

Global Tropics Hazards And Benefits Outlook

6/2/2020

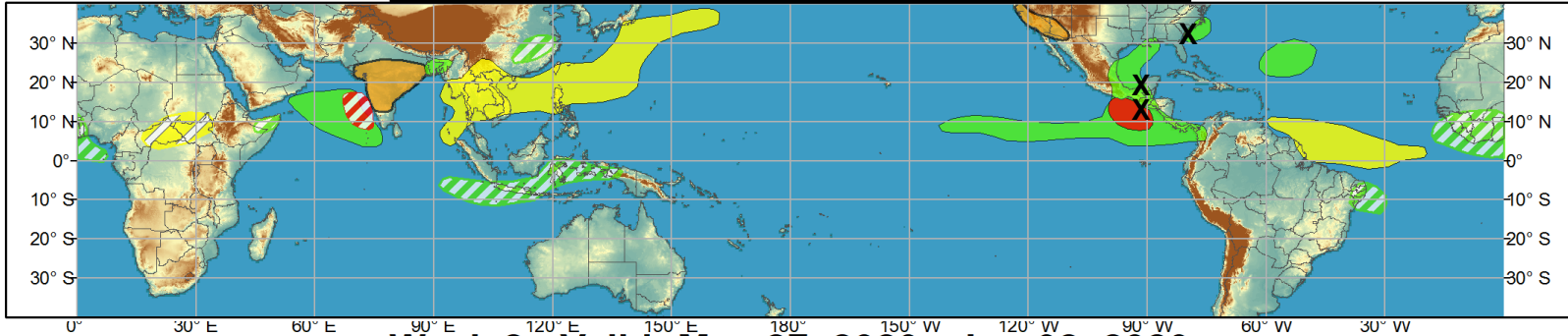
Adam Allgood

Outline

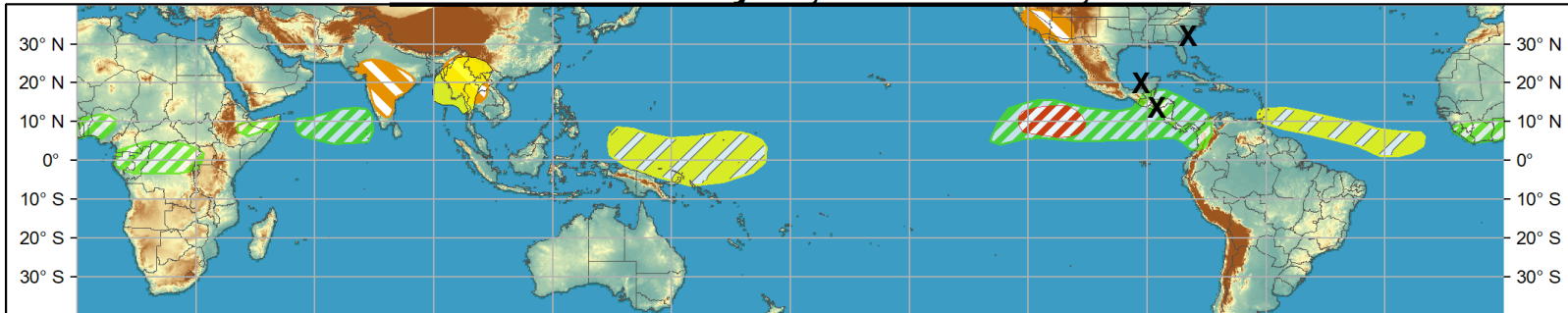
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts



Week 1 - Valid: May 27, 2020 - Jun 02, 2020

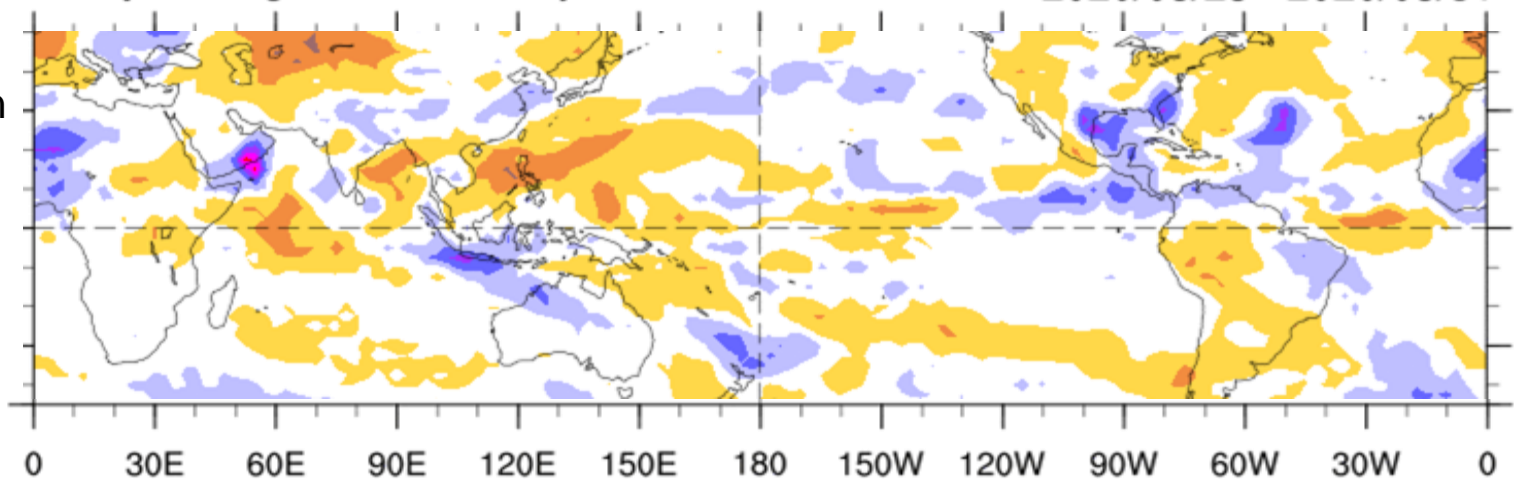


Week 2 - Valid: May 27, 2020 - Jun 02, 2020



7-Day Average OLR Anomaly

2020/05/25 - 2020/05/31



Outlook Review

TS Bertha (SC)

TS Amanda (Guatemala)

TS Cristobal (Bay of Campeche)

Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (December 12, 2019 Update)

next update on 11th of June!

- ENSO Alert System Status: Not Active
- There is a ~65% chance of ENSO-neutral during Northern Hemisphere summer 2020, with chances decreasing through the autumn (to 45-50%).

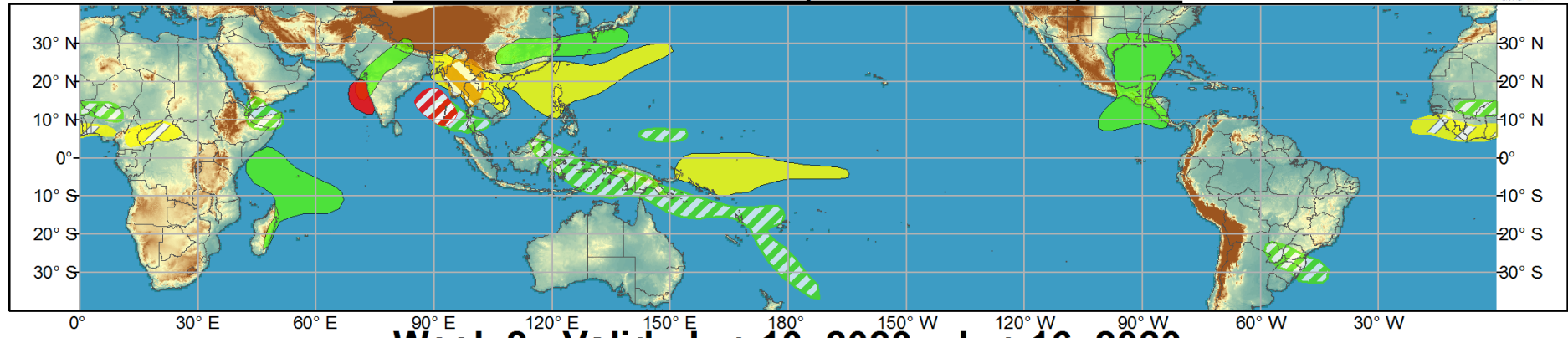
MJO and other subseasonal tropical variability:

- The upper-level VP pattern resembles a MJO signal as a robust Kelvin wave (now over Africa) and strong Central American Gyre feature contrast with strong suppression over the West Pacific.
- Interactions between the KW as it passed over the East Pacific and the CAG resulted in the formation of TS Amanda and TS Cristobal.
- Dynamical model MJO index forecasts show a slow progression towards the western Indian Ocean. This may be due to interactions between the Kelvin wave, tropical cyclones, and the low frequency state.

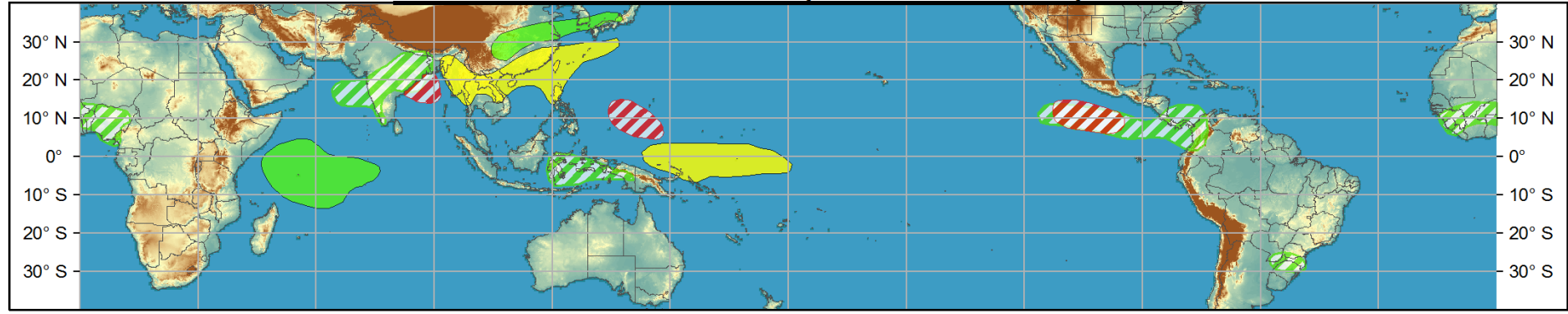


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 03, 2020 - Jun 09, 2020



Week 2 - Valid: Jun 10, 2020 - Jun 16, 2020



Produced: 06/02/2020
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

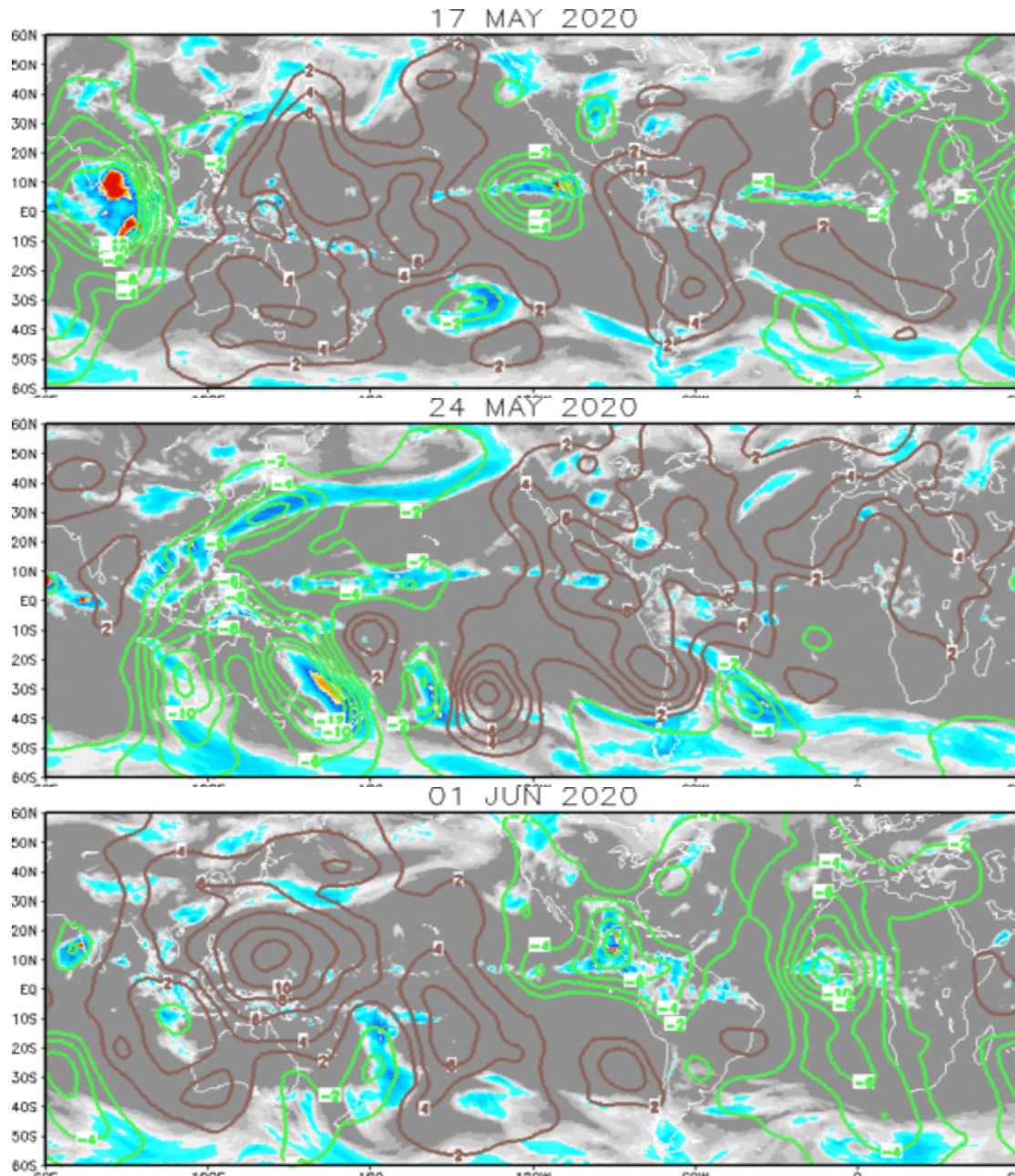
Green: Enhanced Divergence

Brown: Enhanced Convergence

Intense Cyclone Amphan (Bay of Bengal) and a robust KW over the East Pacific are evident.

Potential developing MJO began to break down (TS Mangga ET over Australia, Kelvin wave across Pacific)

Kelvin wave now over Africa, Central American Gyre is active.

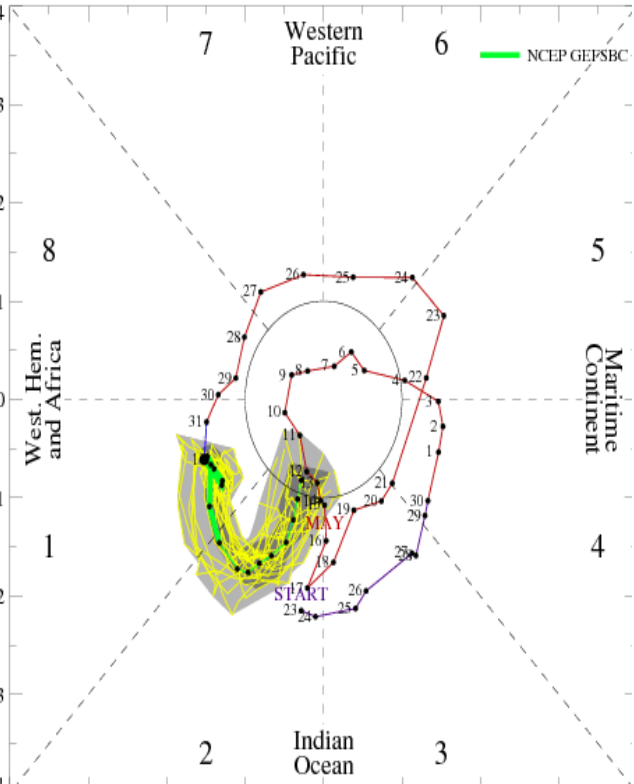


MJO Observation/Forecast

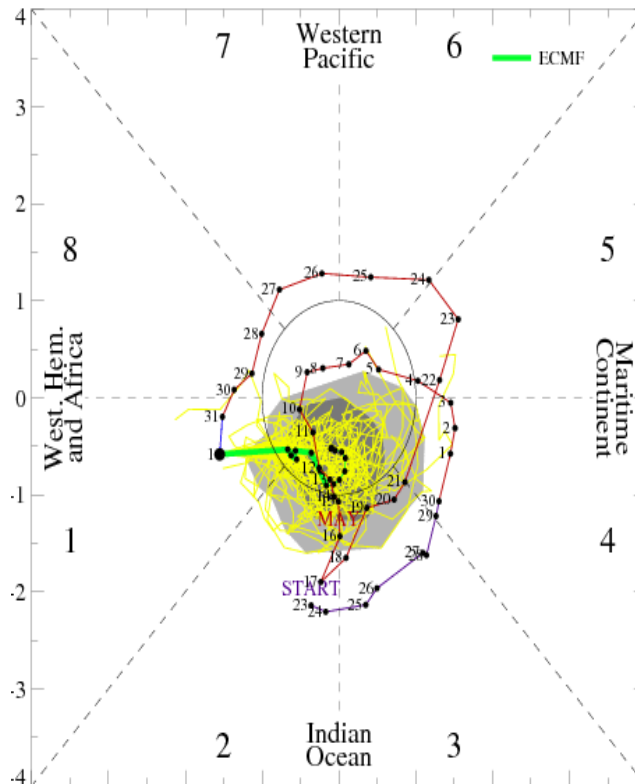
[RMM1, RMM2] forecast for Jun-02-2020 to Jun-16-2020

MJO Index Forecast for 02Jun2020-16Jun2020

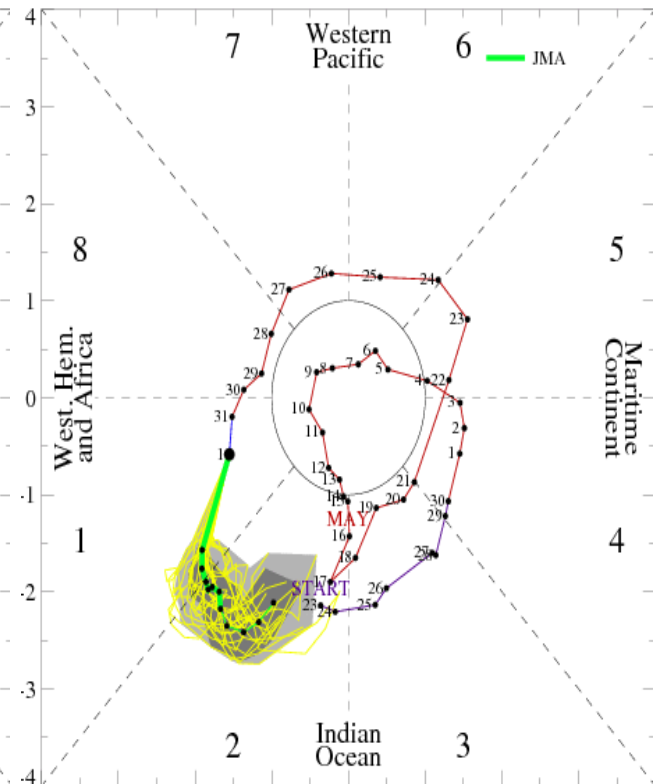
MJO Index Forecast for 02Jun2020-10Jun2020



GEFS



ECMWF

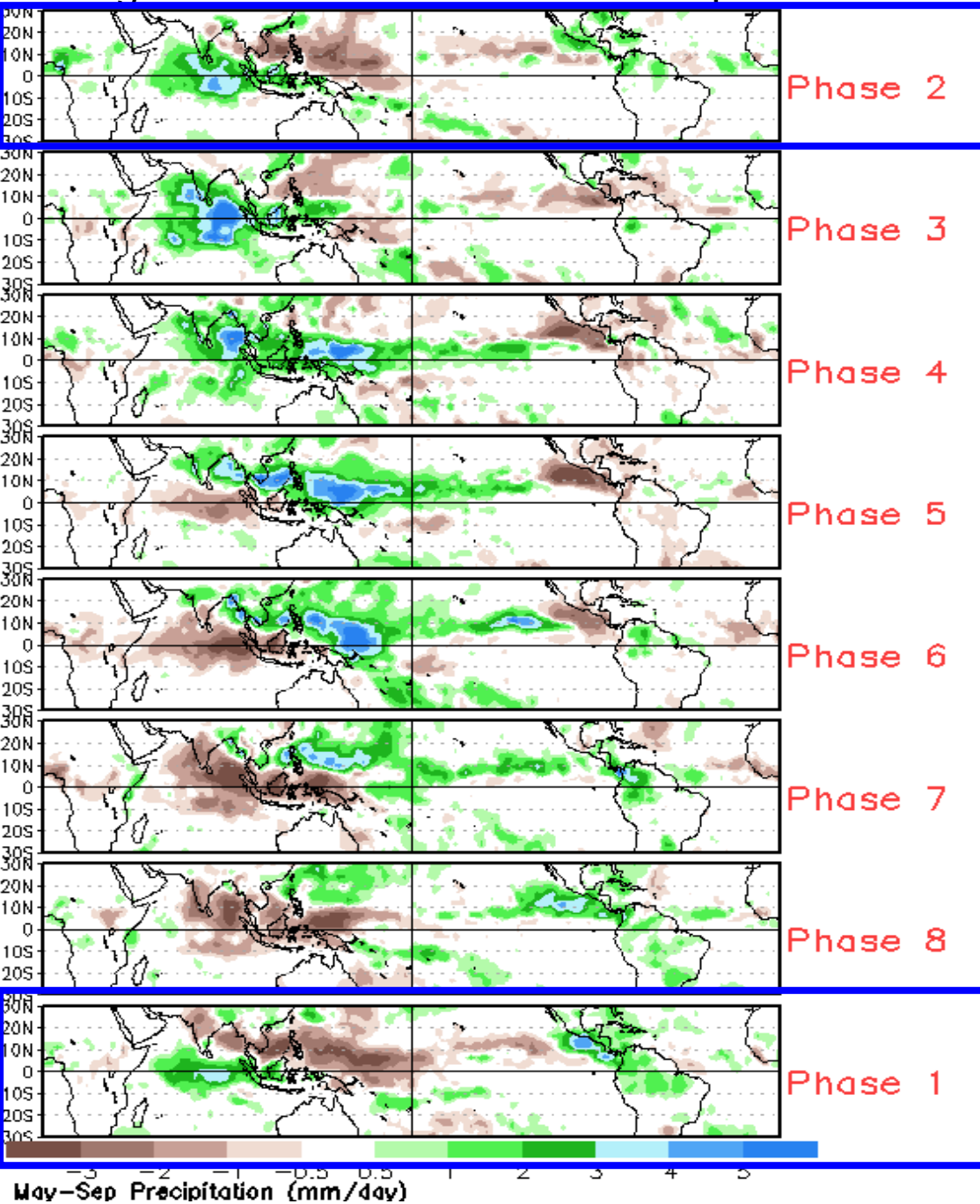


JMA

Models all show a slower progression. GEFS and JMA show amplitude over western I.O.

- Kelvin wave may cross Indian Ocean (provide eastward propagating signal)
- TC activity over Atlantic basin (Phase-1) and possible I.O. (Phases 2-3), and CAG
- Low frequency favors enhanced convection over the western I.O., suppressed over the West Pacific.

Average Conditions when the MJO is present



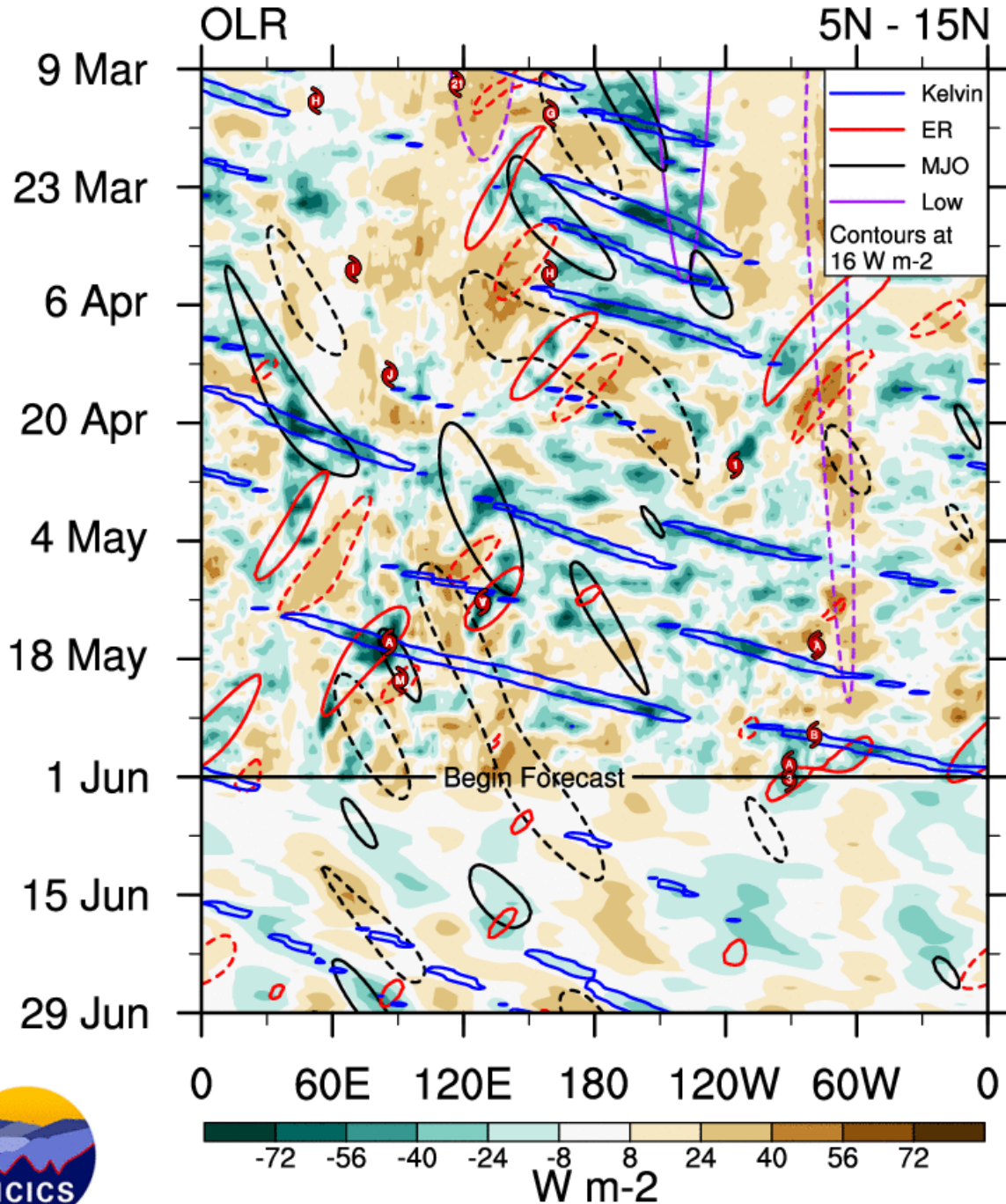
Note suppressed Wpac, active Central America and I.O.

CAVEAT: These panels are representative of robust MJO events.

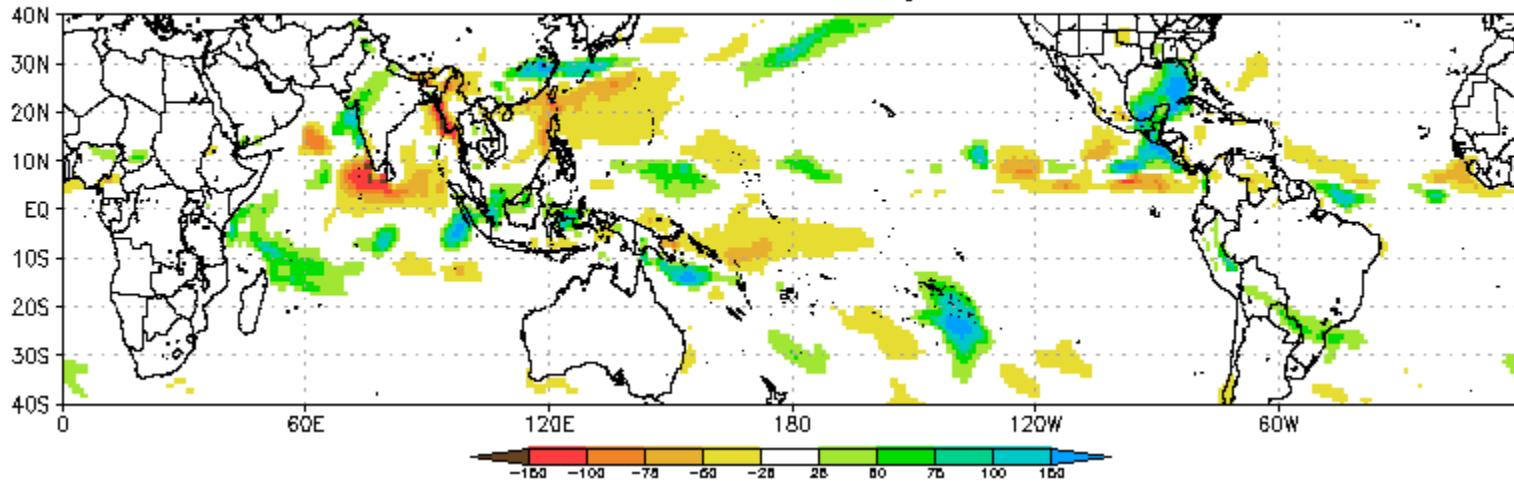
Kelvin wave now near the Prime Meridian.

Strong suppressed signal over the West Pacific.

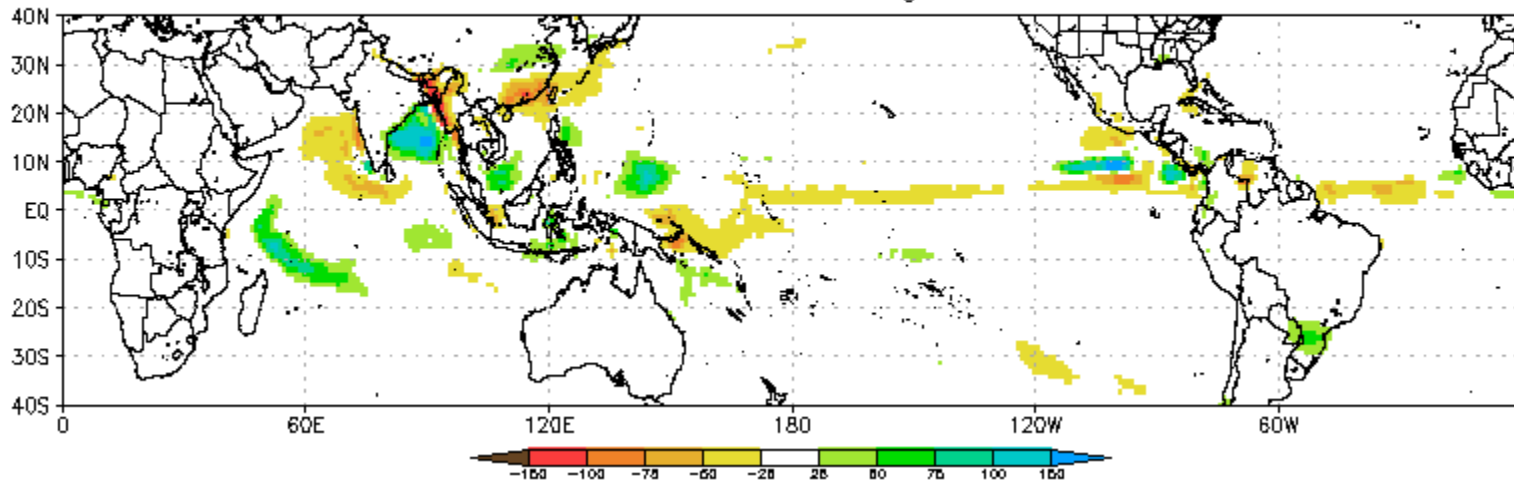
Hints of **Rossby wave** activity over the West Pacific in early June.



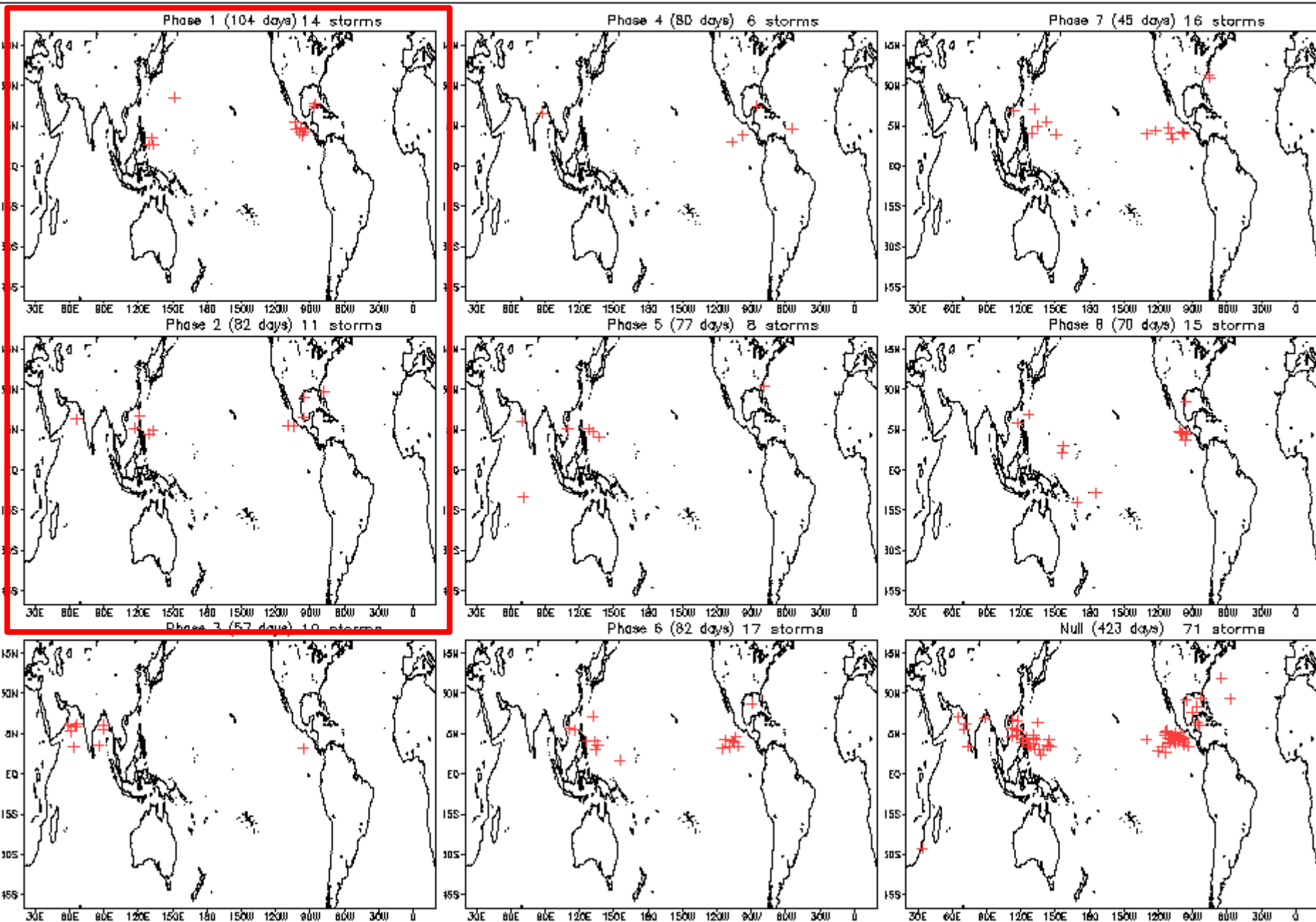
CFS Precipitation Anomalies (mm) Issued 01Jun2020
Week-1 Forecast Ending 09Jun2020



CFS Precipitation Anomalies (mm) Issued 01Jun2020
Week-2 Forecast Ending 16Jun2020



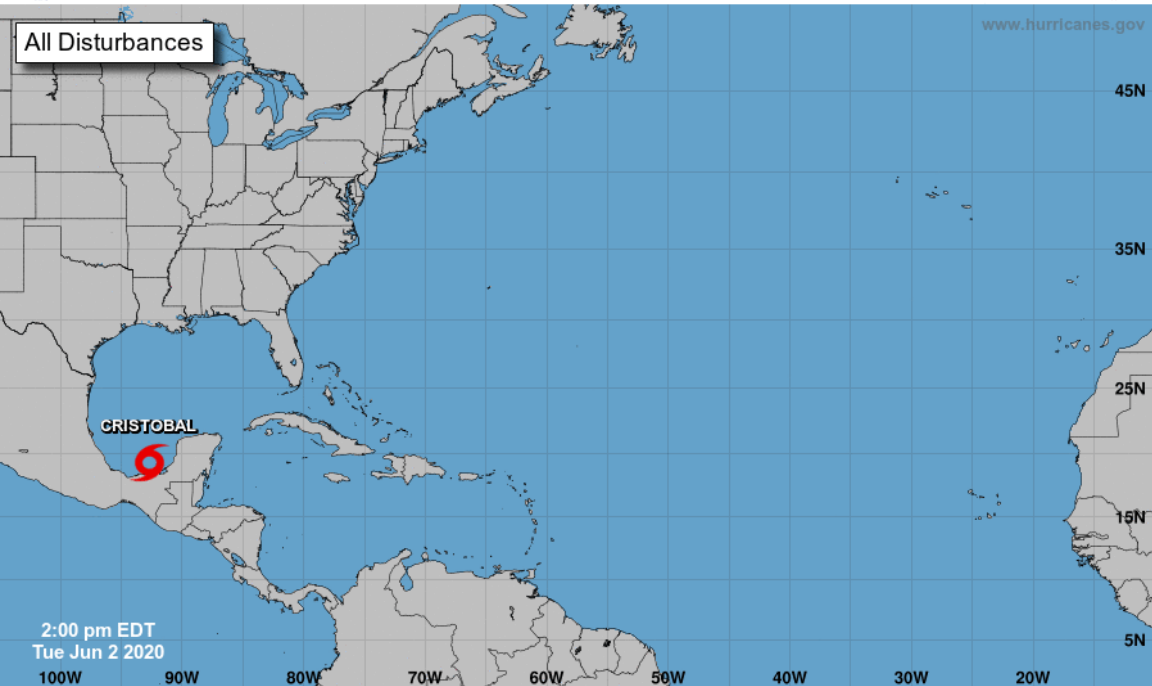
June Tropical Storm Formation by MJO phase





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



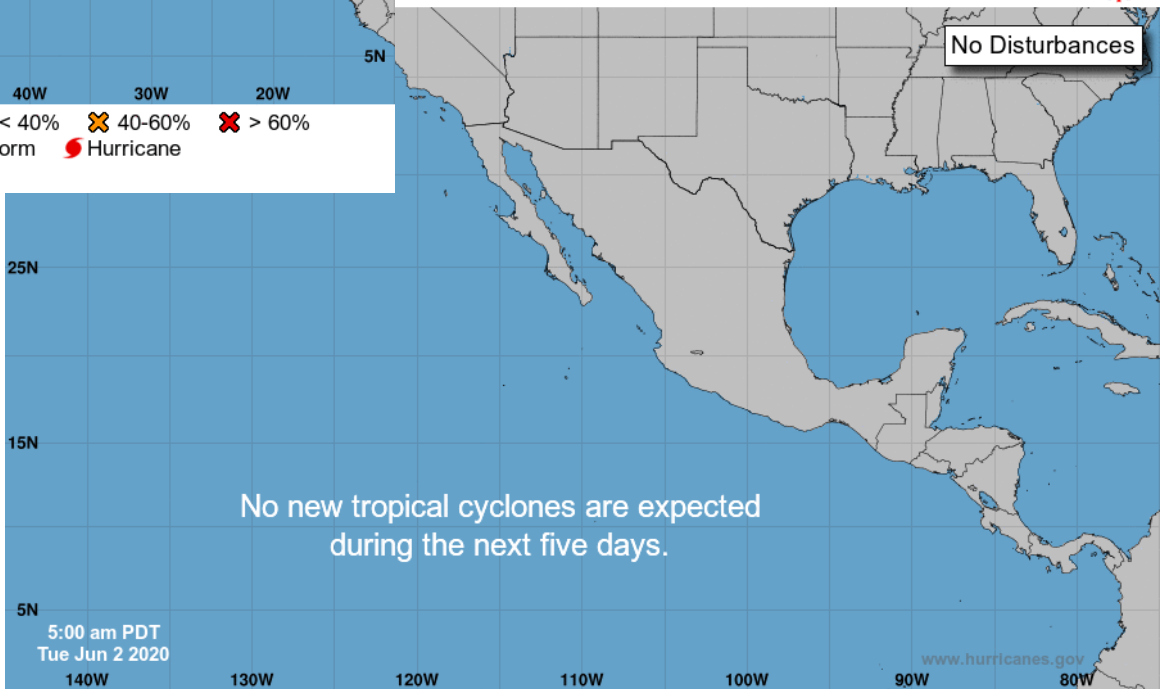
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



No new tropical cyclones are expected during the next five days.

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



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 Cristobal
 Tuesday June 02, 2020
 1 PM CDT Intermediate Advisory 4A
 NWS National Hurricane Center

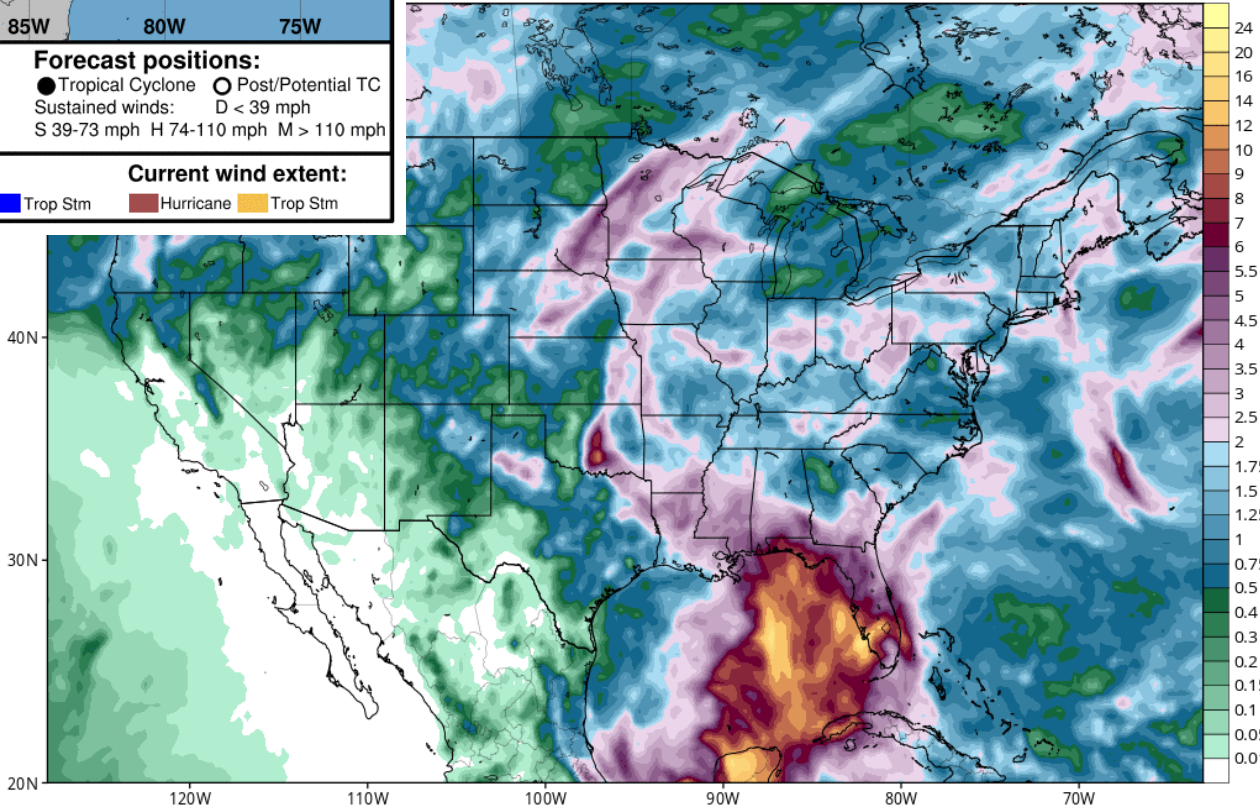
Current information: x
 Center location 19.2 N 92.8 W
 Maximum sustained wind 40 mph
 Movement SW at 3 mph

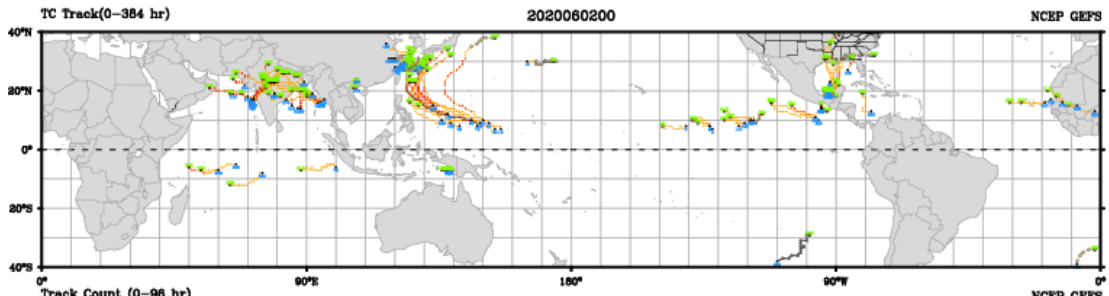
Forecast positions:
 ● Tropical Cyclone ○ Post/Potential TC
 Sustained winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110 mph

Potential track area: Day 1-3 (solid line), Day 4-5 (dotted line)
Watches: Hurricane (pink), Trop Stm (yellow)
Warnings: Hurricane (red), Trop Stm (blue)
Current wind extent: Hurricane (brown), Trop Stm (orange)

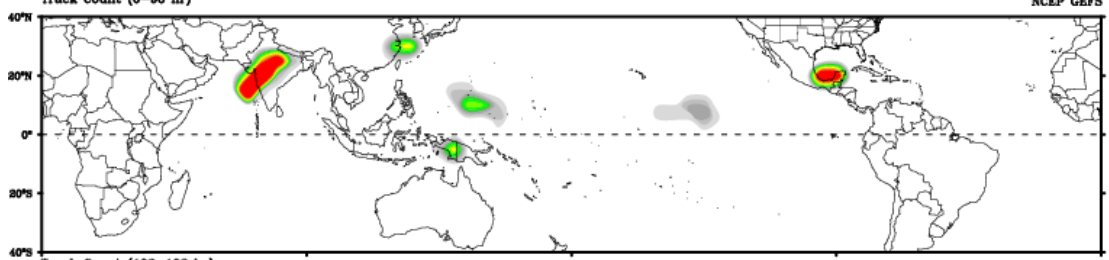
1 (inches) from 12z02Jun2020 to 12z13Jun2020
 valid at 12z Sat, Jun 13 2020

TROPICALTIDBITS.COM

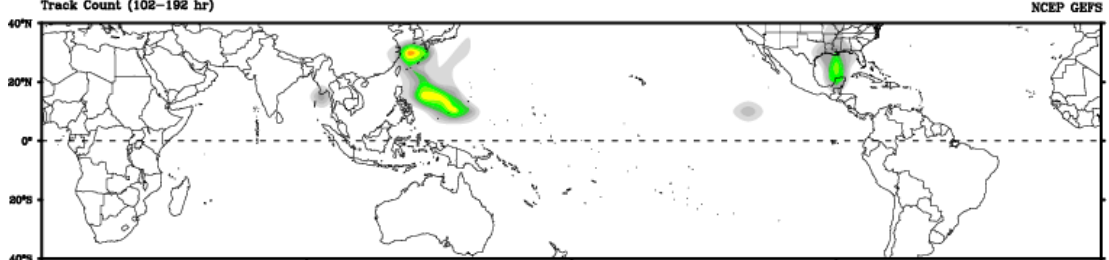




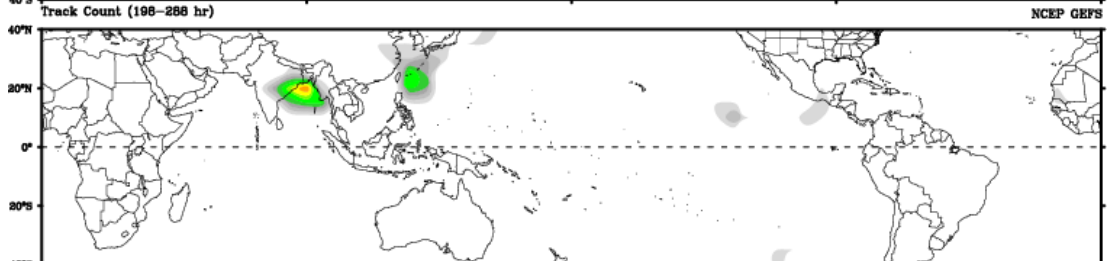
Days 1-4



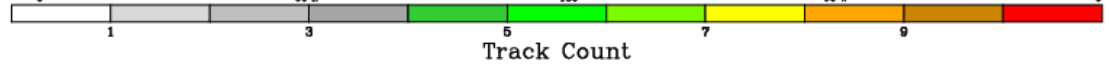
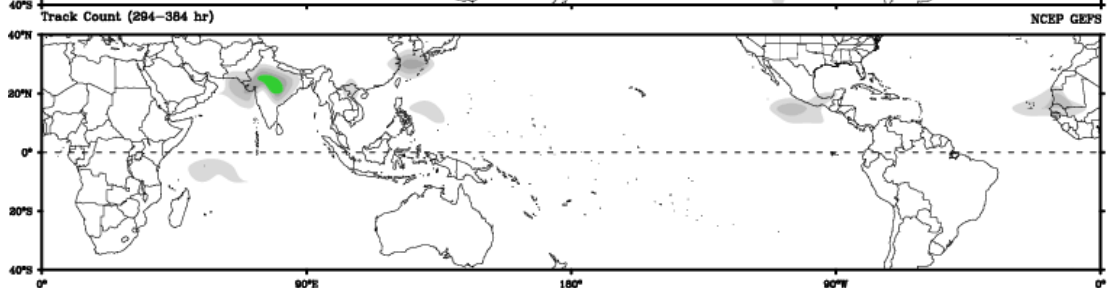
Day 5-8



Day 9-12

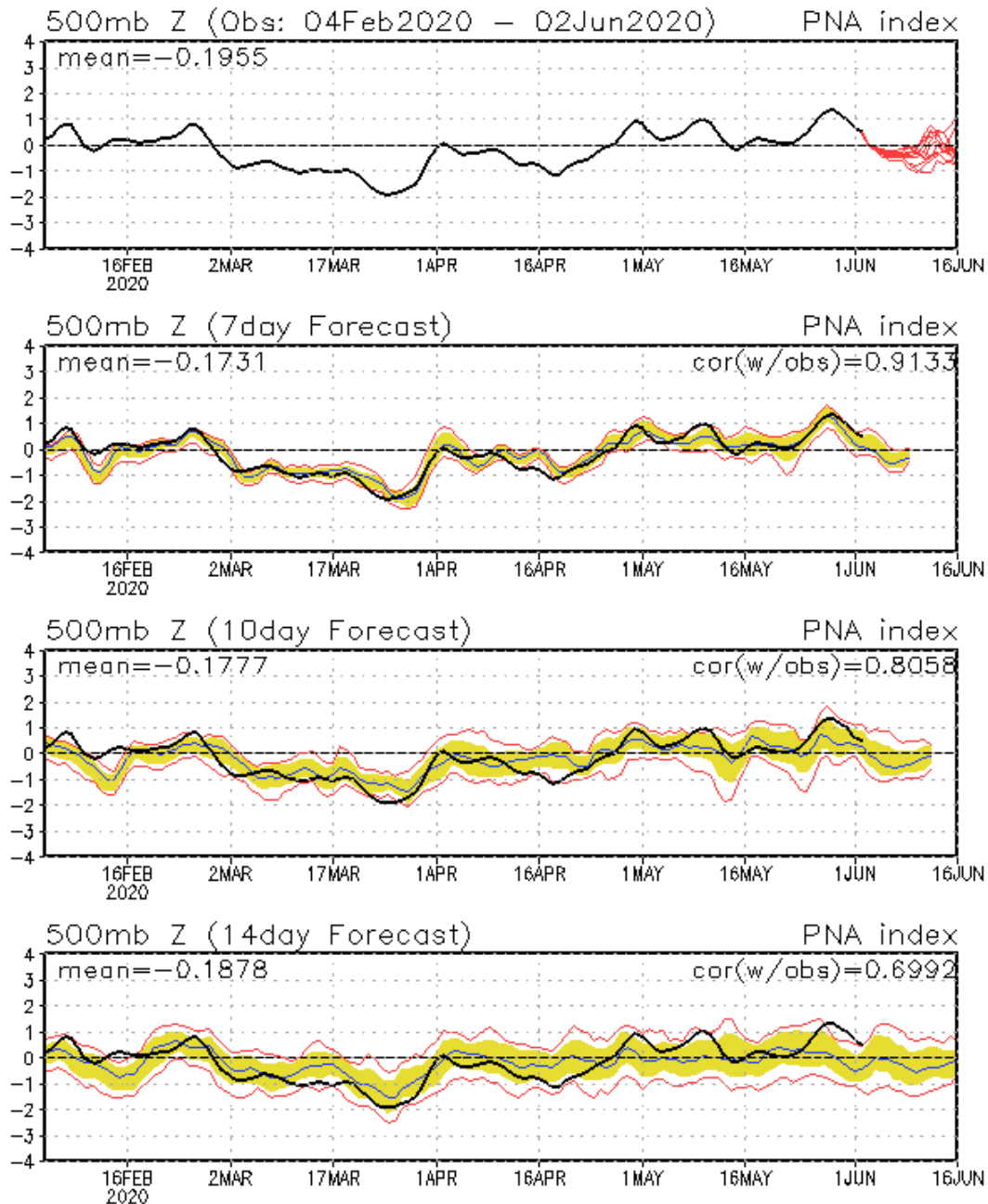


Day 13-15

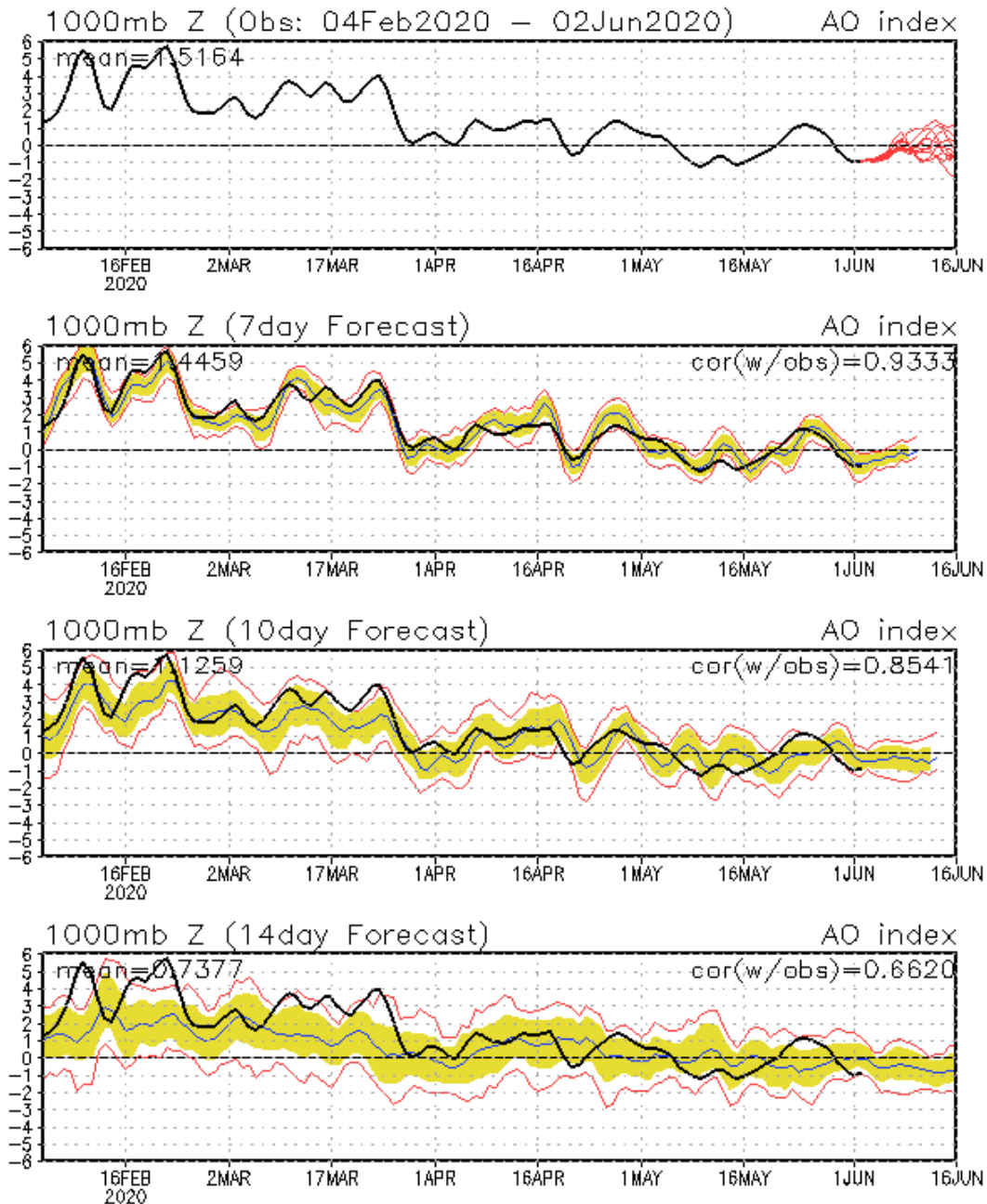


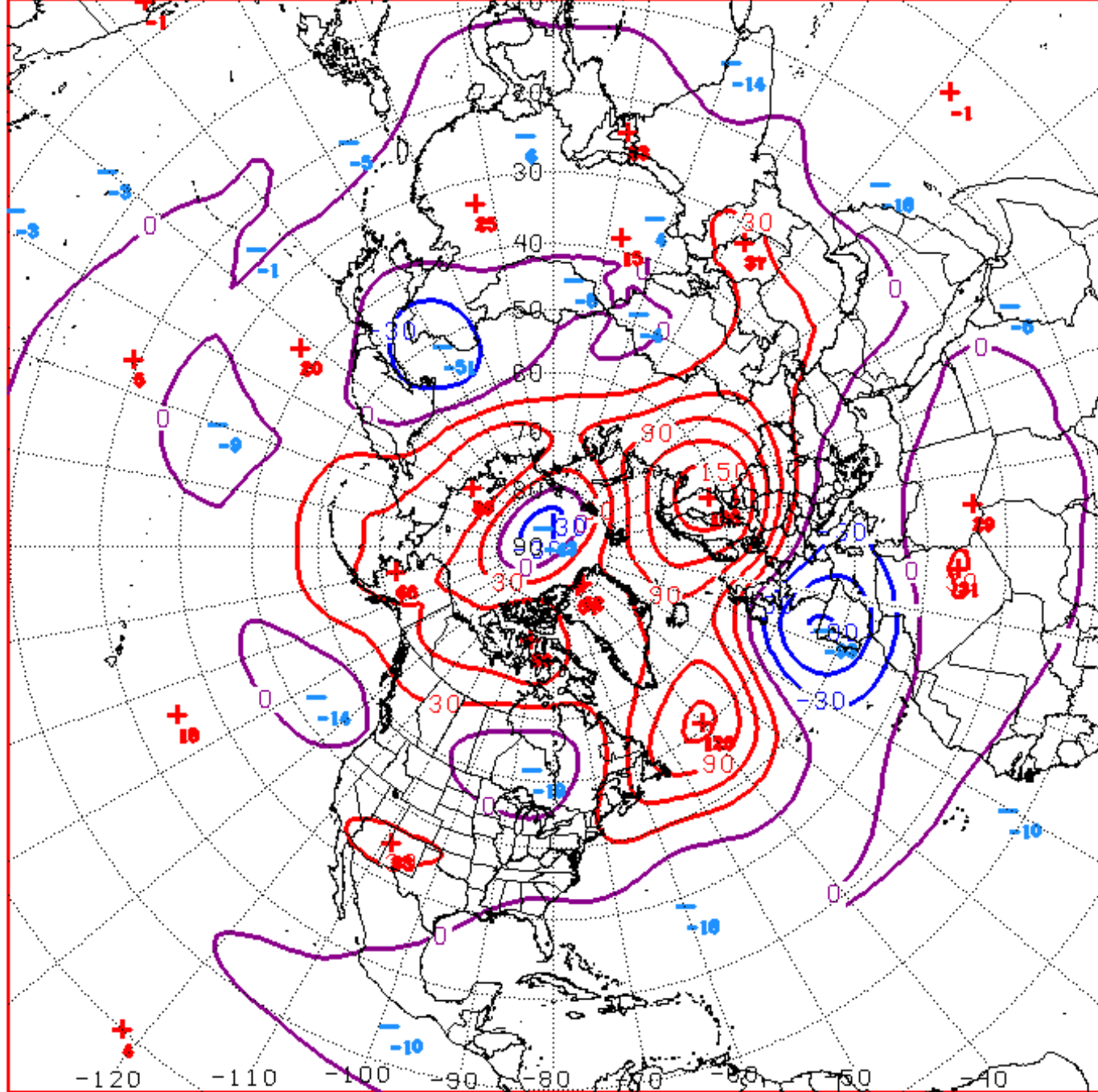
Connections to U.S. Impacts

PNA: Observed & ENSM forecasts



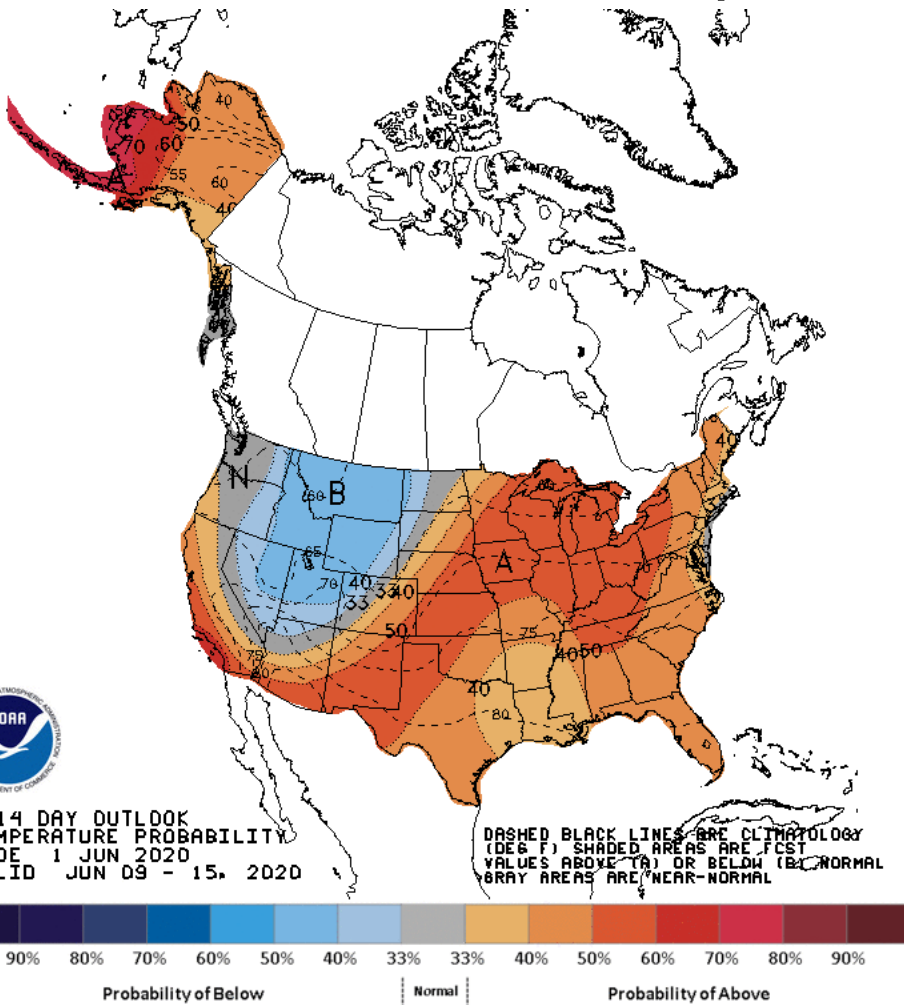
AO: Observed & ENSM forecasts



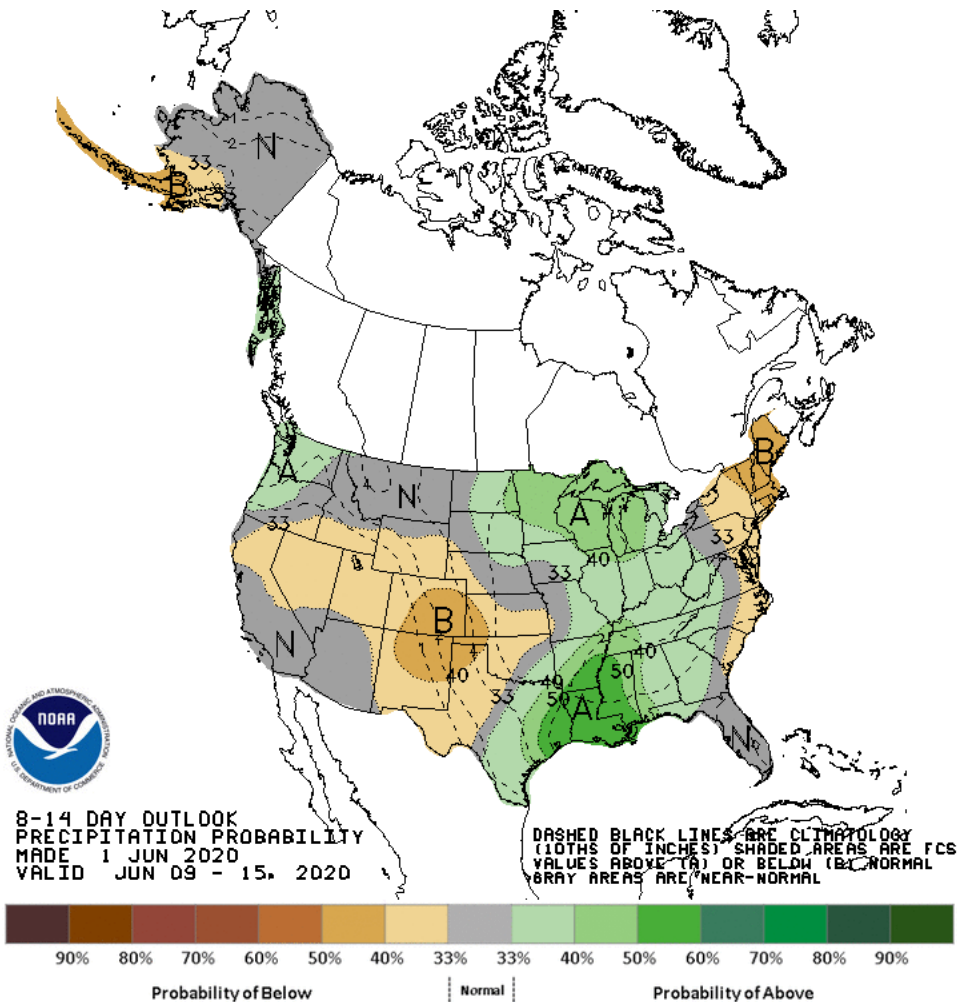


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE JUN 02 2020 1328 UTC CNTD JUN 13 2020

Week 2 – Temperature and Precipitation



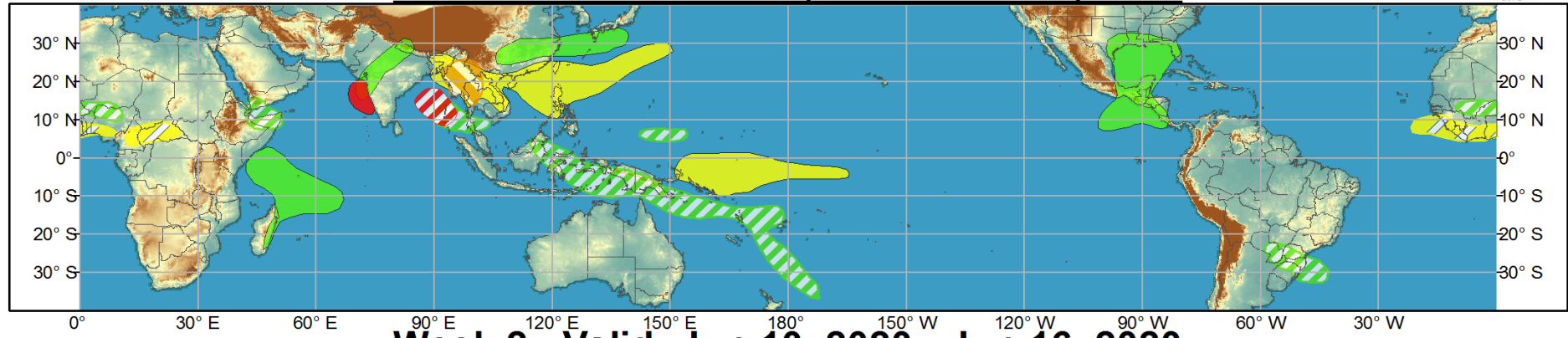
De-amplifying trend in the models is leading to much less warmth across the northern tier in today's forecast.



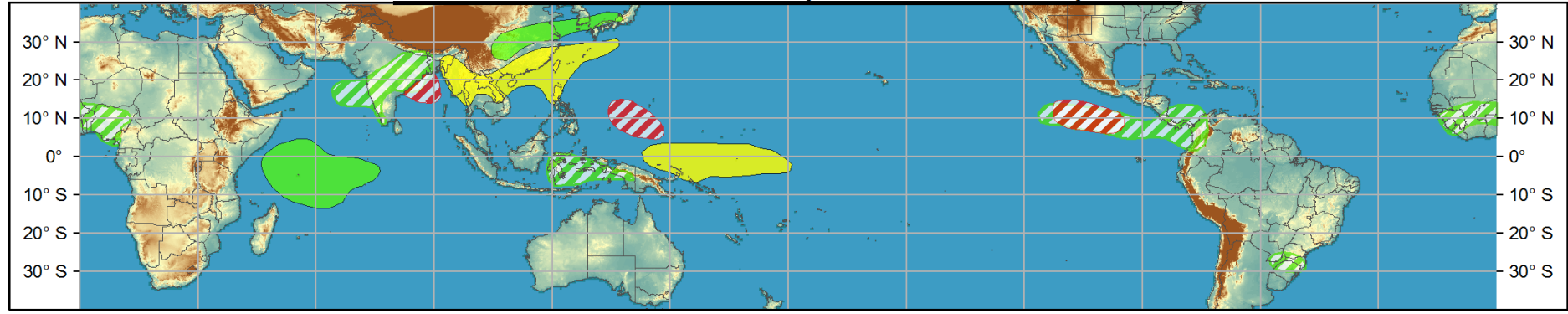


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 03, 2020 - Jun 09, 2020



Week 2 - Valid: Jun 10, 2020 - Jun 16, 2020



Produced: 06/02/2020
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.

