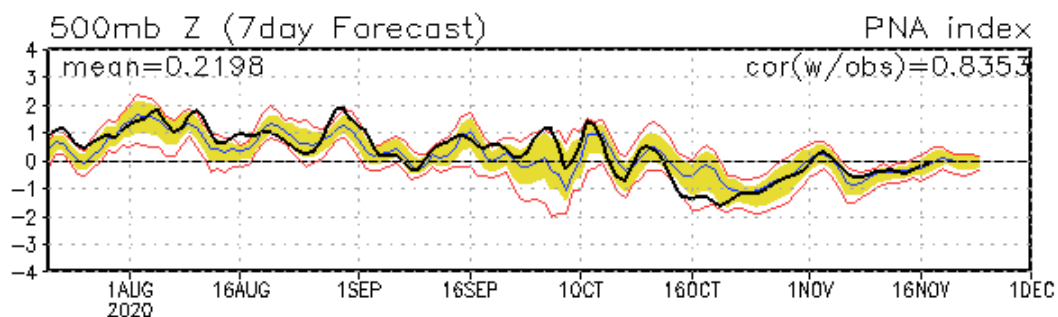
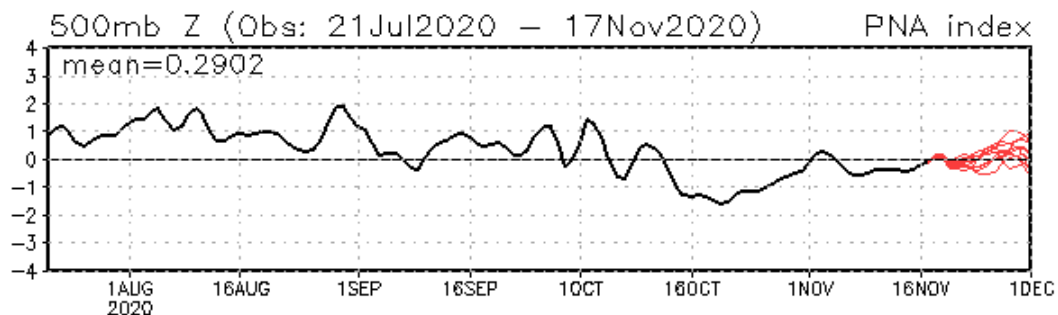
140W 130W 120W 110W 100W 90W 80W

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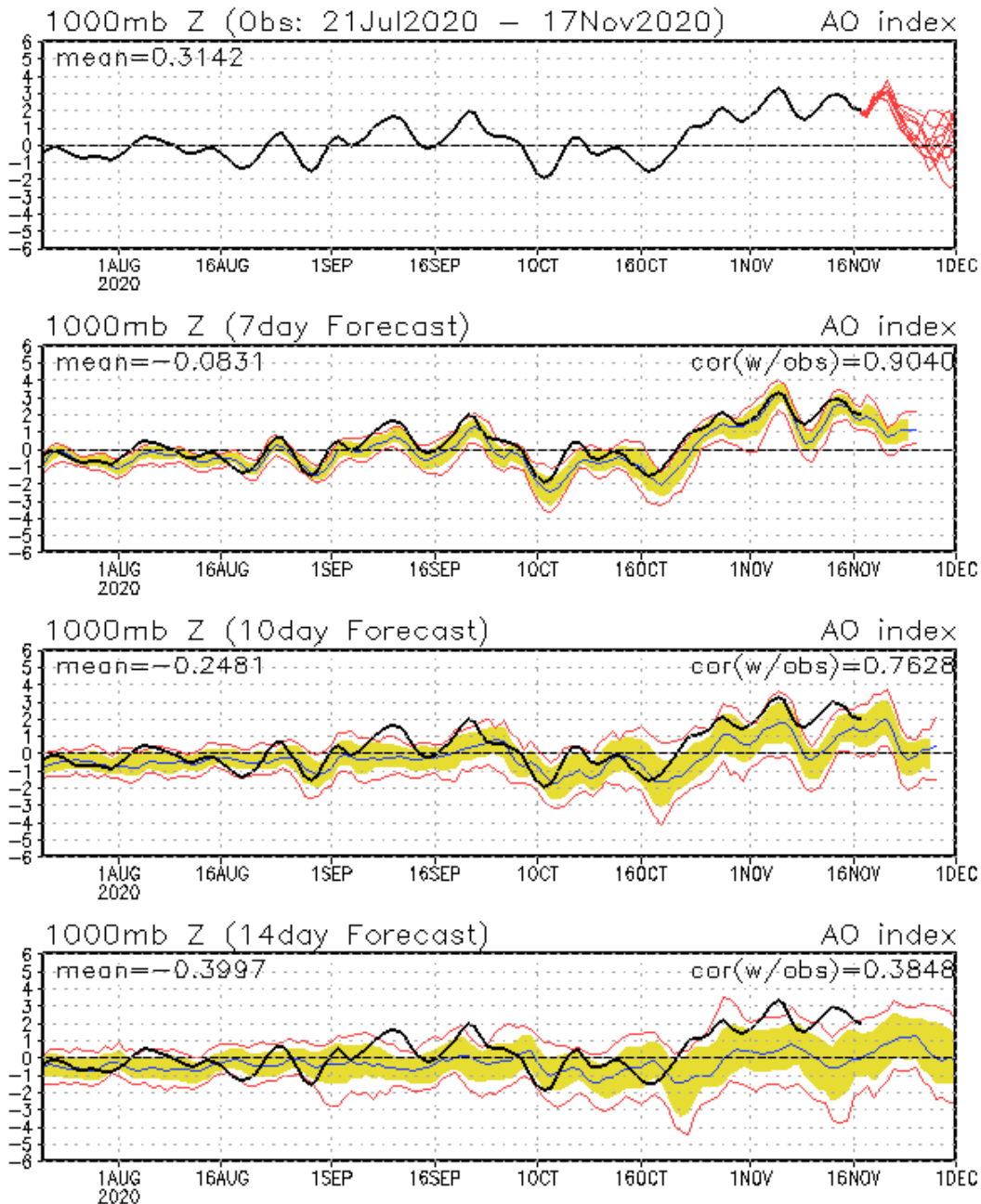
www.hurricanes.gov

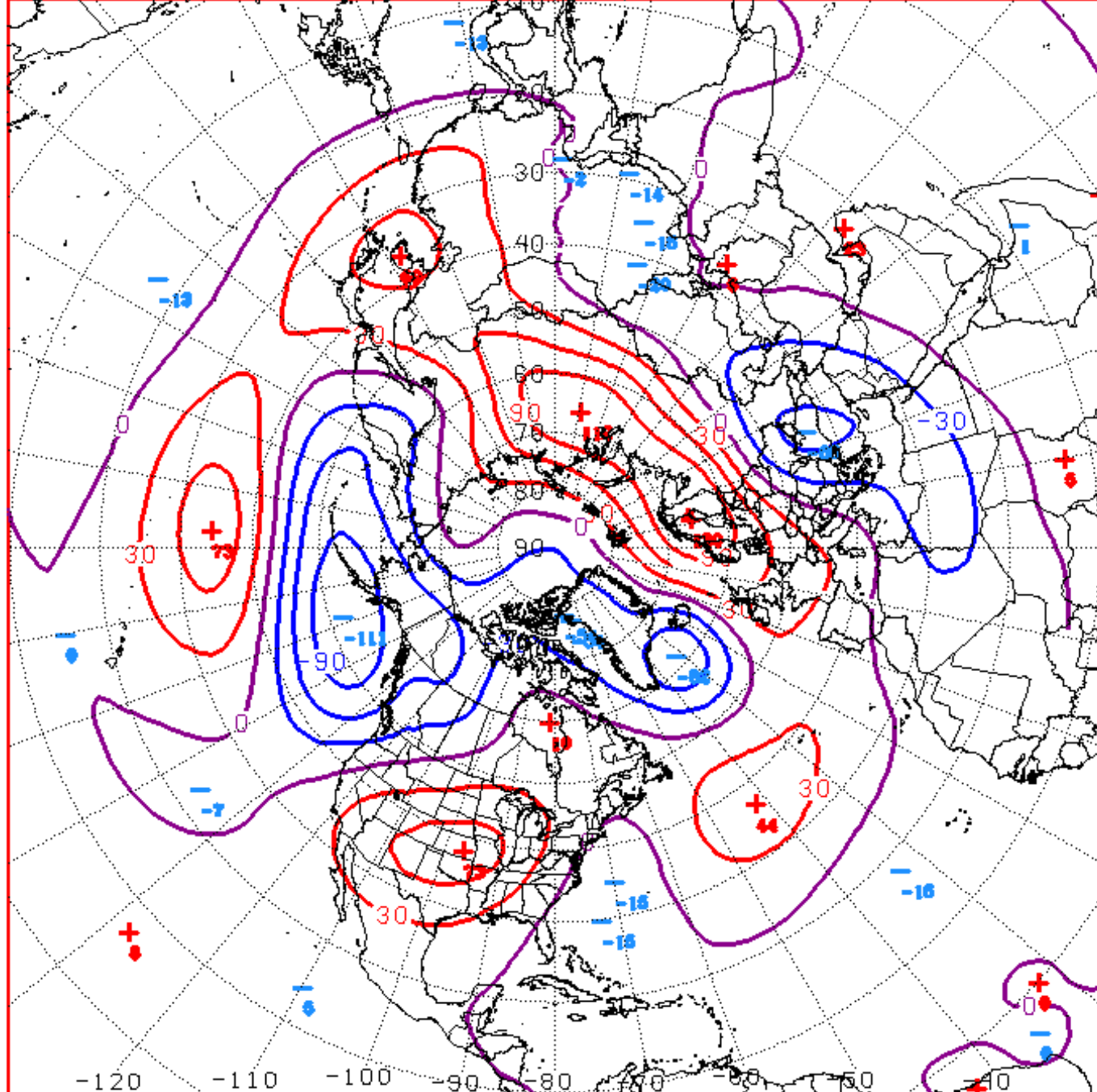
Connections to U.S. Impacts

PNA: Observed & ENSM forecasts



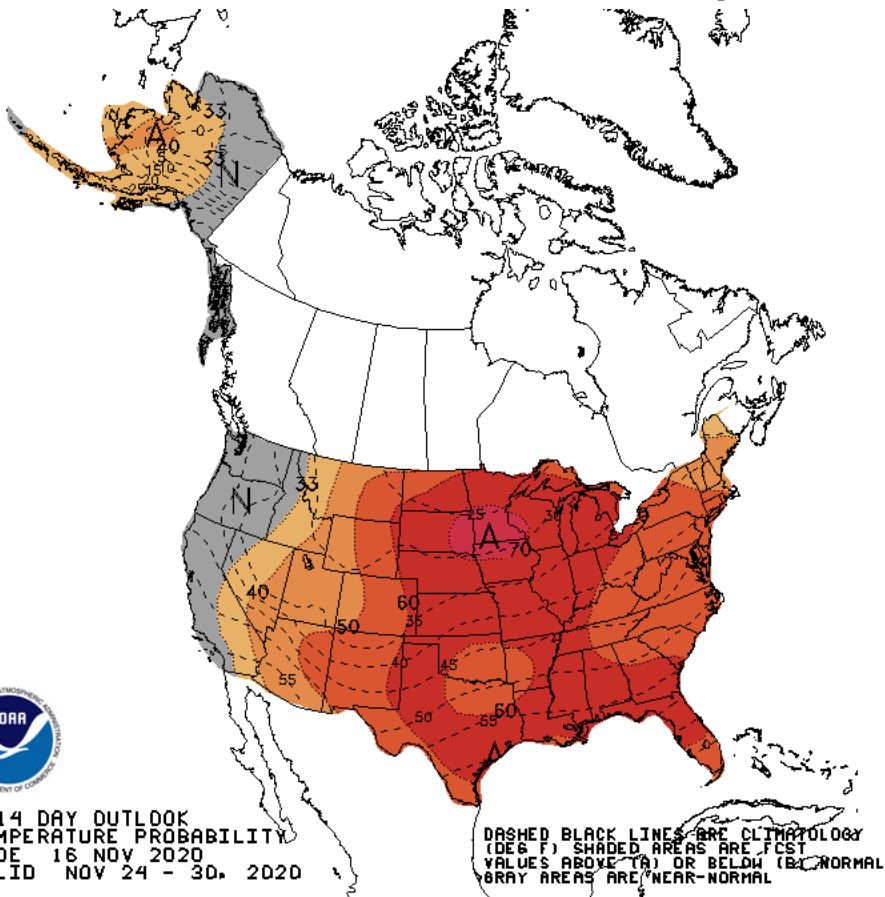
AO: Observed & ENSM forecasts



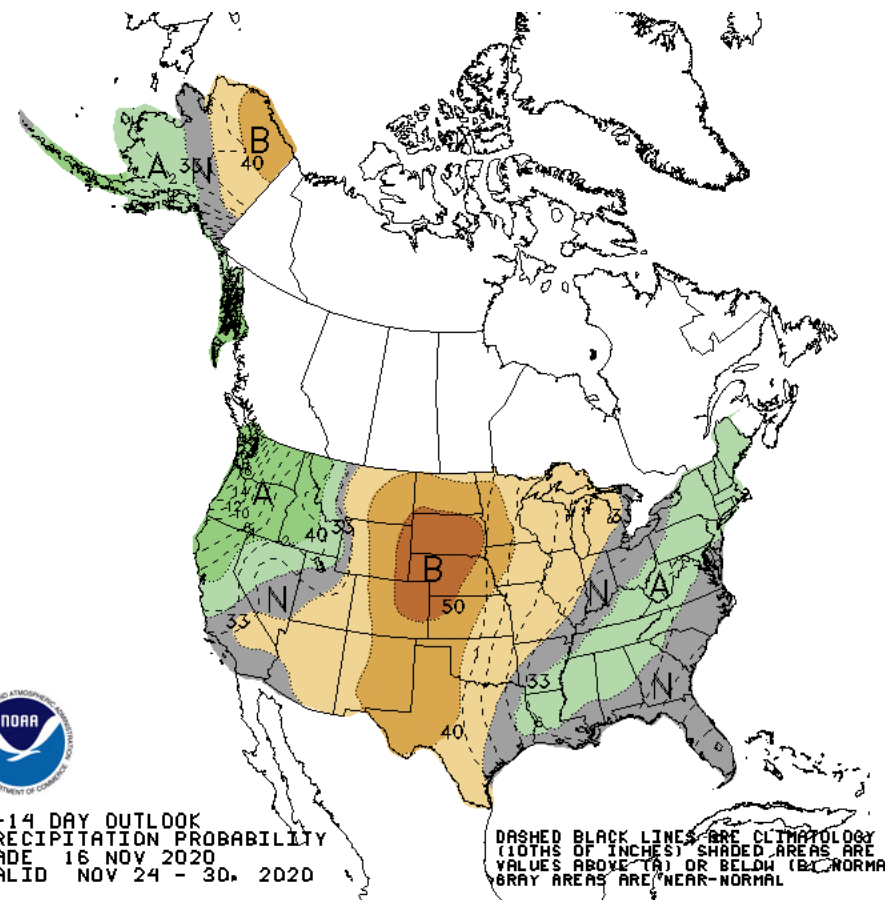
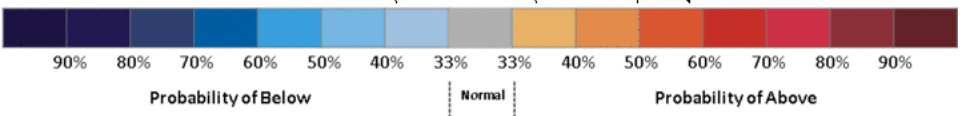


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE NOV 17 2020 1457 UTC CNTD NOV 28 2020

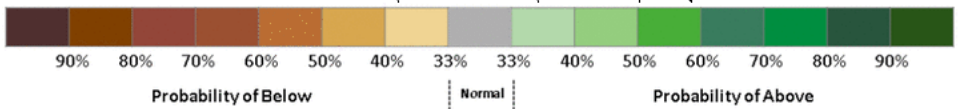
Week 2 – Temperature and Precipitation



8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 16 NOV 2020
VALID NOV 24 - 30, 2020



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 16 NOV 2020
VALID NOV 24 - 30, 2020

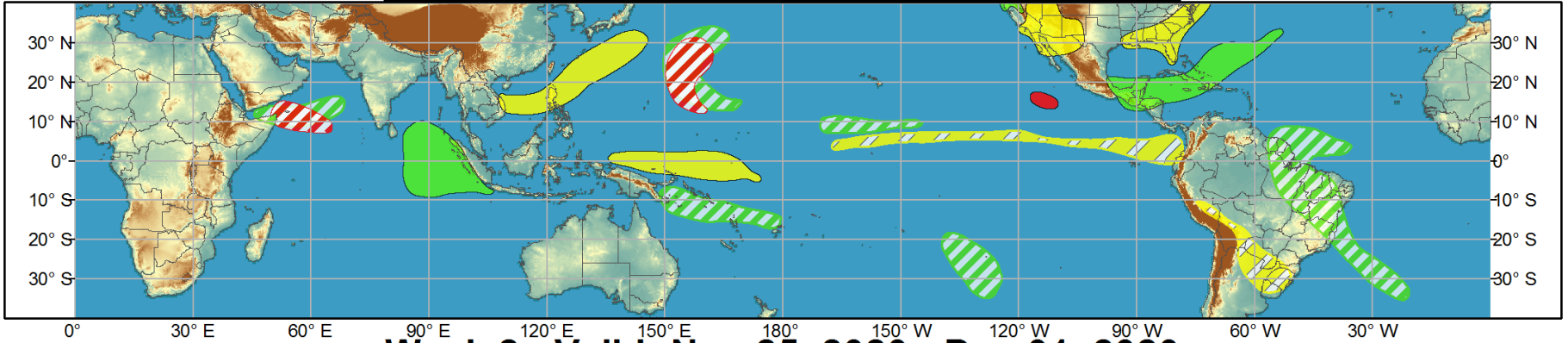




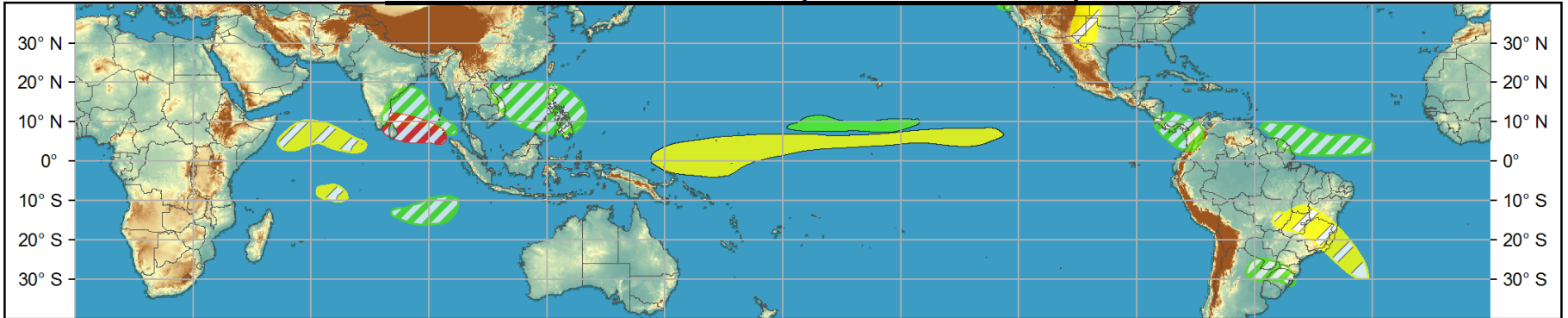
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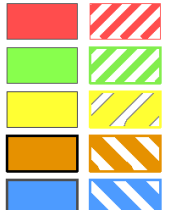


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- Above-average rainfall**
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- Above-normal temperatures**
- Below-normal temperatures**



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