

Global Tropics Hazards And Benefits Outlook

7/26/2022

Adam Allgood

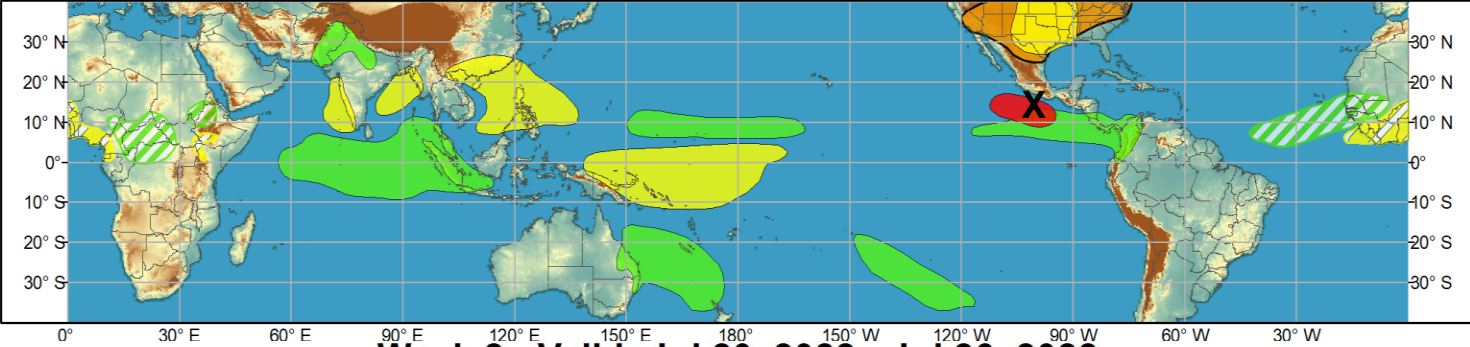
Outline

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

Outlook Review

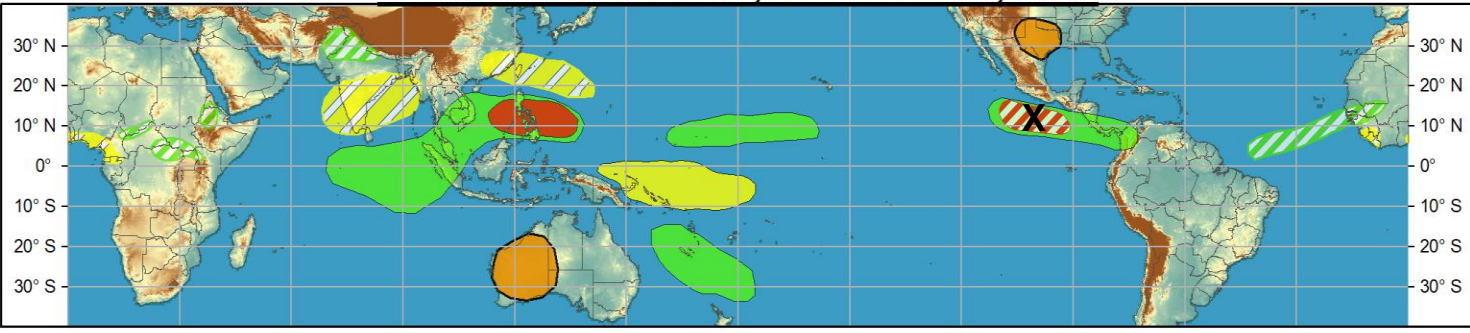


Week 1 - Valid: Jul 20, 2022 - Jul 26, 2022



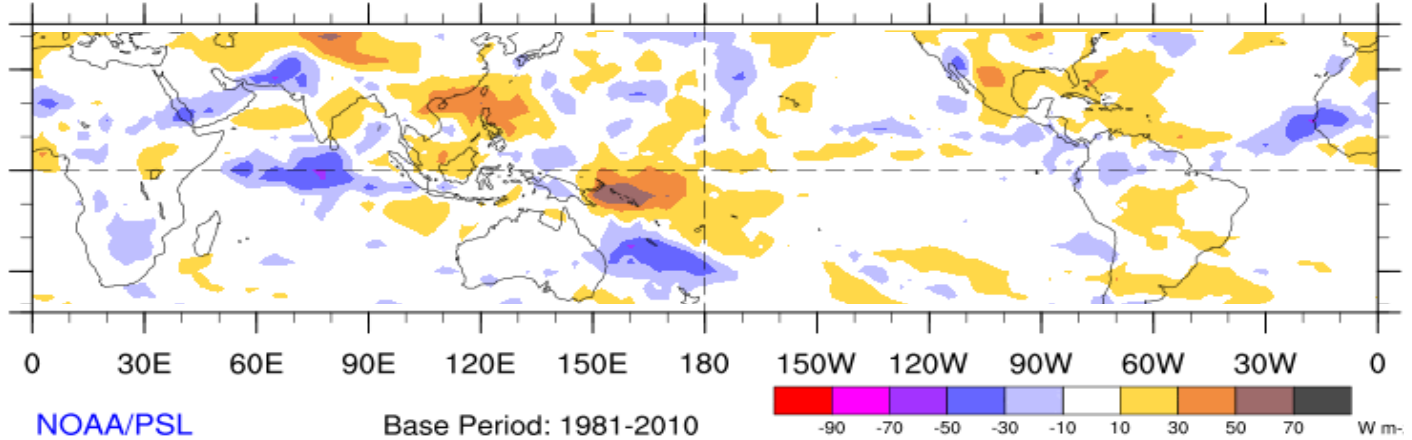
X= Tropical Storm
Frank
(East Pacific)

Week 2 - Valid: Jul 20, 2022 - Jul 26, 2022



7-Day Average OLR Anomaly

2022/07/18 - 2022/07/24

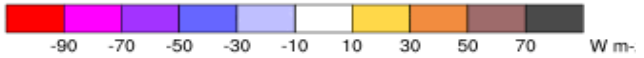


Cool shading
More clouds/rain

Warm shading
Less clouds/rain

NOAA/PSL

Base Period: 1981-2010



Synopsis of Climate Modes

ENSO: (14 July, 2022 Update)

next update on 11th of Aug.!

- ENSO Alert System Status: [La Niña Advisory](#)
- La Niña is favored to continue through 2022 with the odds for La Niña decreasing into the Northern Hemisphere late summer (60% chance in July-September 2022) before increasing through the Northern Hemisphere fall and early winter 2022 (62-66% chance).

MJO and other subseasonal tropical variability:

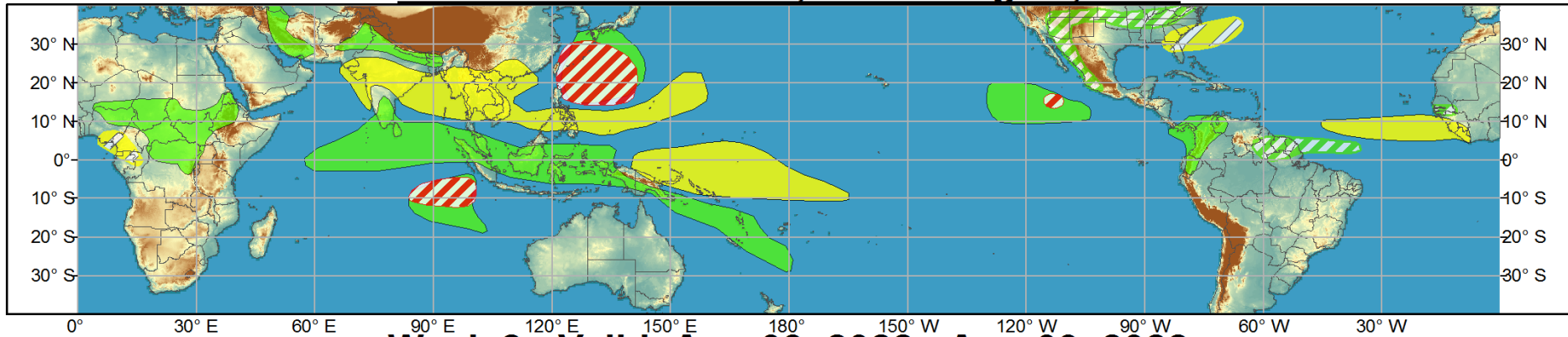
- Following a period of weakening over the Pacific, there appears to be a rapid transition of the intraseasonal signal back to the Indian Ocean.
- Kelvin wave activity continues to modulate the overall pattern.
- Dynamical model forecasts suggest renewed MJO activity crossing the Indian Ocean and Maritime Continent over the next two weeks, somewhat out of phase from the previous event.
- There is a potential for unusual tropical cyclone development over the southeastern Indian Ocean.



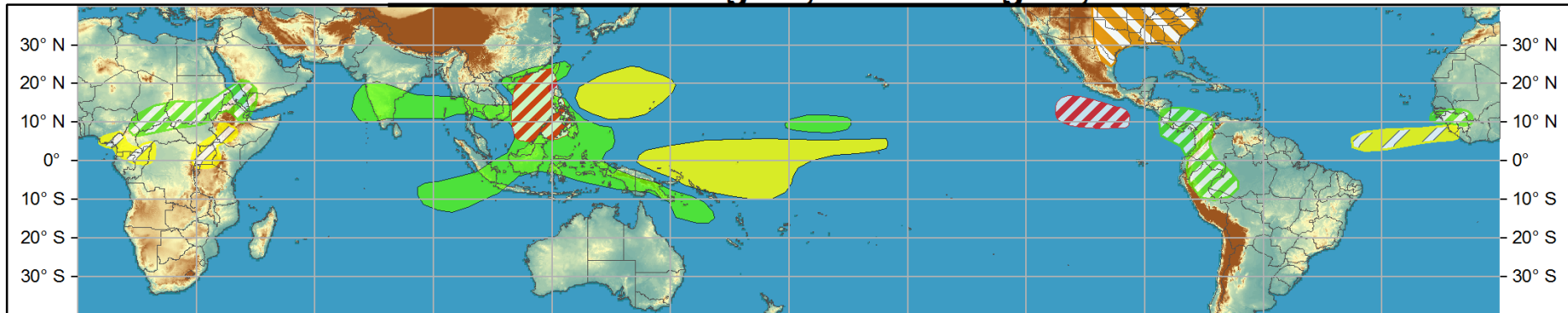
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 27, 2022 - Aug 02, 2022



Week 2 - Valid: Aug 03, 2022 - Aug 09, 2022



Produced: 07/26/2022

Forecaster: Allgood

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	High	Moderate	
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IR Satellite & 200-hpa Velocity Potential Anomalies

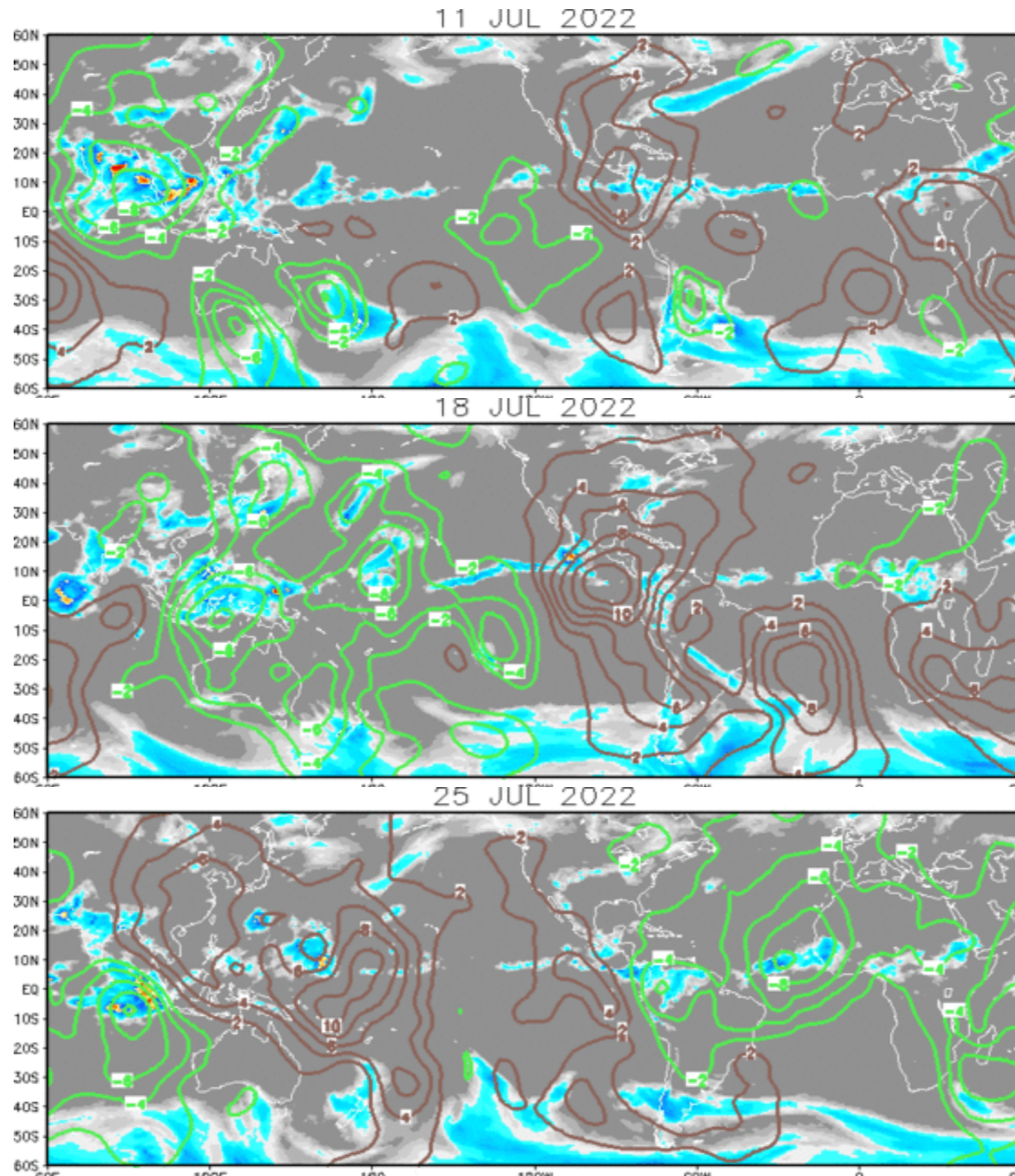
Green: Enhanced Divergence

Brown: Enhanced Convergence

The MJO signal began to break down as the enhanced phase destructively interfered with the Pacific La Niña response.

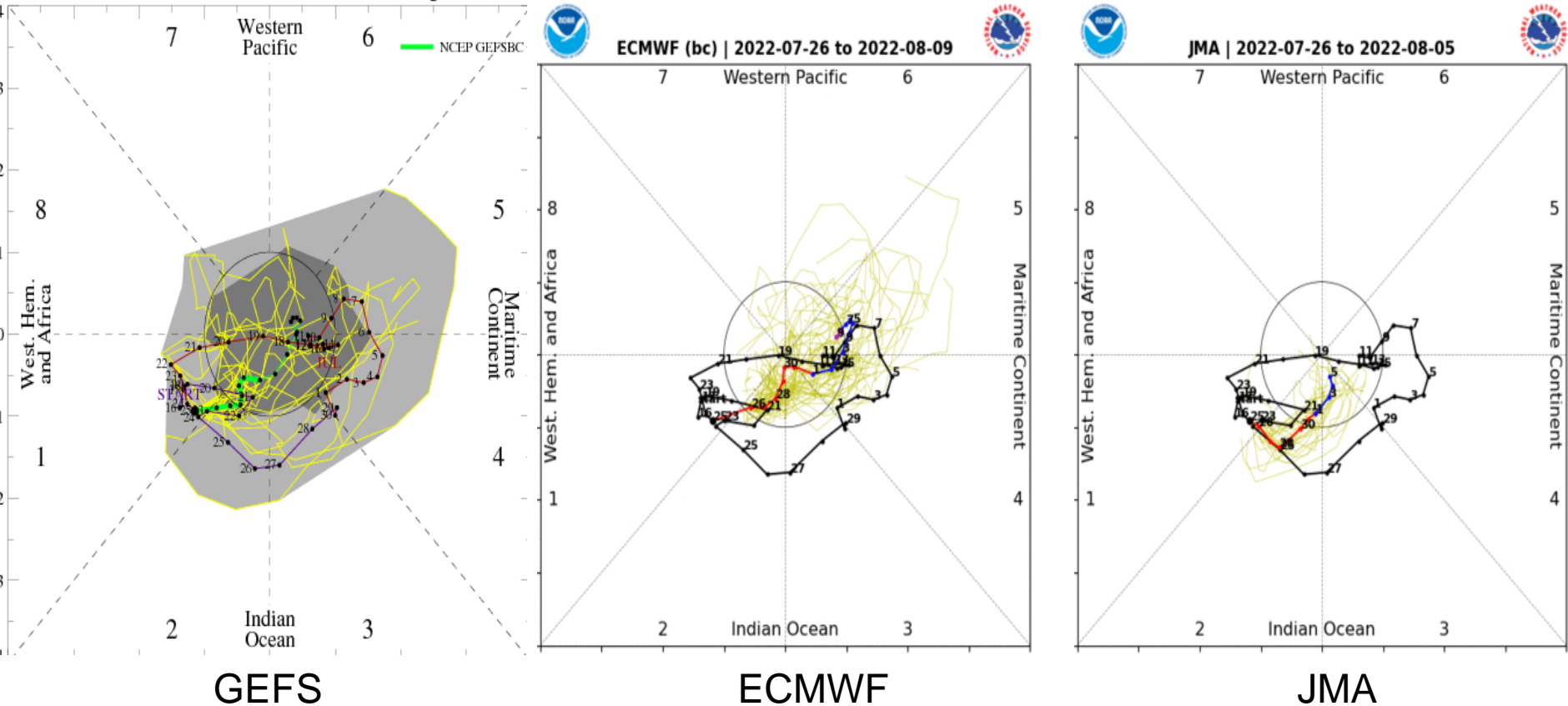
Kelvin wave activity crossed the Pacific, bringing some enhancement despite the strong trade wind regime.

More recently, there has been a rapid shift of the pattern towards Africa and the Indian Ocean.



MJO Observation/Forecast

[RMM1, RMM2] forecast for Jul-26-2022 to Aug-09-2022

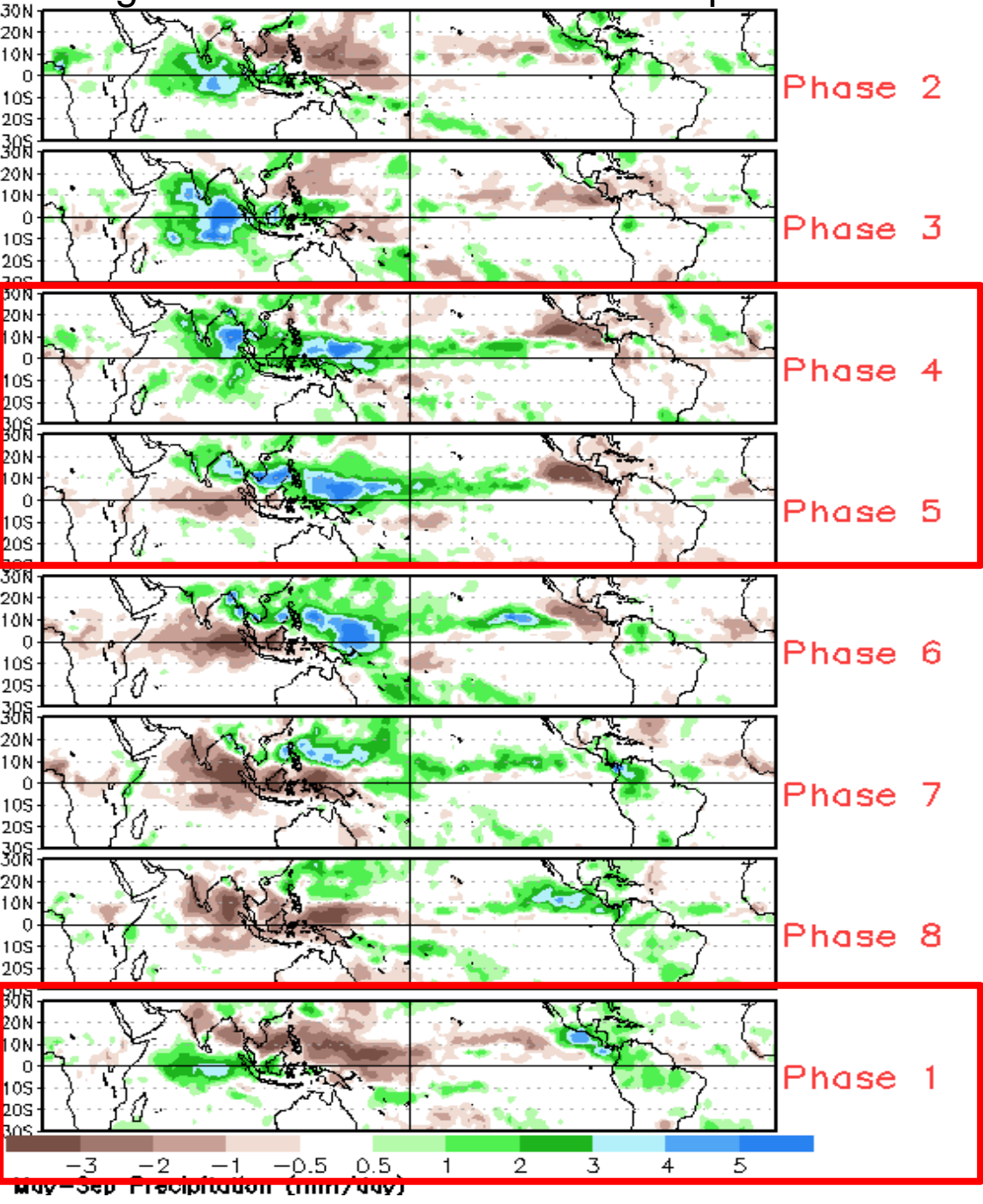


GEFS is your all-in-one everything you may want or not forecast solution (high uncertainty).

ECMWF ensembles generally favor a rapid progression to the Maritime Continent over the next two weeks.

The JMA forecast only goes out 1-week, but is broadly similar to the ECMWF.

Average Conditions when the MJO is present

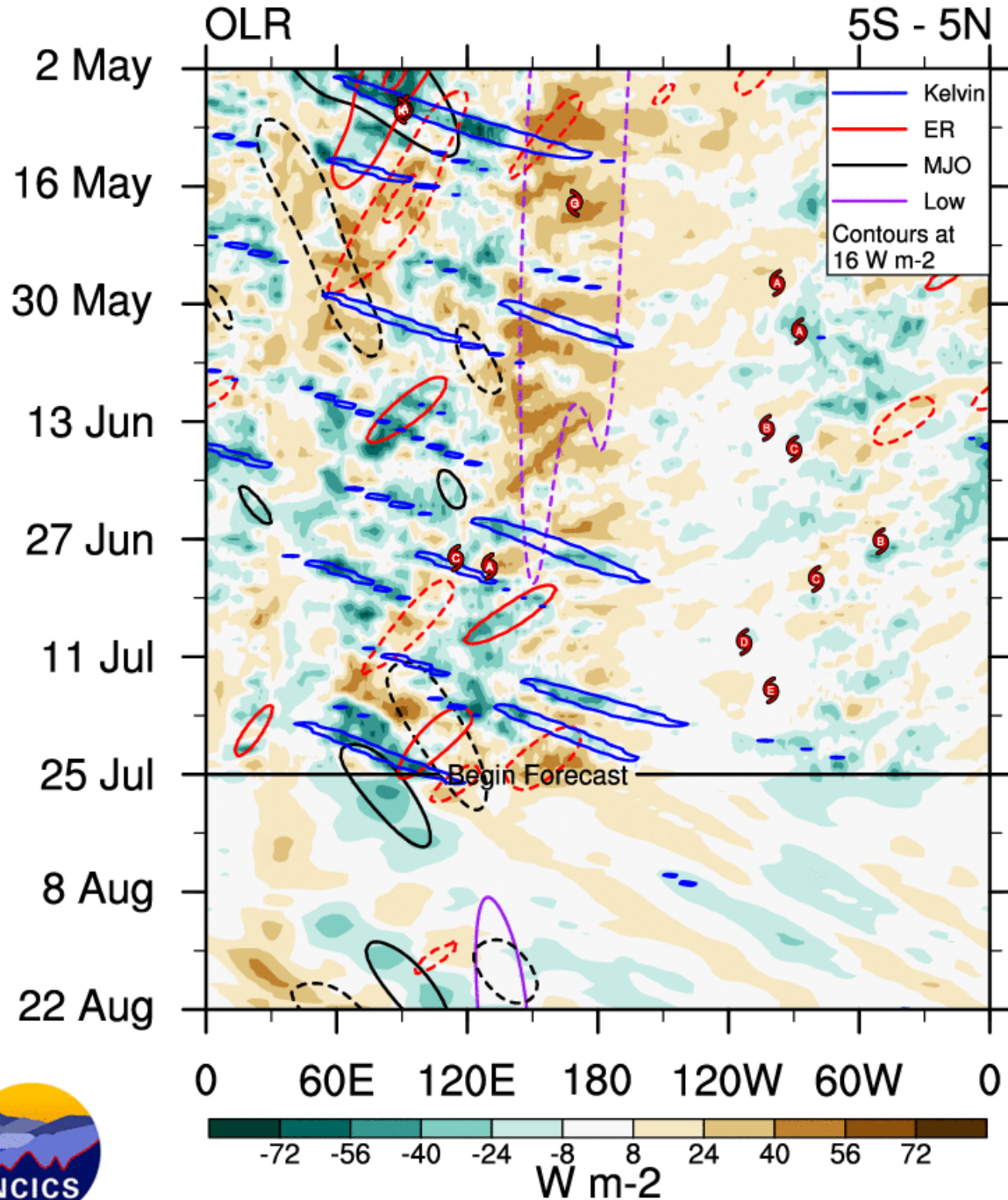


CAVEAT: These panels are representative of robust MJO events.

MJO activity is coming through the filtering near the eastern IO and Maritime Continent.

Kelvin wave activity may be contributing to the rapid shift in the pattern over the eastern Indian Ocean.

Low frequency contours depict ENSO cold conditions.



Potential TC activity over the eastern Indian Ocean?

2 May

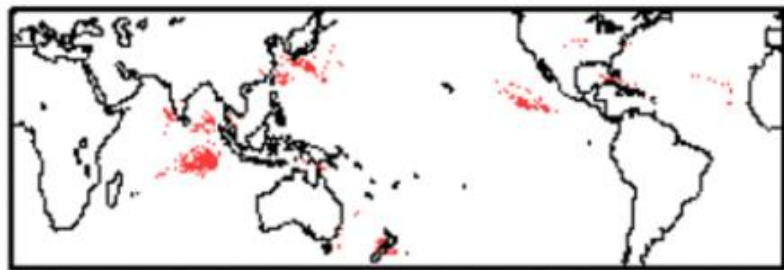
Storm Track Probabilities, IC=20220725
Week 1: 0727 - 0802

4-Model Ensm

20% 40% 60%



27 Jun



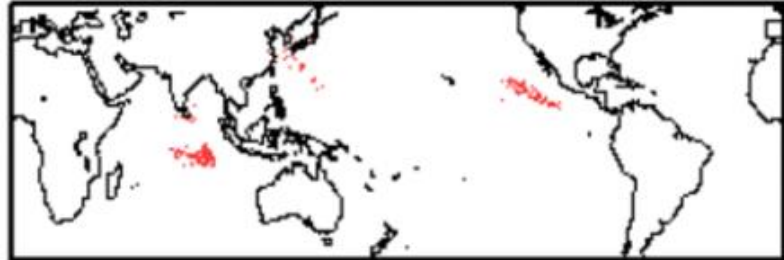
Jul

Jul

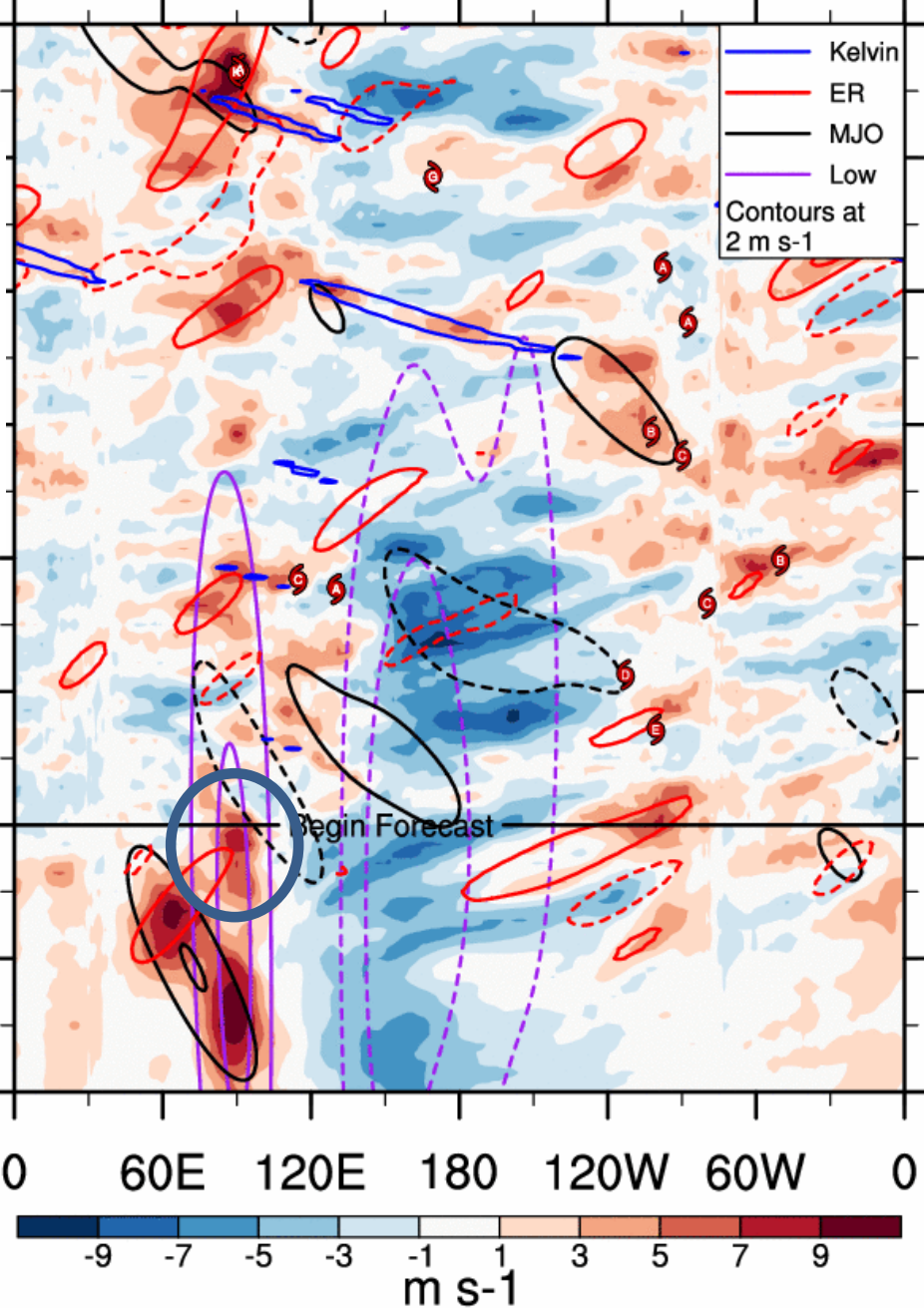
Aug

Aug

ECMWF

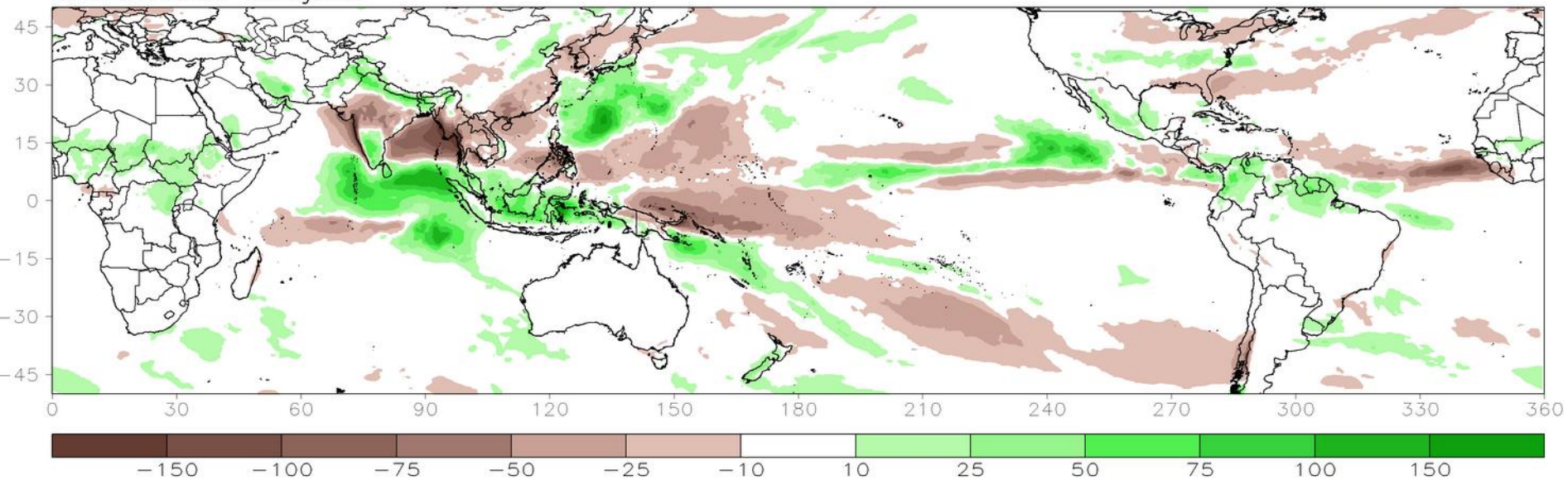


UWIND850 with CFS forecasts 5S - 5N



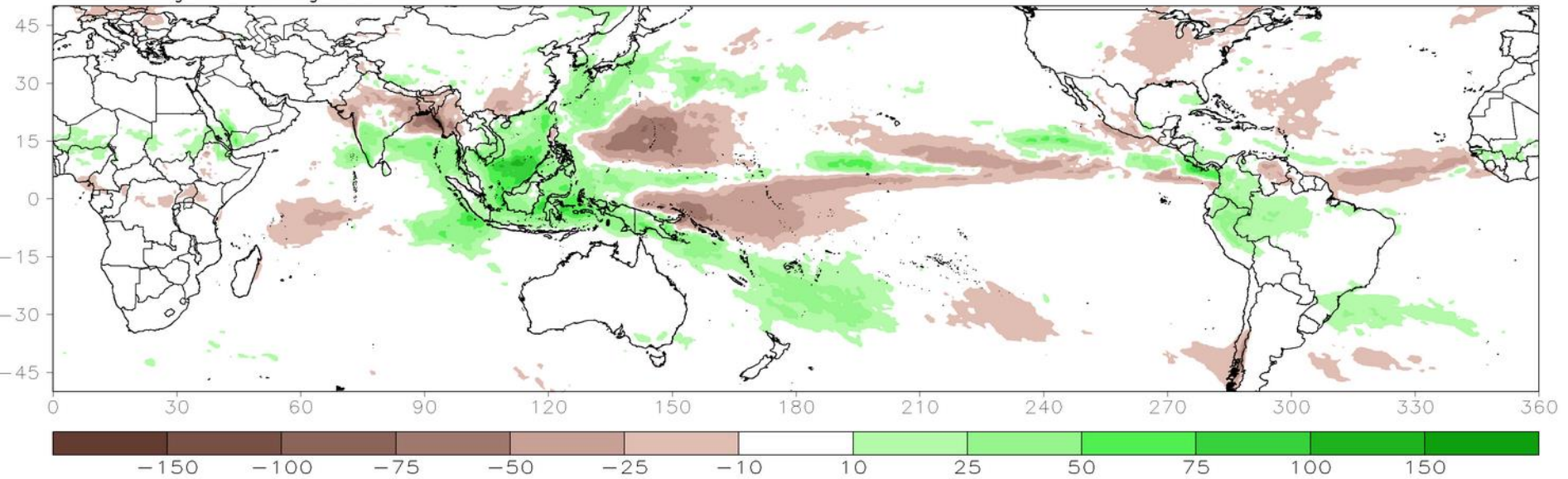
GEFSv12 00z Ensemble Mean: Week1 Total Rainfall Anomaly (mm)

Valid: 27Jul2022-02Aug2022



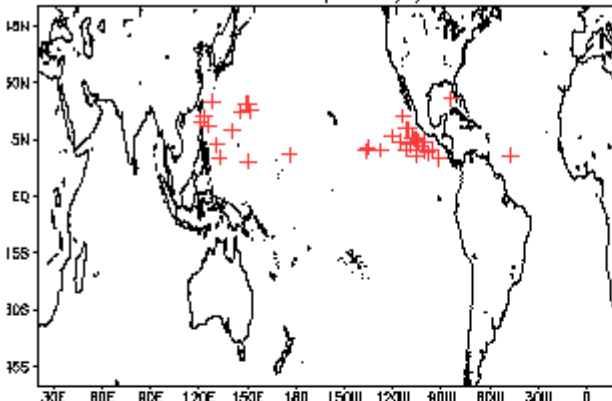
GEFSv12 00z Ensemble Mean: Week2 Total Rainfall Anomaly (mm)

Valid: 03Aug2022-09Aug2022

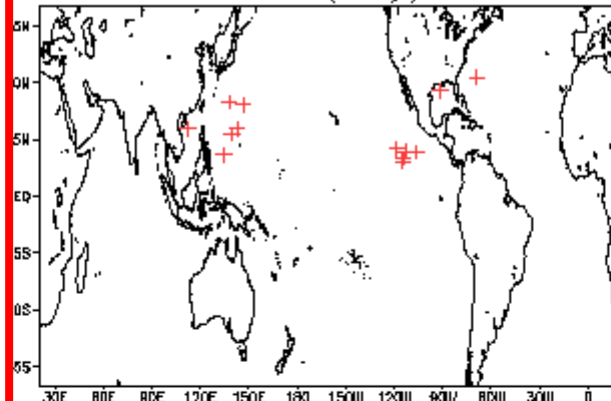


July Tropical Storm Formation by MJO phase

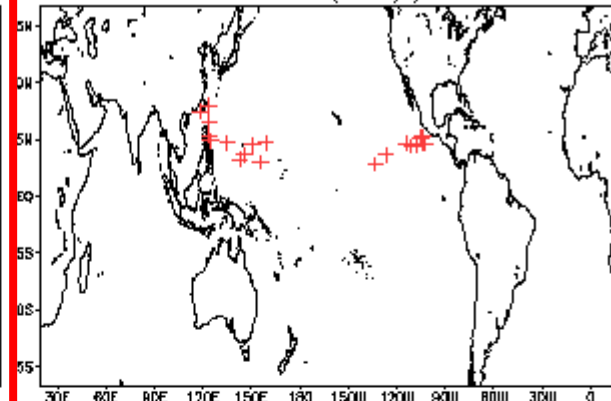
Phase 1 (144 days) 37 storms



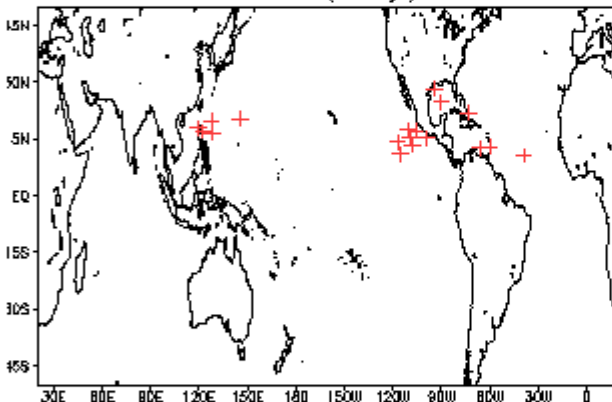
Phase 4 (40 days) 14 storms



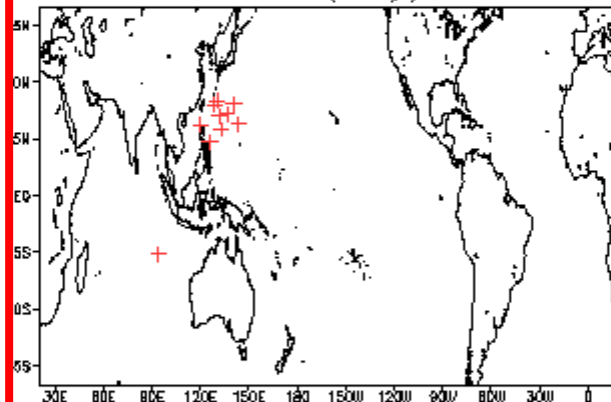
Phase 7 (87 days) 21 storms



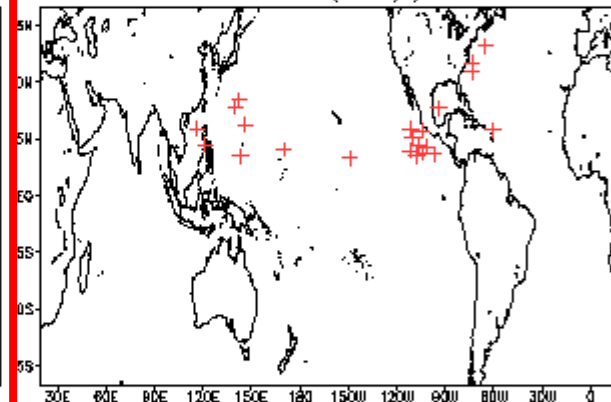
Phase 2 (74 days) 20 storms



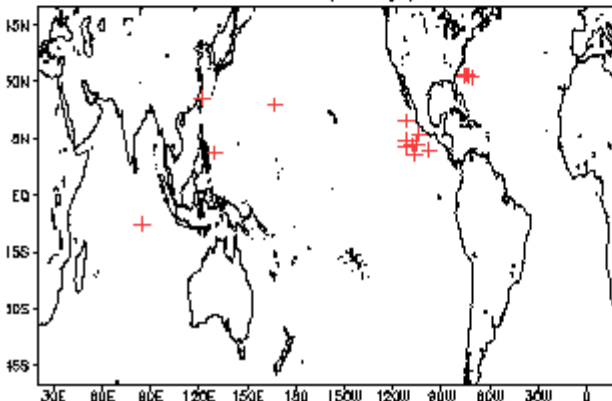
Phase 5 (63 days) 11 storms



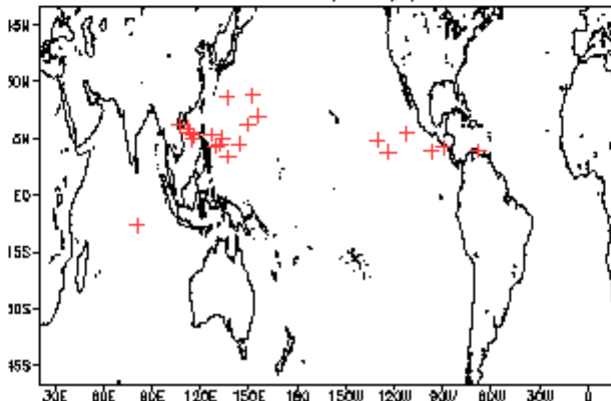
Phase 8 (61 days) 24 storms



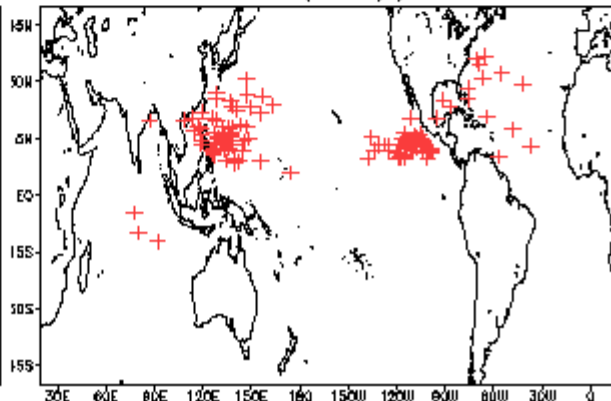
Phase 3 (49 days) 17 storms



Phase 6 (60 days) 23 storms



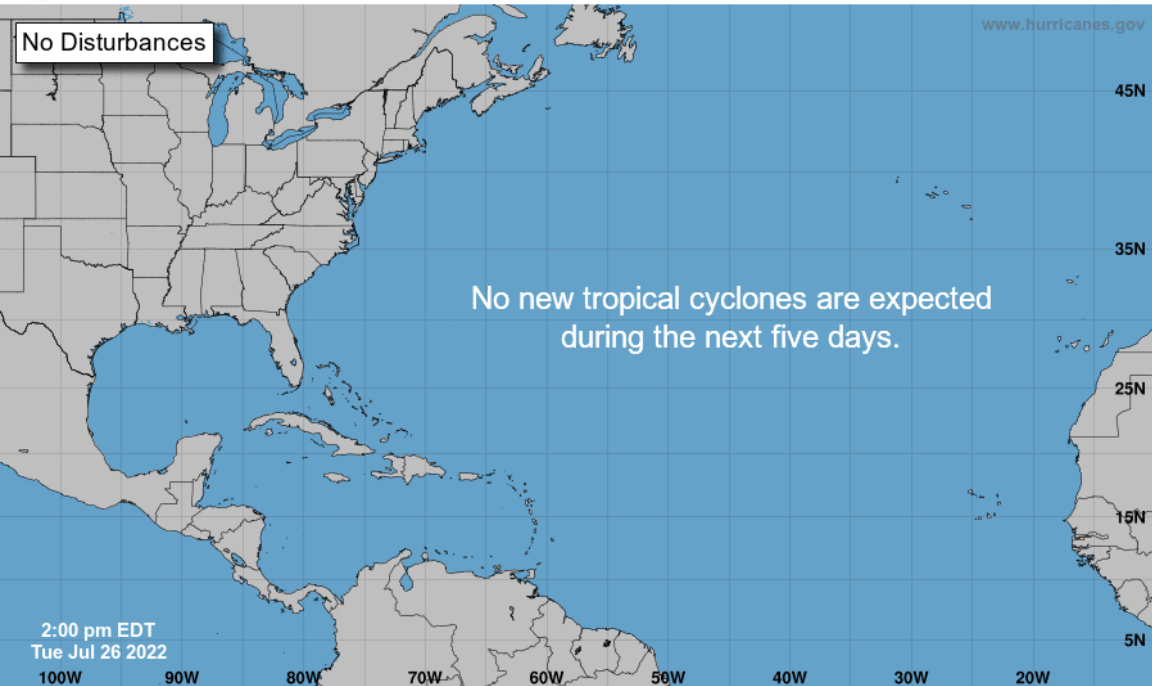
Null (480 days) 130 storms





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT
Tue Jul 26 2022

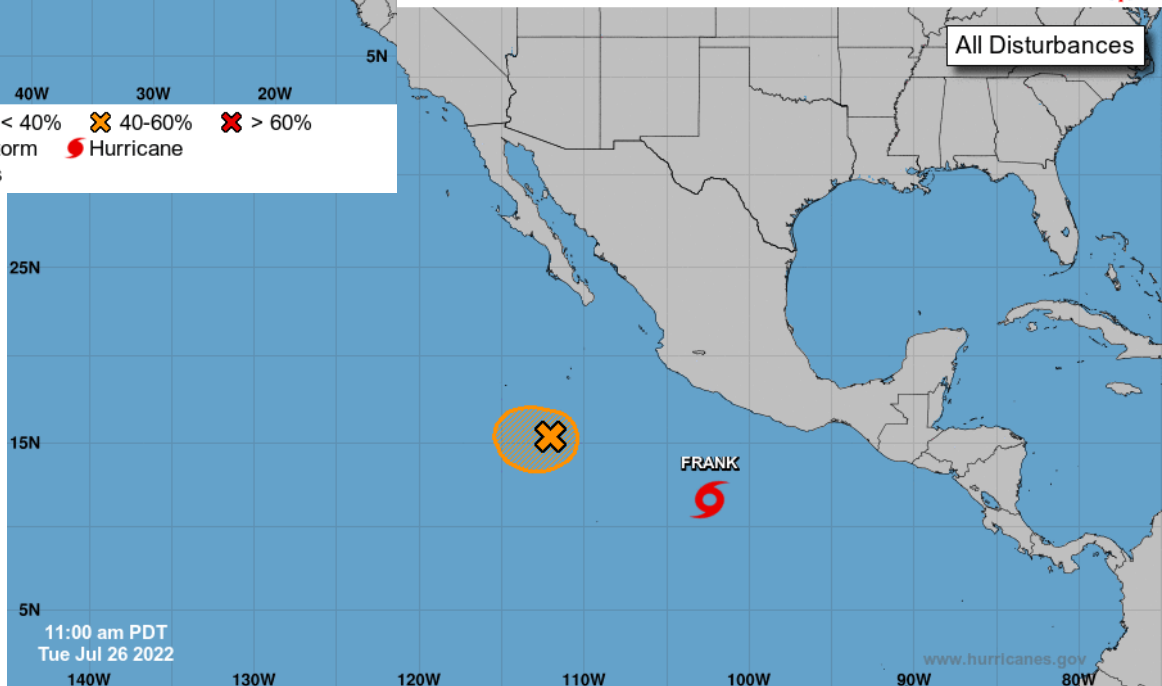
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

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 Jul 26 2022

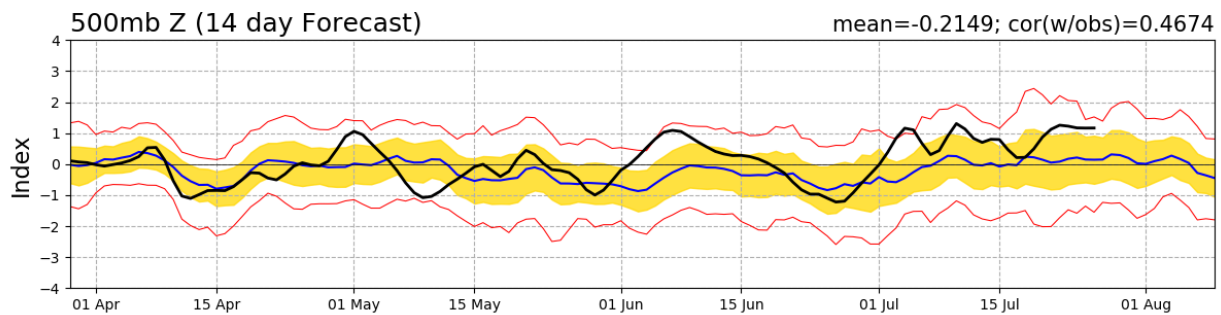
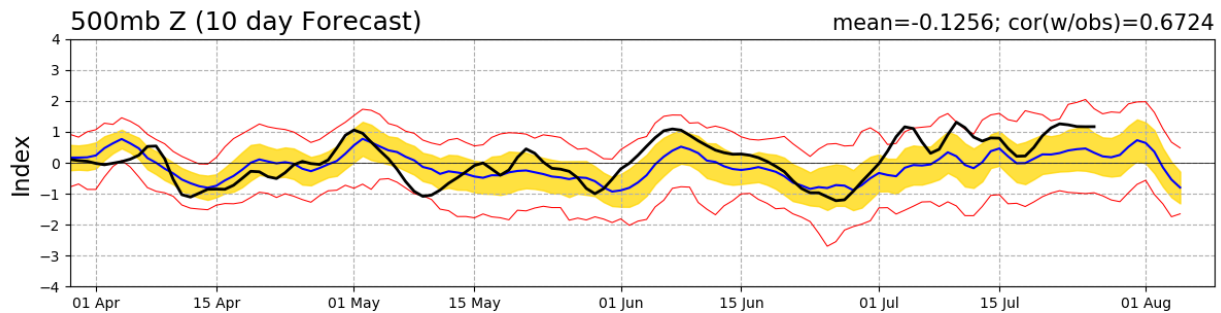
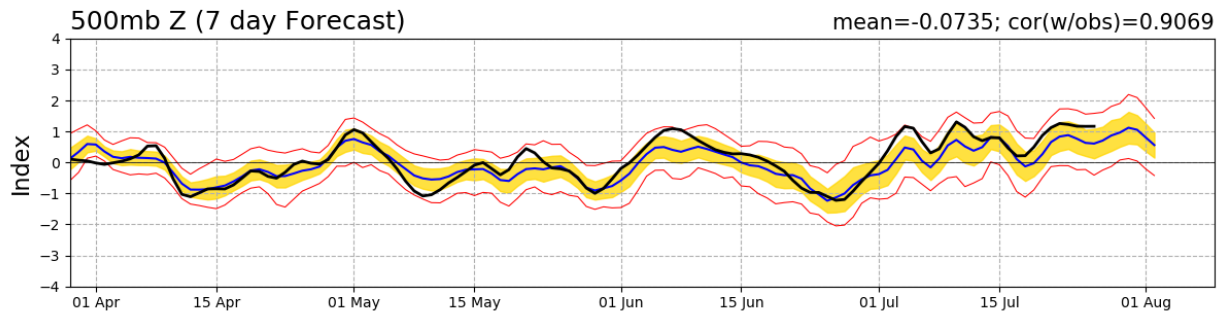
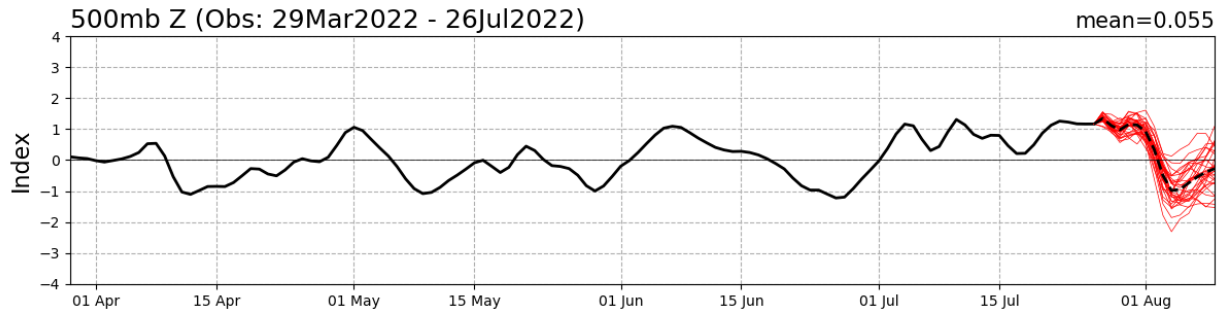
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Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

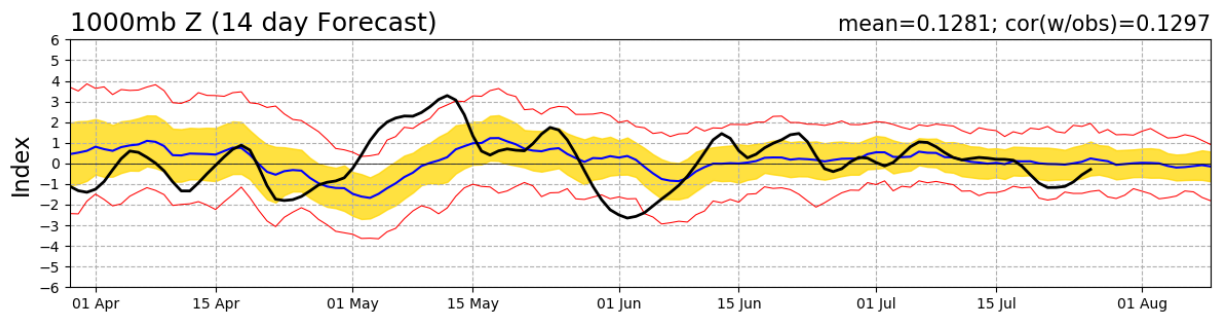
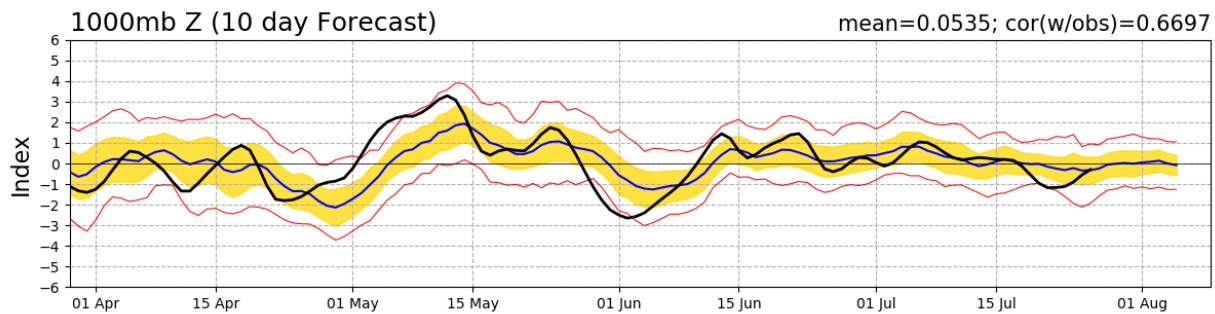
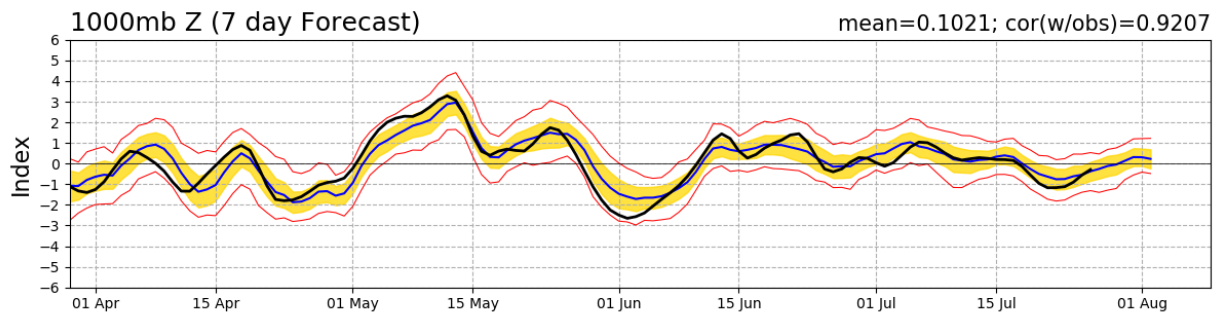
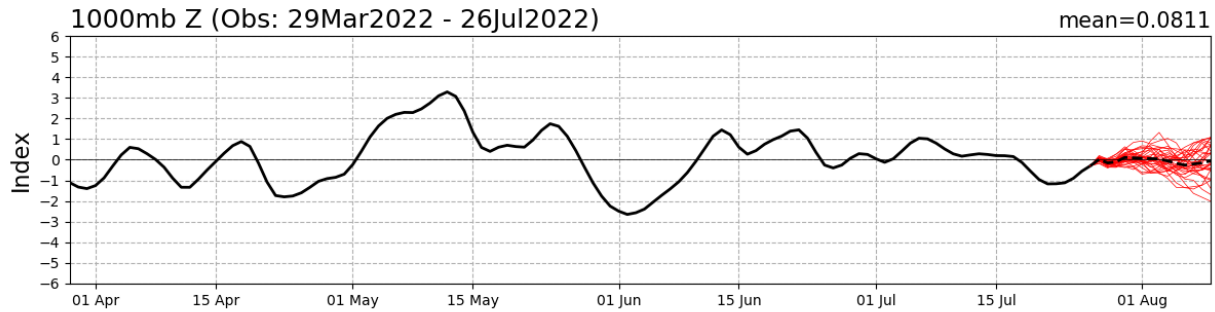
Post-Tropical Cyclone or Remnants

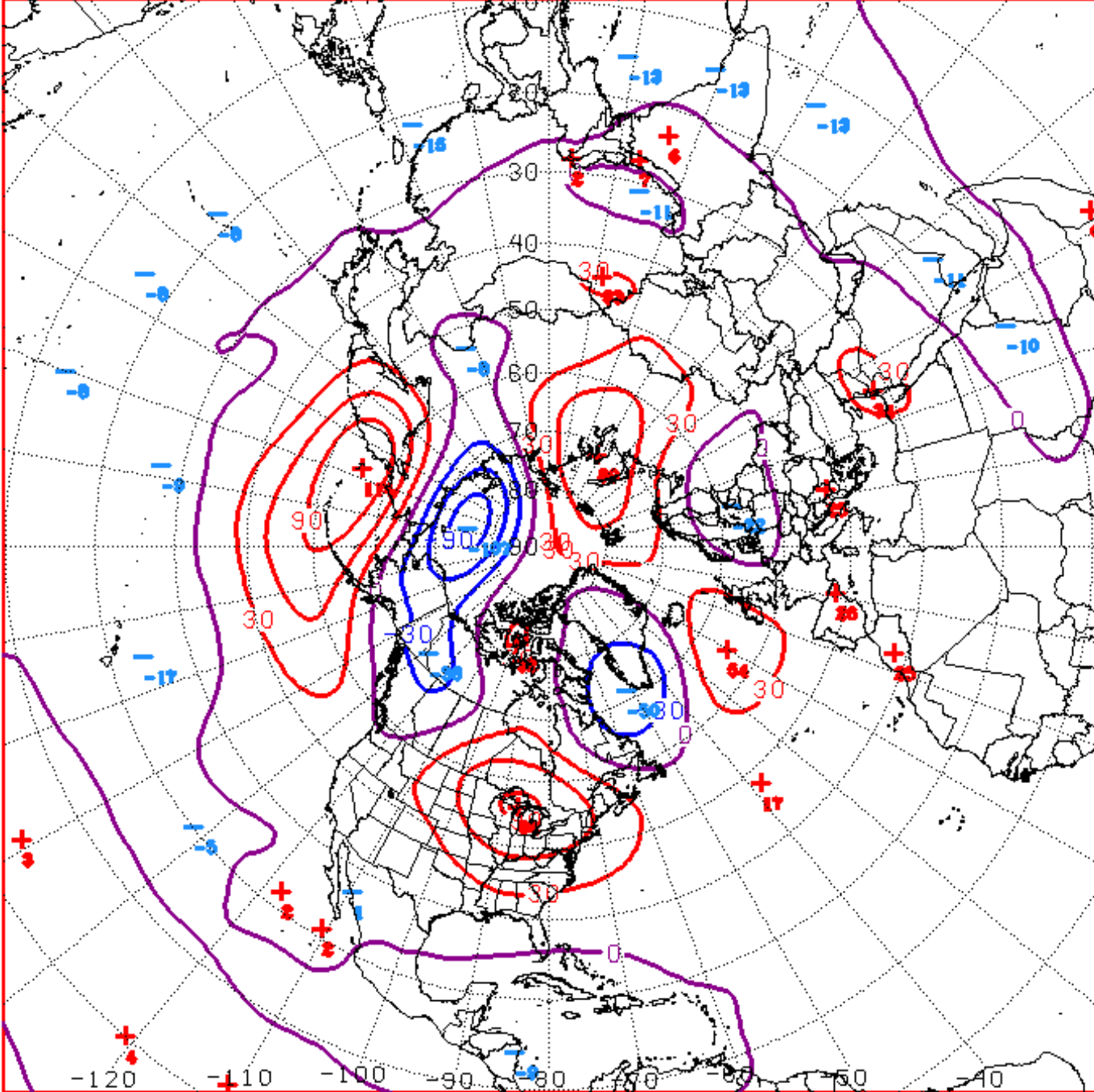
Connections to U.S. Impacts

PNA Index: Observed & GEFS Forecasts



AO Index: Observed & GEFS Forecasts





D+11 500 MB ANOMALIES FROM ALZ ENSM
 CPC MAP MADE JUL 26 2022 1348 UTC CNTD AUG 06 2022

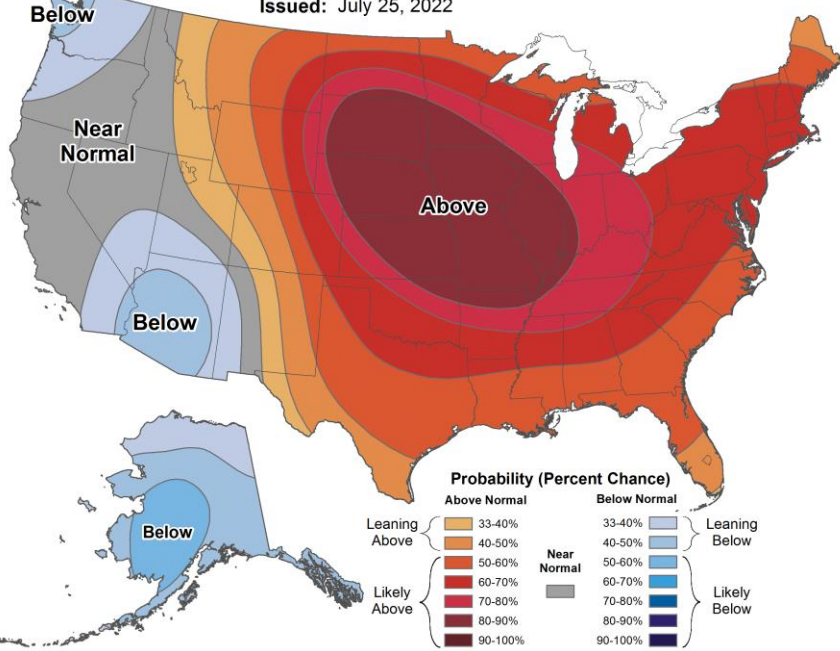
Week 2 – Temperature and Precipitation



8-14 Day Temperature Outlook



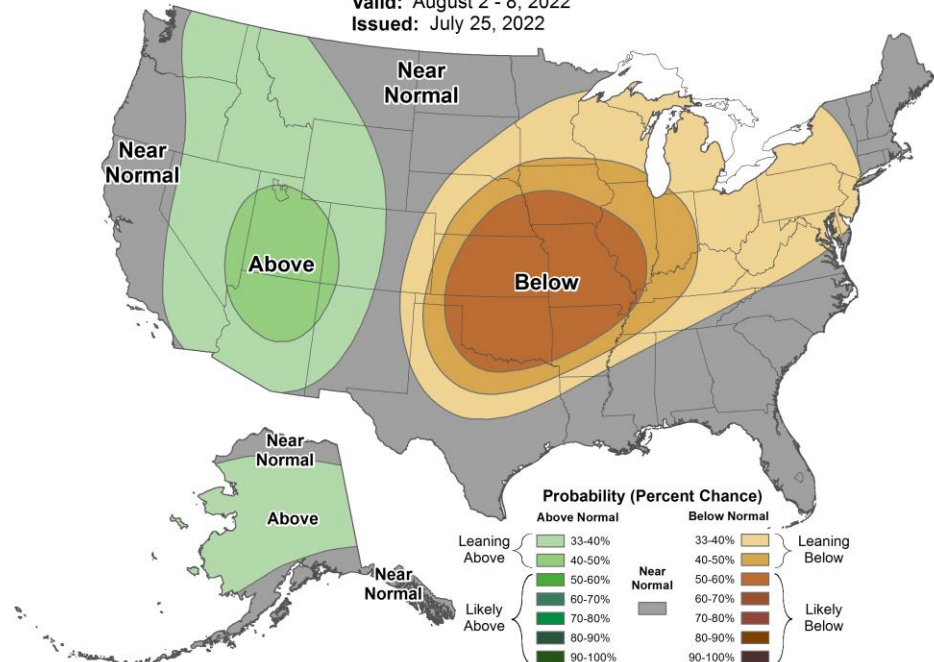
Valid: August 2 - 8, 2022
Issued: July 25, 2022



8-14 Day Precipitation Outlook



Valid: August 2 - 8, 2022
Issued: July 25, 2022



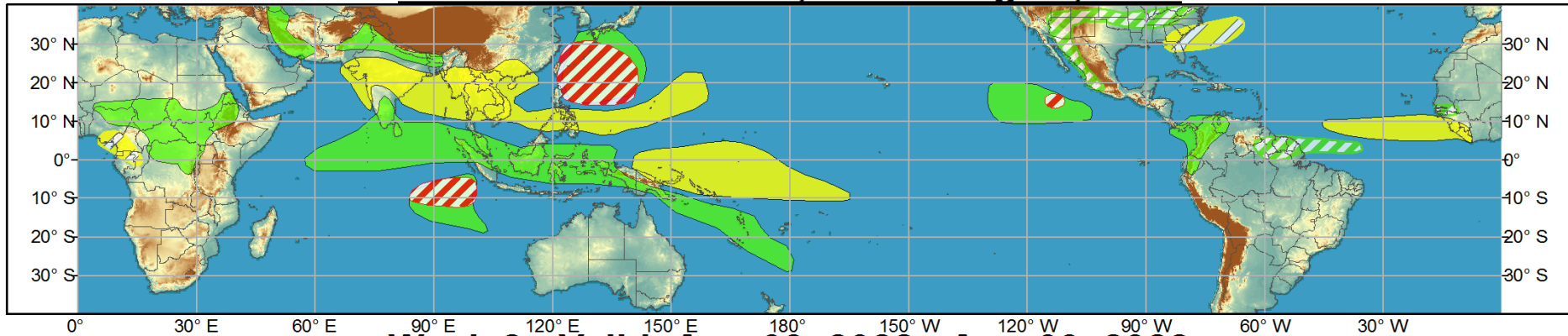
Since we are in an amplified, stable pattern today's outlooks are likely to be similar.



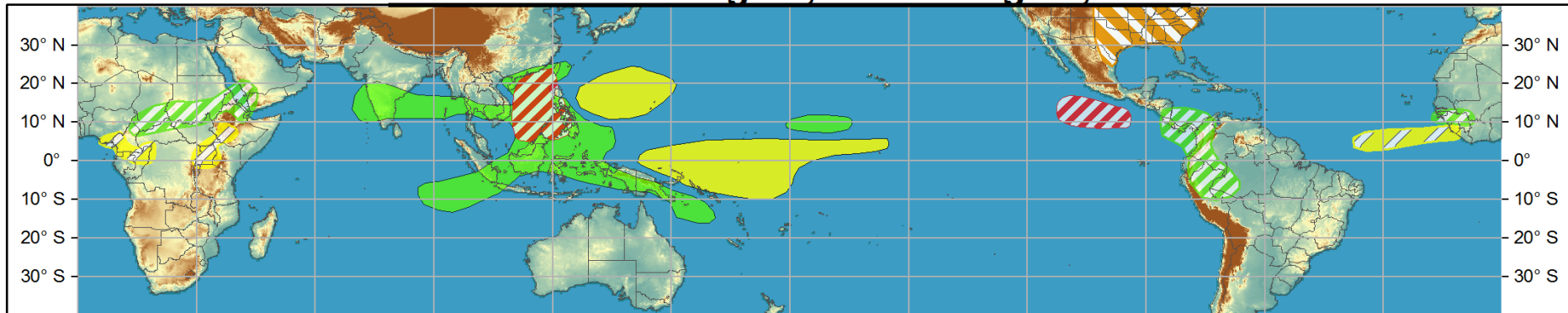
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