

# Global Tropics Hazards And Benefits Outlook

5/10/2022

Brad Pugh

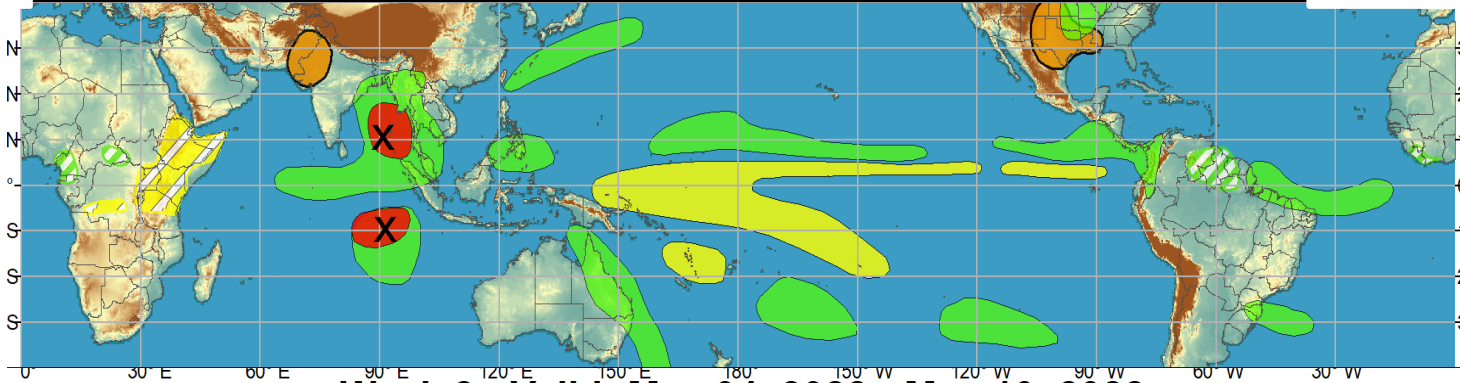
## Outline

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

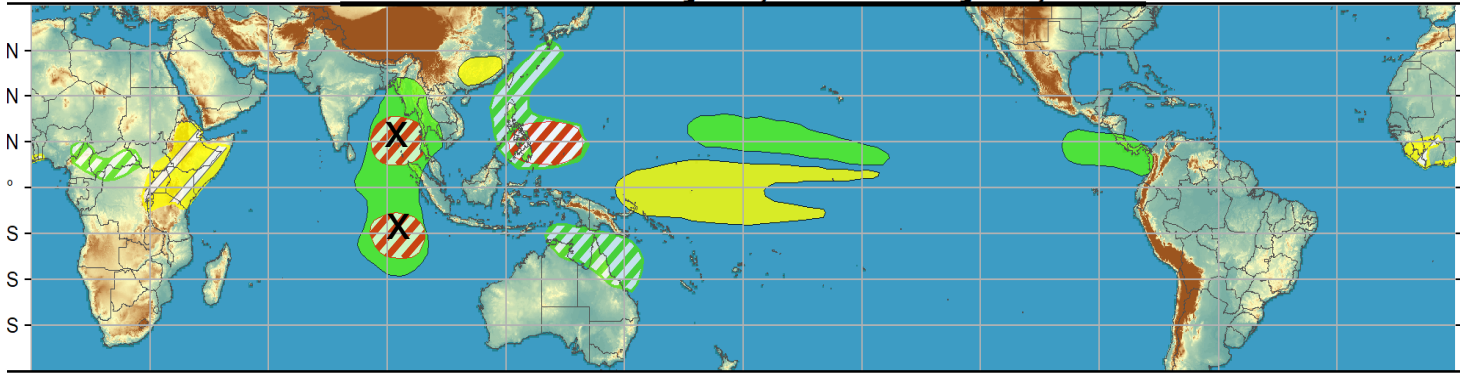
# Outlook Review

X= Tropical Cyclone  
Billy (3/13)

Week 1 - Valid: May 04, 2022 - May 10, 2022

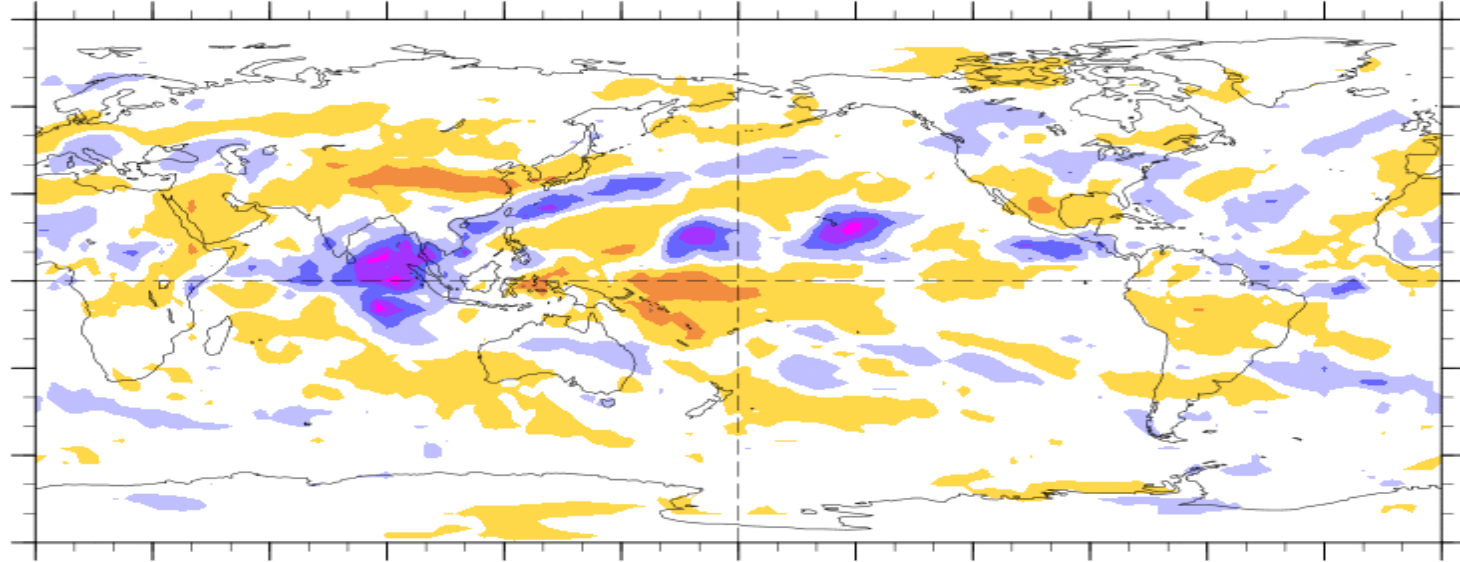


Week 2 - Valid: May 04, 2022 - May 10, 2022



7-Day Average OLR Anomaly

2022/05/02 - 2022/05/08



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

**ENSO:** (April 14, 2022 Update)

*next update on Thursday, May 12<sup>th</sup>*

- ENSO Alert System Status: [La Niña Advisory](#)
- La Niña is favored to continue through the Northern Hemisphere summer (59% chance during June-August 2022), with a 50-55% chance through the fall.

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

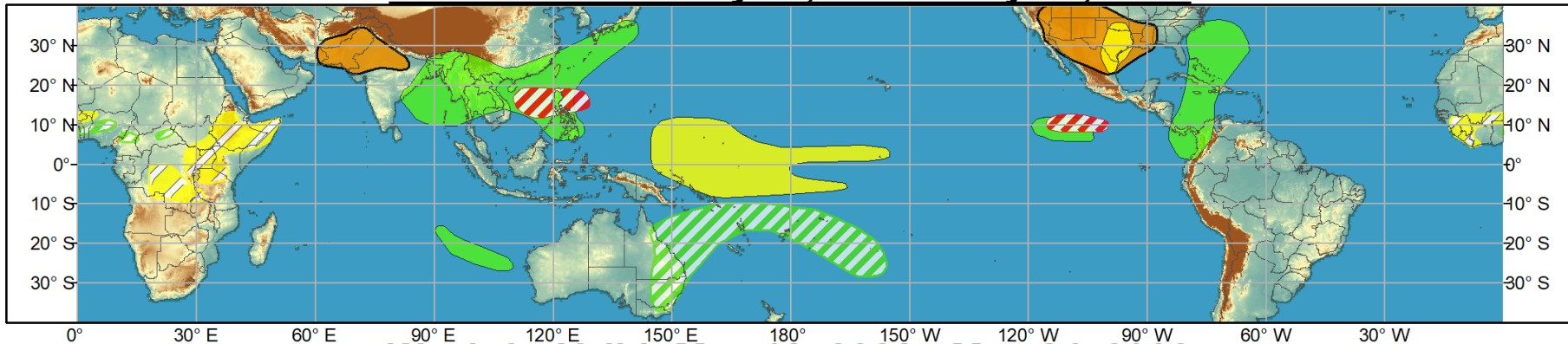
- Kelvin waves remain the most dominant mode of subseasonal variability.
- A coherent, long-lived MJO is not expected, but a strong Kelvin wave (KW) is forecast to emerge from the Indian Ocean and propagate rapidly eastward over the Western Hemisphere during the next two weeks.
- The first tropical cyclone of the 2022 East Pacific season is expected to form later this week. Following the passage of another KW, favorable conditions for additional TC development may continue into late May.



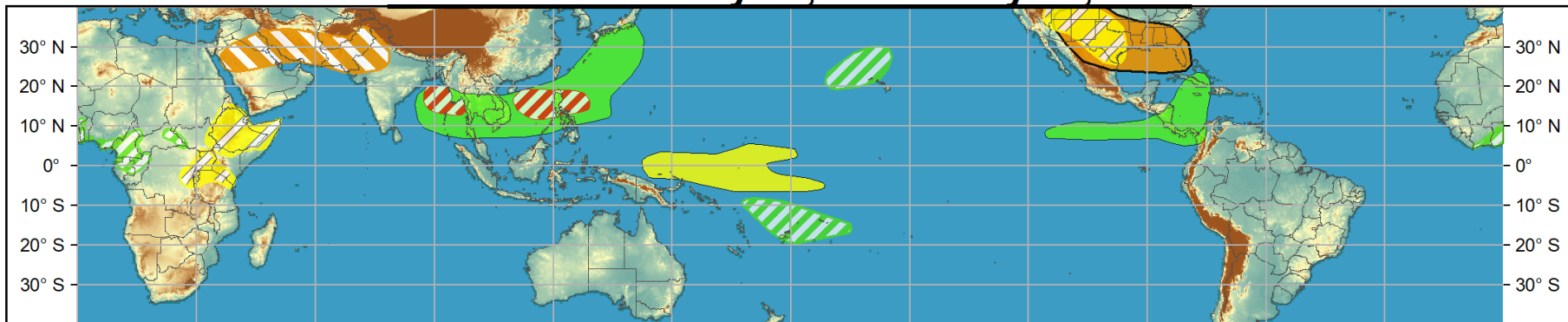
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: May 11, 2022 - May 17, 2022



## Week 2 - Valid: May 18, 2022 - May 24, 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: 05/10/2022

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

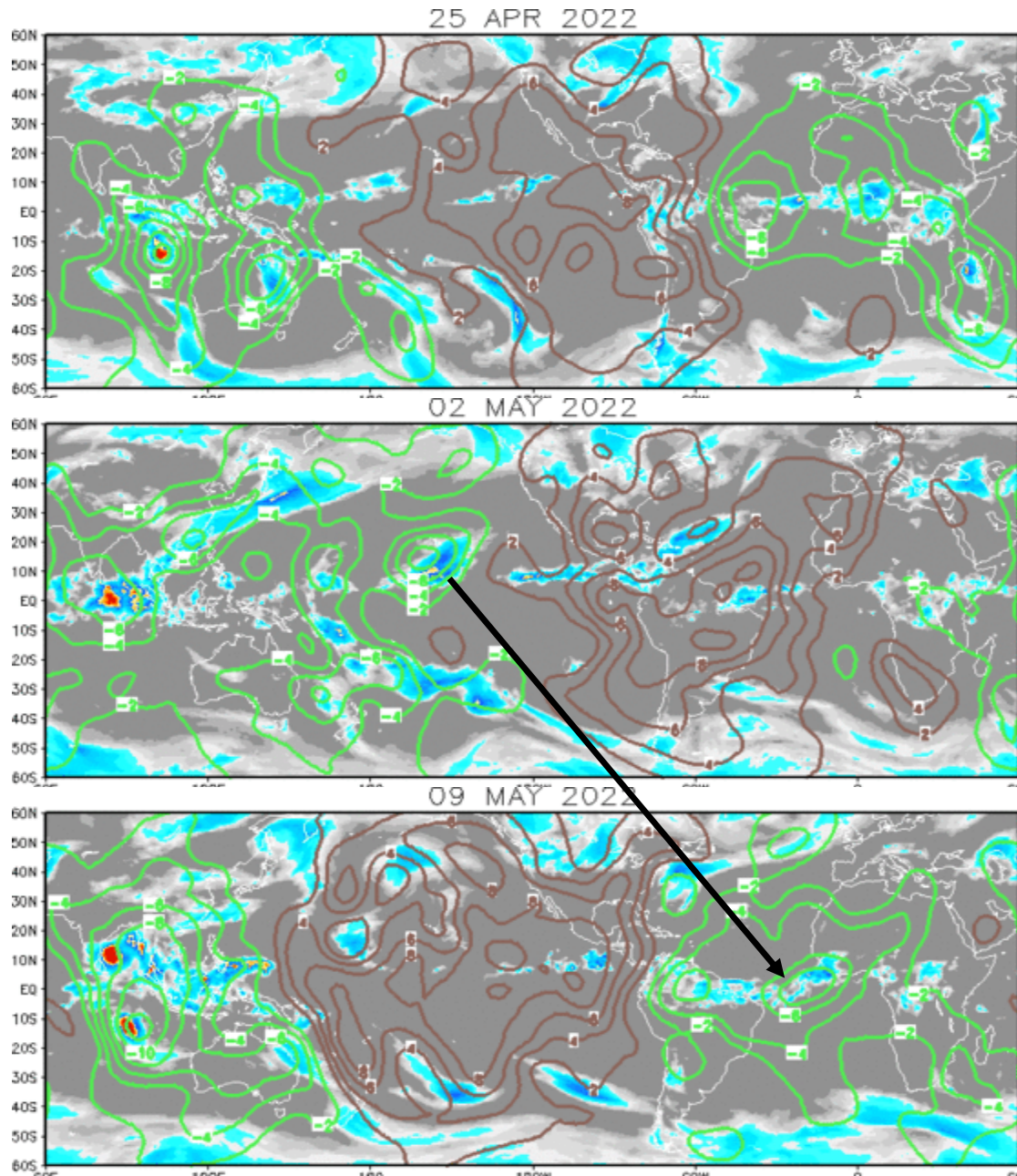
Green: Enhanced Divergence

Brown: Enhanced Convergence

A more coherent pattern emerges later in April, but exhibits two enhanced centers of action over Africa and near the Maritime Continent.

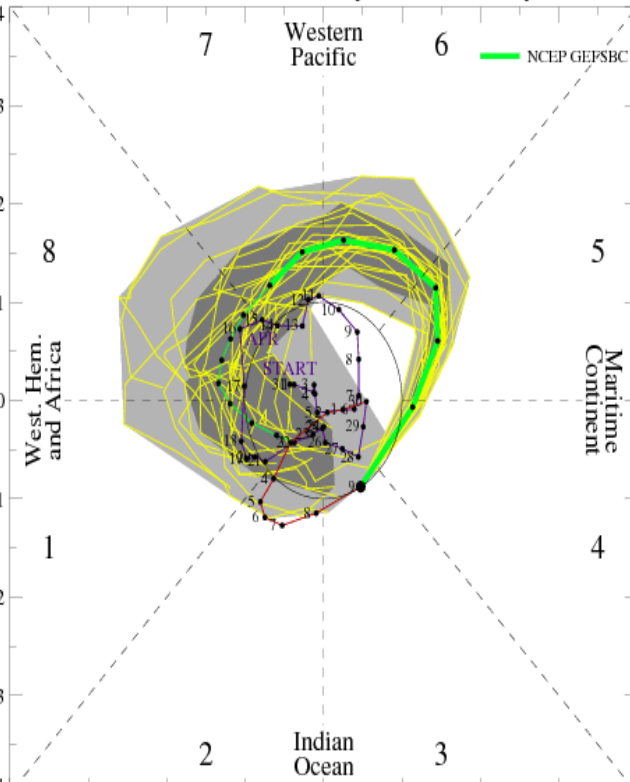
Some eastward propagation of anomalous divergence envelope, though deep convection has shifted westward in the Indian Ocean.

Since the beginning of May, a Kelvin wave progressed eastward over the Western Hemisphere.

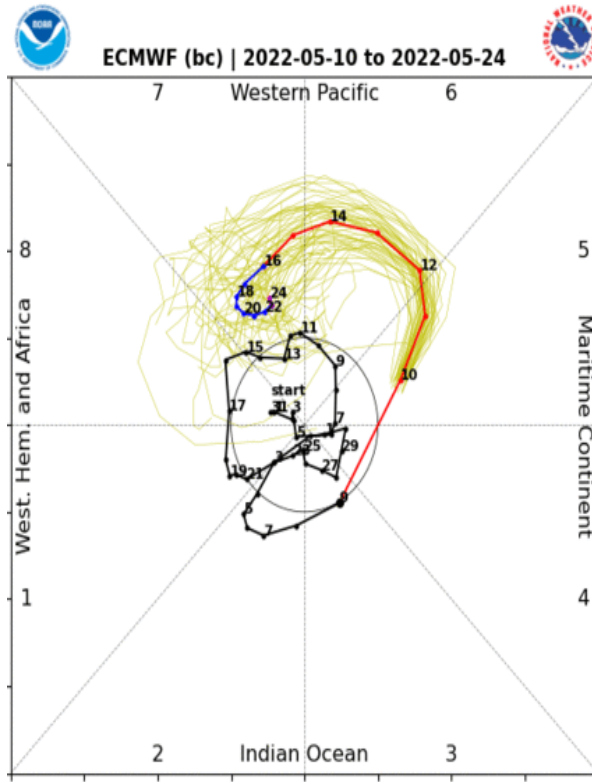


# MJO Observation/Forecast

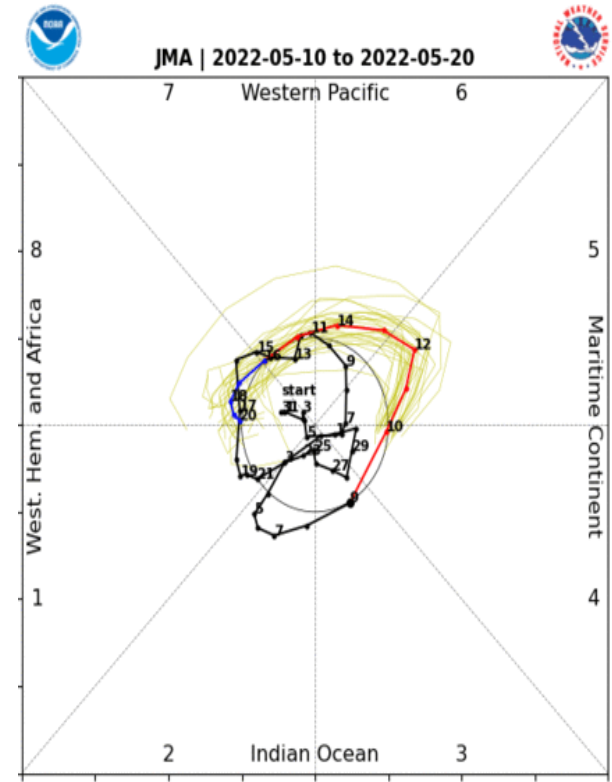
[RMM1, RMM2] forecast for May-10-2022 to May-24-2022



GEFS



ECMWF



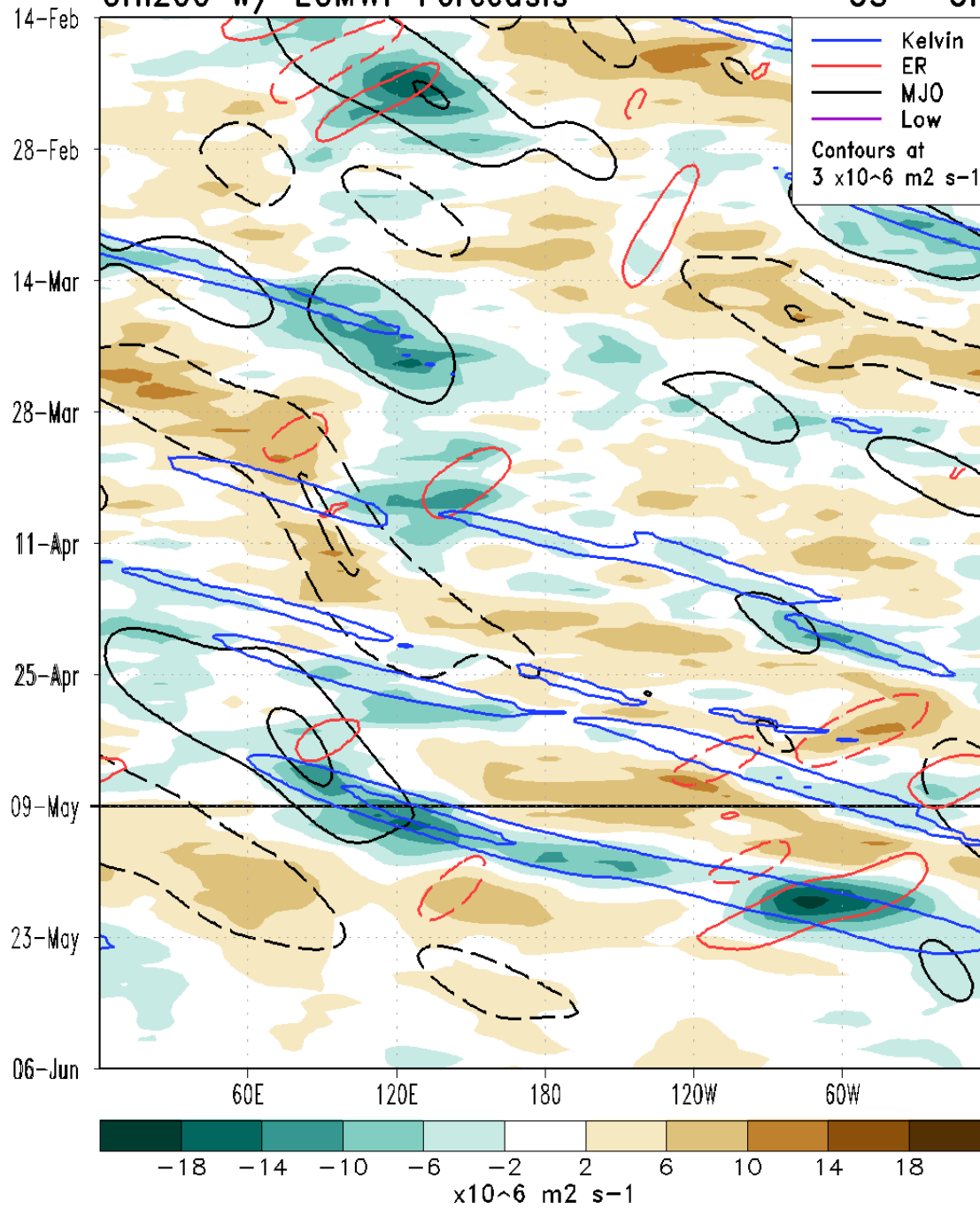
JMA

Recent increase in the amplitude of the MJO RMM index but likely related to an emerging strong Kelvin wave.

Excellent agreement in a fast-moving KW propagating from the Indian Ocean to Africa.

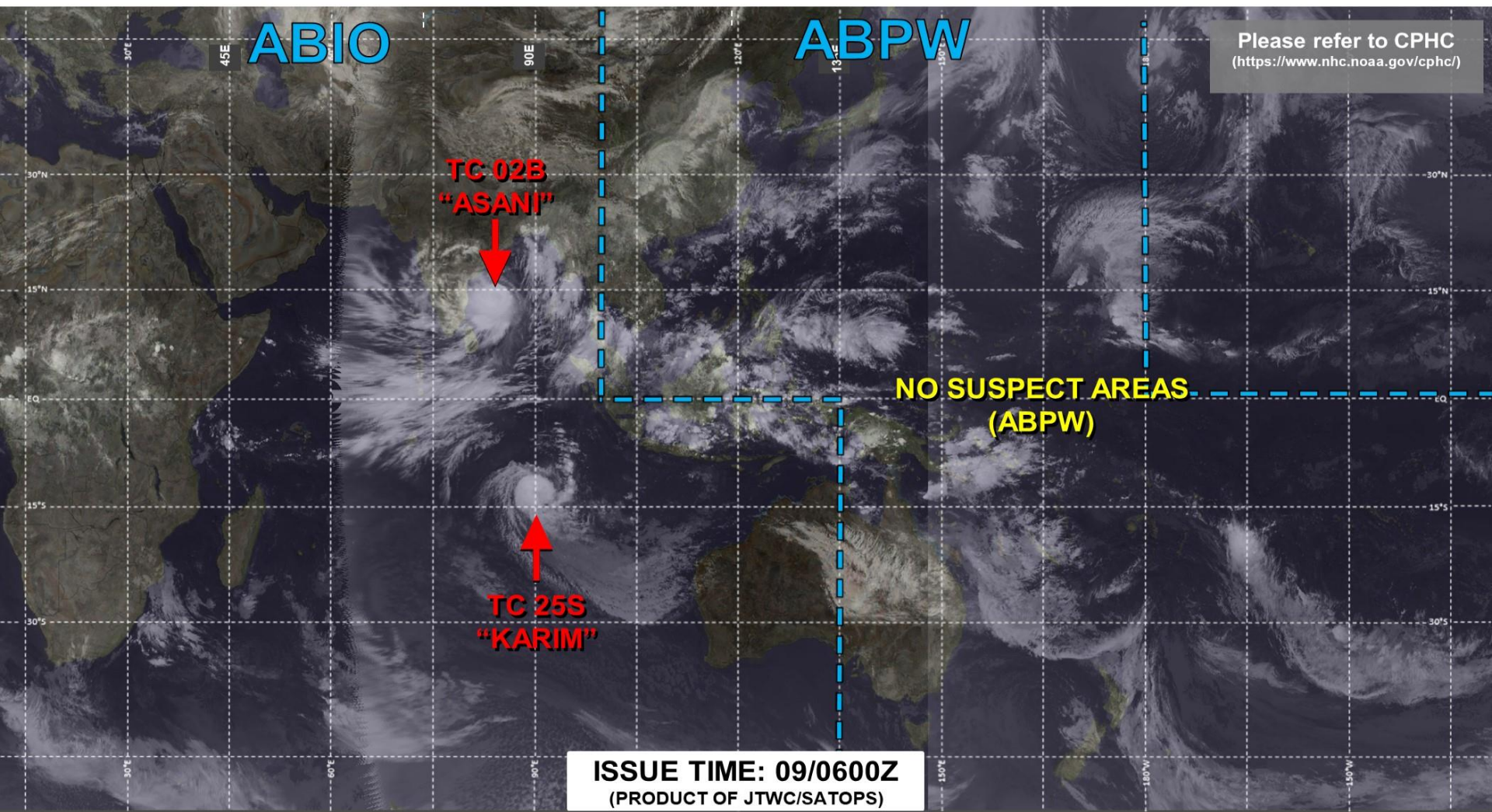
# CHI200 w/ ECMWF Forecasts

5S - 5N





# JOINT TYPHOON WARNING CENTER



**LOW**

TC development unlikely within 24 hours

**MEDIUM**

TC development likely, but expected to occur beyond 24 hours

**HIGH**

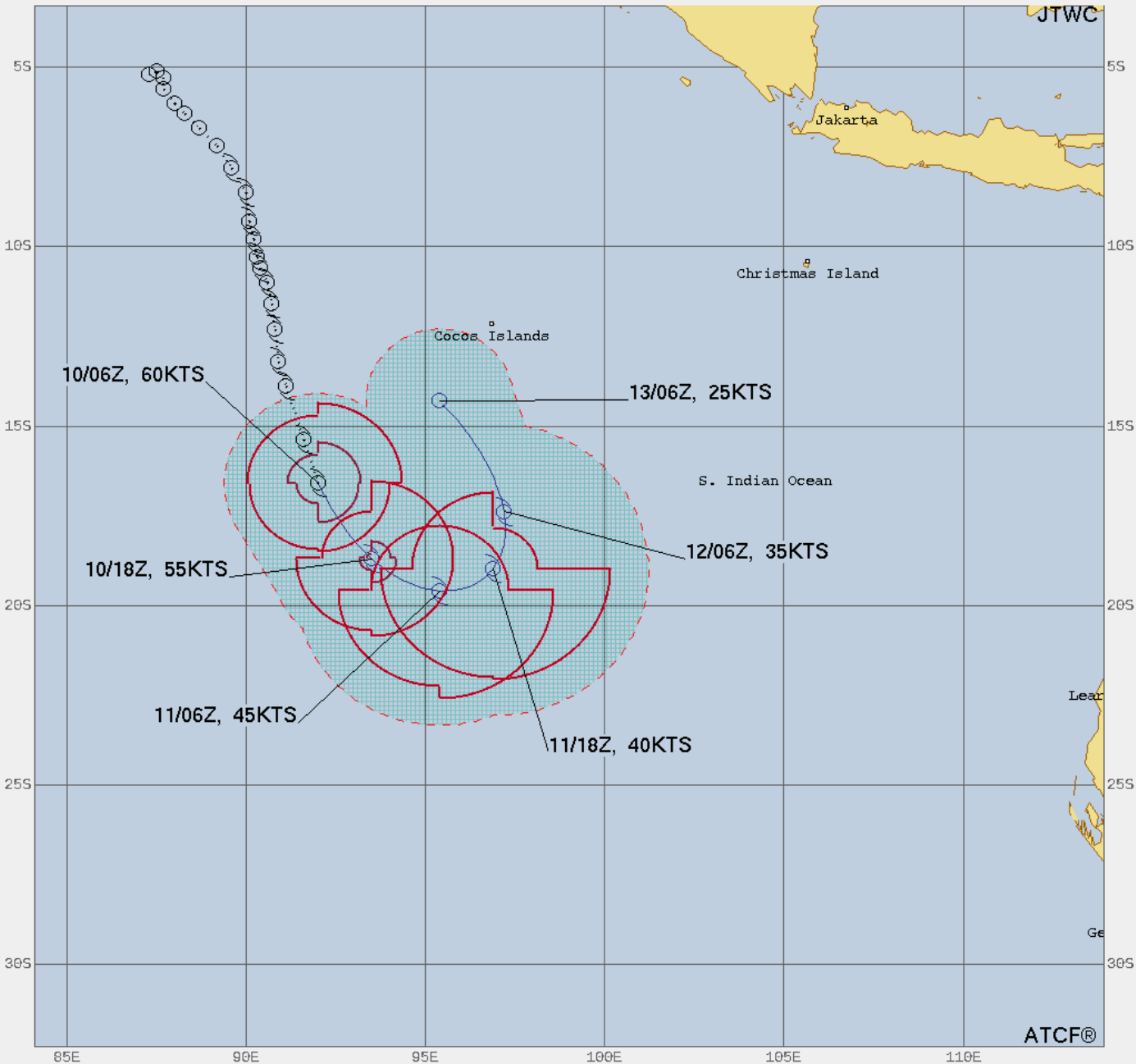
TC development likely within 24 hours (Reference TCFA)

**SUB TROPICAL**

Monitoring for potential transition to TC. Invest label color denotes tropical transition probability

Tropical Cyclone (Reference Warning)



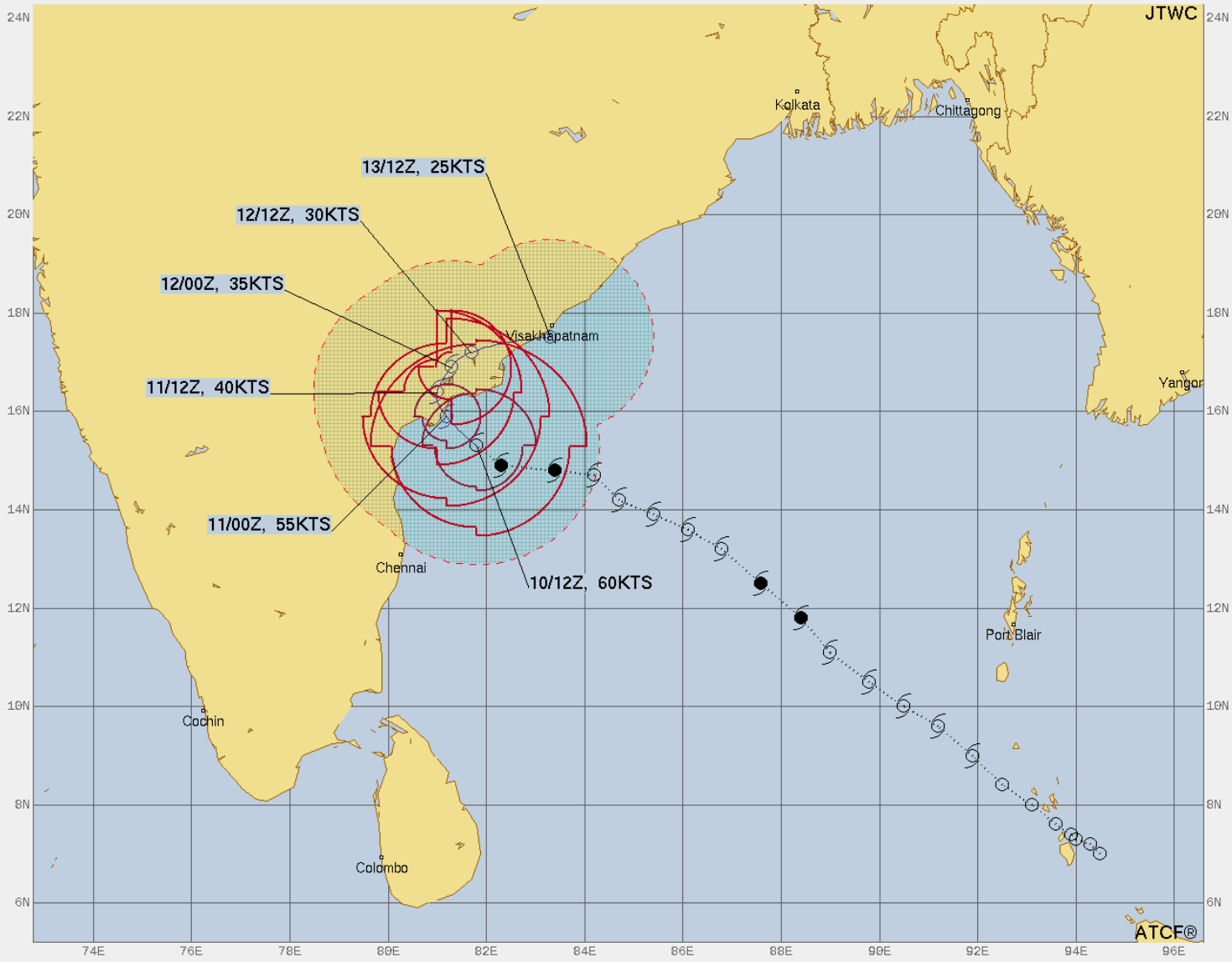


TROPICAL CYCLONE 25S (KARIM) WARNING #7  
 WTXS31 PGTW 100900  
 100600Z POSIT: NEAR 16.6S 92.0E  
 MOVING 160 DEGREES TRUE AT 13 KNOTS  
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 22 FEET  
 10/06Z, WINDS 060 KTS, GUSTS TO 075 KTS  
 10/18Z, WINDS 055 KTS, GUSTS TO 070 KTS  
 11/06Z, WINDS 045 KTS, GUSTS TO 055 KTS  
 11/18Z, WINDS 040 KTS, GUSTS TO 050 KTS  
 12/06Z, WINDS 035 KTS, GUSTS TO 045 KTS  
 13/06Z, WINDS 025 KTS, GUSTS TO 035 KTS

CPA TO:	NM	DTG
COCOS_ISLANDS	153	05/13/06Z

BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
COCOS_ISLANDS	227	388	0

- LESS THAN 34 KNOTS
- 34-63 KNOTS
- MORE THAN 63 KNOTS
- FORECAST CYCLONE TRACK
- PAST CYCLONE TRACK
- DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA
- FORECAST 34/50/64 KNOT WIND RADII (WINDS VALID OVER OPEN OCEAN ONLY)



JTWC

TROPICAL CYCLONE 02B (ASANI) WARNING #14  
 WT1031 PGTW 101500  
 101200Z POSIT: NEAR 15.3N 81.8E  
 MOVING 310 DEGREES TRUE AT 06 KNOTS  
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 21 FEET  
 10/12Z, WINDS 060 KTS, GUSTS TO 075 KTS  
 11/00Z, WINDS 055 KTS, GUSTS TO 070 KTS  
 11/12Z, WINDS 040 KTS, GUSTS TO 050 KTS  
 12/00Z, WINDS 035 KTS, GUSTS TO 045 KTS  
 12/12Z, WINDS 030 KTS, GUSTS TO 040 KTS  
 13/12Z, WINDS 025 KTS, GUSTS TO 035 KTS

CPA TO:	NM	DTG
CHENNAI	157	05/10/14Z
VISAKHAPATNAM	18	05/13/12Z

BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
CHENNAI	033	158	0
VISAKHAPATNAM	210	173	0

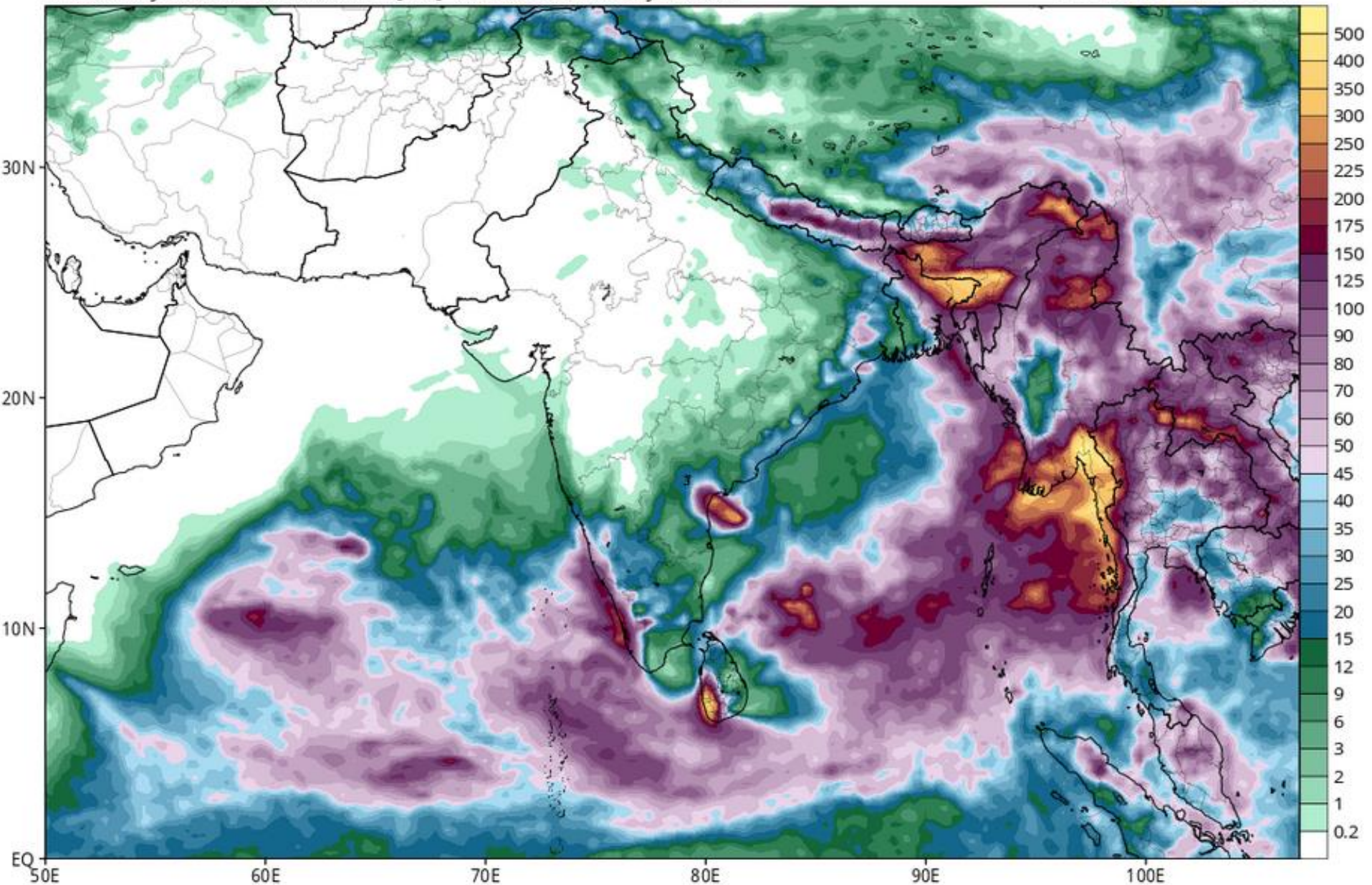
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ATCF®

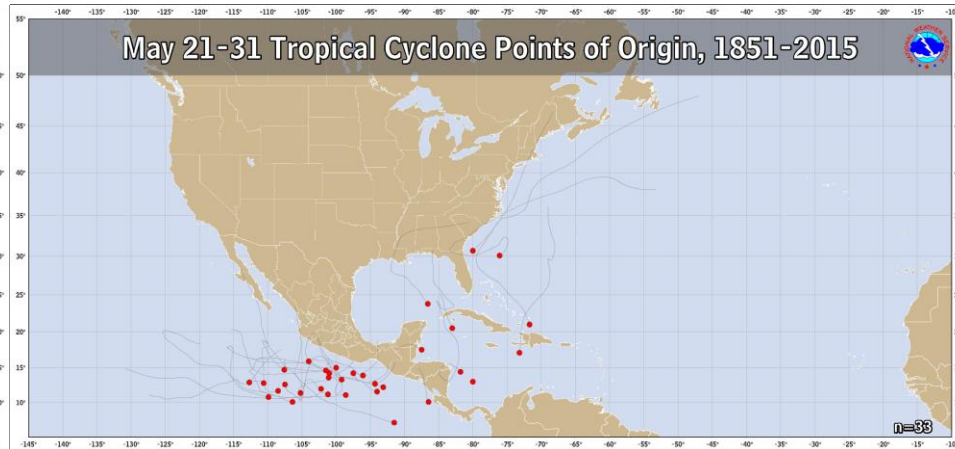
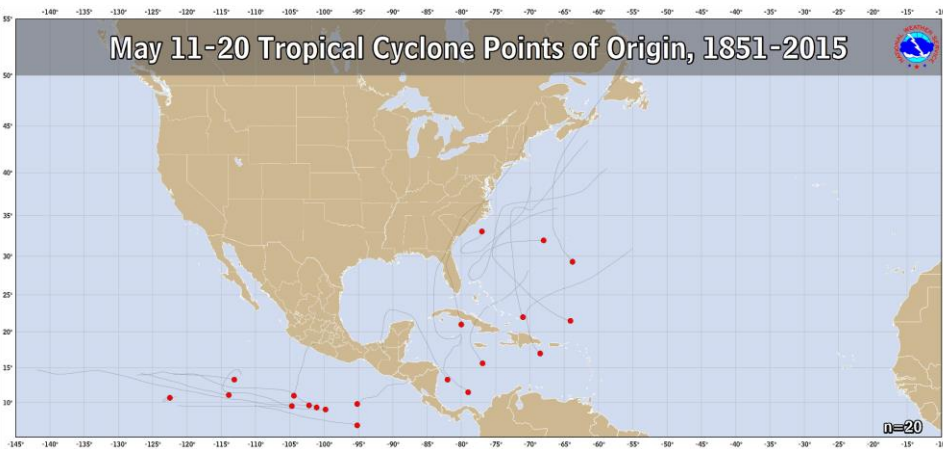
# GFS Total Accumulated Precipitation (mm) from 12z10May2022 to 12z18May2022

Init: 12z May 10 2022 Forecast Hour: [192] valid at 12z Wed, May 18 2022

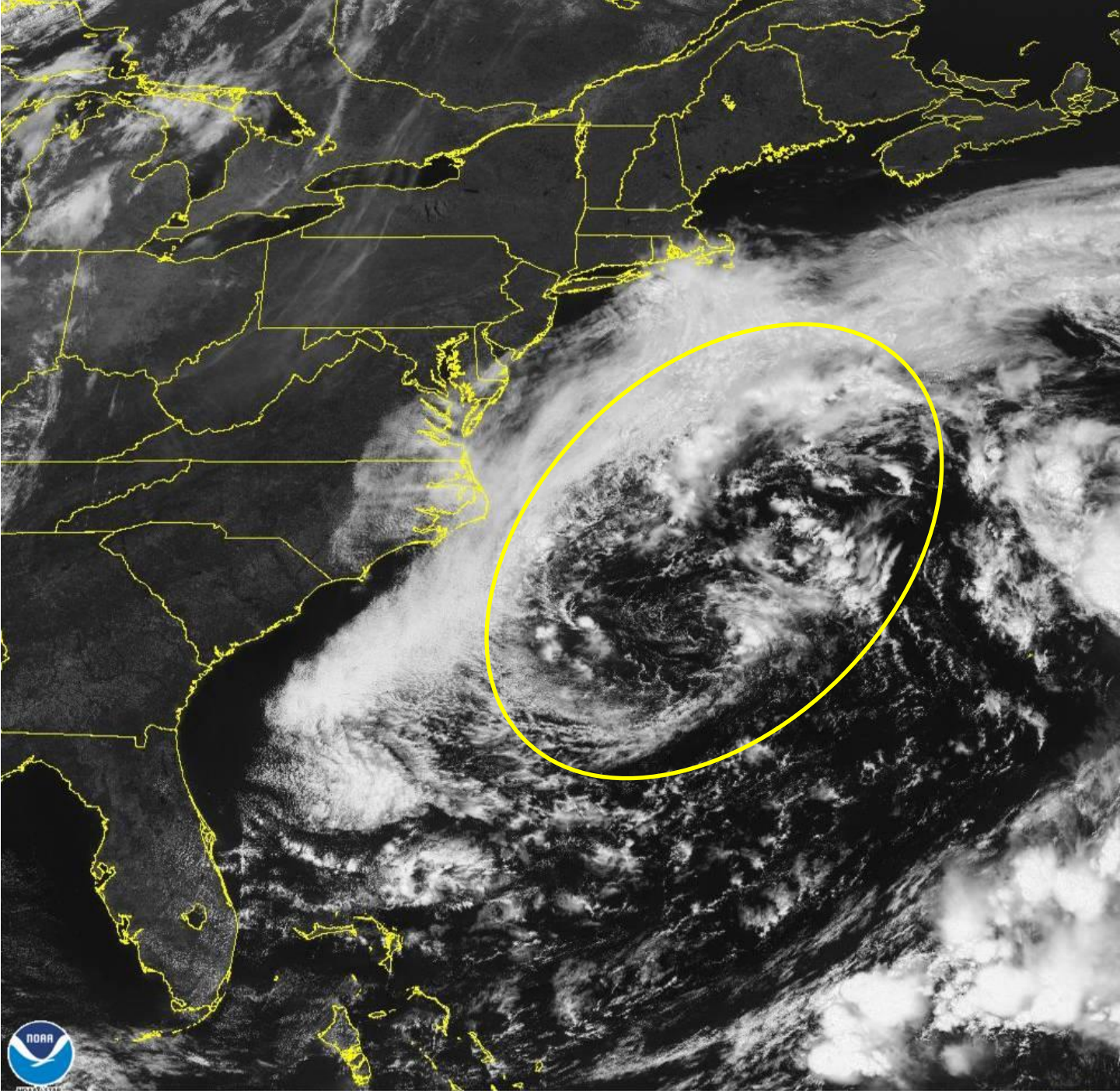
TROPICALTIDBITS.COM



# Mid to Late May Climatology



- Frequency of development ramps up in the East Pacific
- Few TCs in the western Caribbean



10 May 2022 17:01Z NOAA/NESDIS/STAR GOES-East Band 02



Local forecast by "City, St" or ZIP code

[Location Help](#)



### Prolonged Coastal Storm to Bring Impacts Through Mid-Week

[Read More >](#)

## Customize Your Weather.gov

Sorry, no forecast found. Please try again.

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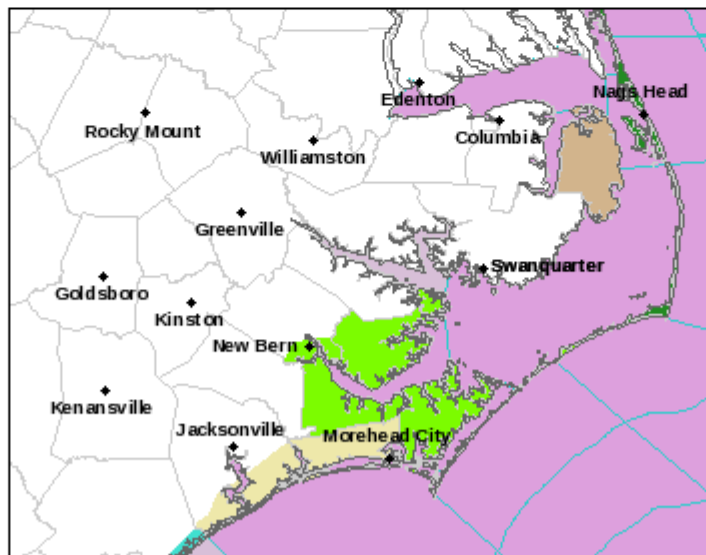
## NWS Forecast Office Newport/Morehead City, Newport/Morehead City, NC

Weather Forecast Office

[Weather.gov](#) > Newport/Morehead City, NC

[Current Hazards](#) [Current Conditions](#) [Radar](#) [Forecasts](#) [Rivers and Lakes](#) [Climate and Past Weather](#) [Local Programs](#)

Click a location below for detailed forecast.



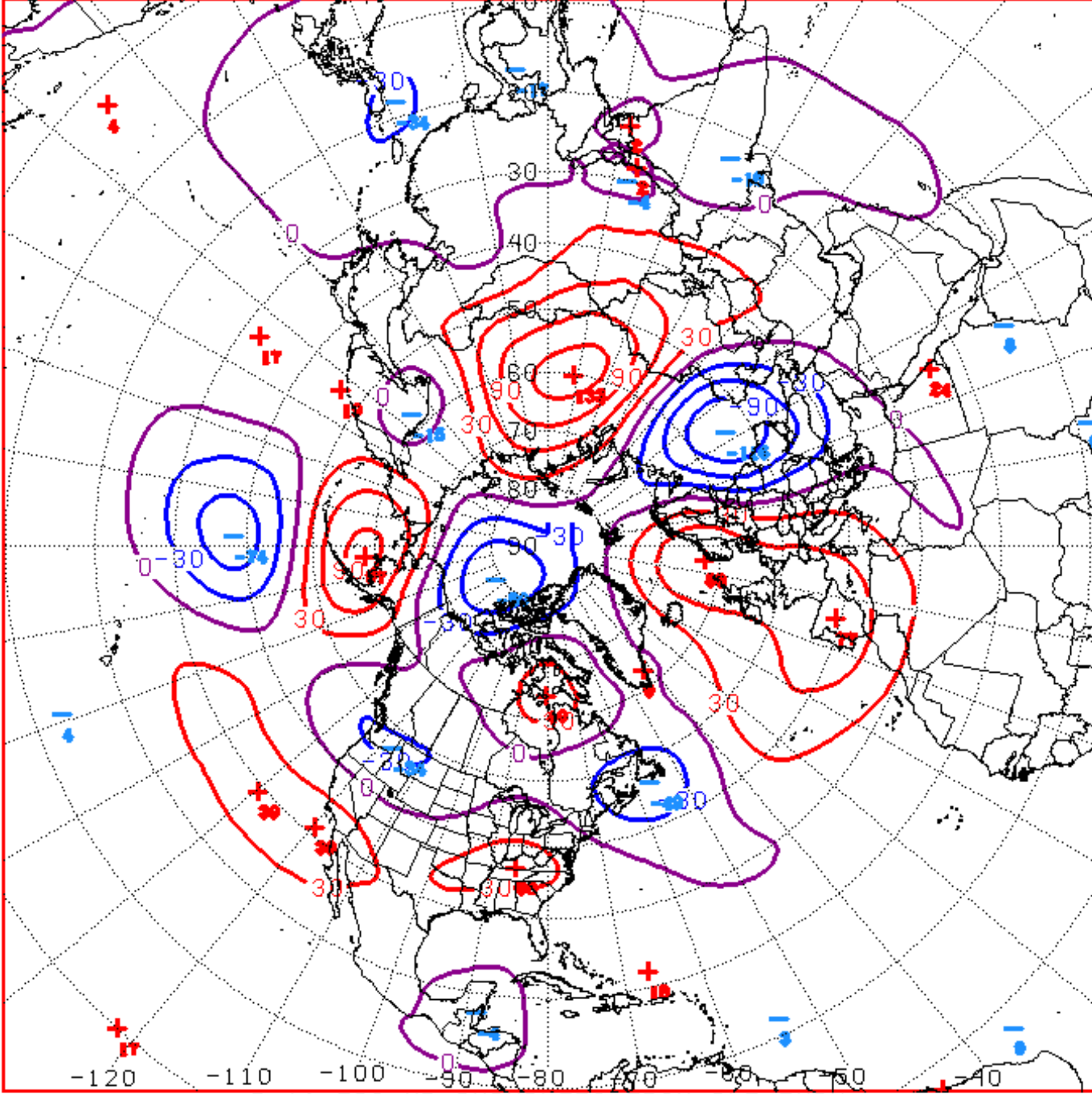
[Watches, Warnings & Advisories](#)



- [Coastal Flood Warning](#)
- [Gale Warning](#)
- [Coastal Flood Advisory](#)
- [High Surf Advisory](#)
- [Small Craft Advisory](#)
- [Wind Advisory](#)
- [Beach Hazards Statement](#)
- [Hazardous Weather Outlook](#)

Last Map Update: Tue, May. 10, 2022 at 1:07:15 pm EDT

# Connections to U.S. Impacts



D+11 500 MB ANOMALIES FROM ALZ ENSM  
CPC MAP MADE MAY 10 2022 1352 UTC CNTD MAY 21 2022

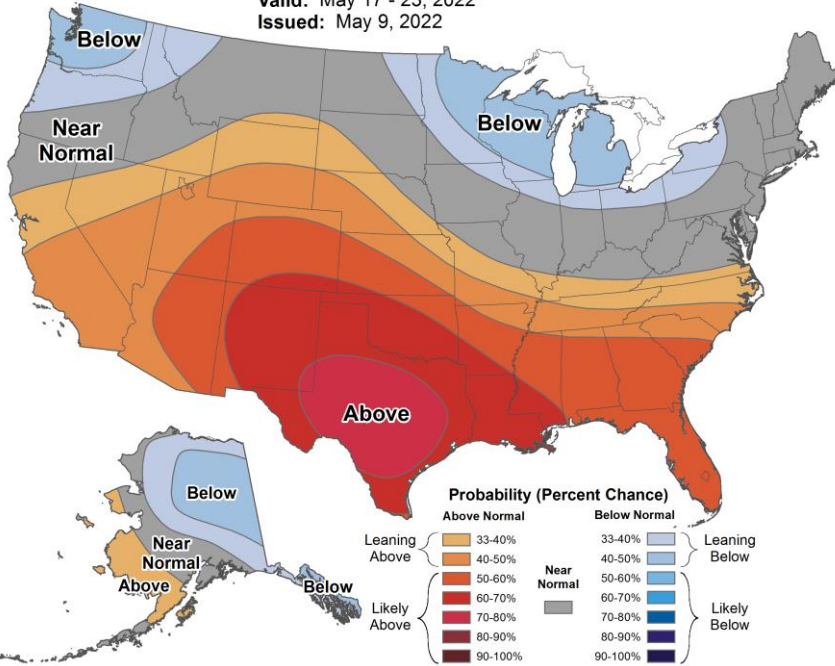


# Week 2 – Temperature and Precipitation



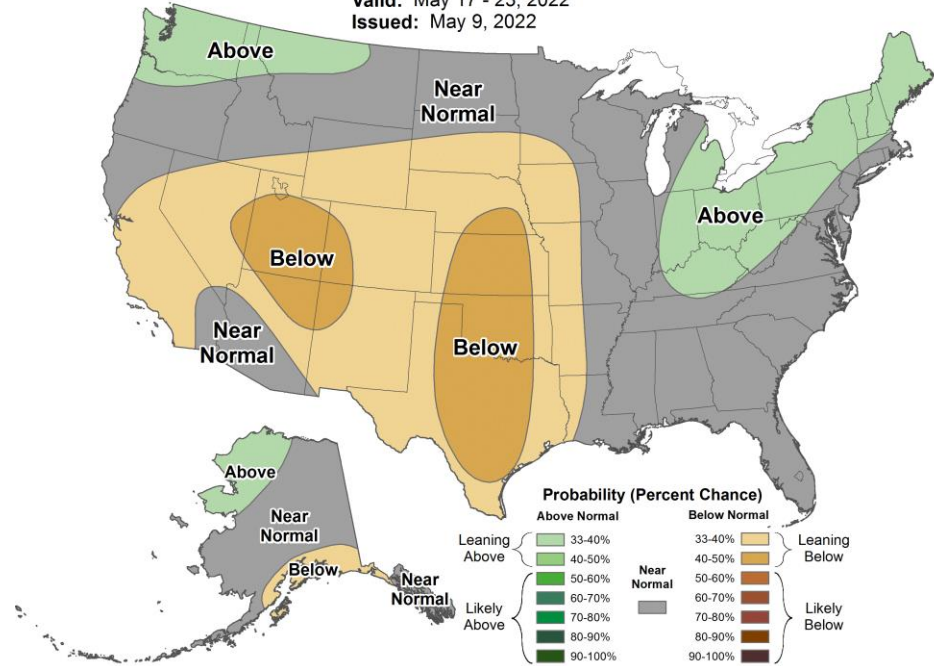
## 8-14 Day Temperature Outlook

Valid: May 17 - 23, 2022  
Issued: May 9, 2022



## 8-14 Day Precipitation Outlook

Valid: May 17 - 23, 2022  
Issued: May 9, 2022

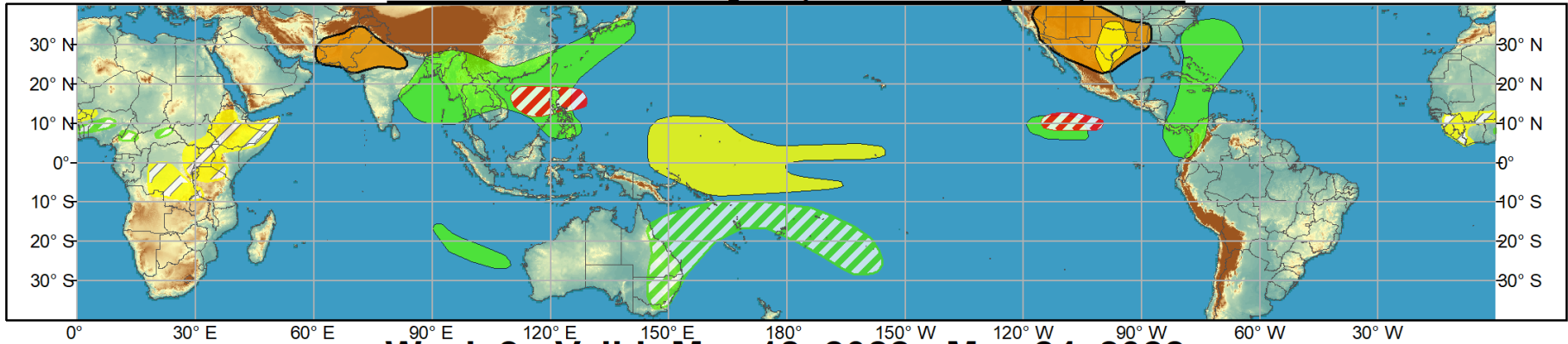




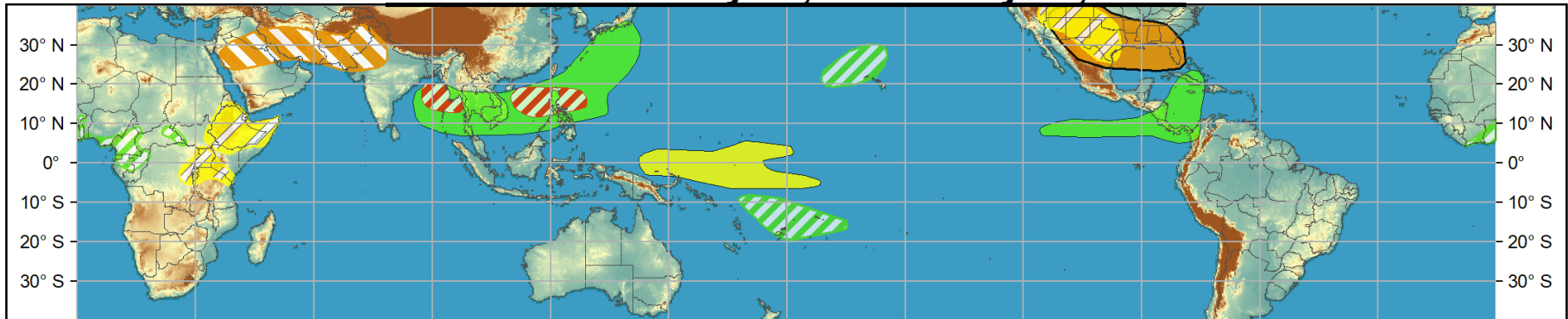
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