

# Global Tropics Hazards And Benefits Outlook

July 23, 2013

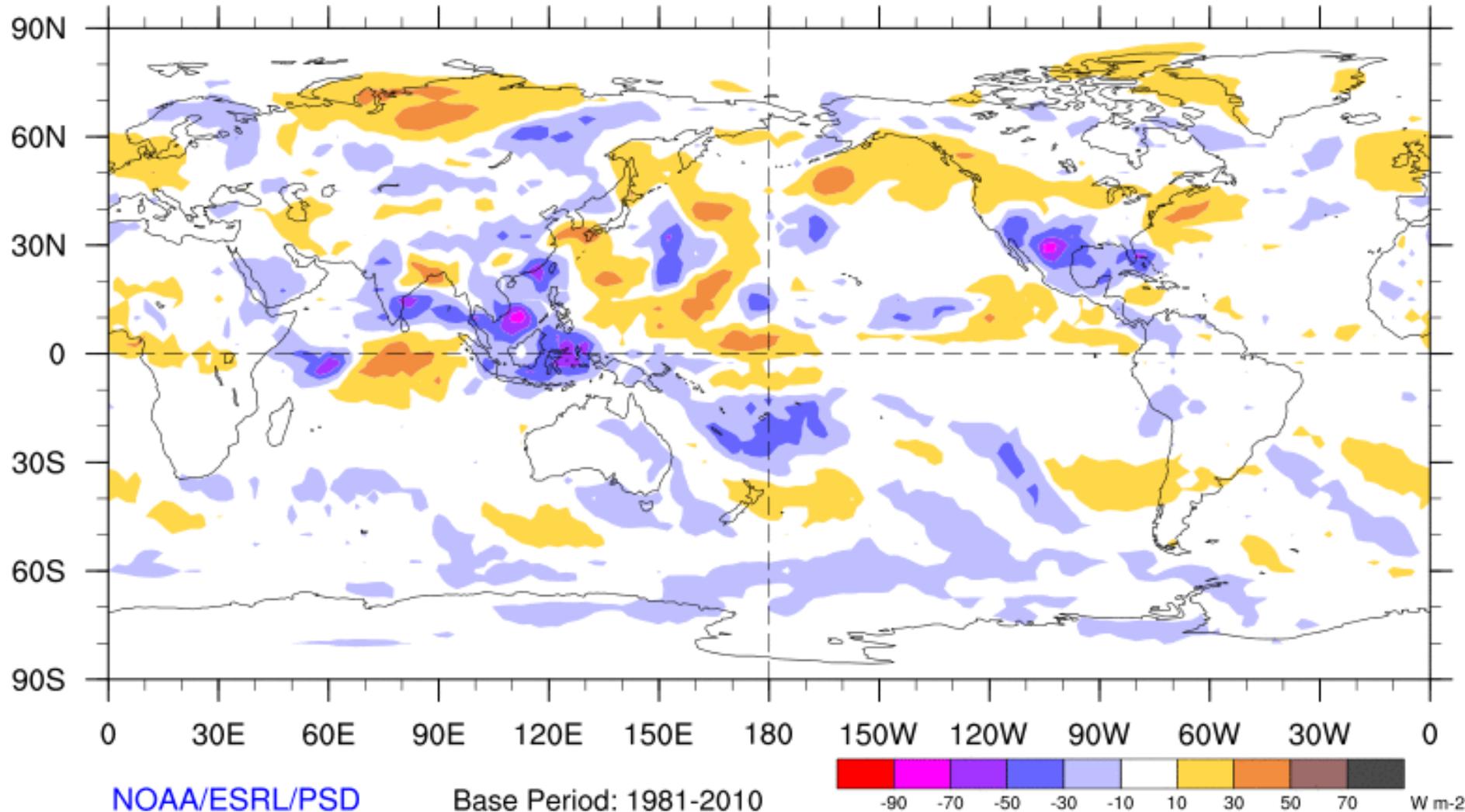
Adam Allgood

## Outline

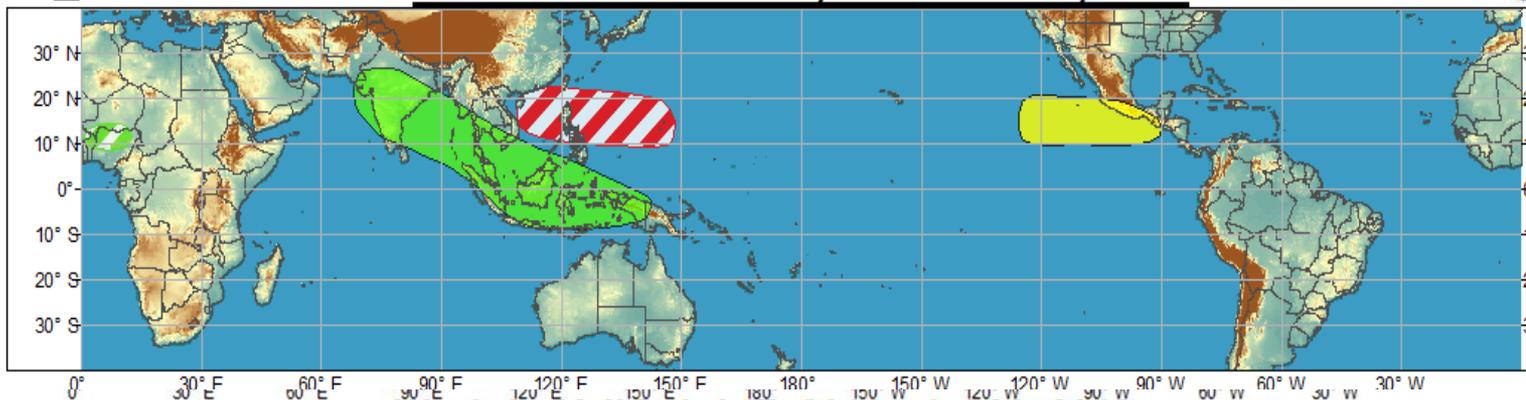
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

# 7-Day Average OLR Anomaly

2013/07/15 - 2013/07/21



Week 1 - Valid: Jul 17, 2013 - Jul 23, 2013



Week 2 - Valid: Jul 17, 2013 - Jul 23, 2013



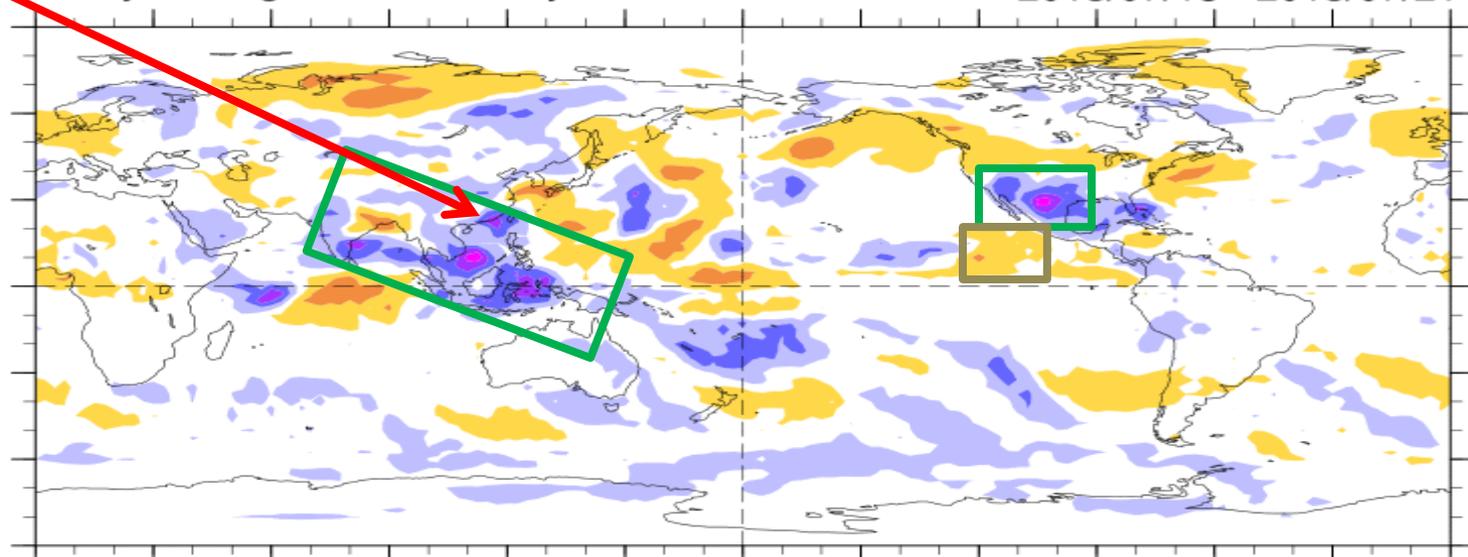
# Outlook Review

Tropical Storm Cimaron passed south of Taiwan, weakened before landfall in China



7-Day Average OLR Anomaly

2013/07/15 - 2013/07/21



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

## ENSO:

- ENSO-neutral conditions are favored to continue into Northern Hemisphere fall 2013

## MJO and other subseasonal tropical variability:

- The MJO remained active over the past week, although influence from other modes of tropical intraseasonal variability have contributed to a noisier appearance in the global tropical circulation.
- Dynamical model MJO index forecasts generally maintain a weak signal due to influence from other modes, but continued eastward propagation of an MJO signal over the western Pacific Ocean remains apparent.

## Extratropics:

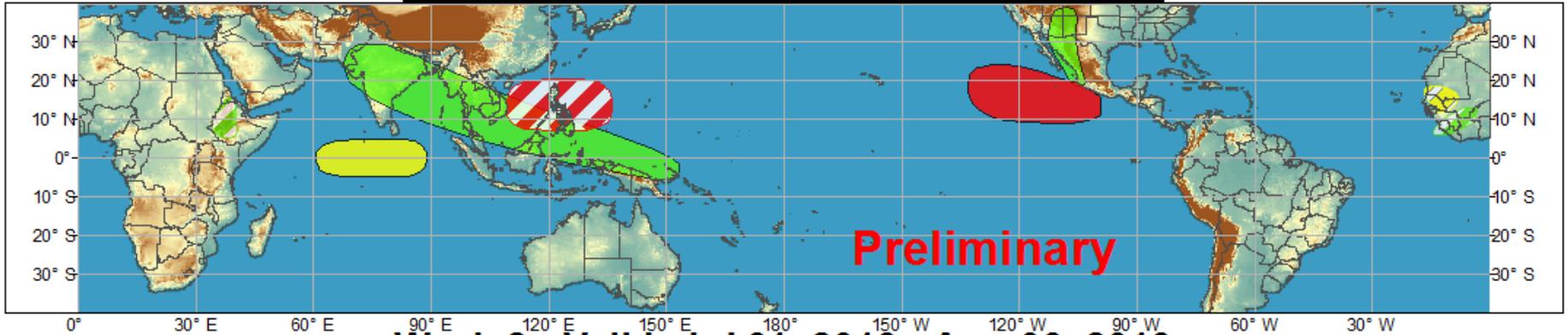
- The extended range forecast for the U.S. tilts the odds towards below-median temperatures and above-median precipitation over the eastern CONUS, contrasting with above-median temperatures over the interior West. Below-median precipitation is favored over the central and southern Plains (following heavy rainfall this week).



# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Jul 24, 2013 - Jul 30, 2013



## Week 2 - Valid: Jul 31, 2013 - Aug 06, 2013



**Confidence**  
High Moderate

**Tropical Cyclone Formation**



Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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: 07/23/2013

Forecaster: Allgood

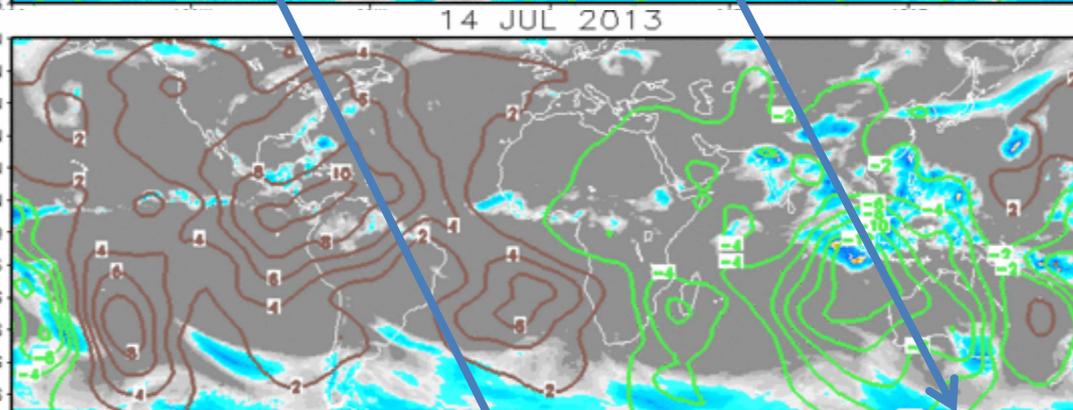
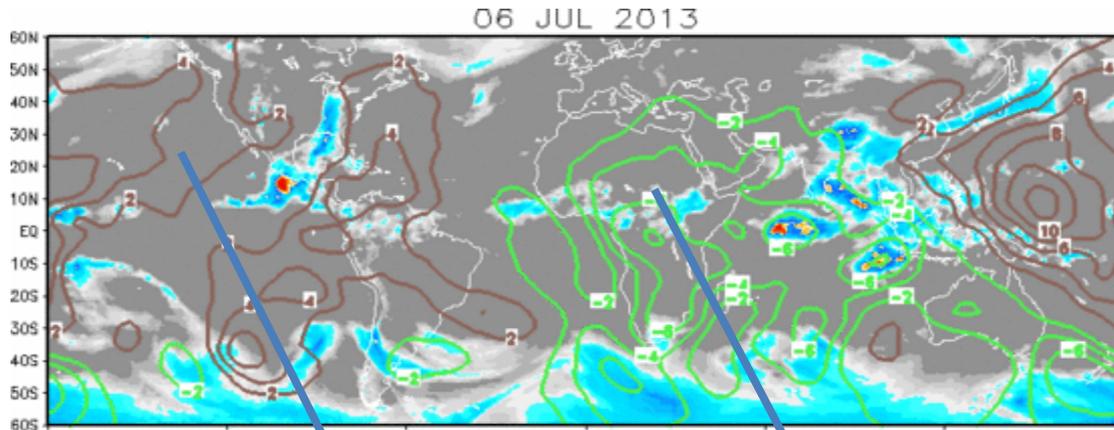
Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



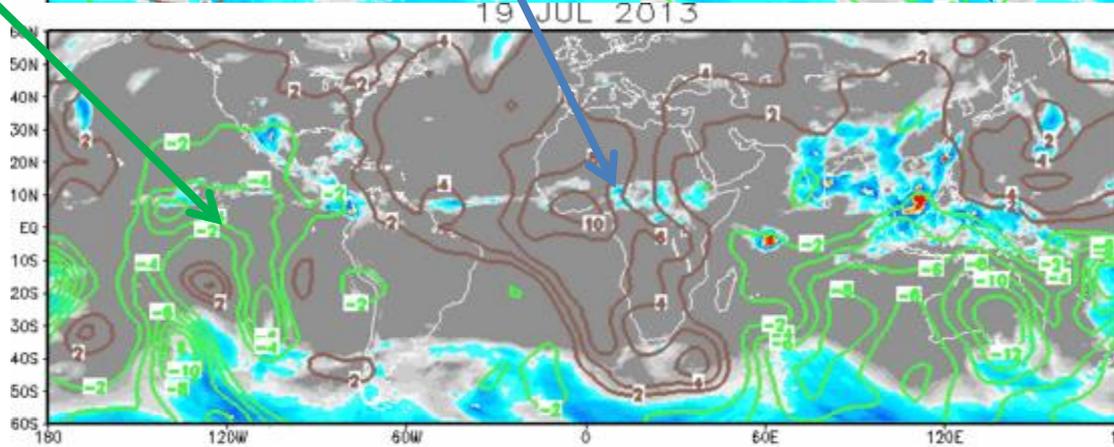
# IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence    Brown: Enhanced Convergence

Well-defined MJO signal propagating from Africa to the Maritime Continent during the first half of July.

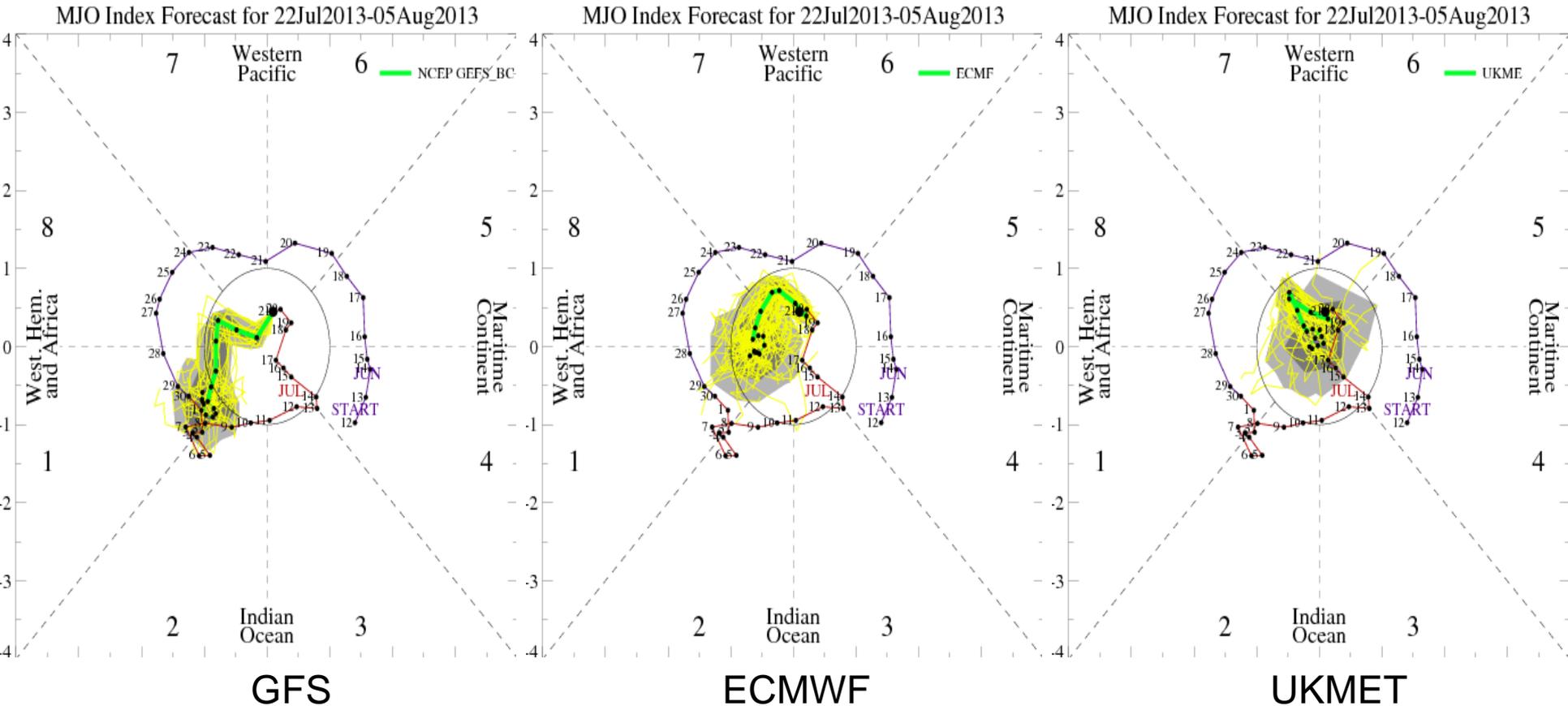


Kelvin Wave



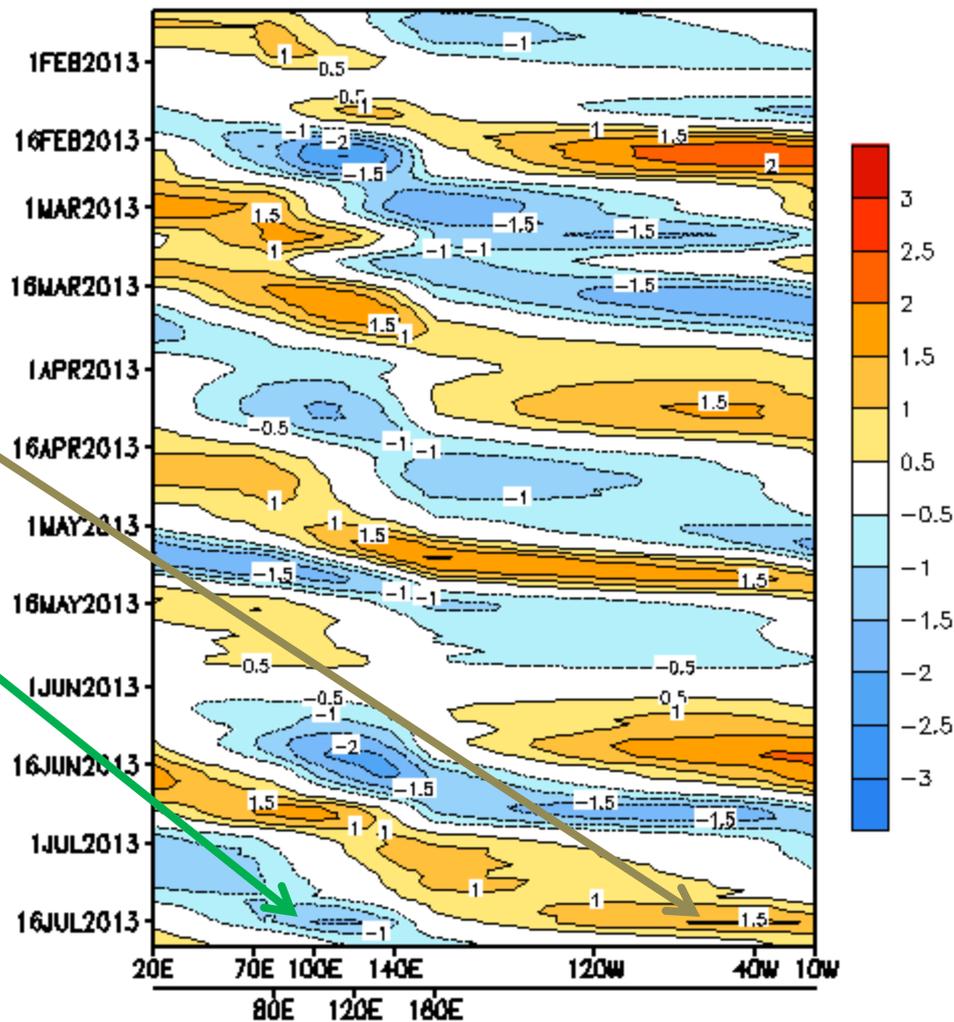
Influence from other modes of variability became more apparent later in the period.

# MJO Observation/Forecast



Both the GFS and European support eastward propagation of a weak (influenced by other modes) MJO signal across the Pacific during the upcoming two weeks

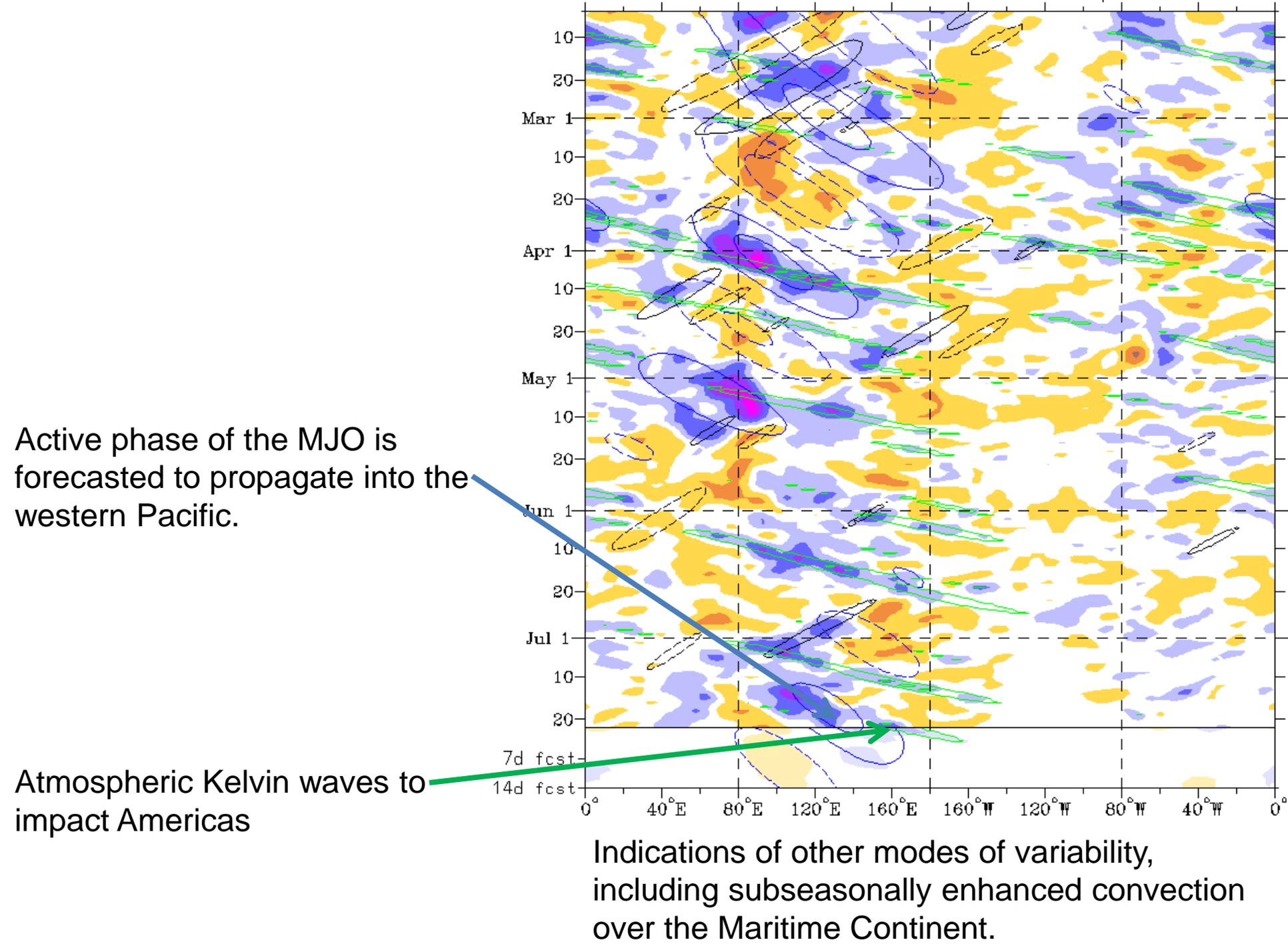
### 5 -day Running Mean



Data updated through 23 Jul 2013

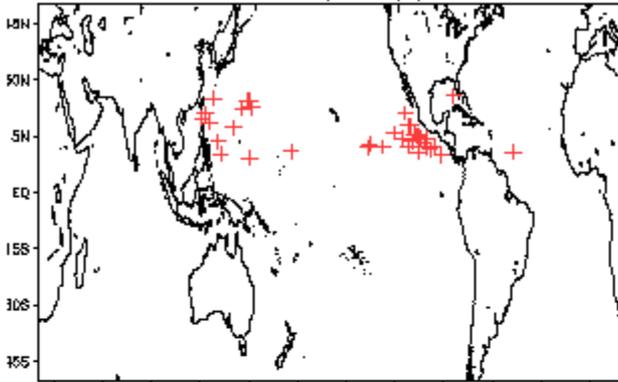
The MJO signal is more apparent on the CPC based MJO index



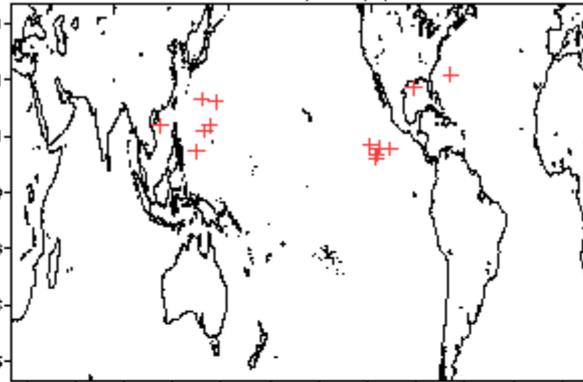


# July Tropical Storm Formation by MJO phase

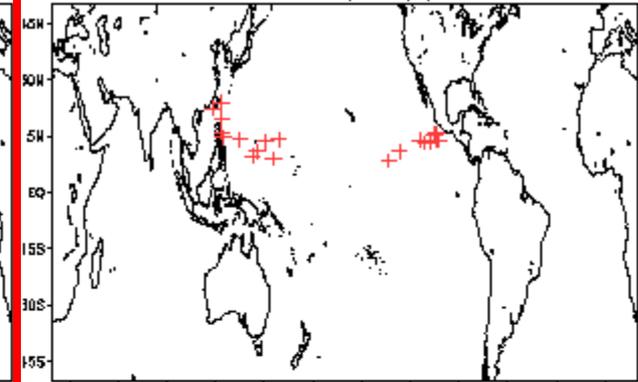
Phase 1 (144 days) 37 storms



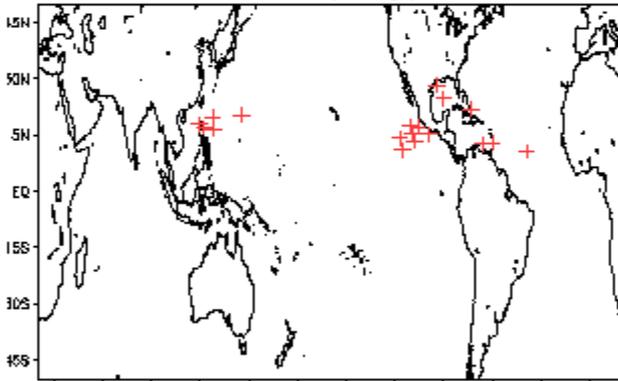
Phase 4 (40 days) 14 storms



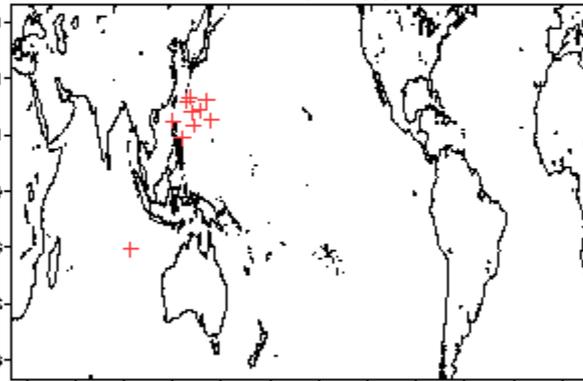
Phase 7 (87 days) 21 storms



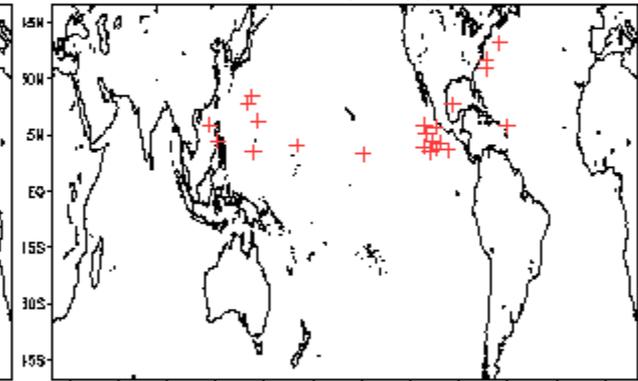
Phase 2 (74 days) 20 storms



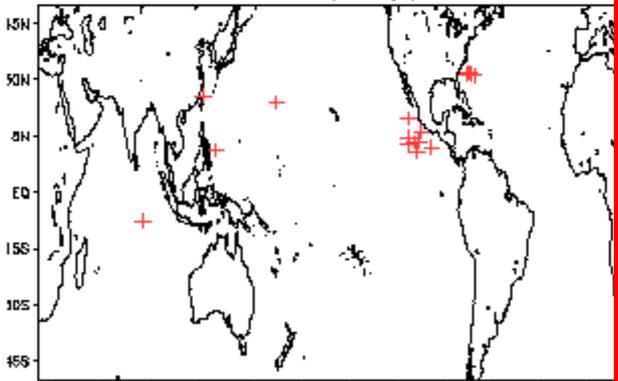
Phase 5 (63 days) 11 storms



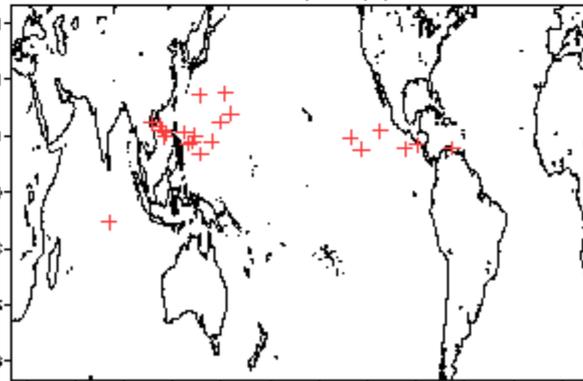
Phase 6 (91 days) 24 storms



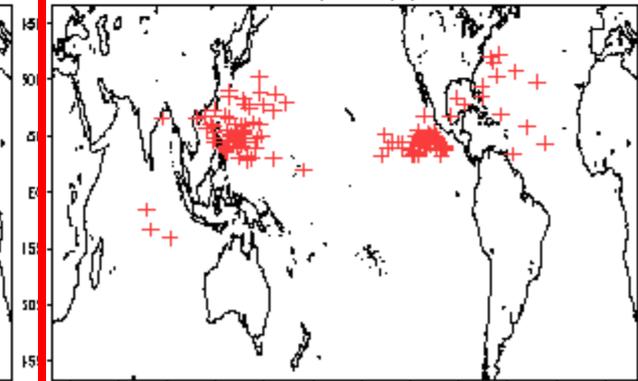
Phase 3 (49 days) 17 storms



Phase 5 (60 days) 23 storms



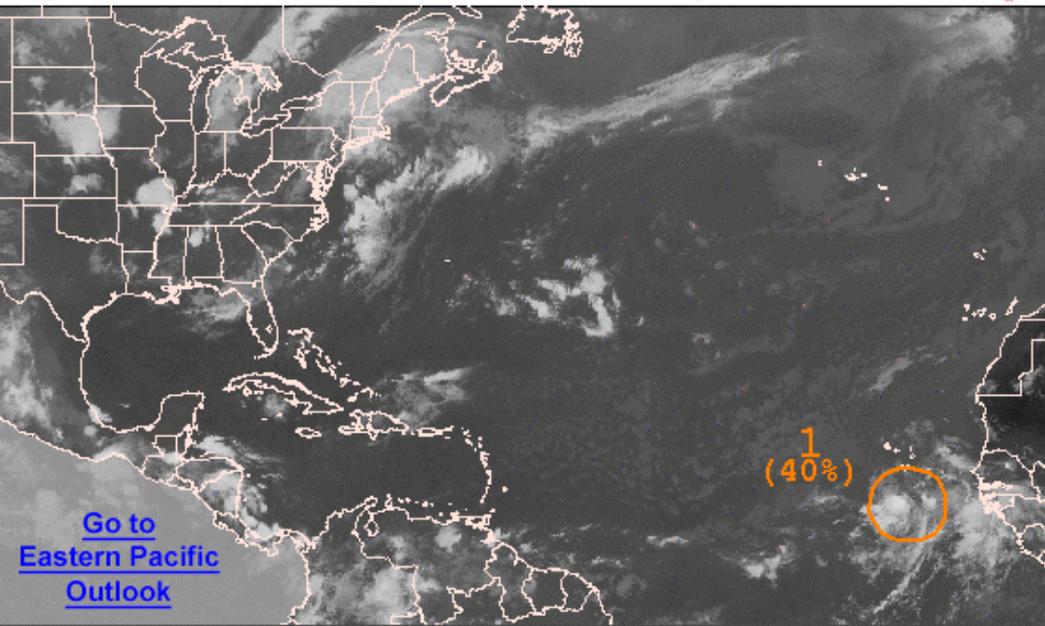
Null (480 days) 130 storms





# Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



800 AM EDT TUE JUL 23 2013 Satellite Image: 0652 AM EDT

Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

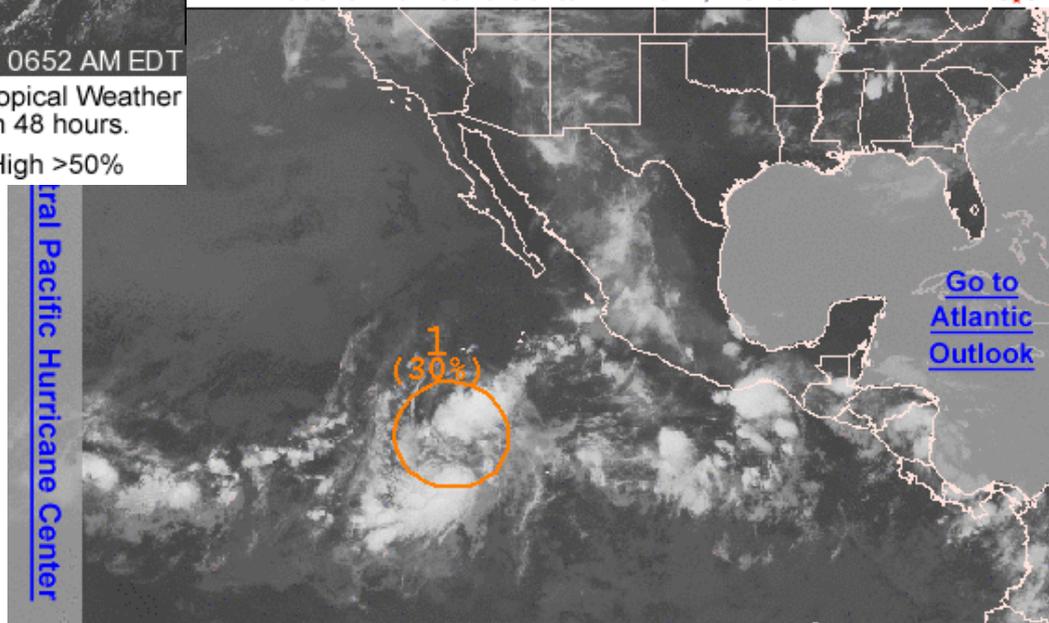
Low <30%
  Medium 30-50%
  High >50%

Increasing favorability for TC development in the eastern Pacific – low currently moving westward.

NHC indicates moderate confidence of TD formation today – environment becomes less favorable beyond 24hr.

# Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



500 AM PDT TUE JUL 23 2013 Satellite Image: 0352 AM PDT

Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

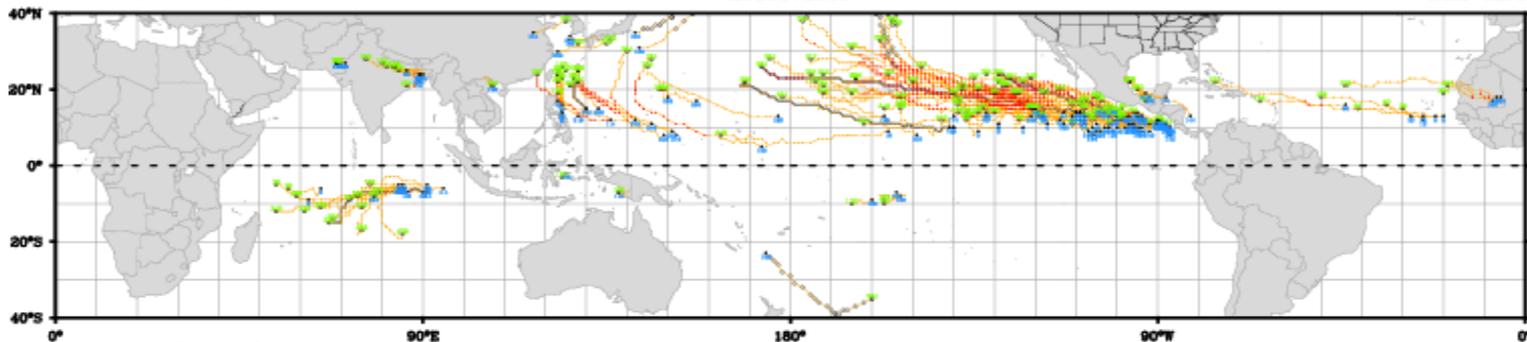
Low <30%
  Medium 30-50%
  High >50%

TC Track(0-384 hr)

2013072300

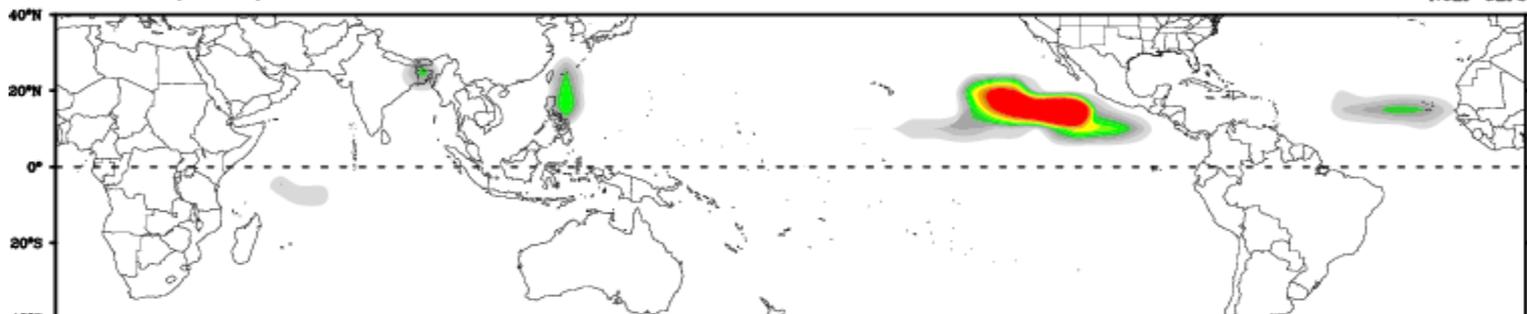
NCEP GEFS

Active eastern Pacific basin expected – current disturbance forecasted to move unusually far to the west



Track Count (0-96 hr)

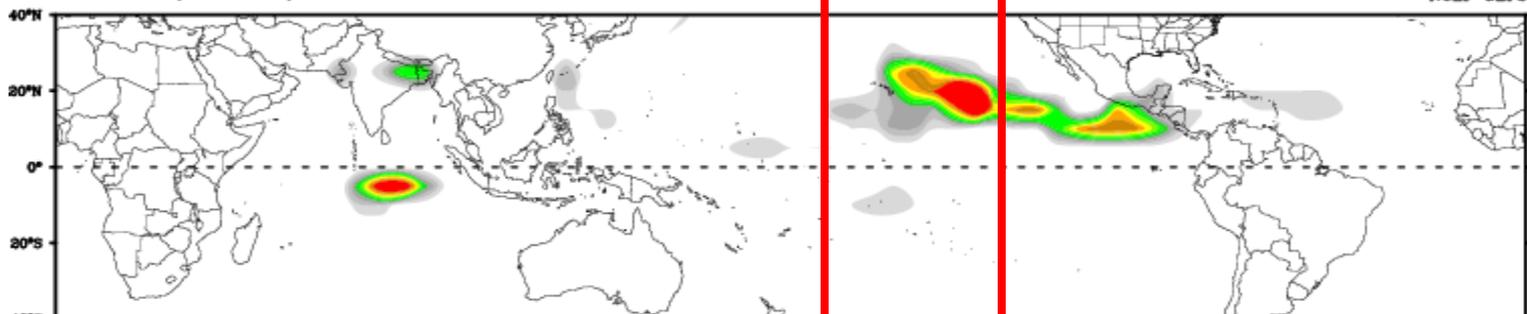
NCEP GEFS



Days 1-4

Track Count (102-192 hr)

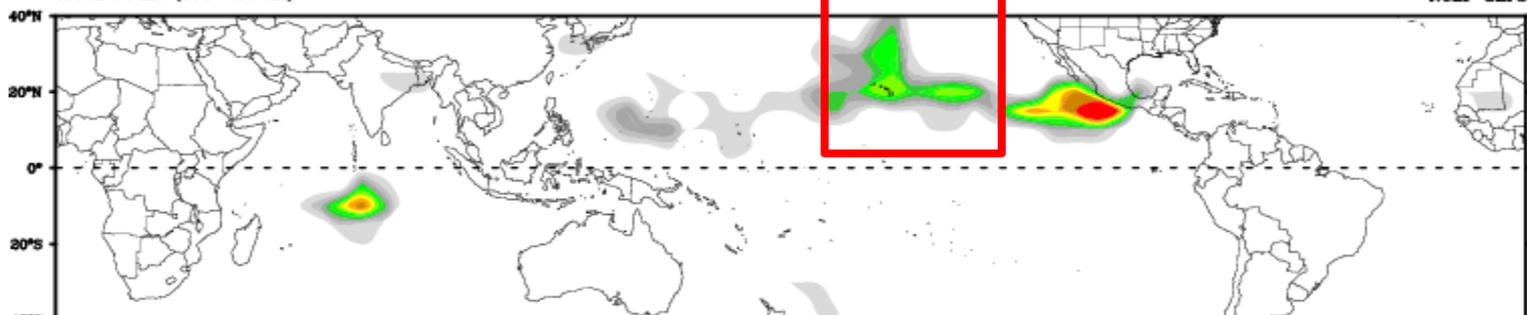
NCEP GEFS



Day 5-8

Track Count (198-288 hr)

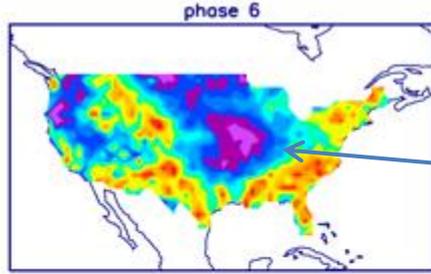
NCEP GEFS



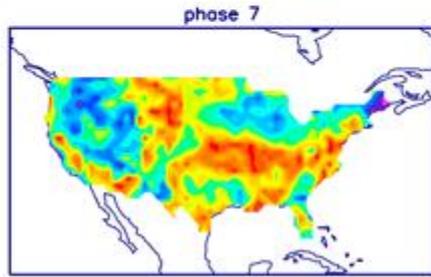
Day 9-12

# Connections to U.S. Impacts

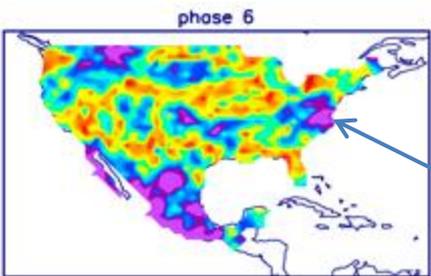
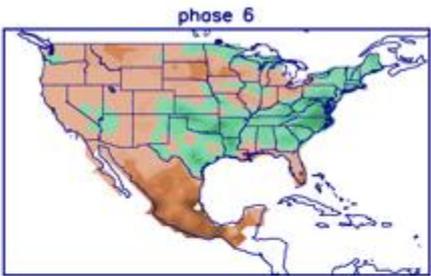
# US Composites based on MJO Phase



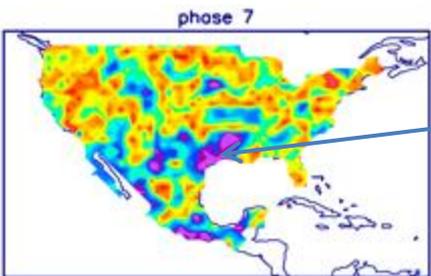
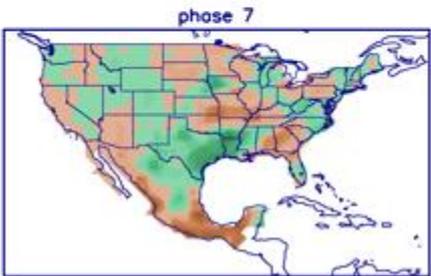
Indicates a shift toward milder conditions across the north-central and central portions of the CONUS.



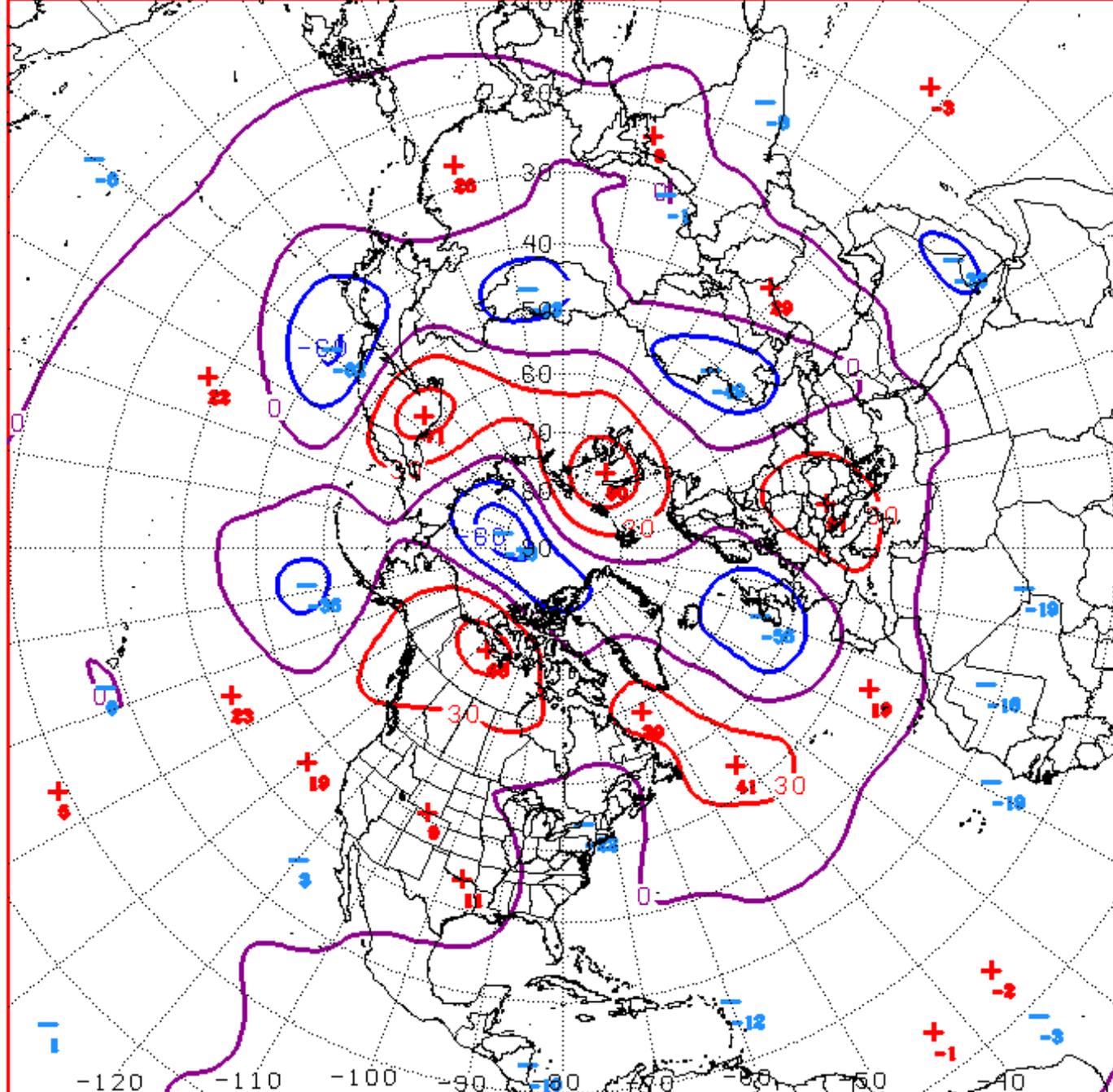
Signal becomes weaker in Phase-7.



Also shows a correlation between enhanced rainfall in the mid-Atlantic and phase 6.

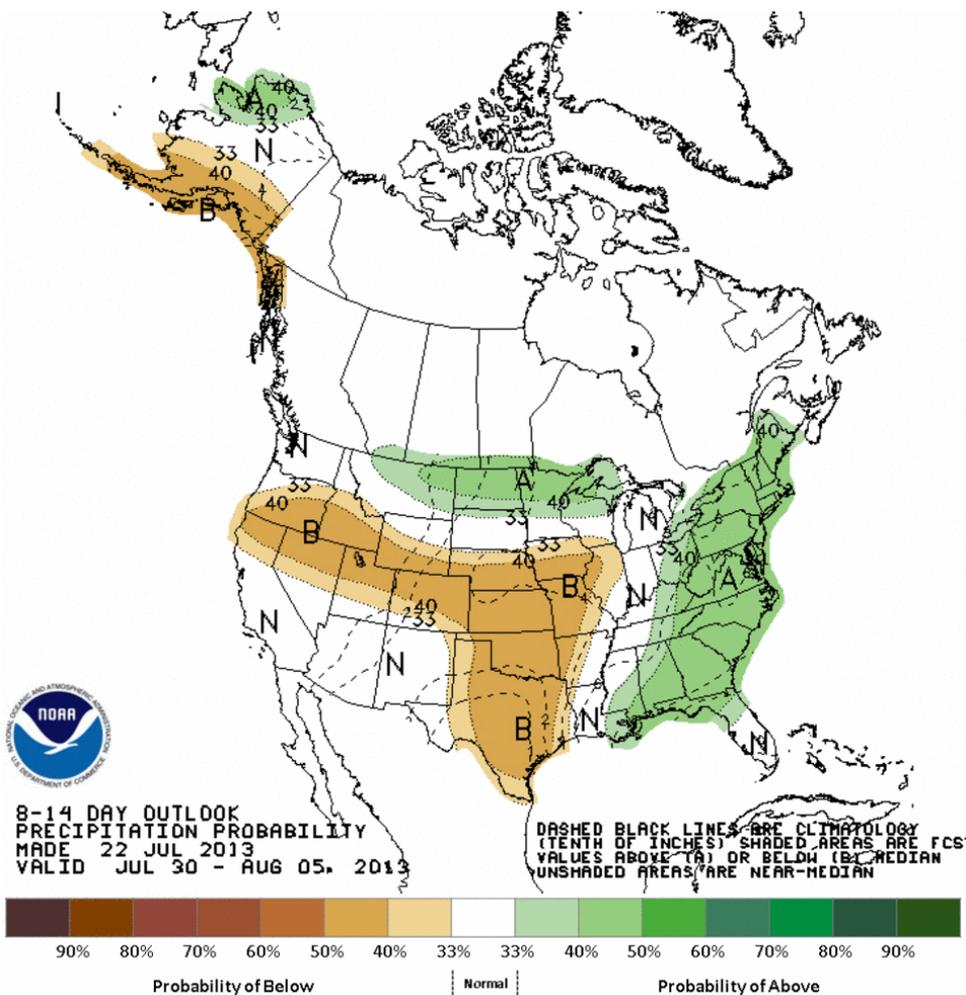
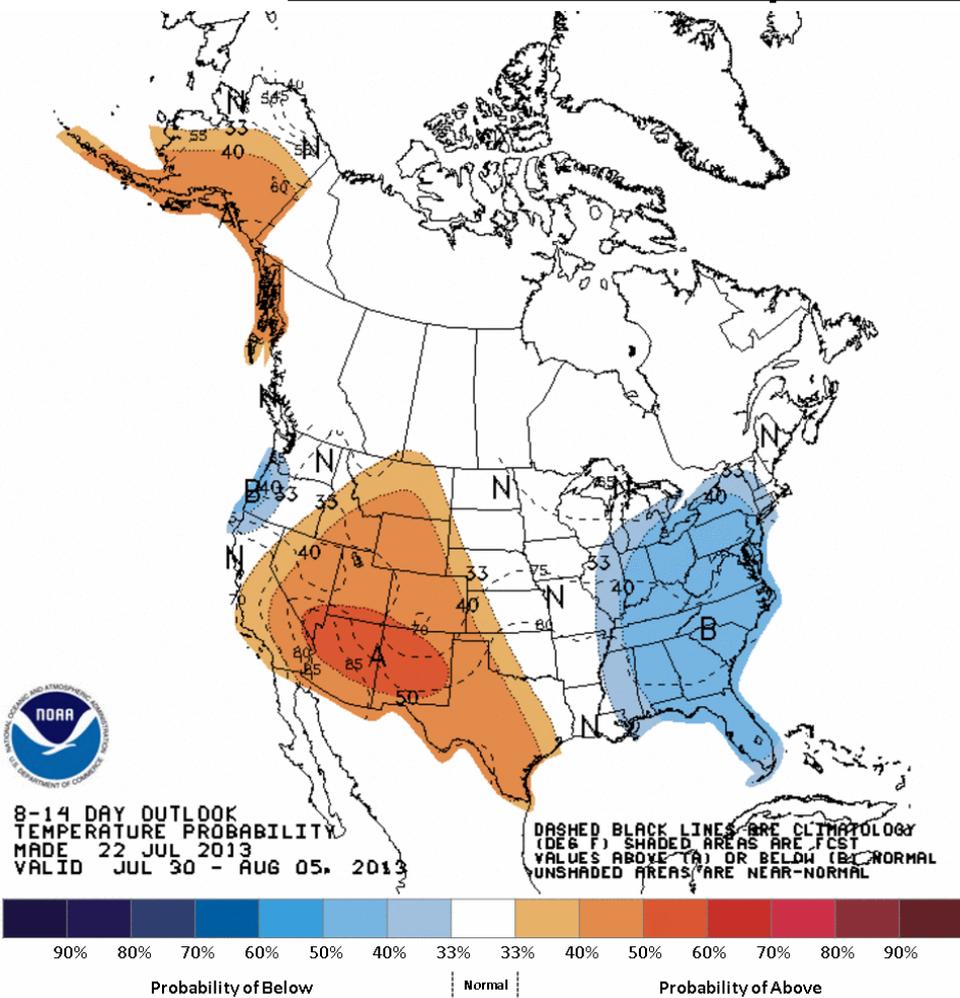


Indicates a shift towards wetter conditions along the western Gulf Coast in Phase-7



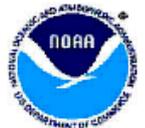
D+11 500 MB ANOMALIES FROM 00Z ECMM  
 CPC MAP MADE JUL 23 2013 1106 UTC CNTD AUG 03 2013

# Week 2 – Temperature and Precipitation

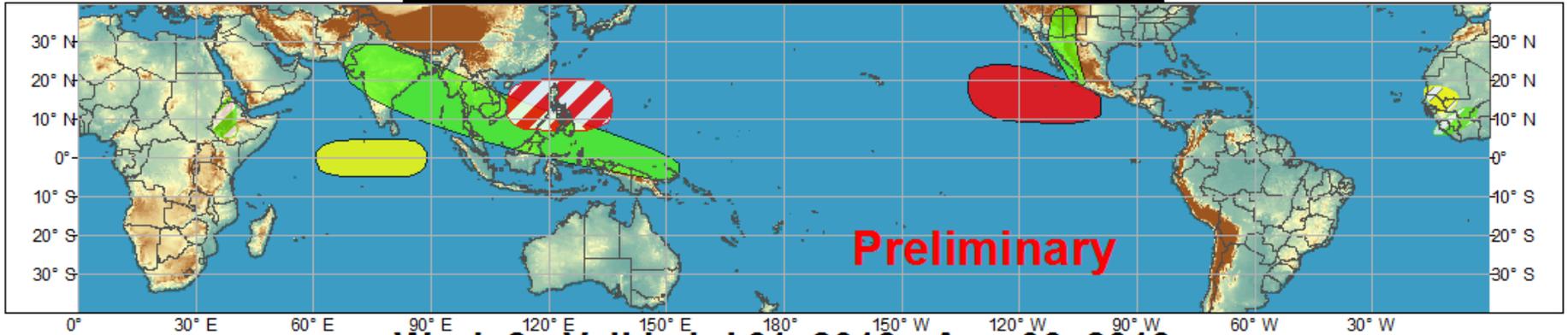




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