

Global Tropics Hazards And Benefits Outlook

July 9, 2013

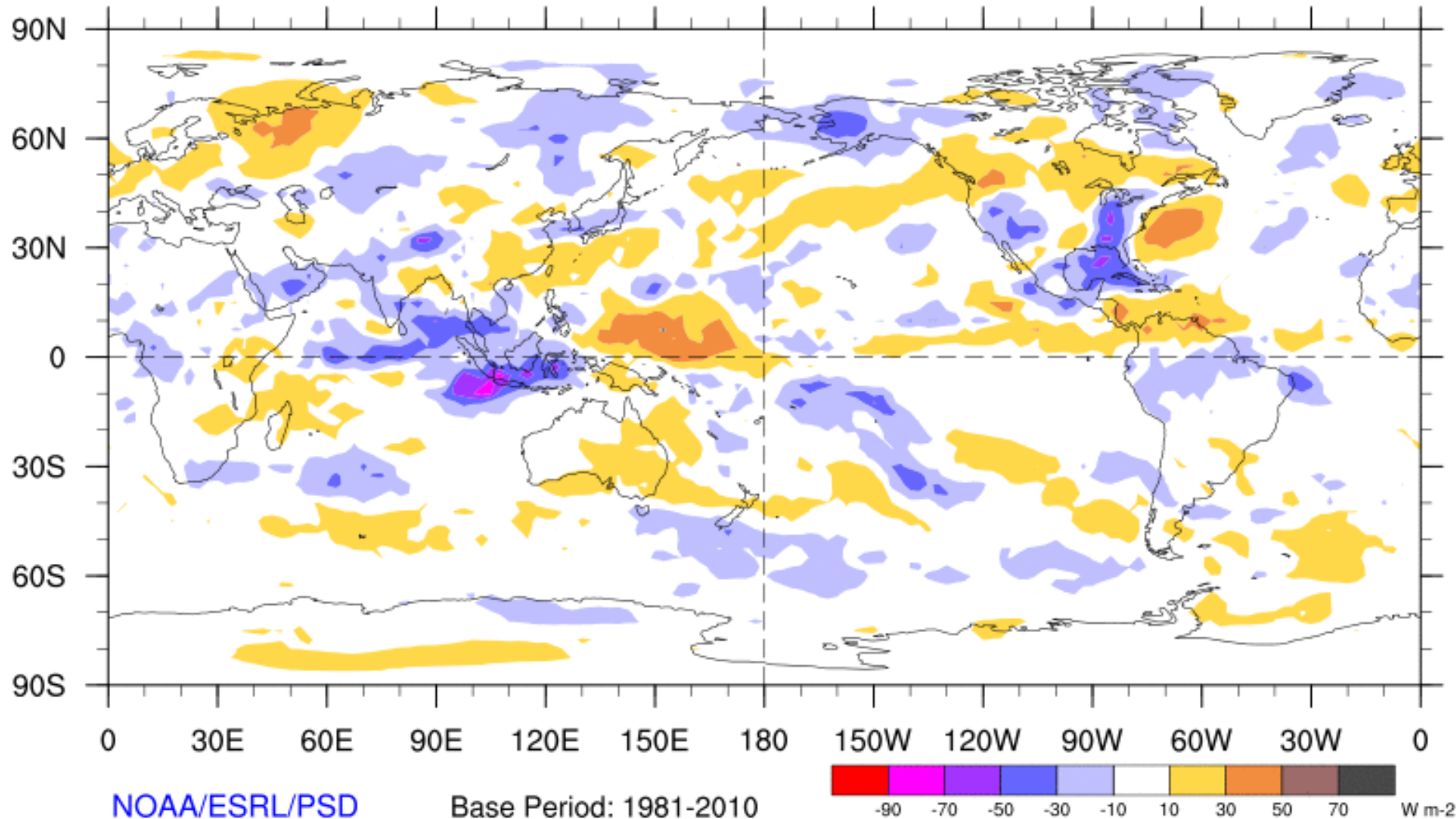
Adam Allgood

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

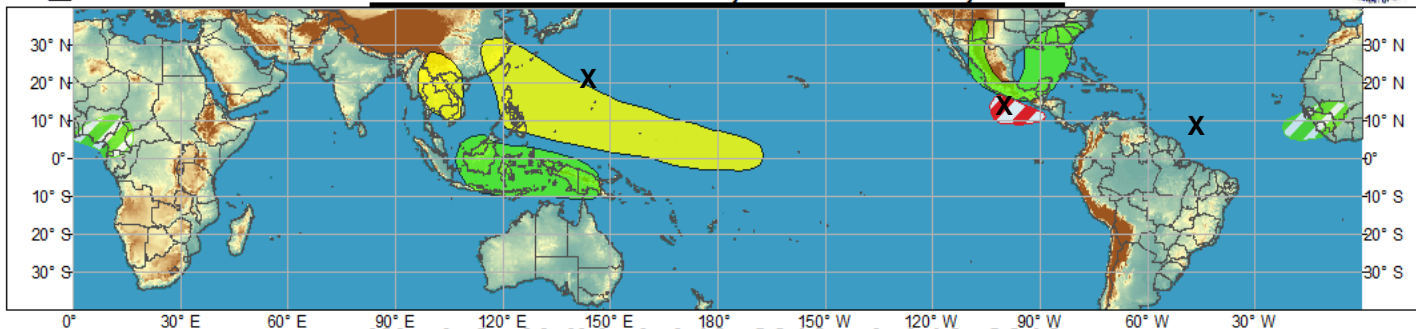
2013/07/01 - 2013/07/07



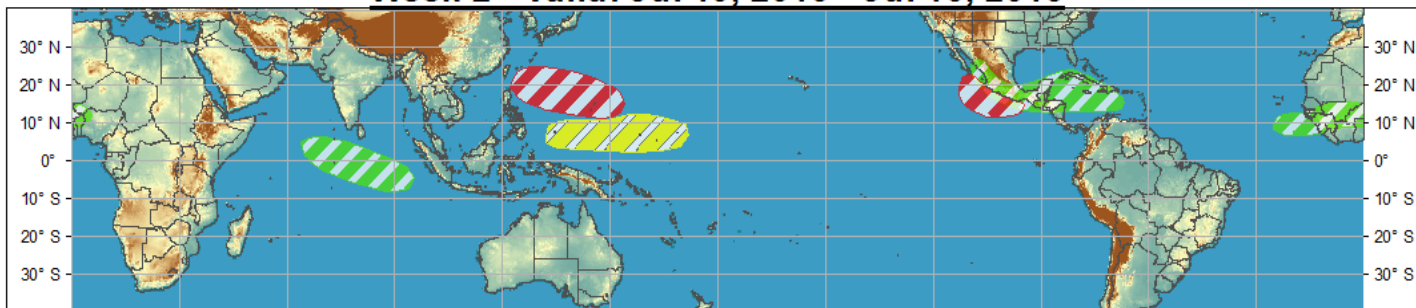


Outlook Review

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

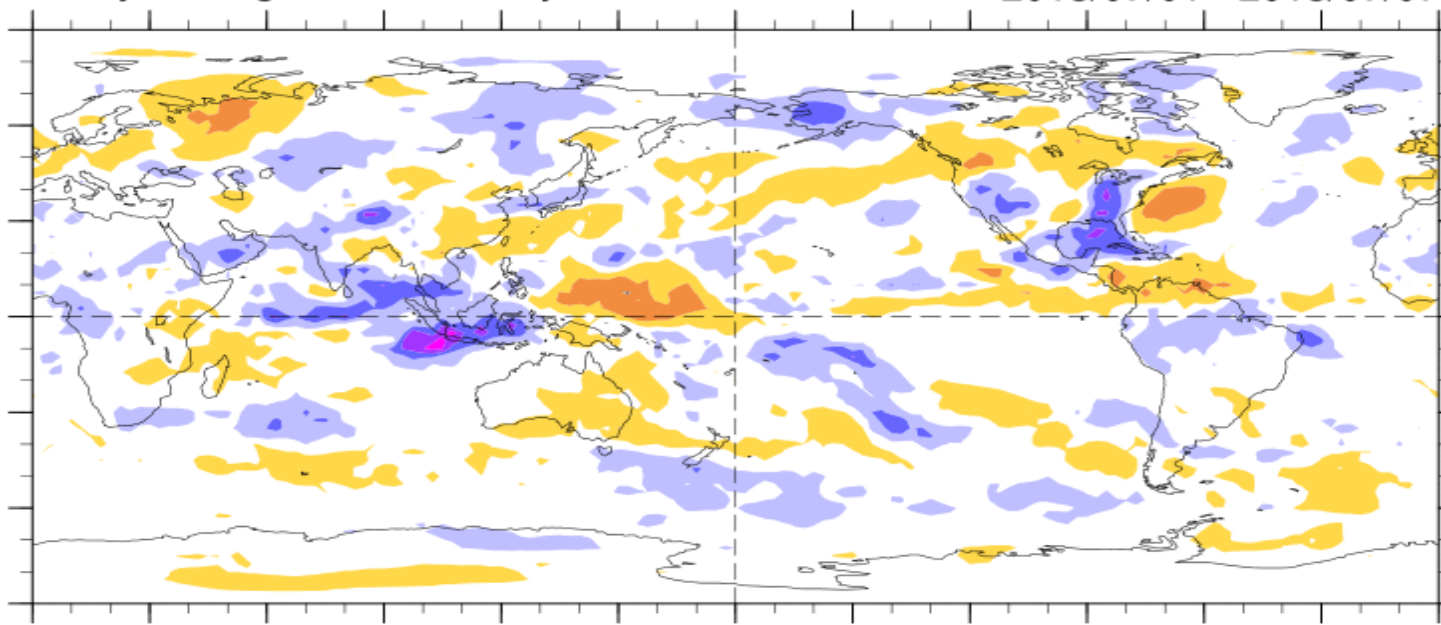


Week 2 - Valid: Jul 10, 2013 - Jul 16, 2013



7-Day Average OLR Anomaly

2013/07/01 - 2013/07/07

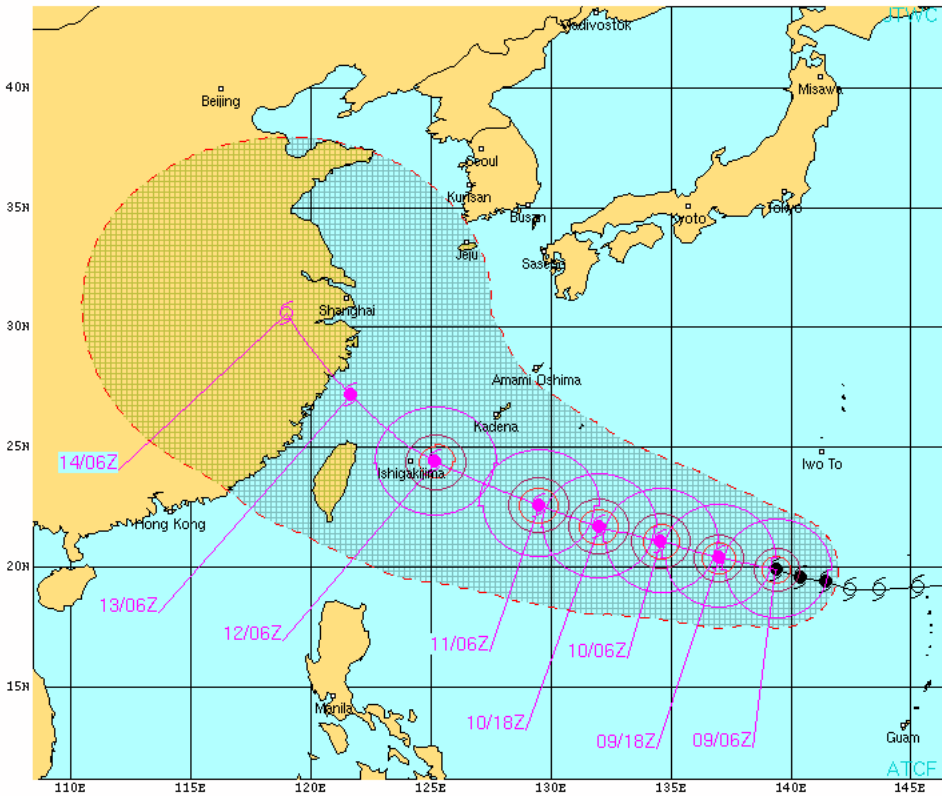


Tropical Cyclones:

- Soulik (W Pac)
- Erick (E Pac)
- Chantal (Atlantic)

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



TYPHOON 07W (SOULIK) WARNING #7
 WTPN31 PGTW 090900
 090600Z POSIT: NEAR 19.9N 139.4E
 MOVING 290 DEGREES TRUE AT 10 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 30 FEET
 09/06Z, WINDS 085 KTS, GUSTS TO 105 KTS
 09/18Z, WINDS 095 KTS, GUSTS TO 115 KTS
 10/06Z, WINDS 110 KTS, GUSTS TO 135 KTS
 10/18Z, WINDS 115 KTS, GUSTS TO 140 KTS
 11/06Z, WINDS 115 KTS, GUSTS TO 140 KTS
 12/06Z, WINDS 105 KTS, GUSTS TO 130 KTS
 13/06Z, WINDS 080 KTS, GUSTS TO 100 KTS
 14/06Z, WINDS 050 KTS, GUSTS TO 065 KTS

CPA TO:
 KADENA_AB NM DTG 179 11/23Z
 TAIPEI 94 12/22Z

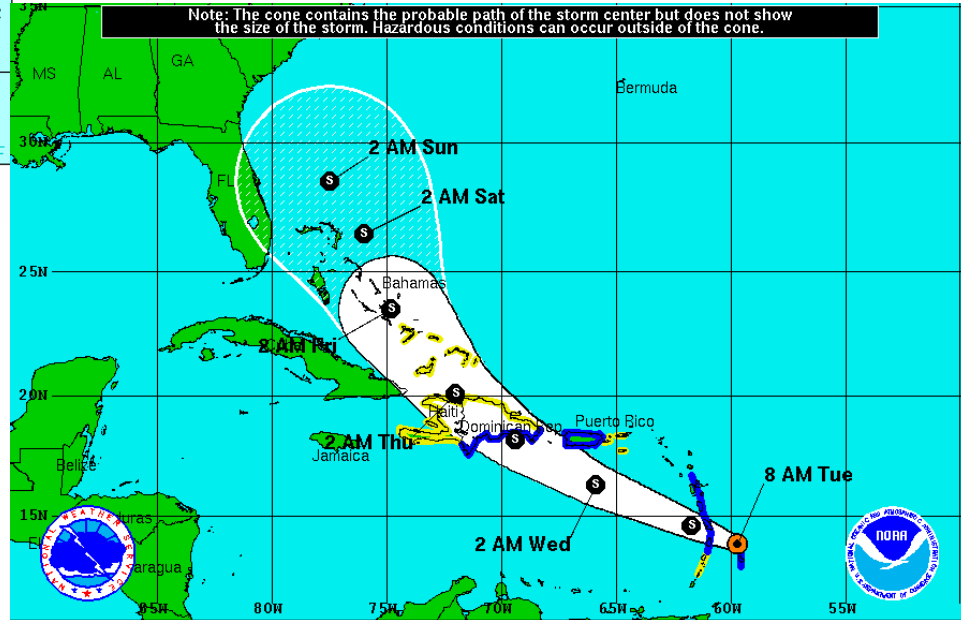
○ LESS THAN 34 KNOTS
 ⊗ 34-63 KNOTS
 ⊛ MORE THAN 63 KNOTS
 PAST 6 HOURLY CYCLONE POSITS IN BLACK
 FORECAST CYCLONE POSITS IN COLOR



FORECAST POSITIONS AND MAX WINDS

INIT	09/0900Z	13.3N	58.4W	45	KT	50	MPH
12H	09/1800Z	14.6N	61.7W	50	KT	60	MPH
24H	10/0600Z	16.3N	65.9W	55	KT	65	MPH
36H	10/1800Z	18.2N	69.4W	60	KT	70	MPH
48H	11/0600Z	20.1N	72.0W	40	KT	45	MPH
72H	12/0600Z	23.5N	74.8W	40	KT	45	MPH
96H	13/0600Z	26.5N	76.0W	45	KT	50	MPH
120H	14/0600Z	28.5N	77.5W	50	KT	60	MPH

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.



Tropical Storm Chantal
 Tuesday July 9, 2013
 8 AM EDT Intermediate Advisory 6A
 NWS National Hurricane Center

Current Information: ●
 Center Location 13.8 N 59.7 W
 Max Sustained Wind 50 mph
 Movement WNW at 26 mph

Forecast Positions:
 ● Tropical Cyclone ○ Post-Tropical
 Sustained Winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110mph

Potential Track Area:
 Day 1-3 Day 4-5

Watches:
 Hurricane Trop.Storm

Warnings:
 Hurricane Trop.Storm

Synopsis of Climate Modes

ENSO:

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

MJO and other subseasonal tropical variability:

- The MJO remained active over the past week, with the convectively active phase propagating from the Western Hemisphere into the Indian Ocean. Other modes of tropical intraseasonal variability are also impacting the convective anomalies.
- Dynamical model MJO index forecasts generally support continued eastward propagation in the near term, with a large spread by week-2. The statistical tools also support continued eastward propagation of the MJO signal.

Extratropics:

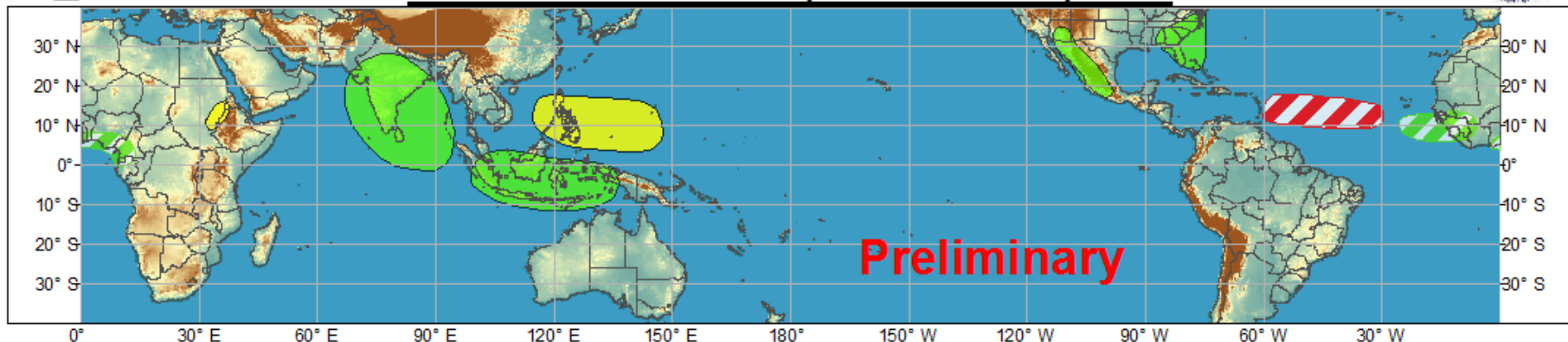
- The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current and forecast phases of the MJO. These include a trend towards enhanced precipitation over the upper Midwest, and above normal temperatures in the Northeast.



Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 10, 2013 - Jul 16, 2013



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



Confidence
High Moderate

Tropical Cyclone Formation

Above-average rainfall

Below-average rainfall

Above-normal temperatures

Below-normal temperatures



Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength.

Weekly total rainfall in the upper third of the historical range.

Weekly total rainfall in the lower third of the historical range.

7-day mean temperatures in the upper third of the historical range.

7-day mean temperatures in the lower third of the historical range.

Produced: 07/09/2013

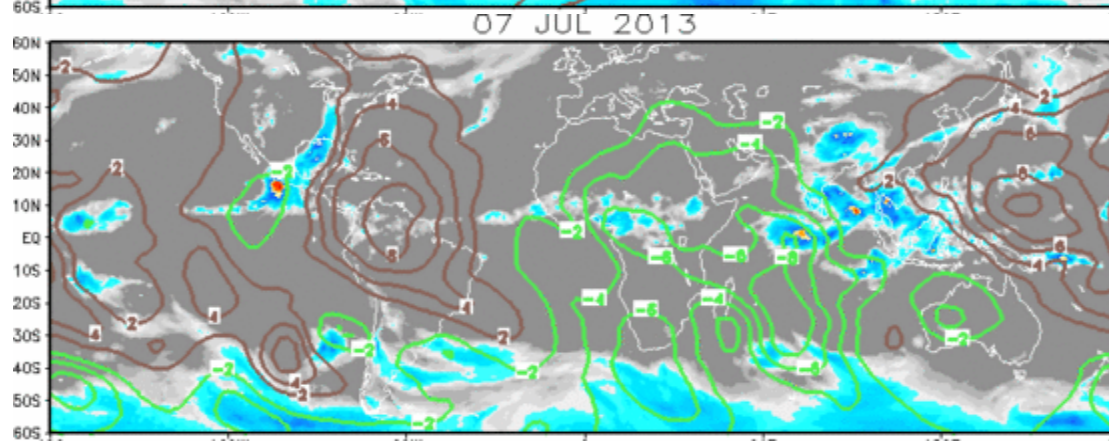
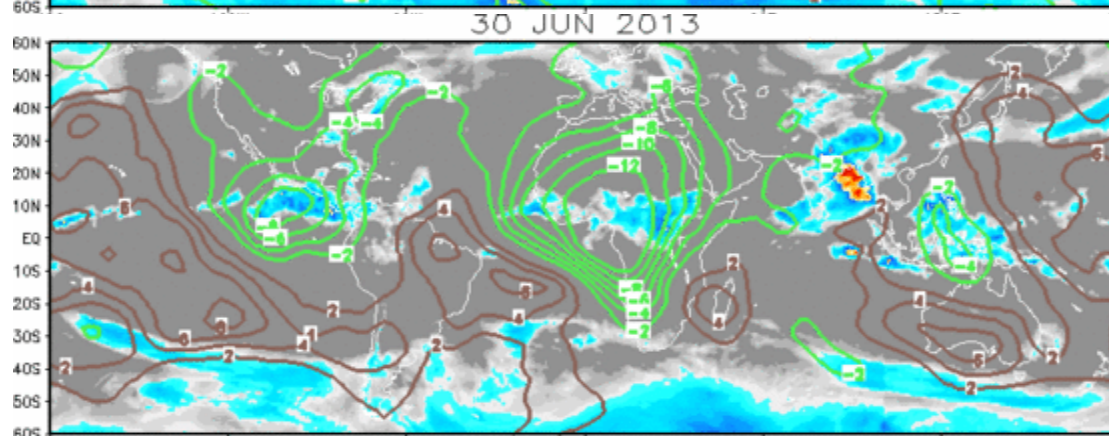
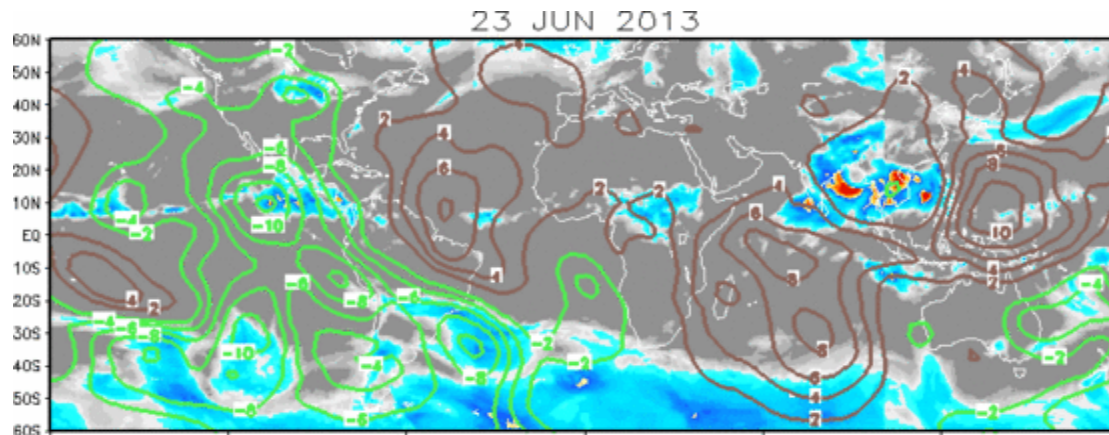
Forecaster: Allgood

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.



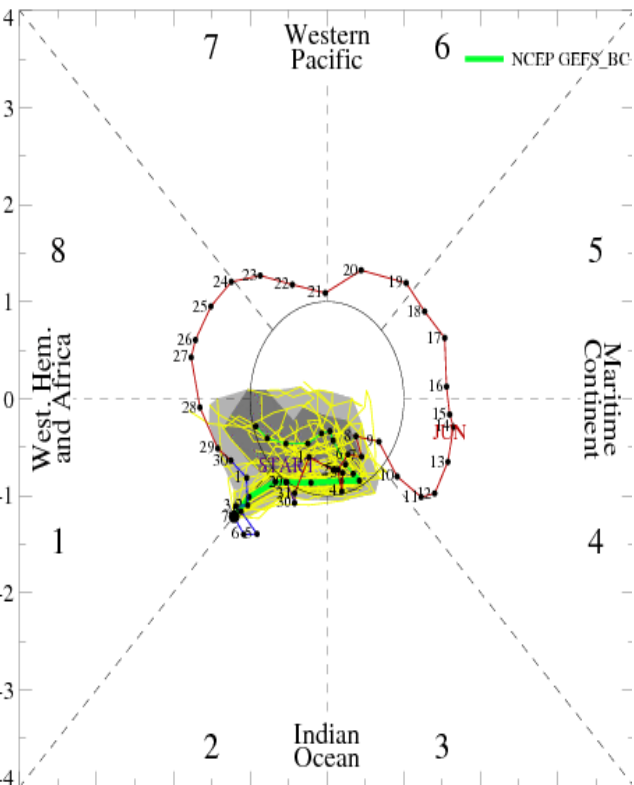
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence



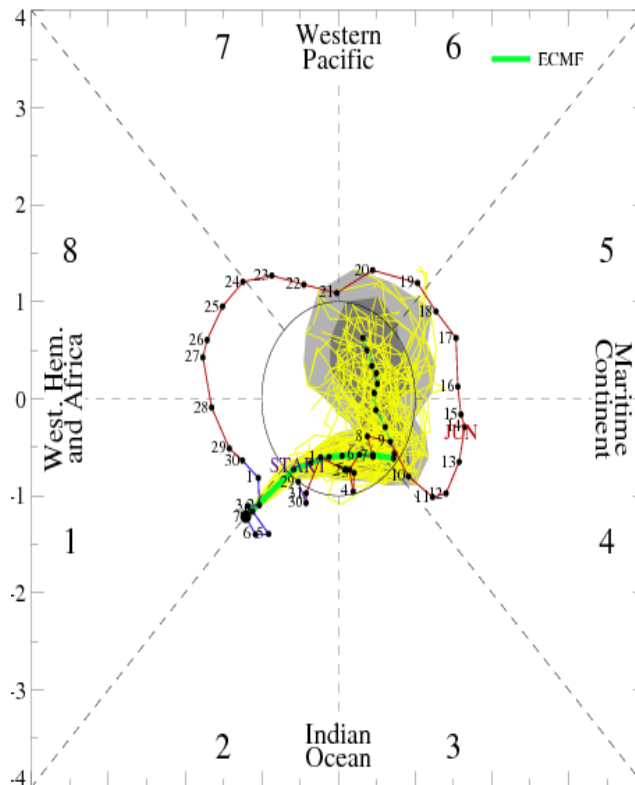
MJO Observation/Forecast

MJO Index Forecast for 08Jul2013-22Jul2013



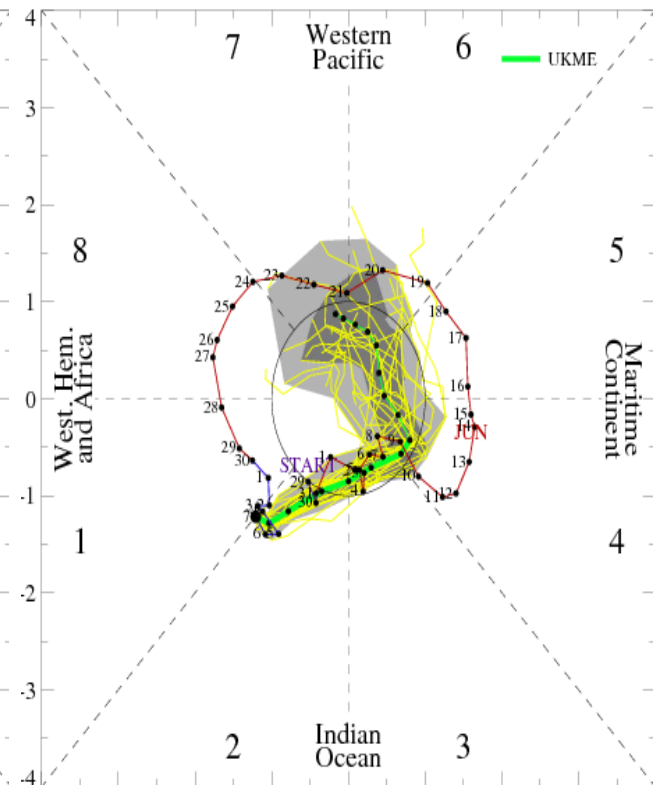
GFS

MJO Index Forecast for 08Jul2013-22Jul2013



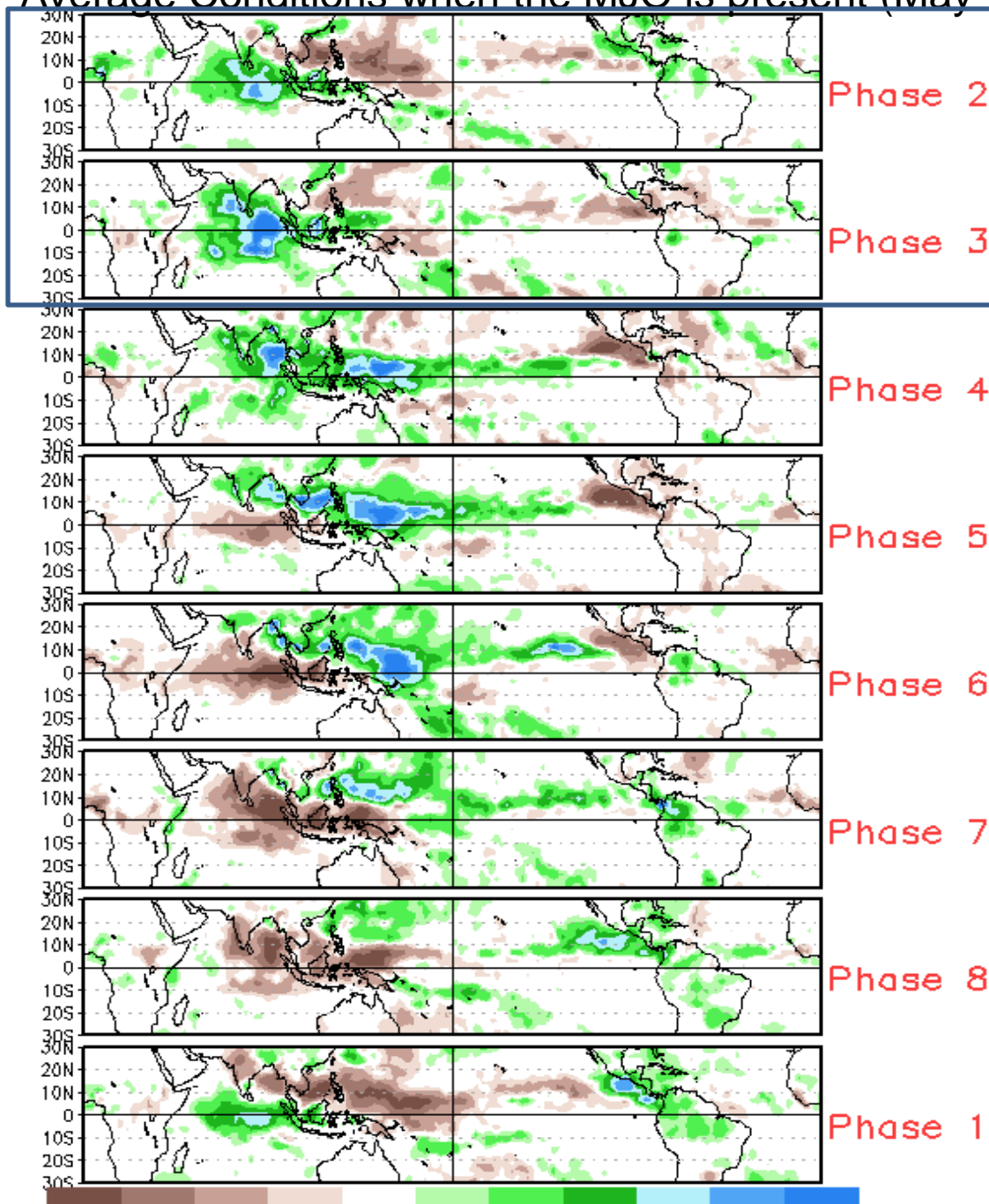
ECMWF

MJO Index Forecast for 08Jul2013-22Jul2013



UKMET

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



Phase 2

Phase 3

Phase 4

Phase 5

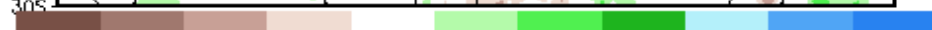
Phase 6

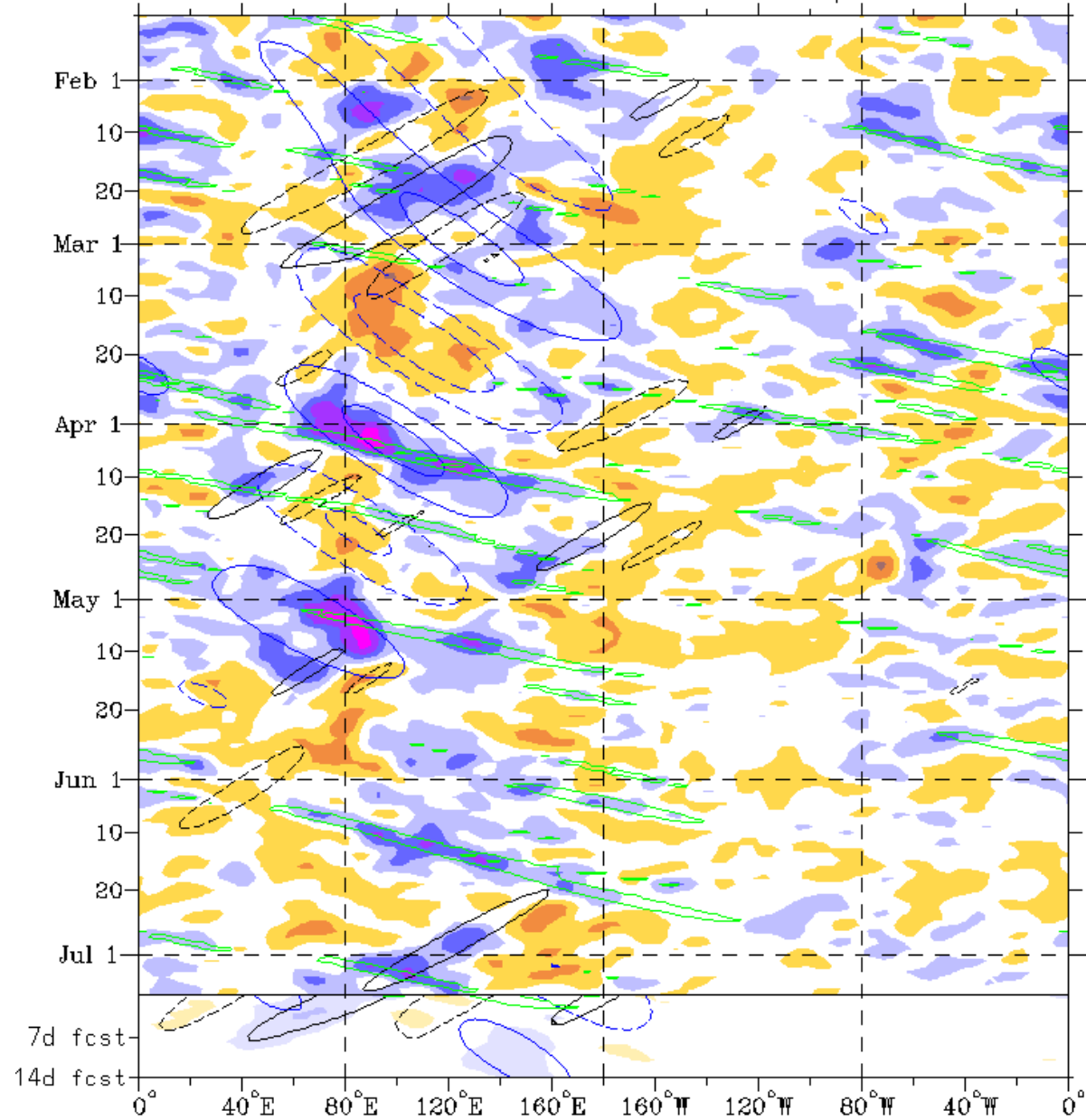
Phase 7

Phase 8

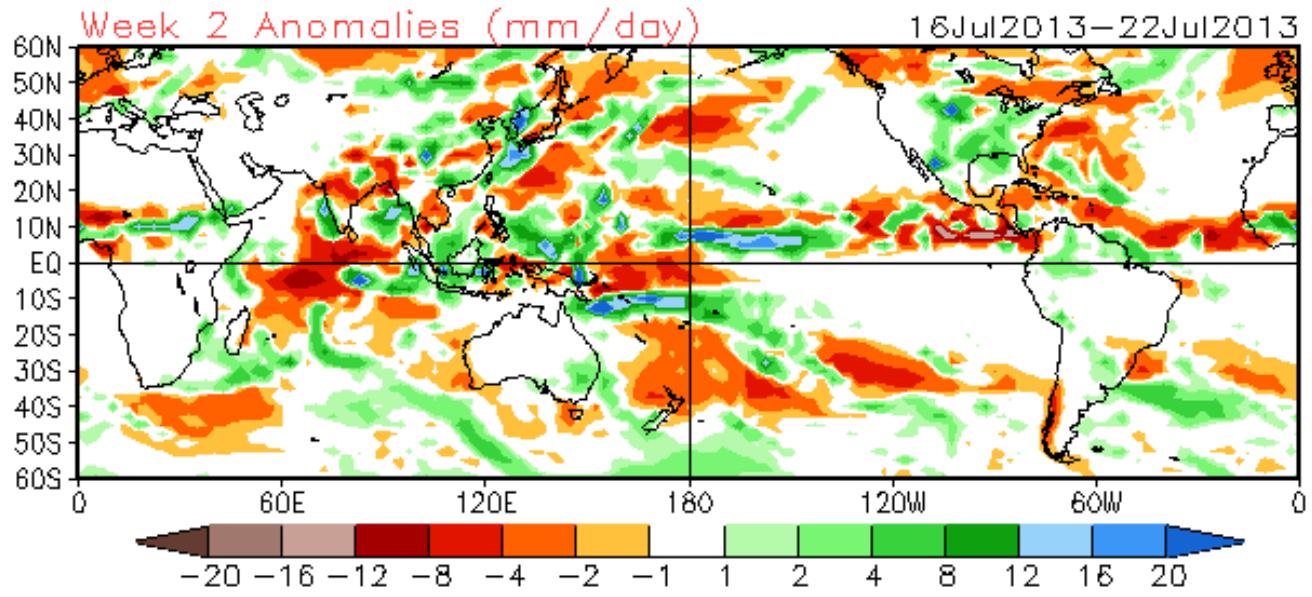
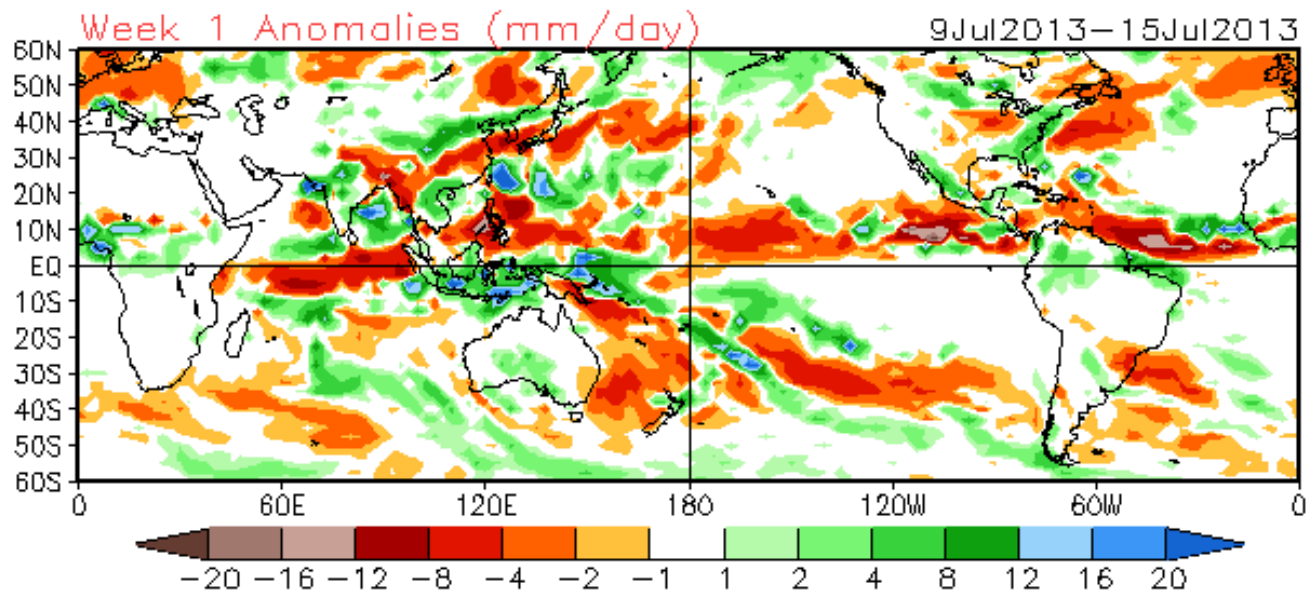
Phase 1

CAVEAT:



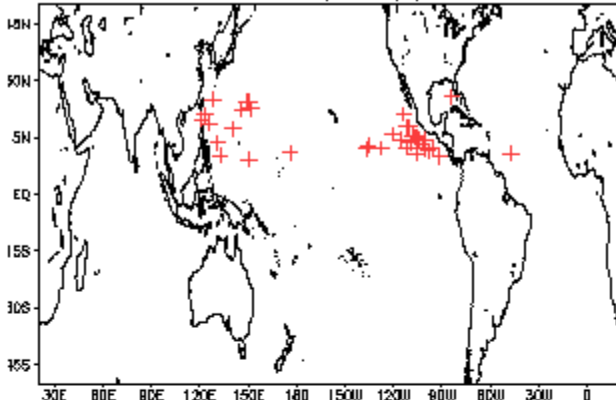


Active phase of the MJO is forecast to impact Indian Ocean, with interaction among other modes (e.g., a westward-propagating Rossby Wave over the Maritime Continent).

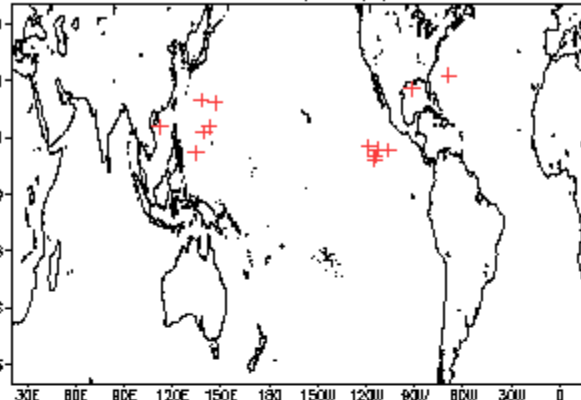


July Tropical Storm Formation by MJO phase

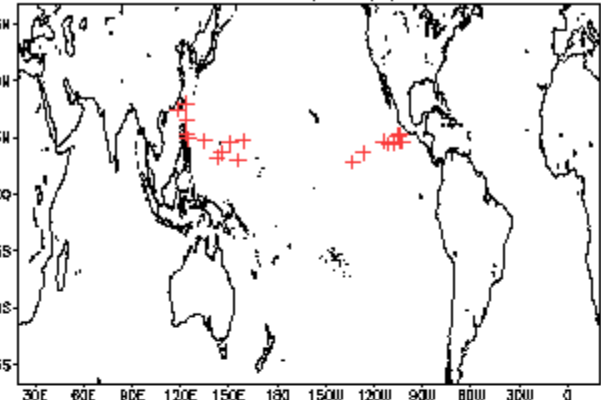
Phase 1 (144 days) 37 storms



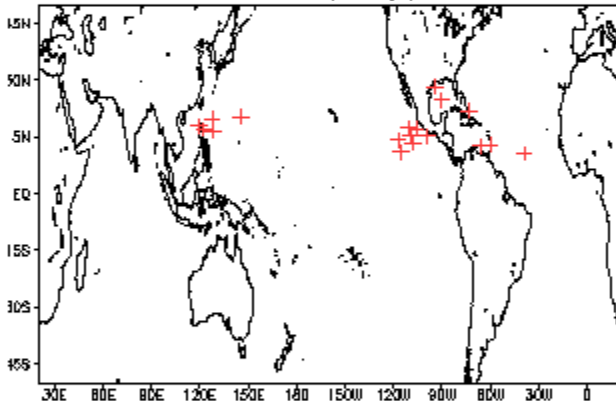
Phase 4 (40 days) 14 storms



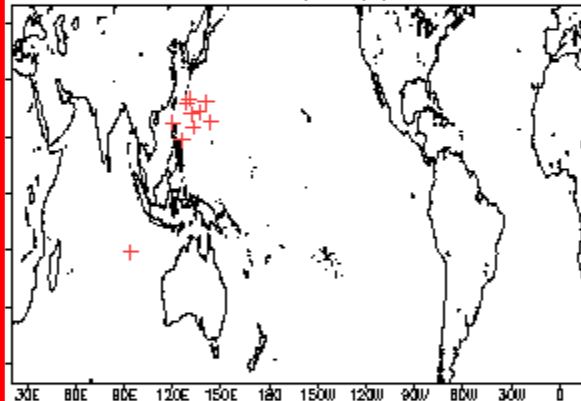
Phase 7 (87 days) 21 storms



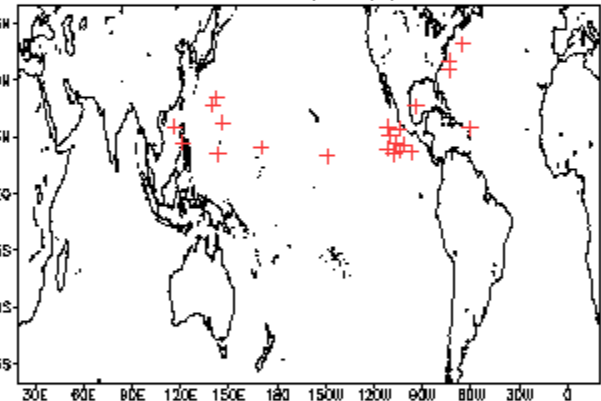
Phase 2 (71 days) 28 storms



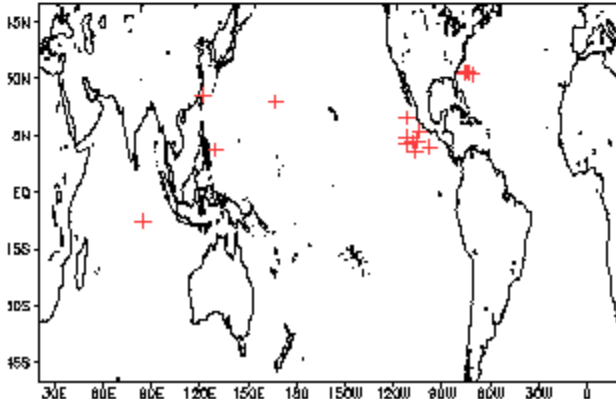
Phase 5 (63 days) 11 storms



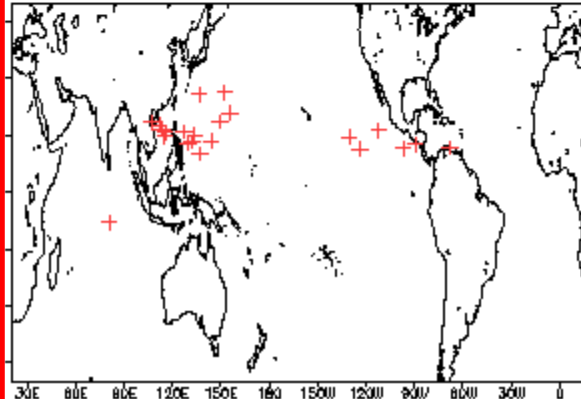
Phase 8 (61 days) 24 storms



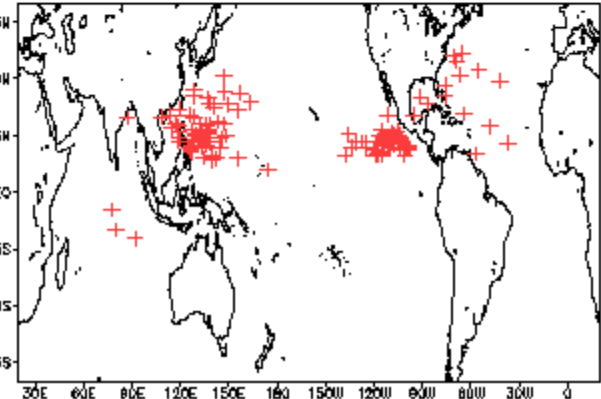
Phase 3 (49 days) 17 storms



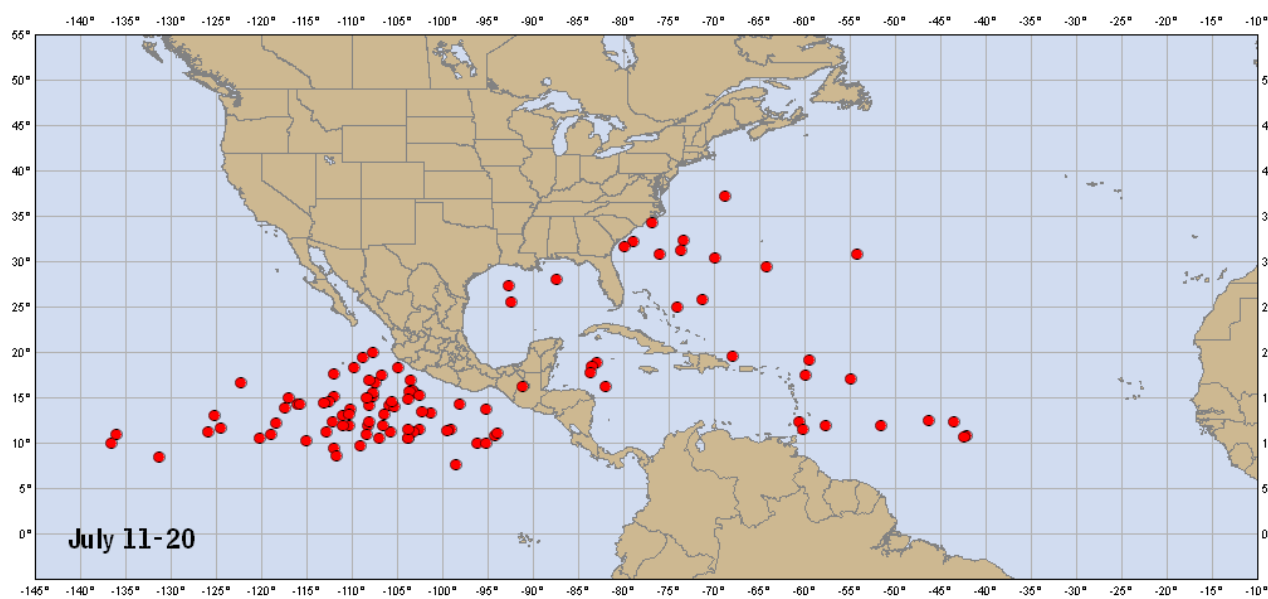
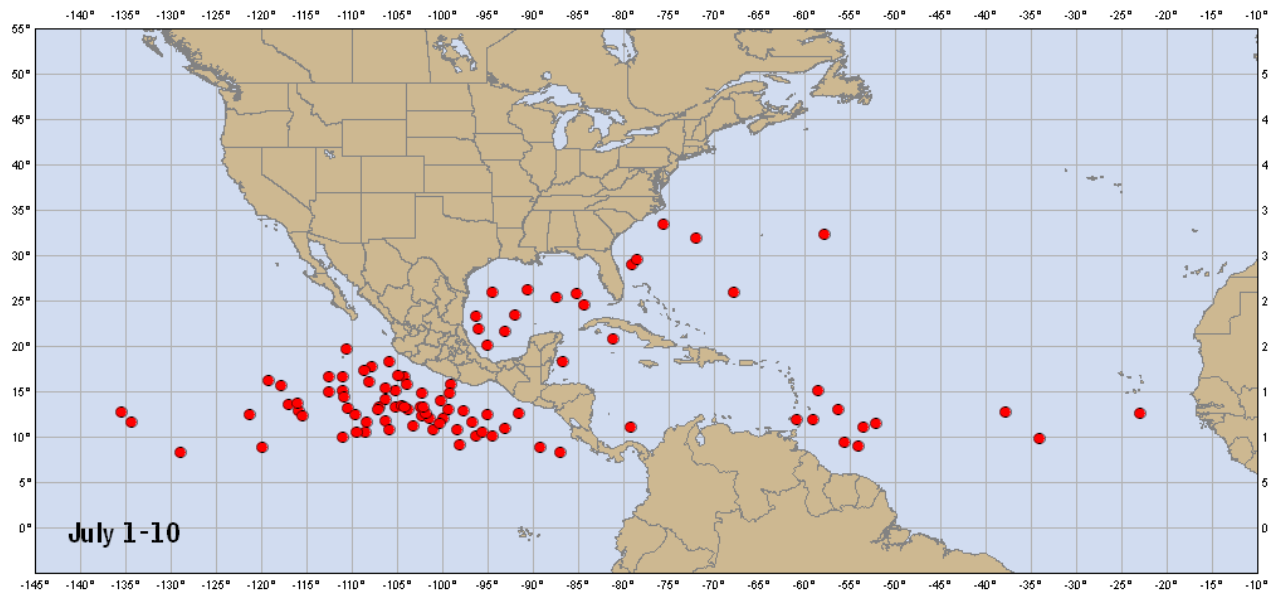
Phase 6 (60 days) 23 storms



Null (480 days) 130 storms



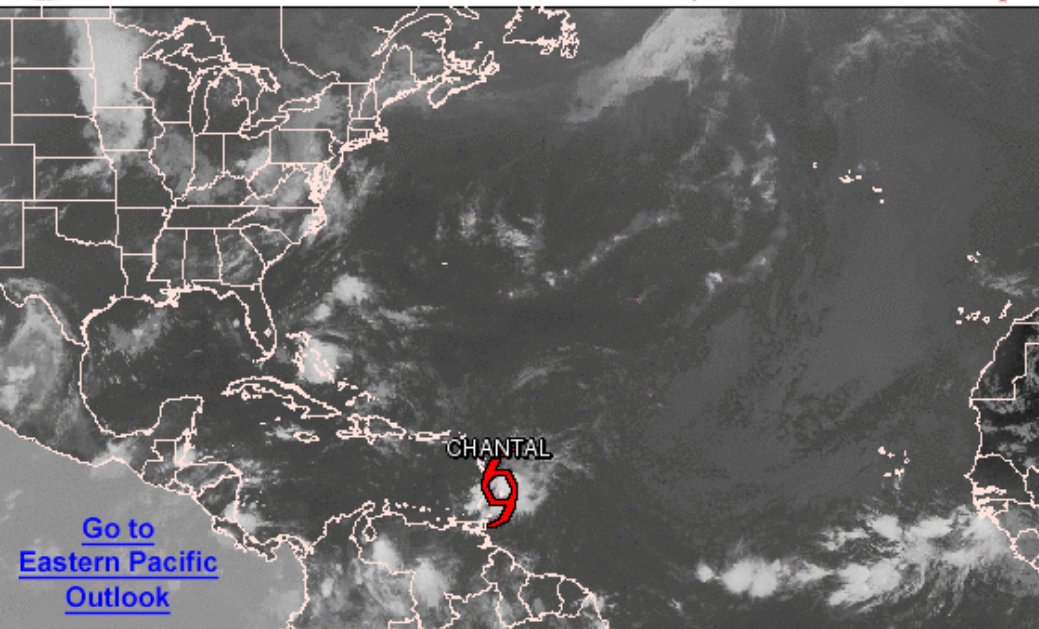
Named Storm Points of Origin July 1 – 20 (1851-2009)





Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



[Go to Eastern Pacific Outlook](#)

800 AM EDT TUE JUL 9 2013

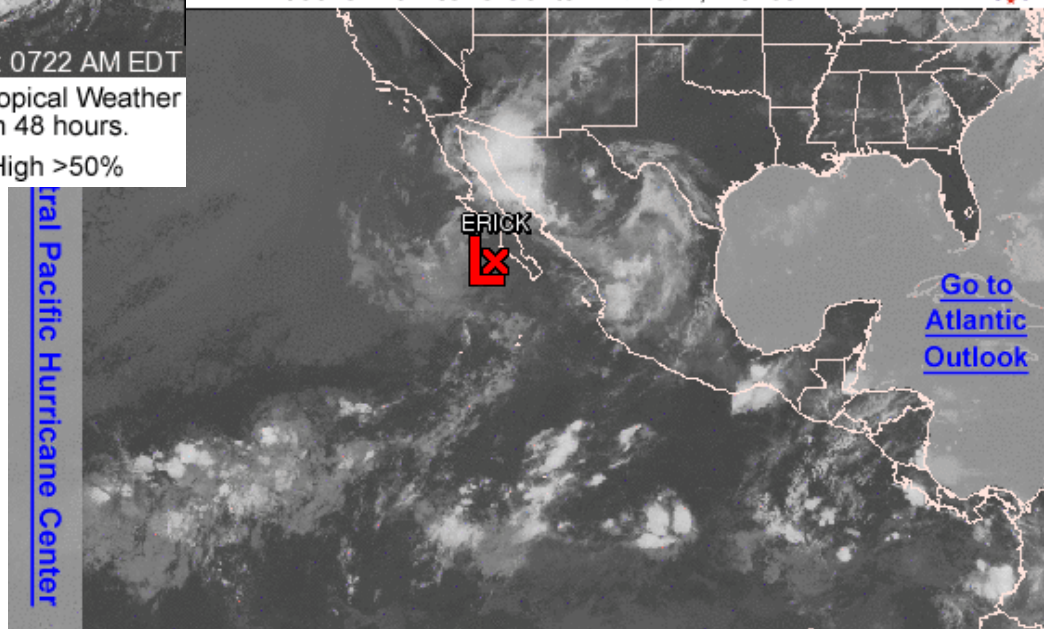
Satellite Image: 0722 AM EDT

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%
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Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



[Go to Atlantic Outlook](#)

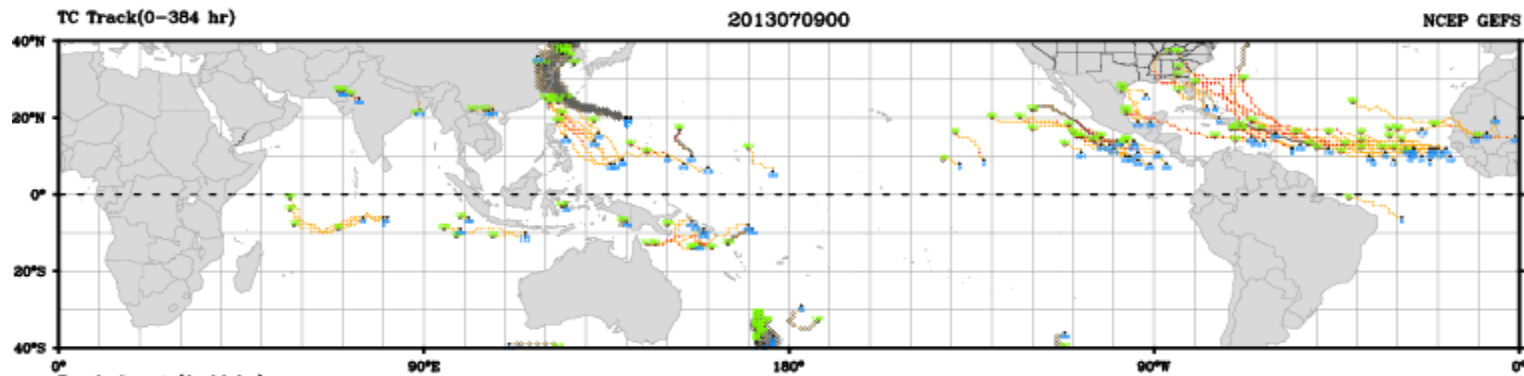
500 AM PDT TUE JUL 9 2013

Satellite Image: 0322 AM PDT

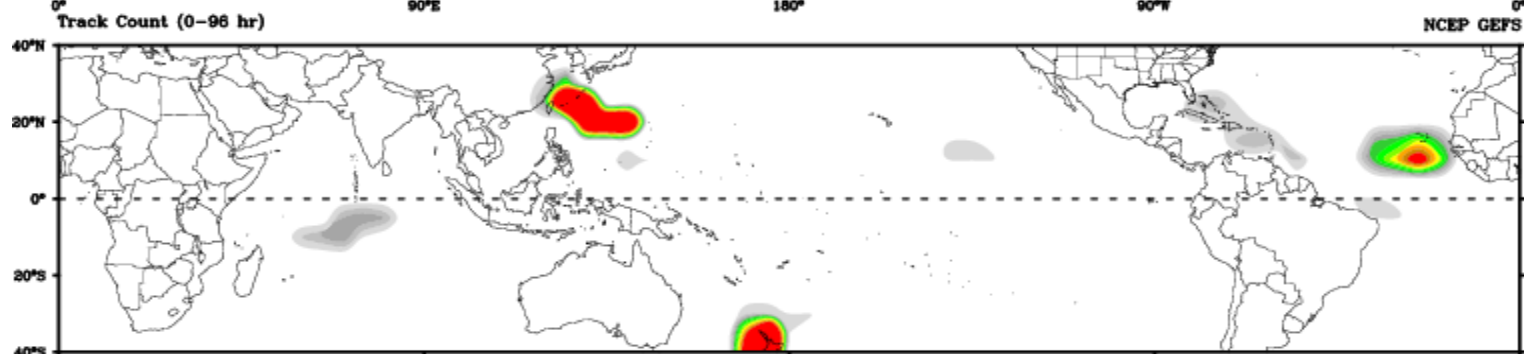
Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

 Low <30%	 Medium 30-50%	 High >50%
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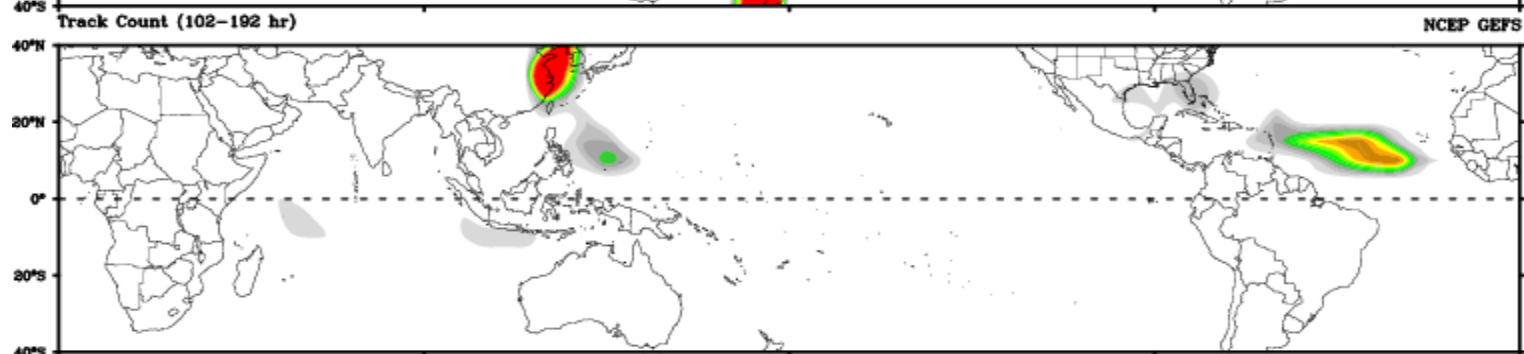
Tropical Pacific Hurricane Center



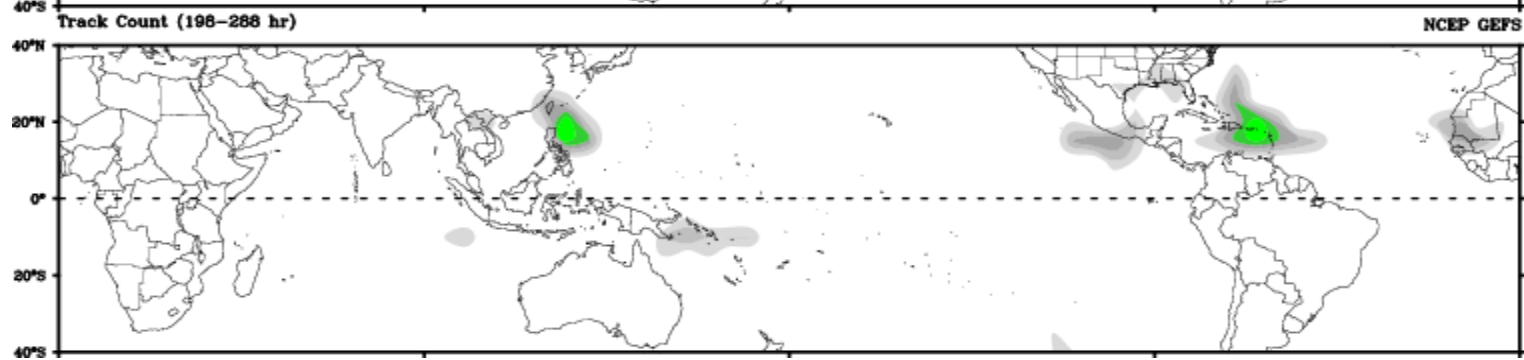
Days 1-4



Day 5-8

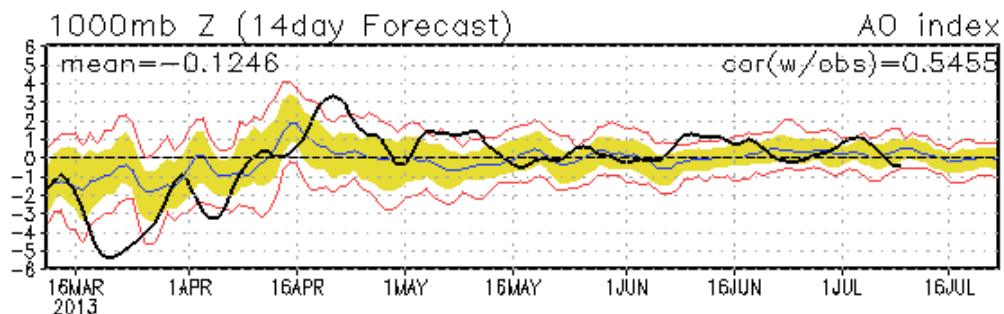
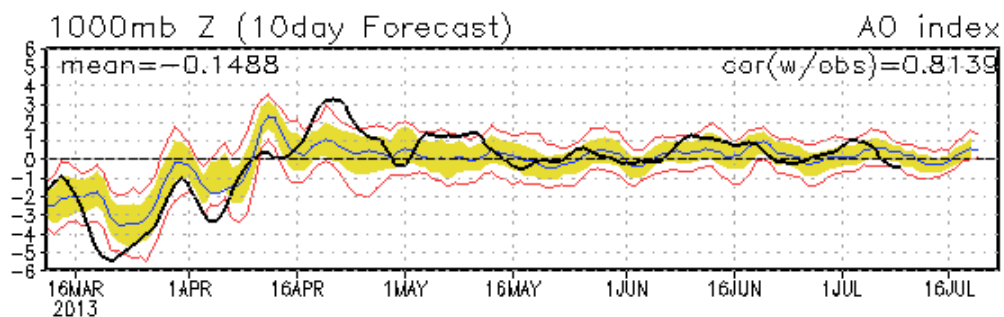
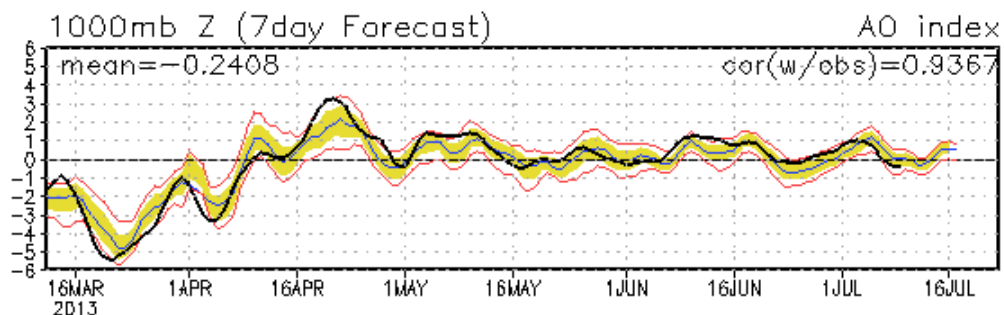
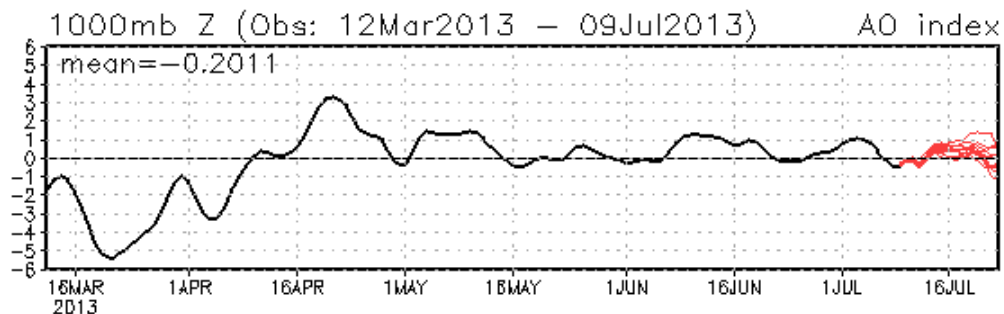


Day 9-12



Connections to U.S. Impacts

AO: Observed & ENSM forecasts

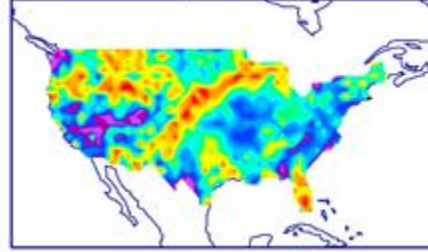


US Composites based on MJO Phase (JJA)

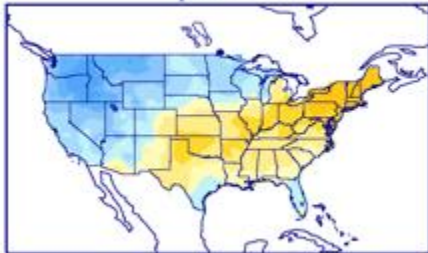
phase 2



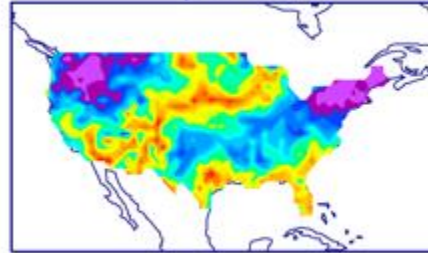
phase 2



phase 3

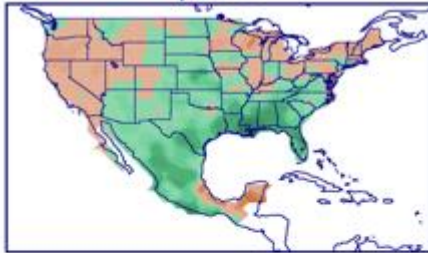


phase 3

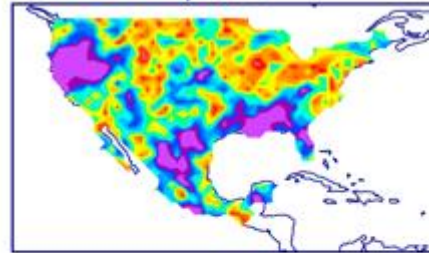


Indicates a shift toward cooler conditions over the Northwest and warmer conditions over the Northeast as MJO transitions into phase 3.

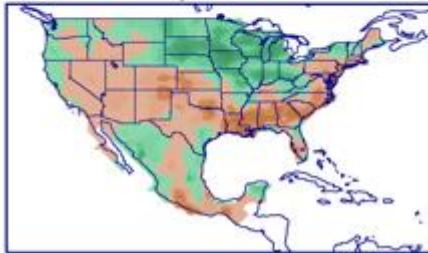
phase 2



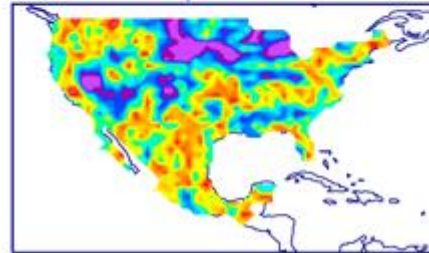
phase 2



phase 3

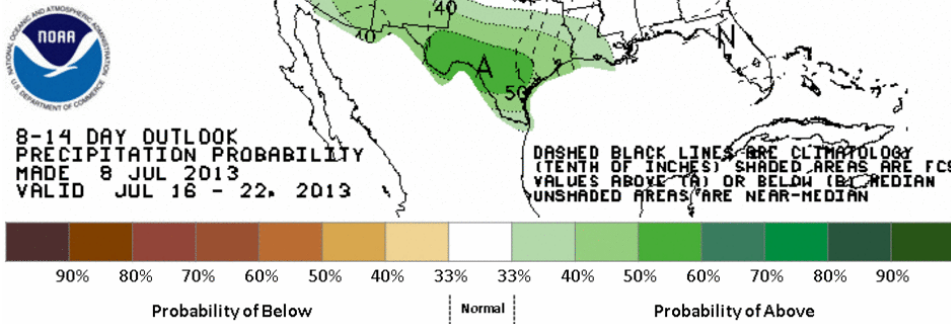
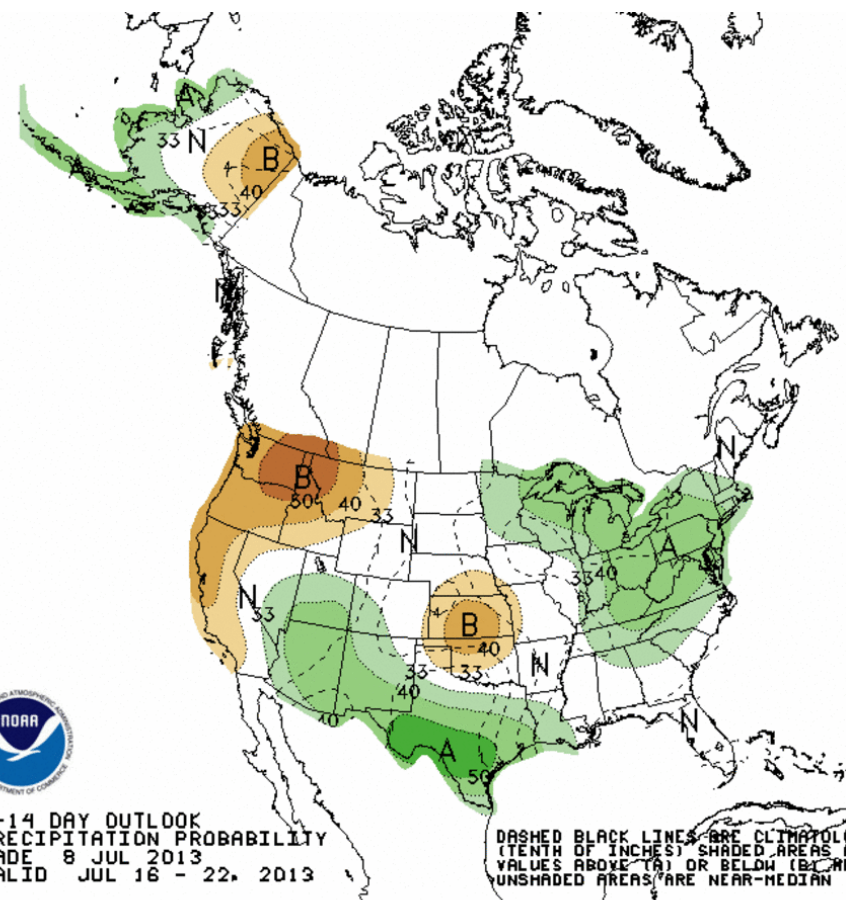
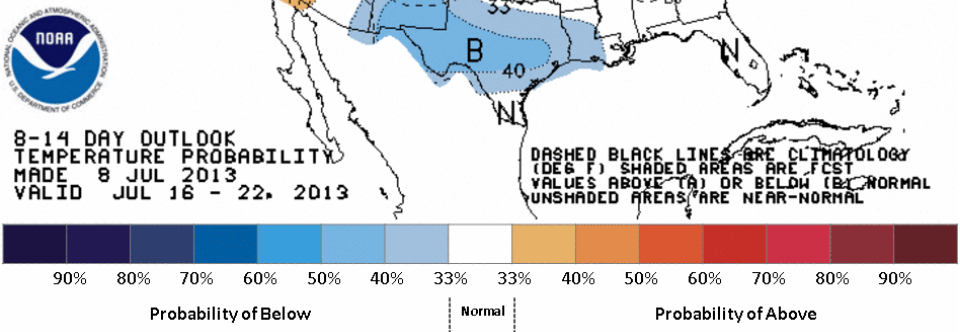
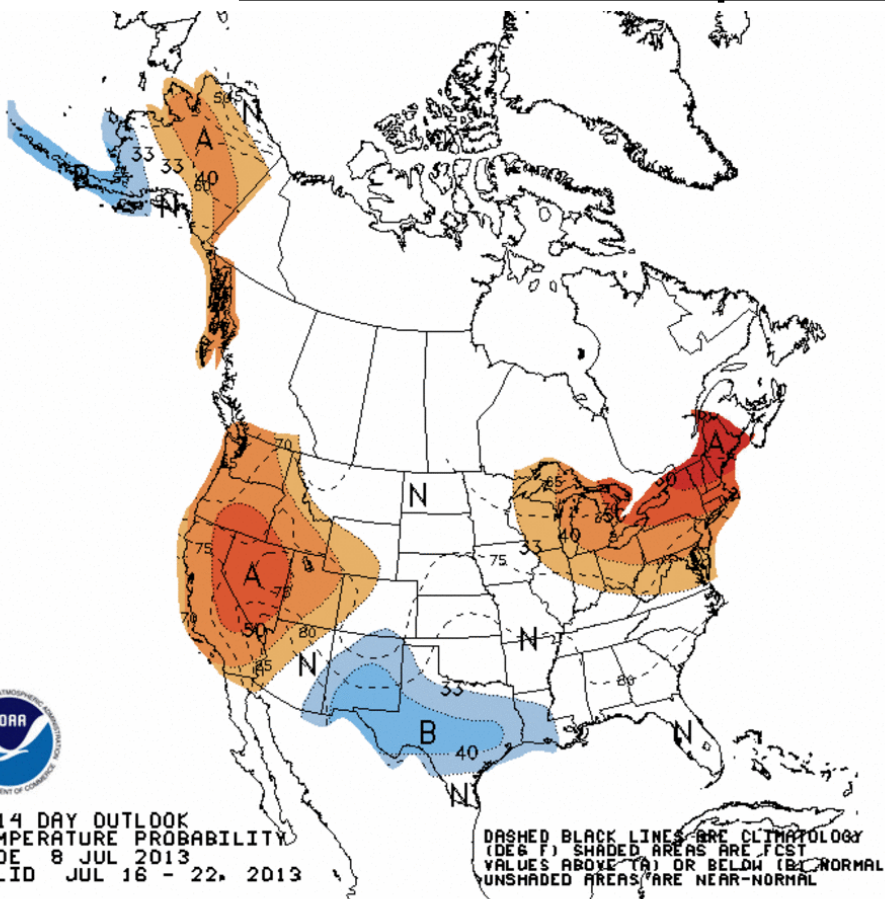


phase 3



Enhanced precipitation lifts northward over the eastern U.S. as the MJO transitions from phase 2 to 3.

Week 2 – Temperature and Precipitation

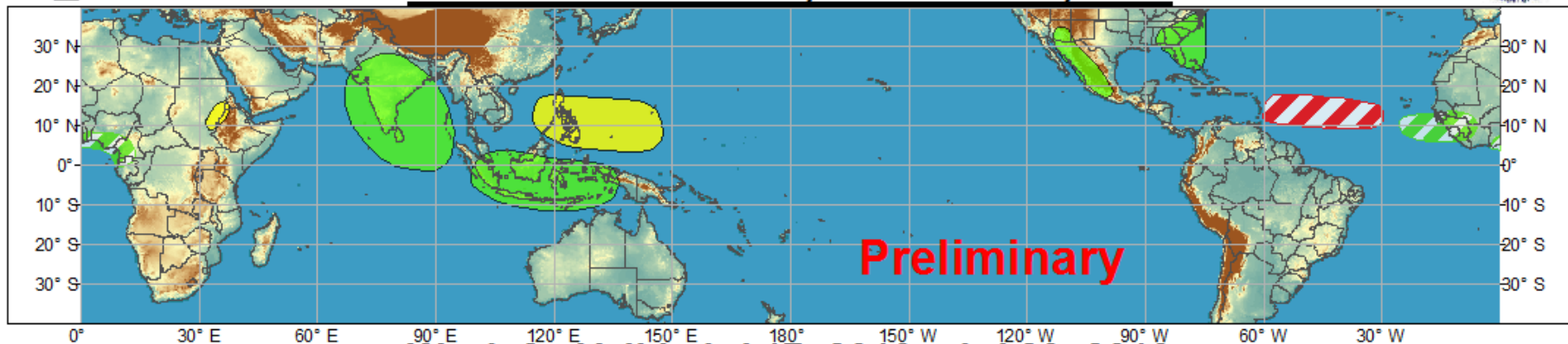




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 10, 2013 - Jul 16, 2013



Week 2 - Valid: Jul 17, 2013 - Jul 23, 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: 07/09/2013

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.

