

Global Tropics Hazards And Benefits Outlook

July 2, 2013

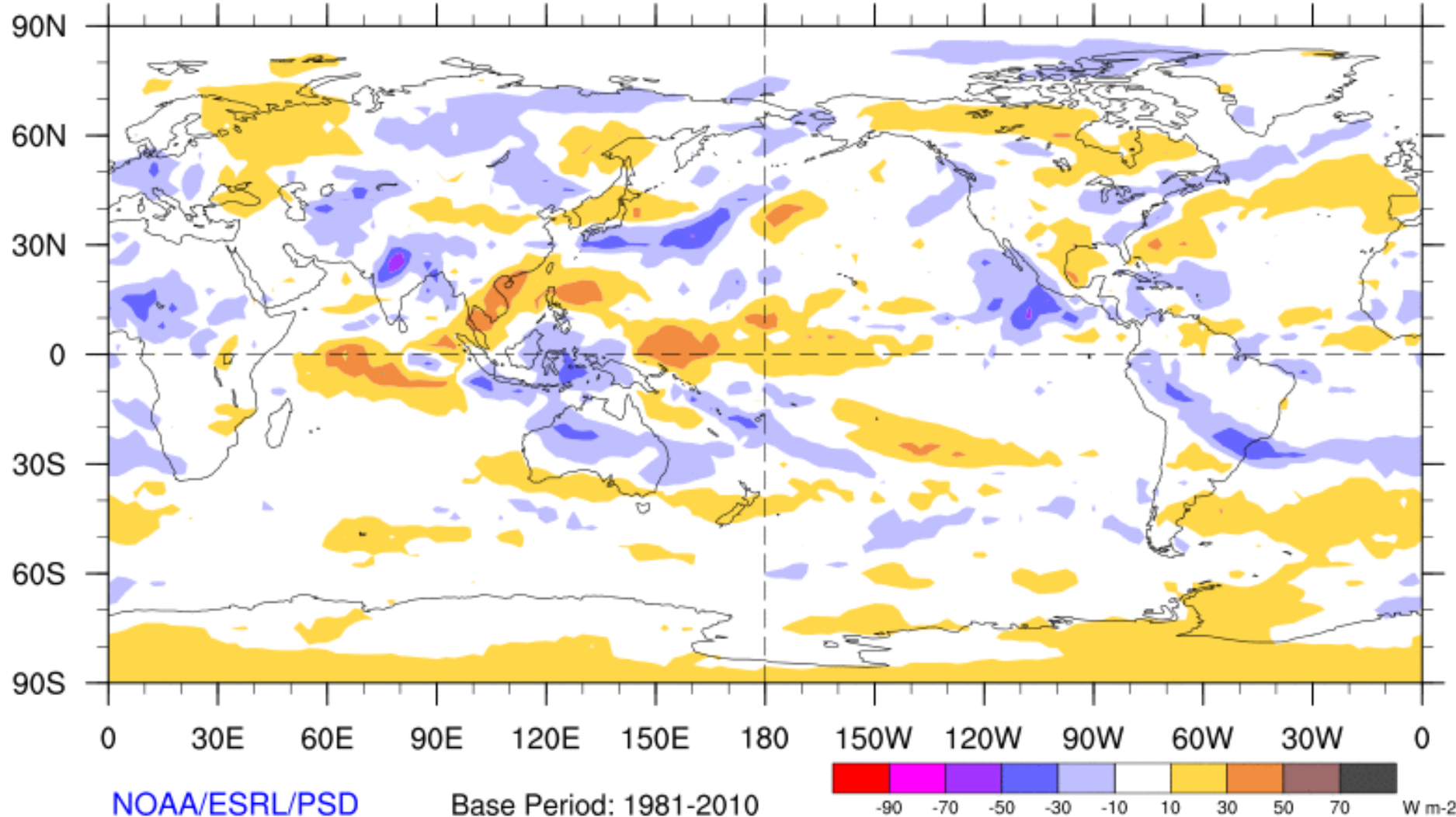
Adam Allgood

Outline

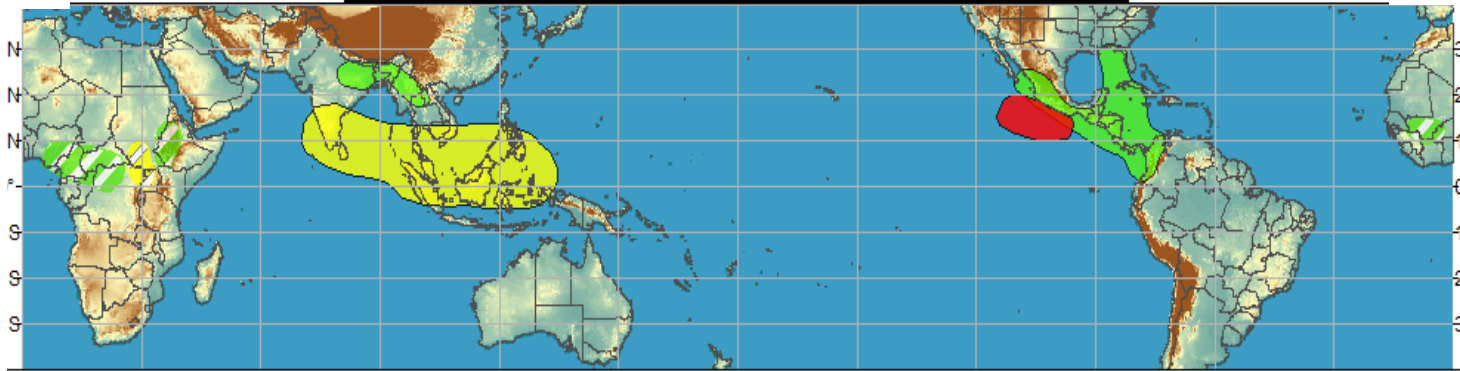
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

7-Day Average OLR Anomaly

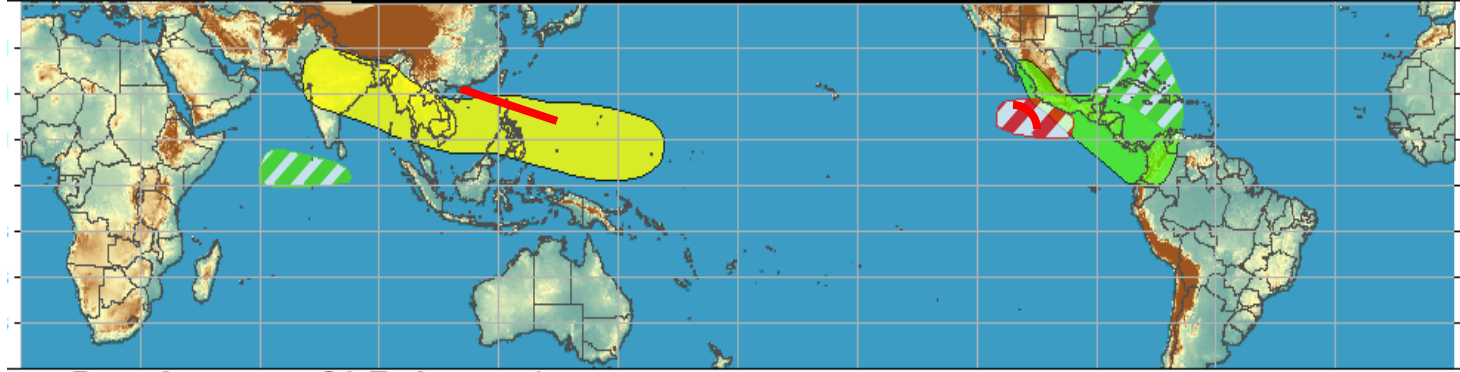
2013/06/24 - 2013/06/30



Week 1 - Valid: Jun 26, 2013 - Jul 02, 2013

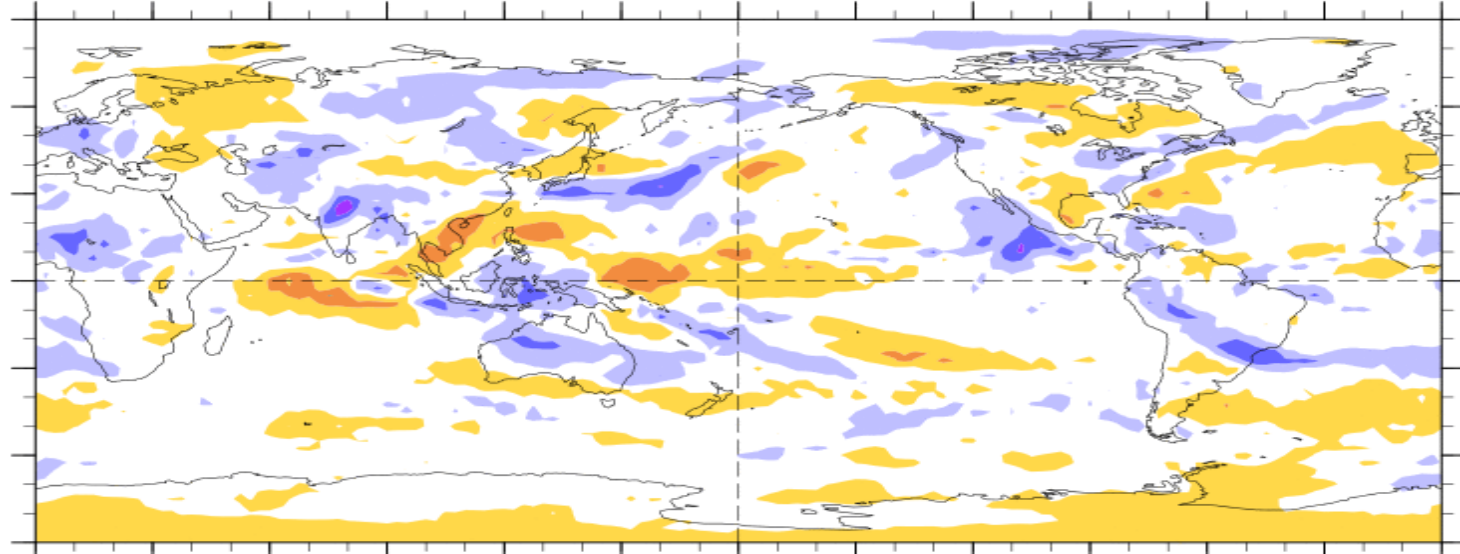


Week 2 - Valid: Jul 03, 2013 - Jul 09, 2013



7-Day Average OLR Anomaly

2013/06/24 - 2013/06/30



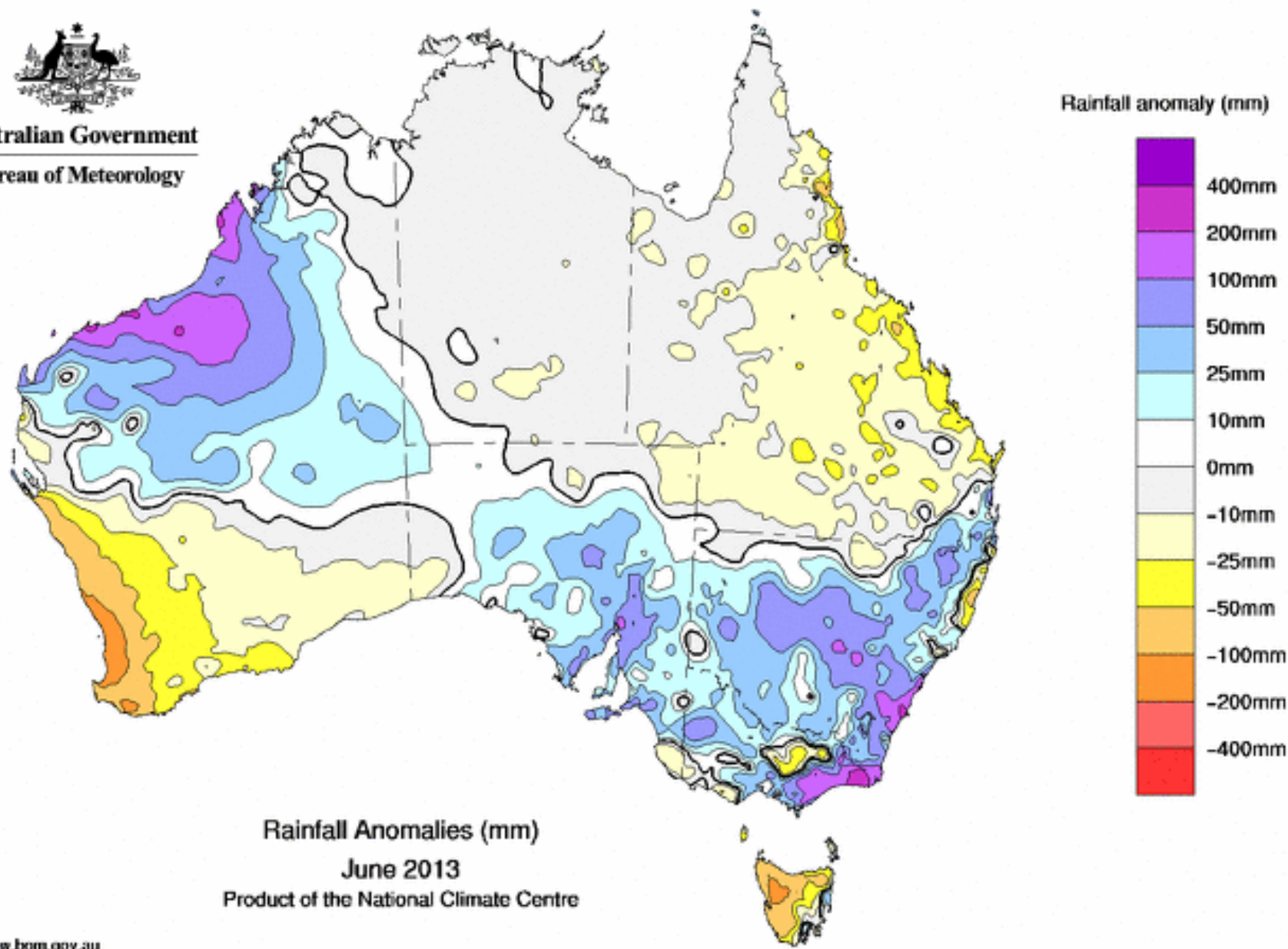
Outlook Review

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Australian Government
Bureau of Meteorology



<http://www.bom.gov.au>

Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions are favored to continue through Northern Hemisphere spring 2013

MJO and other subseasonal tropical variability:

- The MJO remained active over the past week, although other modes of subseasonal variability continue to play a role in the global tropical convective anomalies. The MJO convectively enhanced phase is currently over the Western Hemisphere.
- There is considerable spread among the dynamical and statistical model MJO forecasts, with some limiting the eastward propagation of the signal and others continuing propagation with various amplitudes.

Extratropics:

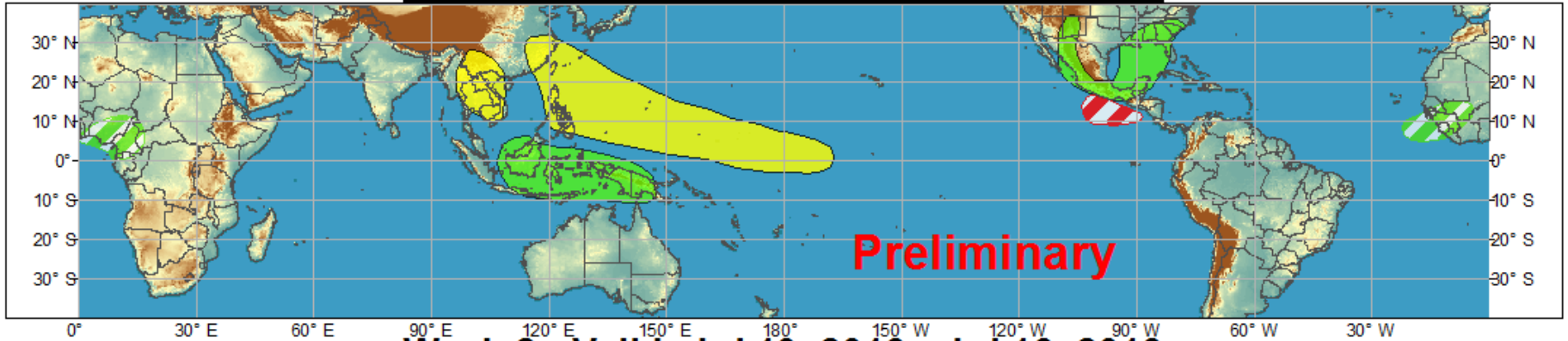
- The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current and forecast phases of the MJO. The forecast includes enhanced chances of above normal precipitation over the eastern half of the CONUS and an enhanced Southwest Monsoon.



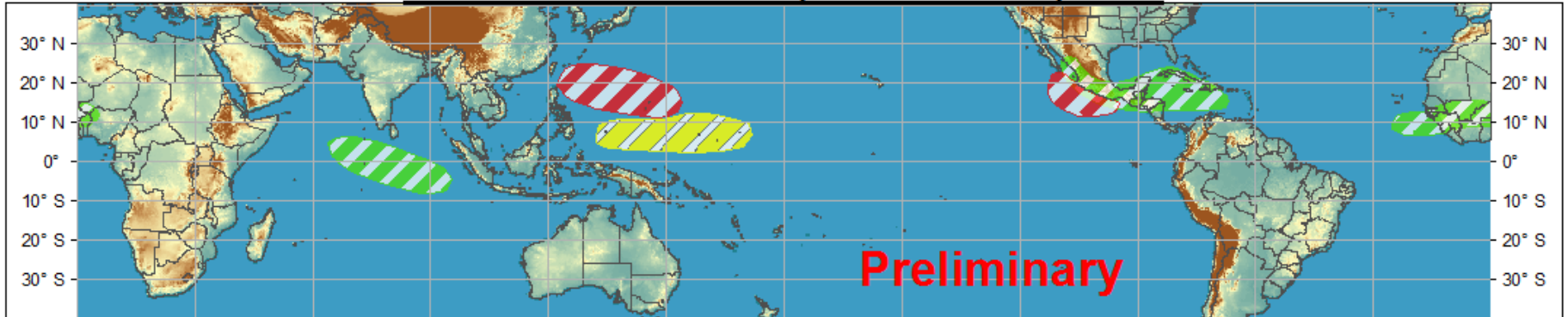
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 03, 2013 - Jul 09, 2013



Week 2 - Valid: Jul 10, 2013 - Jul 16, 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: 07/02/2013

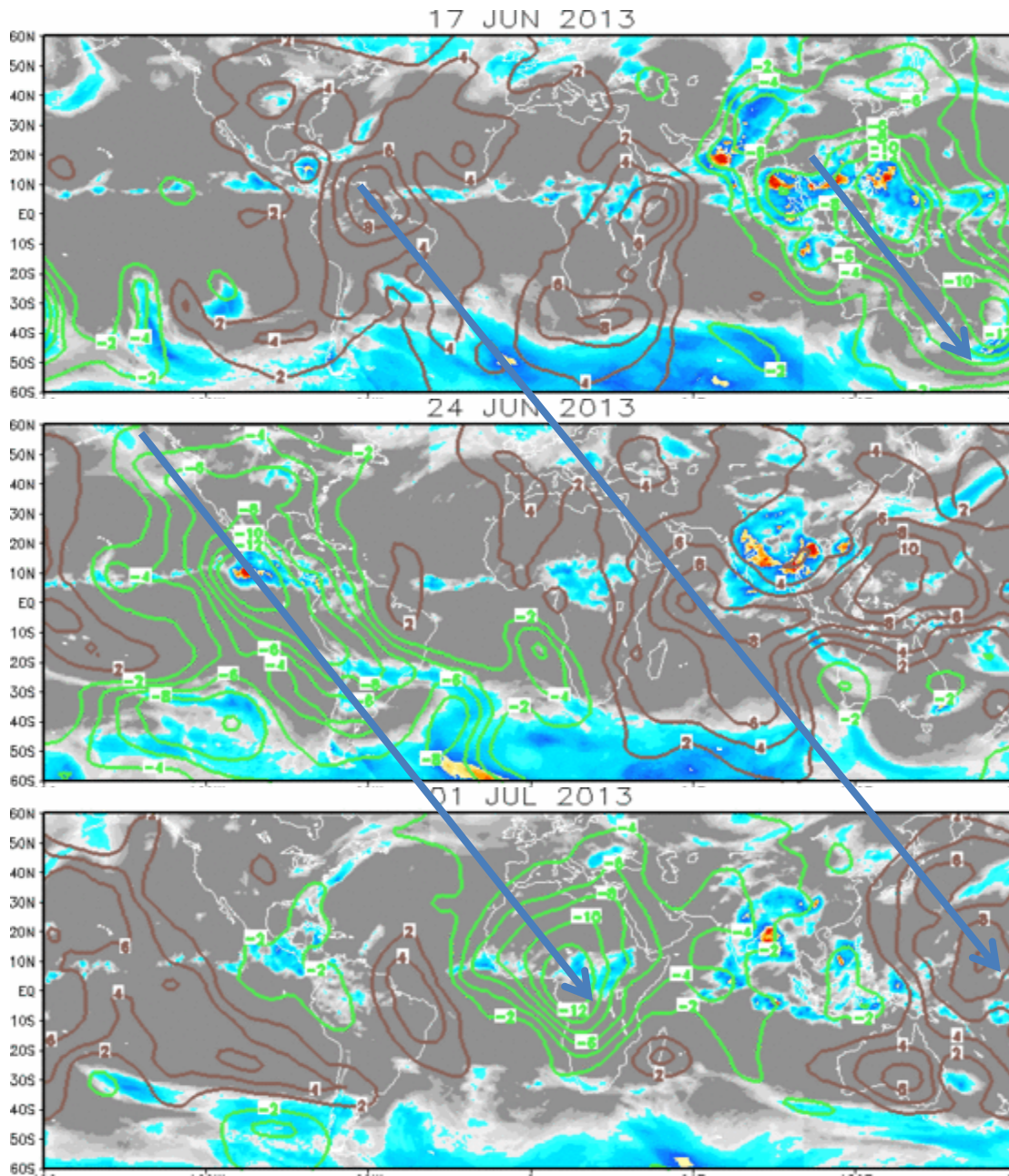
Forecaster: Allgood

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.



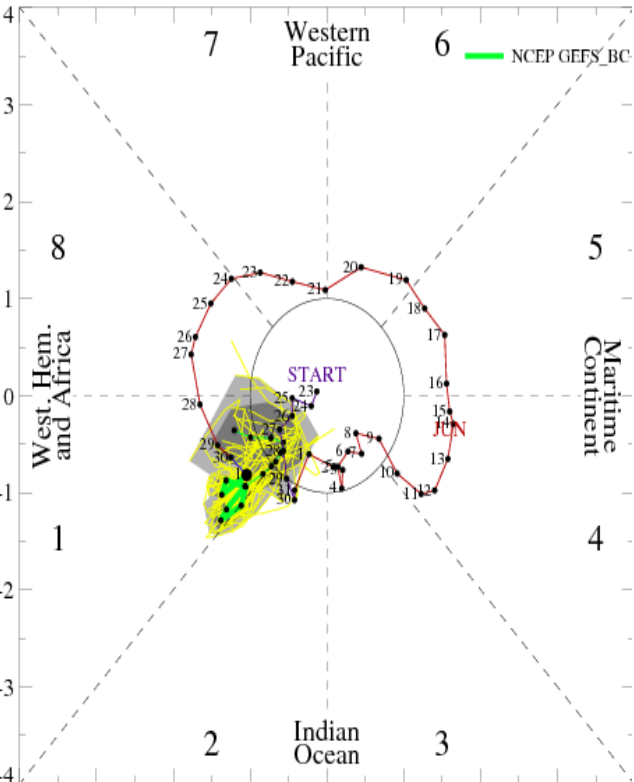
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence



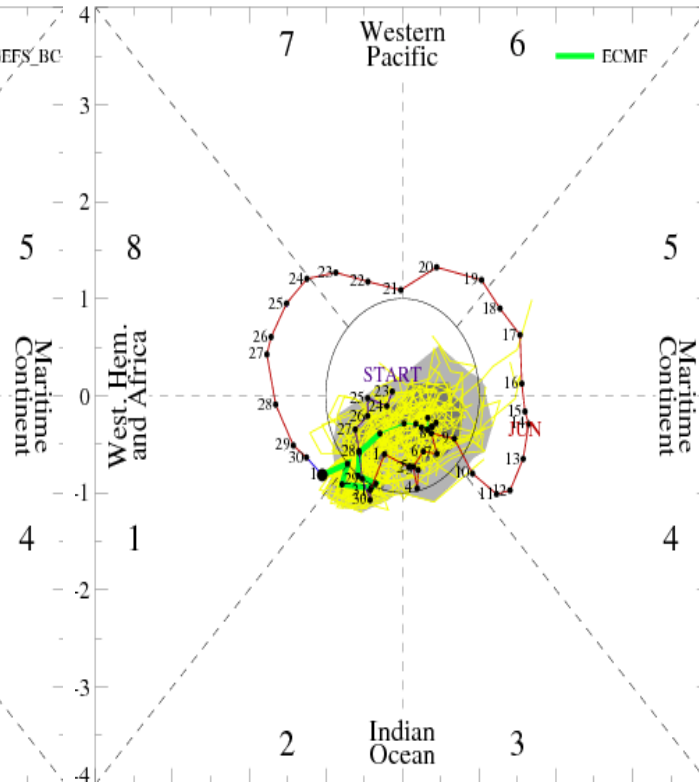
MJO Observation/Forecast

MJO Index Forecast for 02Jul2013-16Jul2013



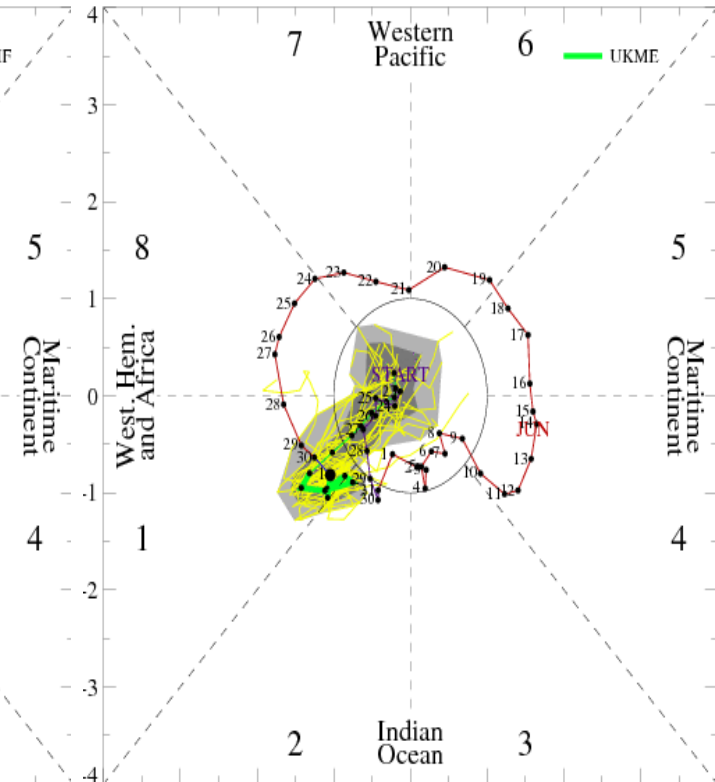
GFS

MJO Index Forecast for 02Jul2013-16Jul2013



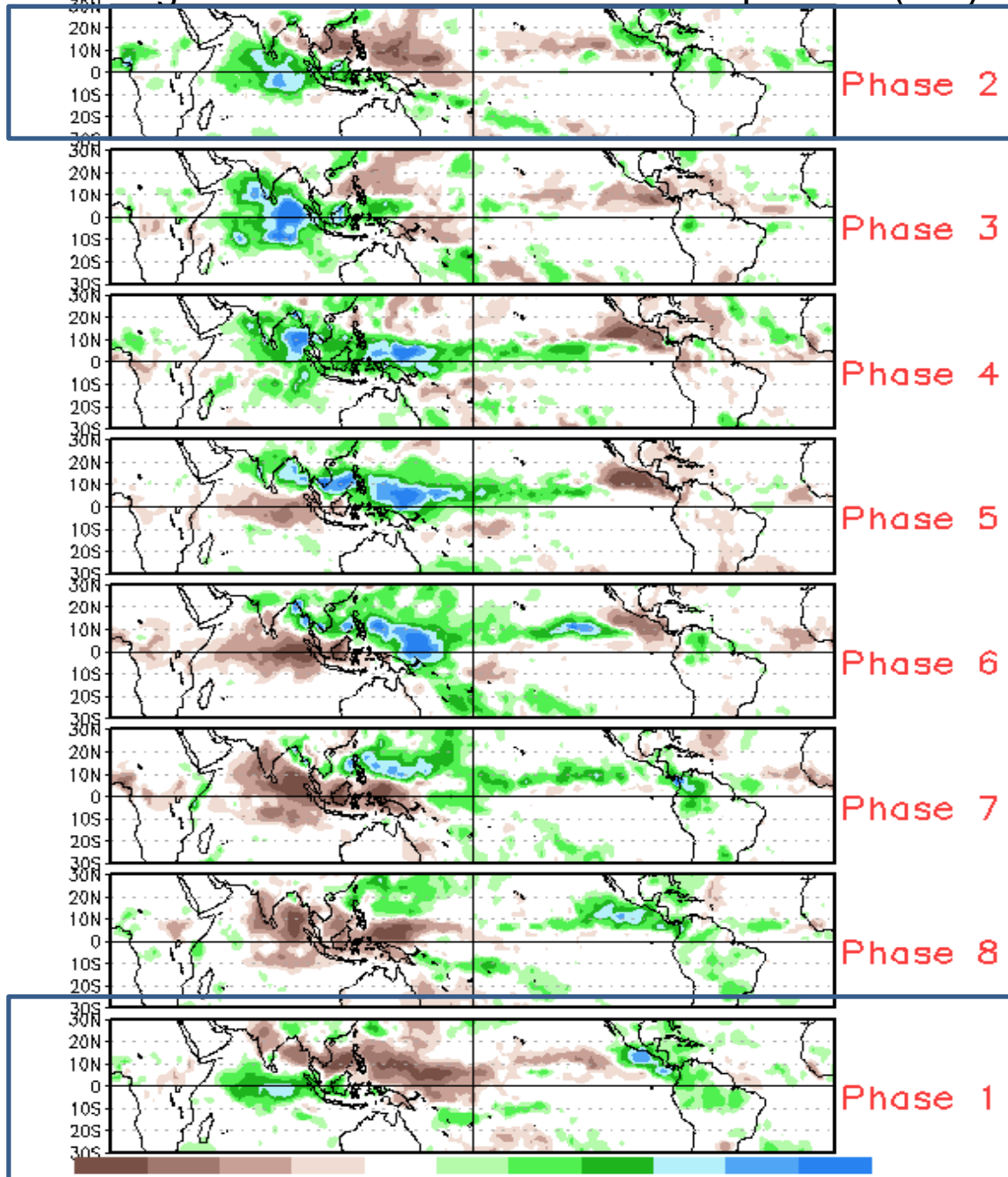
ECMWF

MJO Index Forecast for 02Jul2013-16Jul2013



UKMET

Average Conditions when the MJO is present (May-Sep)



Phase 2

Phase 3 CAVEAT:

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

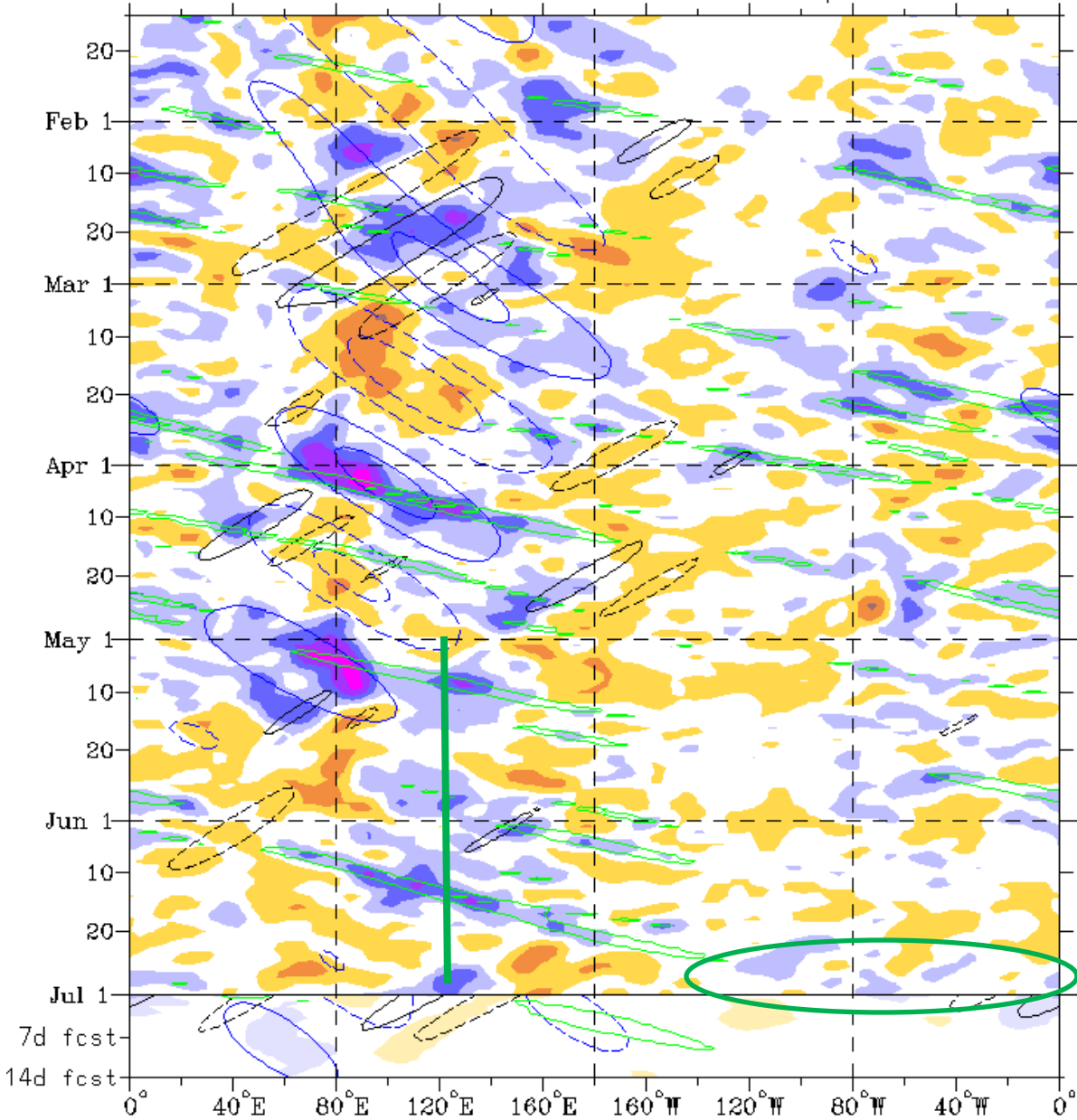
Phase 1

30N
20N
10N
0
10S
20S
30S

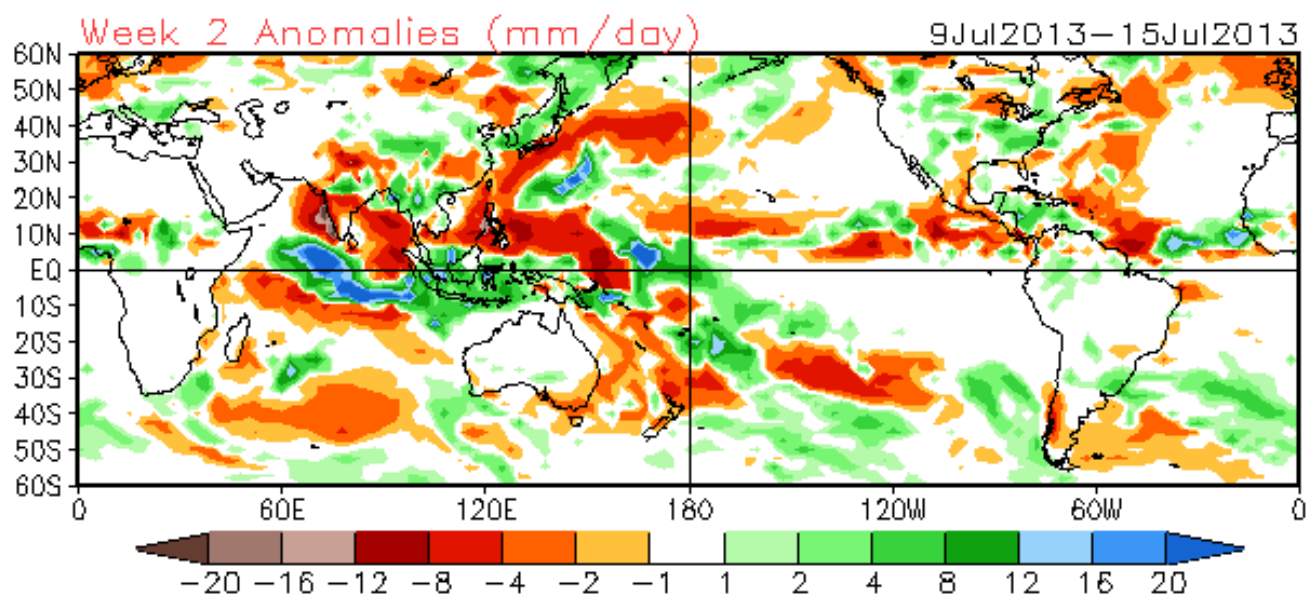
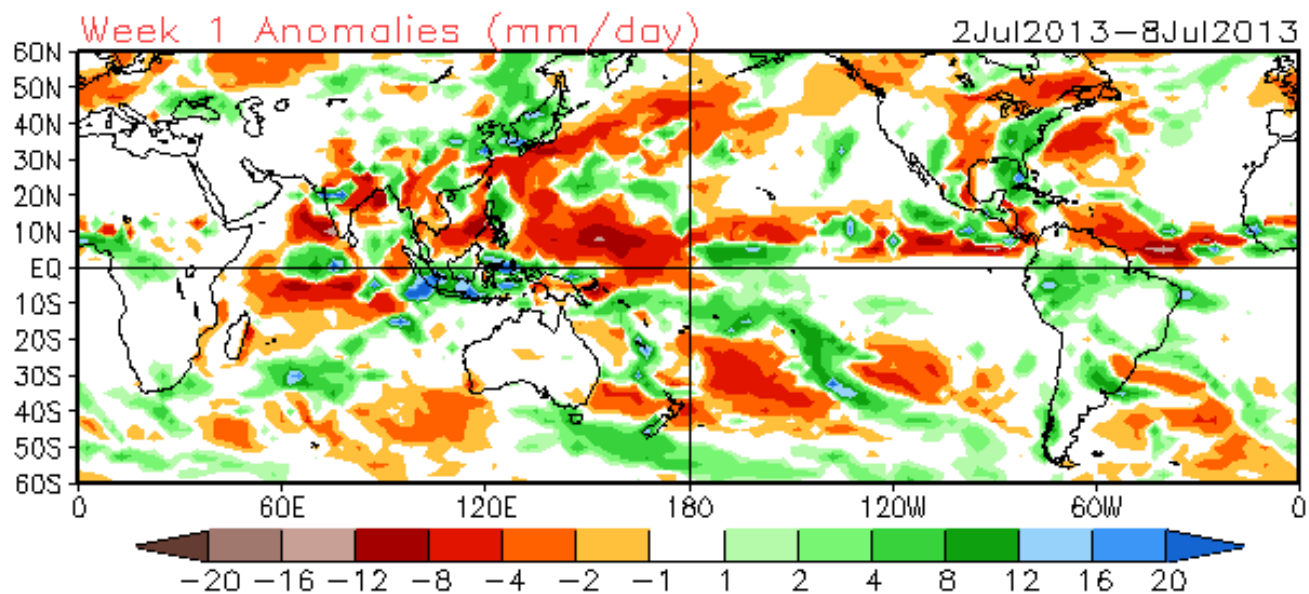
30N
20N
10N
0
10S
20S
30S



Active phase of the MJO forecast to impact the Western Hemisphere.

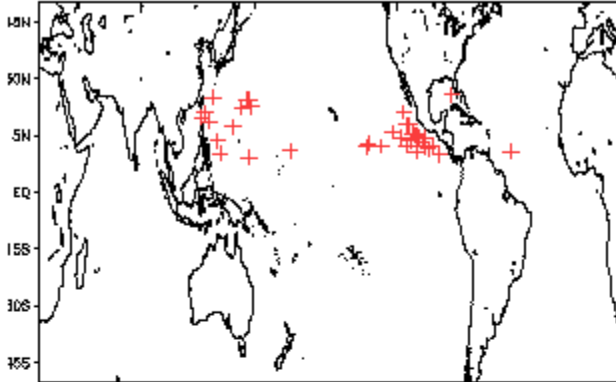


There are indications of other modes of variability.

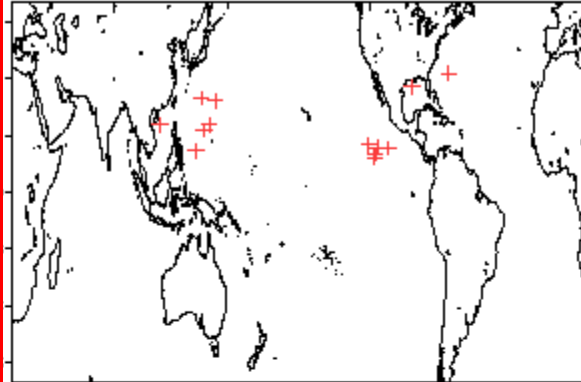


July Tropical Storm Formation by MJO phase

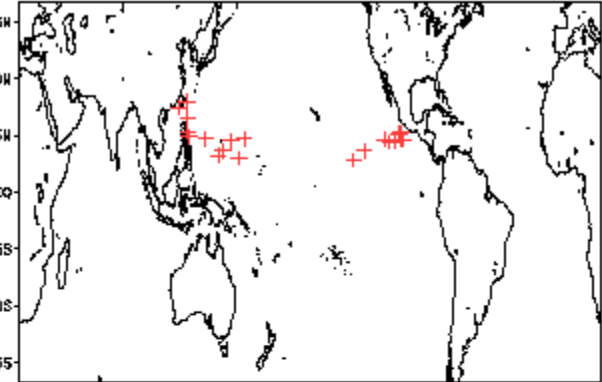
Phase 1 (144 days) 37 storms



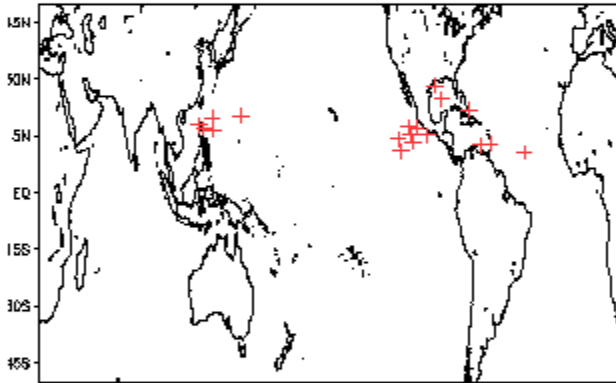
Phase 4 (40 days) 14 storms



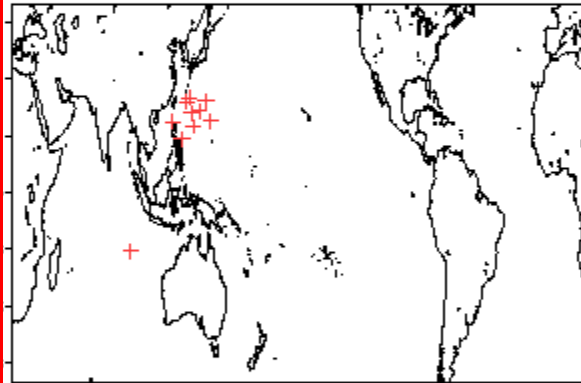
Phase 7 (87 days) 21 storms



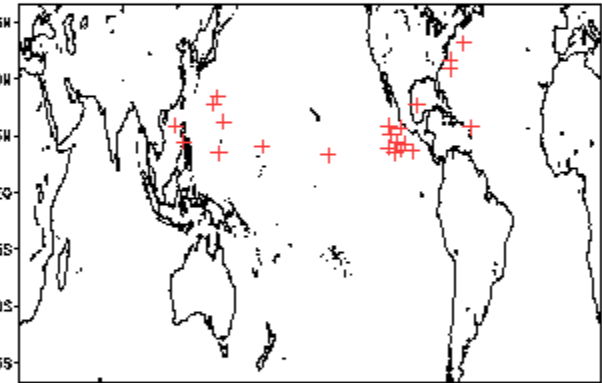
Phase 2 (74 days) 20 storms



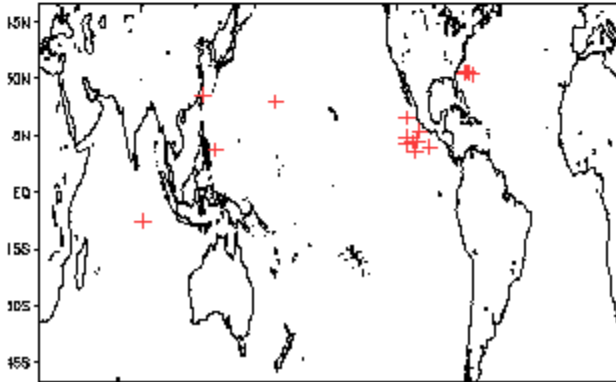
Phase 5 (63 days) 11 storms



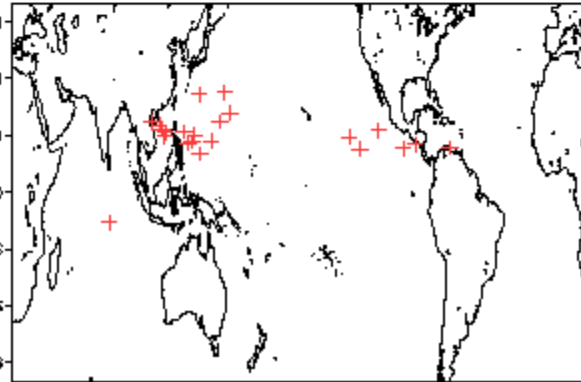
Phase 8 (61 days) 24 storms



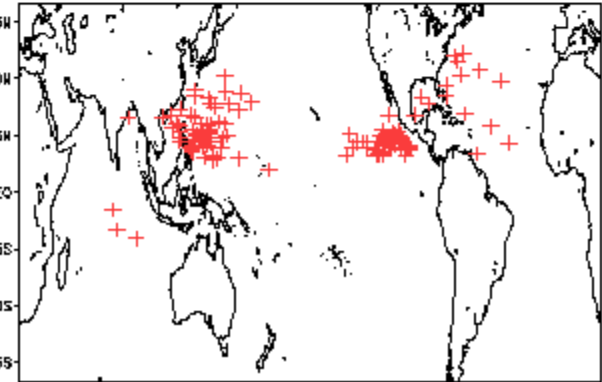
Phase 3 (49 days) 17 storms



Phase 6 (60 days) 23 storms



Null (480 days) 130 storms





Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



800 AM EDT TUE JUL 2 2013

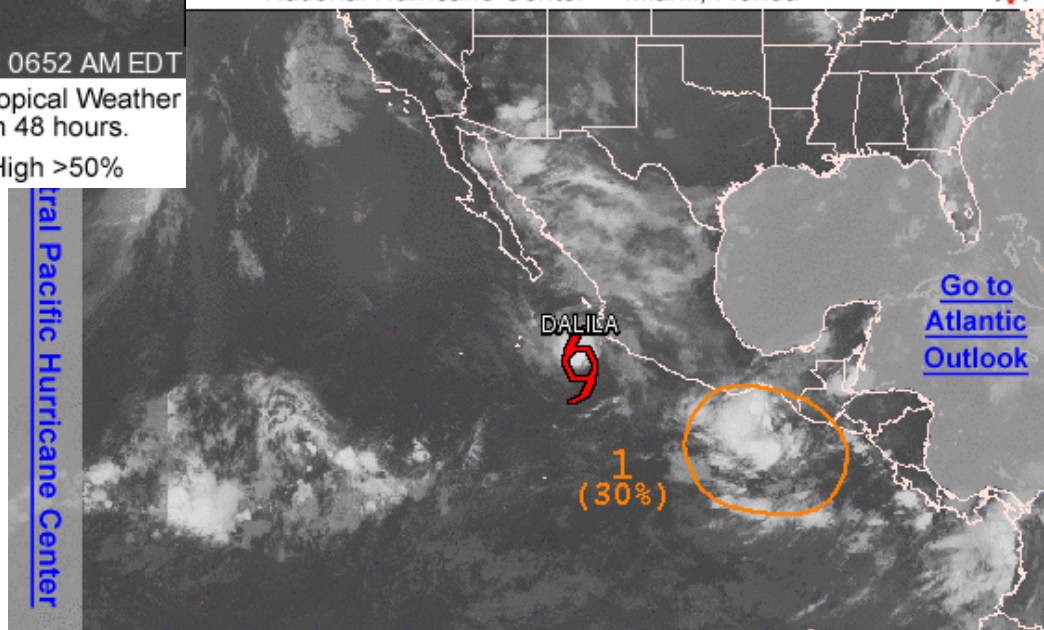
Satellite Image: 0652 AM EDT

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%

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

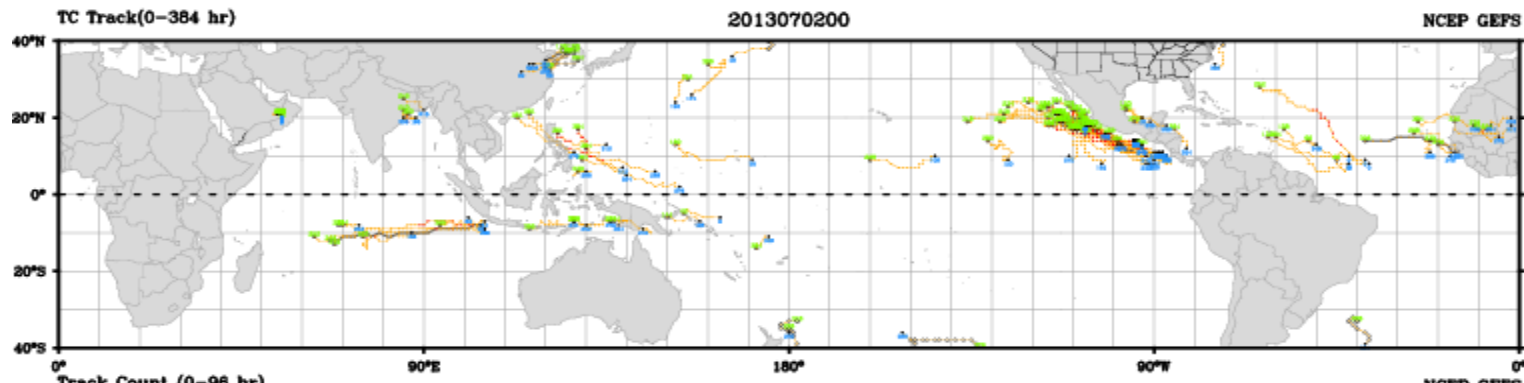


500 AM PDT TUE JUL 2 2013

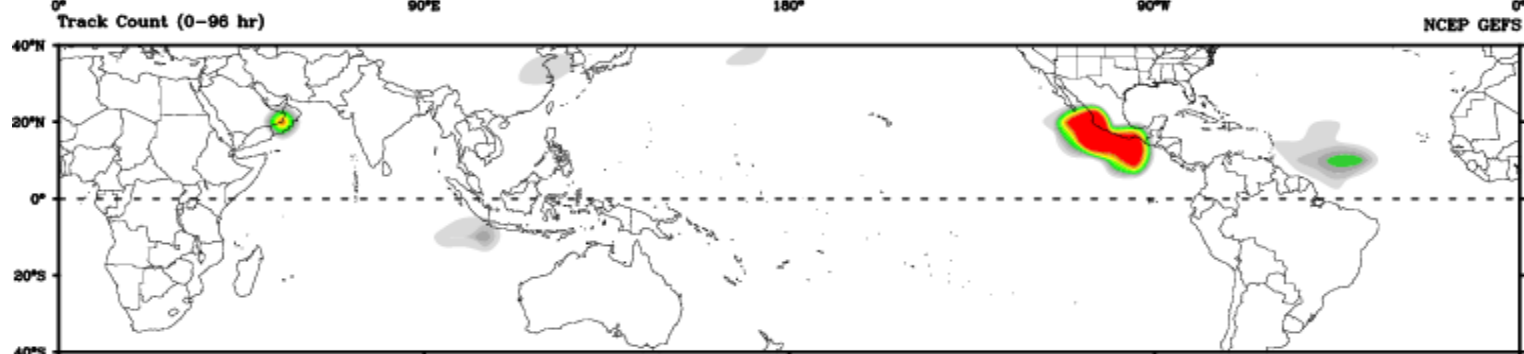
Satellite Image: 0352 AM PDT

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

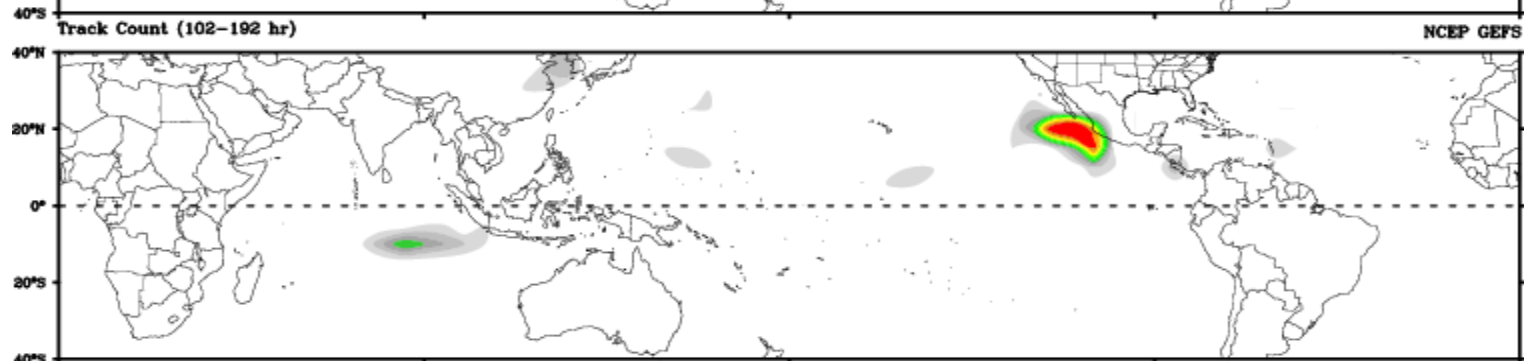
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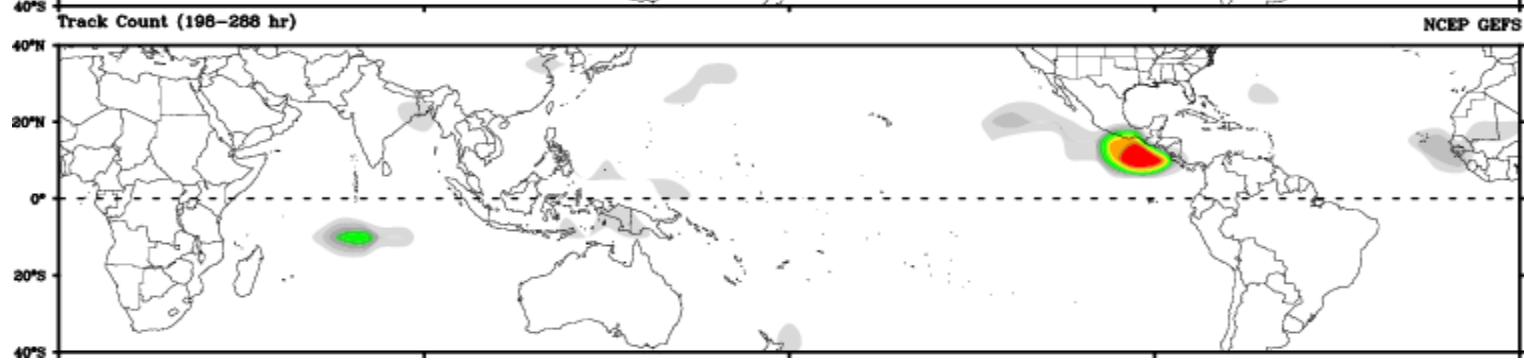
Days 1-4



Day 5-8

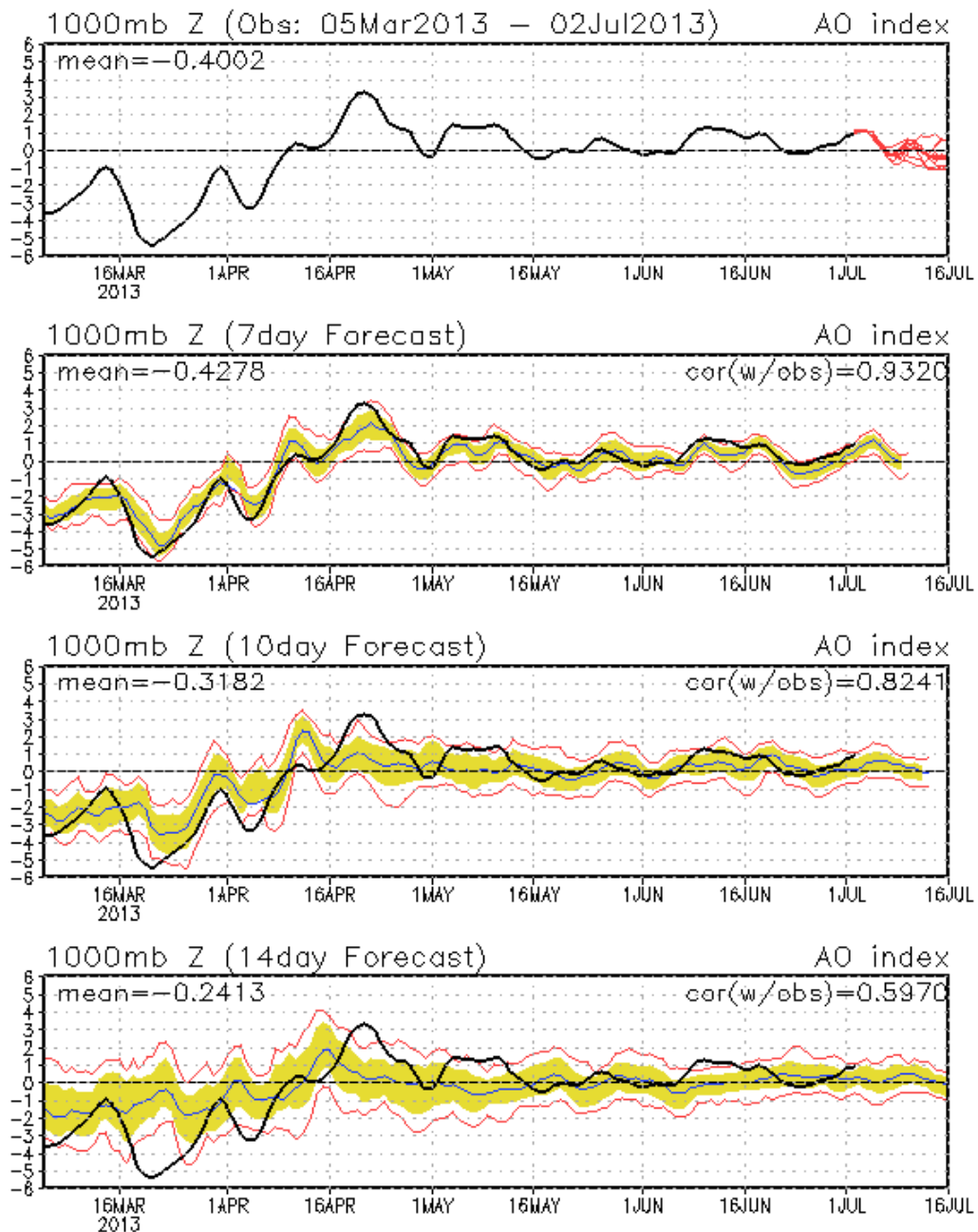


Day 9-12



Connections to U.S. Impacts

AO: Observed & ENSM forecasts



US Composites based on MJO Phase

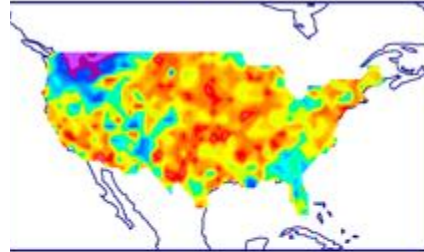
T composite

Significance

phase 1



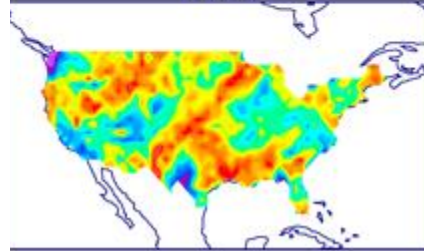
phase 1



phase 2



phase 2

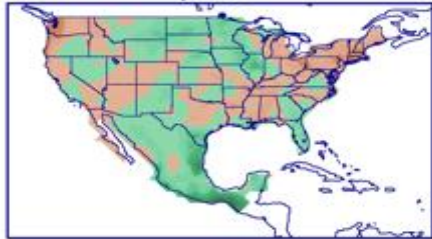


Indicates a shift toward milder conditions across the eastern half of the U.S., with some significance across the Corn Belt and mid-Atlantic.

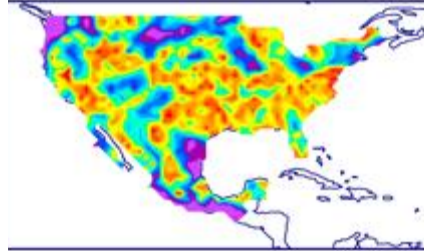
P composite

Significance

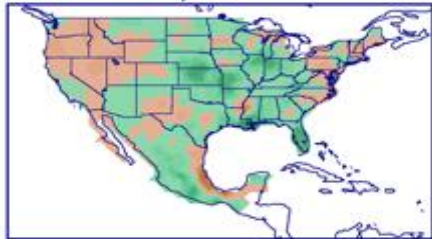
phase 1



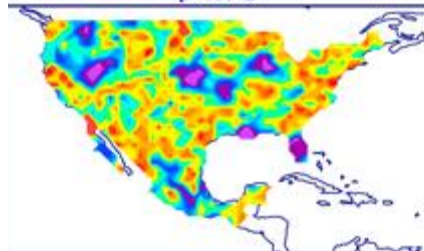
phase 1



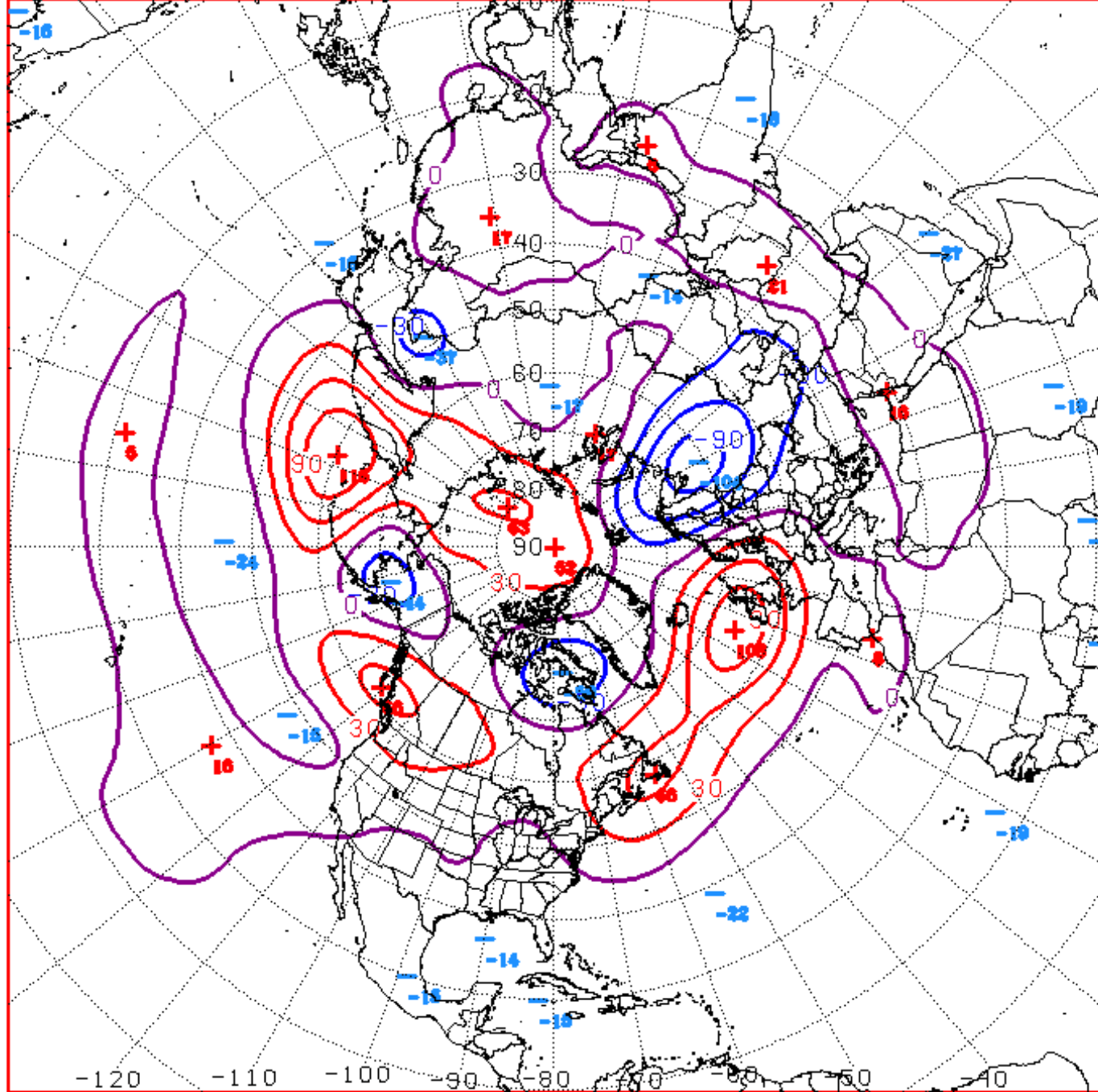
phase 2



phase 2

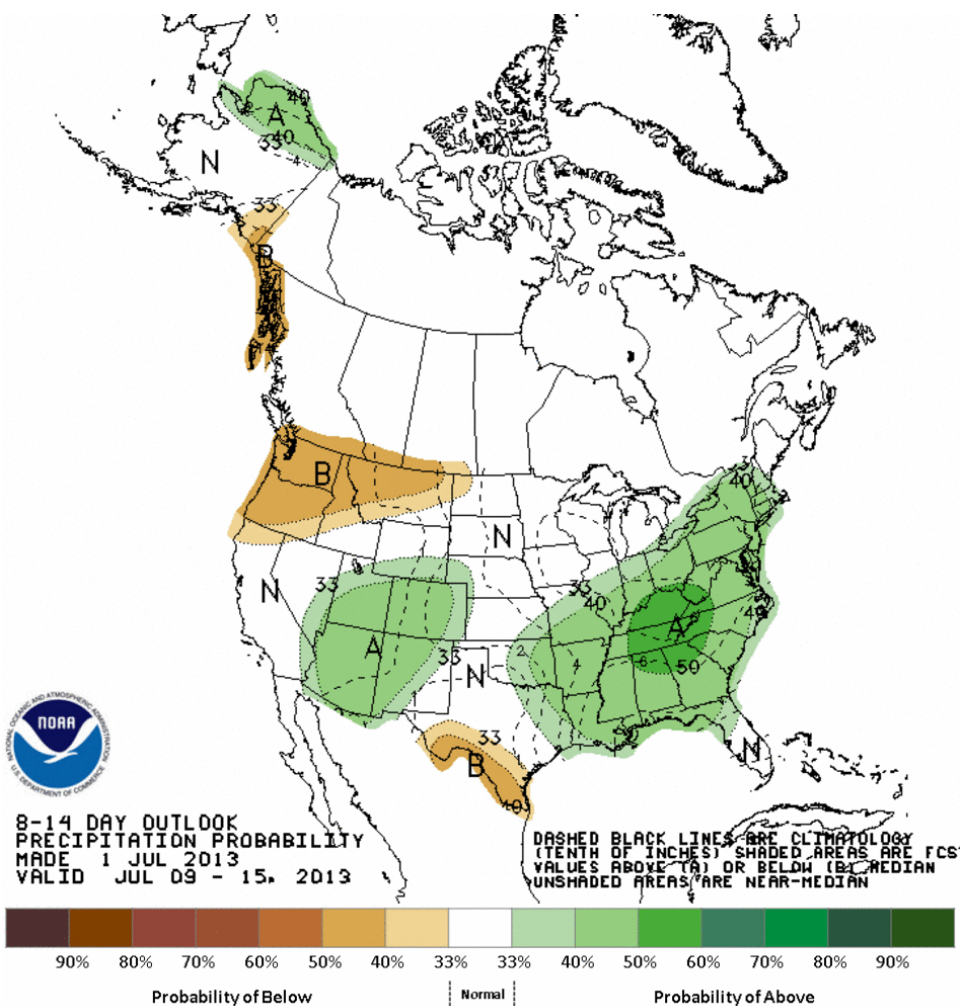
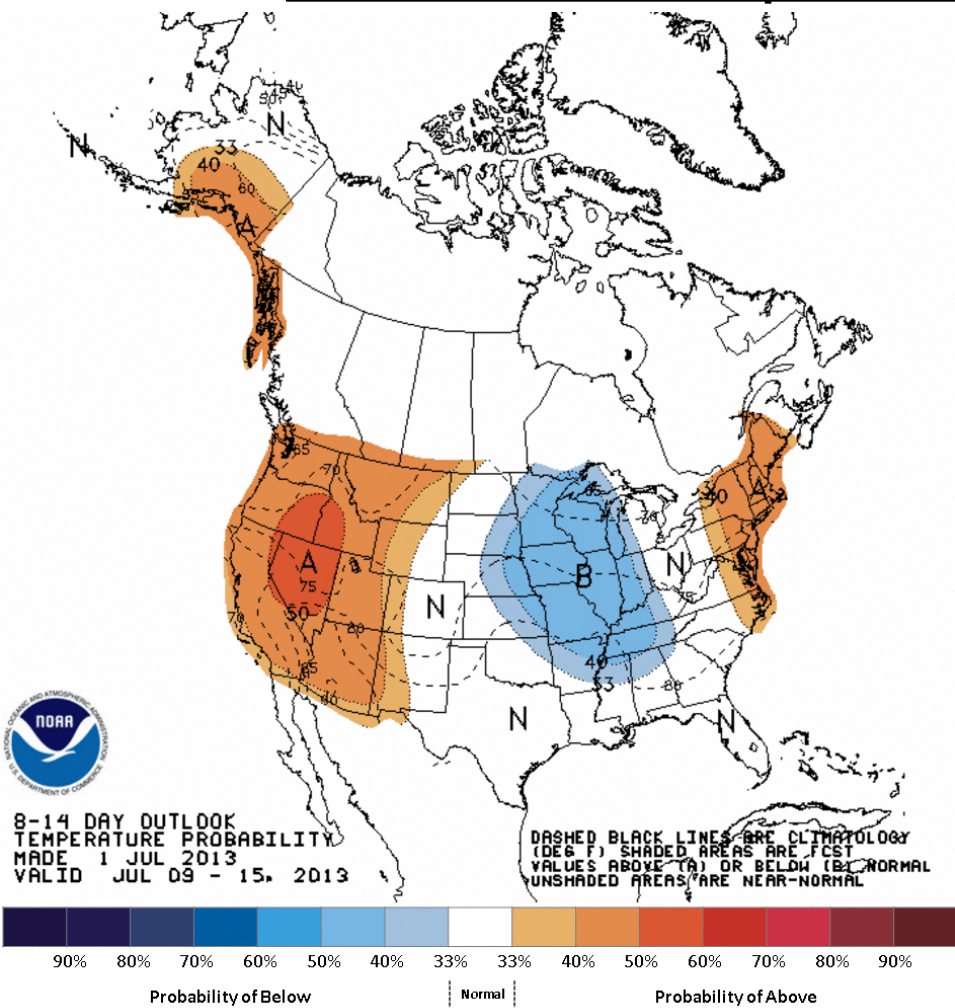


Some significance in composites indicating enhanced precipitation over the central Plains and Southeast.



D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE JUL 02 2013 1035 UTC CNTD JUL 13 2013

Week 2 – Temperature and Precipitation

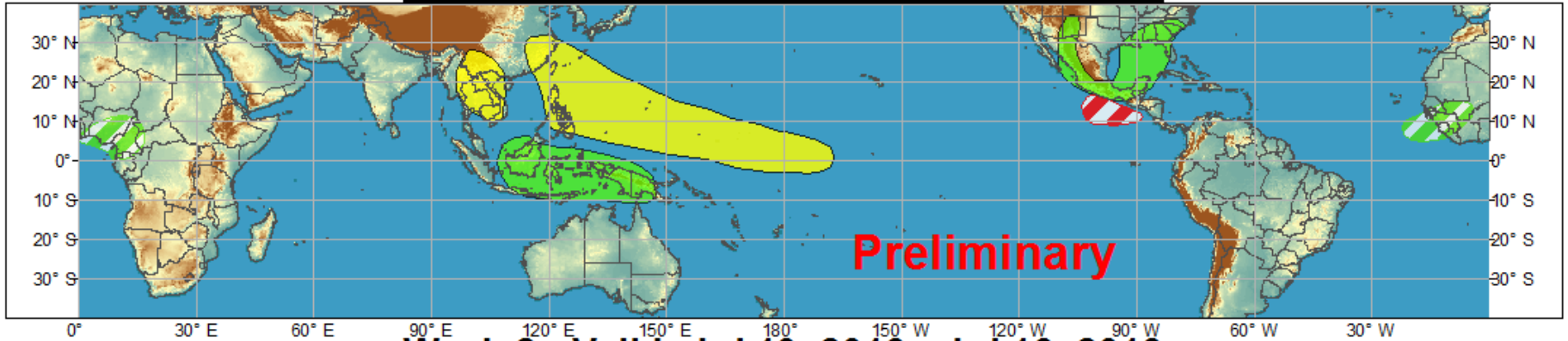




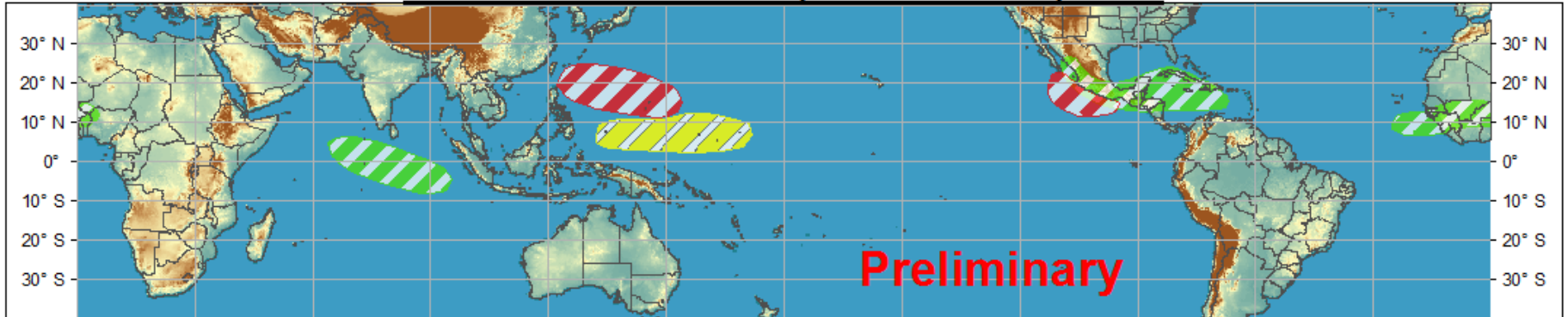
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