

Global Tropics Hazards And Benefits Outlook

9/15/2020

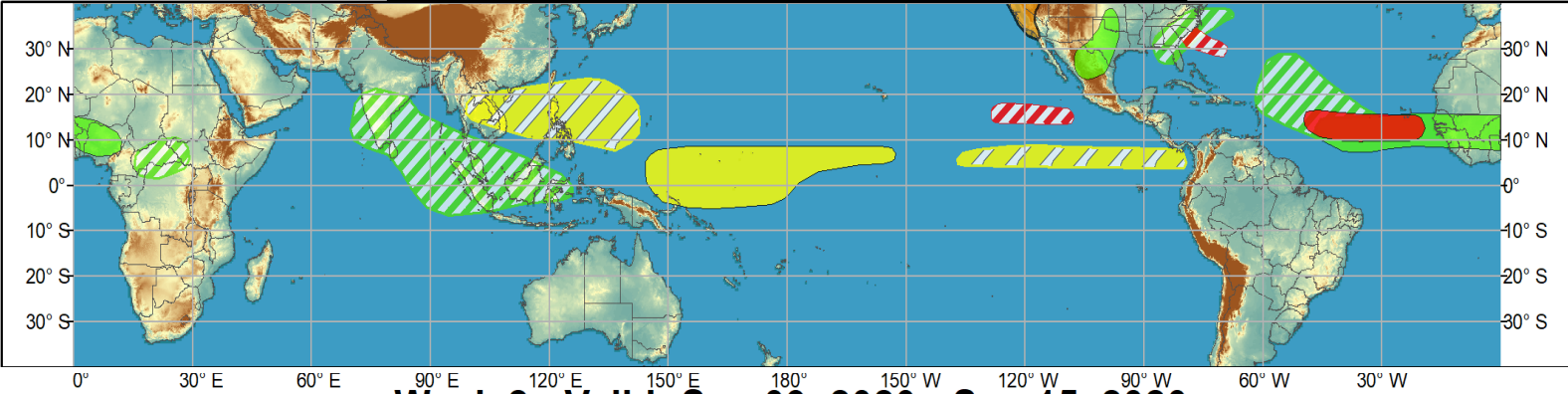
Adam Allgood

Outline

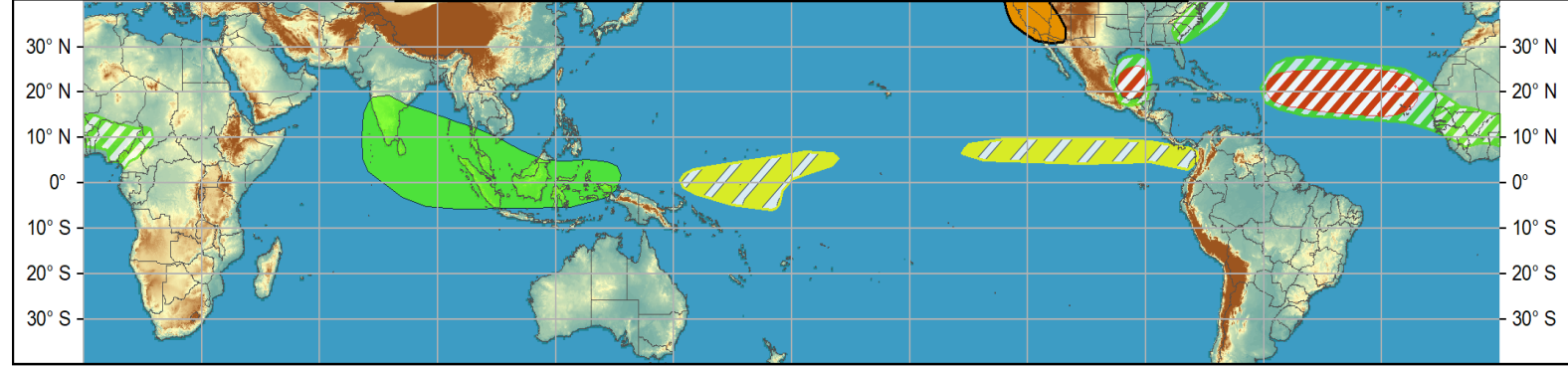
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Sep 09, 2020 - Sep 15, 2020



Week 2 - Valid: Sep 09, 2020 - Sep 15, 2020

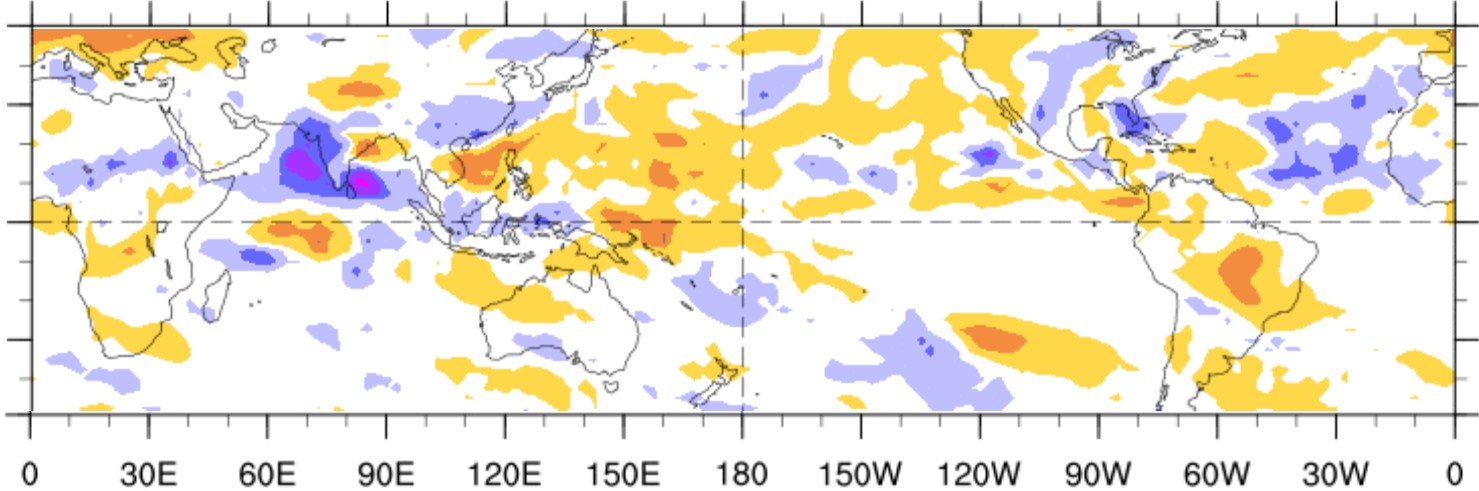


7-Day Average OLR Anomaly

2020/09/08 - 2020/09/14

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO: (September 10, 2020 Update)

next update on 8th of Oct.!

- ENSO Alert System Status: [La Niña Advisory](#)
- La Niña conditions are present and are likely to continue through the Northern Hemisphere winter (~75% chance).

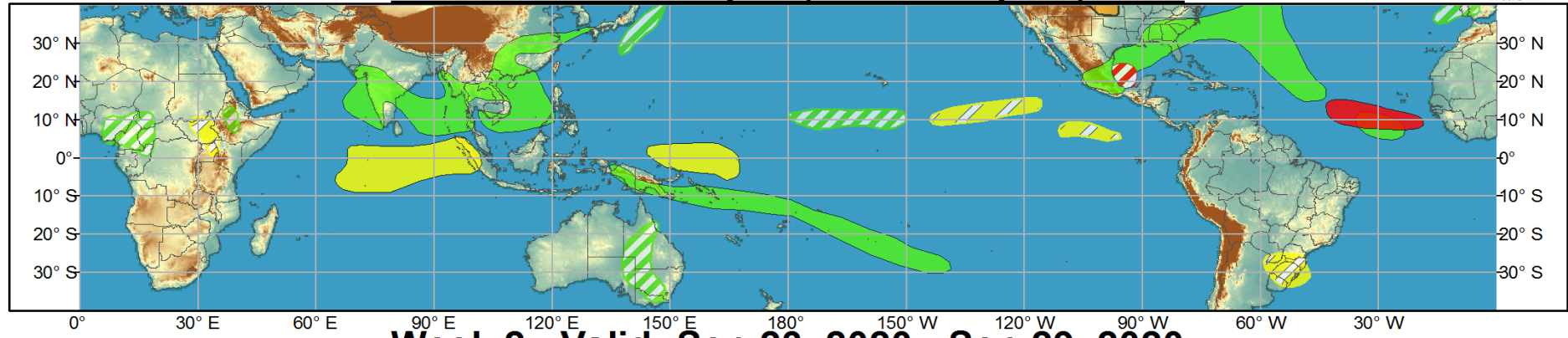
MJO and other subseasonal tropical variability:

- The MJO remained weak over the past week, although a slower-moving upper-level signal remains.
- Dynamical models are in good agreement that the MJO will renew eastward propagation over the Maritime Continent, reaching the West Pacific during Week-2.
- La Niña conditions over the Pacific will likely destructively interfere with the MJO over the Pacific.
- While a Pacific MJO would potentially increase vertical shear over the Atlantic and provide an opportunity for a break in tropical cyclone activity, the La Niña conditions will likely dampen this impact.

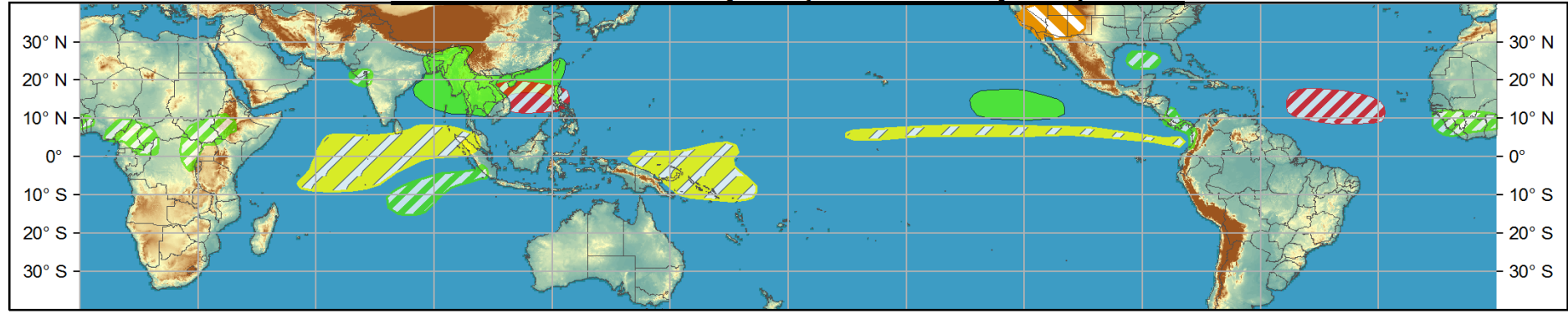


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Sep 16, 2020 - Sep 22, 2020



Week 2 - Valid: Sep 23, 2020 - Sep 29, 2020



Produced: 09/15/2020
Forecaster: Allgood

| 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. |

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

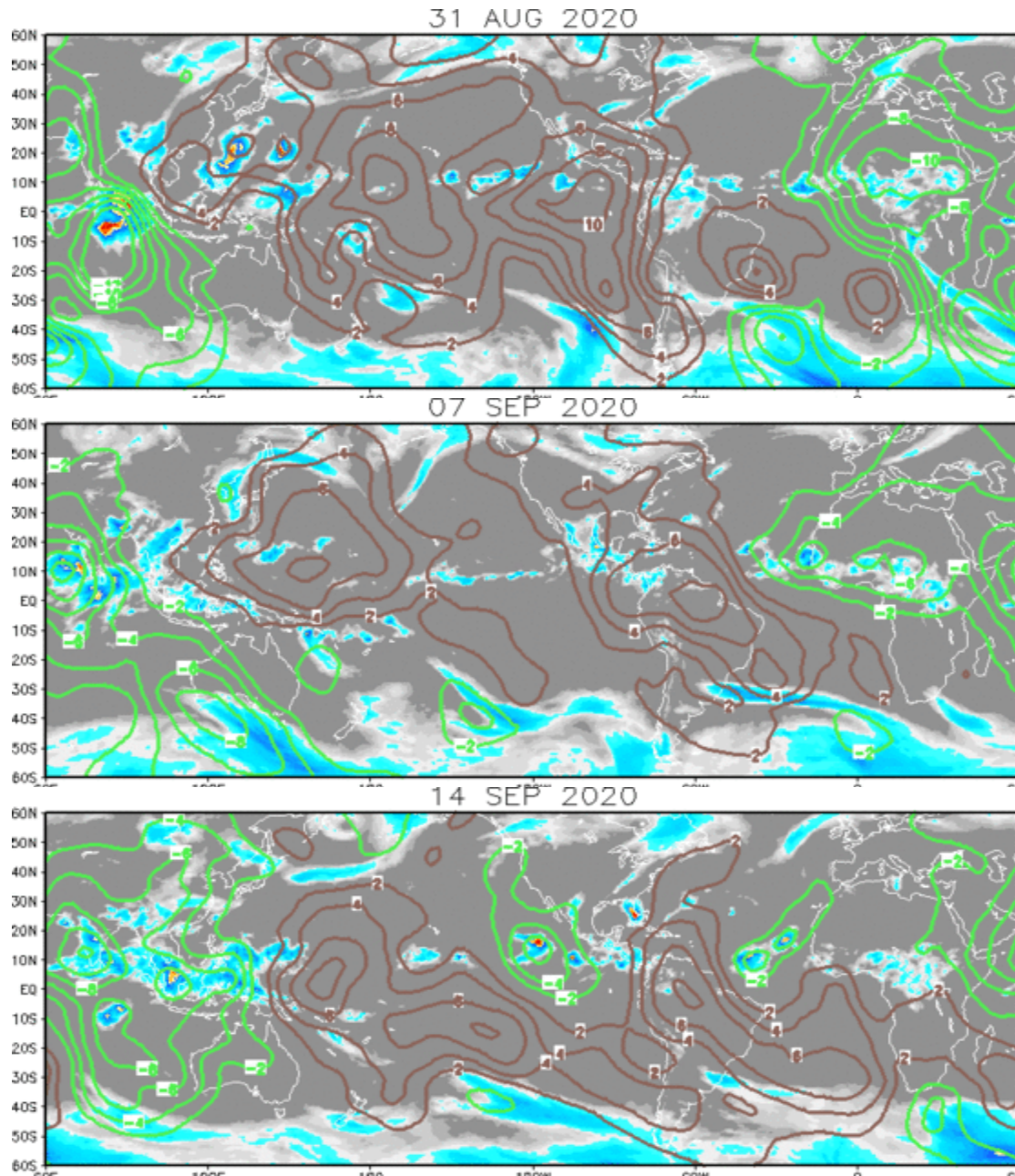
Green: Enhanced Divergence

Brown: Enhanced Convergence

Western Hemisphere/IO MJO conditions ideal for Atlantic tropical cyclone activity

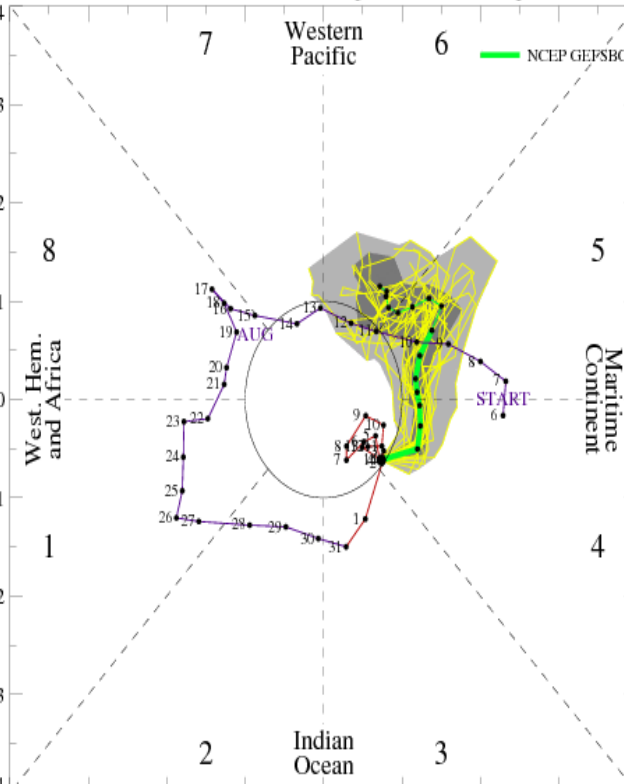
Wave-1 asymmetry remains apparent, with little eastward propagation. Kelvin wave over the East Pacific.

Tropical Cyclone activity is apparent over the Atlantic and East Pacific.



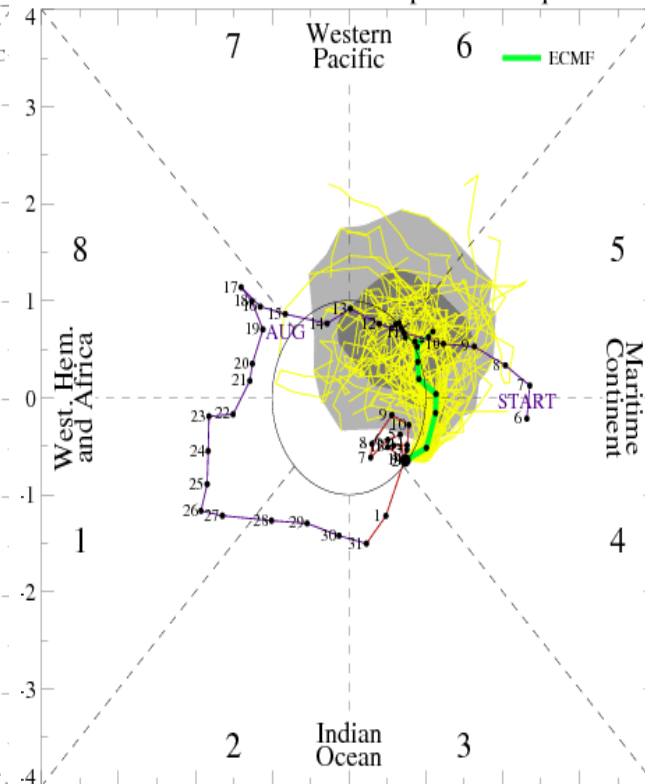
MJO Observation/Forecast

[RMM1, RMM2] forecast for Sep-15-2020 to Sep-29-2020



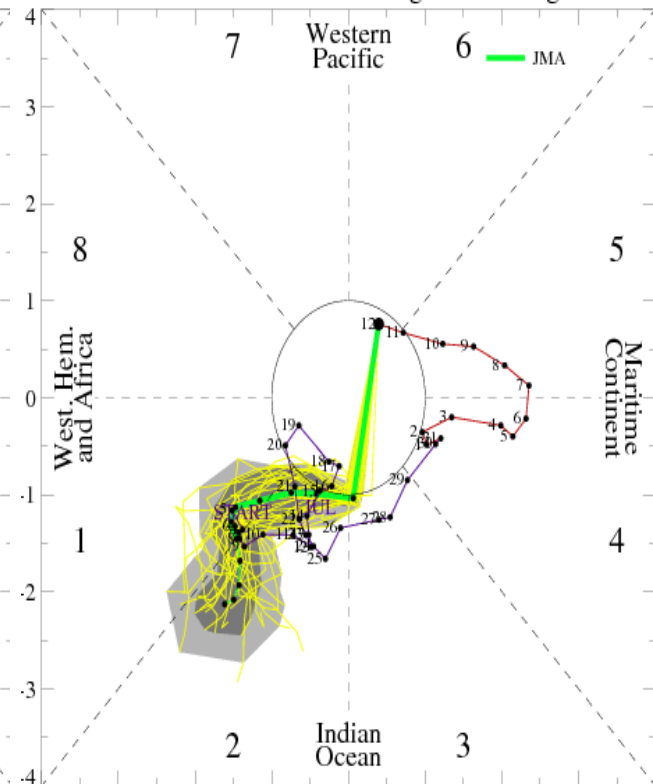
GEFS

MJO Index Forecast for 15 Sep 2020-29 Sep 2020



ECMWF

MJO Index Forecast for 13 Aug 2020-21 Aug 2020



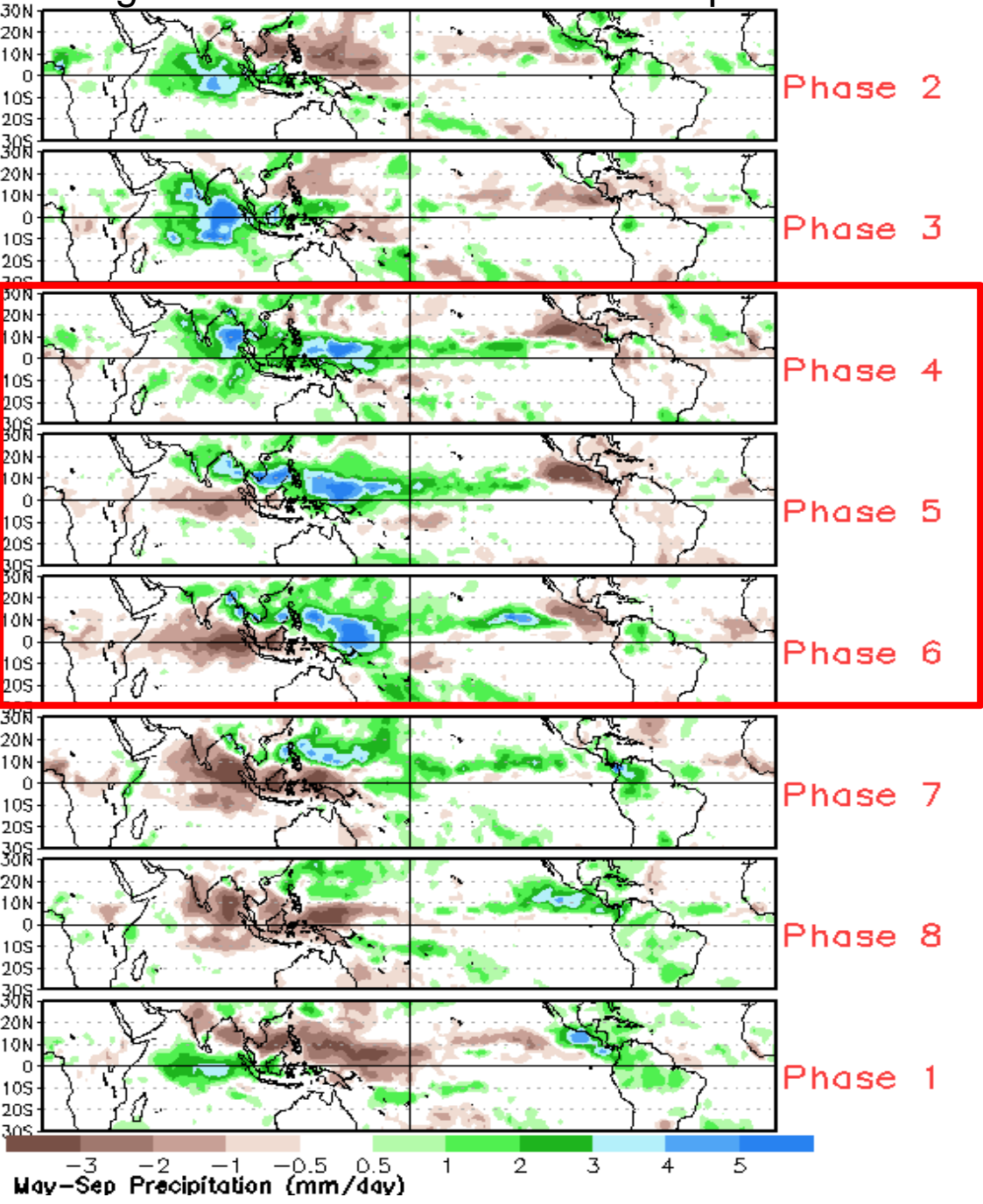
JMA

GEFS and ECWFMF in good agreement supporting renewed eastward propagation.

High uncertainty regarding future MJO evolution once it reaches the Pacific.

Something is wrong with the JMA analysis.

Average Conditions when the MJO is present

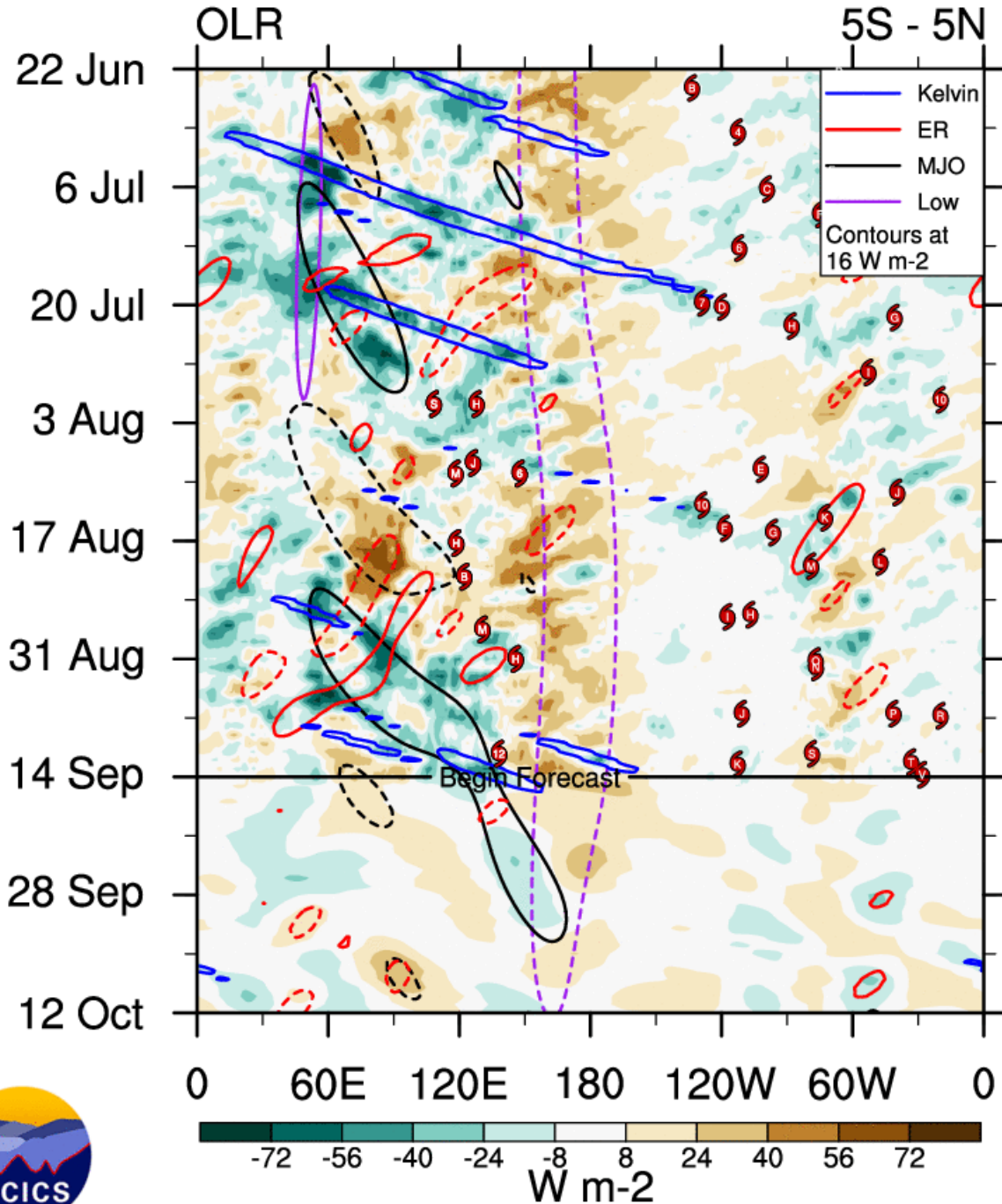


CAVEAT: These panels are representative of robust MJO events.

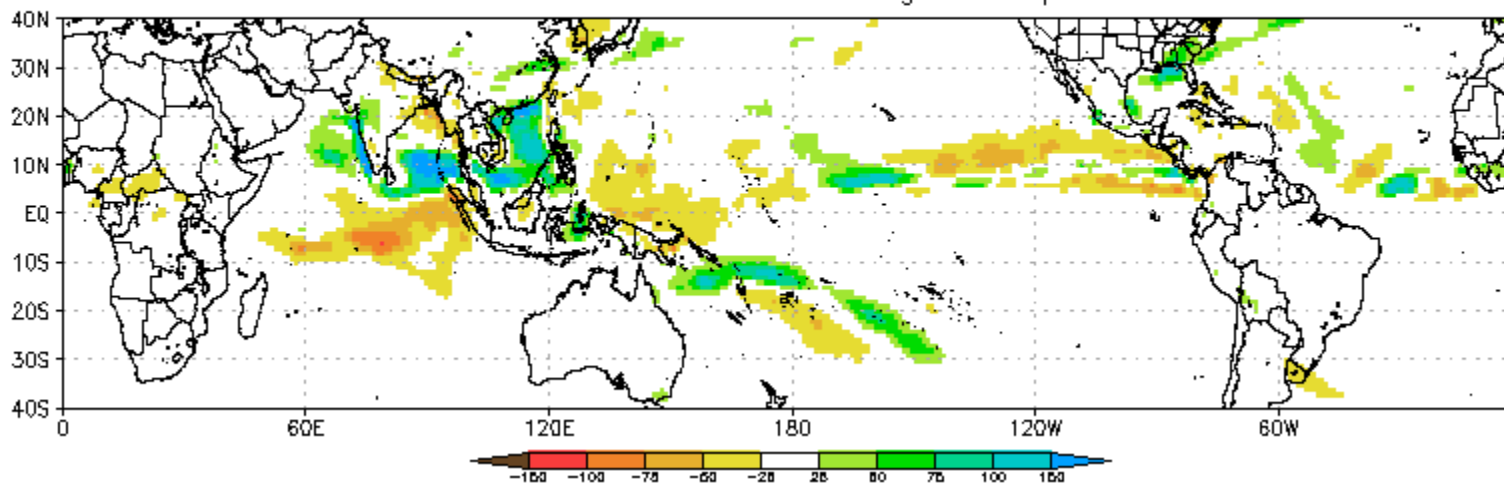
MJO activity is coming through the filtering near the Equator in the OLR field.

Kelvin wave activity over the East Pacific may have helped TC formation.

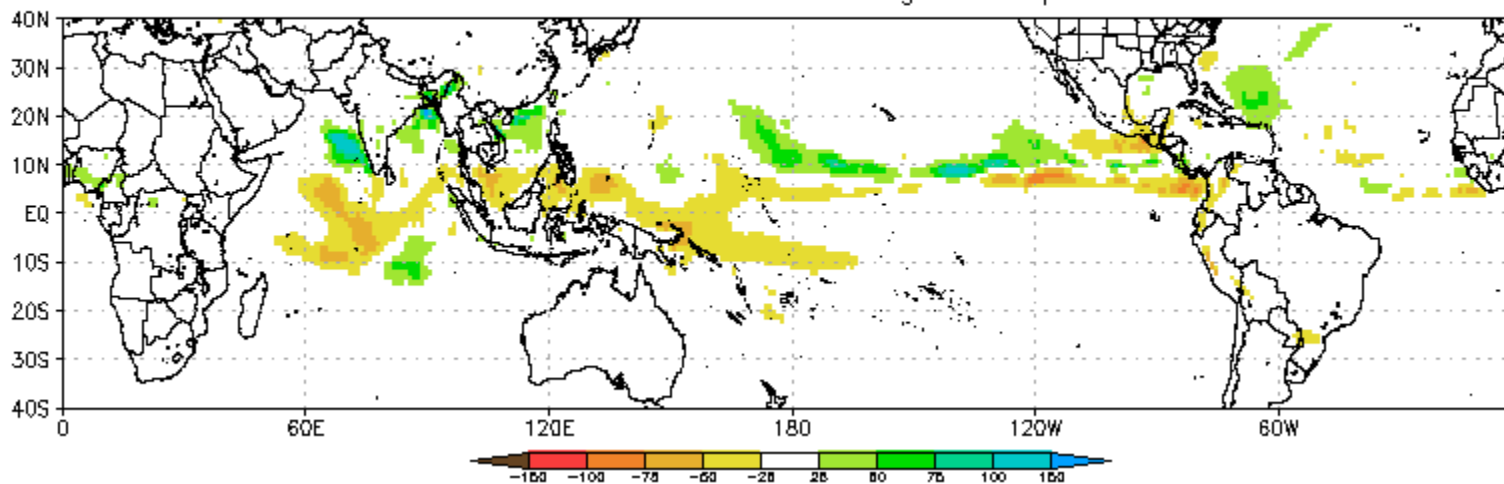
Low frequency contours depict ENSO cold conditions.



CFS Precipitation Anomalies (mm) Issued 14Sep2020
Week-1 Forecast Ending 22Sep2020

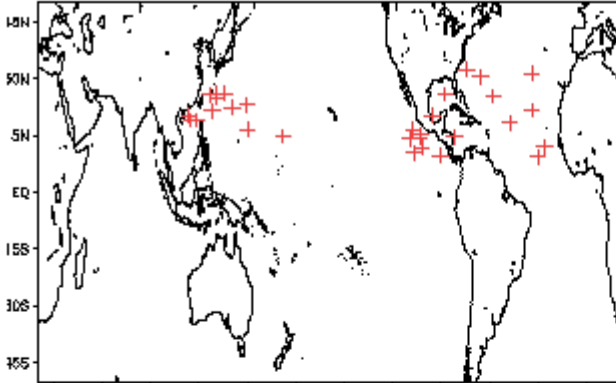


CFS Precipitation Anomalies (mm) Issued 14Sep2020
Week-2 Forecast Ending 29Sep2020

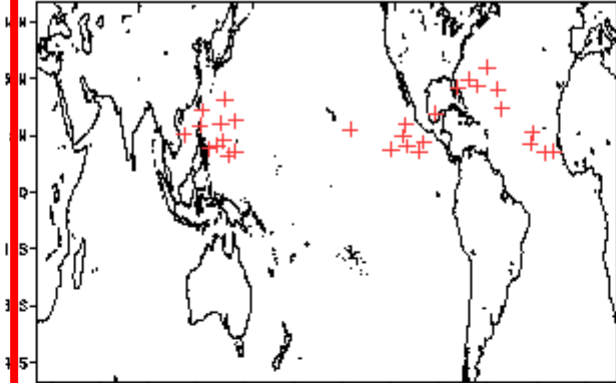


September Tropical Storm Formation by MJO phase

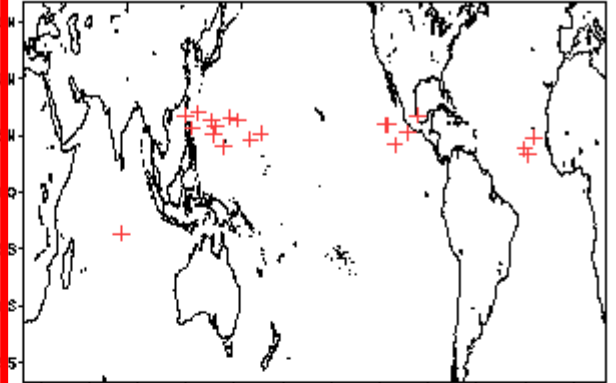
Phase 1 (81 days) 31 storms



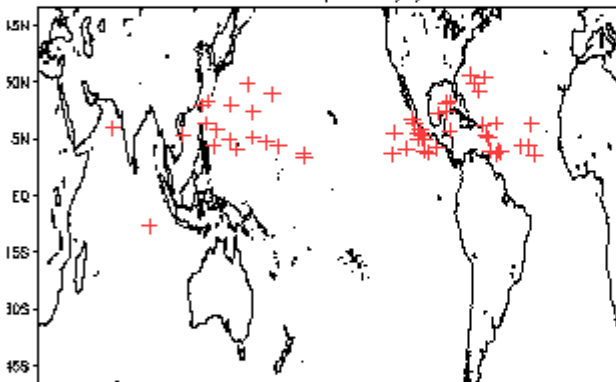
Phase 4 (70 days) 30 storms



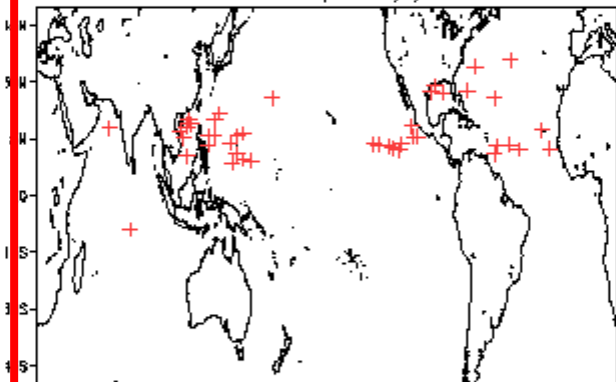
Phase 7 (38 days) 22 storms



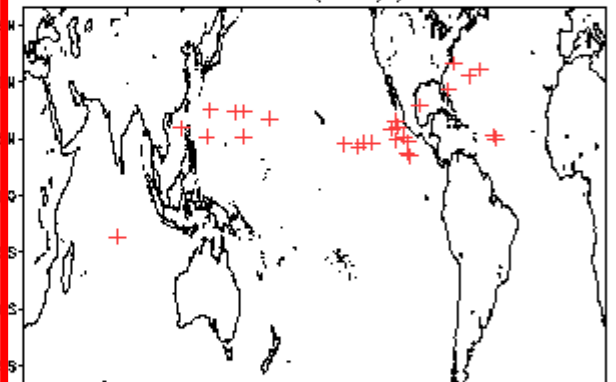
Phase 2 (122 days) 56 storms



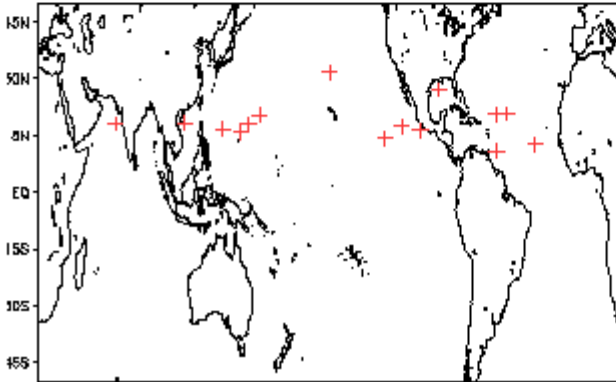
Phase 5 (106 days) 45 storms



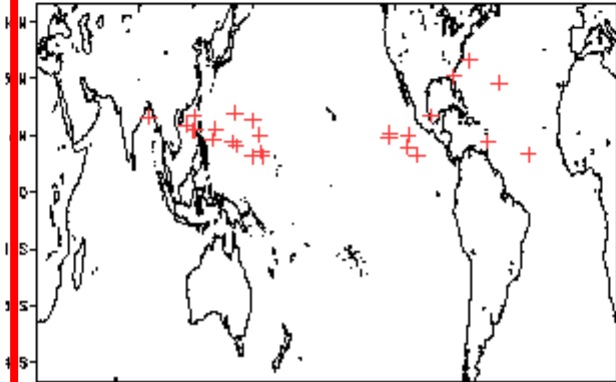
Phase 8 (67 days) 29 storms



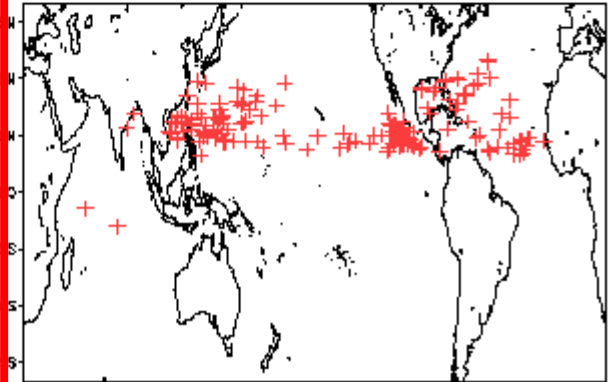
Phase 3 (51 days) 16 storms

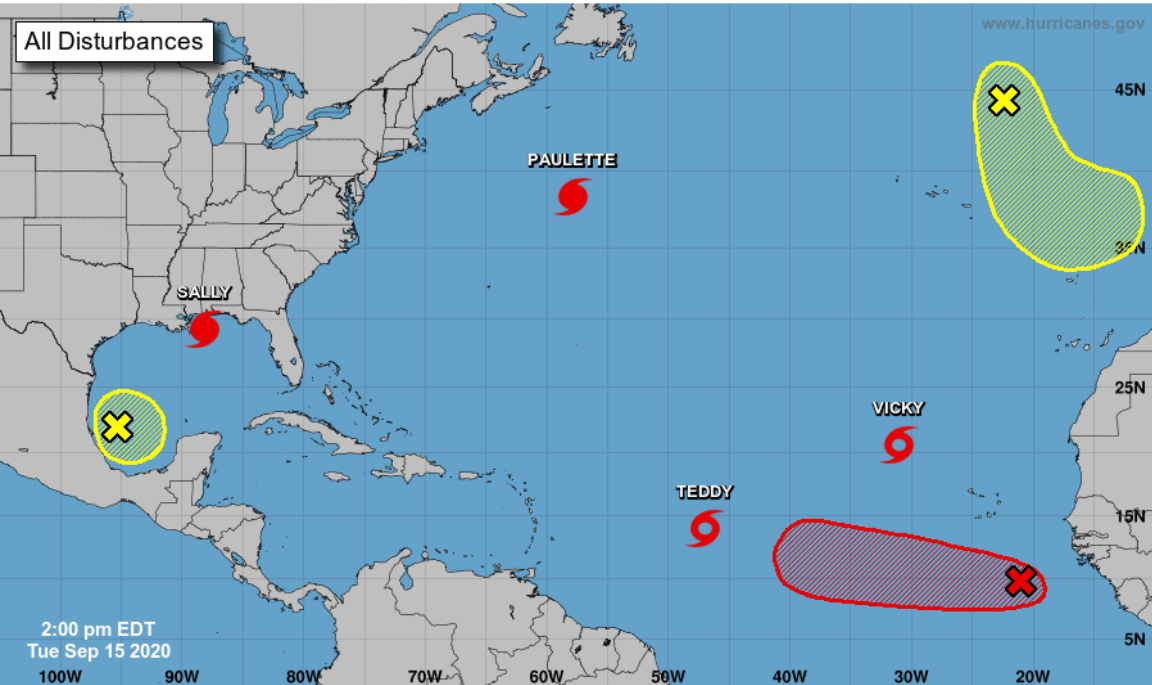


Phase 6 (61 days) 27 storms

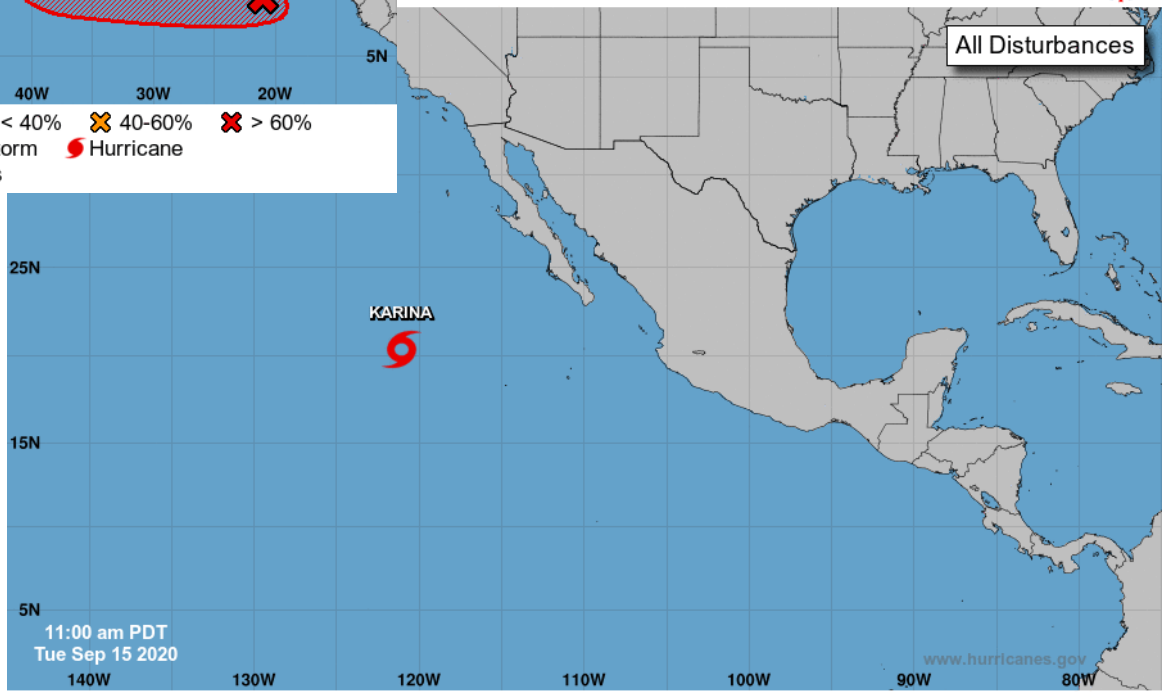


Null (393 days) 169 storms





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

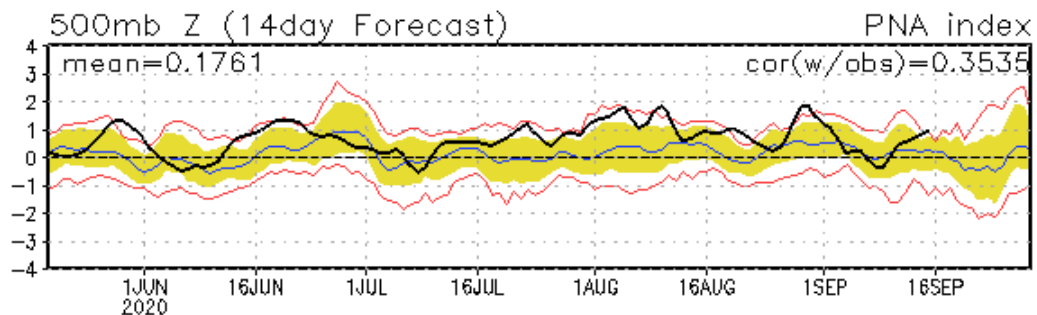
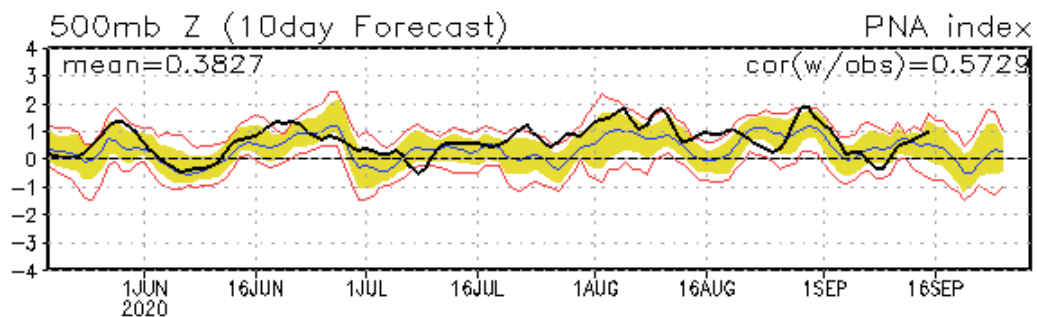
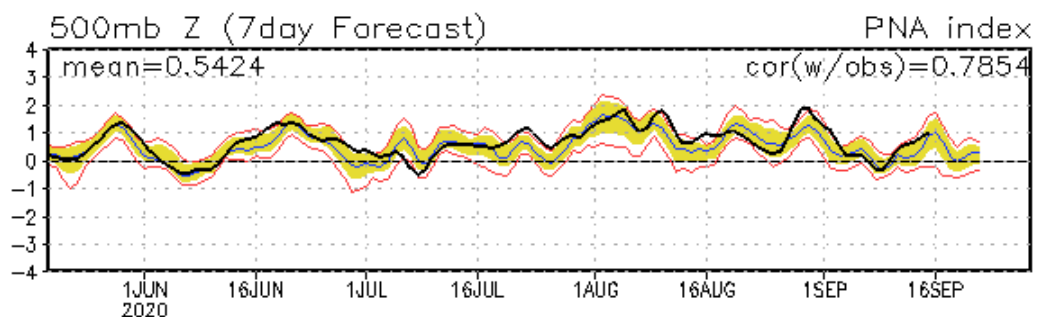
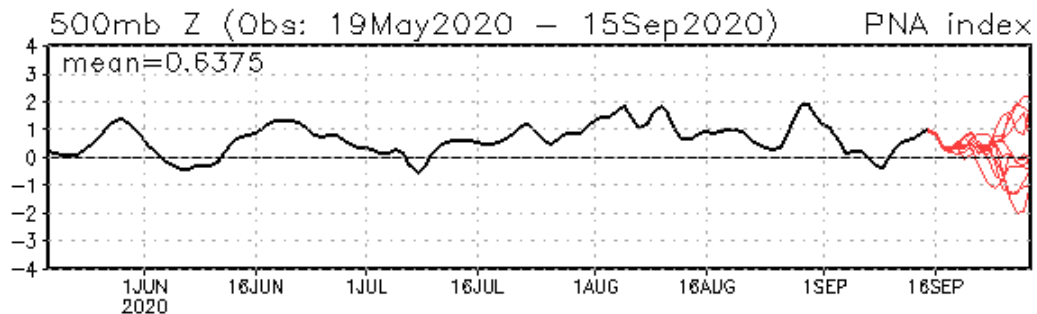


Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants

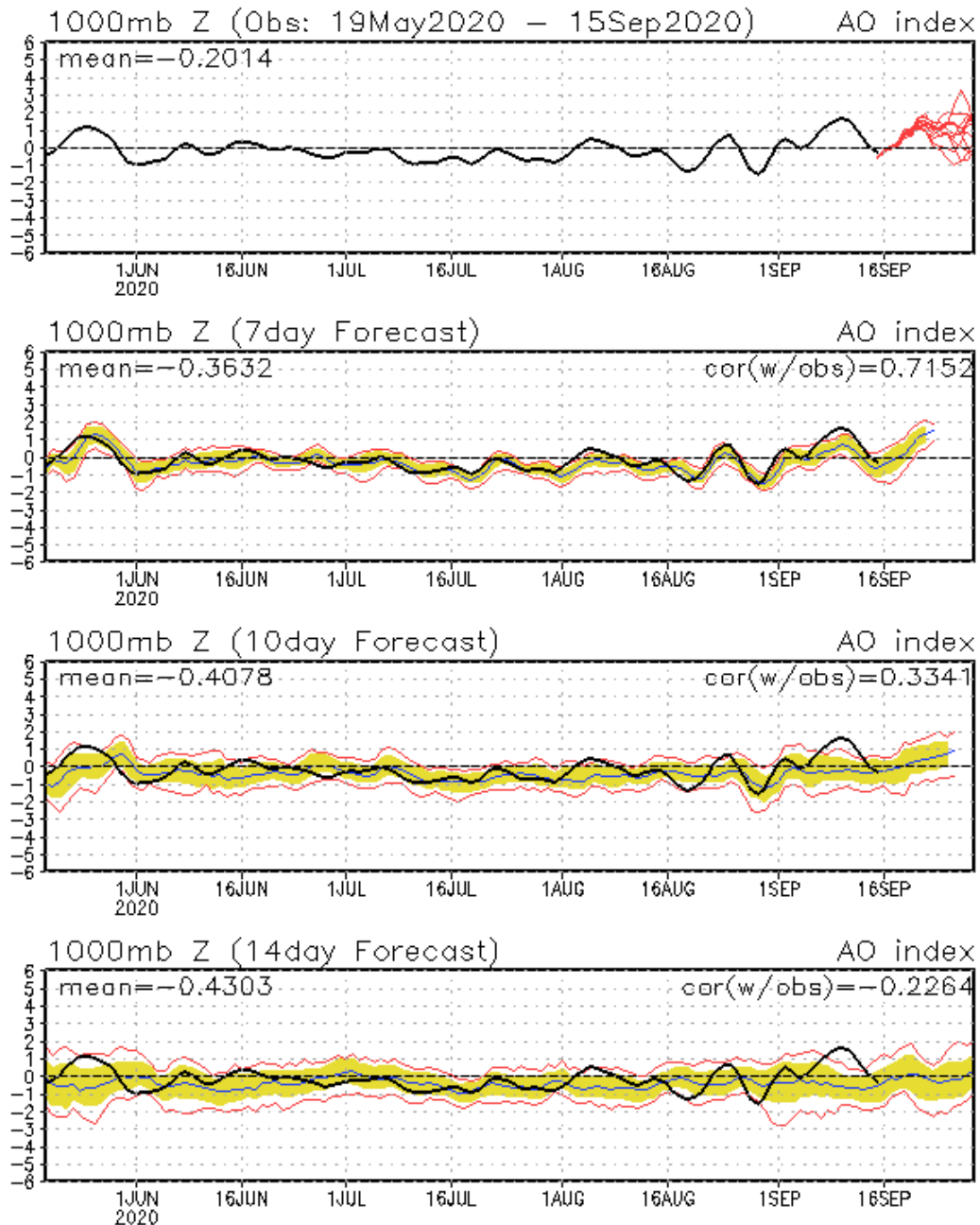
All Disturbances

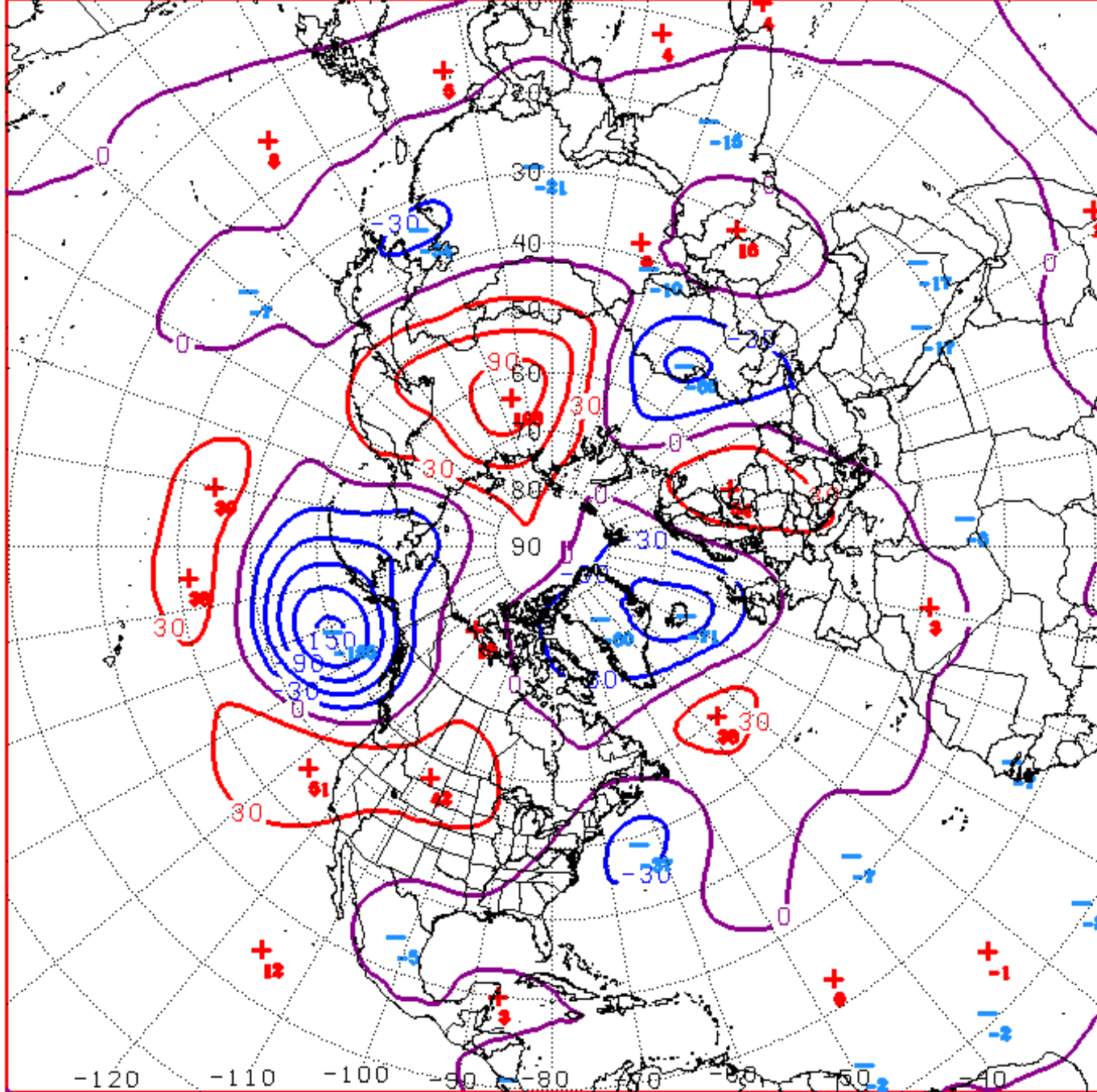
Connections to U.S. Impacts

PNA: Observed & ENSM forecasts



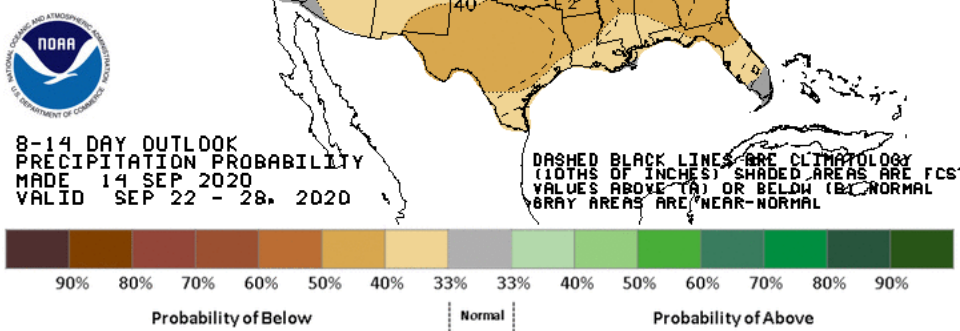
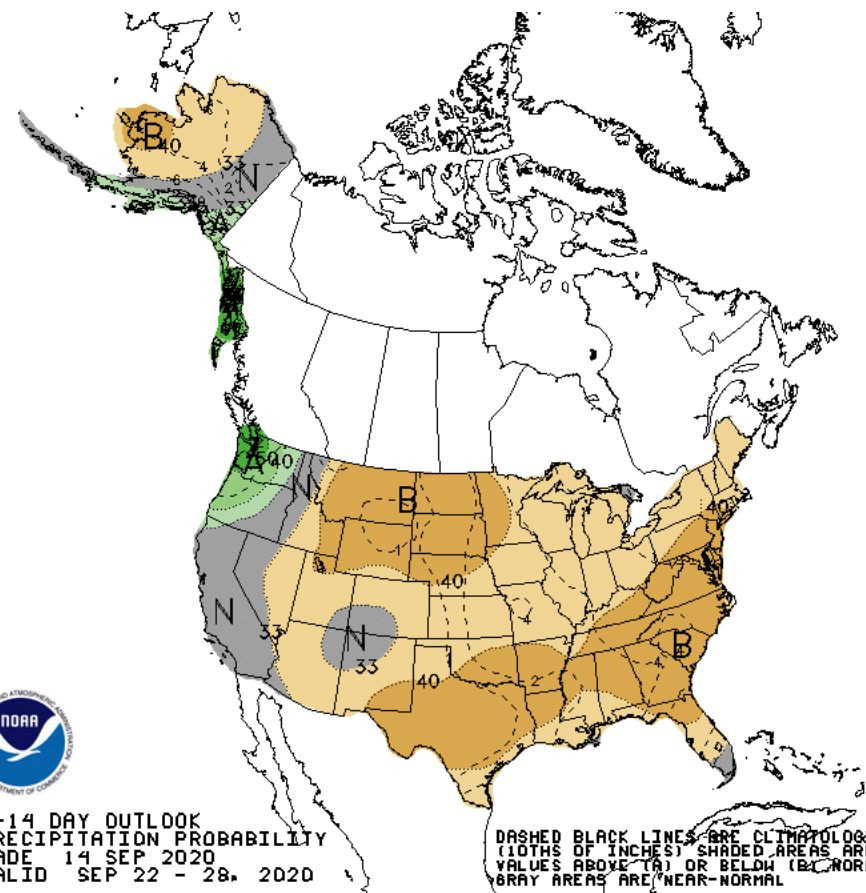
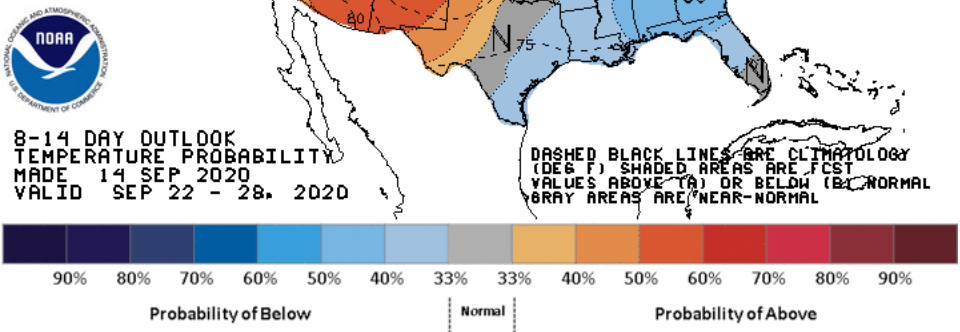
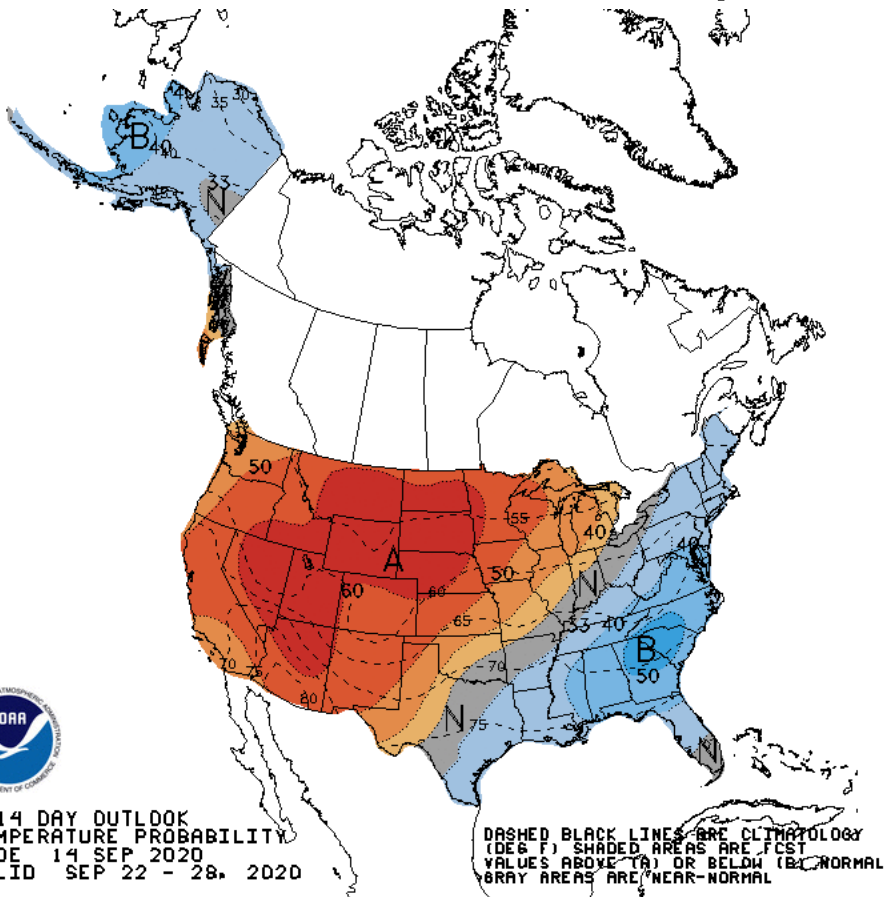
AO: Observed & ENSM forecasts





D+11 500 MB ANOMALIES FROM ALZ ENSM
 CPC MAP MADE SEP 15 2020 1241 UTC CNTD SEP 26 2020

Week 2 – Temperature and Precipitation

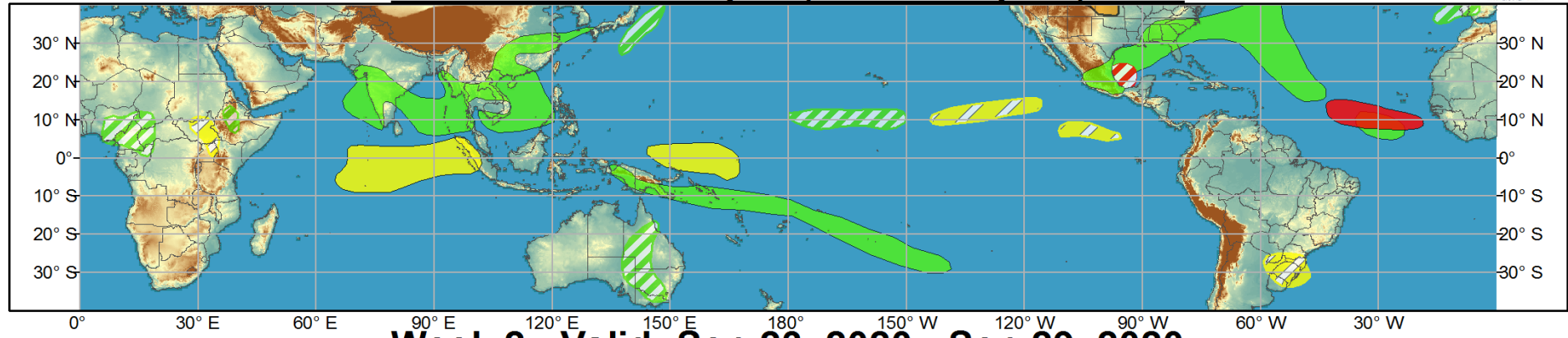


Since we are in an amplified, stable pattern today's outlooks are likely to be similar.

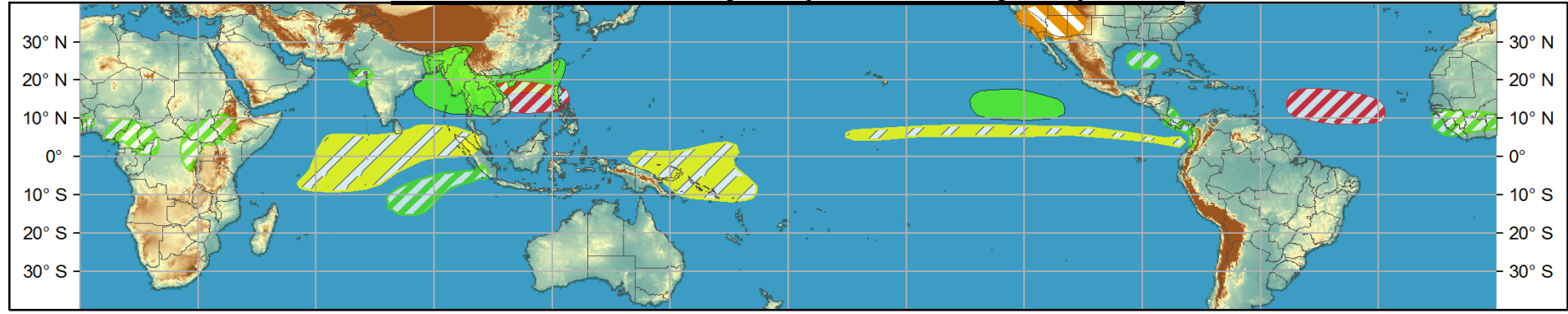


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Sep 16, 2020 - Sep 22, 2020



Week 2 - Valid: Sep 23, 2020 - Sep 29, 2020



Produced: 09/15/2020
Forecaster: Allgood

| 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. |

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.

