

# Global Tropics Hazards And Benefits Outlook

6/21/2022

Brad Pugh

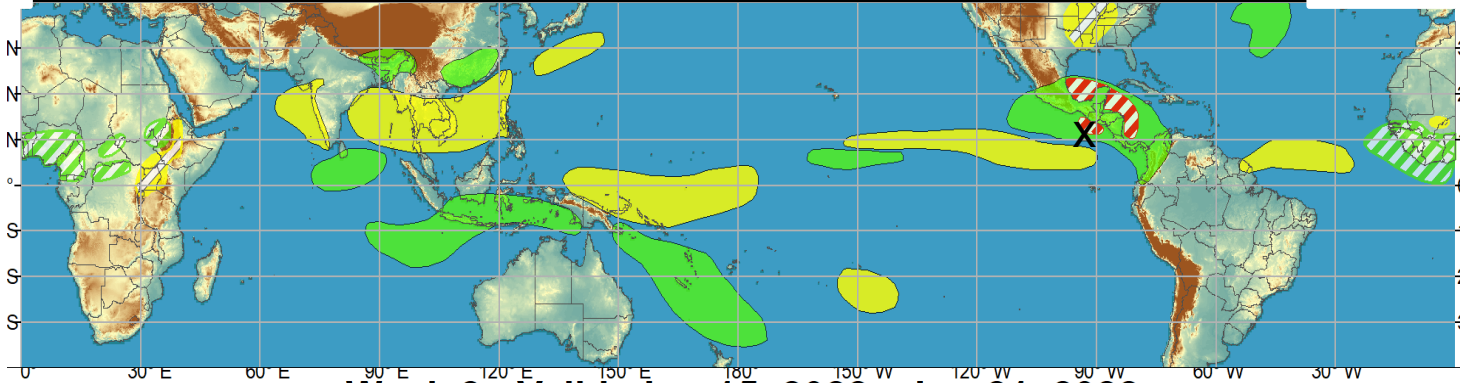
## Outline

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

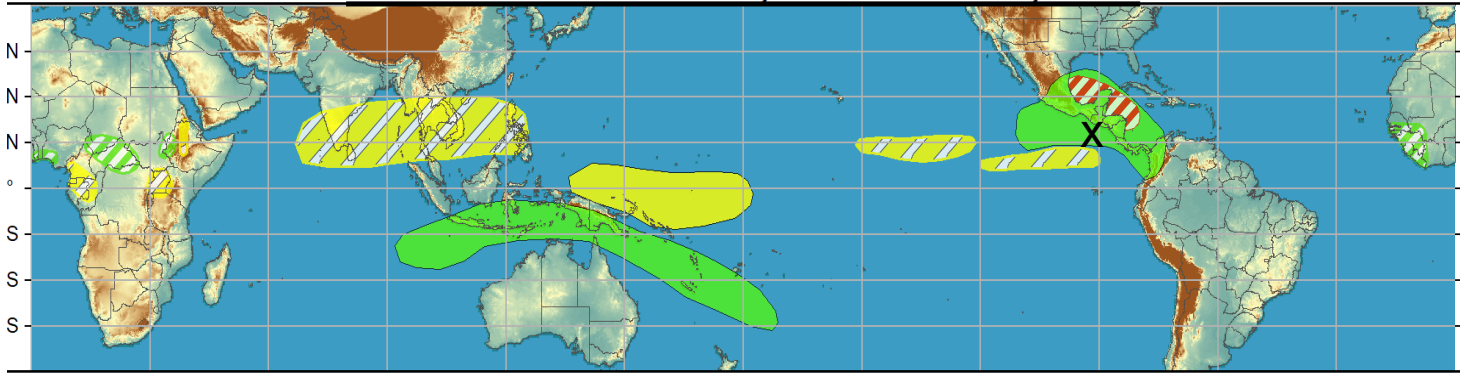
# Outlook Review

X= Tropical Cyclone  
Celia (6/16)

**Week 1 - Valid: Jun 15, 2022 - Jun 21, 2022**

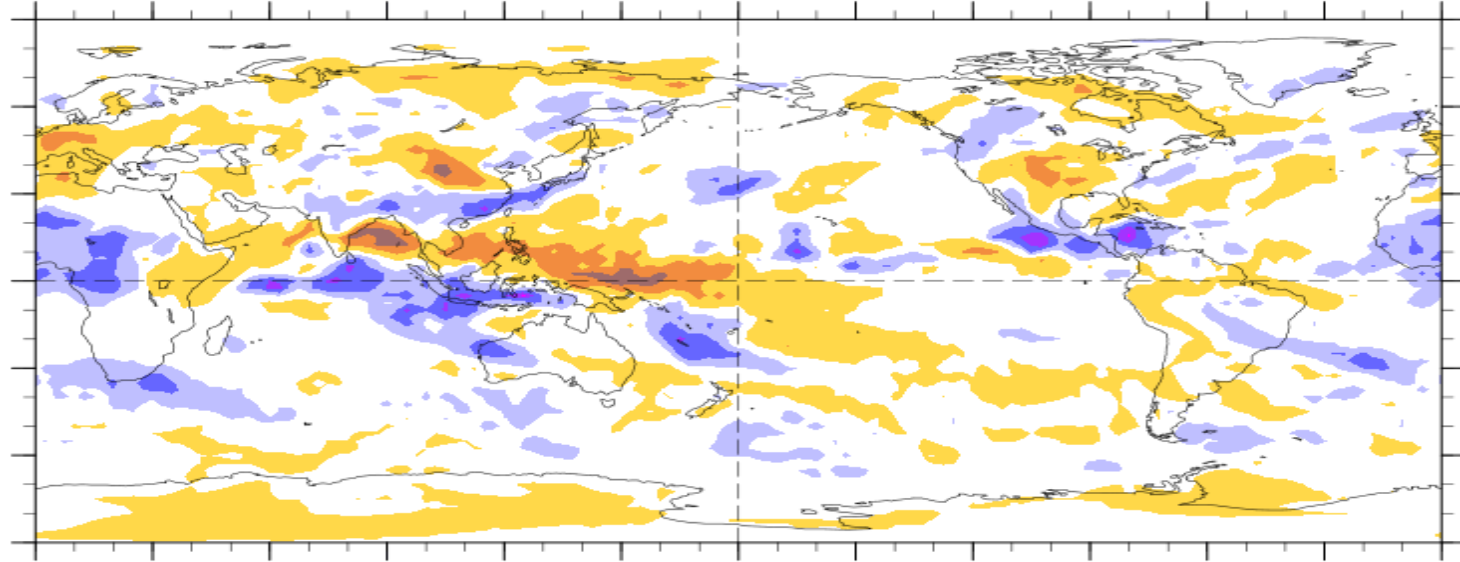


**Week 2 - Valid: Jun 15, 2022 - Jun 21, 2022**



7-Day Average OLR Anomaly

2022/06/12 - 2022/06/18



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

**ENSO:** (Jun 9, 2022 Update)

*next update on Thursday, July 14<sup>th</sup>*

- ENSO Alert System Status: [La Niña Advisory](#)
- Though La Niña is favored to continue, the odds for La Niña decrease into the Northern Hemisphere late summer (52% chance in JAS 2022) before slightly increasing through the Northern Hemisphere fall and early winter 2022 (58-59% chance)

## **MJO and other subseasonal tropical variability:**

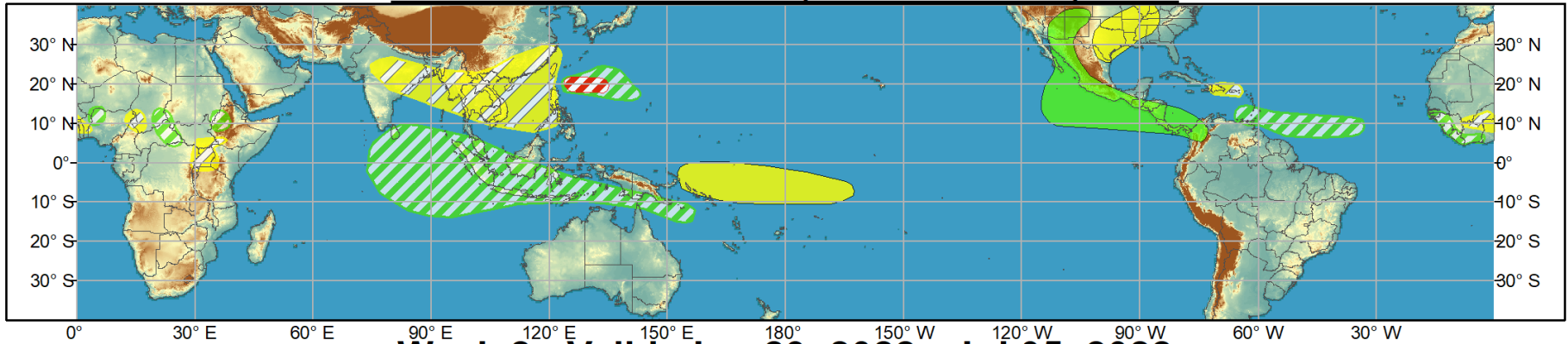
- The MJO remains weak due to a stationary pattern.
- The GFS and ECMWF models are favoring eastward propagation resuming with a strengthening MJO over the Indian Ocean and Maritime Continent during the next two weeks.
- Watching the Windward Islands and Caribbean Sea during the next ten days for TC development. Beyond that time, less favorable conditions are expected for the Atlantic and East Pacific basins.
- Tropical cyclone Celia is forecast to take a favorable northwest track across the East Pacific and result in a northward surge of moisture from the Gulf of California.



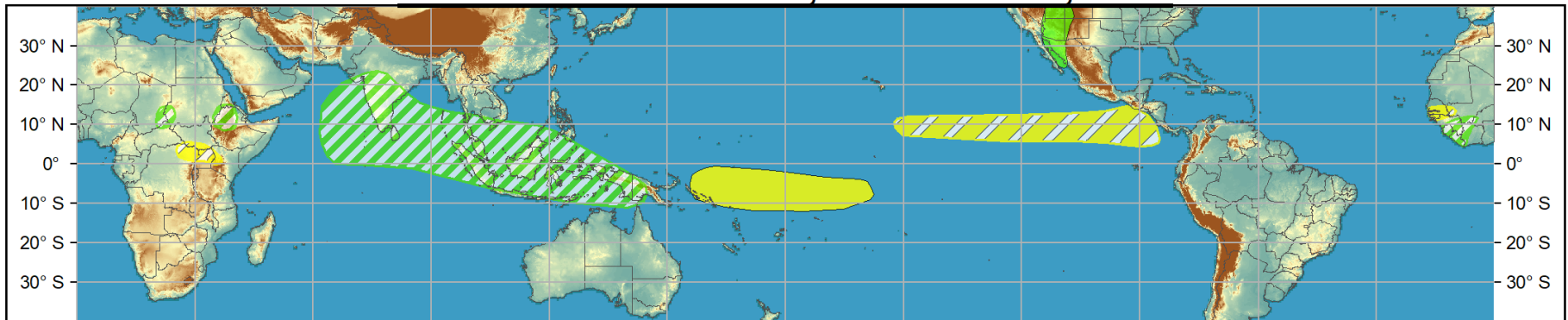
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Jun 22, 2022 - Jun 28, 2022



## Week 2 - Valid: Jun 29, 2022 - Jul 05, 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.

**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: 06/21/2022

Forecaster: Pugh

**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

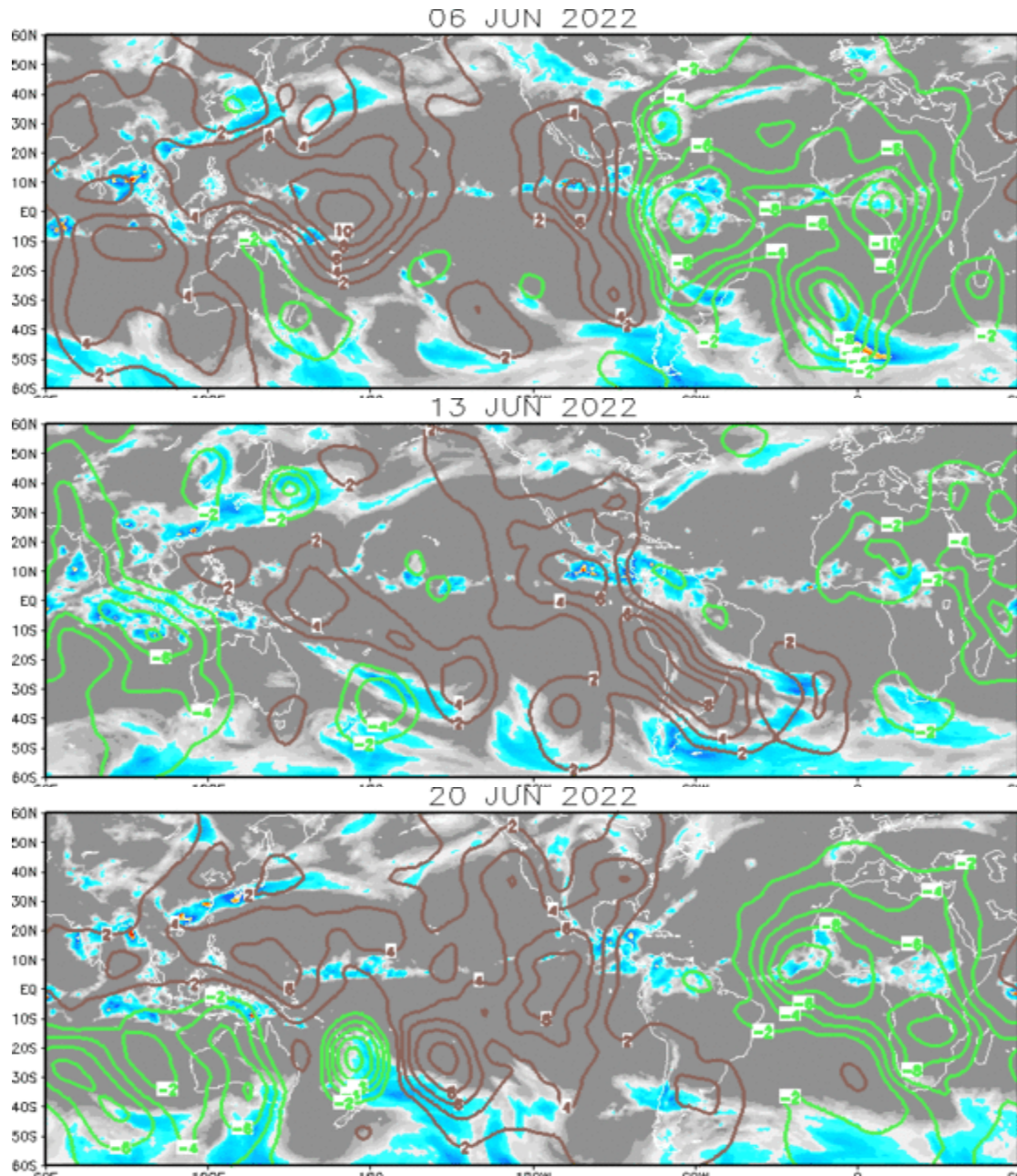
Green: Enhanced Divergence

Brown: Enhanced Convergence

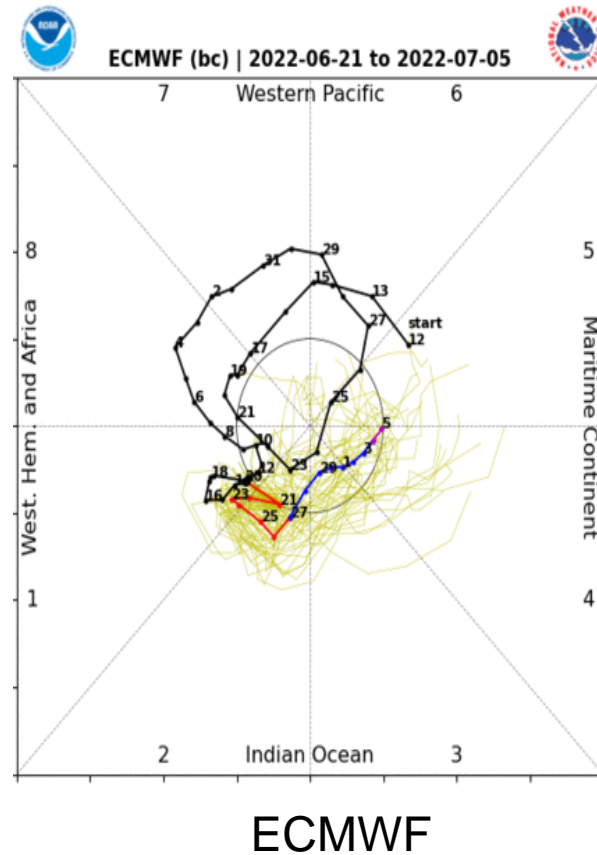
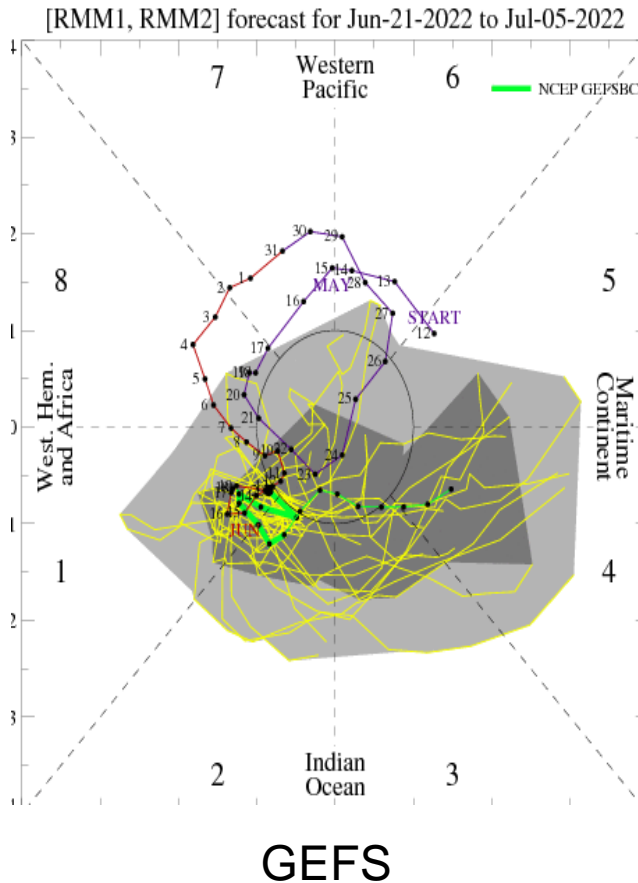
Enhanced convection is now observed across the Atlantic and extending into Africa, with suppressed convection over Asia and much of the Pacific.

Although envelopes of enhanced and suppressed convection continued to shift eastward, the wave-1 pattern has become less coherent.

During mid-June, a nearly stationary pattern became established.

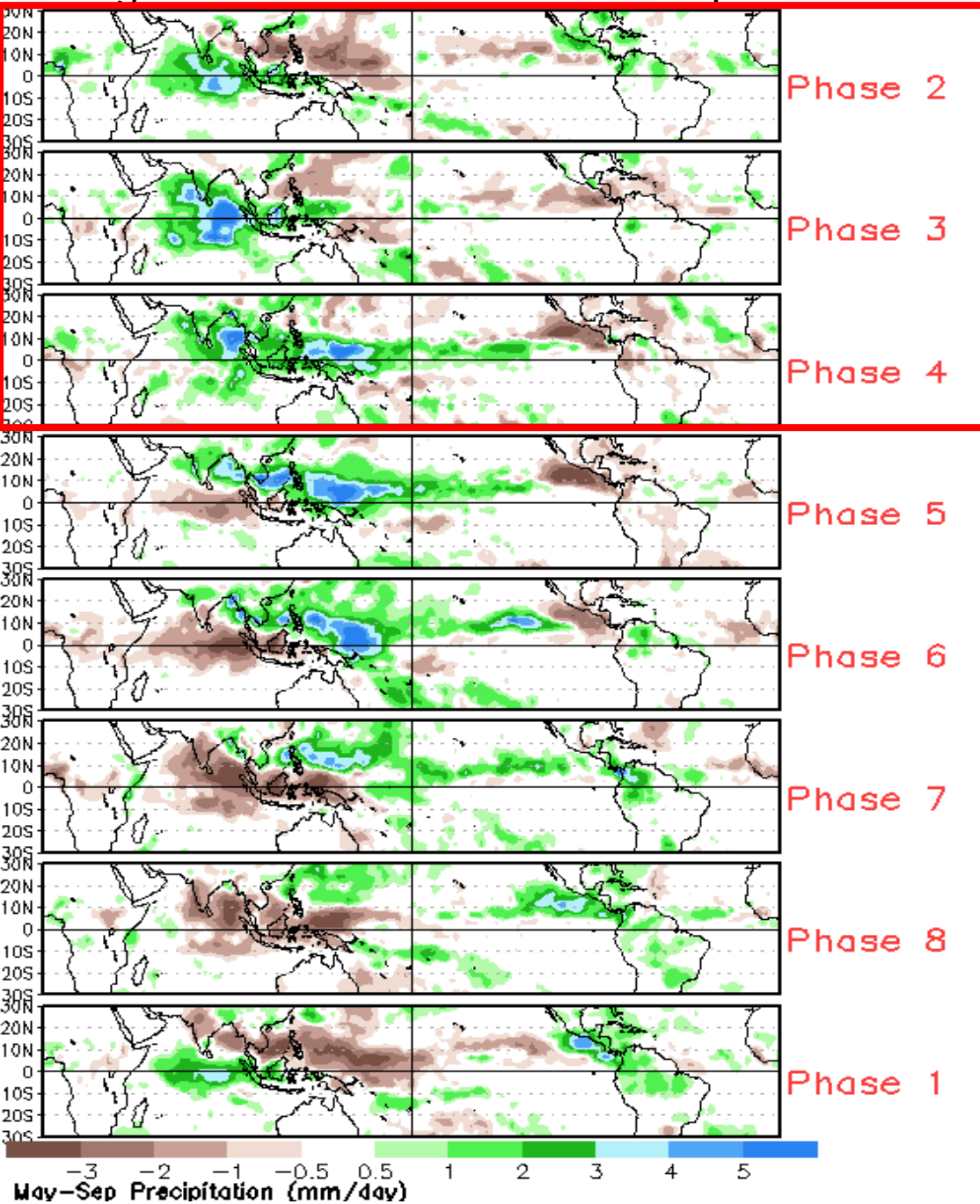


# MJO Observation/Forecast



Although spread is large on the amplitude, many of the GEFS and ECMWF ensemble members depict eastward propagation from the Indian Ocean to the Maritime Continent.

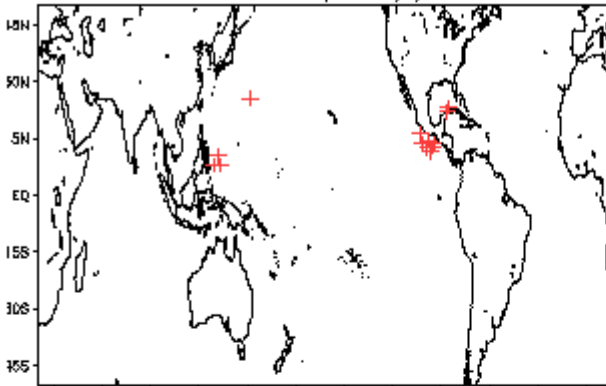
# Average Conditions when the MJO is present



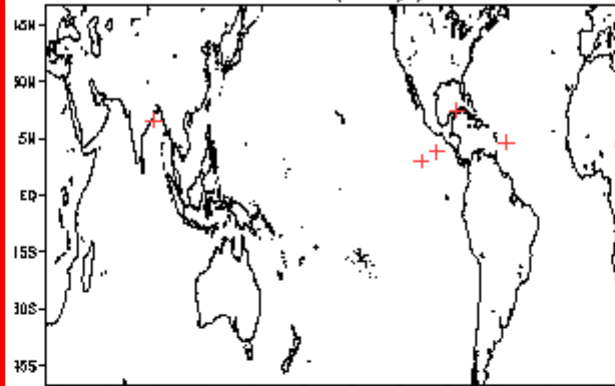
CAVEAT: These panels are representative of robust MJO events.

# June Tropical Storm Formation by MJO phase

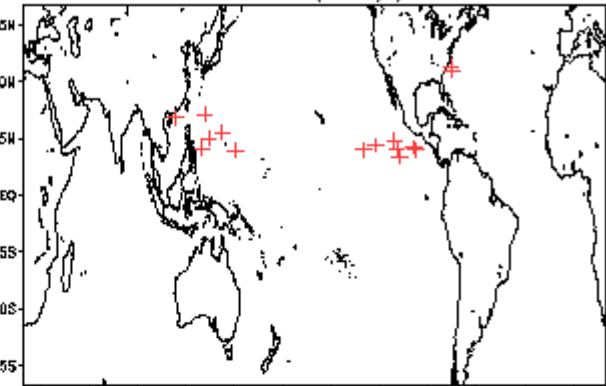
Phase 1 (104 days) 14 storms



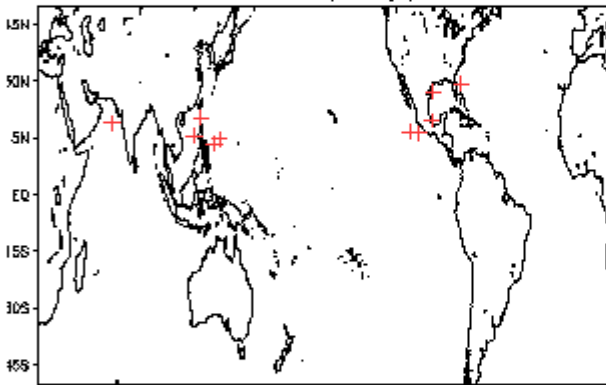
Phase 4 (80 days) 6 storms



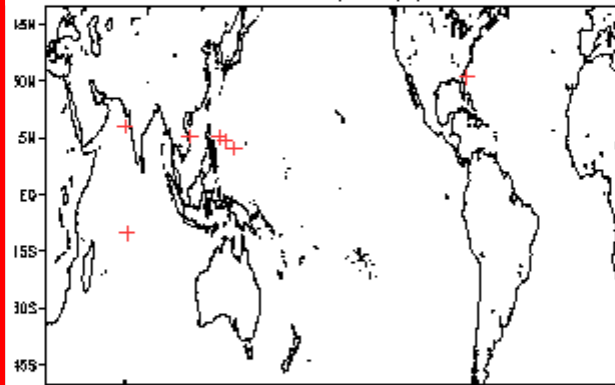
Phase 7 (45 days) 16 storms



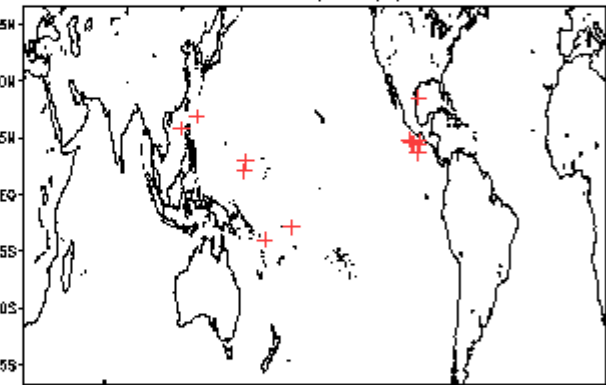
Phase 2 (82 days) 11 storms



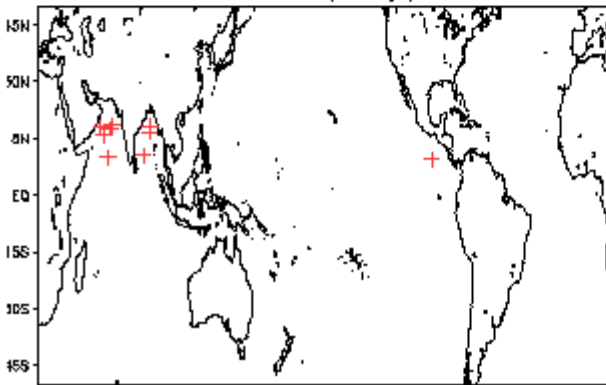
Phase 5 (77 days) 8 storms



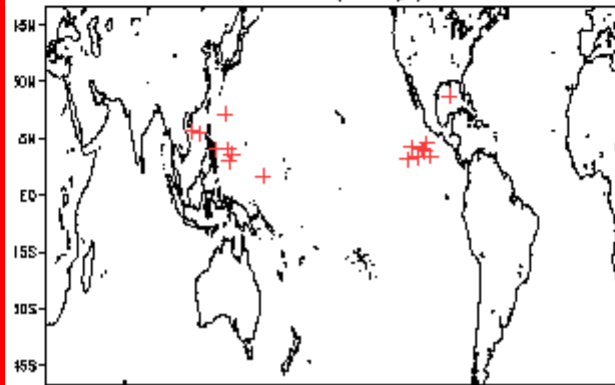
Phase 8 (70 days) 15 storms



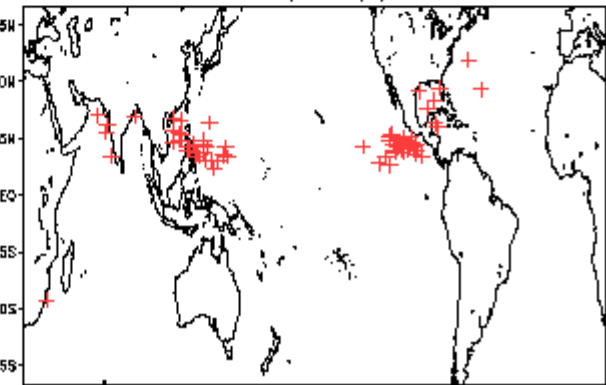
Phase 3 (57 days) 10 storms



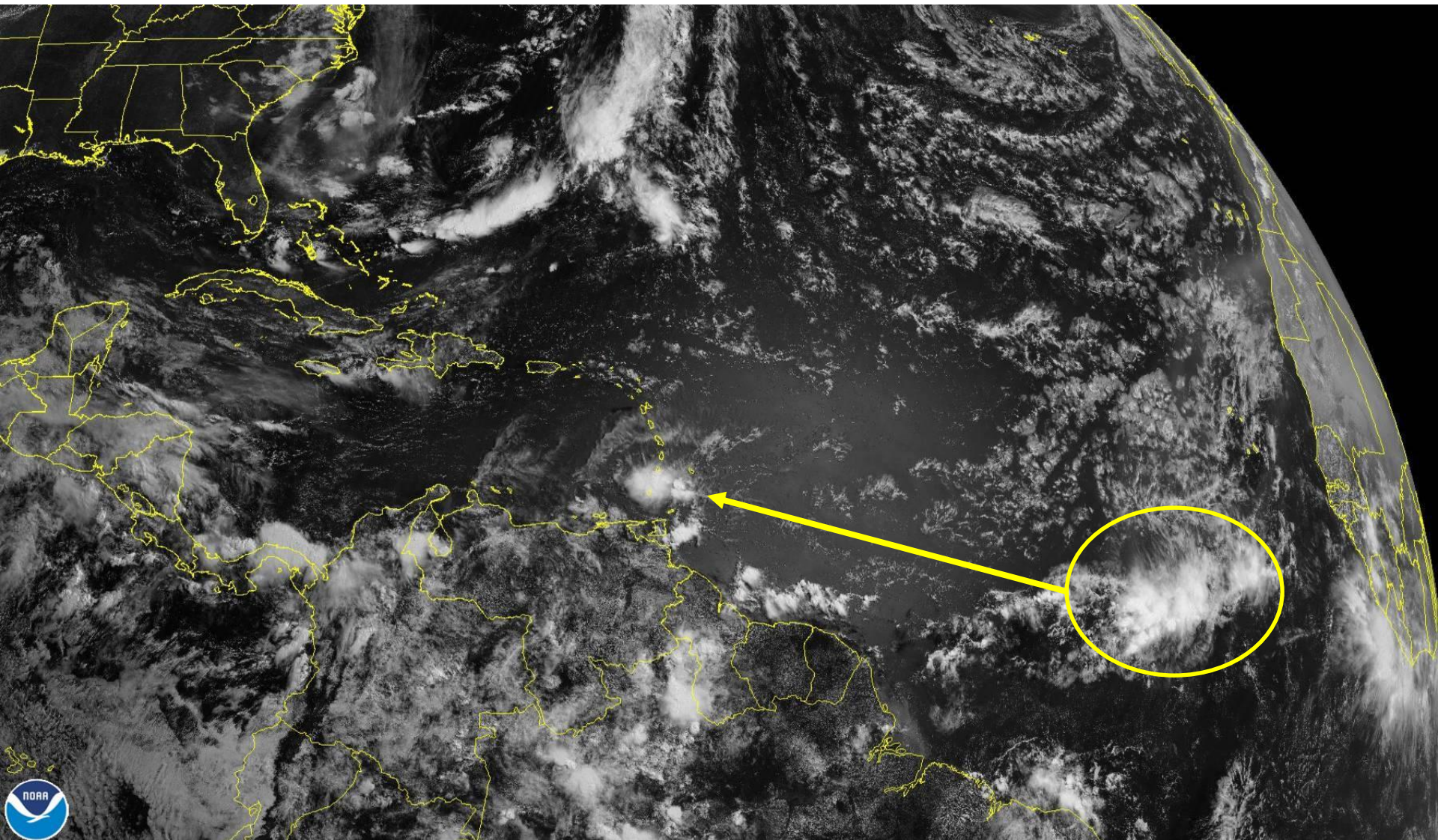
Phase 6 (82 days) 17 storms



Null (423 days) 71 storms



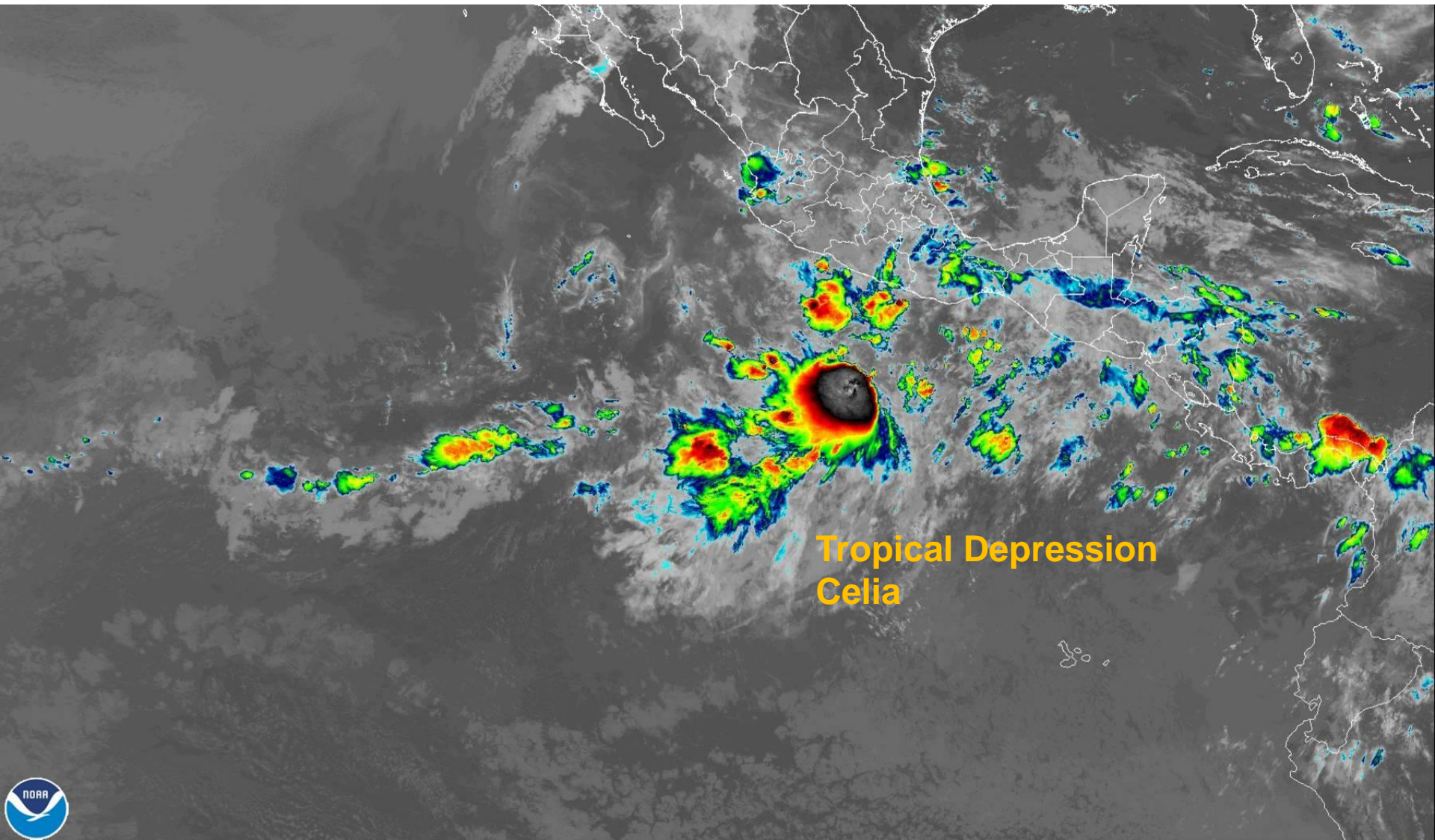




21 Jun 2022 13:40Z NOAA/NESDIS/STAR GOES-East Band 02

ECMWF most bullish with development; will be reassessed on Friday's update





**Tropical Depression  
Celia**



21 Jun 2022 13:40Z NOAA/NESDIS/STAR GOES-East Band 13



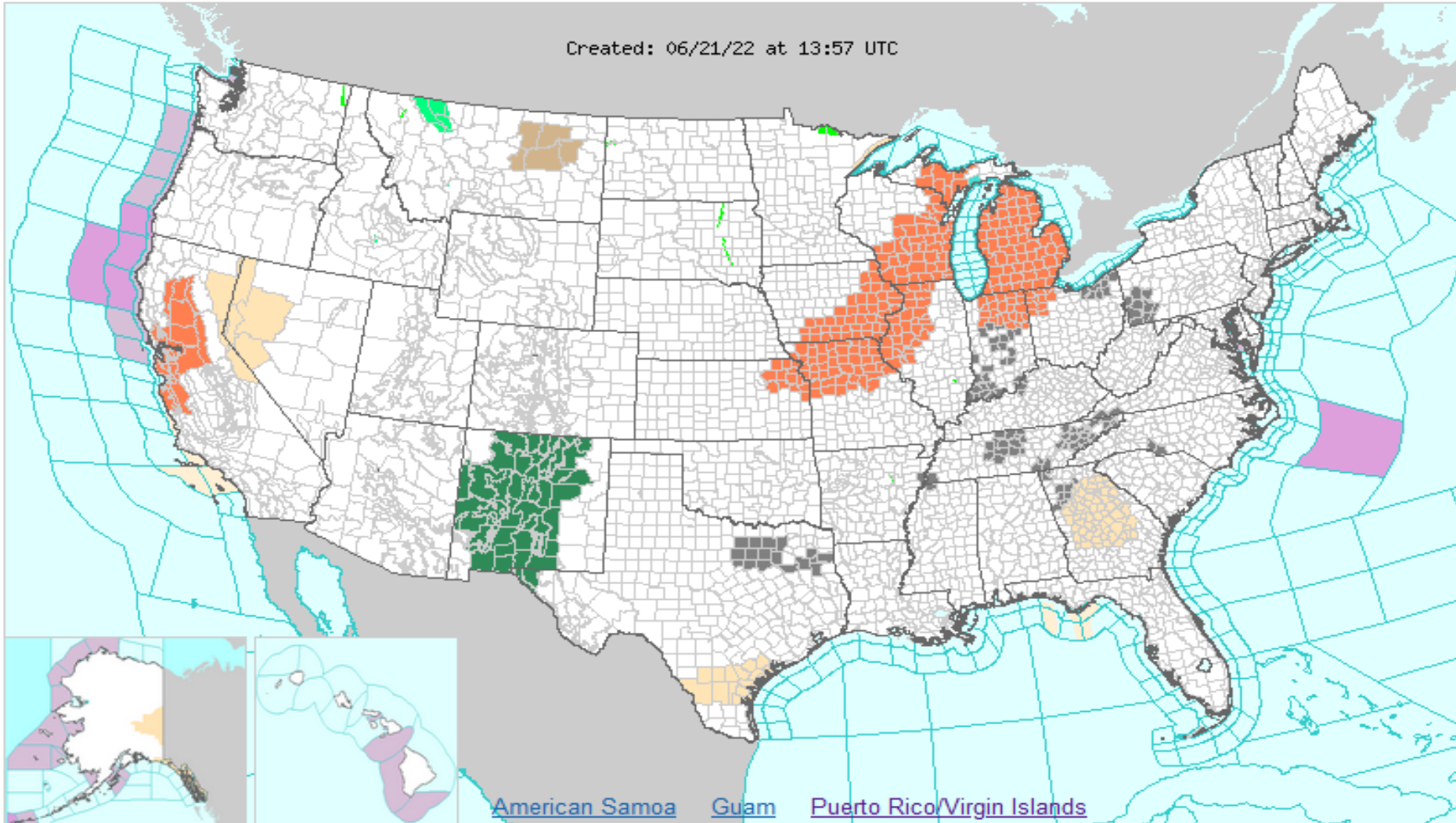
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



<p><b>Tropical Storm Celia</b>          Tuesday June 21, 2022          10 AM CDT Advisory 20          NWS National Hurricane Center</p>	<p><b>Current information: x</b>          Center location 11.6 N 99.5 W          Maximum sustained wind 40 mph          Movement W at 12 mph</p>	<p><b>Forecast positions:</b>          ● Tropical Cyclone   ○ Post/Potential TC          Sustained winds:   D &lt; 39 mph          S 39-73 mph   H 74-110 mph   M &gt; 110 mph</p>
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


<p><b>Potential track area:</b>   Day 1-3    Day 4-5</p>	<p><b>Watches:</b>   Hurricane    Trop Stm</p>	<p><b>Warnings:</b>   Hurricane    Trop Stm</p>	<p><b>Current wind extent:</b>   Hurricane    Trop Stm</p>
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Created: 06/21/22 at 13:57 UTC

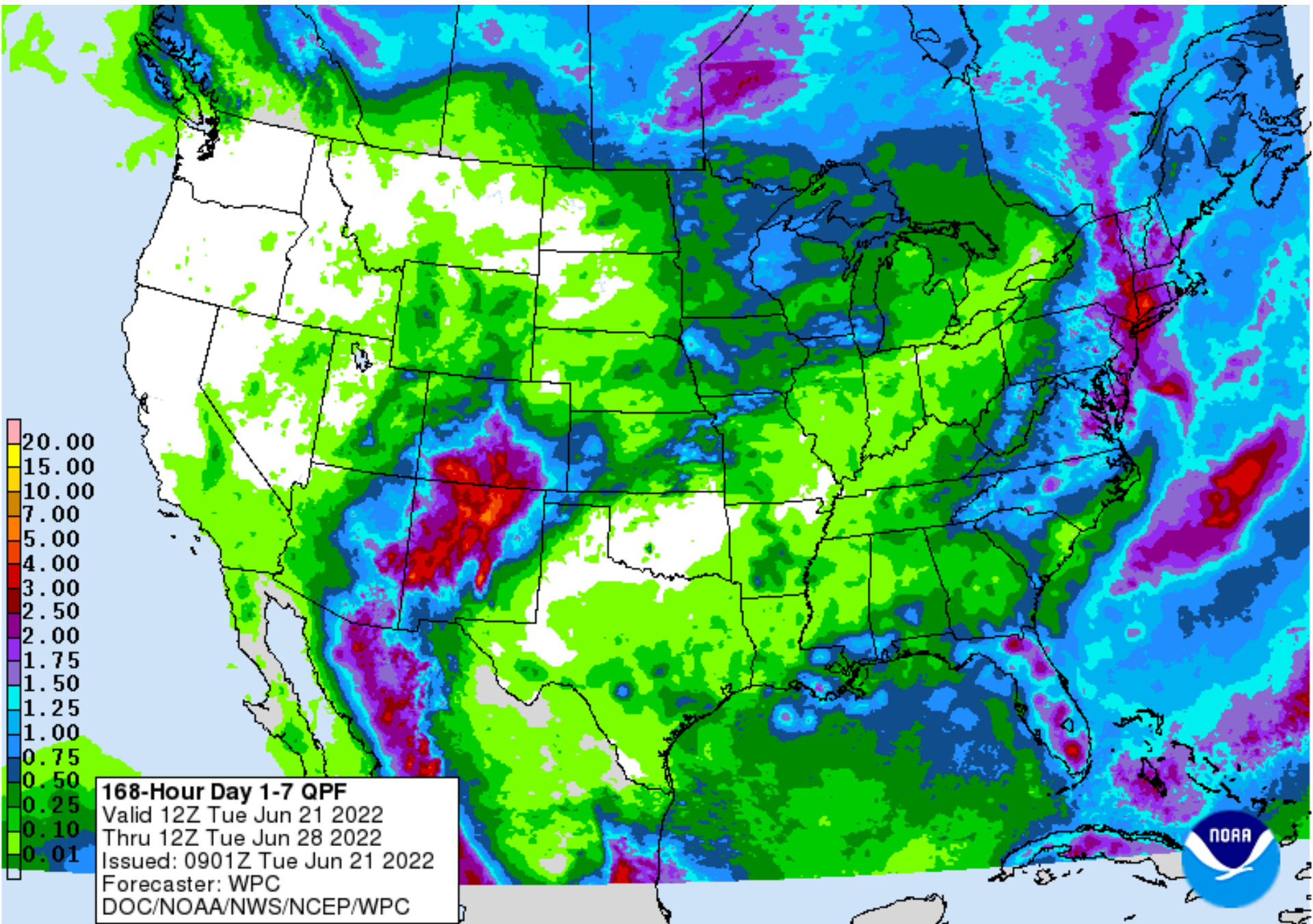


[American Samoa](#) [Guam](#) [Puerto Rico/Virgin Islands](#)

Click on the map above for detailed alerts or   [Public Alerts in XML/CAP v1.1 and ATOM Formats](#)

- |   |  |   |   |
|---|--|---|---|
|  <a href="#">Tropical Storm Warning</a> |  <a href="#">Flood Advisory</a>         |  <a href="#">Lake Wind Advisory</a>      |  <a href="#">Special Weather Statement</a> |
|  <a href="#">Flood Warning</a>          |  <a href="#">Small Craft Advisory</a>   |  <a href="#">Rip Current Statement</a>   |  <a href="#">Marine Weather Statement</a>  |
|  <a href="#">Gale Warning</a>           |  <a href="#">Brisk Wind Advisory</a>    |  <a href="#">Beach Hazards Statement</a> |  <a href="#">Air Quality Alert</a>         |
|  <a href="#">Heat Advisory</a>          |  <a href="#">Hazardous Seas Warning</a> |  <a href="#">Flood Watch</a>             |   |







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Run Time: 06Z Jun 21 ▾

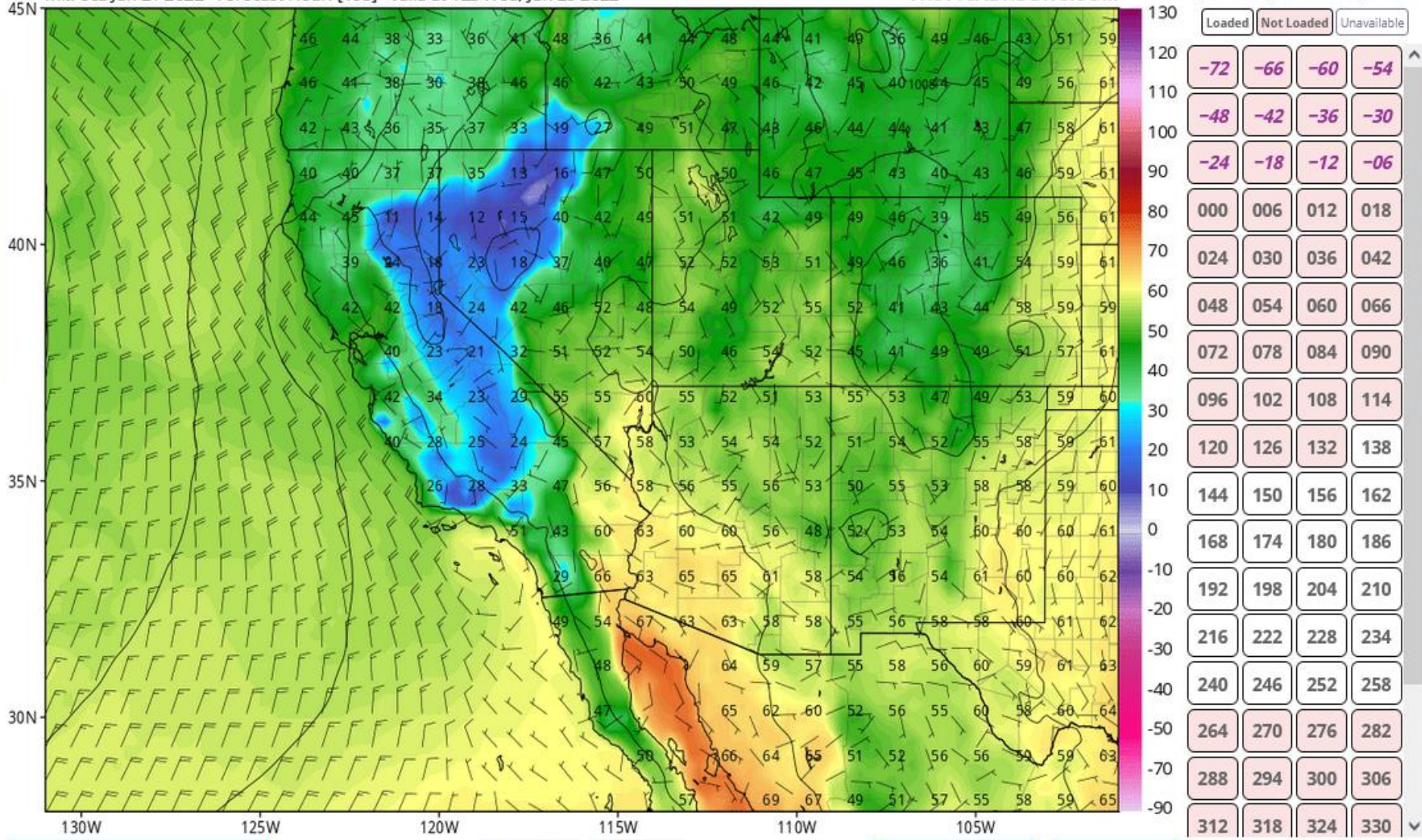
### GFS 2-meter Dewpoint (°F), 10m Wind (kt), and MSLP (hPa)

Init: 06z Jun 21 2022 Forecast Hour: [198] valid at 12z Wed, Jun 29 2022

TROPICALTIDBITS.COM

FORECAST TIME (LOCAL):

**(+198 hr) 08:00AM Jun 29**



Loaded Not Loaded Unavailable

-72	-66	-60	-54
-48	-42	-36	-30
-24	-18	-12	-06
000	006	012	018
024	030	036	042
048	054	060	066
072	078	084	090
096	102	108	114
120	126	132	138
144	150	156	162
168	174	180	186
192	198	204	210
216	222	228	234
240	246	252	258
264	270	276	282
288	294	300	306
312	318	324	330

REGIONS Prev. Run Next Run FORECAST GIF TREND GIF

# Connections to U.S. Impacts

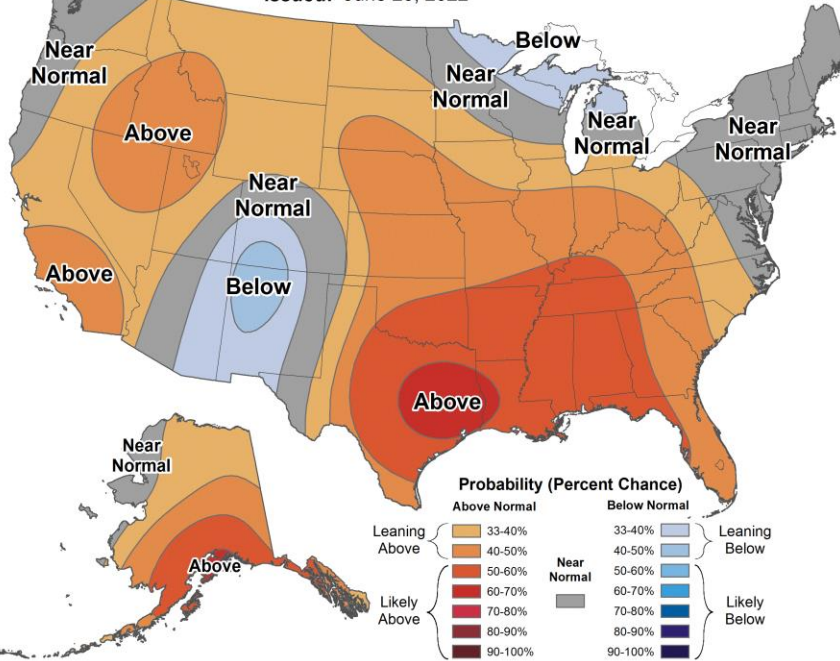


# Week 2 – Temperature and Precipitation



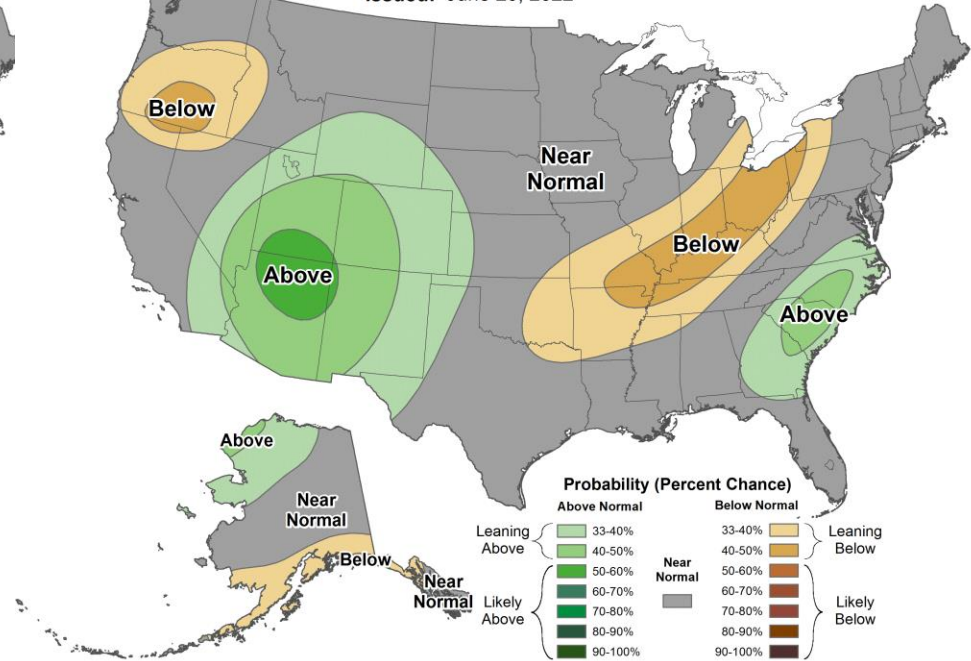
## 8-14 Day Temperature Outlook

Valid: June 28 - July 4, 2022  
 Issued: June 20, 2022



## 8-14 Day Precipitation Outlook

Valid: June 28 - July 4, 2022  
 Issued: June 20, 2022



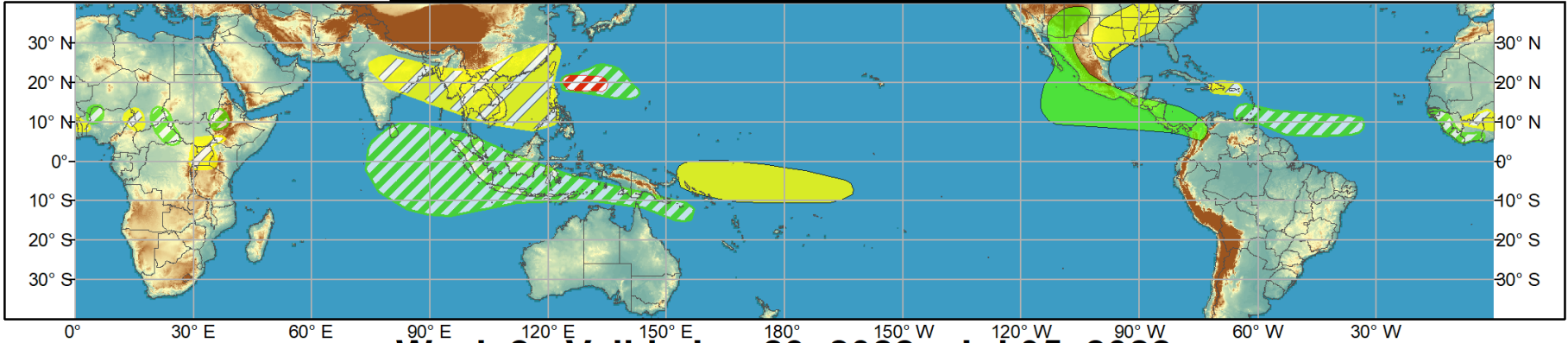




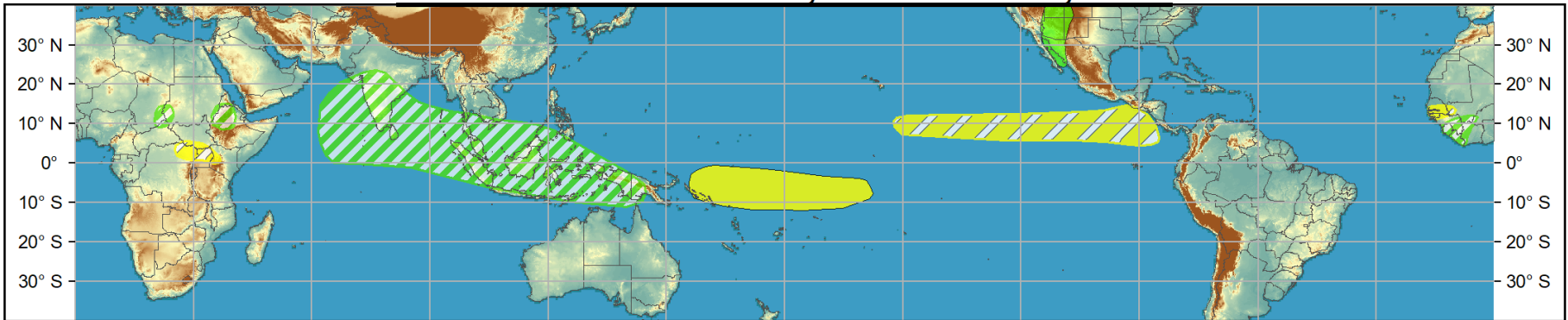
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