

Global Tropics Hazards and Benefits Outlook Briefing

February 4, 2014

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NOAA / Climate Prediction Center

Outline

- Review of recent tropical conditions
- Synopsis of Climate Variability
- GTH Outlook and Forecast Discussion
- Connections to U.S. Impacts

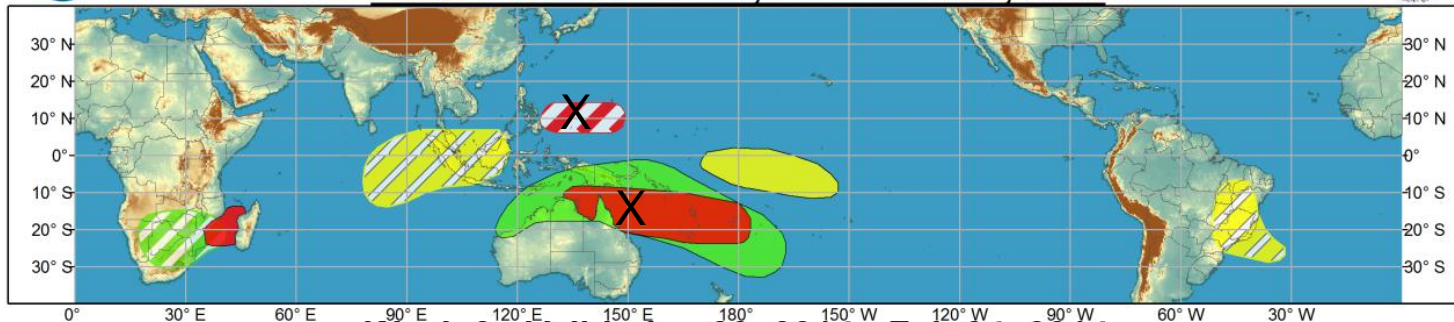
Outlook Review



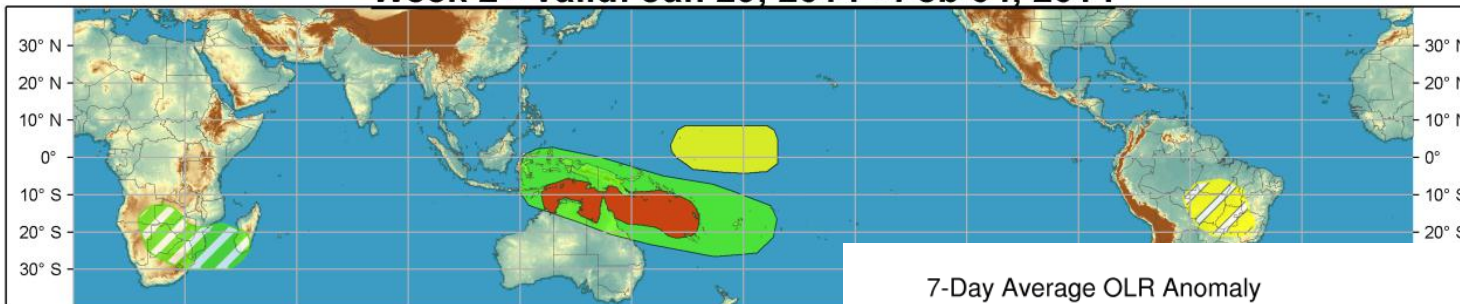
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jan 29, 2014 - Feb 04, 2014

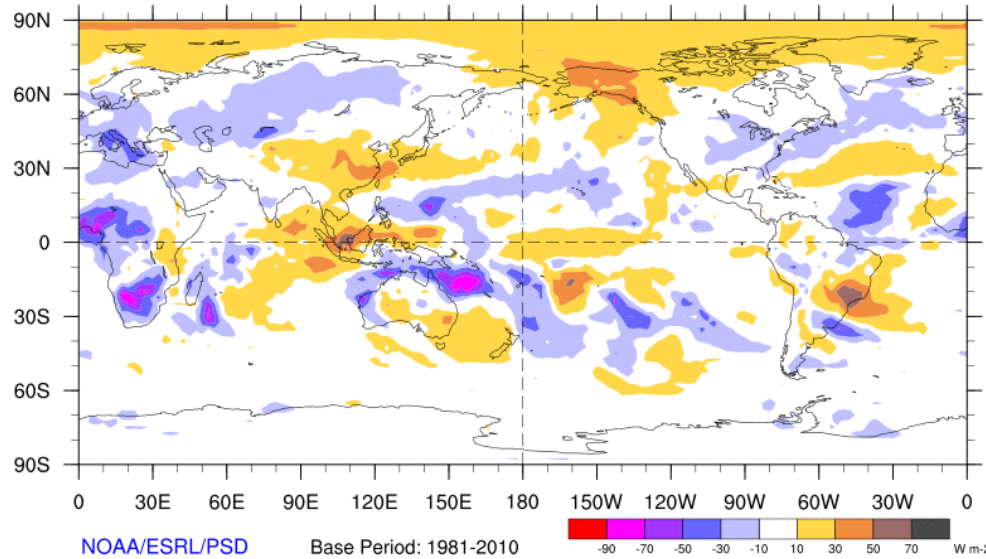


Week 2 - Valid: Jan 29, 2014 - Feb 04, 2014



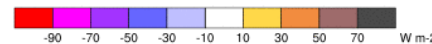
7-Day Average OLR Anomaly

2014/01/27 - 2014/02/02



NOAA/ESRL/PSD

Base Period: 1981-2010



Synopsis of Climate Variability

ENSO:

- ENSO-neutral is expected to continue into the Northern Hemisphere summer 2014.

MJO:

- The MJO remained weak despite some convection (subsidence) across parts of the West Pacific and northern Australia (eastern Indian Ocean and Maritime Continent).
- The MJO is not expected to contribute substantially to the pattern of anomalous convection during the outlook period.

Other types of subseasonal tropical variability:

- Low-frequency variability unrelated to ENSO favors enhanced convection across parts of the eastern Maritime Continent and West Pacific for the next few weeks.

Extratropics:

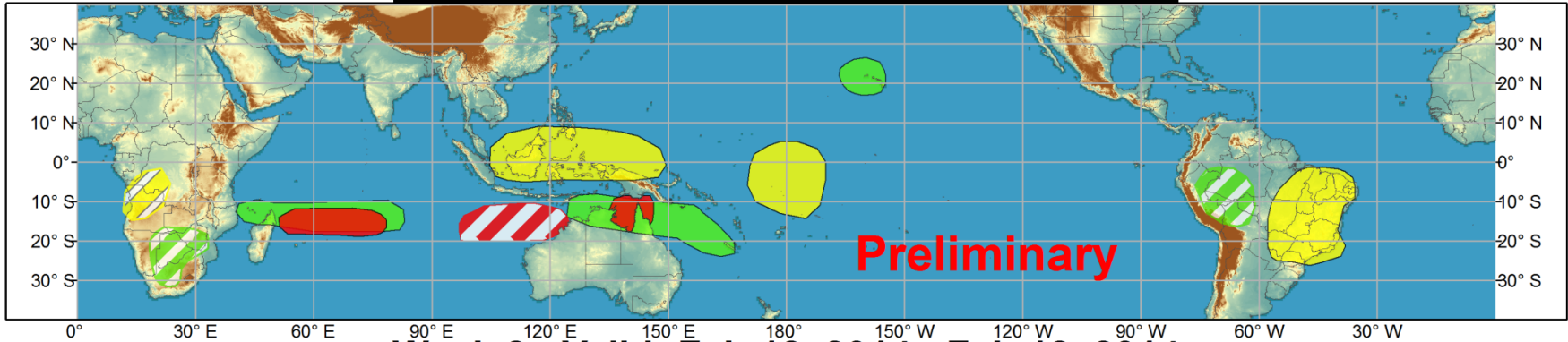
- AO and NAO favored to reside near neutral/positive over next 2 weeks, PNA forecast to remain negative.
- Persistent convection in the far western Pacific would seem to favor stronger ridging across western North America than is currently forecast by the CFSv2 during weeks 2-4.



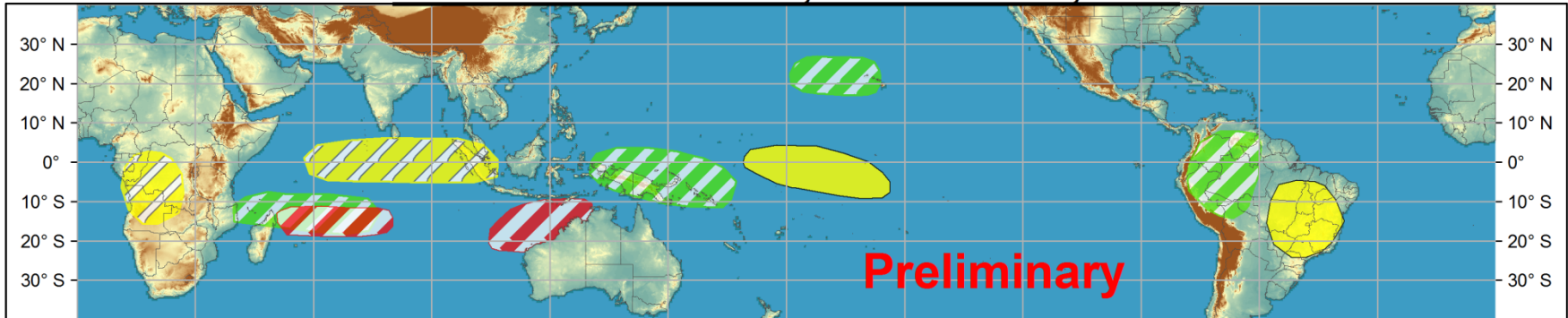
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Feb 05, 2014 - Feb 11, 2014



Week 2 - Valid: Feb 12, 2014 - Feb 18, 2014



Produced: 02/04/2014

Forecaster: Baxter

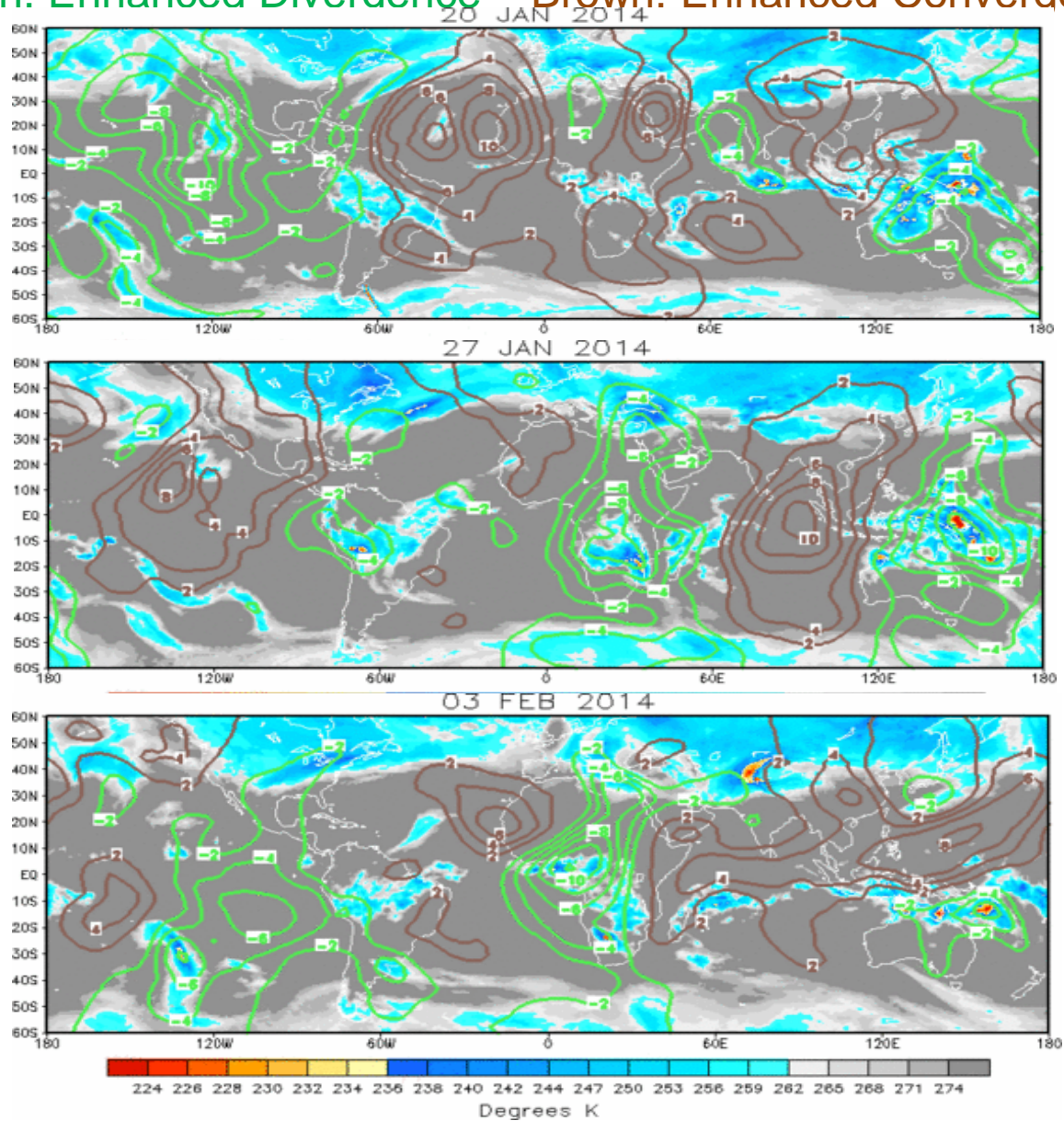
Confidence		
High	Moderate	
Tropical Cyclone Formation		Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength.
Above-average rainfall		Weekly total rainfall in the upper third of the historical range.
Below-average rainfall		Weekly total rainfall in the lower third 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.

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.

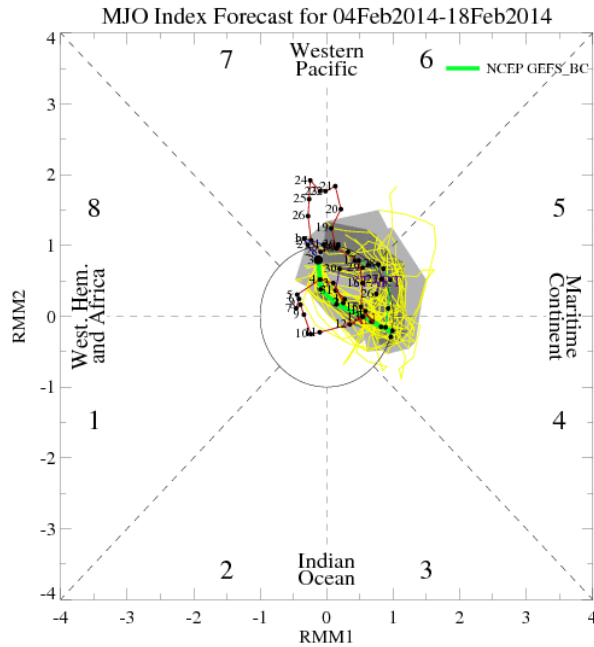


IR Satellite & 200-hpa Velocity Potential Anomalies

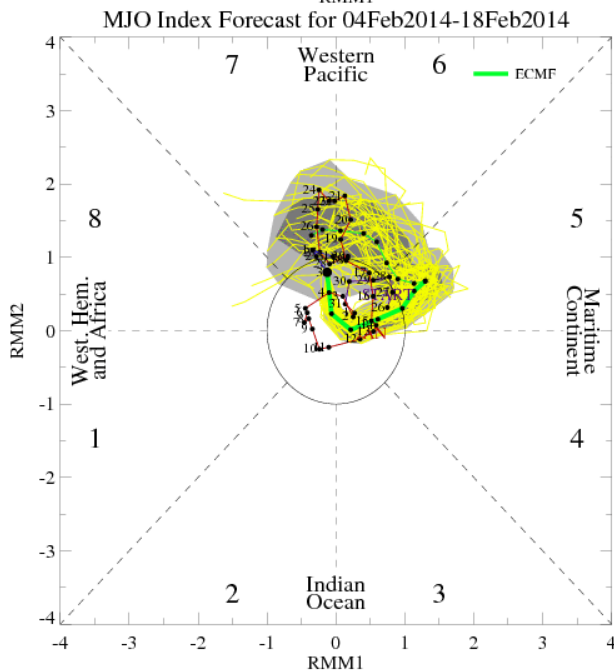
Green: Enhanced Divergence Brown: Enhanced Convergence



MJO Index Model Forecasts

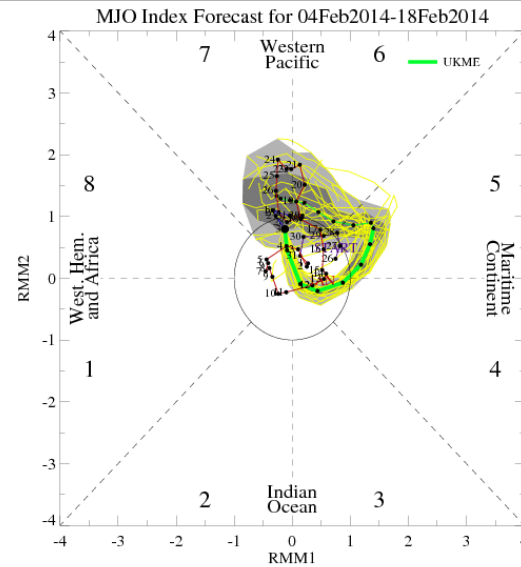


NCEP



ECMWF

- The triangular areas indicate the location of the MJO enhanced convective phase
- Counter-clockwise motion is indicative of eastward propagation. Large dot most recent day.
- Distance from center proportional to strength
- Line colors distinguish different months
- Forecast is the green (mean) and yellow lines

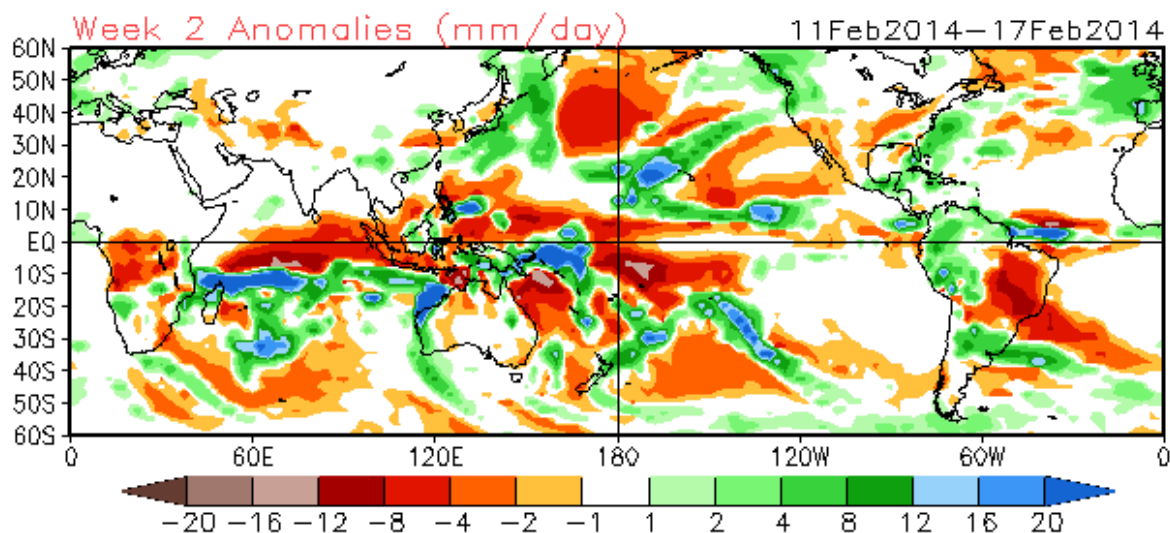
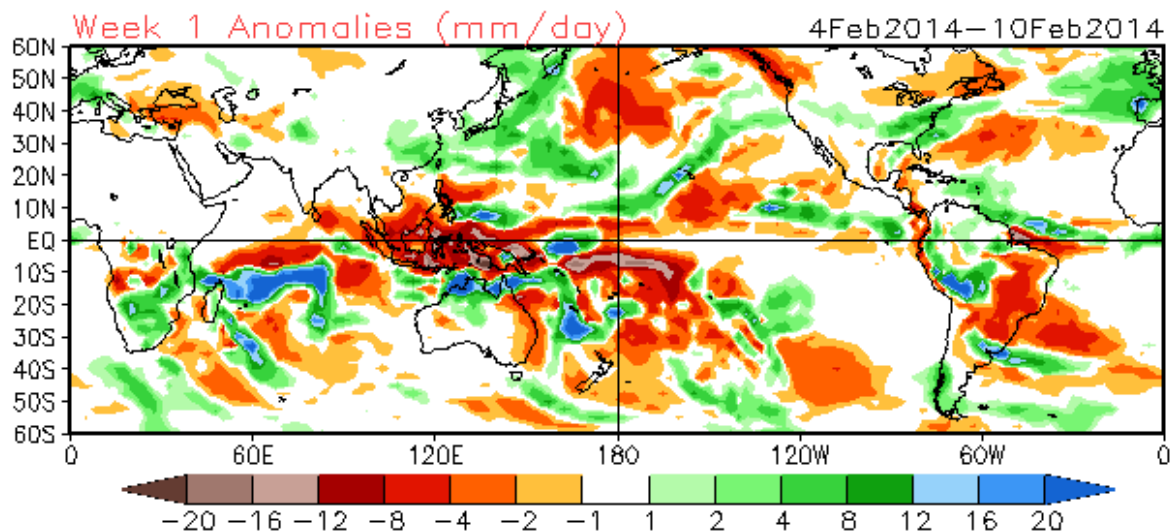


UKMET

NCEP Climate Forecast System – Weeks 1+2 Precipitation Anomalies

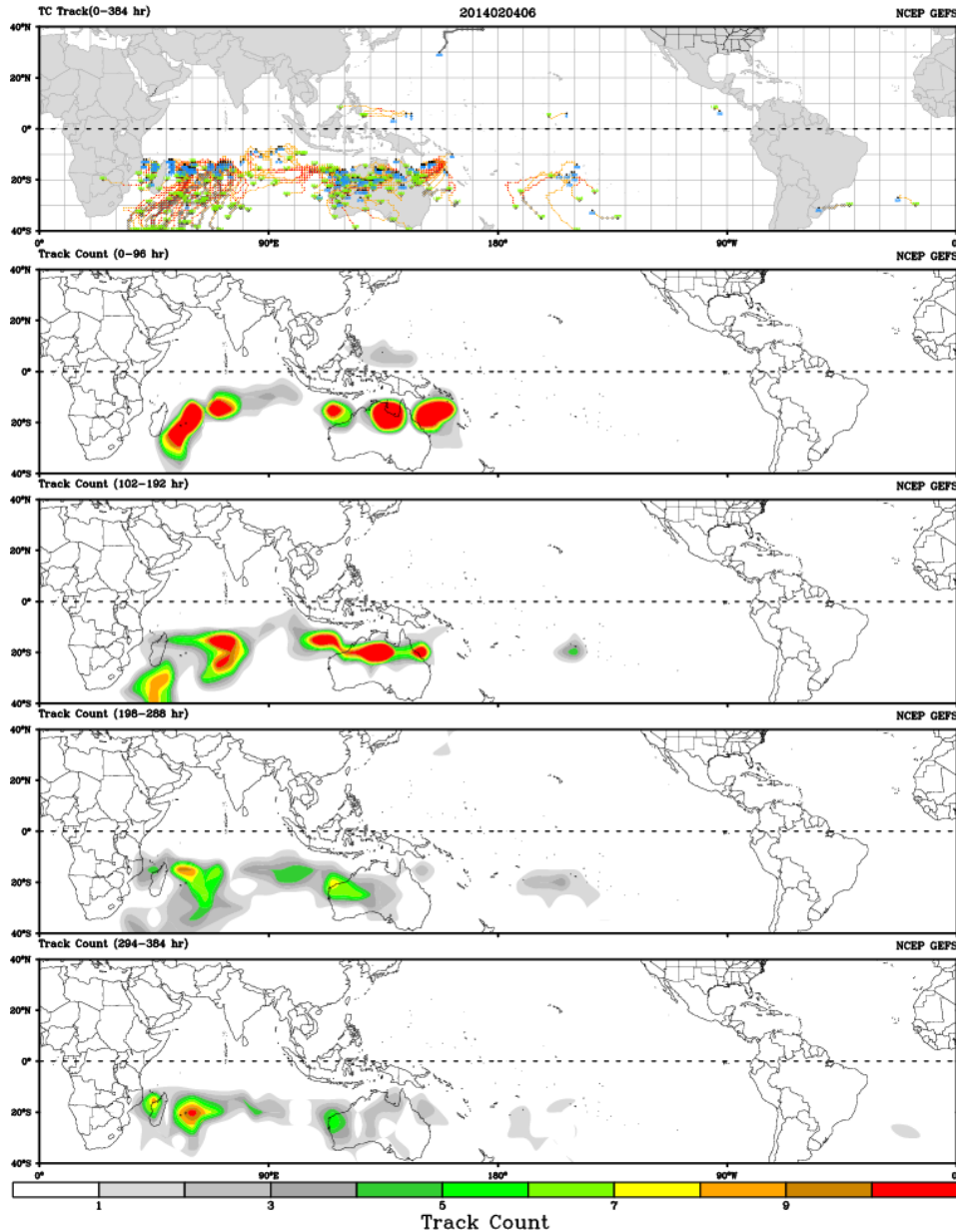
CFSv2 Weeks 1 & 2 Precipitation

16 Member Ensemble Mean Forecast from 03Feb2014



Ensemble GFS – Tropical Cyclone Guidance

CWB TC Tracker for NCEP GEFS (Fuzzy_AllCriteria)



Days 1-4

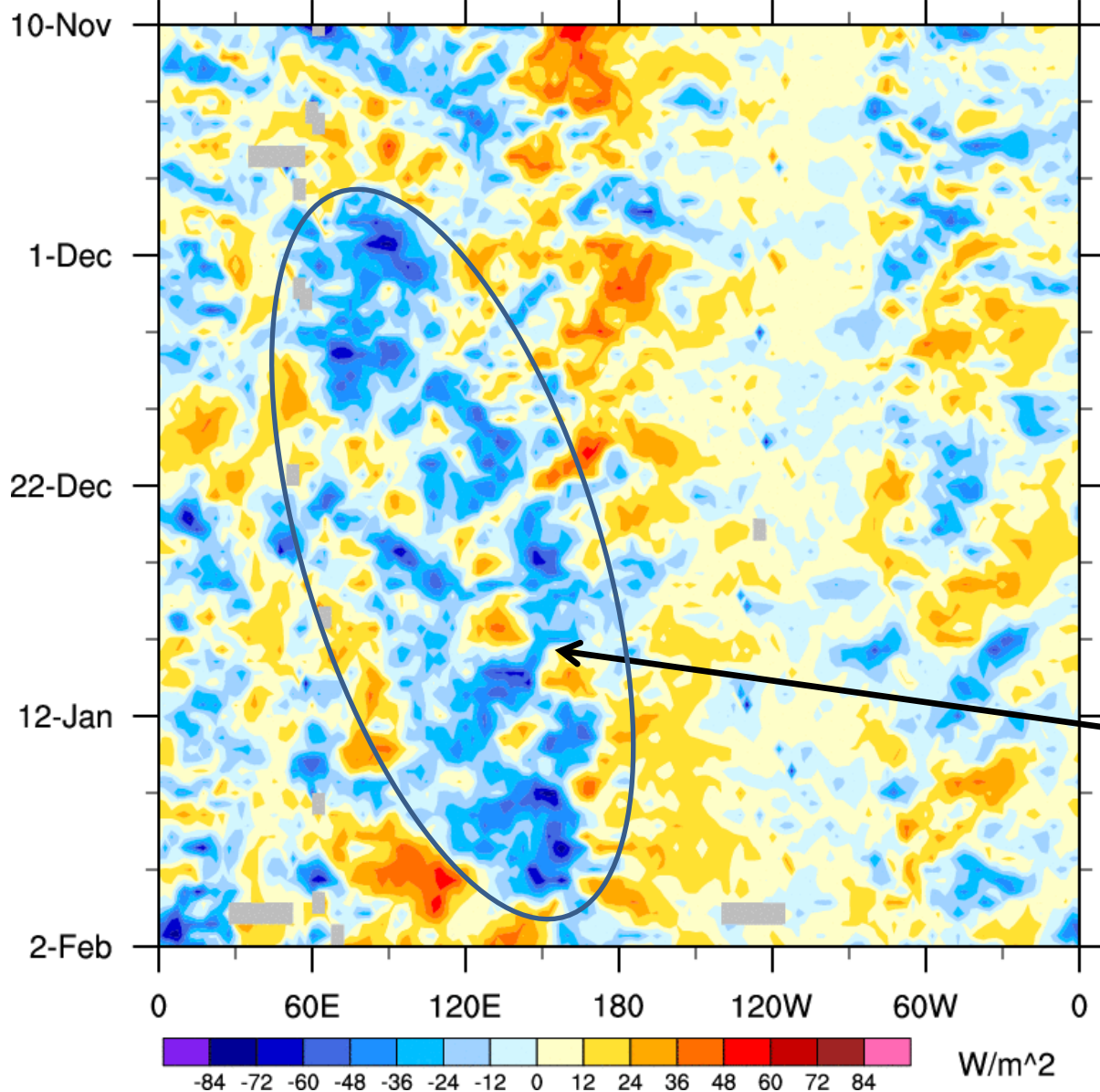
Days 5-8

Days 9-12

Days 13-16

OLR anomalies: 7.5°S - 7.5°N

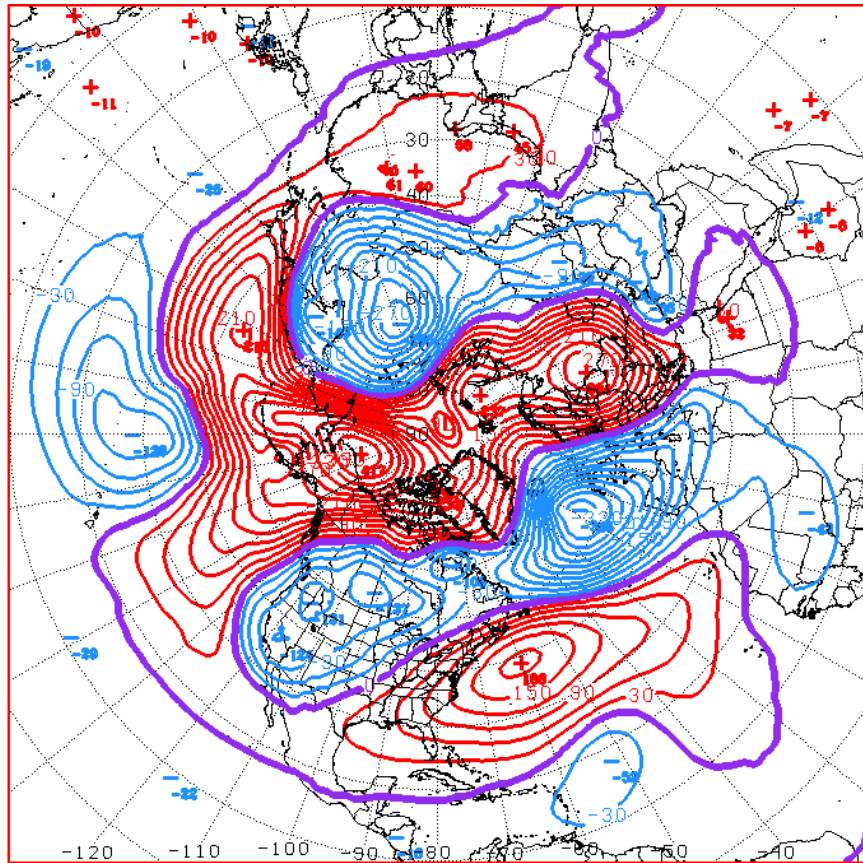
10-Nov-2013 to 2-Feb-2014



Low frequency mode shifting east.

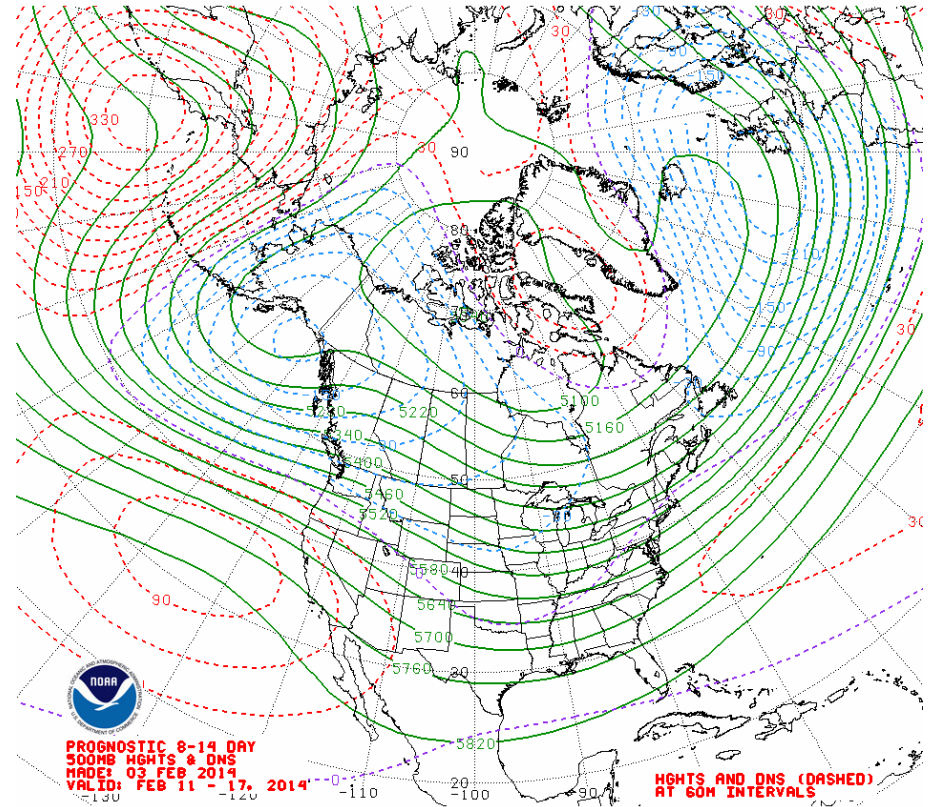
Northern Hemisphere 500-hPa Heights and Anomalies

Past Week



D-4 OBSVD 500MB 7D MEAN OBSVD DNS
CPC MAP MADE 02 04 2014 CNTD 2014/01/31

Week-2



PROGNOSTIC 8-14 DAY
500MB HGHTS & DNS
MADE: 03 FEB 2014
VALID: FEB 11 - 17, 2014

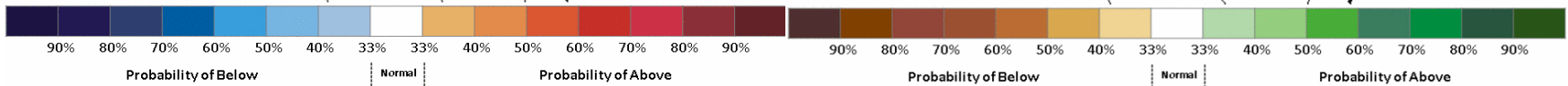
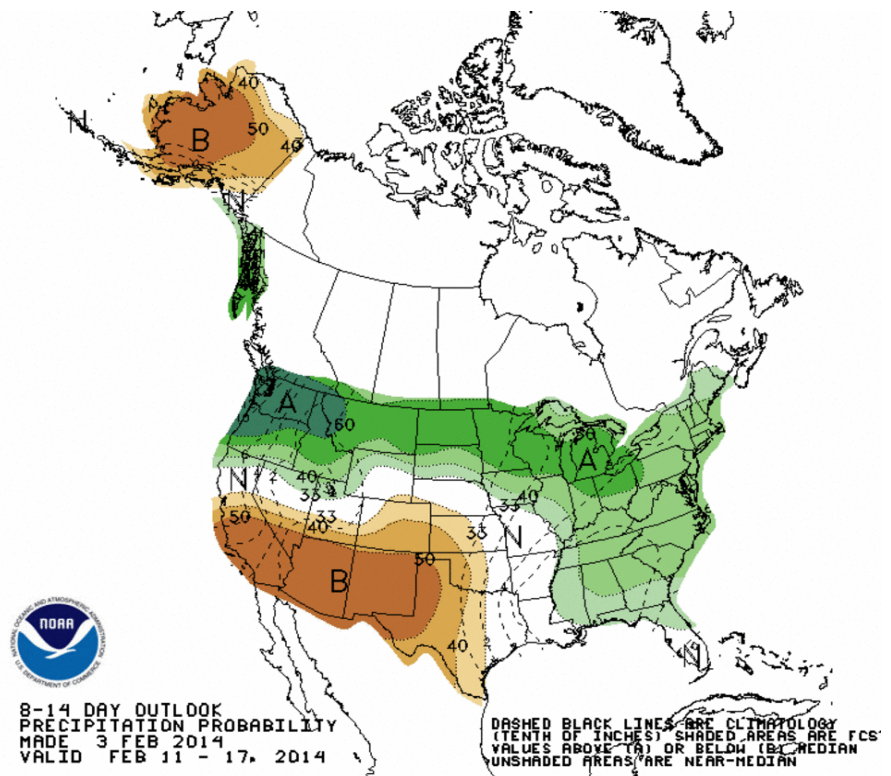
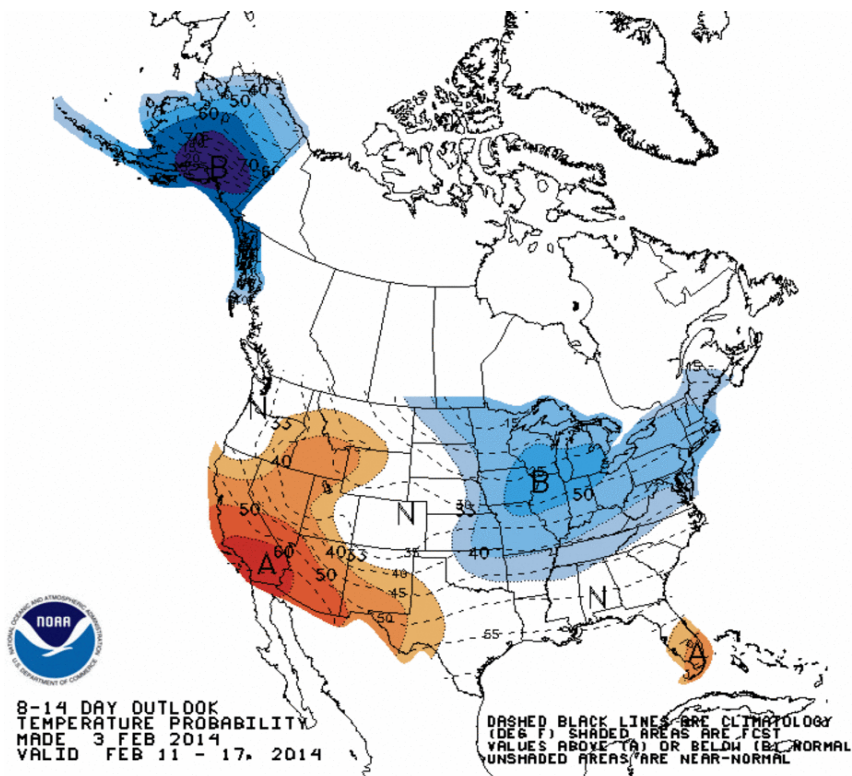
HGHTS AND DNS (DASHED)
AT 60M INTERVALS

Mean height in Green

Higher than normal
heights in red

Lower than normal
heights in blue

Days 8-14 Temperature and Precipitation Outlooks



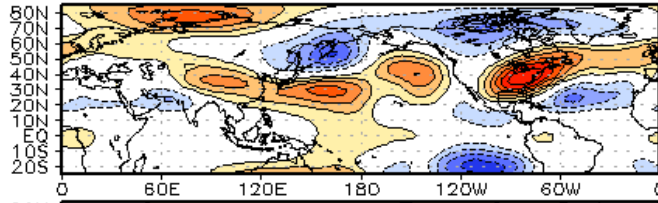
Arctic Air: North-Eastern U.S.

Multiple Winter Weather Events

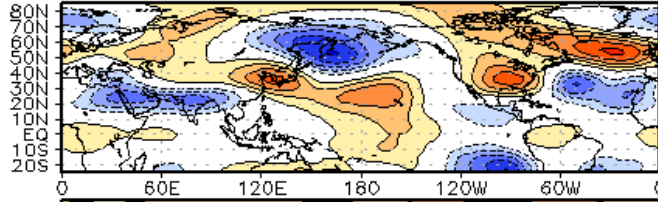
Lagged 200-hPa Height Composite

WHMJO Phase 6 z200 Lagged Composite (jfm)

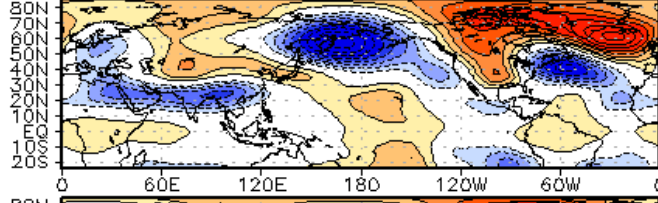
Phase
T = 0



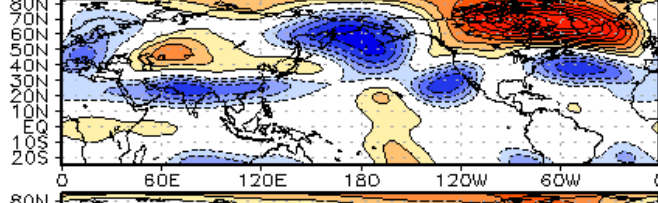
T + 5



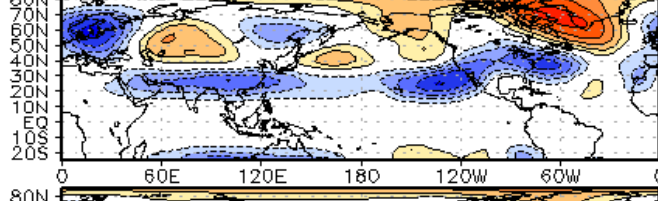
T + 10



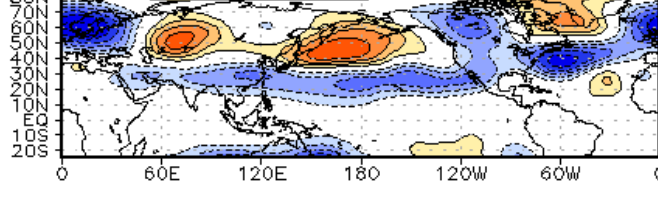
T + 15



T + 20



T + 25

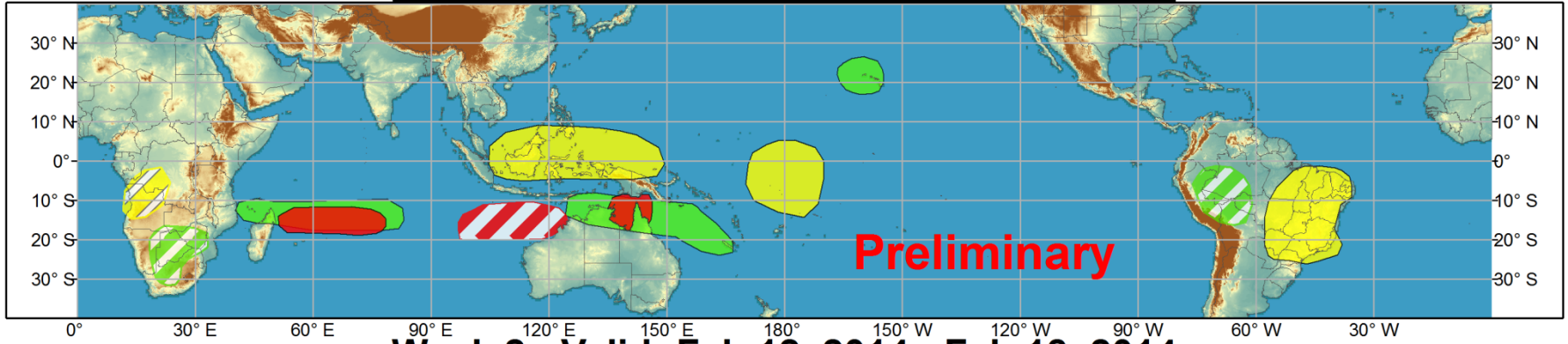




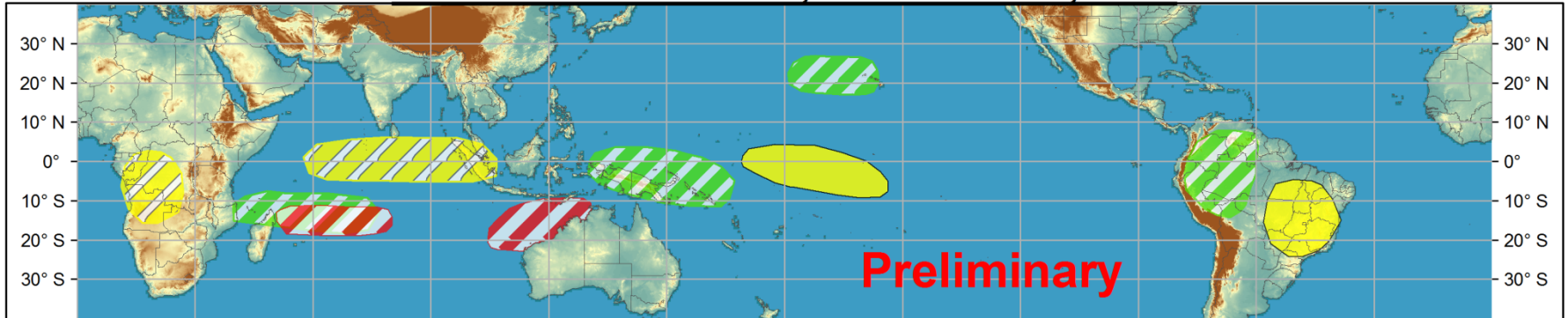
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Below-average rainfall



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Above-normal temperatures



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

Below-normal temperatures



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