

Global Tropics Hazards And Benefits Outlook

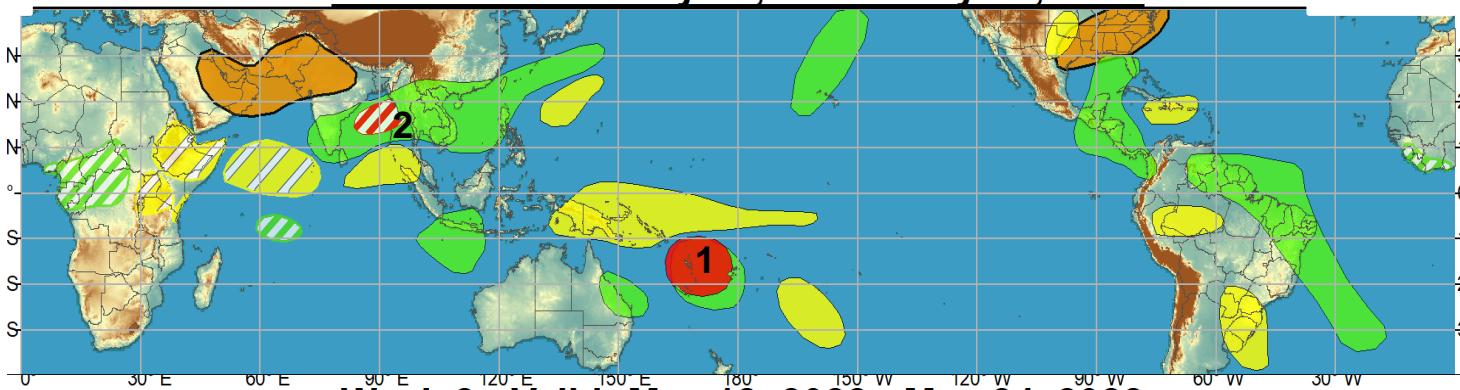
5/24/2022

Danny Barandiaran

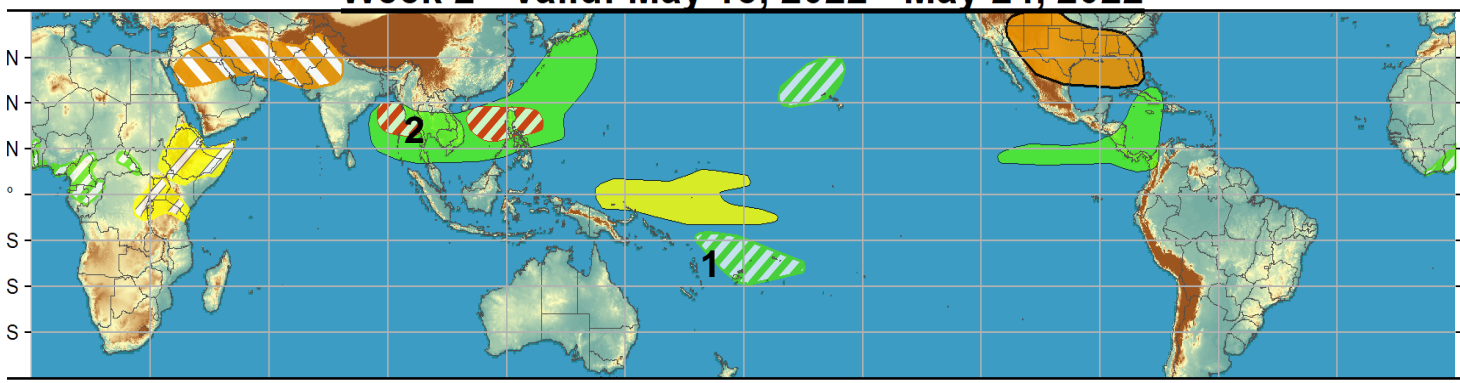
Outline

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 18, 2022 - May 24, 2022

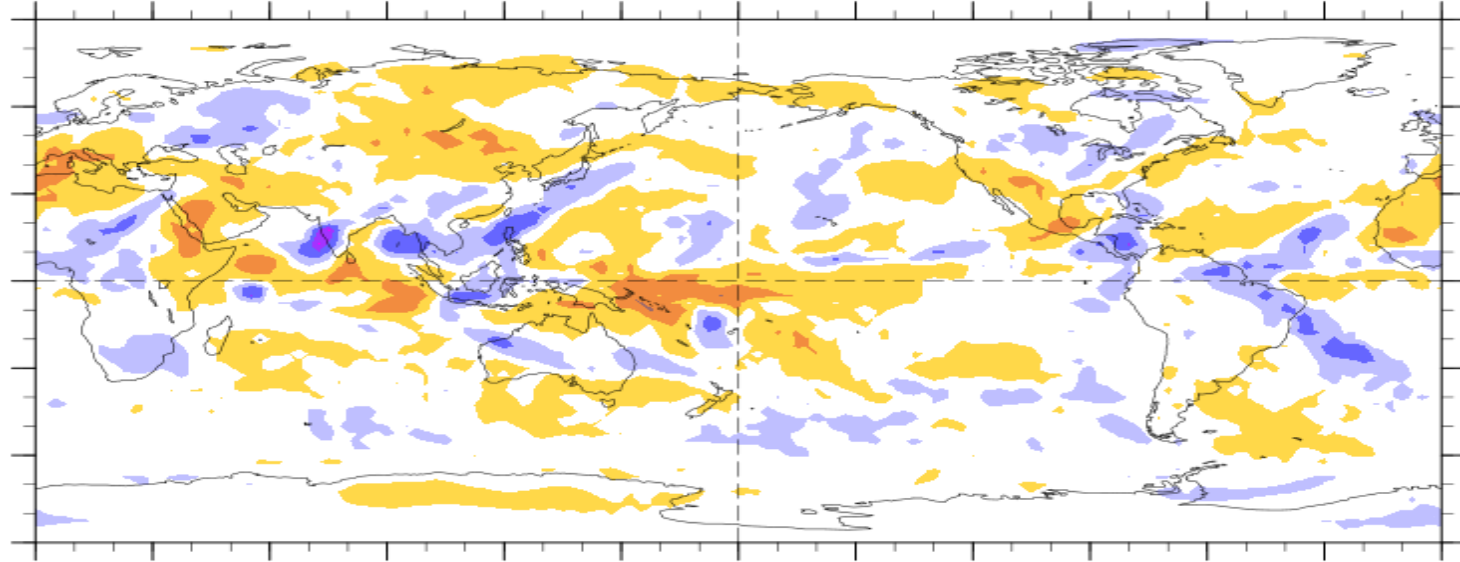


Week 2 - Valid: May 18, 2022 - May 24, 2022



7-Day Average OLR Anomaly

2022/05/16 - 2022/05/22



Outlook Review

TCs last week:

- 1: TC Gina
- 2: BOB 04

Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (May 12, 2022 Update)

next update on Thursday, June 9th

- ENSO Alert System Status: [La Niña Advisory](#)
- Though La Niña is favored to continue, the odds for La Niña decrease into the late Northern Hemisphere summer (58% chance in August-October 2022) before slightly increasing through the Northern Hemisphere fall and early winter 2022 (61% chance).

MJO and other subseasonal tropical variability:

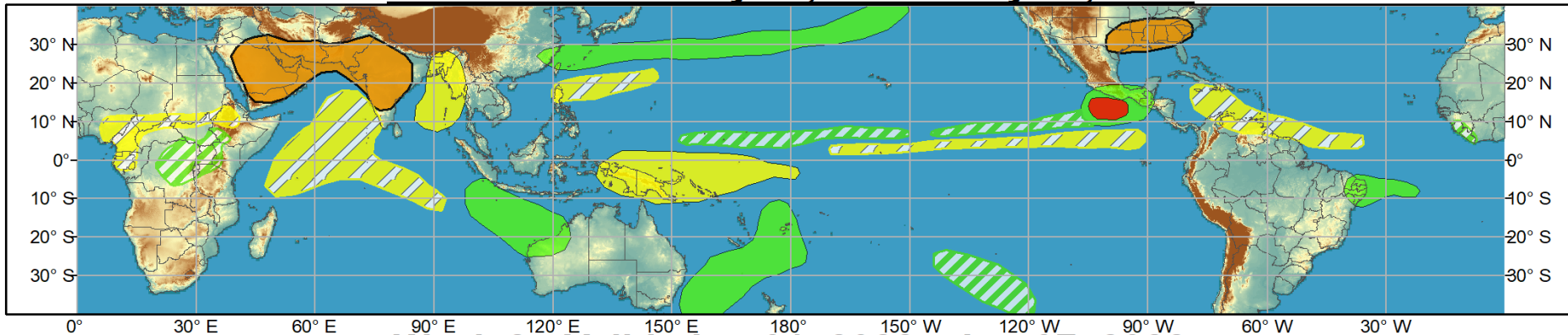
- During the last few days, the amplitude of the RMM-based Madden Julian Oscillation (MJO) index has decreased and is currently within the unit circle.
- RMM signal is forecast to increase substantially over the coming two week period with a slower phase speed relative to previous two weeks, consistent with an emerging MJO pattern.
- Suppressed convection is forecast for the Indian Ocean, so tropical cyclone (TC) activity is expected to be minimal over the region for the coming two week period.



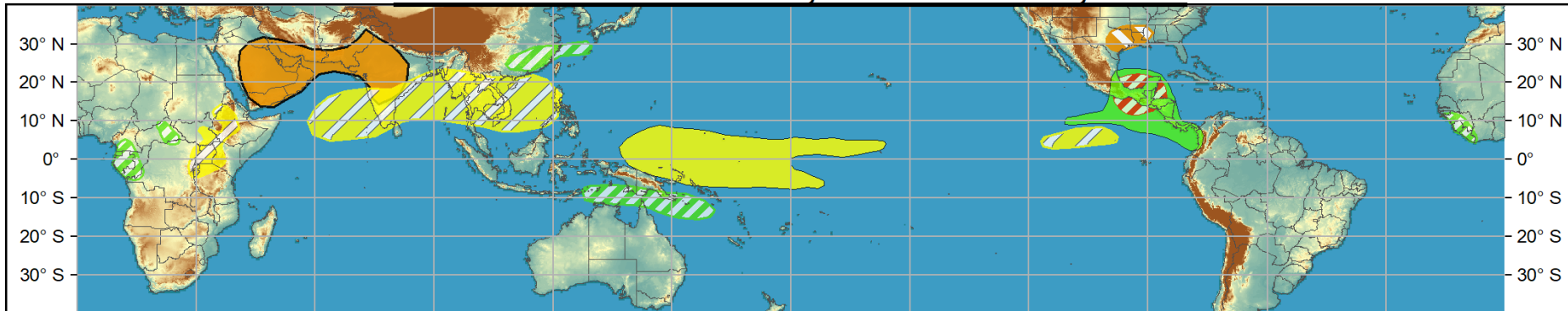
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: May 25, 2022 - May 31, 2022



Week 2 - Valid: Jun 01, 2022 - Jun 07, 2022



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.
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Produced: 05/24/2022

Forecaster: Barandiaran

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

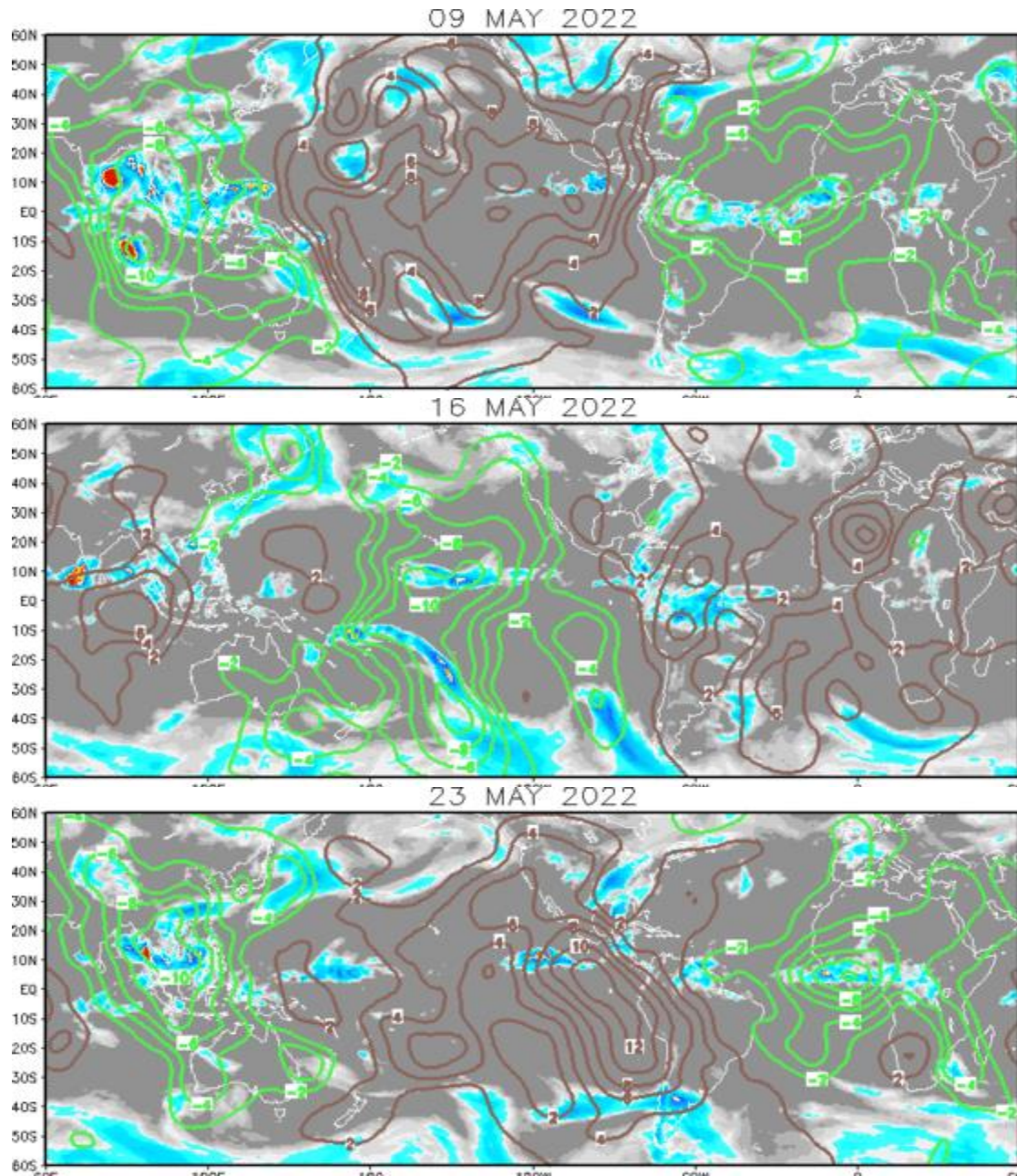
Green: Enhanced Divergence

Brown: Enhanced Convergence

Wave-1 asymmetry pattern observed in the upper-level spatial velocity potential field.

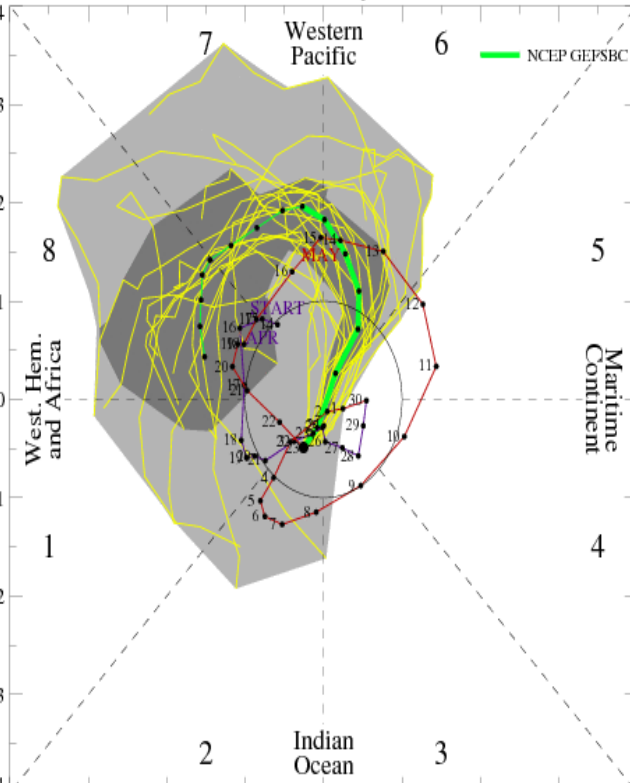
Convective envelope quickly propagates eastward, with enhanced convection moving completely around the globe over a two week period.

Most recently, enhanced convection located over Western Africa and Maritime Continent, with suppressed convection downstream over much of the Pacific.

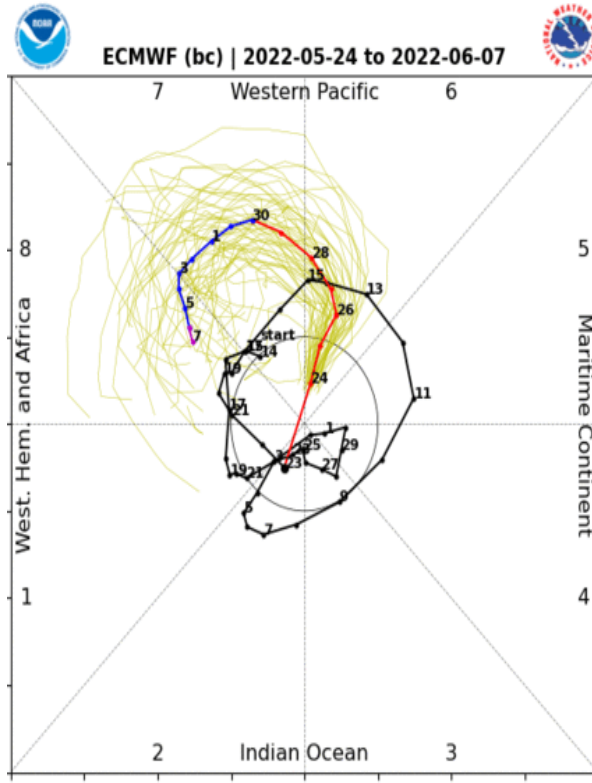


MJO Observation/Forecast

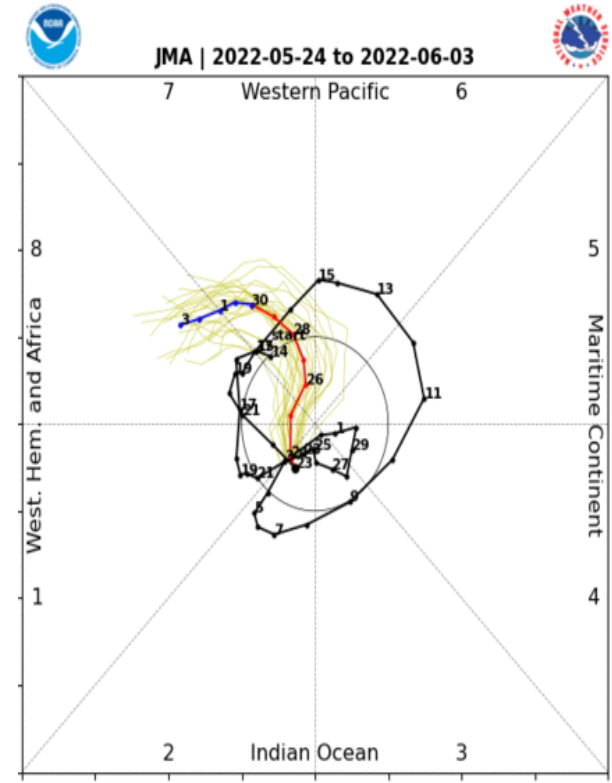
[RMM1, RMM2] forecast for May-24-2022 to Jun-07-2022



GEFS



ECMWF

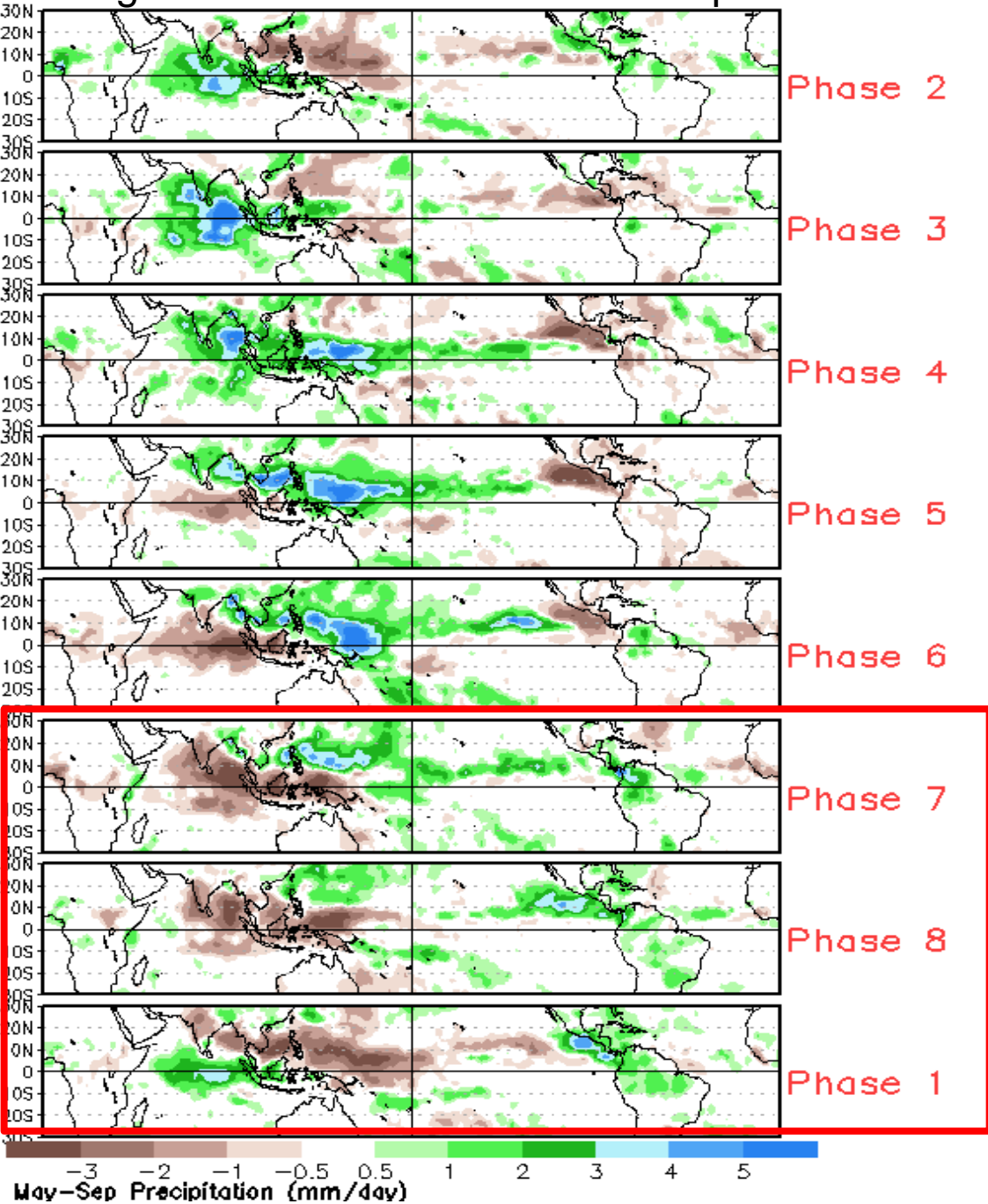


JMA

The GEFS and ECMWF depict a slower eastward propagation and rapid amplification of RMM-based signal during the next 2 weeks, consistent with an emerging strong MJO pattern.

The JMA favors a similar solution to the GEFS and ECMWF, but with a lower amplitude and slower propagation early in the forecast period.

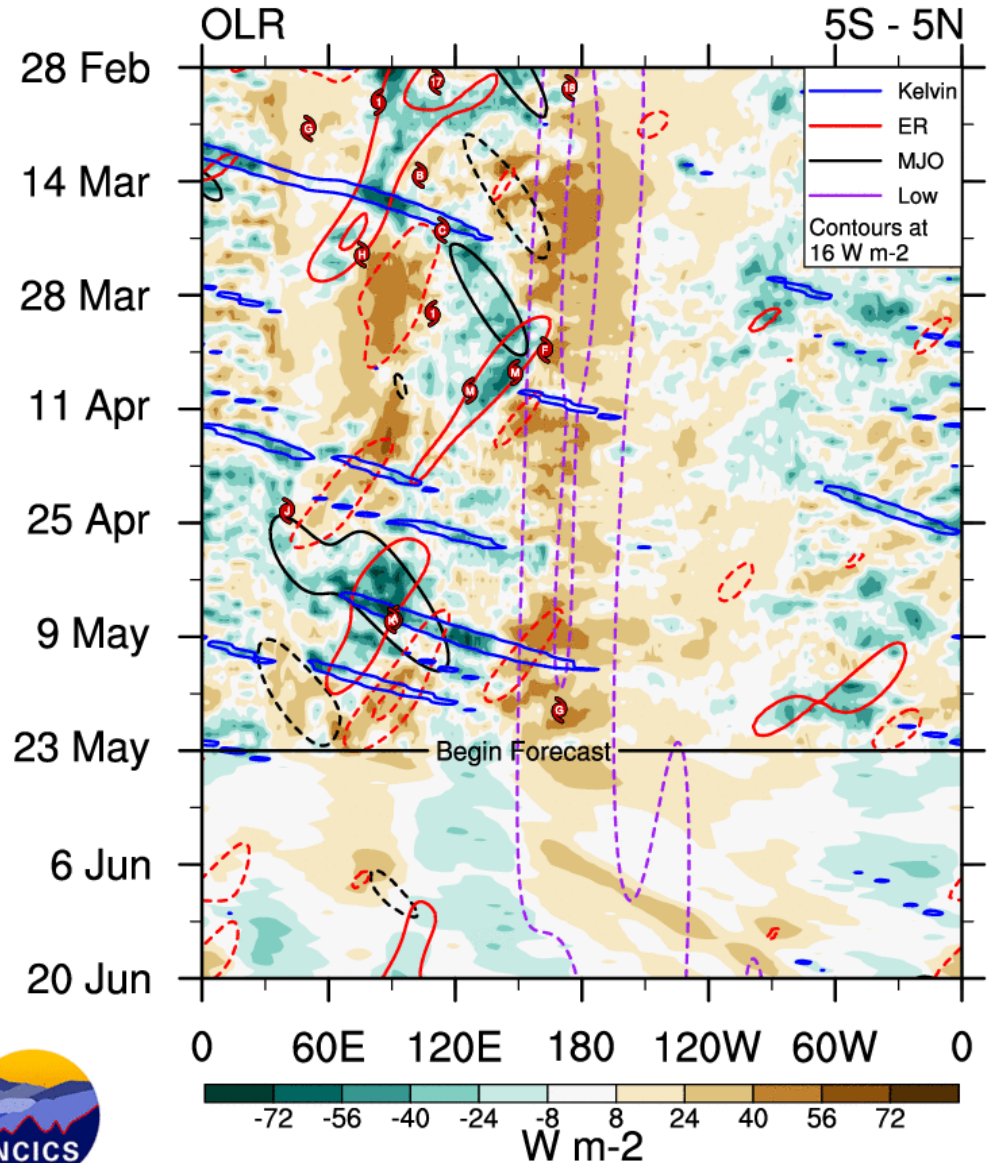
Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

Kelvin and **Rossby** wave activity has diminished since early May, and negative OLR anomalies have accordingly become less amplified.

Low frequency contours depict La Niña conditions and continue to be the dominant feature.



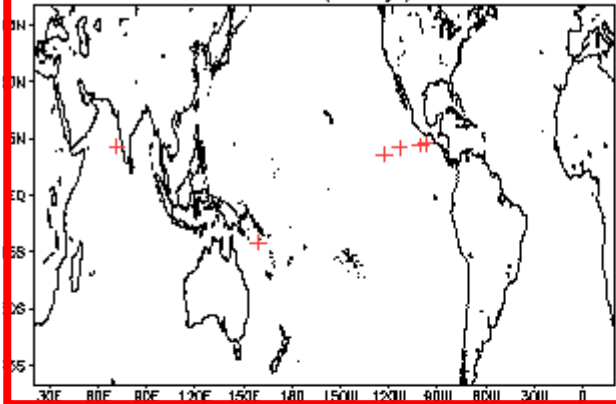
ncics.org/mjo

Tue 2022-05-24 1509 UTC

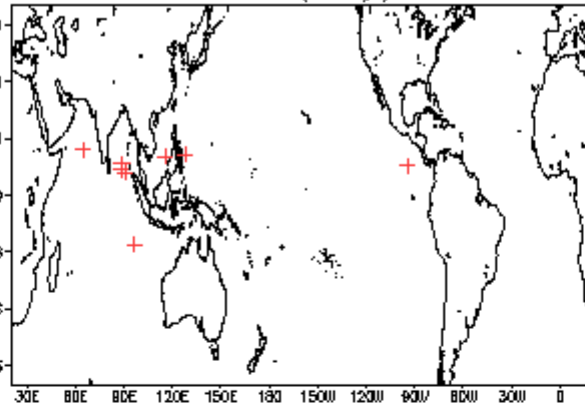
Carl Schreck
carl_schreck@ncsu.edu

May Tropical Storm Formation by MJO phase

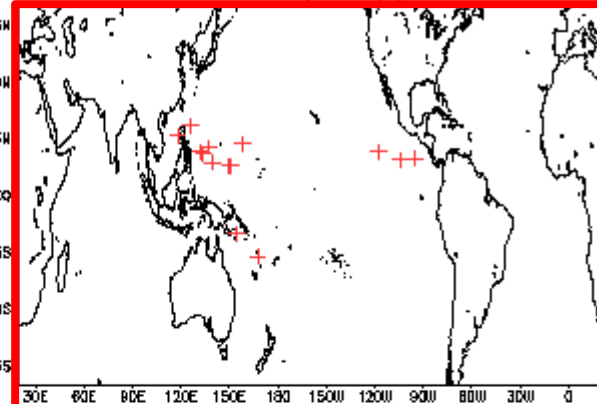
Phase 1 (85 days) 7 storms



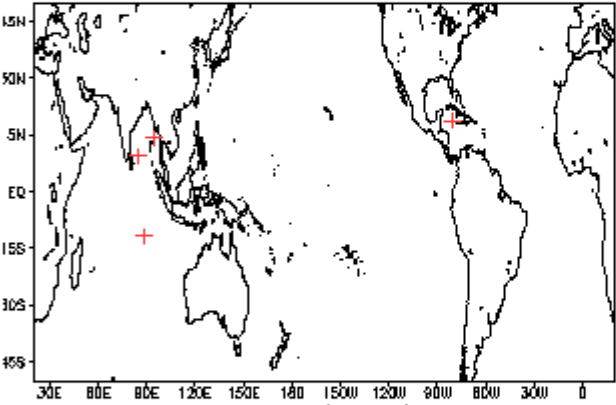
Phase 4 (85 days) 9 storms



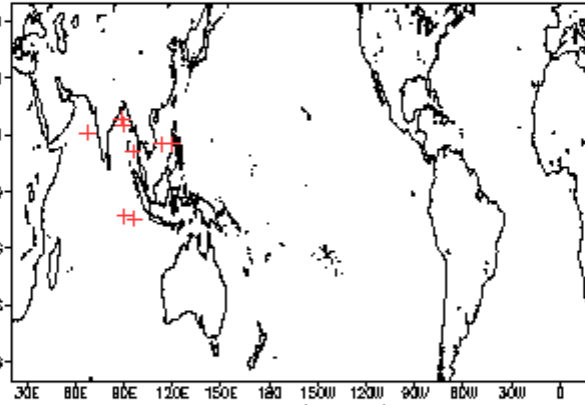
Phase 7 (111 days) 15 storms



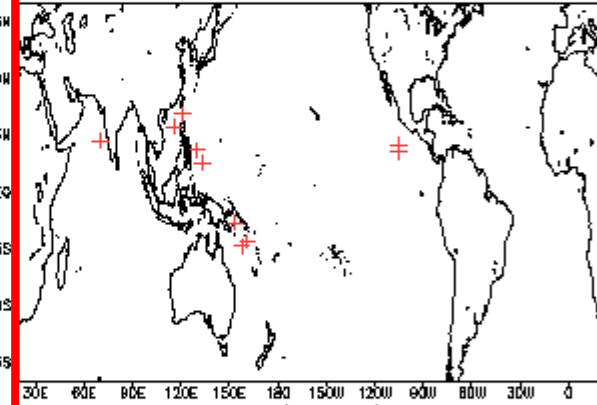
Phase 2 (76 days) 5 storms



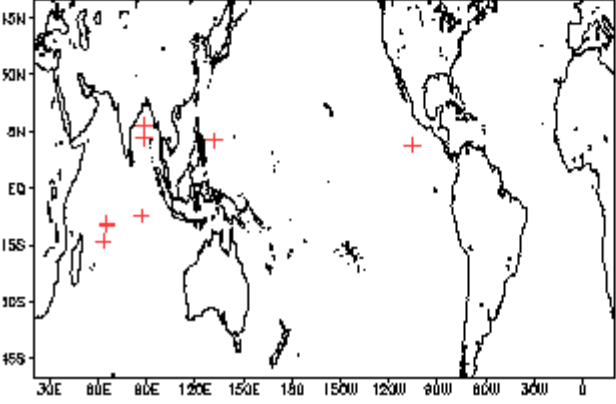
Phase 5 (66 days) 9 storms



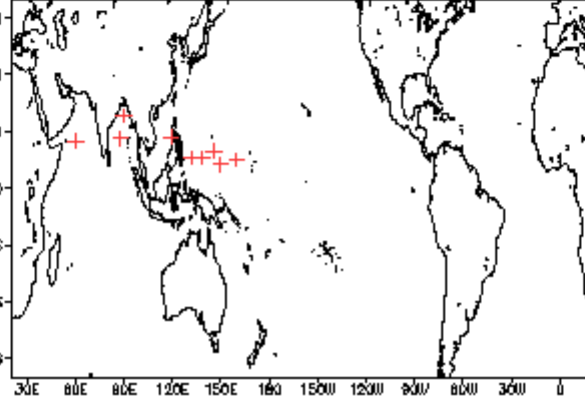
Phase 8 (111 days) 11 storms



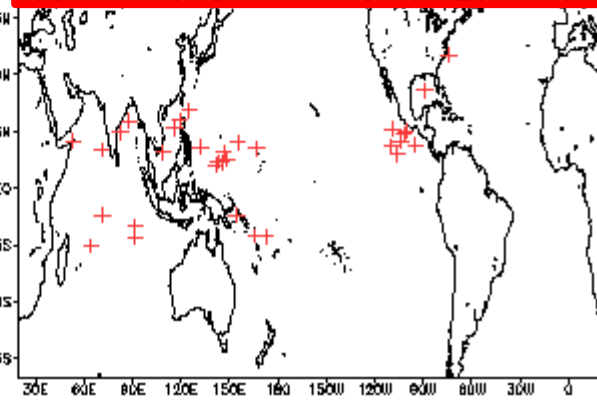
Phase 3 (73 days) 9 storms



Phase 6 (87 days) 10 storms



Null (349 days) 33 storms





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT
Tue May 24 2022

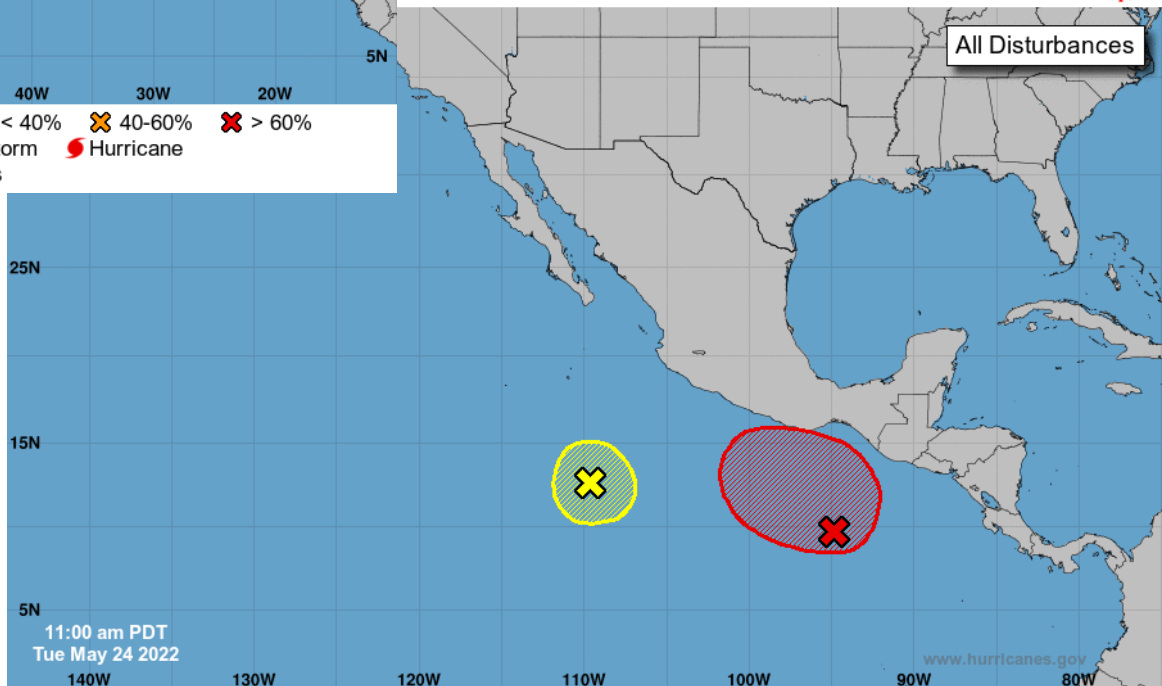
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



11:00 am PDT
Tue May 24 2022

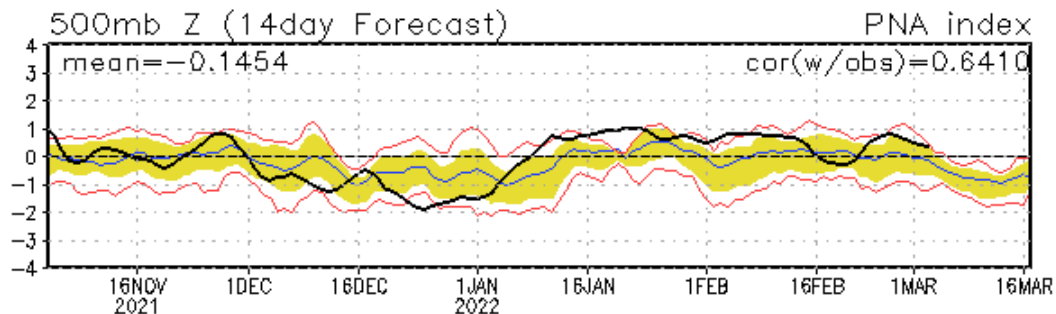
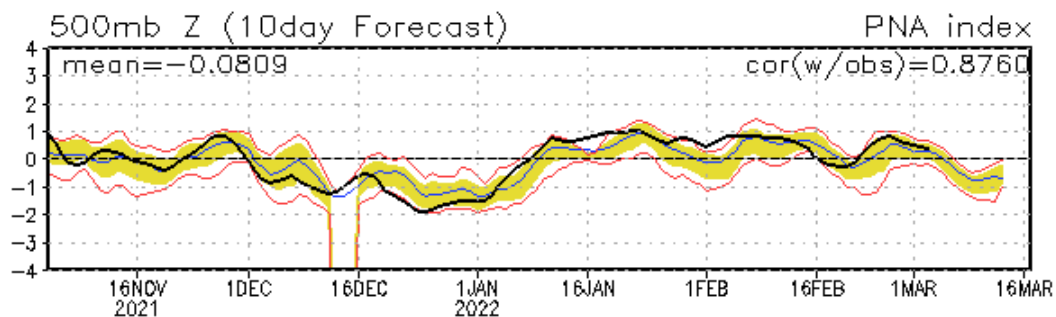
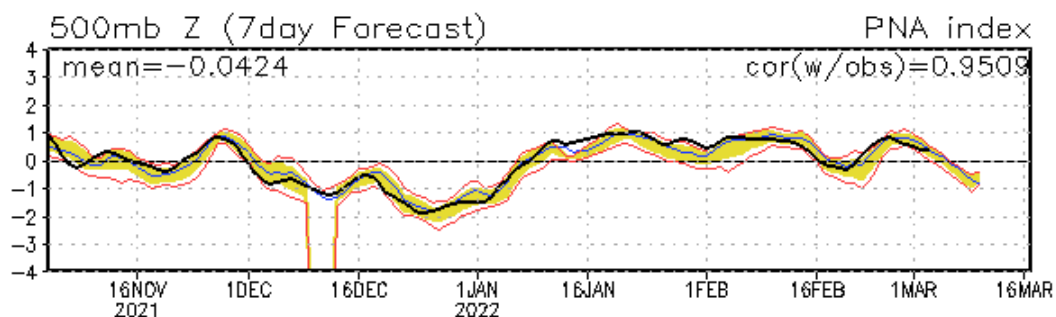
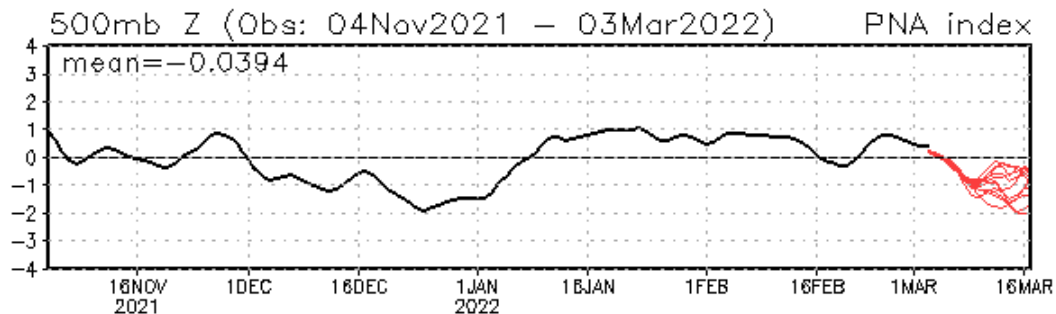
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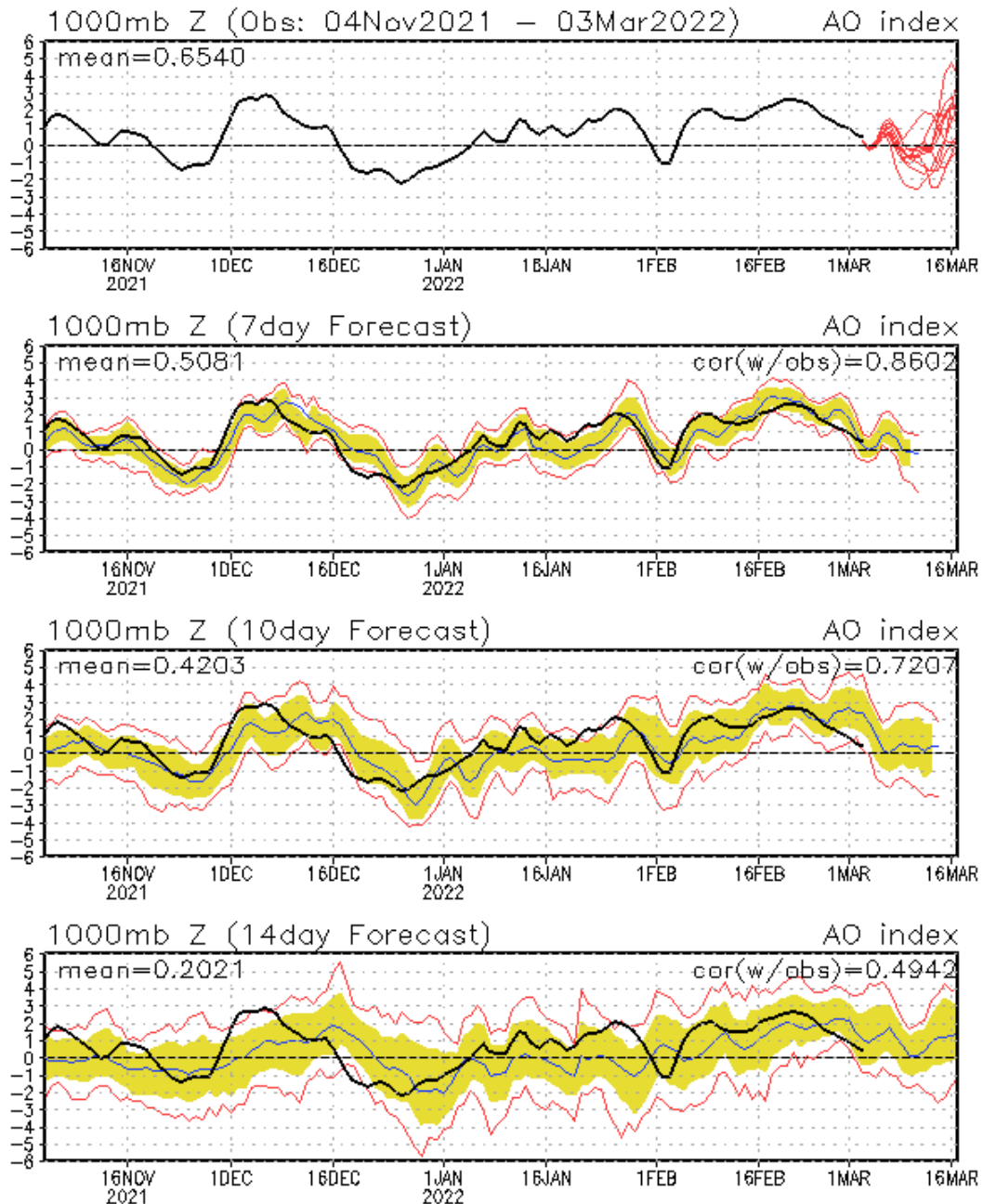
Post-Tropical Cyclone or Remnants

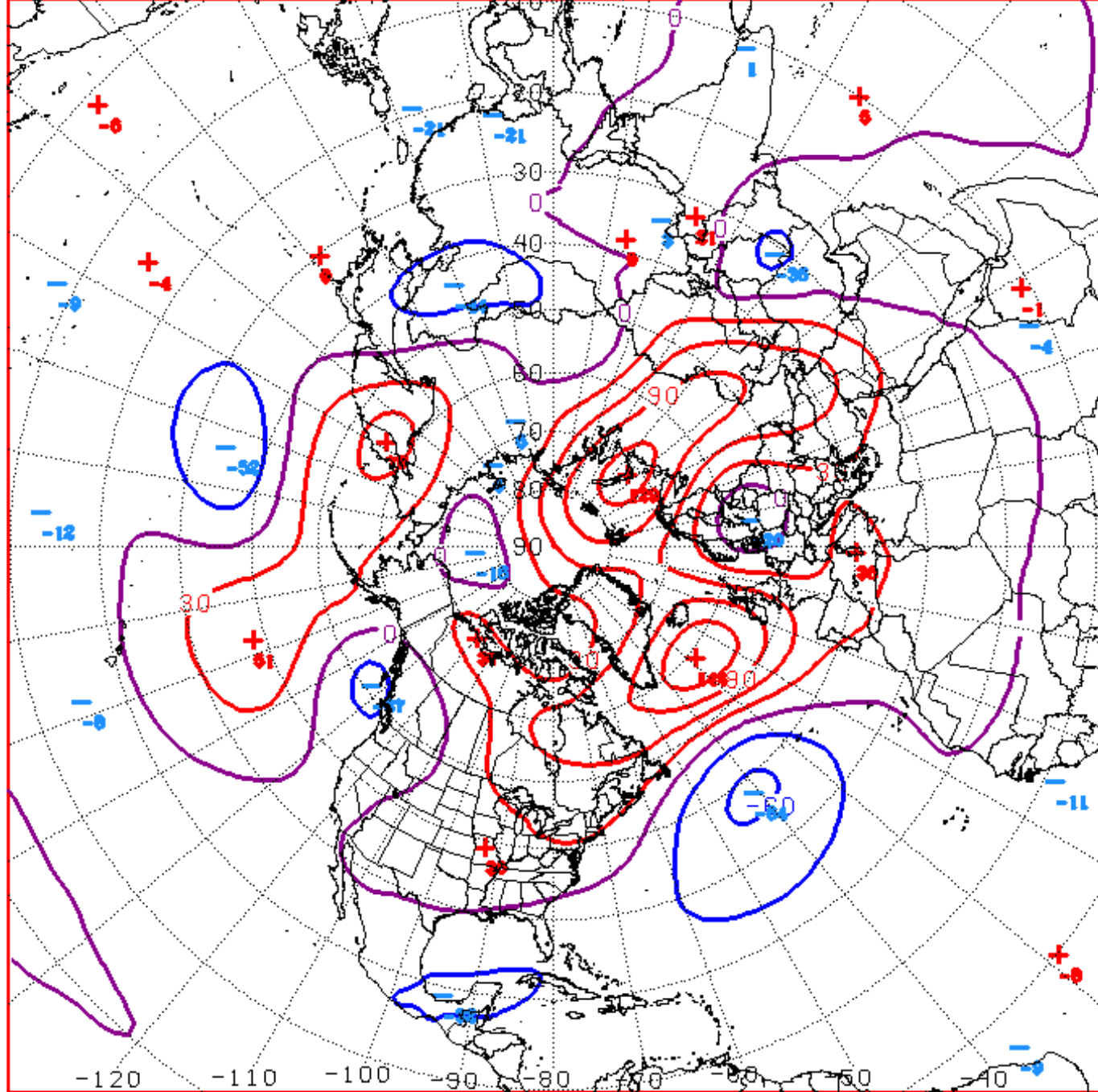
Connections to U.S. Impacts

PNA: Observed & ENSM forecasts



AO: Observed & ENSM forecasts





D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAY 24 2022 1348 UTC CNTD JUN 04 2022

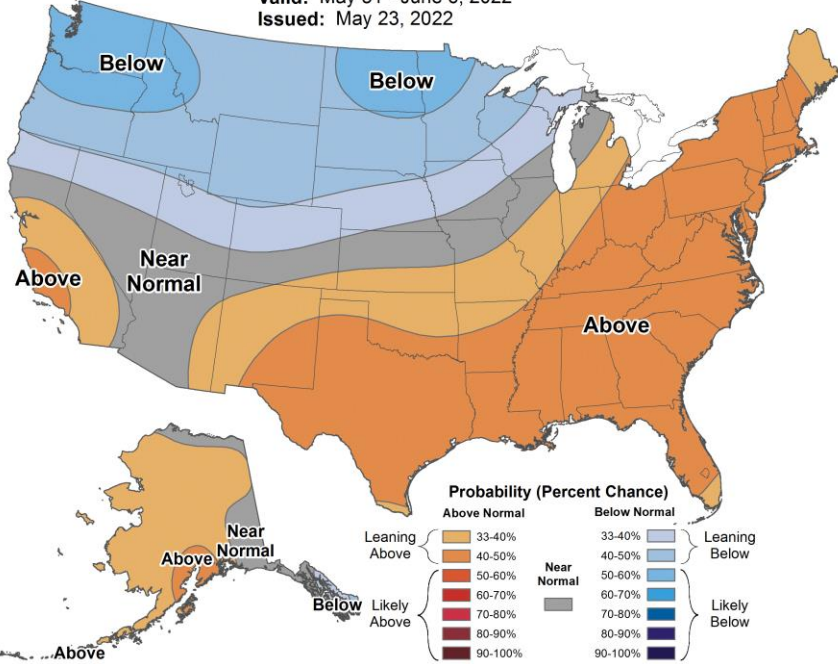
Week 2 – Temperature and Precipitation



8-14 Day Temperature Outlook



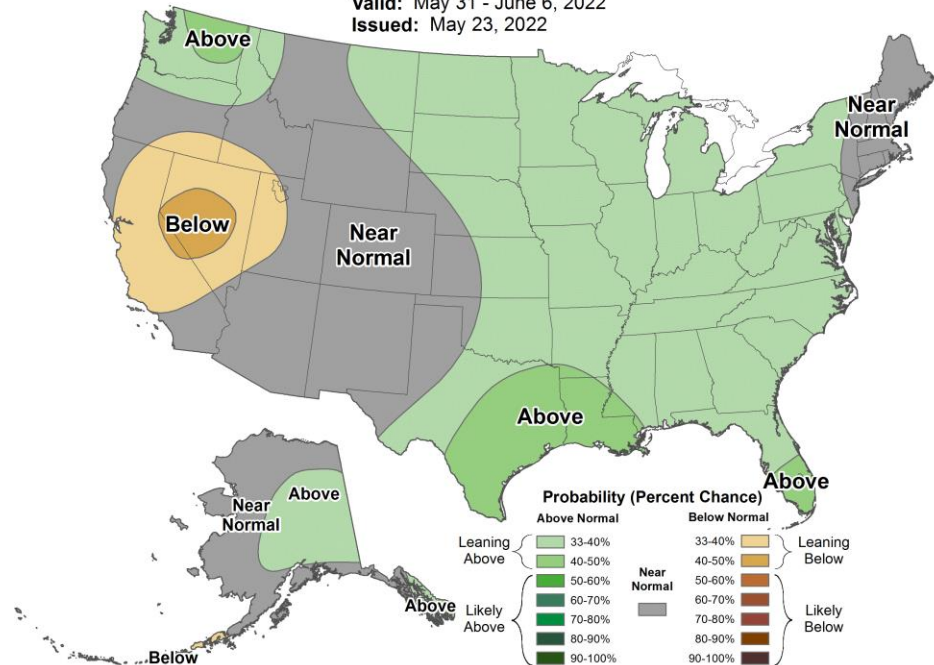
Valid: May 31 - June 6, 2022
 Issued: May 23, 2022



8-14 Day Precipitation Outlook



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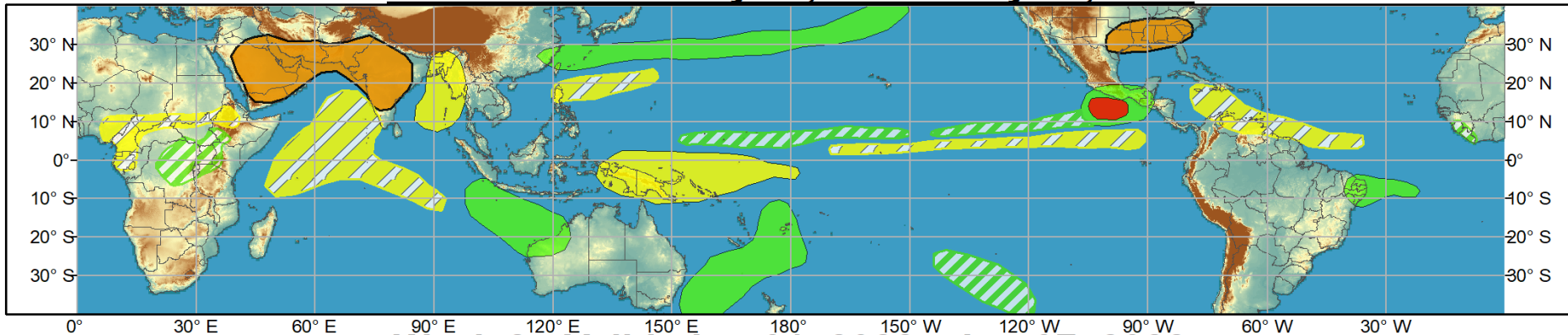




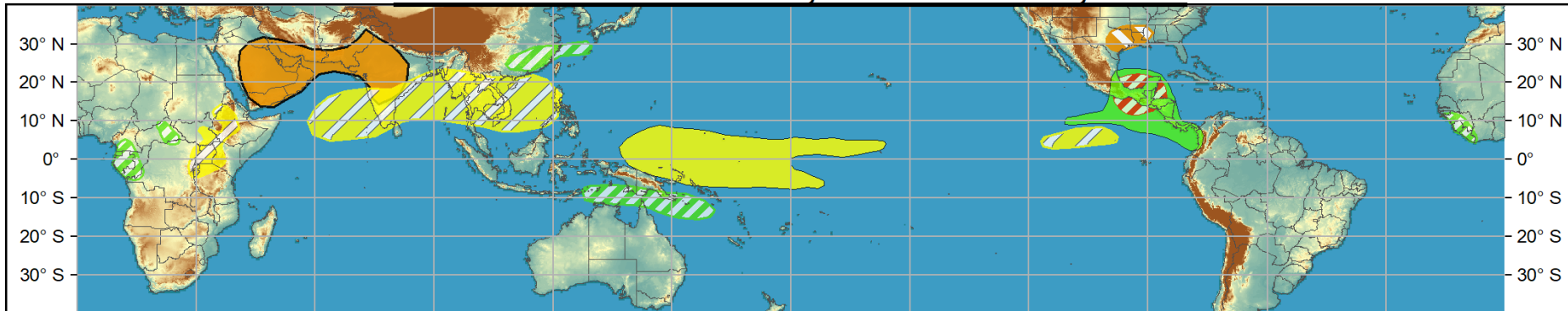
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