

Global Tropics Hazards And Benefits Outlook

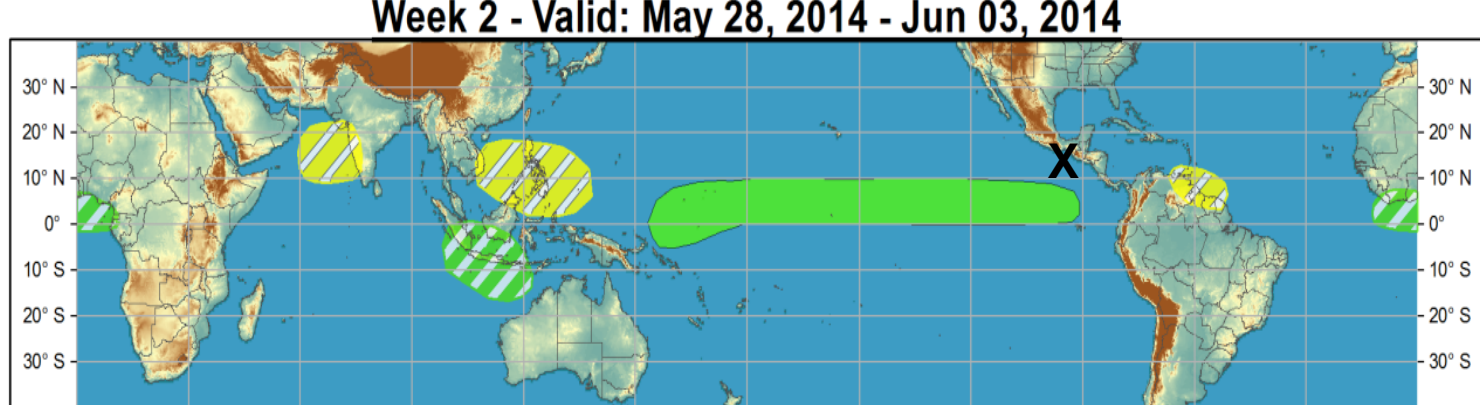
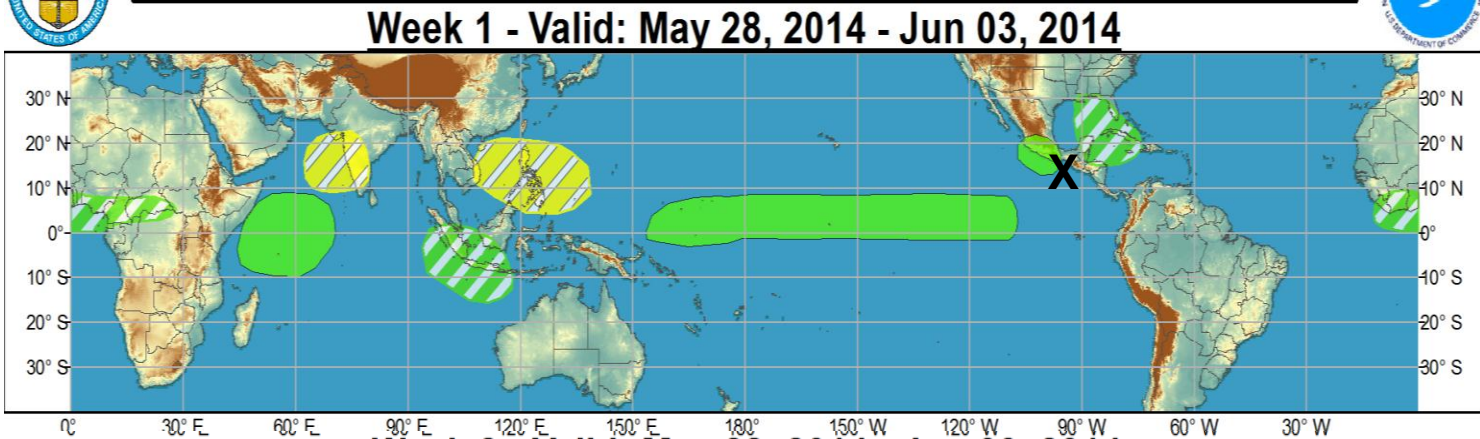
June 3, 2014

Adam Allgood/Matthew Rosencrans

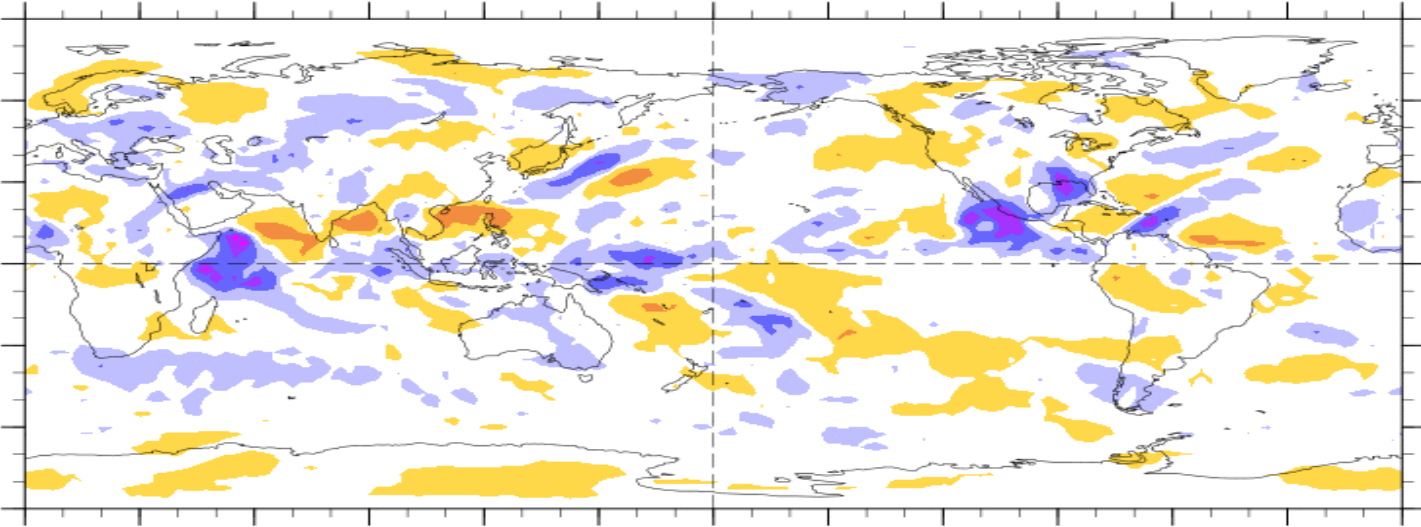
Outline

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

Outlook Review



7-Day Average OLR Anomaly 2014/05/26 - 2014/06/01



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions continue.*
- Sea surface temperatures (SST) are above-average across the equatorial Pacific Ocean.
- Chance of El Niño increases during the remainder of the year, exceeding 65% by summer.*
- ENSO Alert System Status: El Niño Watch

MJO and other subseasonal tropical variability:

- The MJO remained weak during the past week.
- Dynamical model MJO index forecasts differ on the strength and position of the convectively active portion of the signal during Week-2. Most forecasts indicate slow propagation during Week-1 with a signal emerging over the Maritime Continent in Week-2.

Extratropics:

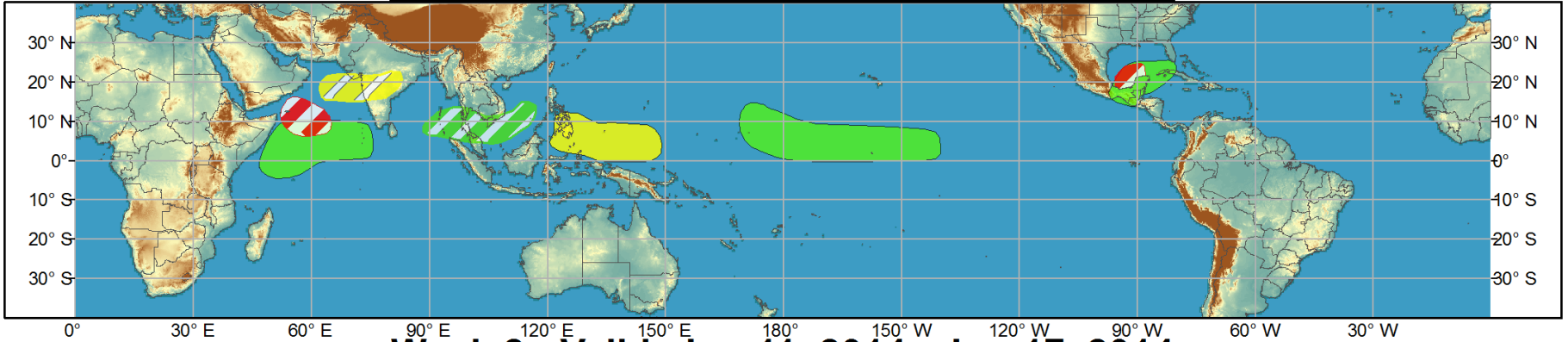
- The extended range forecast for the U.S. is not expected to be impacted greatly by the MJO. Current outlooks indicated enhanced likelihood of above-normal temperatures over the Southwest, California, southern Alaska, and portions of the Southeast. Below normal temperature are favored from the Gulf Coast to the Great Lakes. Above-median rains are likely along the East Coast and Northern Plains with below-median precipitation likely across the Southern Great Plains and Southern Rockies.



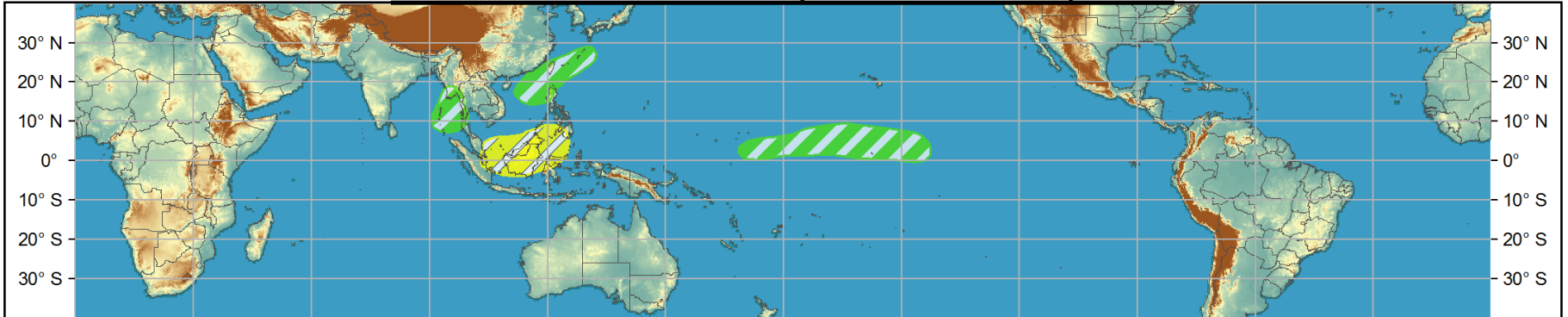
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jun 04, 2014 - Jun 10, 2014

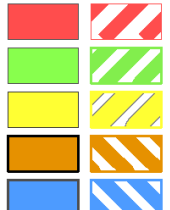


Week 2 - Valid: Jun 11, 2014 - Jun 17, 2014



Confidence
High Moderate

- Tropical Cyclone Formation**
- Above-average rainfall**
- Below-average rainfall**
- Above-normal temperatures**
- Below-normal temperatures**



- Development of a tropical cyclone (tropical depression - TD, or greater 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.
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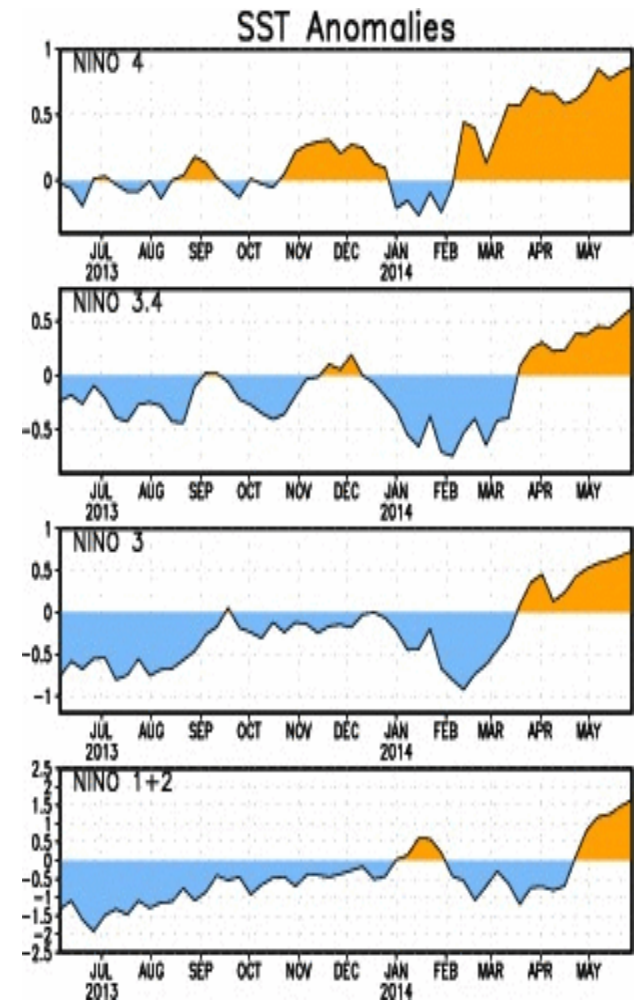
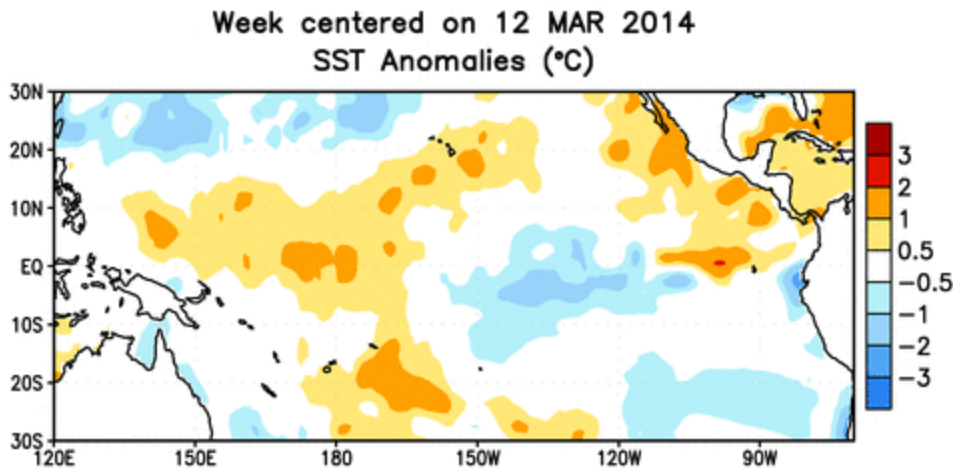
Produced: 06/03/2014

Forecaster: Allgood/Rosencrans

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.

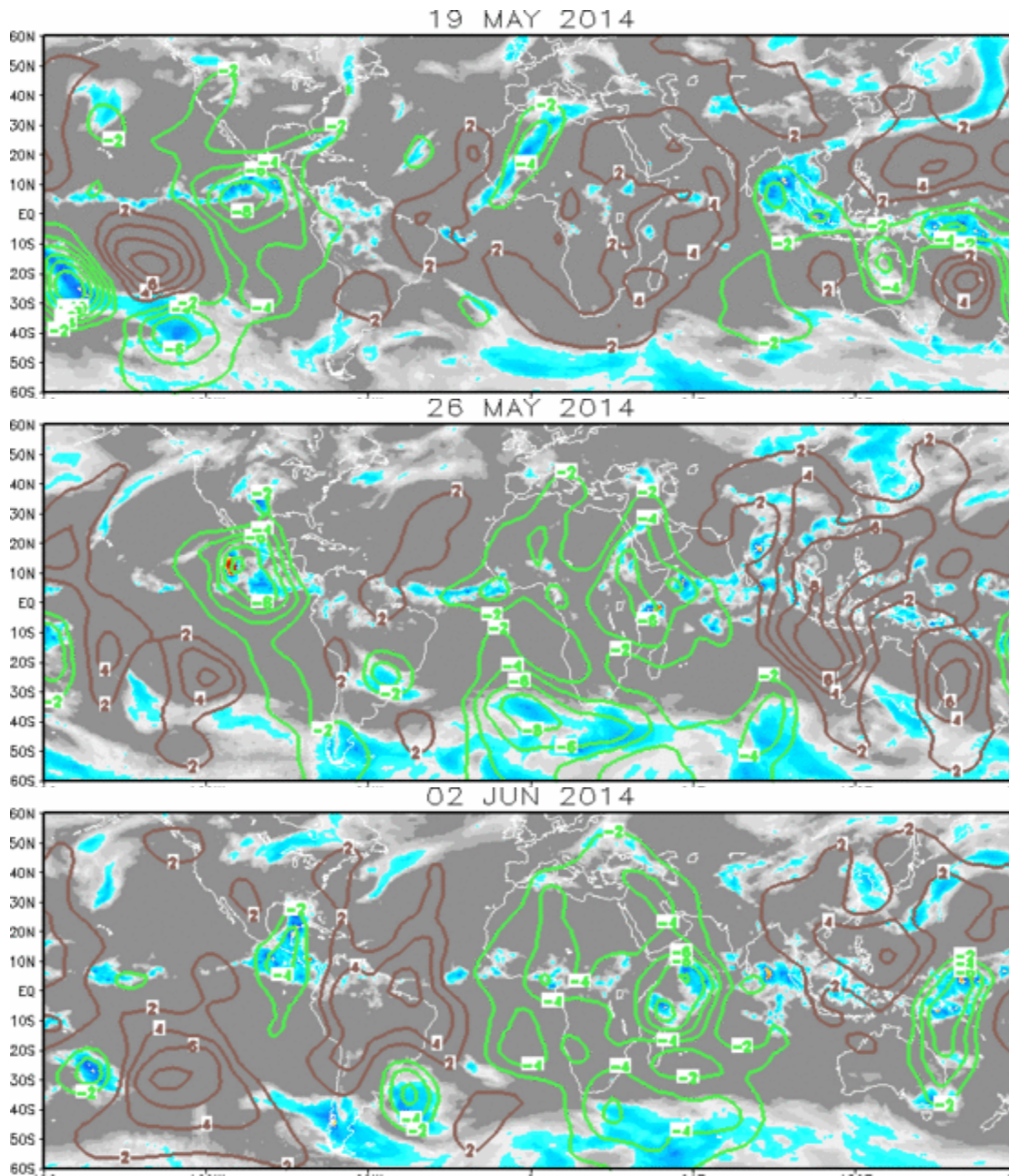


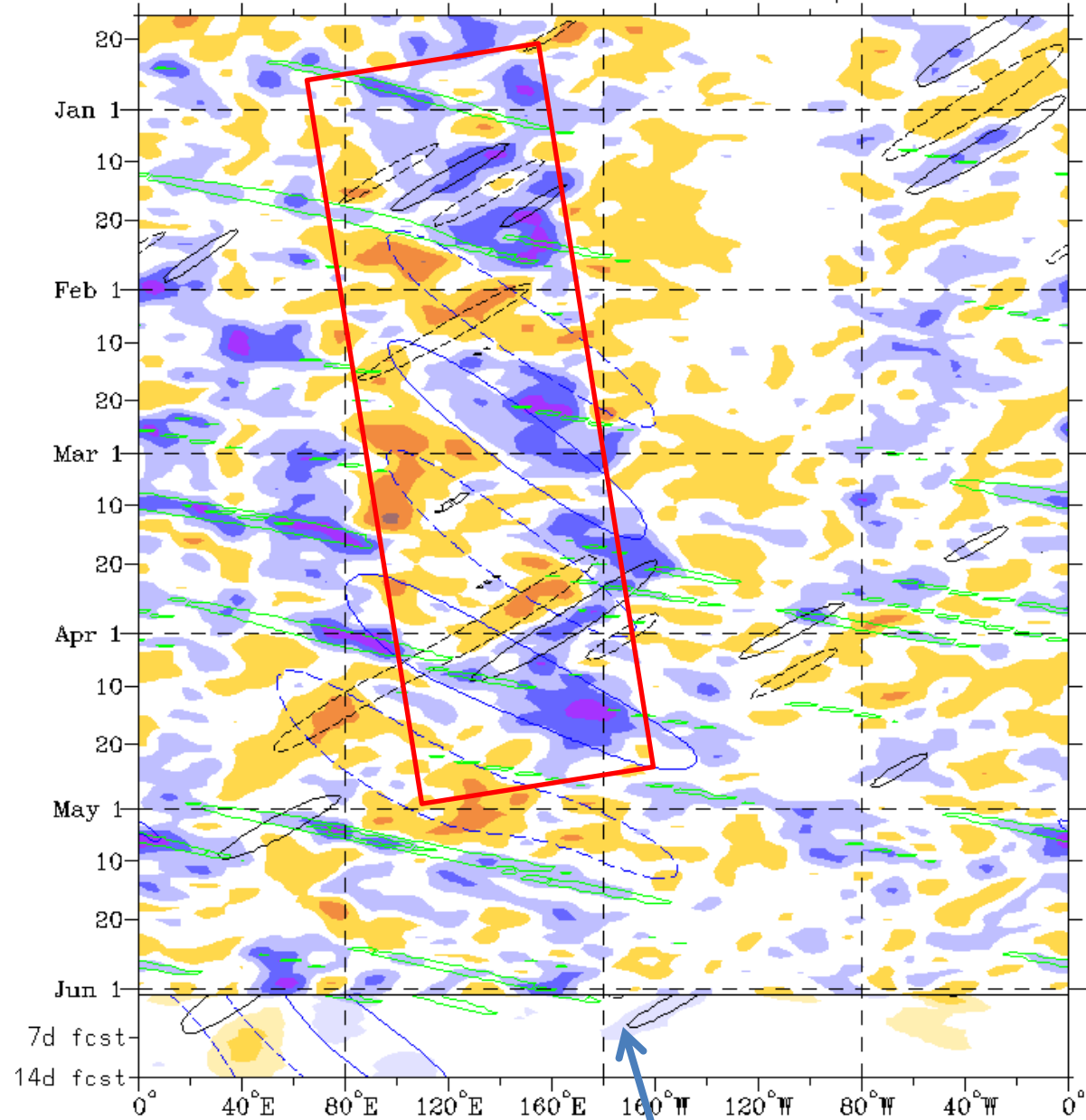
SSTs continue to increase over the Central and Eastern Pacific



IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence





MJO signal weak

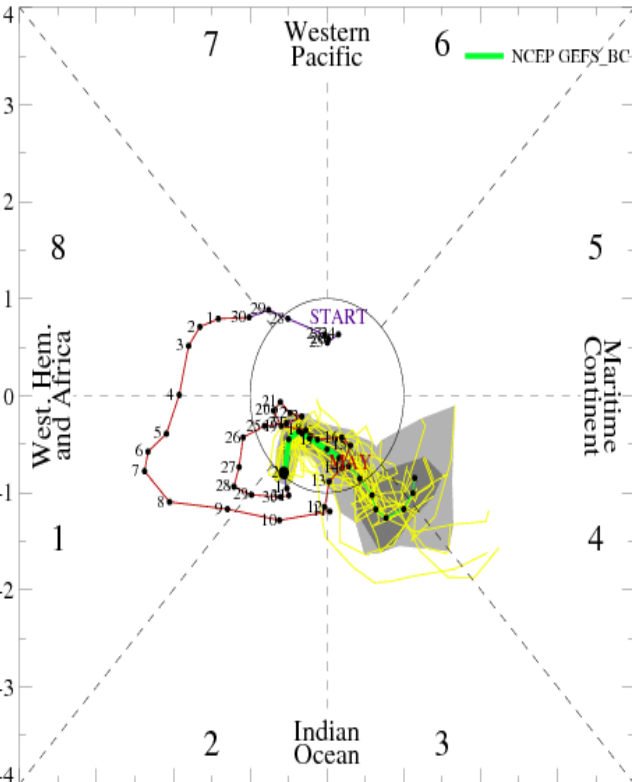
Main drivers are now:

- 1) Atmospheric Kelvin waves (green ovals)
- 2) Equatorial Rossby Waves (black oval, tilted to bottom left)
- 3) Interseasonal state (red box)

Kelvin Wave and Rossby Wave interaction likely.

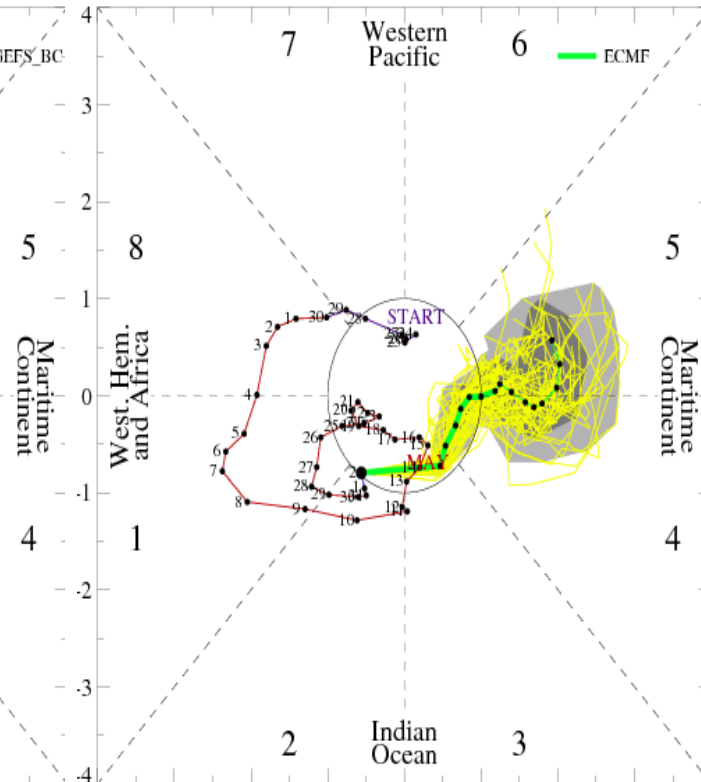
MJO Observation/Forecast

MJO Index Forecast for 03Jun2014-17Jun2014



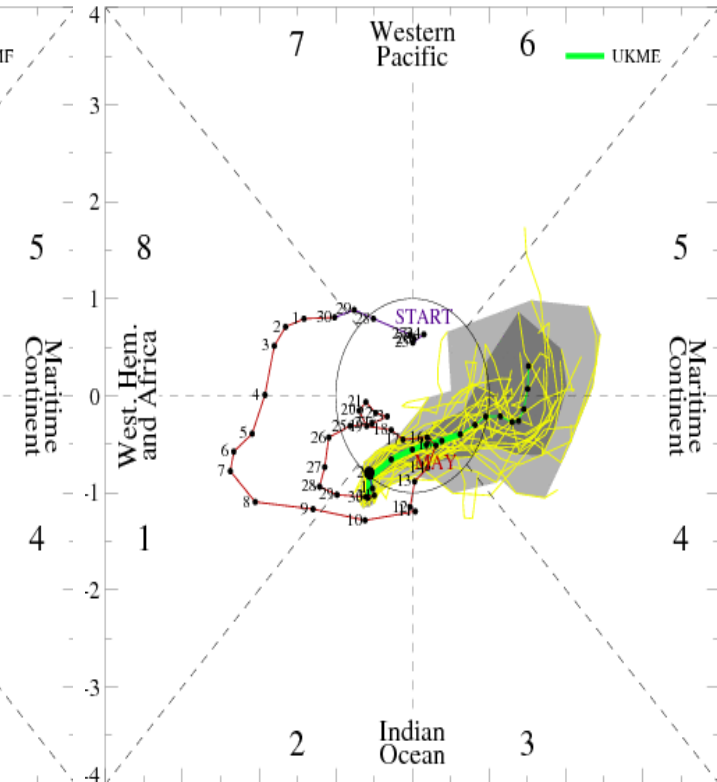
GFS

MJO Index Forecast for 03Jun2014-17Jun2014



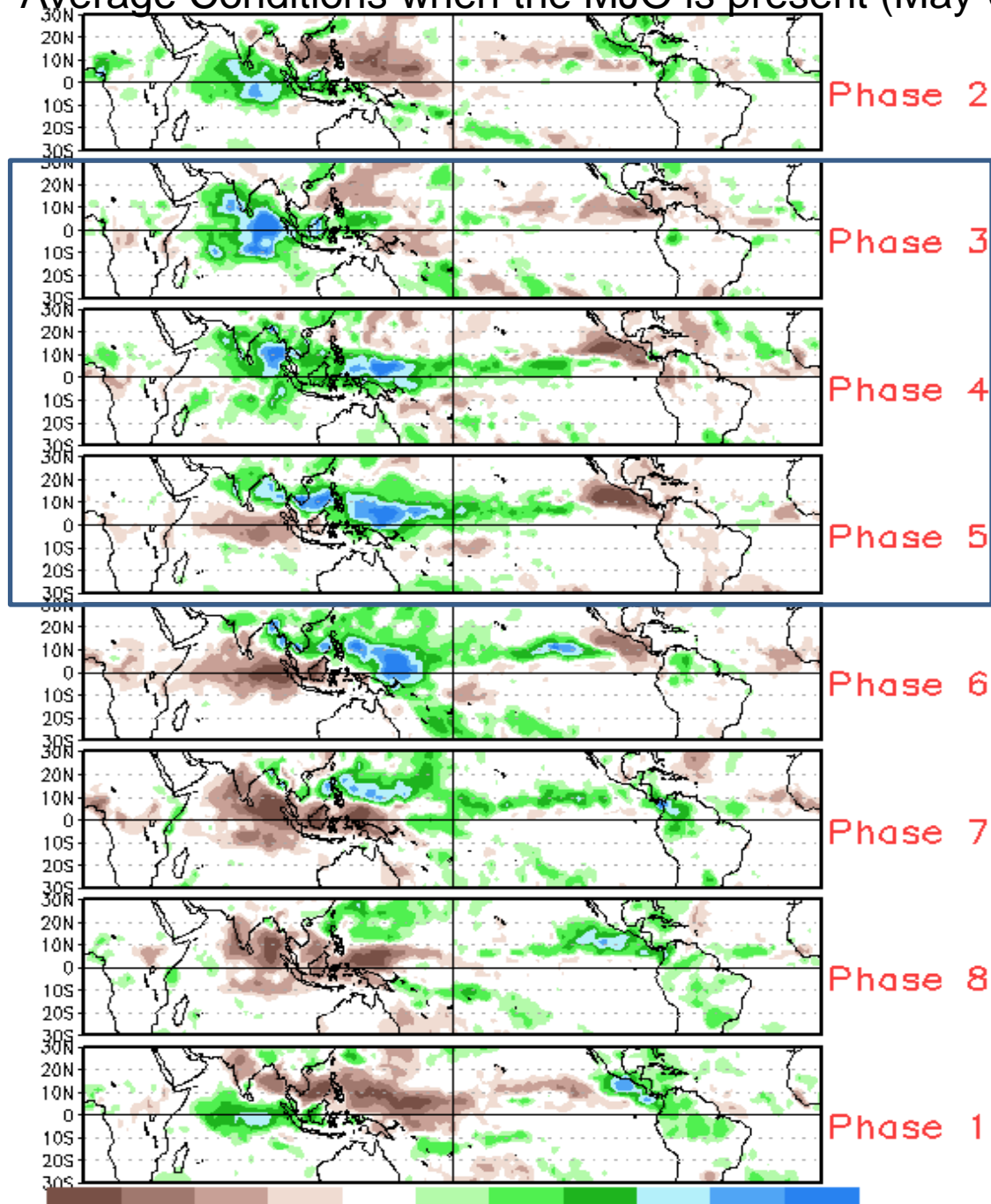
ECMWF

MJO Index Forecast for 03Jun2014-17Jun2014

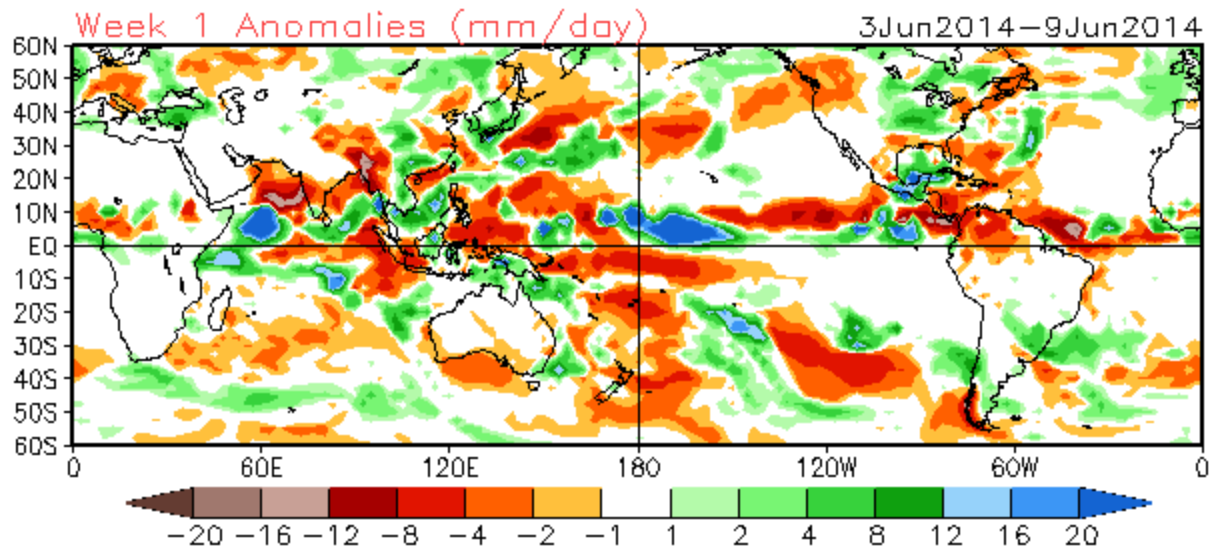


UKMET

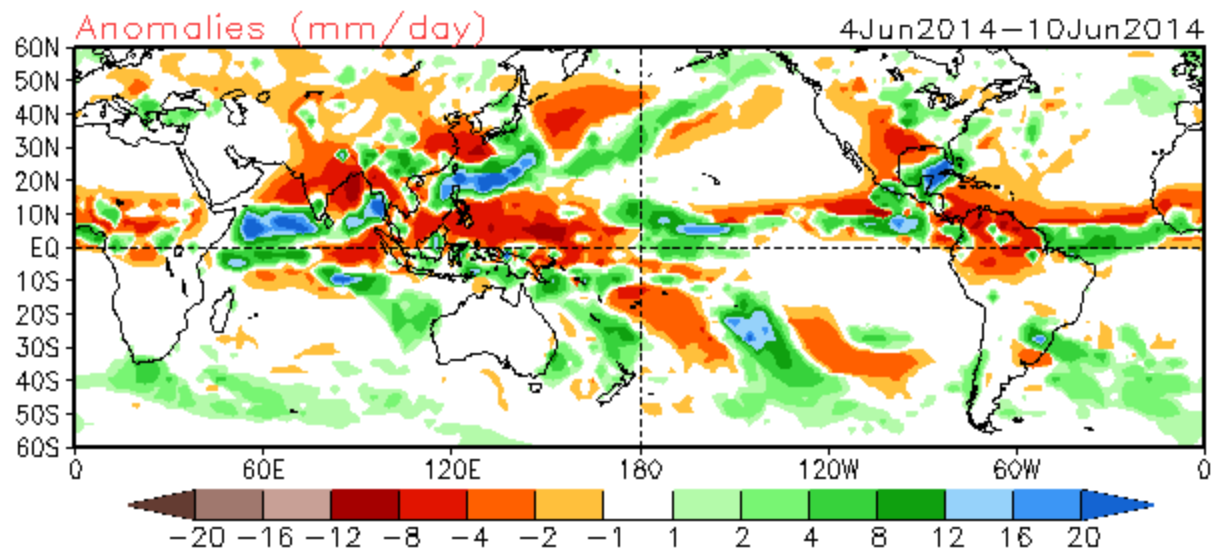
Average Conditions when the MJO is present (May-Sep)



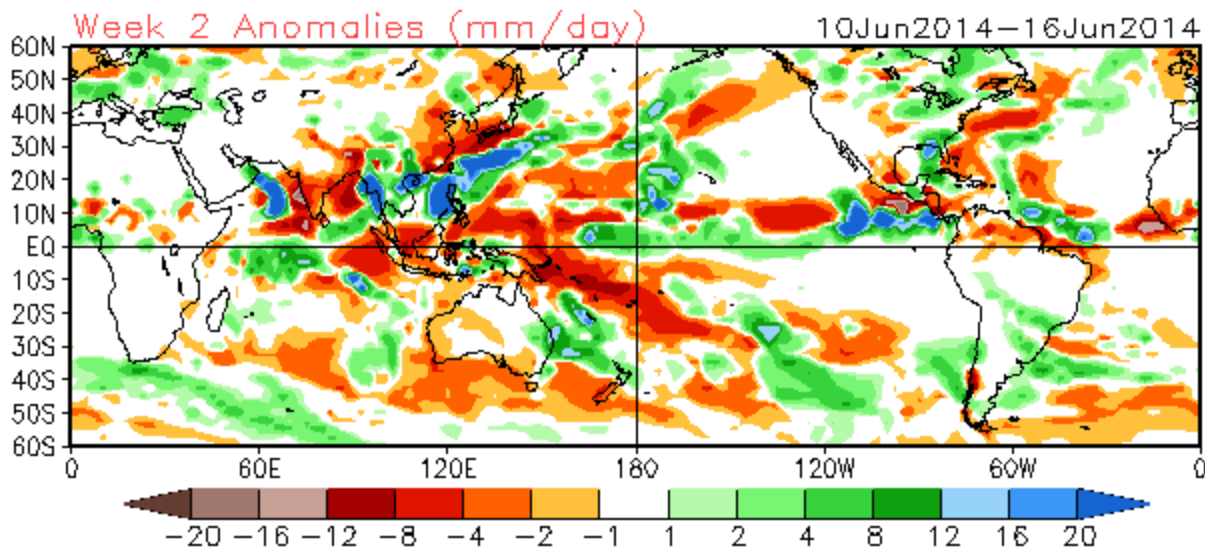
CFS



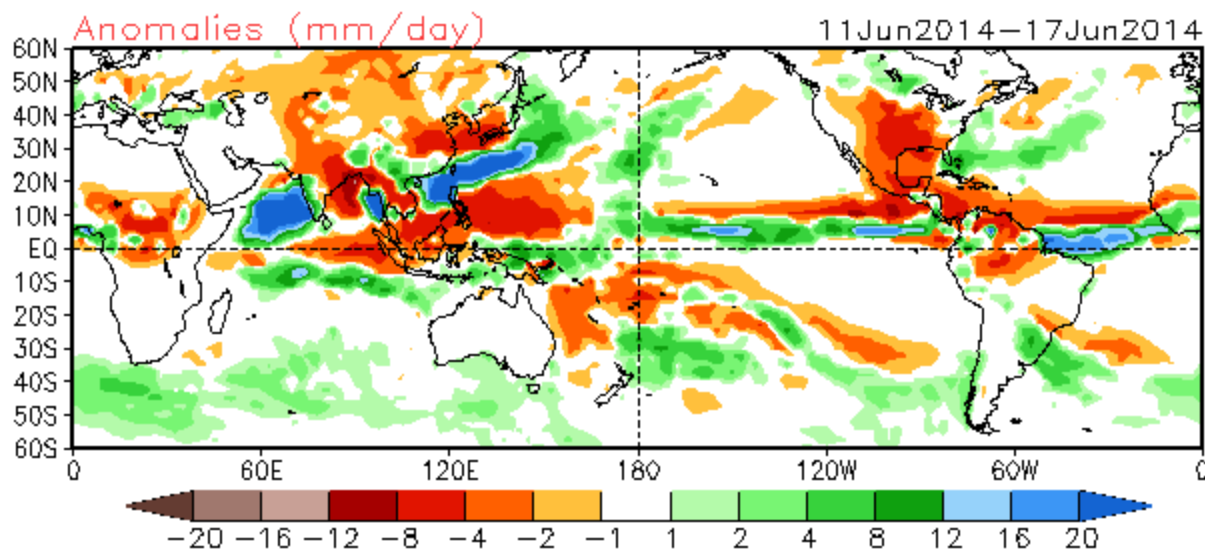
GFS



CFS

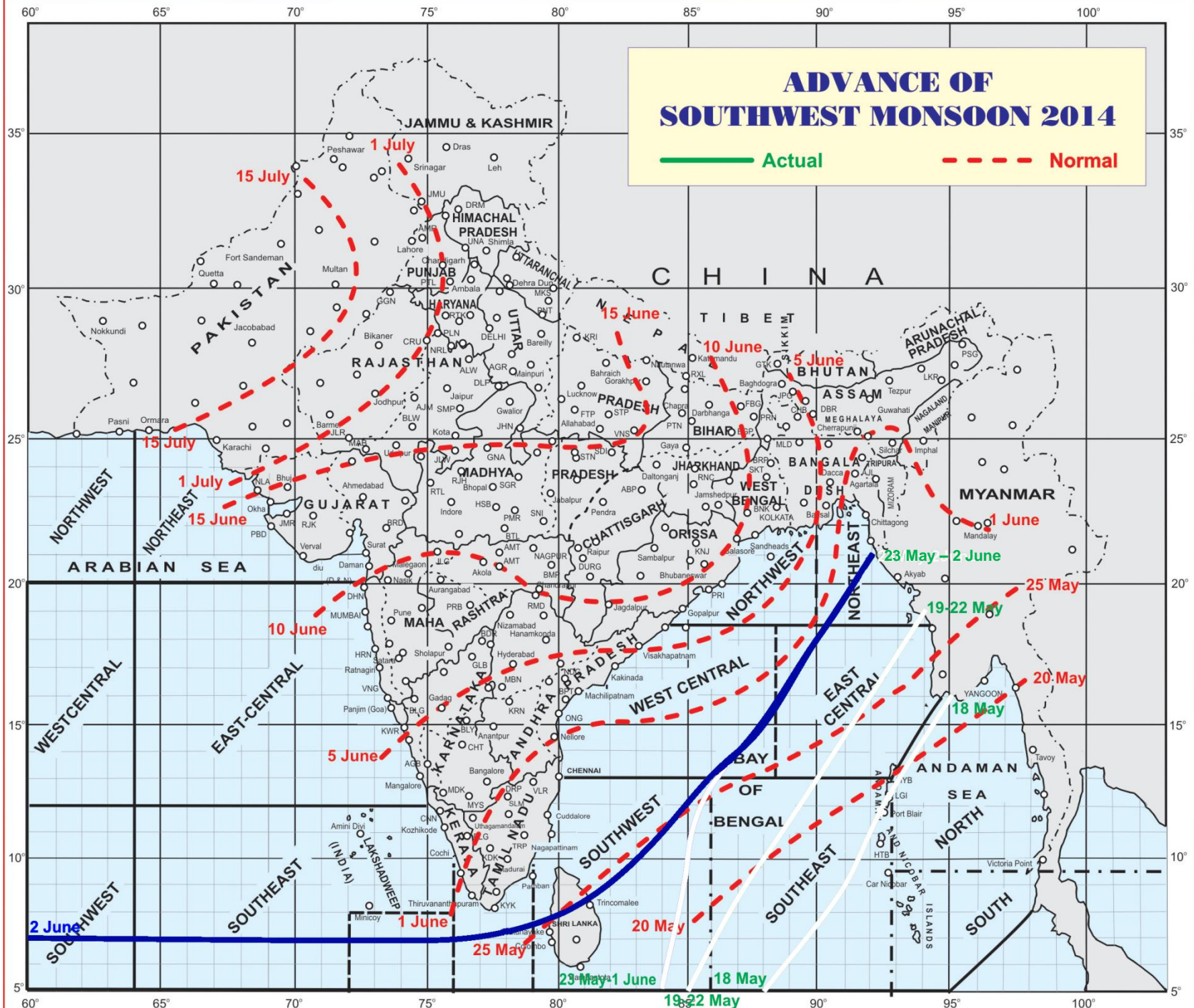


GFS



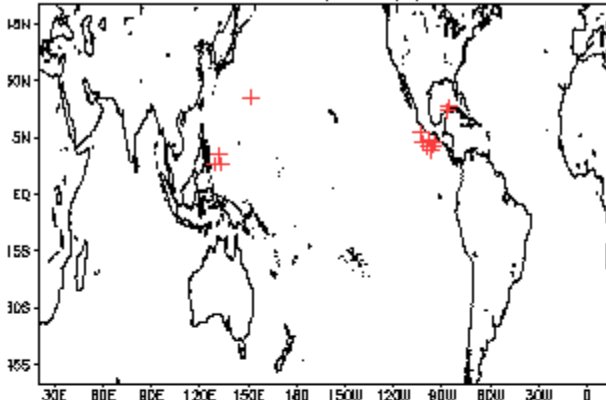
ADVANCE OF SOUTHWEST MONSOON 2014

— Actual - - - Normal

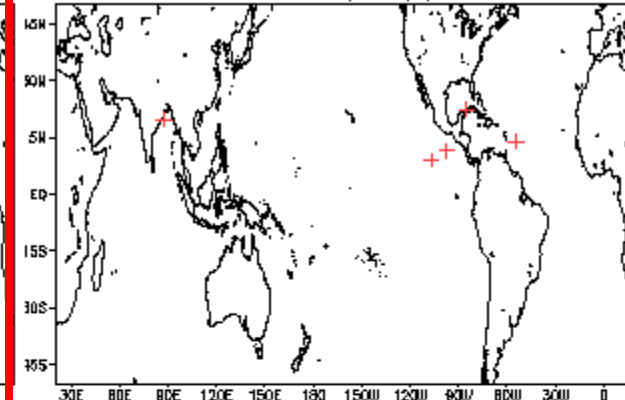


June Tropical Storm Formation by MJO phase

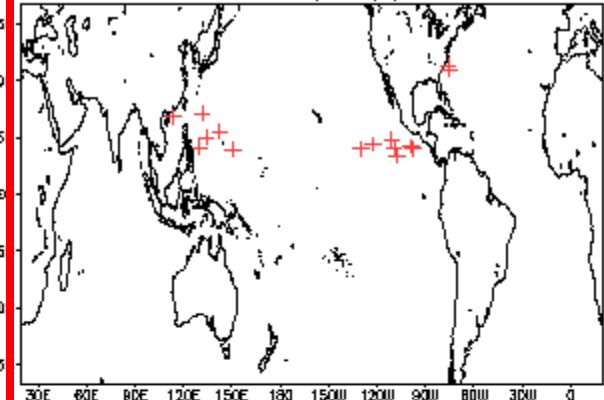
Phase 1 (104 days) 14 storms



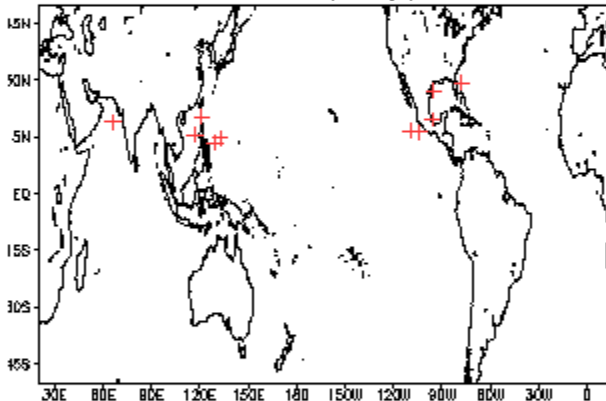
Phase 4 (80 days) 6 storms



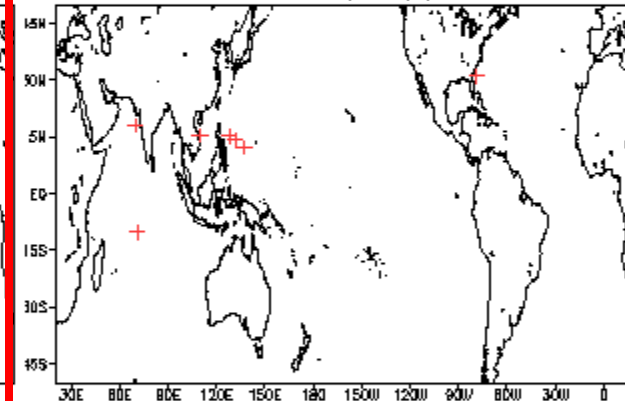
Phase 7 (45 days) 16 storms



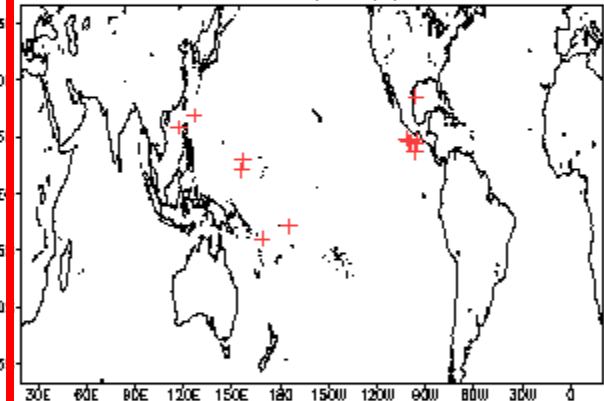
Phase 2 (82 days) 11 storms



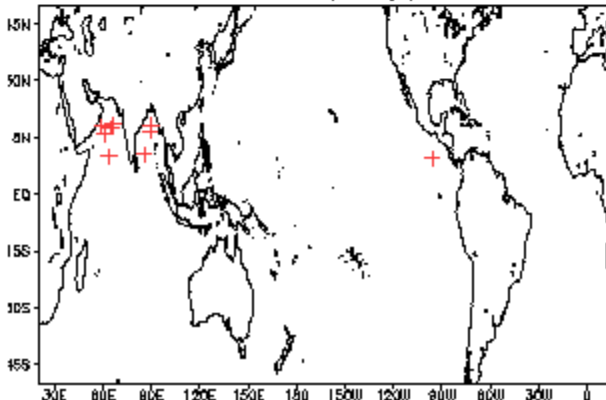
Phase 5 (77 days) 8 storms



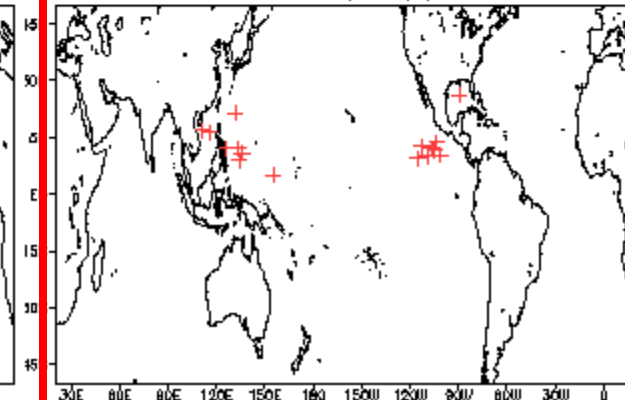
Phase 8 (70 days) 15 storms



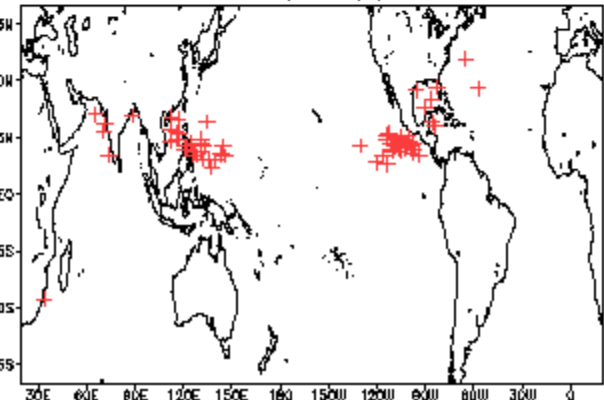
Phase 3 (57 days) 10 storms



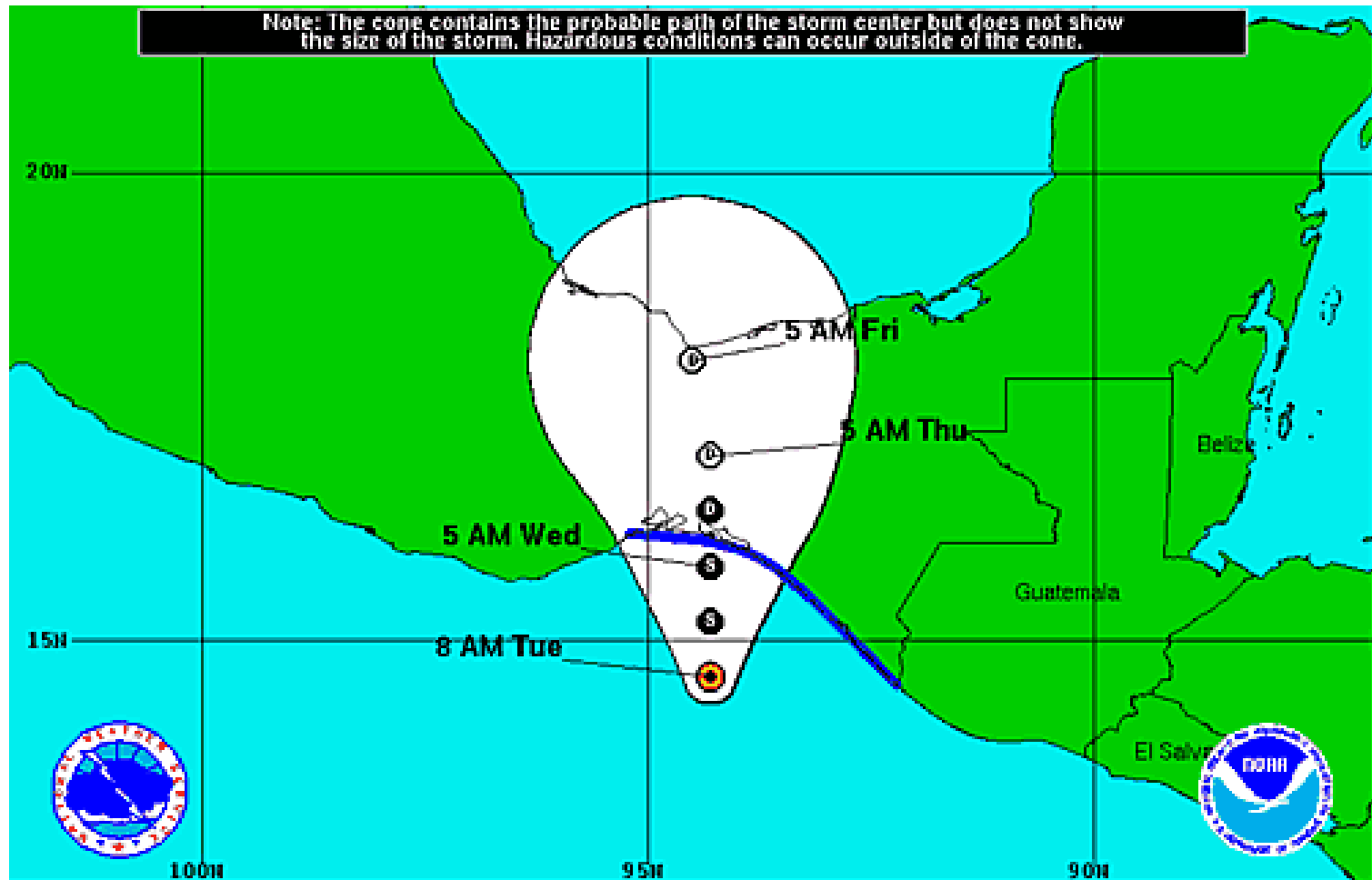
Phase 6 (82 days) 17 storms



Null (423 days) 71 storms



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 Depression Two-e

Tuesday June 3, 2014
 8 AM PDT Advisory #
 NWS National Hurricane Center

Current Information: ●
 Center Location 14.8 N 94.3 W
 Max Sustained Wind 35 mph
 Movement N at 5 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



Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



800 AM EDT TUE JUN 3 2014

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%

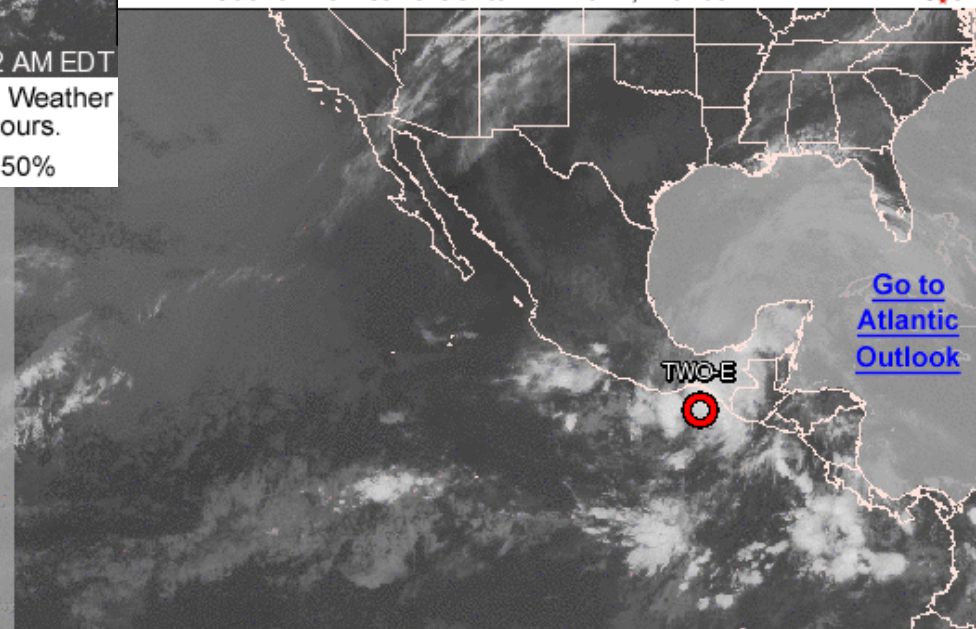
[Go to Eastern Pacific Outlook](#)

[Go to Atlantic Outlook](#)

National Hurricane Center

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

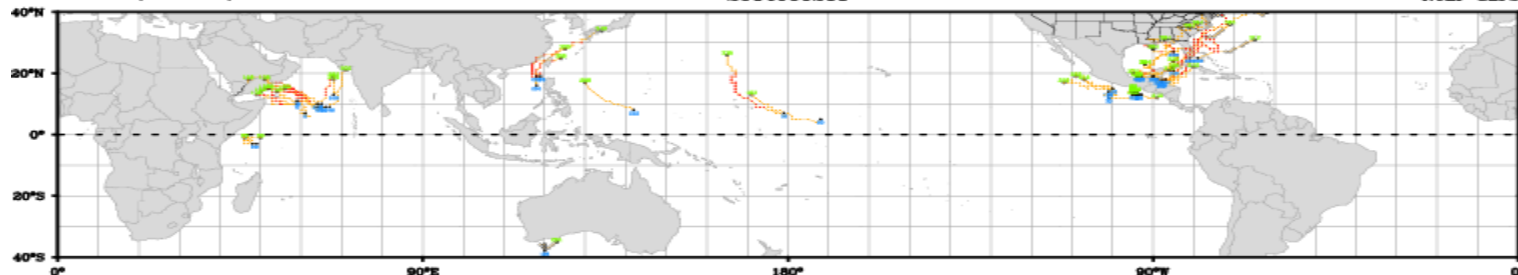


500 AM PDT TUE JUN 3 2014

Satellite Image: 0700 AM PDT

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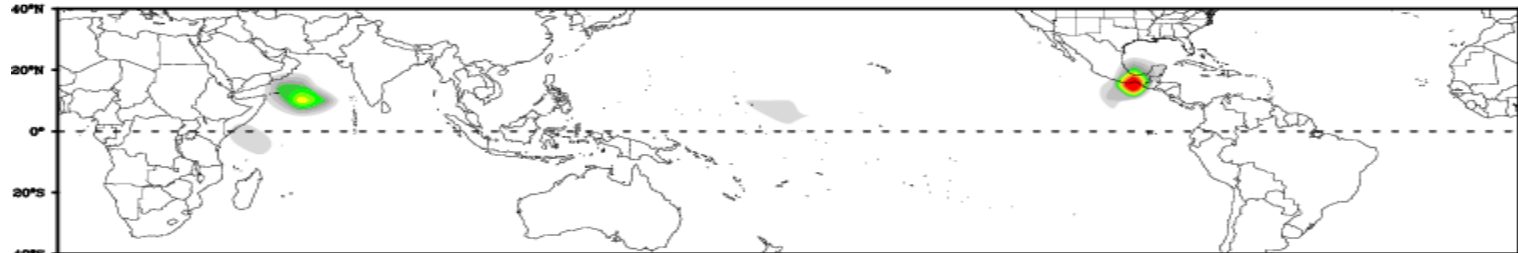
- Low <30%
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Days 1-4

Track Count (0-96 hr)

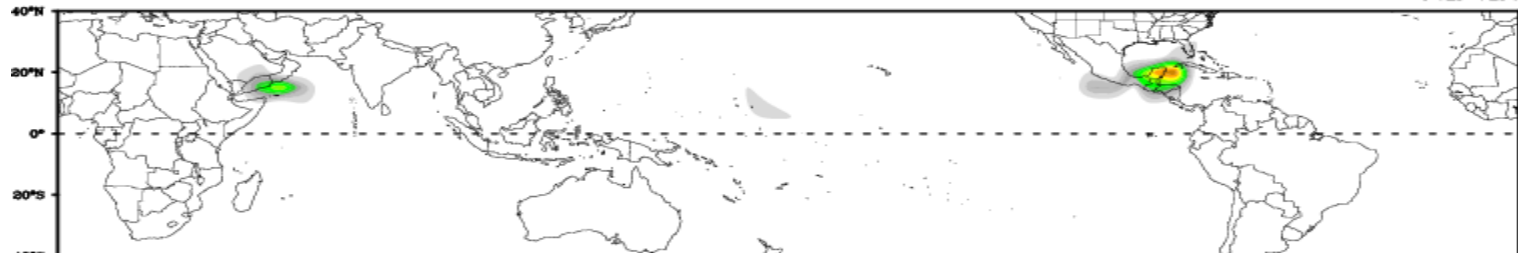
NCEP GEFS



Day 5-8

Track Count (102-192 hr)

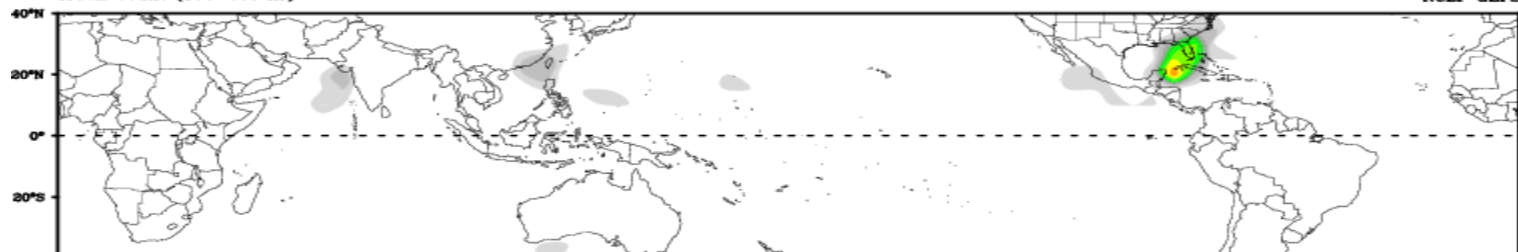
NCEP GEFS



Day 9-12

Track Count (198-288 hr)

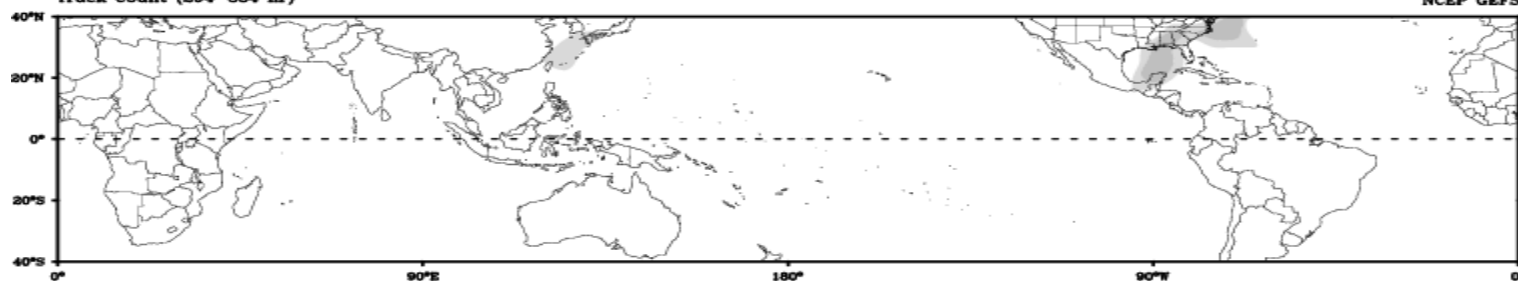
NCEP GEFS

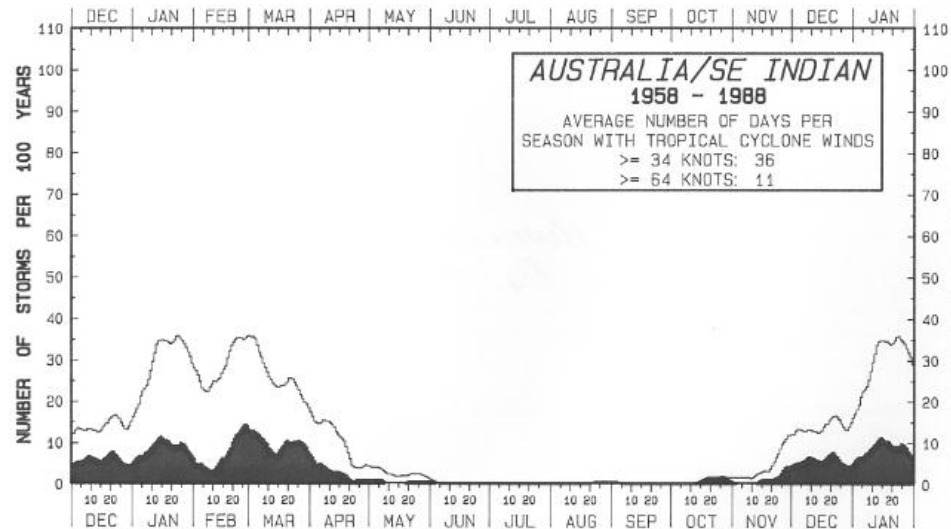
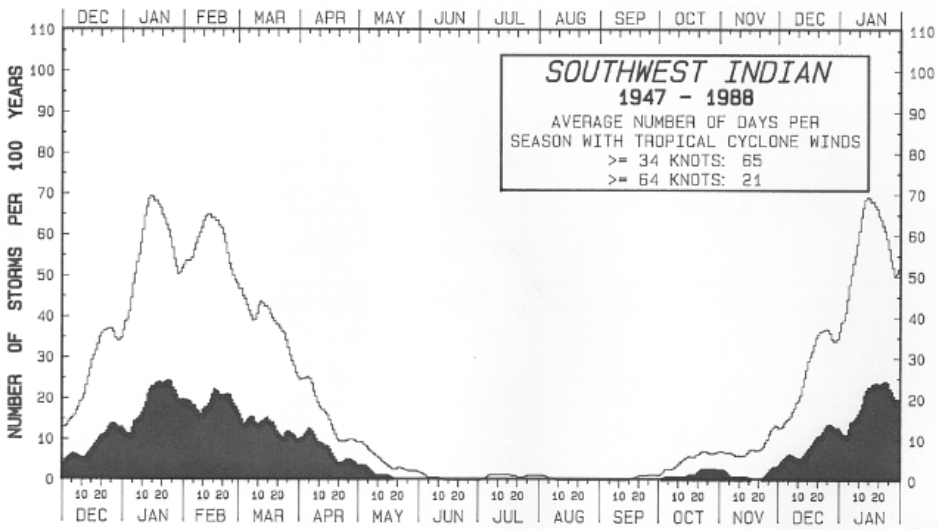
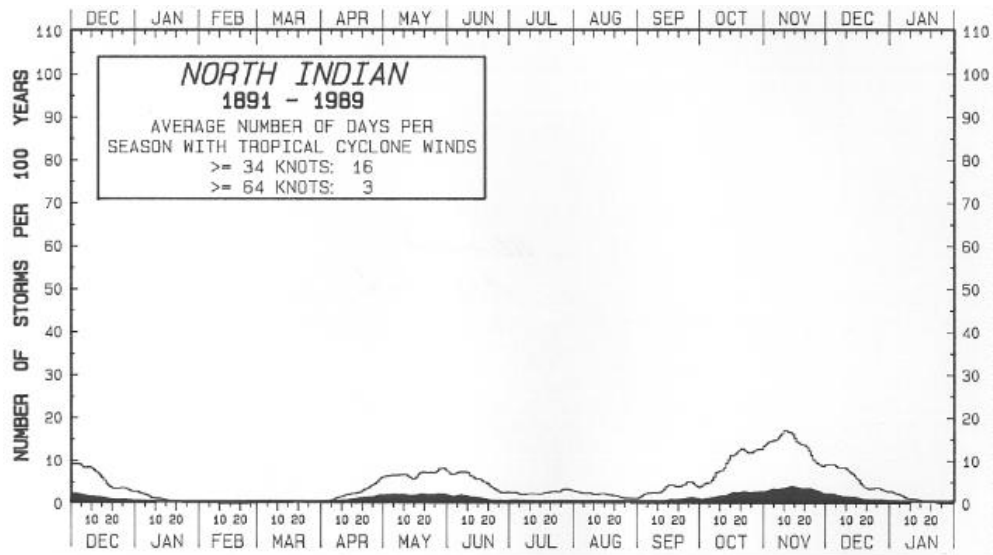


Day 13-15

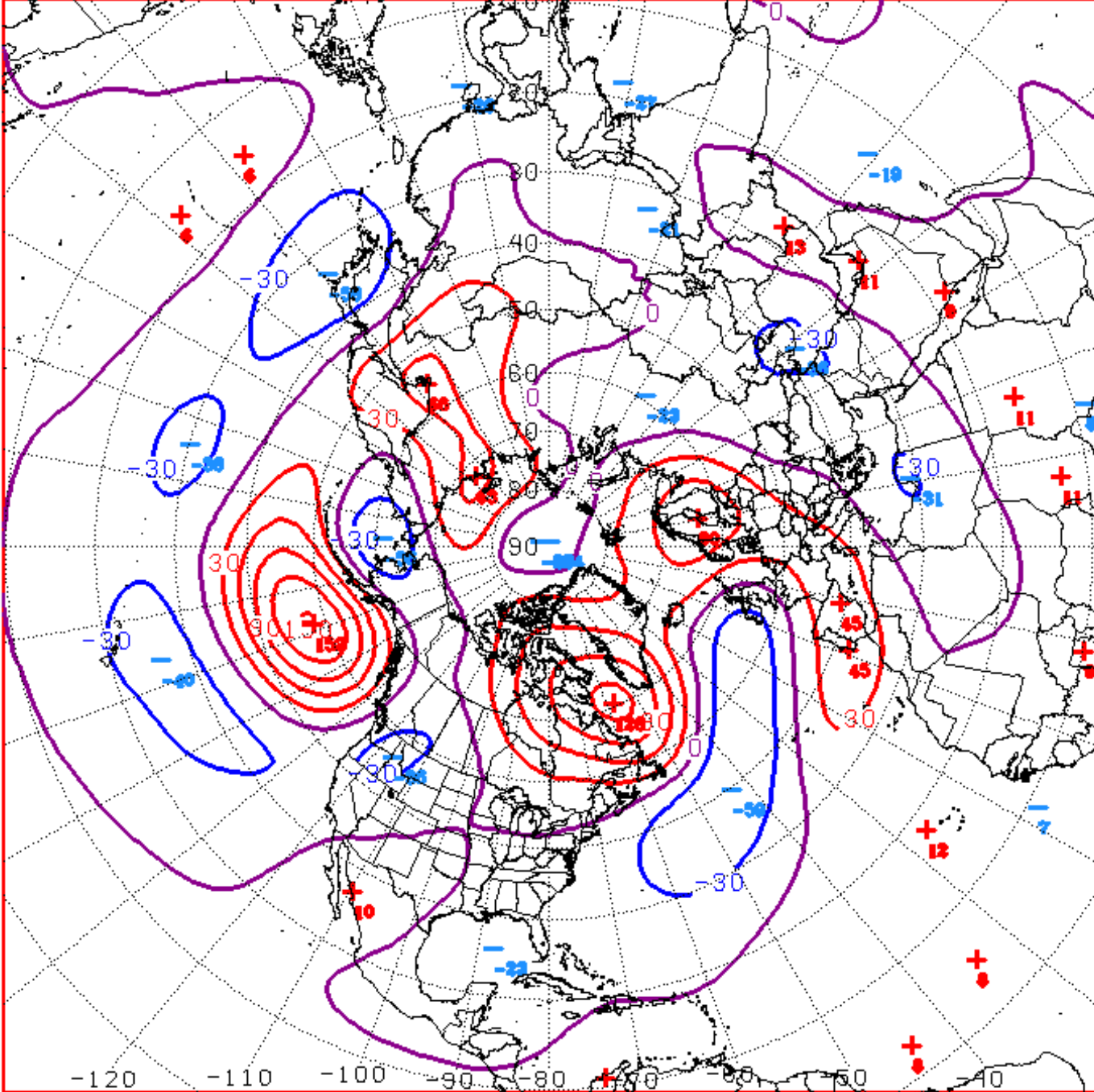
Track Count (294-384 hr)

NCEP GEFS





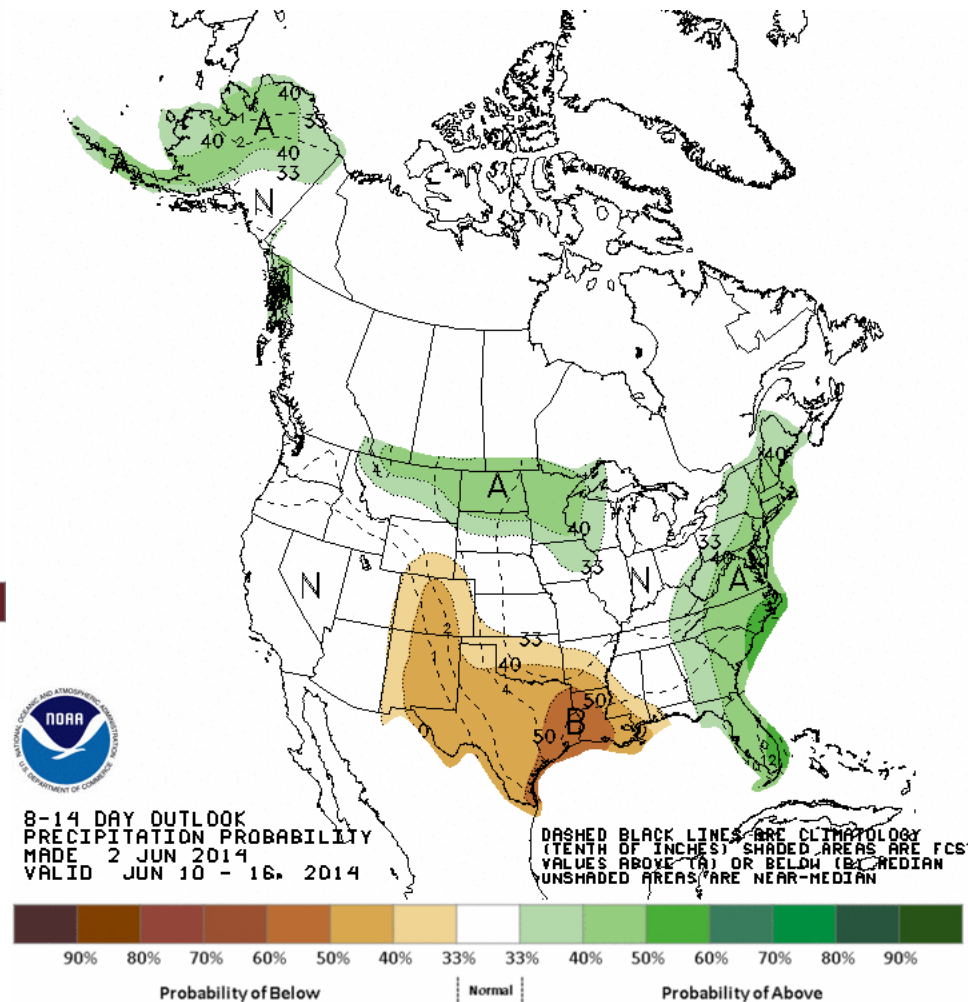
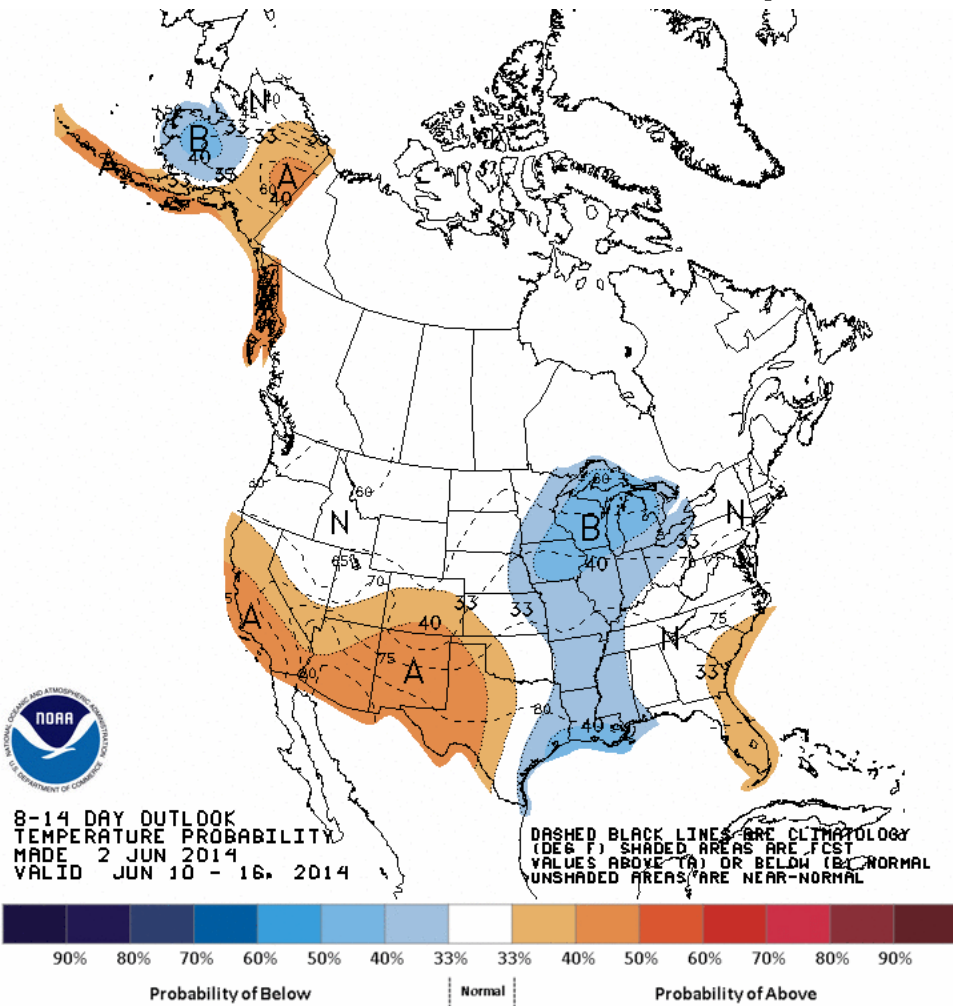
Connections / U.S. Impacts



D+11 500 MB ANOMALIES FROM 00Z ECMM
 CPC MAP MADE JUN 03 2014 1056 UTC CNTD JUN 14 2014

Week 2 – Temperature and Precipitation

Seeing some patterns consistent with lagged impacts from Phase 5/6 MJO, but not proper linkages over the Pacific to allow preliminary attribution.

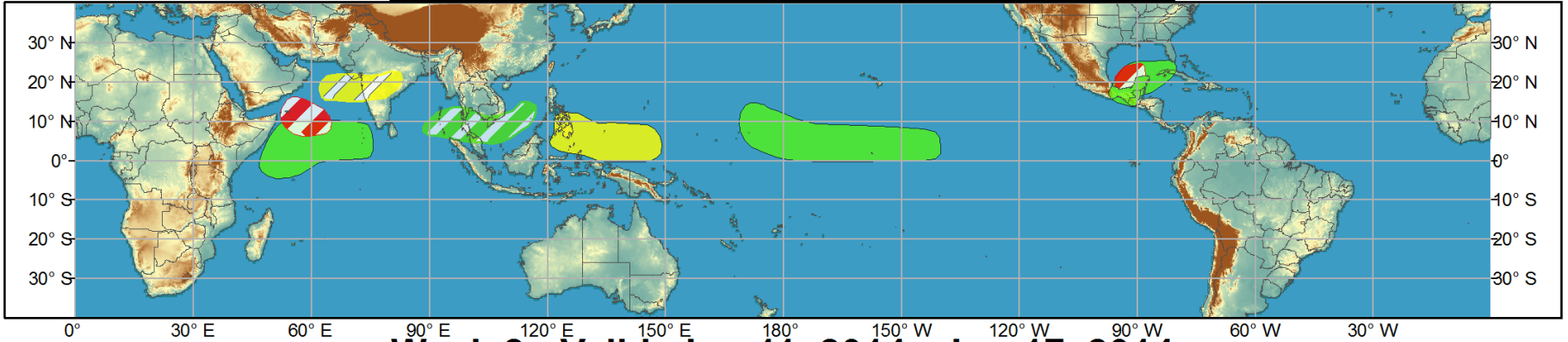




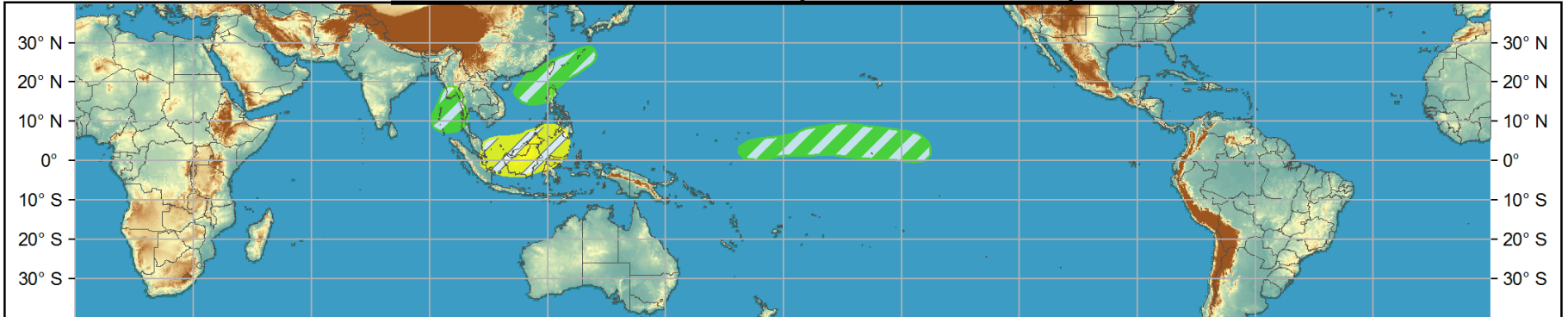
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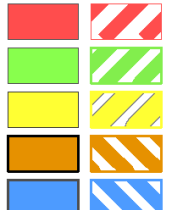


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