

Global Tropics Hazards And Benefits Outlook

August 19, 2014

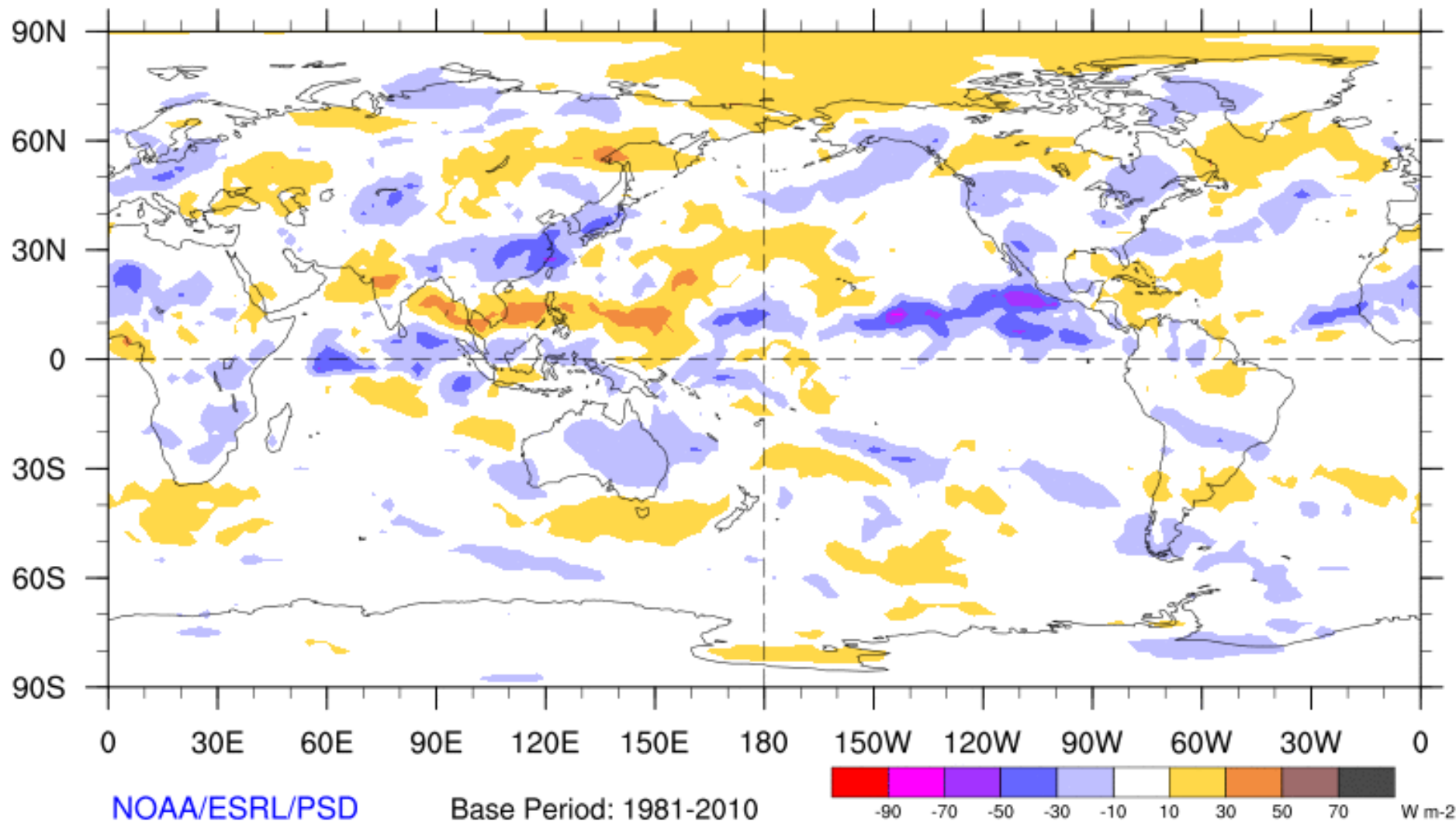
Adam Allgood

Outline

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

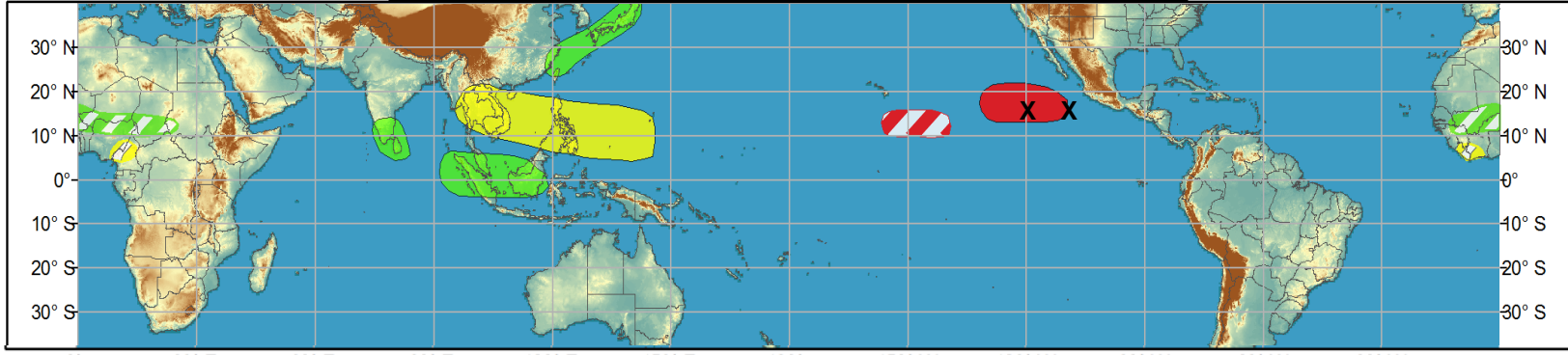
7-Day Average OLR Anomaly

2014/08/11 - 2014/08/17

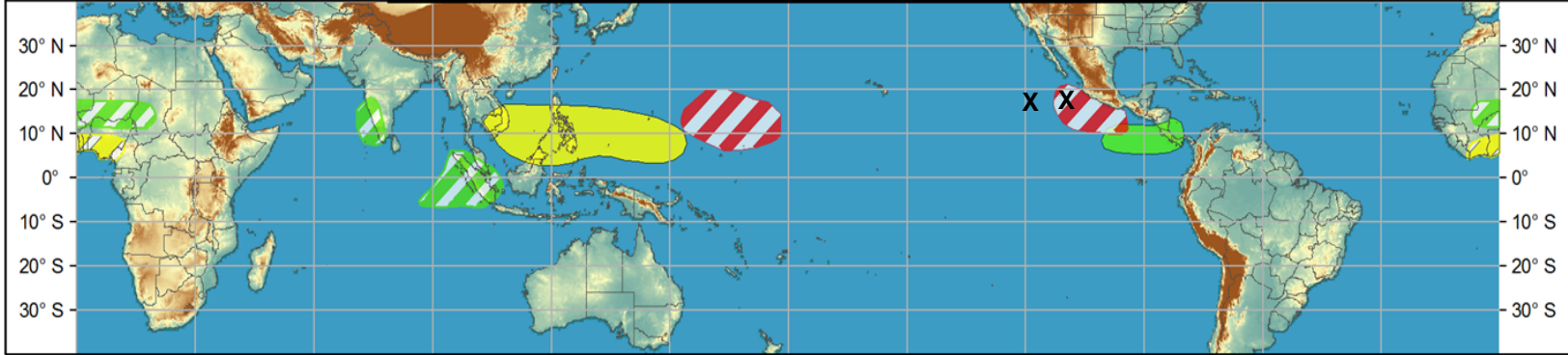




Week 1 - Valid: Aug 13, 2014 - Aug 19, 2014

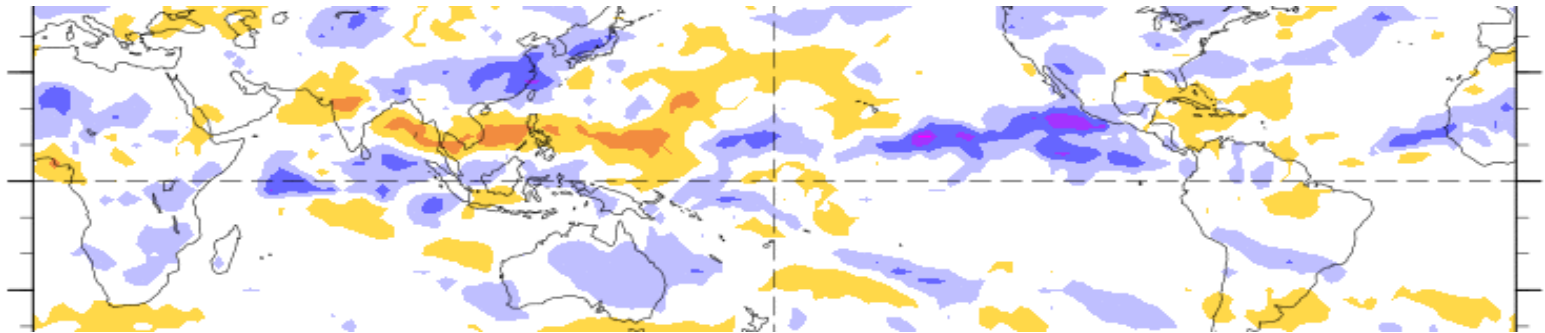


Week 2 - Valid: Aug 13, 2014 - Aug 19, 2014



7-Day Average OLR Anomaly

2014/08/11 - 2014/08/17



Synopsis of Climate Modes

ENSO:

- The chance of El Niño has decreased to about 65% during the Northern Hemisphere fall and early winter.

MJO and other subseasonal tropical variability:

- The MJO remained weak during the past week, although there is some evidence of an eastward propagating intraseasonal signal.
- Rossby Wave activity over the Maritime Continent, Kelvin Wave activity over the Indian Ocean, and a highly active eastern Pacific are interfering with the signal.
- Dynamical model MJO index forecasts are divergent and do not support the evolution of an MJO.

Extratropics:

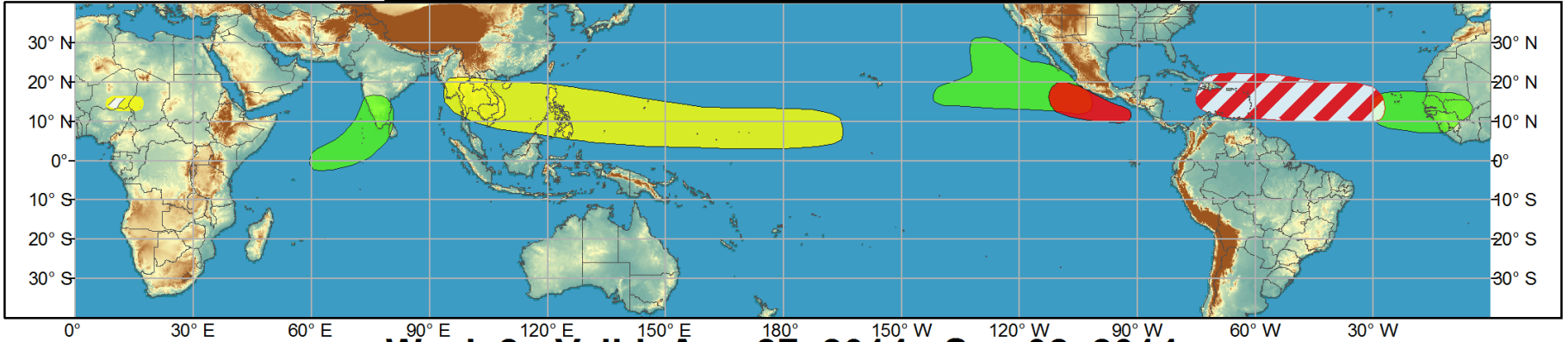
- Without a canonical MJO signal, it is difficult to ascertain the impacts of tropical forcing on the mid-latitude pattern affecting the U.S. However, given the highly active eastern Pacific and forecasted TC tracks closer to the Baja, there is increased potential for Gulf moisture surges into the North American Monsoon regions.



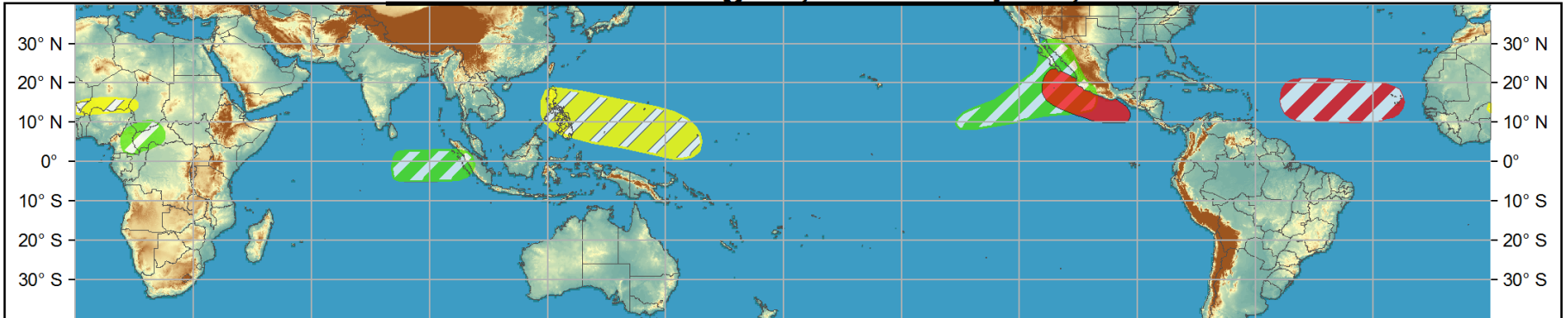
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Week 1 - Valid: Aug 20, 2014 - Aug 26, 2014

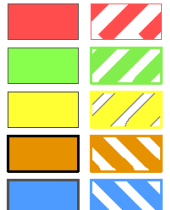


Week 2 - Valid: Aug 27, 2014 - Sep 02, 2014



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

Produced: 08/19/2014
Forecaster: Allgood

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.



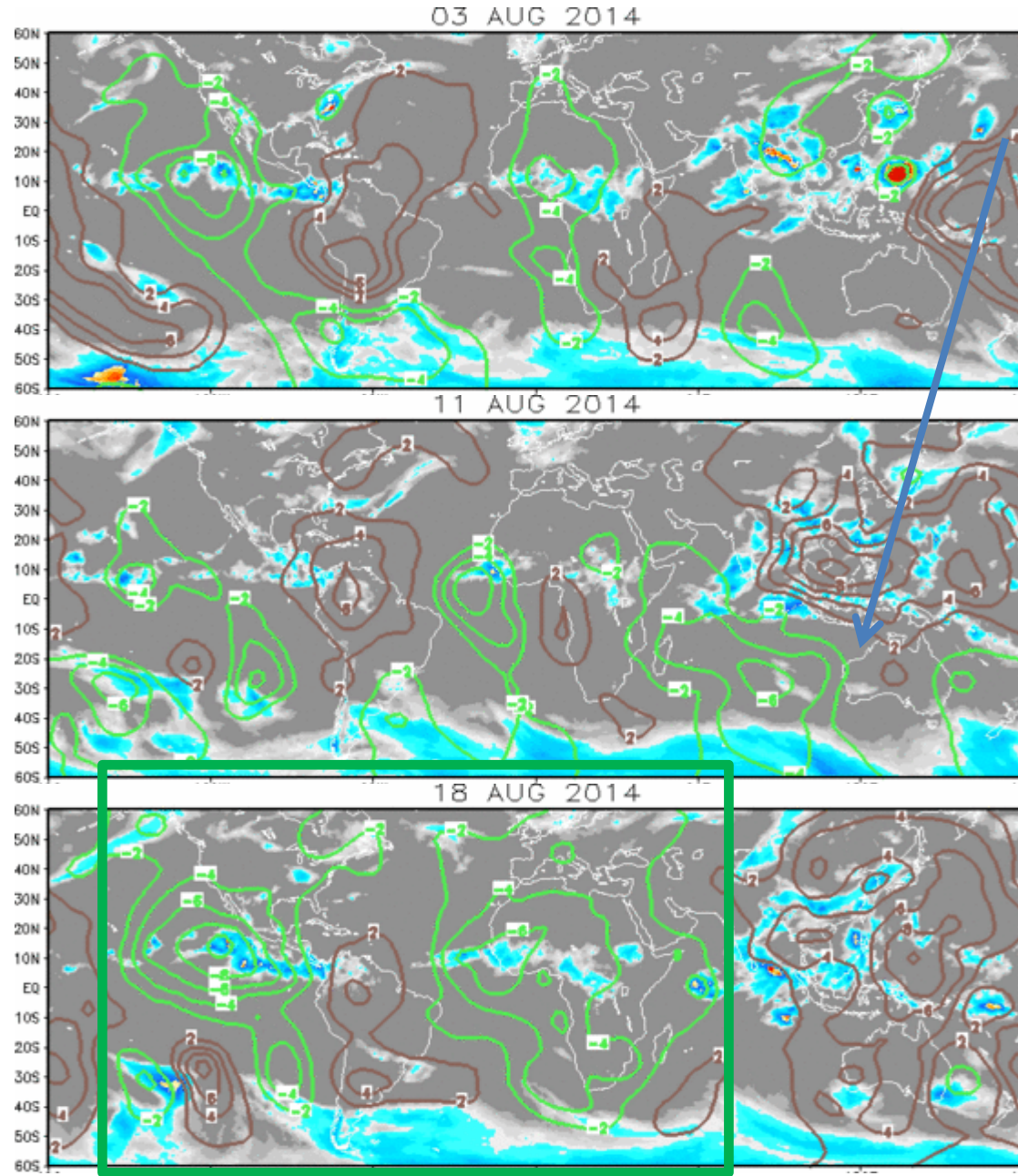
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

Brown: Enhanced Convergence

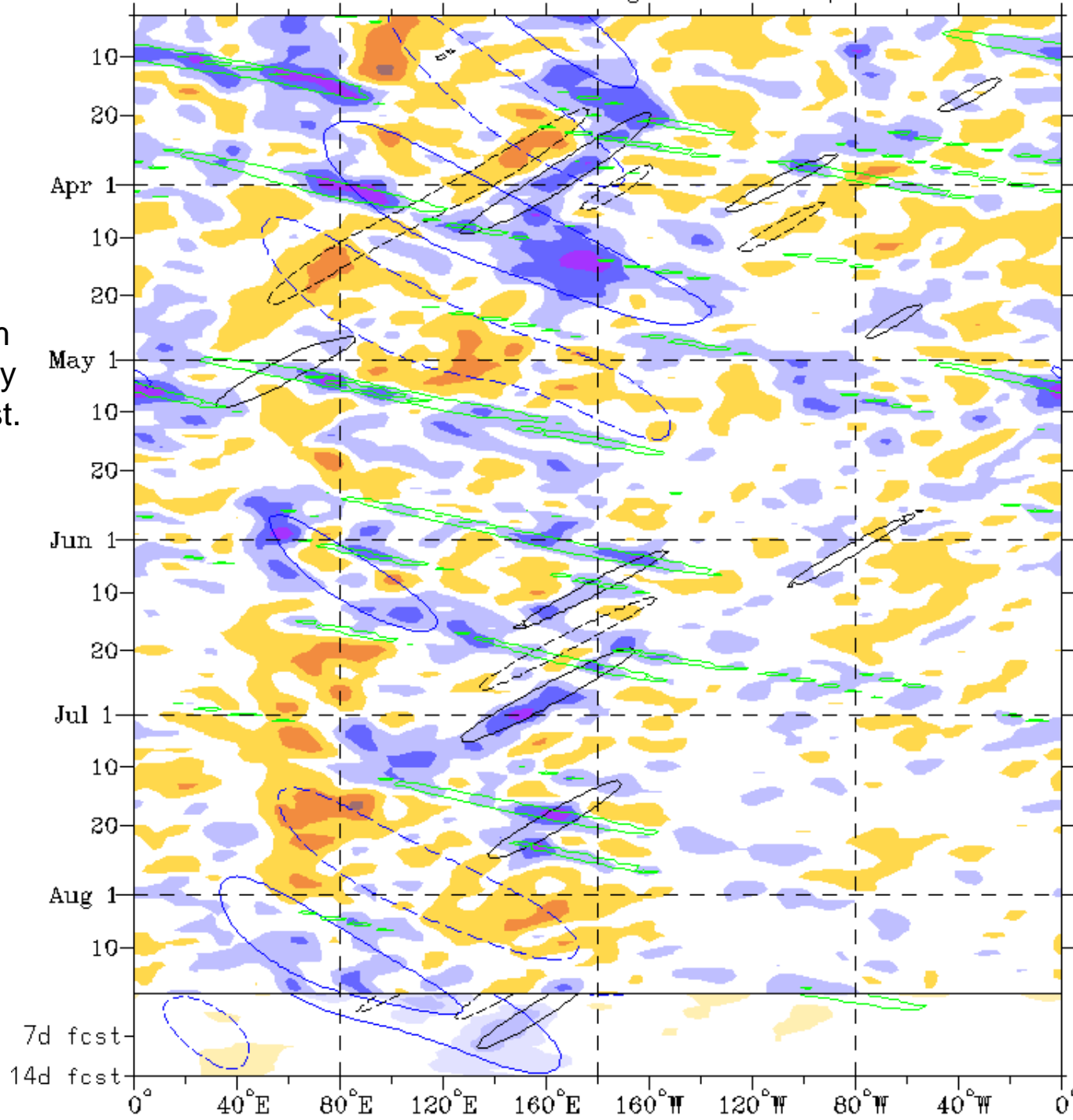
Rossby Wave (westward propagating – arrow) features are more prominent than any MJO signal.

The pattern has become gradually more coherent in recent days, with enhanced convection (green box) over the Western Hemisphere and suppressed convection over the west-central Pacific.

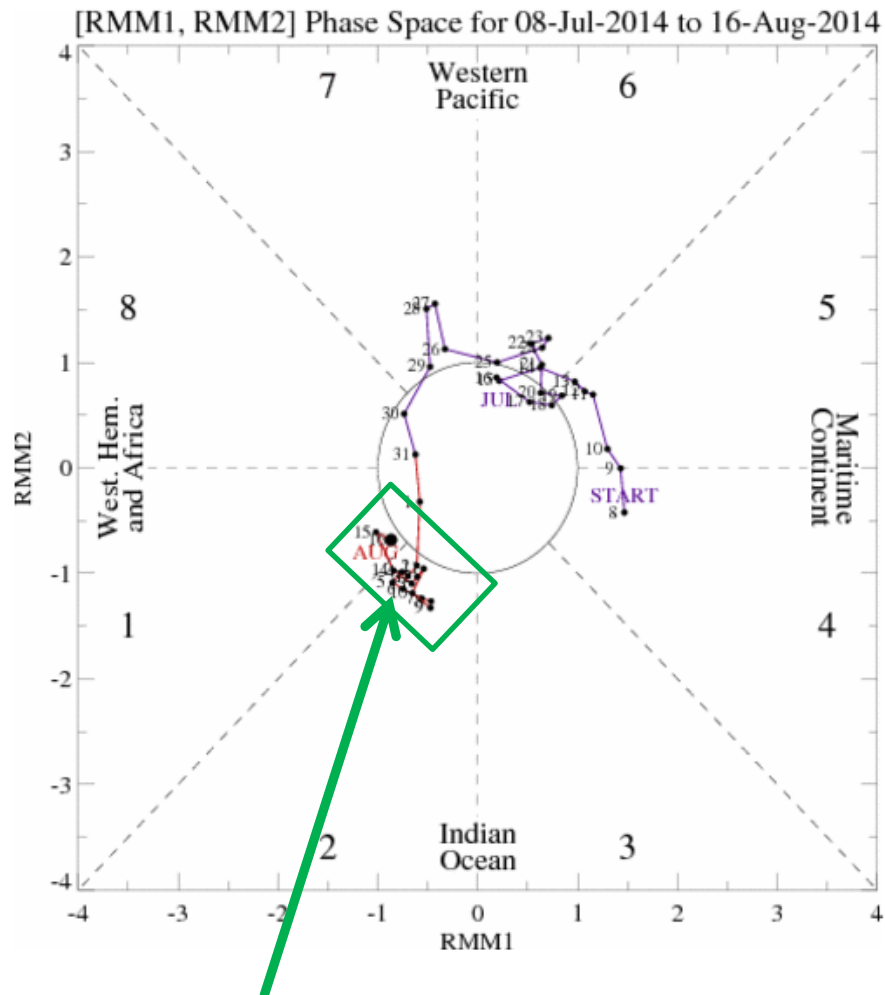


Note the propagation of suppressed convection from the Indian Ocean in mid-July to the Pacific in early August.

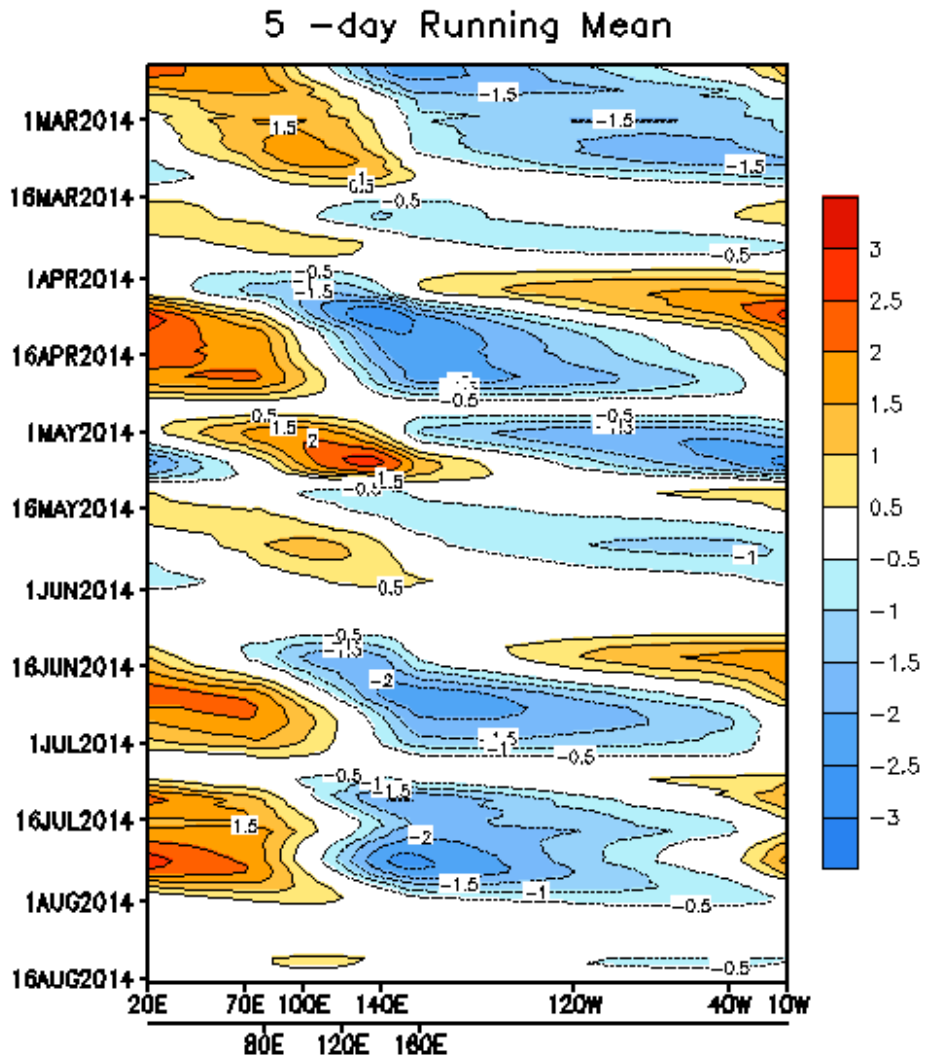
More recently, increased convection was observed over the Indian Ocean/western Maritime Continent.



Comparison of MJO Indices

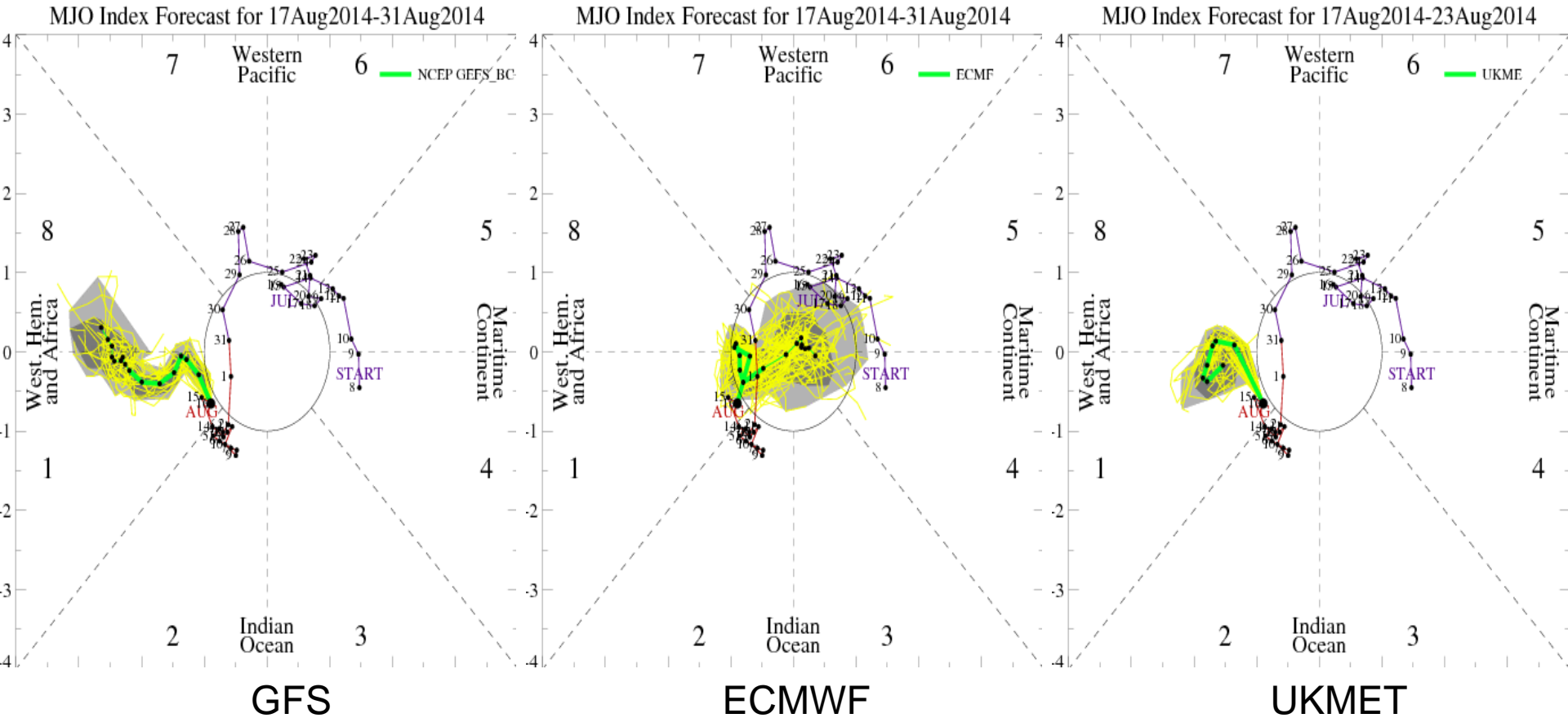


No propagation for over 2 weeks!



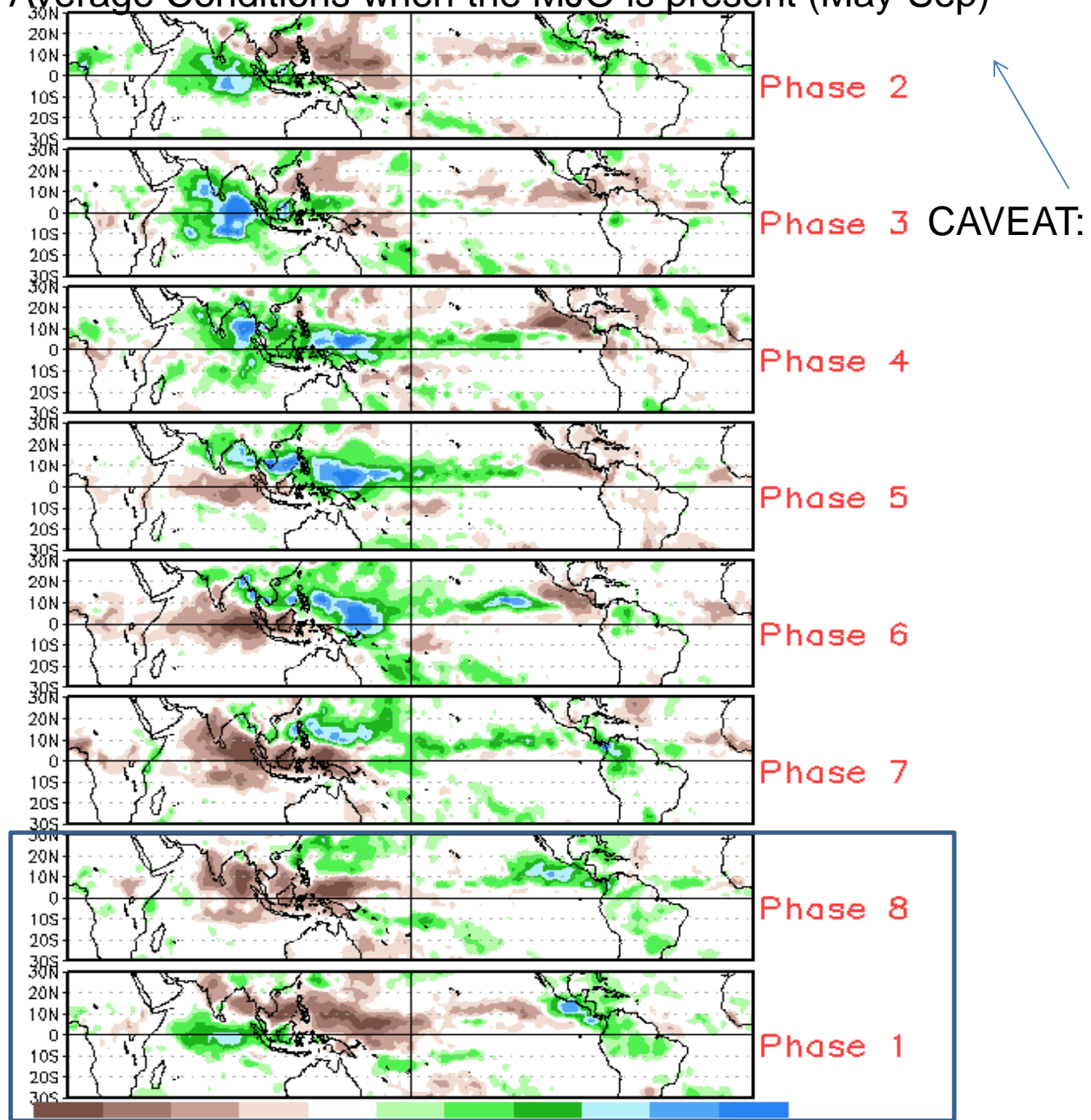
Data updated through 19 Aug 2014

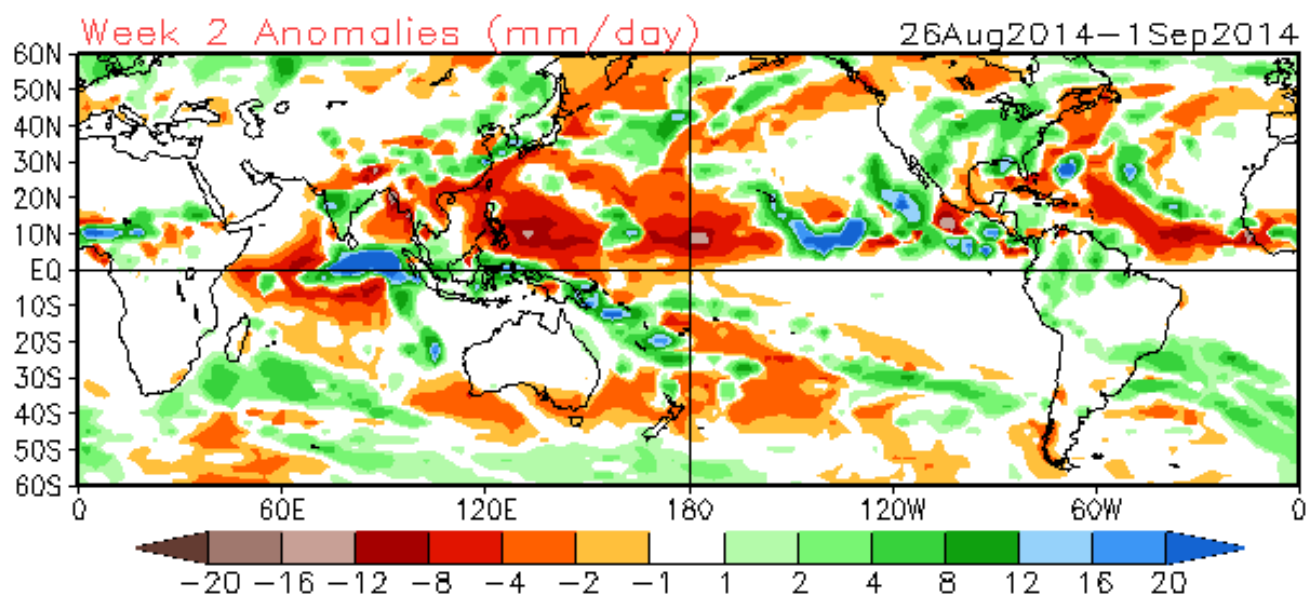
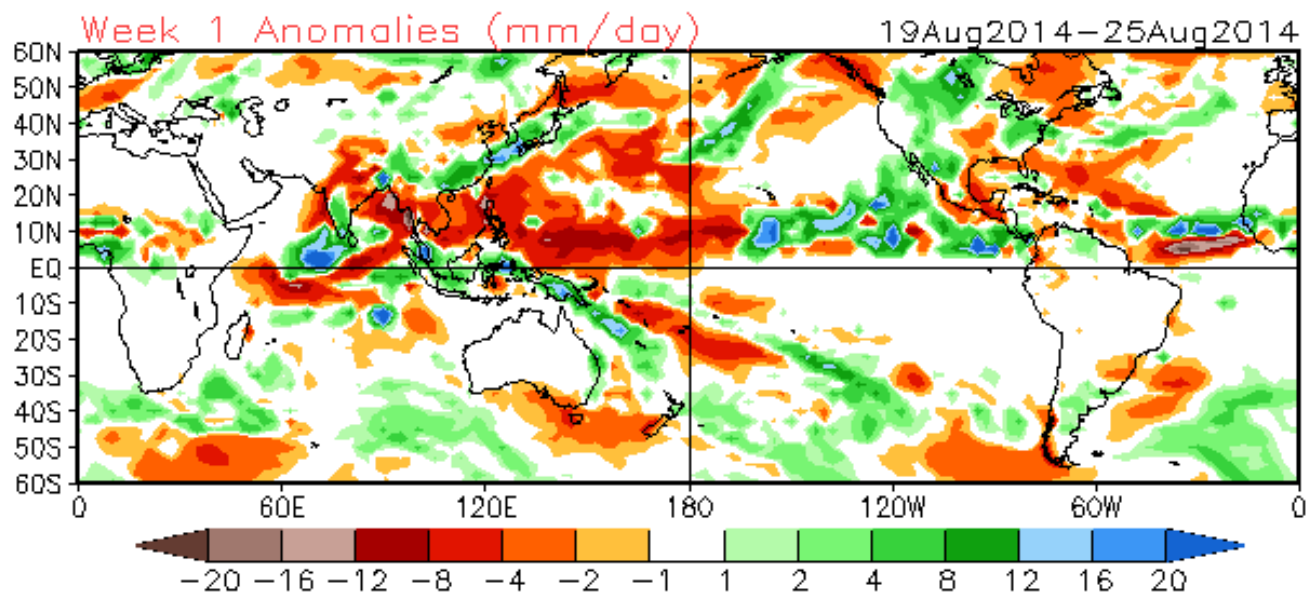
MJO Observation/Forecast



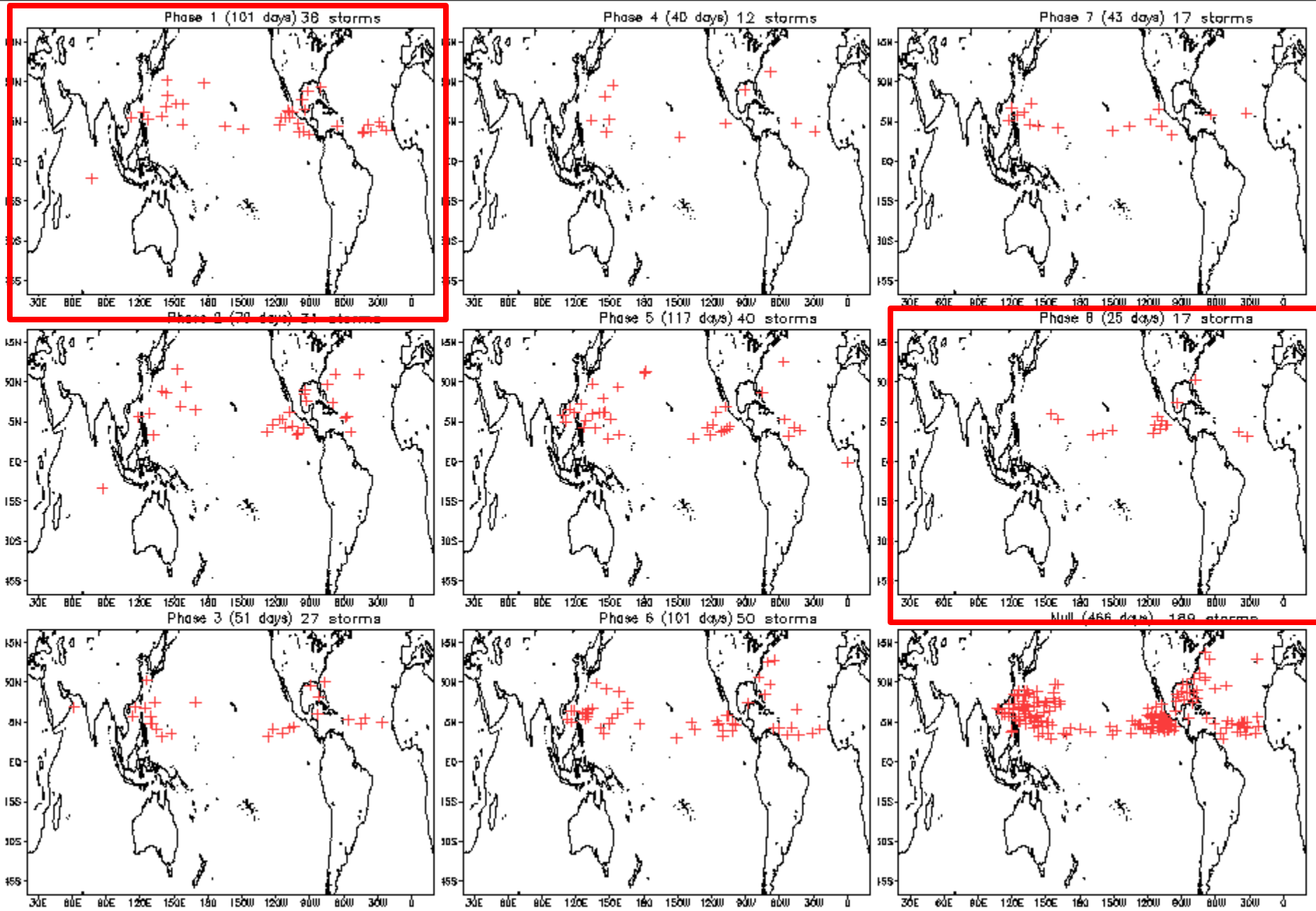
GFS and UKMET models are likely responding to TC activity in the east Pacific (possibly Atlantic), while the ECMWF weakens the signal.

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





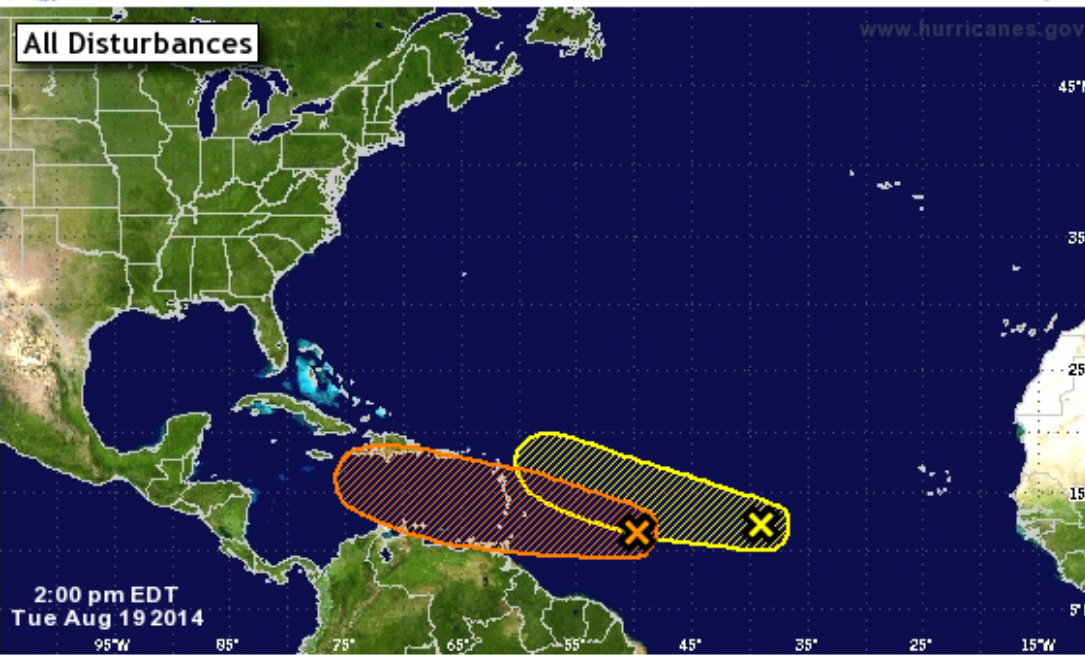
August Tropical Storm Formation by MJO phase





Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



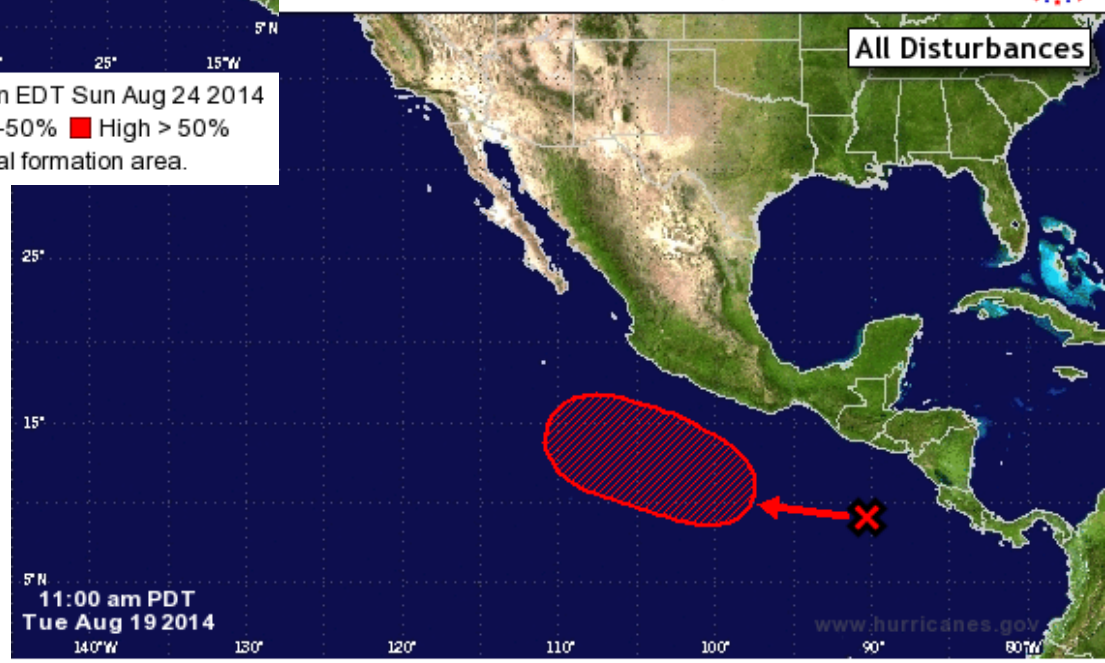
2:00 pm EDT
Tue Aug 19 2014

Tropical Cyclone Formation Potential for the 5-Day Period Ending 2:00 pm EDT Sun Aug 24 2014

Chance of Cyclone Formation in 5 Days: Low < 30% Medium 30-50% High > 50%
X indicates current disturbance location; shading indicates potential formation area.

Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



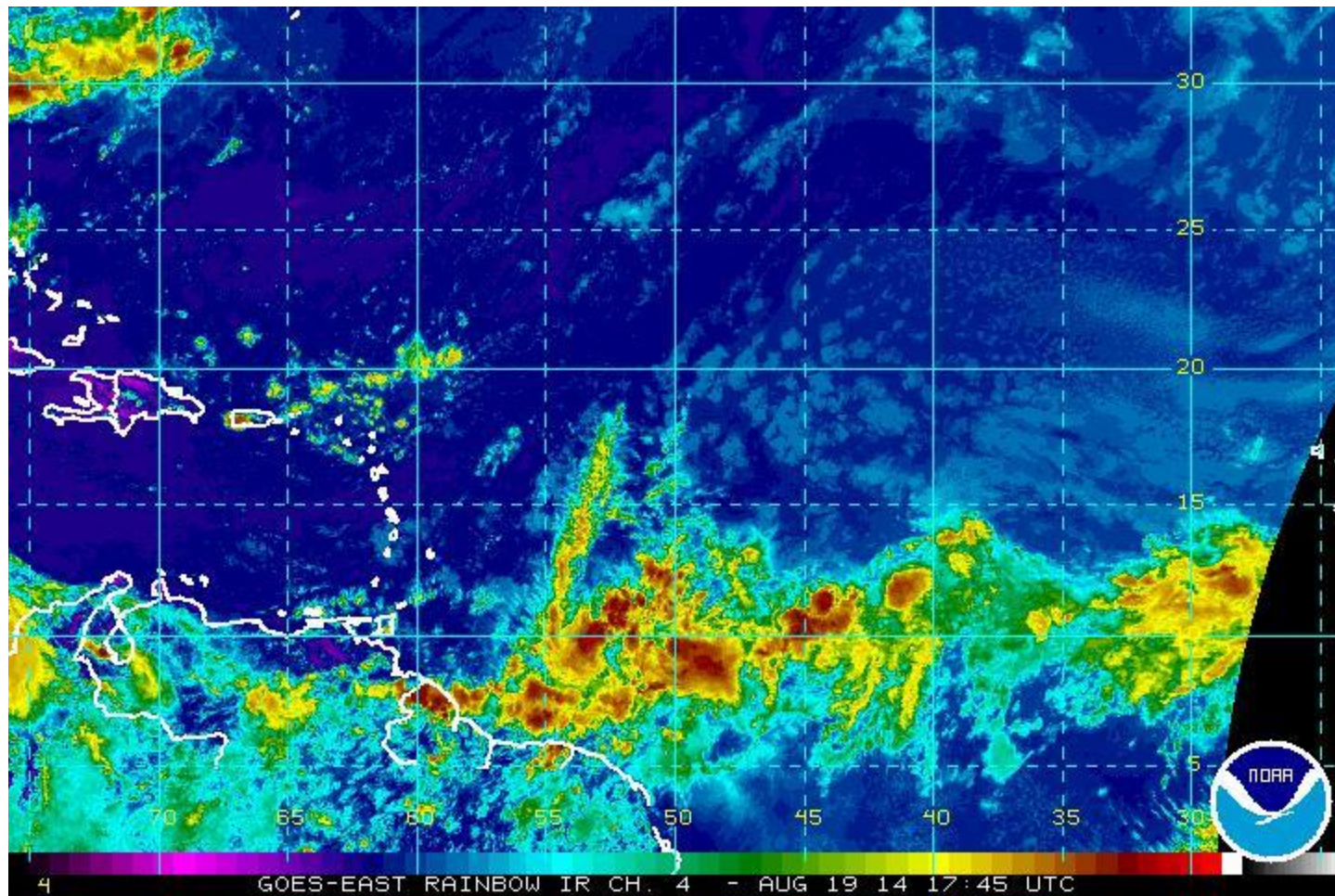
All Disturbances

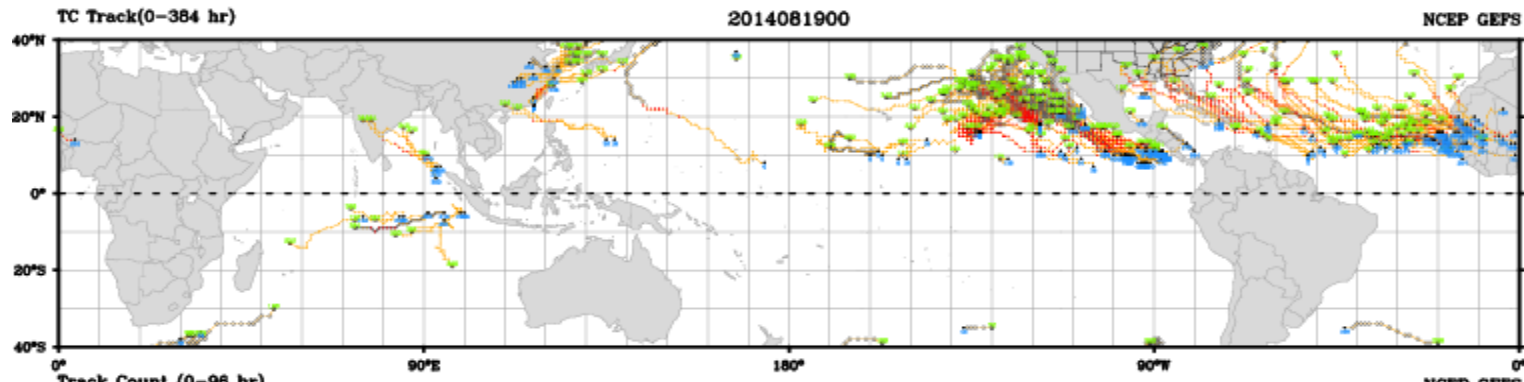
11:00 am PDT
Tue Aug 19 2014

Tropical Cyclone Formation Potential for the 5-Day Period Ending 11:00 am PDT Sun Aug 24 2014

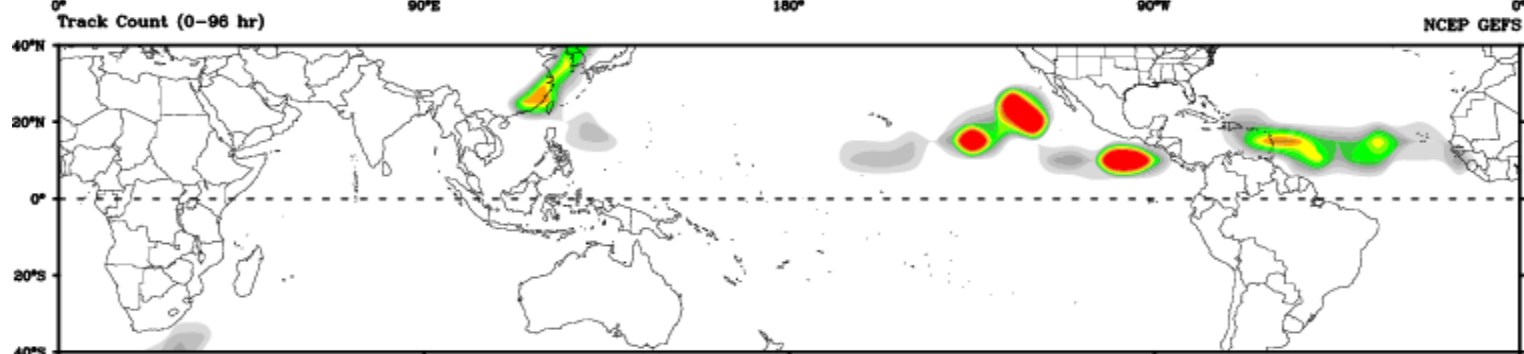
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Lastest GOES-East IR Satellite Imagery over Central Atlantic

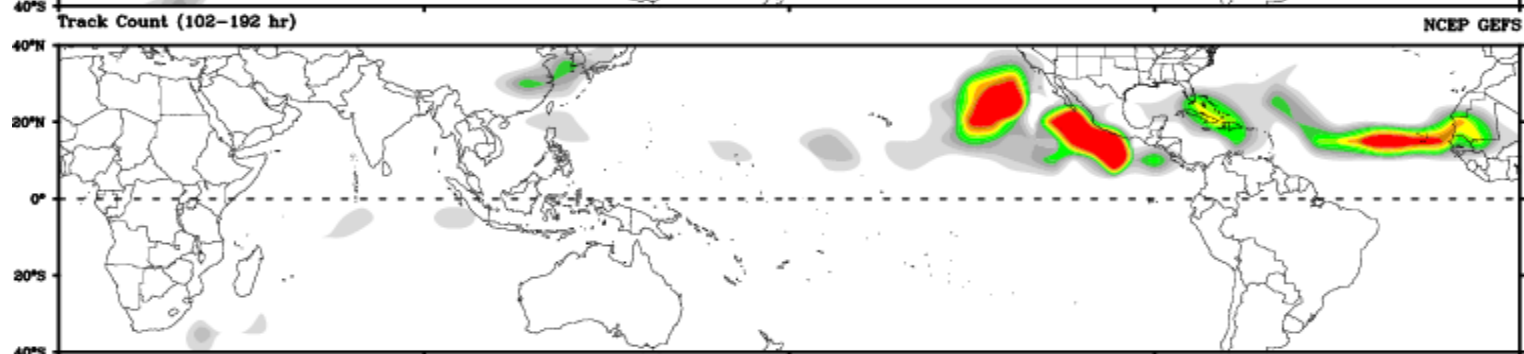




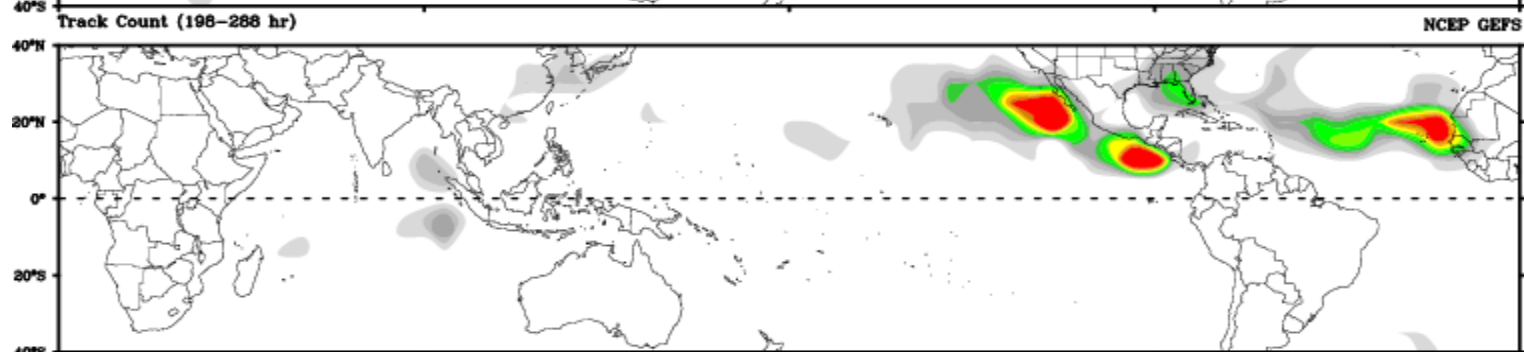
Days 1-4



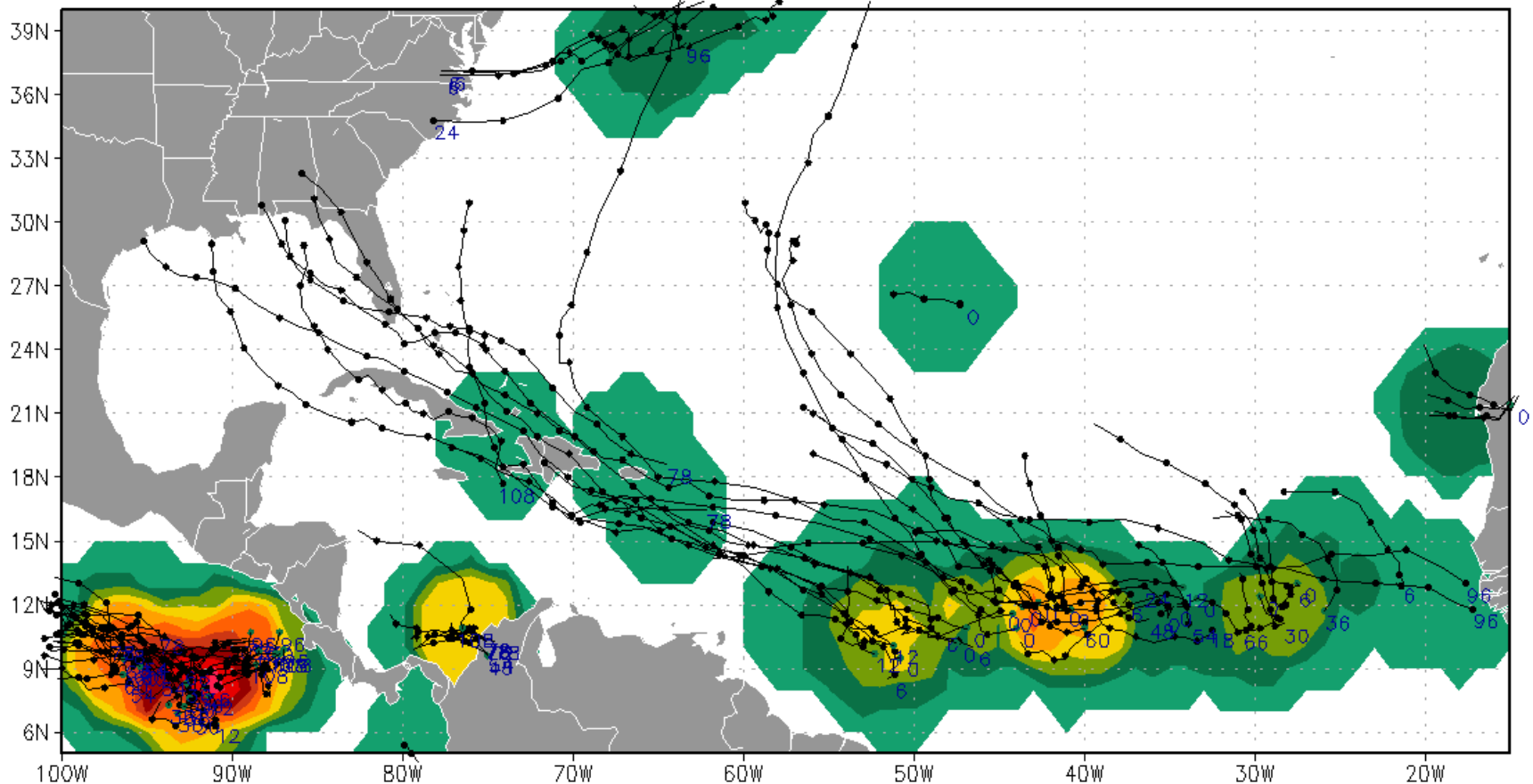
Day 5-8



Day 9-12

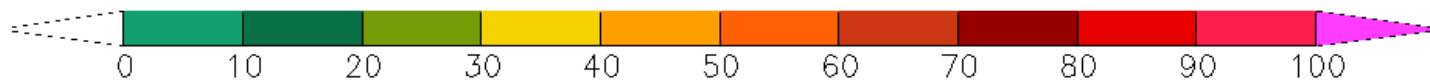


NCEP Ensemble-based Probability (%) of TC genesis for forecasts during the 00–120h period from initial time = 2014081900



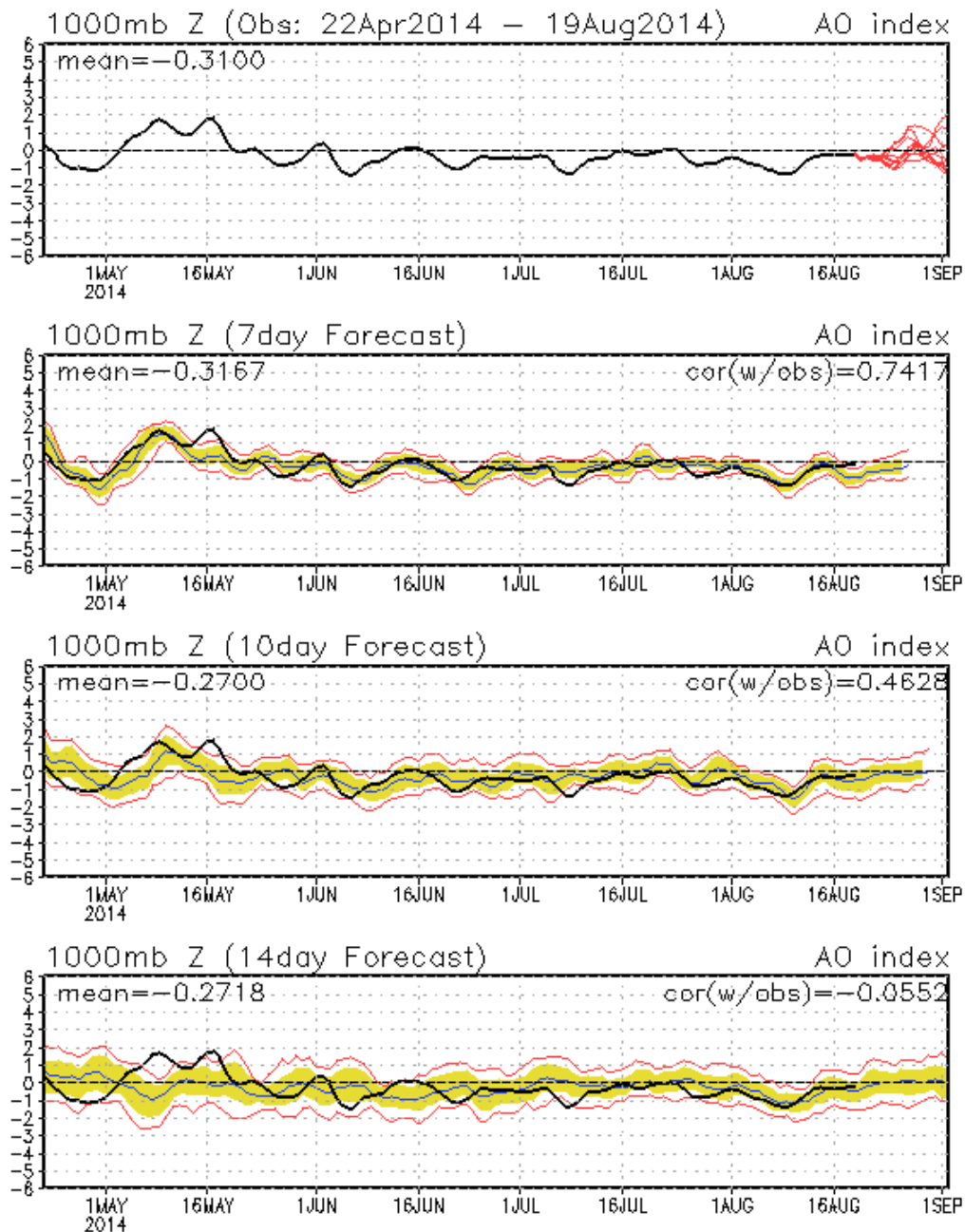
● = position at 00 or 12 UTC

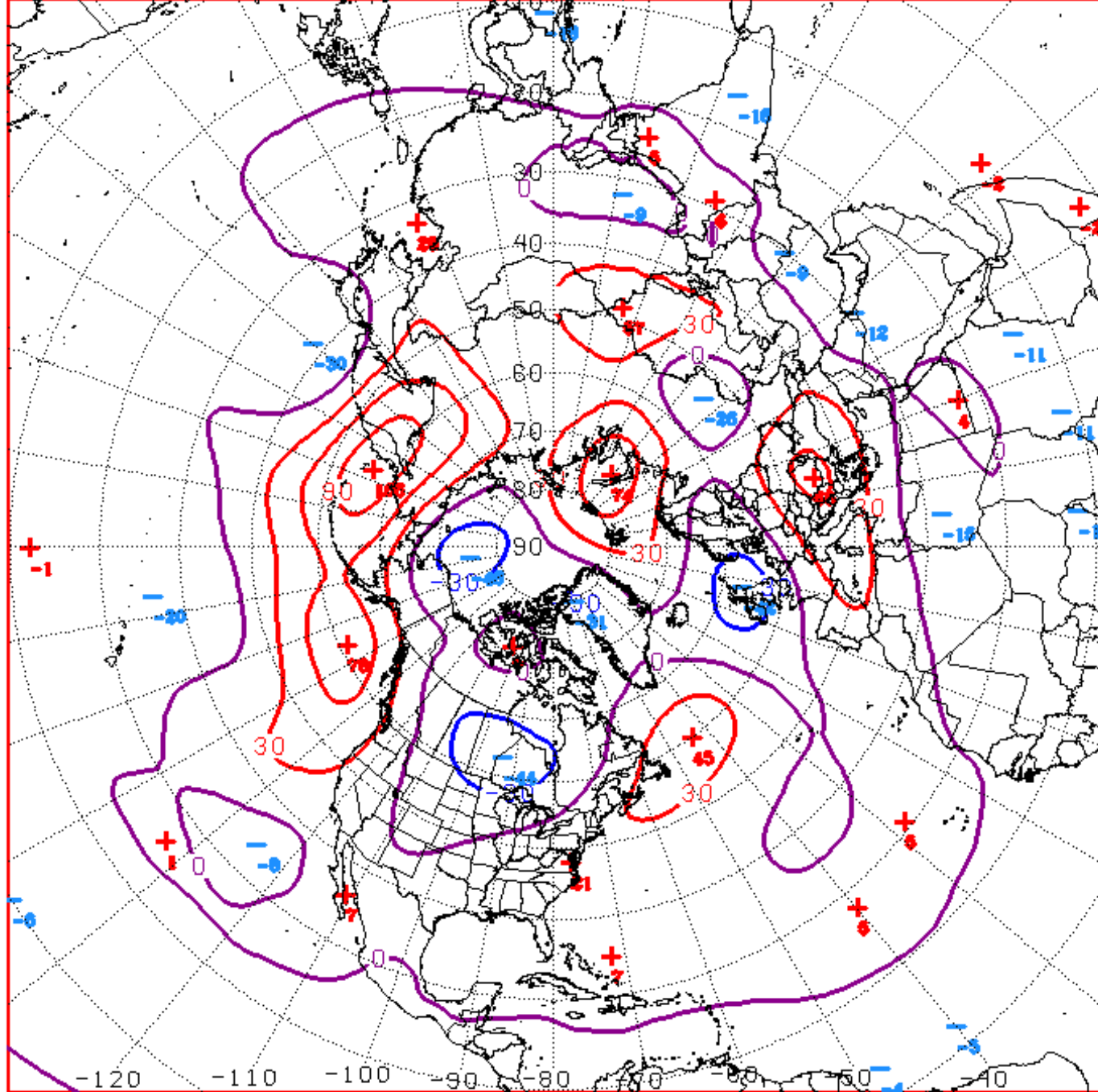
Forecast hour shown at beginning of each track
is first lead time the storm was detected in model



Connections to U.S. Impacts

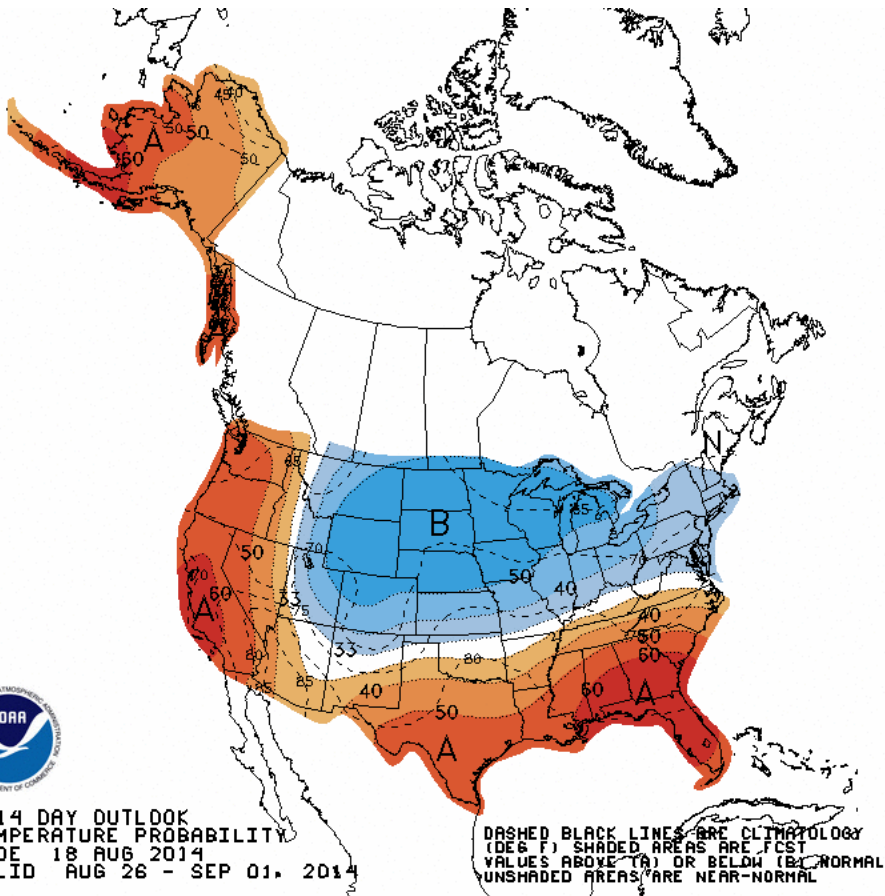
AO: Observed & ENSM forecasts



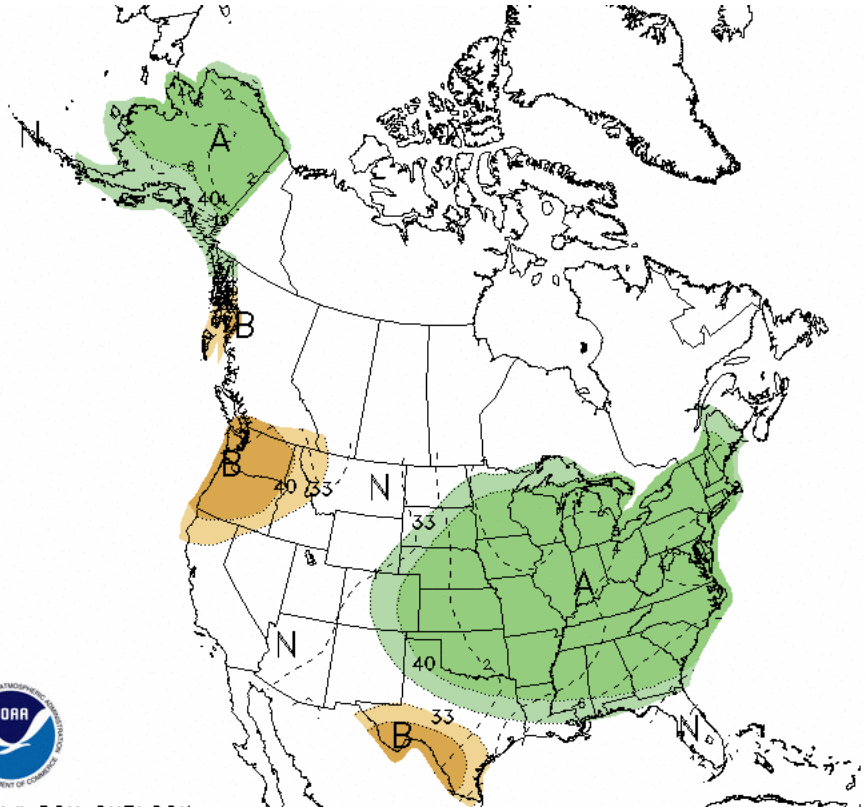
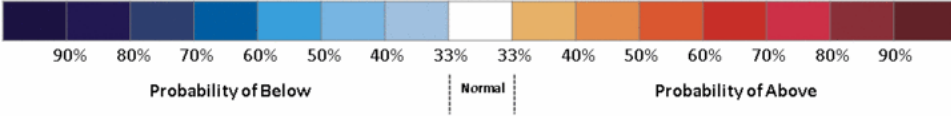


D+11 500 MB ANOMALIES FROM 00Z ECMM
 CPC MAP MADE AUG 19 2014 1057 UTC CNTD AUG 30 2014

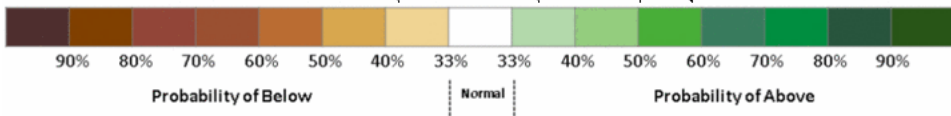
Week 2 – Temperature and Precipitation



8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 18 AUG 2014
VALID AUG 26 - SEP 01, 2014



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 18 AUG 2014
VALID AUG 26 - SEP 01, 2014

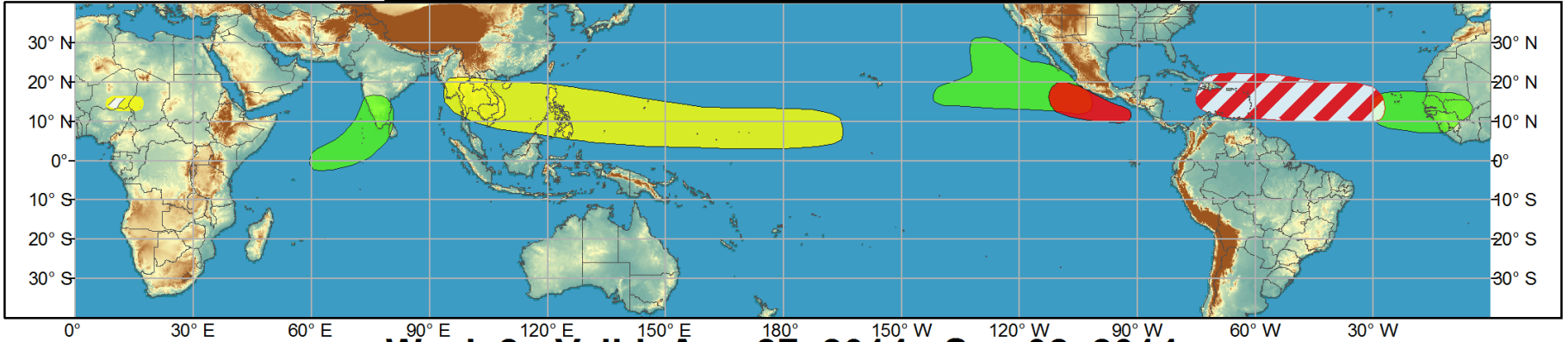




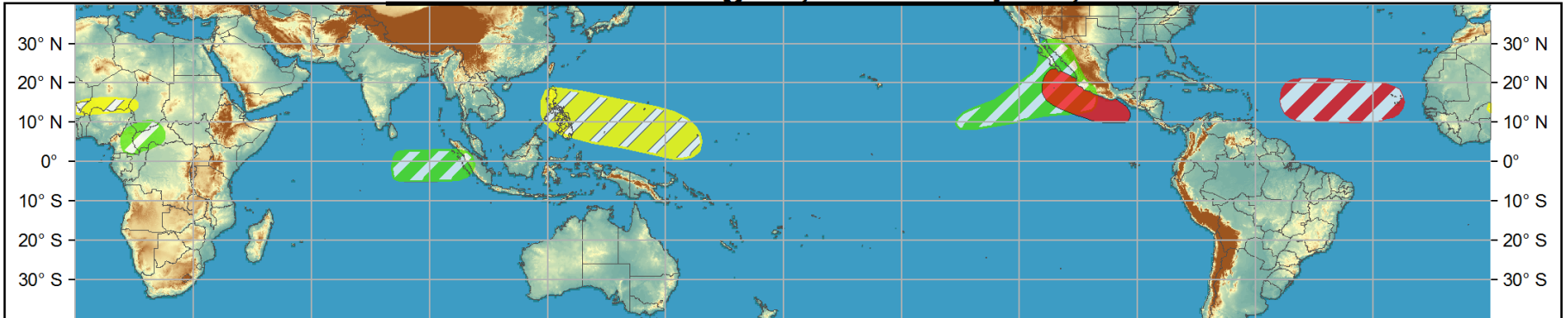
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