

Global Tropics Hazards And Benefits Outlook

January 22, 2013

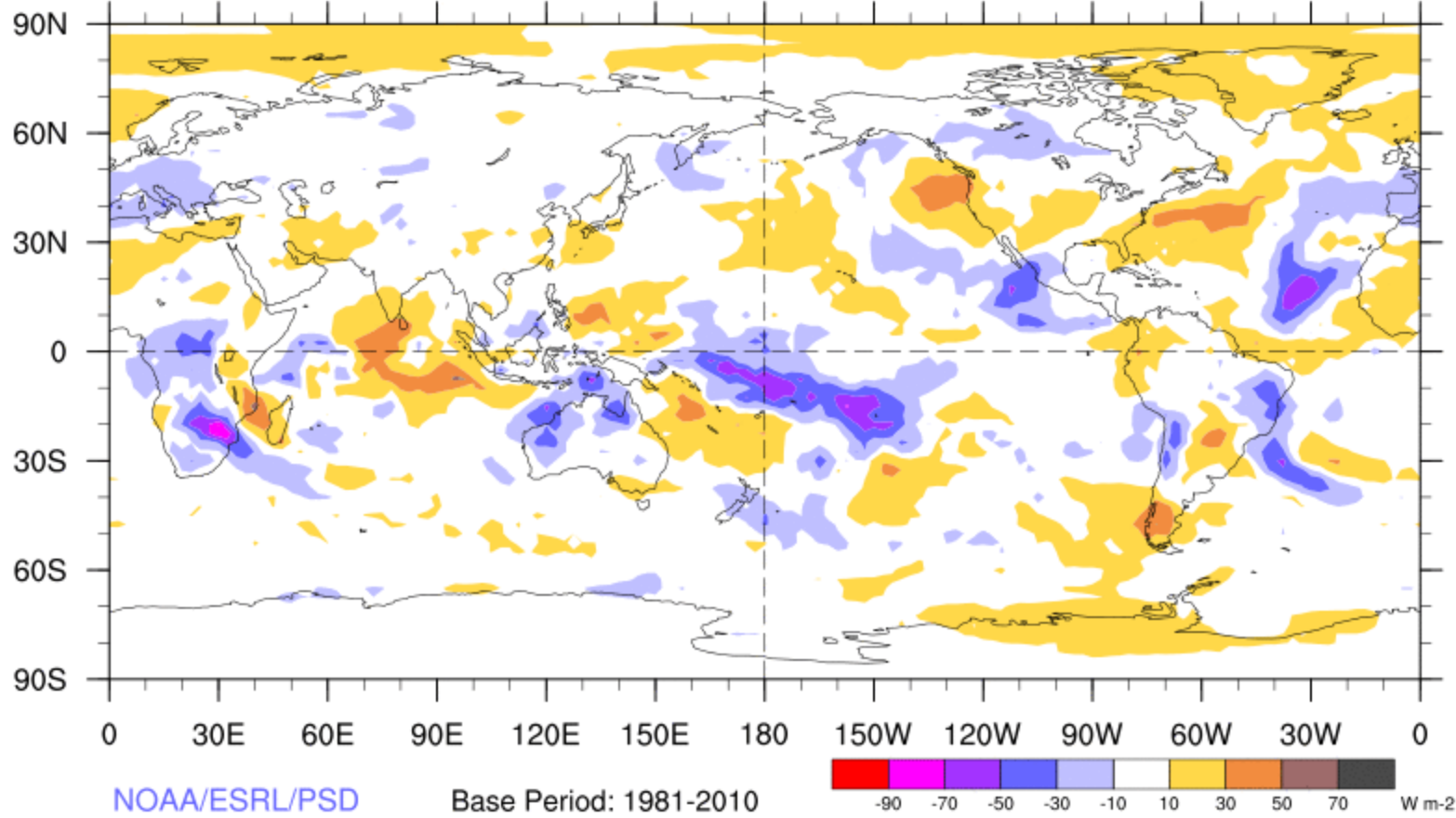
Jon Gottschalck

Outline

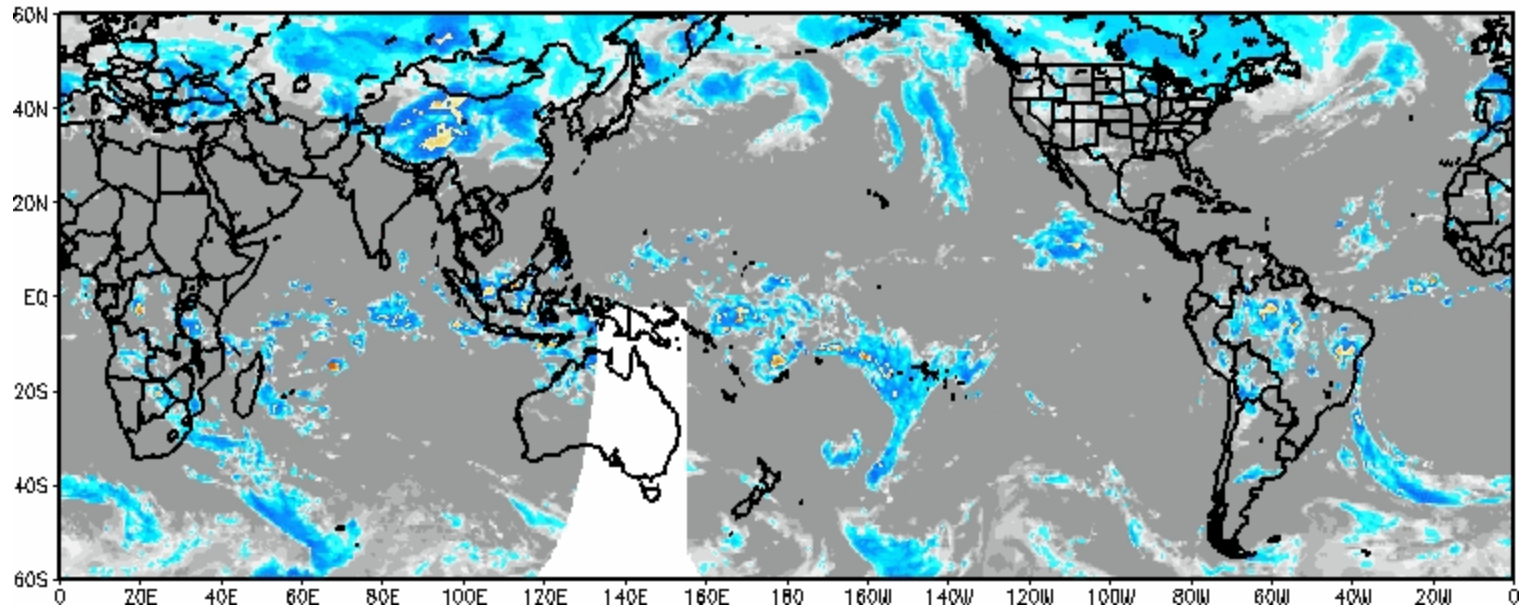
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion

7-Day Average OLR Anomaly

2013/01/14 - 2013/01/20

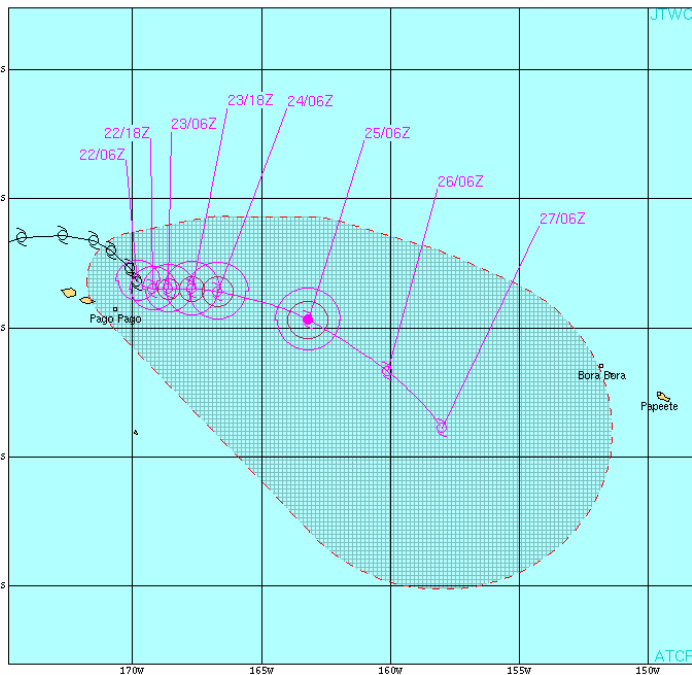
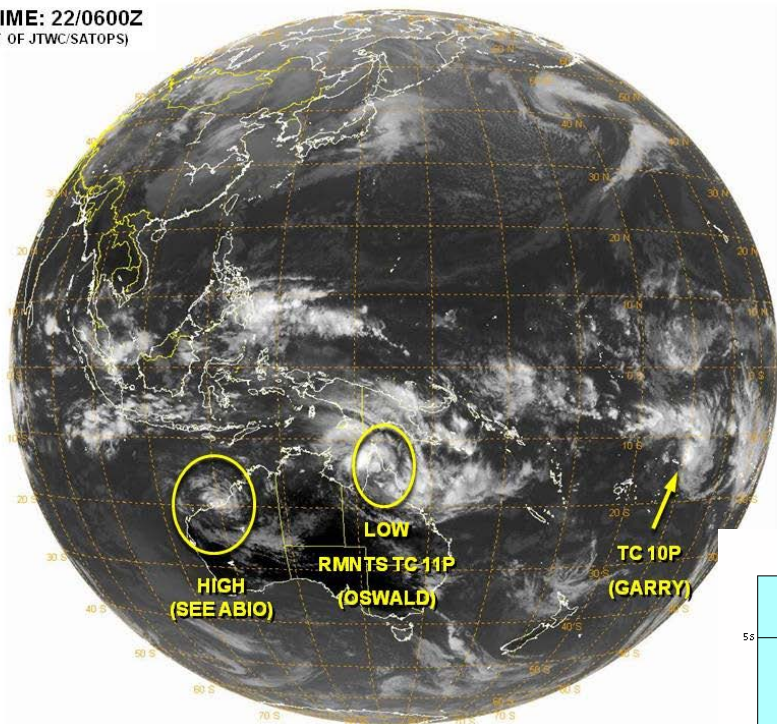


IR Temperatures
0900 UTC 19 JAN 2013



Tropical Cyclone Review

VALID TIME: 22/0600Z
(PRODUCT OF JTWC/SATOPS)



TROPICAL CYCLONE 10P (GARRY) WARNING #6
 WTS531 PGTW 220900
 220600Z POSIT: NEAR 13 2s 169 0W
 MOVING 150 DEGREES TRUE AT 06 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 18 FEET
 22/06Z, WINDS 045 KTS, GUSTS TO 055 KTS
 22/18Z, WINDS 050 KTS, GUSTS TO 065 KTS
 23/06Z, WINDS 055 KTS, GUSTS TO 070 KTS
 23/18Z, WINDS 060 KTS, GUSTS TO 075 KTS
 24/06Z, WINDS 060 KTS, GUSTS TO 075 KTS
 25/06Z, WINDS 065 KTS, GUSTS TO 080 KTS
 26/06Z, WINDS 060 KTS, GUSTS TO 075 KTS
 27/06Z, WINDS 055 KTS, GUSTS TO 070 KTS

CFA TO: HR DTG
 WANUA_ISLANDS 52 22/17Z
 RAROTONGA 171 27/06Z

BEARING AND DISTANCE	DIR	DIST (NM)	TAV (KTS)
APIA	087	197	24
AVATA_SAMOA	090	245	24
WANUA_ISLANDS	051	75	24
PAGO_PAGO	069	131	24
SAFOTULAFAI	089	138	24
SWAINS_ISLAND	127	199	24
APIA	089	237	48
AVATA_SAMOA	092	356	48
WANUA_ISLANDS	076	174	48
PAGO_PAGO	080	237	48
SAFOTULAFAI	091	309	48
SWAINS_ISLAND	116	297	48
WANUA_ISLANDS	094	373	72

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

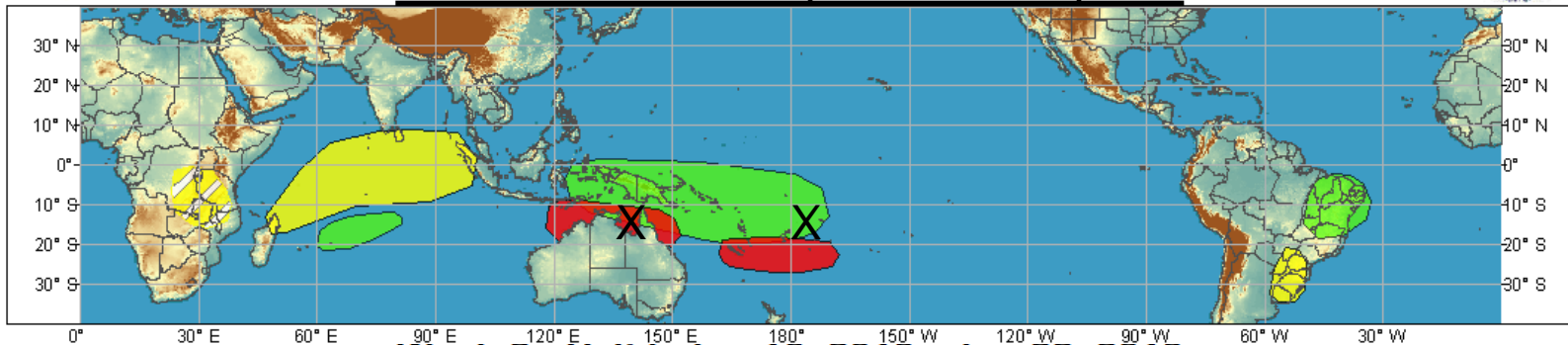




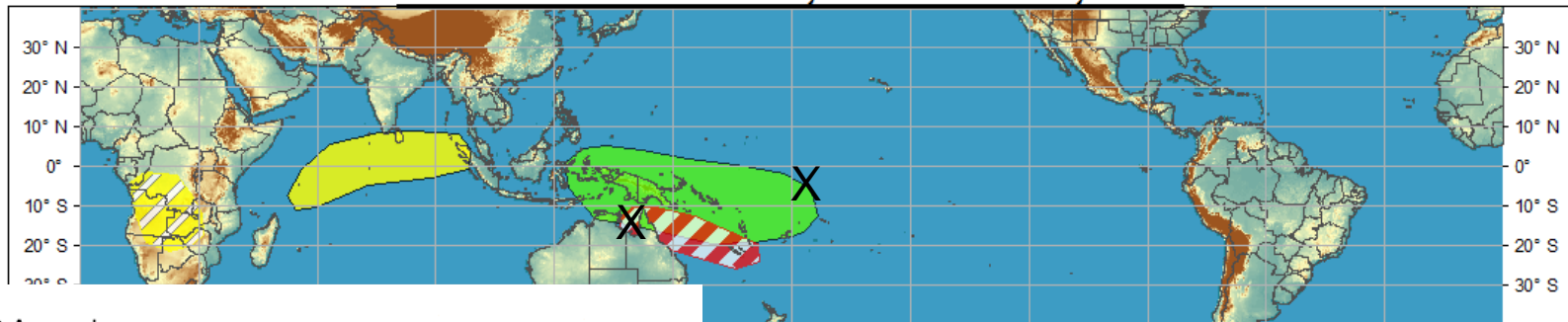
Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jan 16, 2013 - Jan 22, 2013

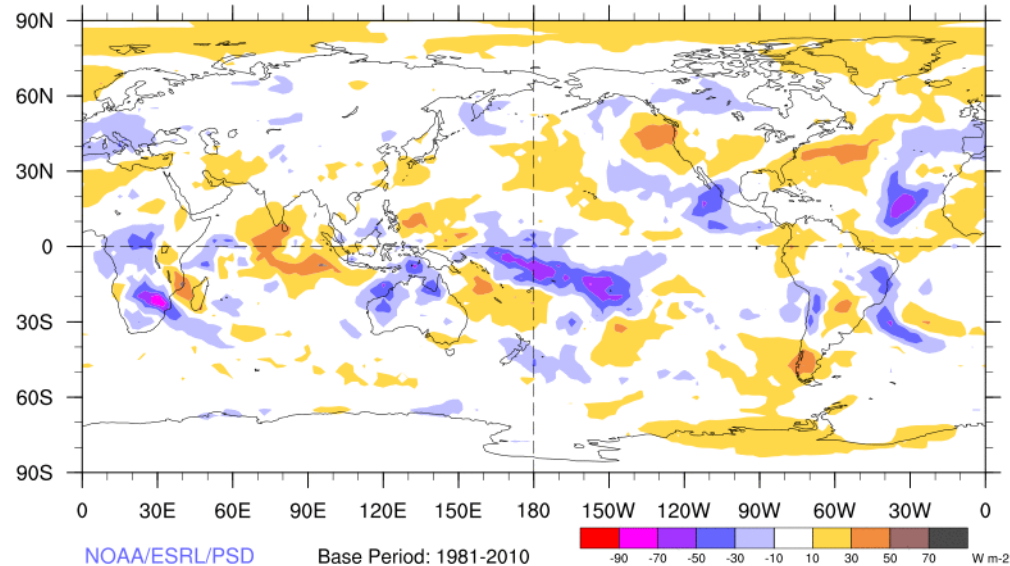


Week 2 - Valid: Jan 16, 2013 - Jan 22, 2013



7-Day Average OLR Anomaly

2013/01/14 - 2013/01/20



NOAA/ESRL/PSD

Base Period: 1981-2010

-90 -70 -50 -30 -10 10 30 50 70 W m-2

Outlook Review

Synopsis of Climate Modes

ENSO:

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

MJO and other subseasonal variability:

- The MJO remains active and continues to propagate eastward across the Pacific
- Dynamical models and statistical tools are in fair agreement that the MJO index is likely to propagate through phase 7 and into phase 8 over the next two weeks
- Westward propagating convection associated with an equatorial Rossby wave and faster-moving eastward propagating atmospheric Kelvin waves continue to impact evolution of the MJO index

Extratropics:

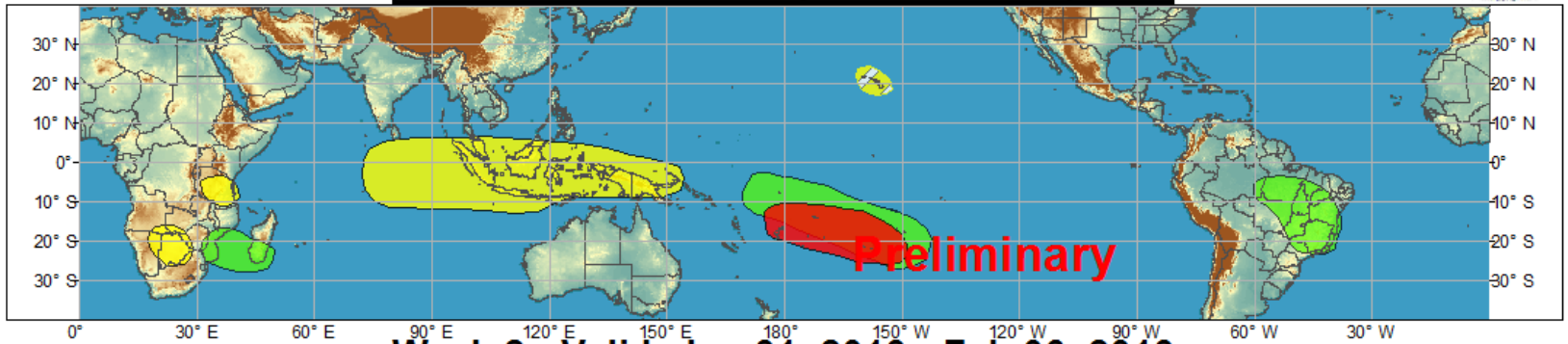
- Large spread in AO/NAO forecasts over next two weeks
- PNA is forecast to be neutral to positive over next two weeks
- Tropical forcing of the mid-latitudes will continue to be important into February



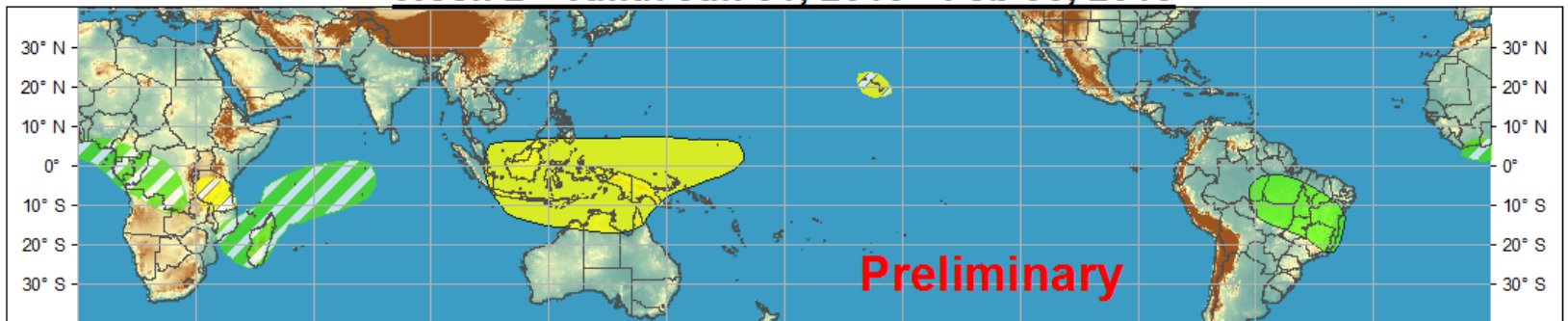
Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jan 24, 2013 - Jan 30, 2013



Week 2 - Valid: Jan 31, 2013 - Feb 06, 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: 01/22/2013

Forecaster: Gottschalck

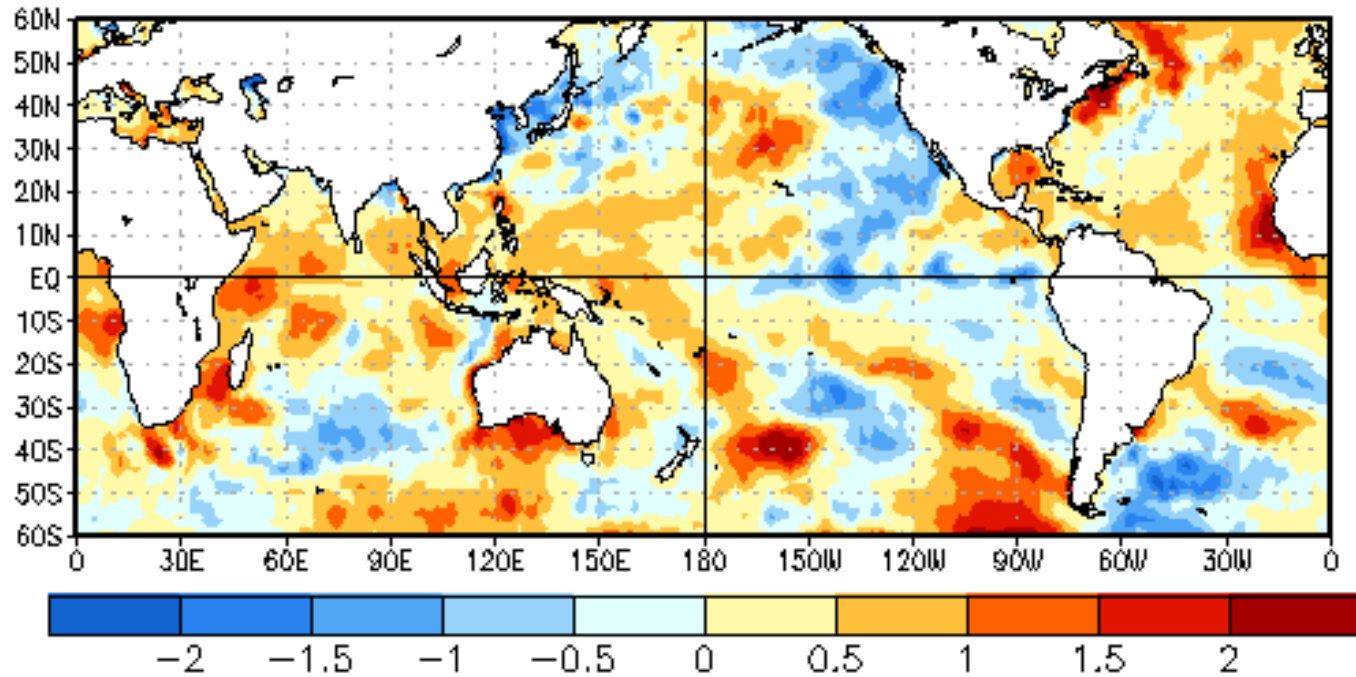
Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



SST Observations

SST Anomalies (°C)

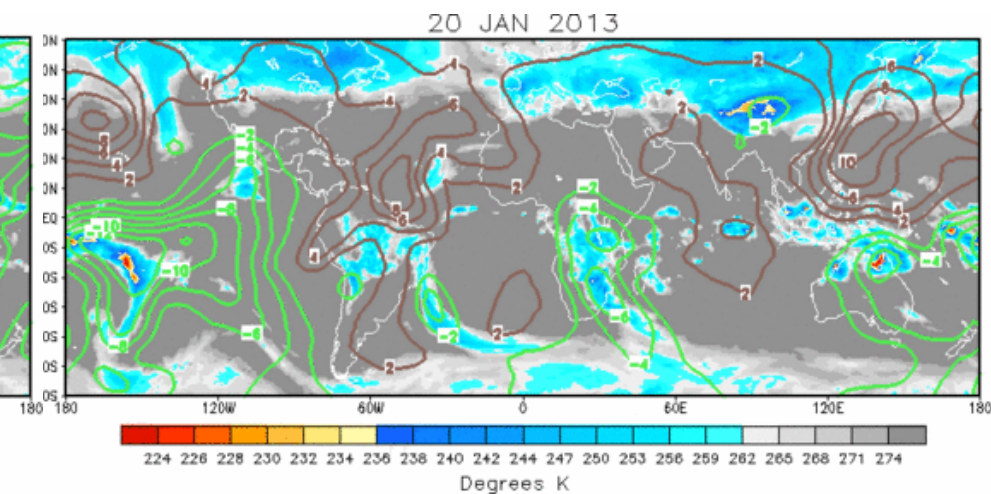
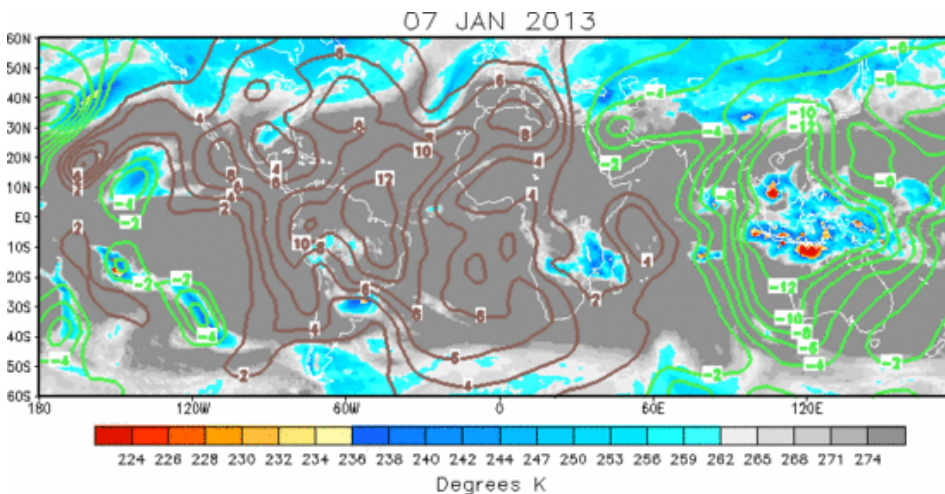
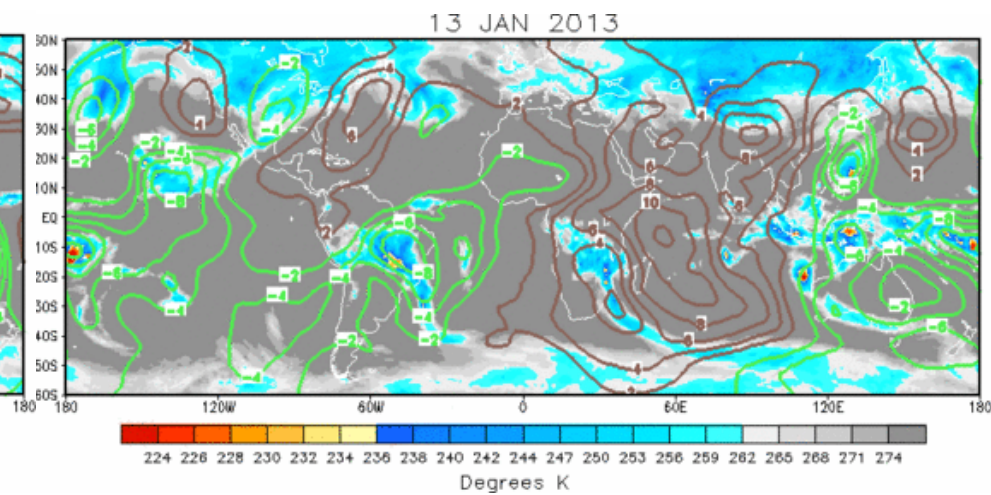
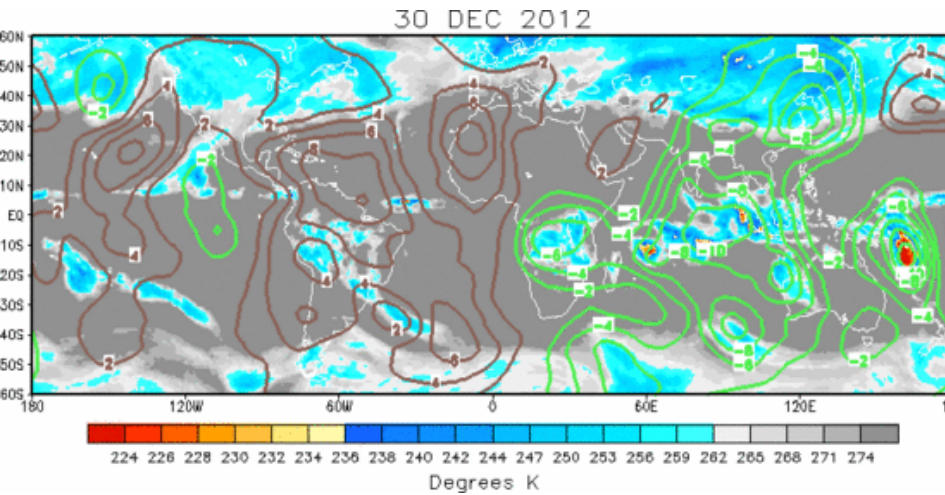
16 JAN 2013



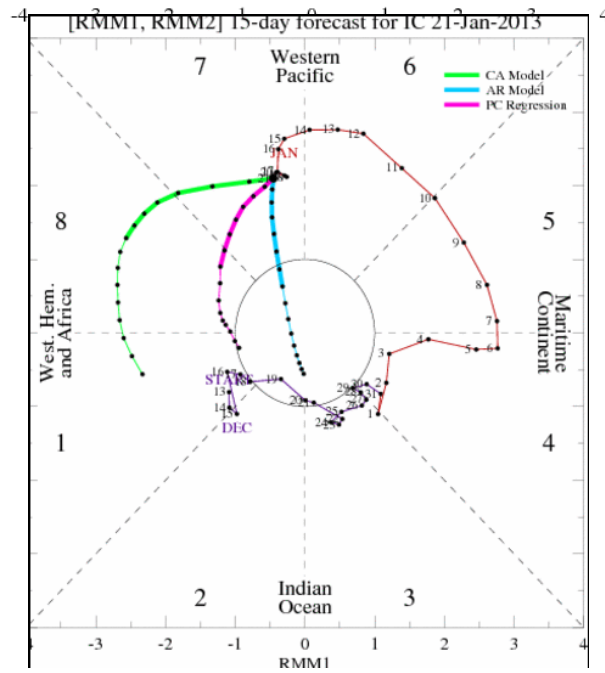
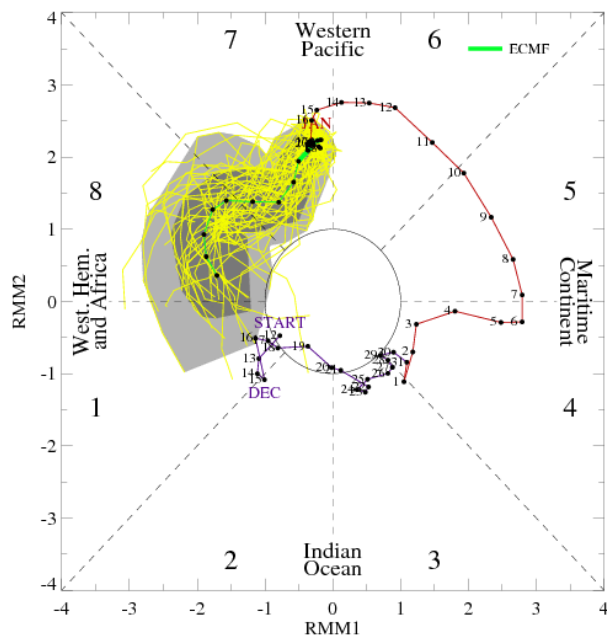
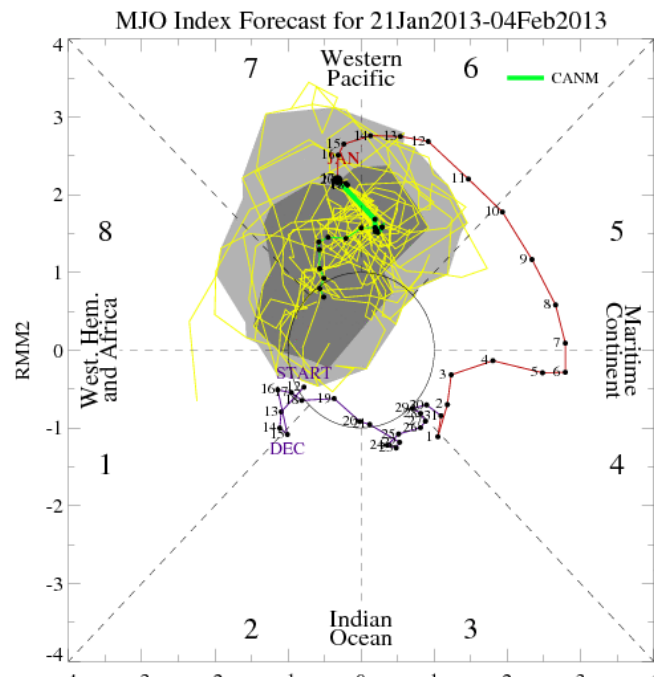
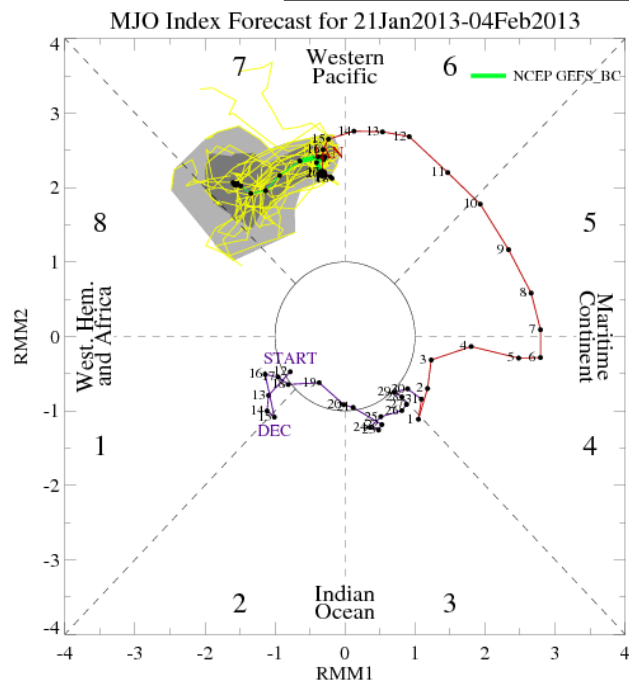
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

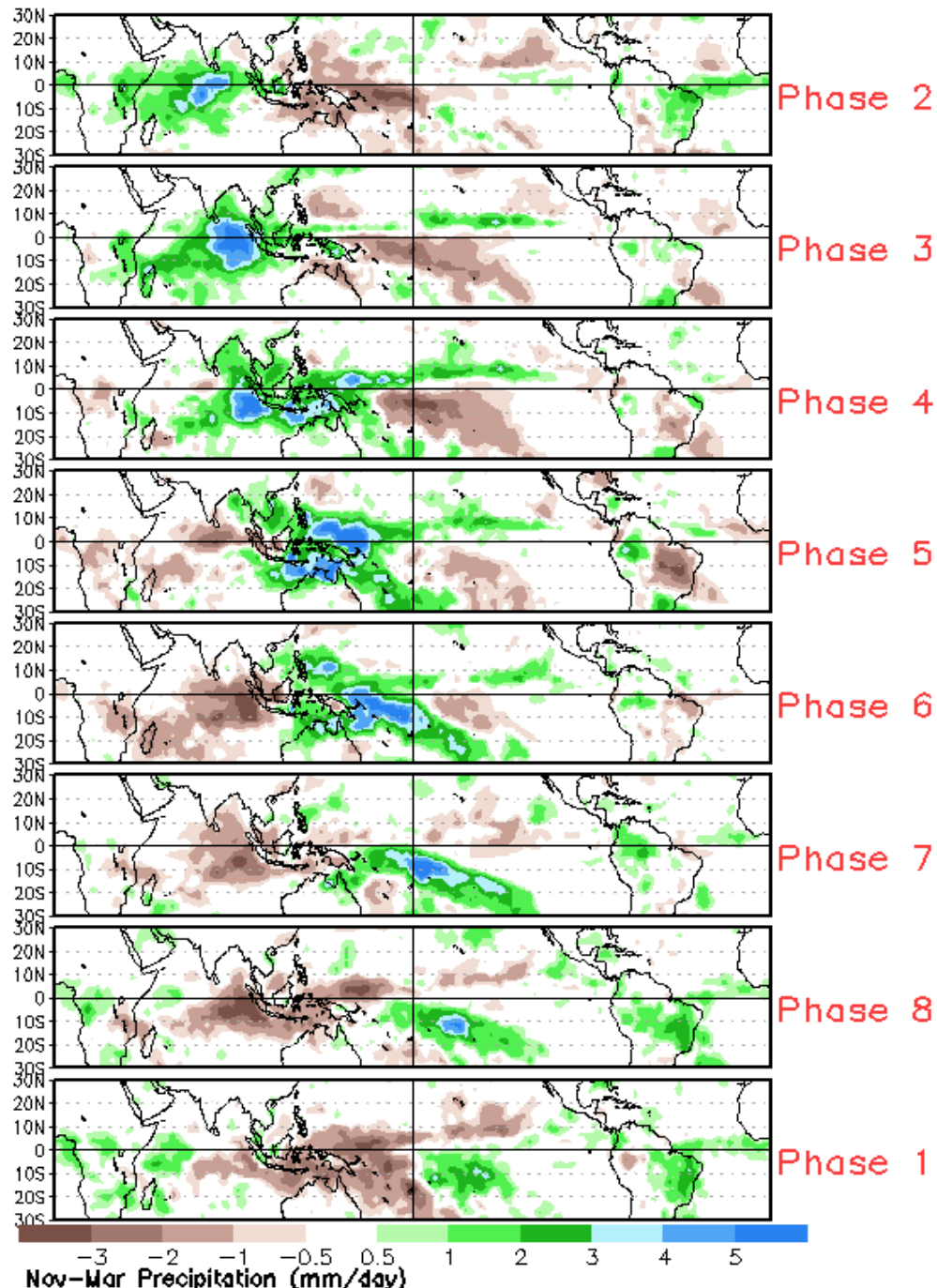
Brown: Enhanced Convergence



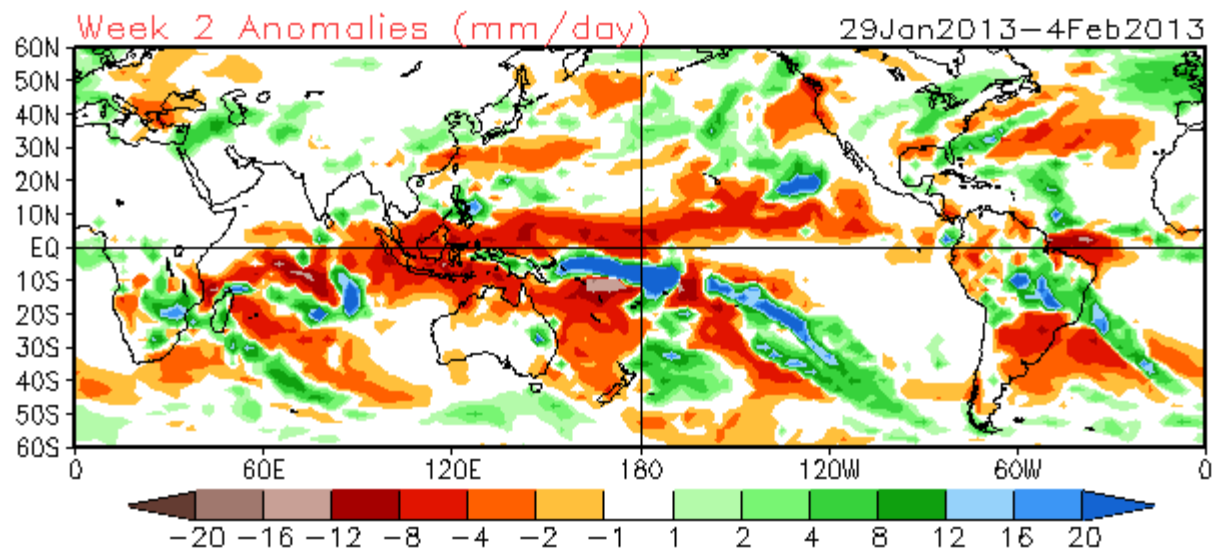
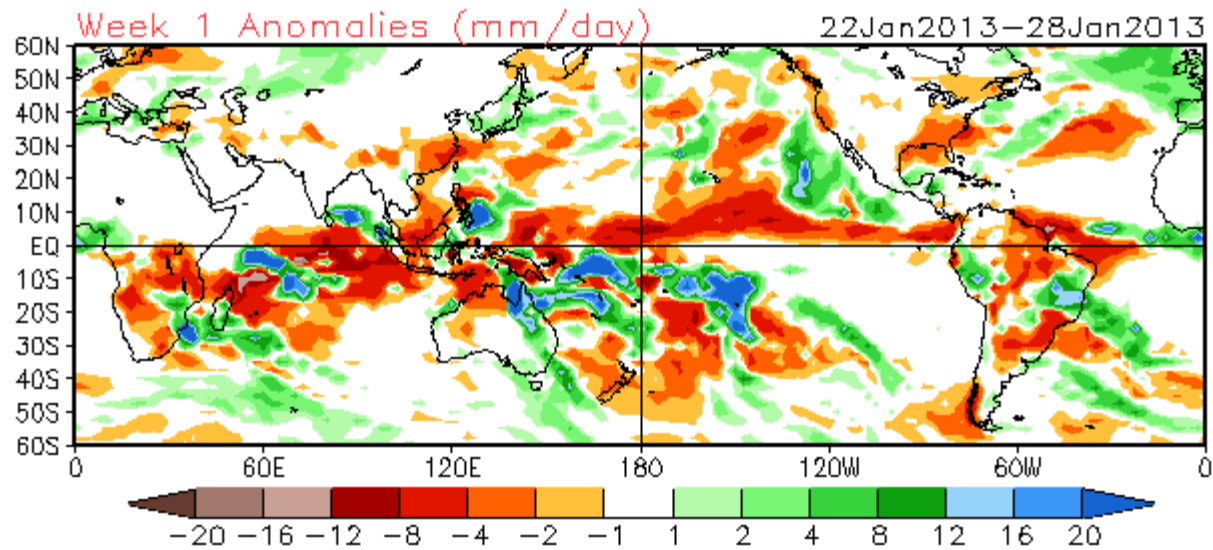
MJO Observation/Forecast



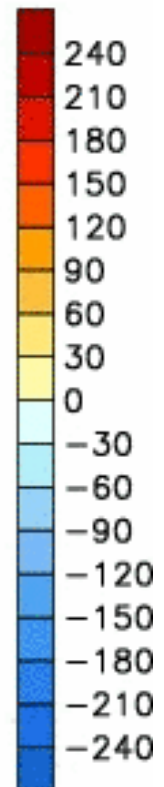
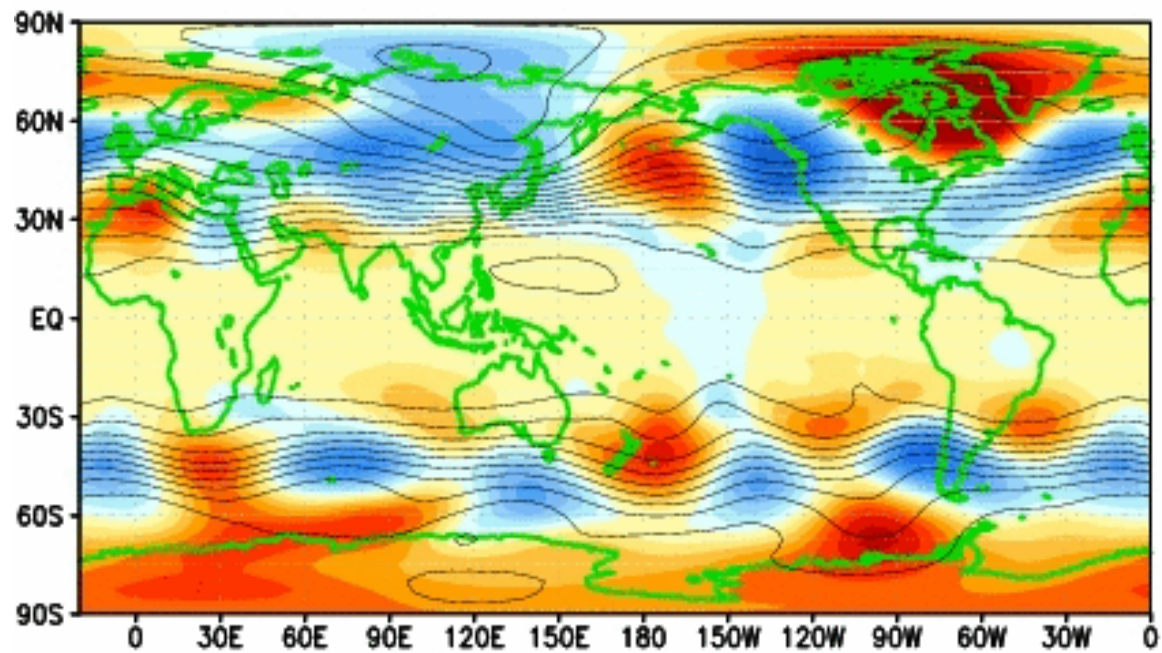
Average Conditions when the MJO is present (Nov-Mar)



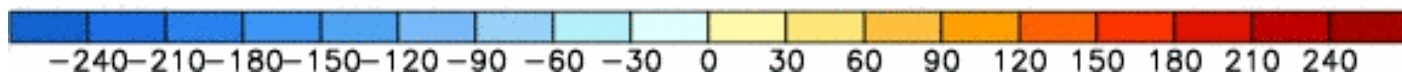
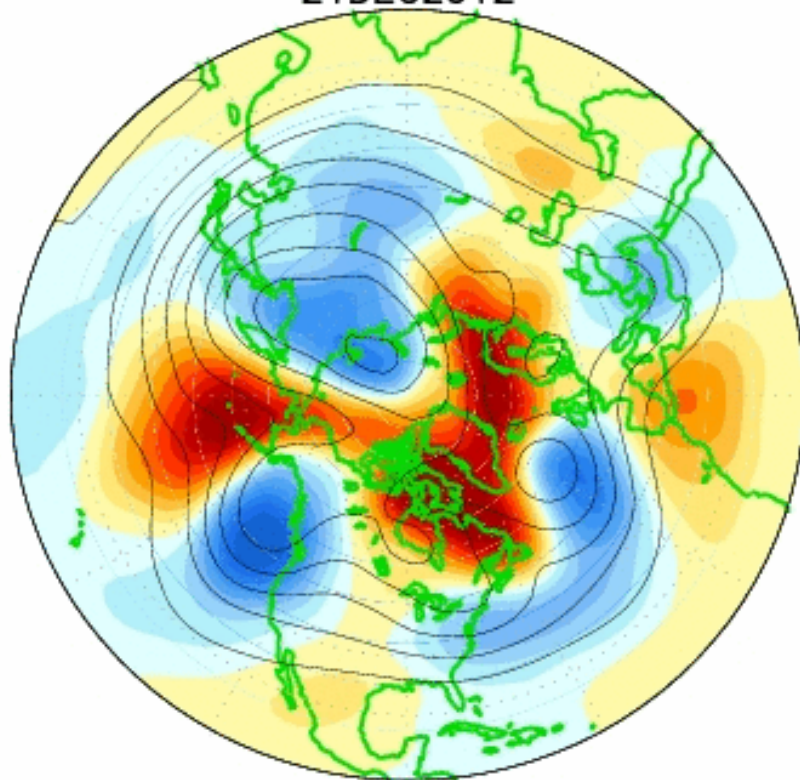
CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 21Jan2013



CDAS 200-hPa HT Anoms (11d rm)
21DEC2012

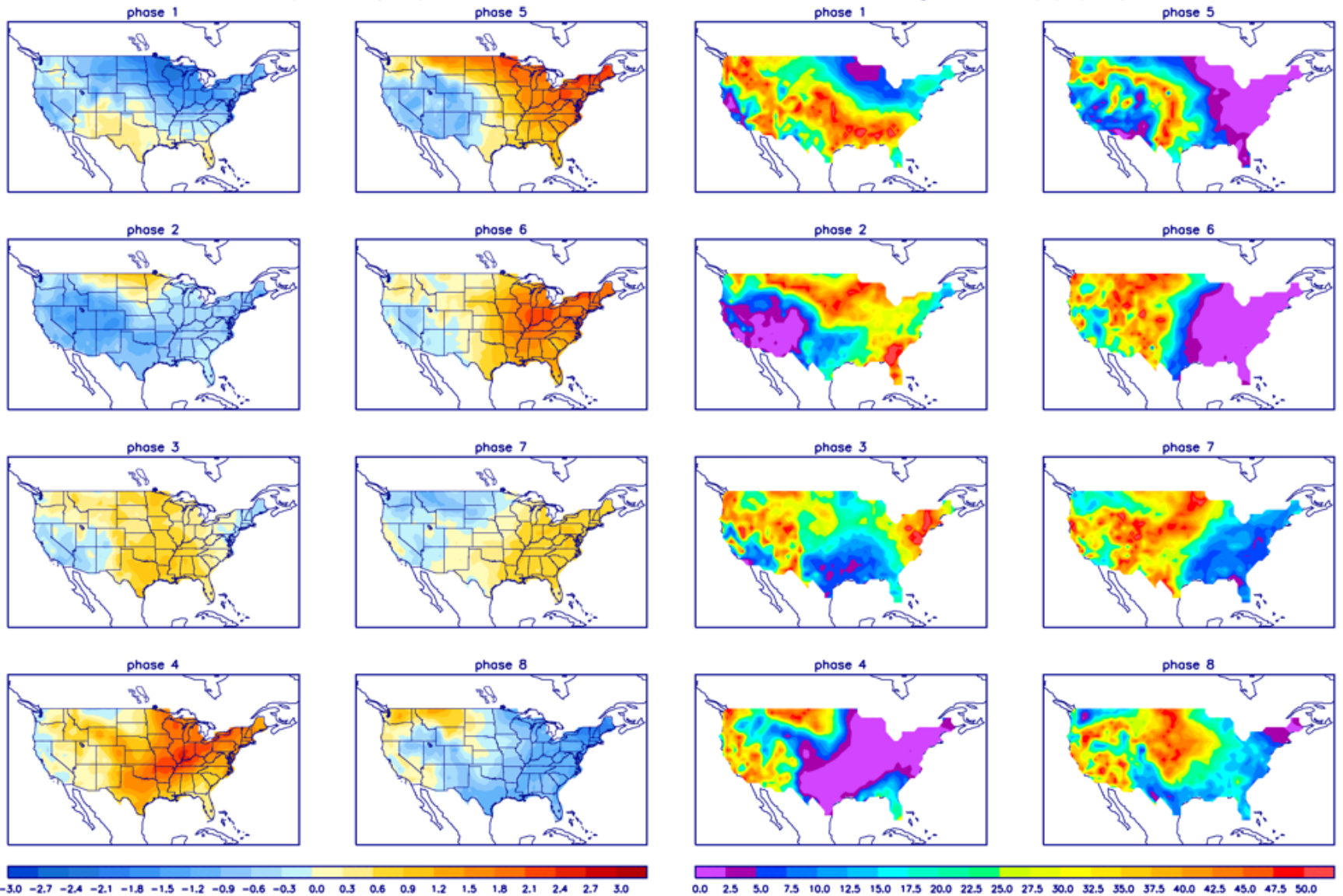


CDAS 500-hPa HT Anoms (5d rm)
21DEC2012

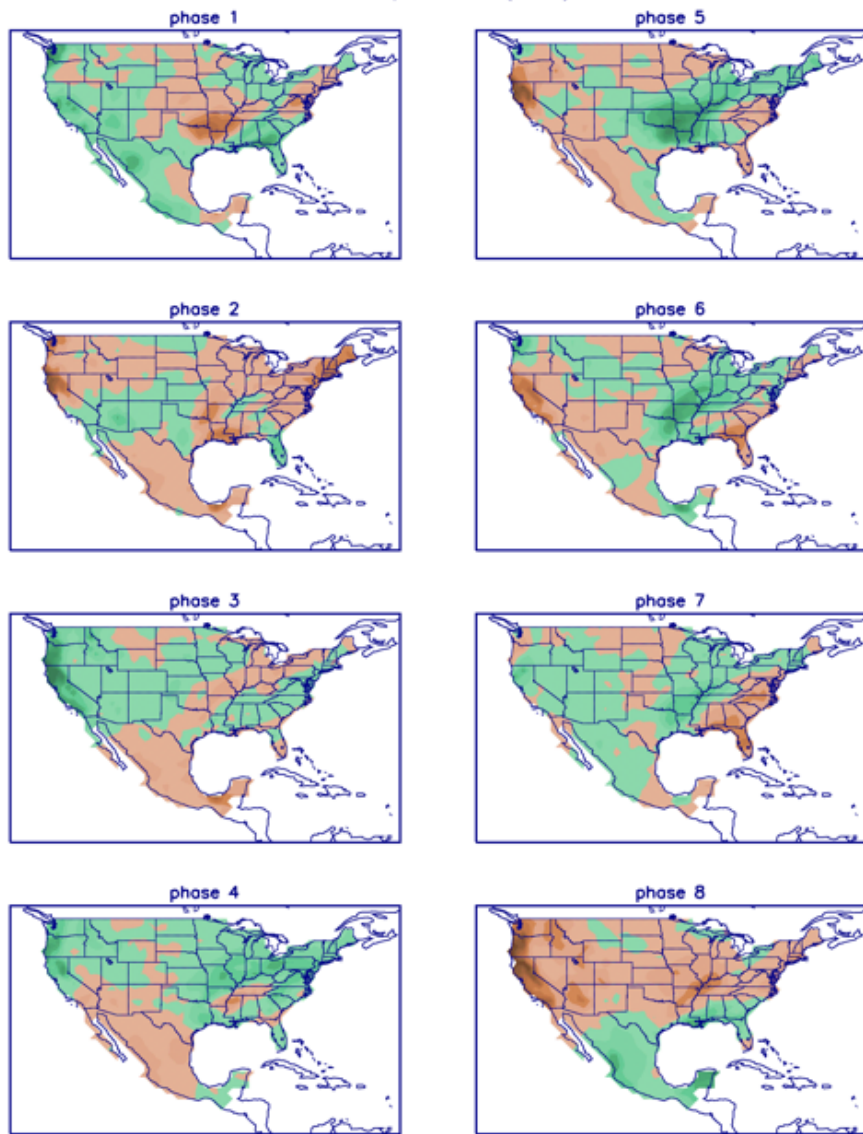


T composites (DJF)

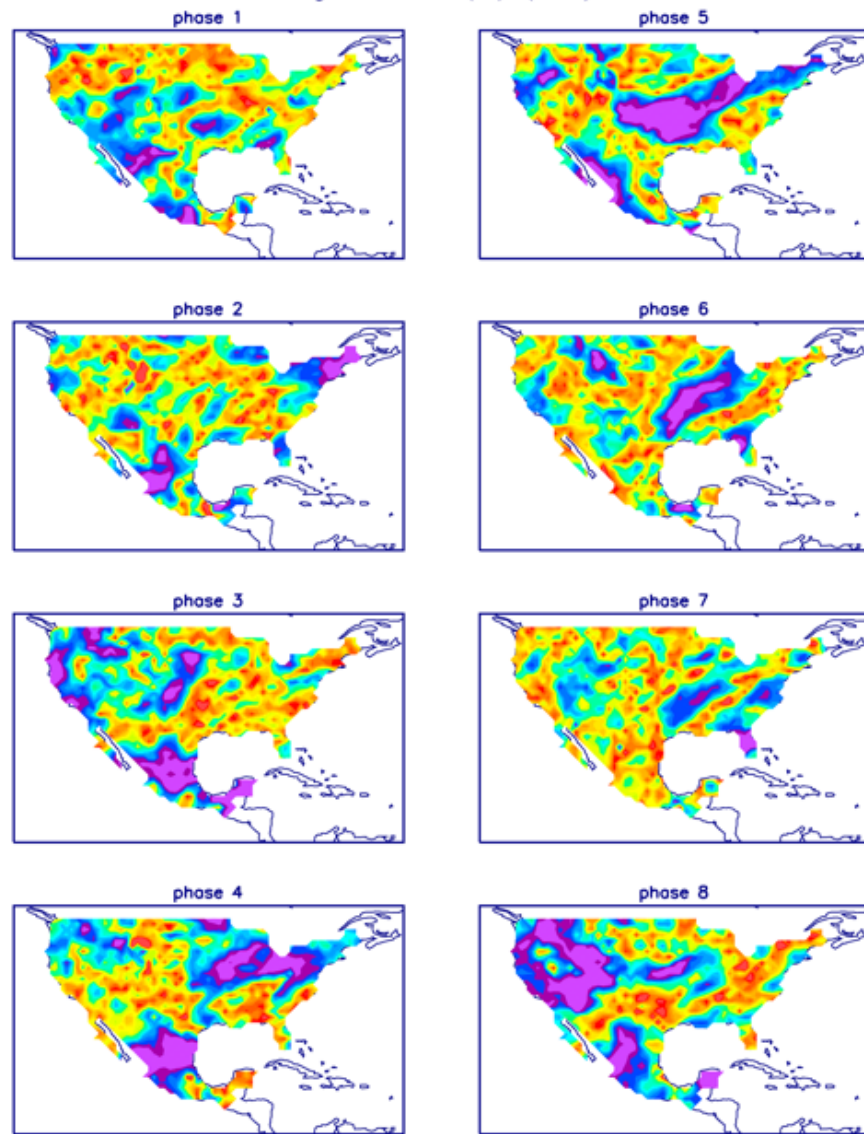
Significance (%) (DJF)



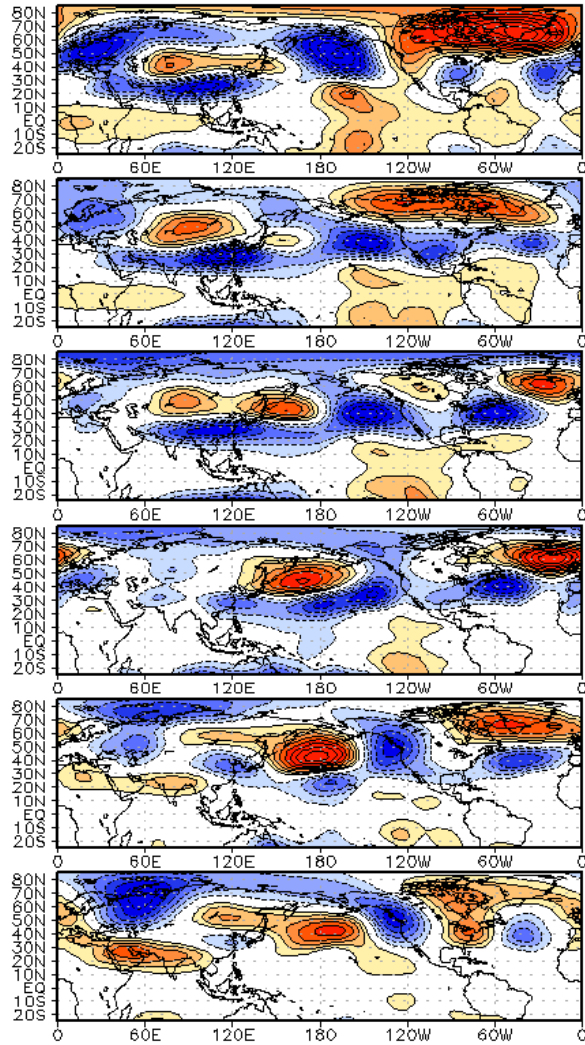
P composites (DJF)



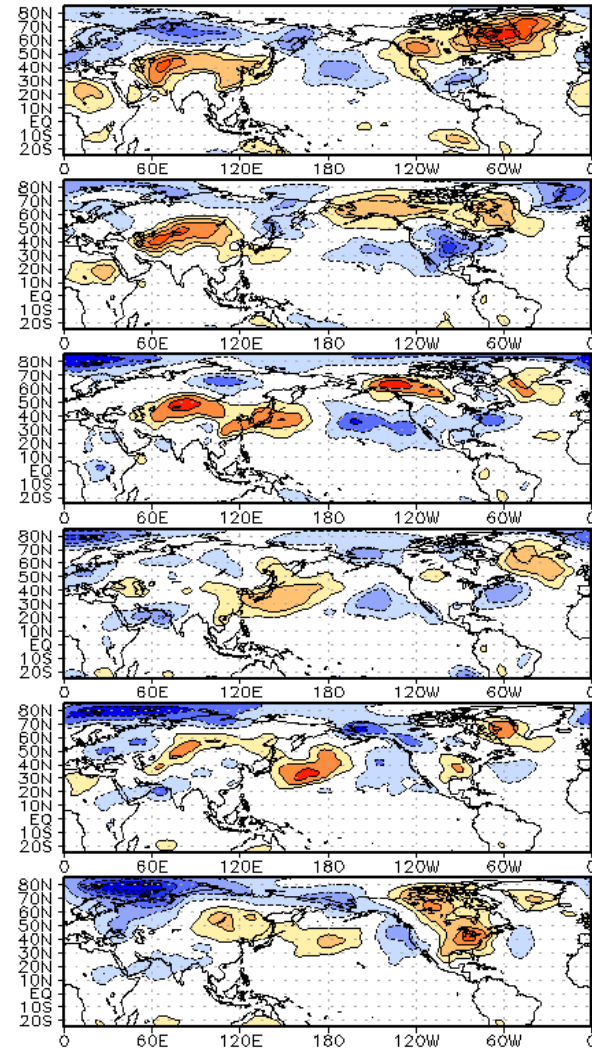
Significance (%) (DJF)



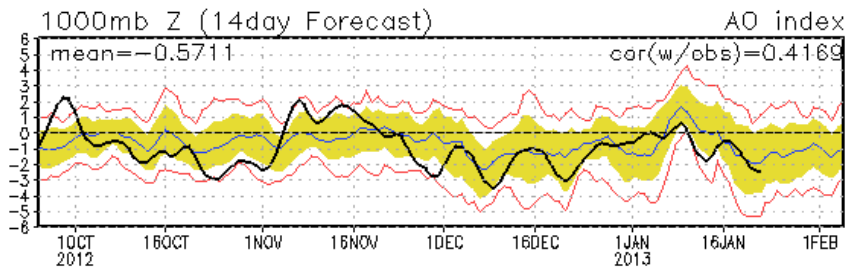
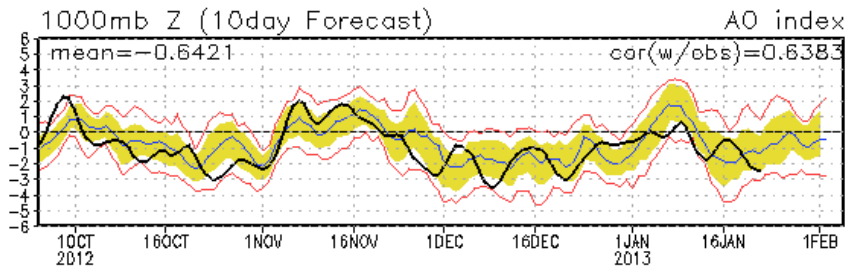
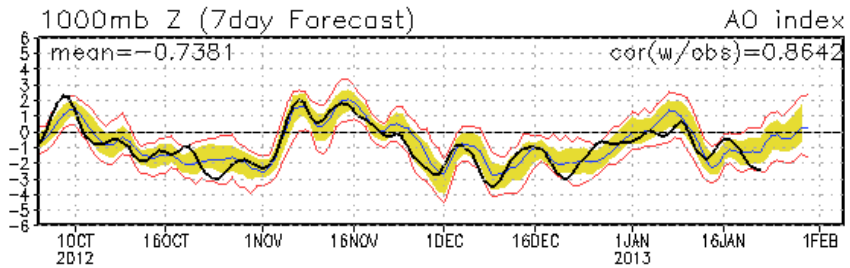
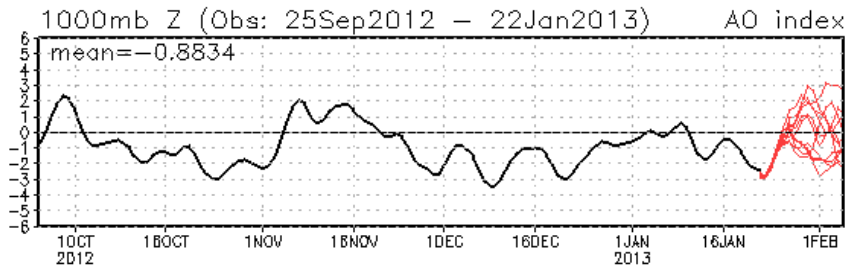
WHMJO Phase 8 z200 Lagged Composite (djf)



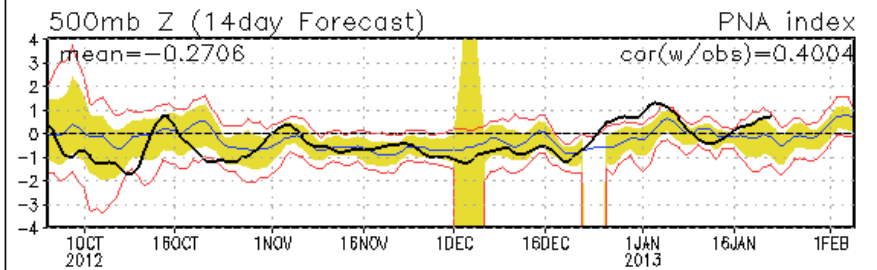
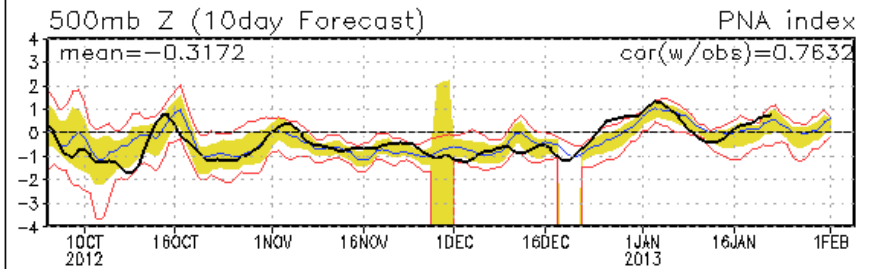
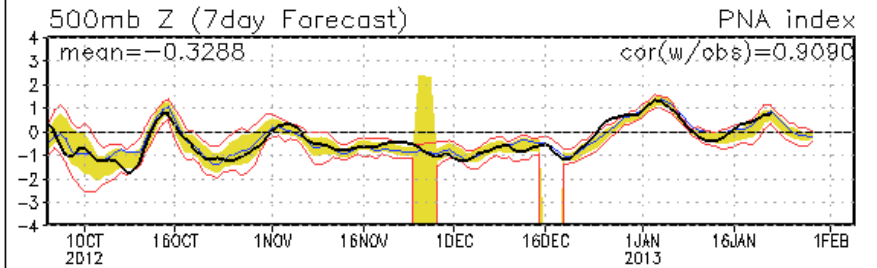
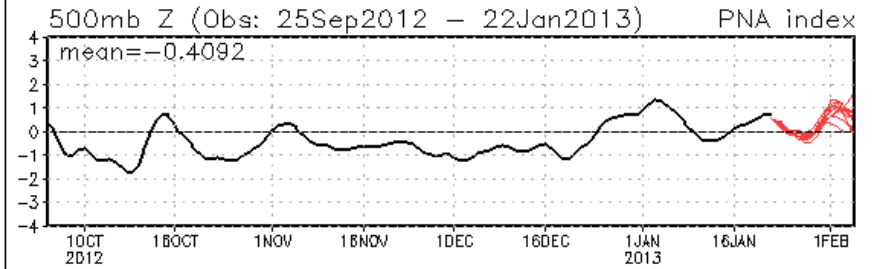
WHMJO Phase 8 t850 Lagged Composite (djf)



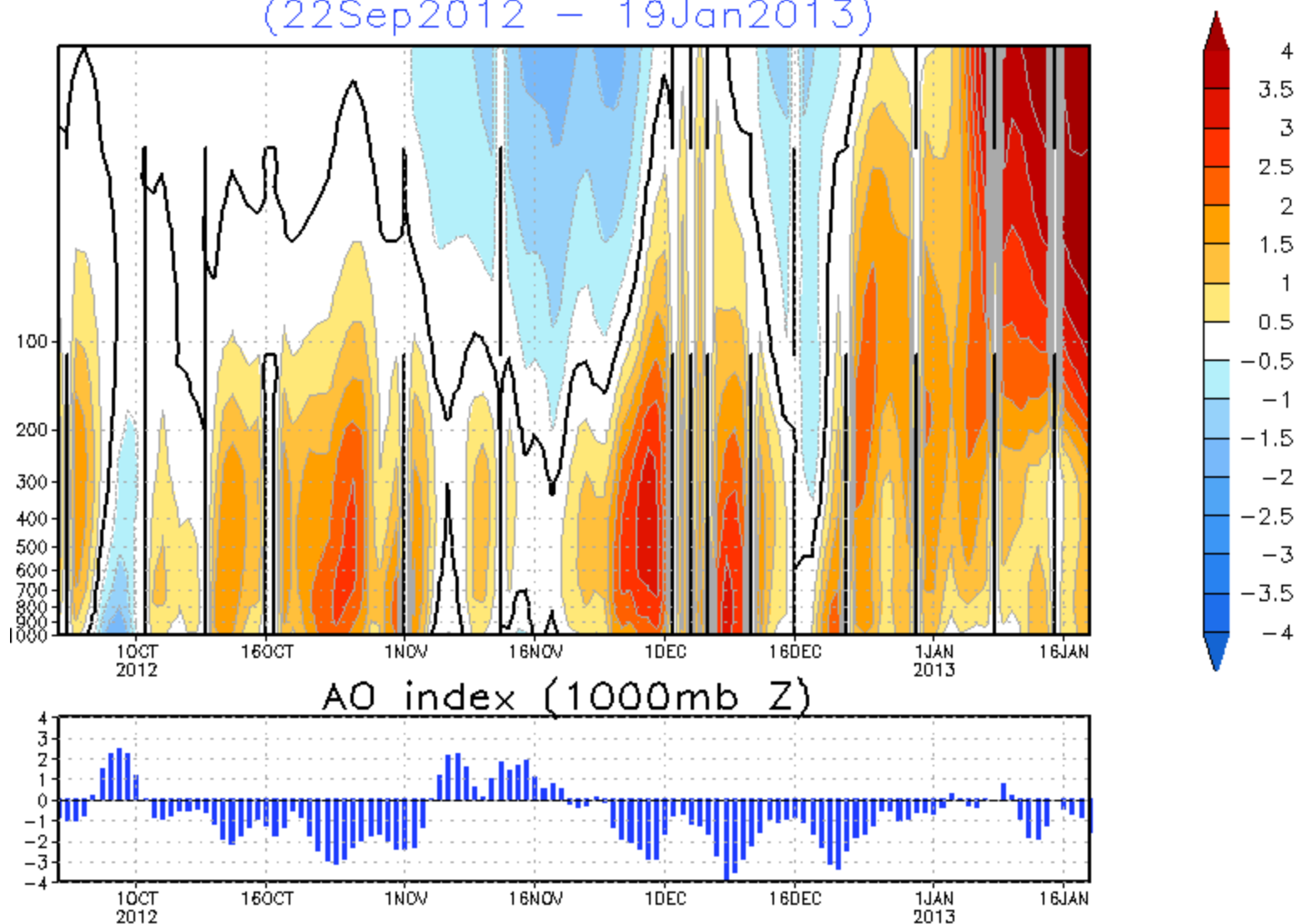
AO: Observed & ENSM forecasts



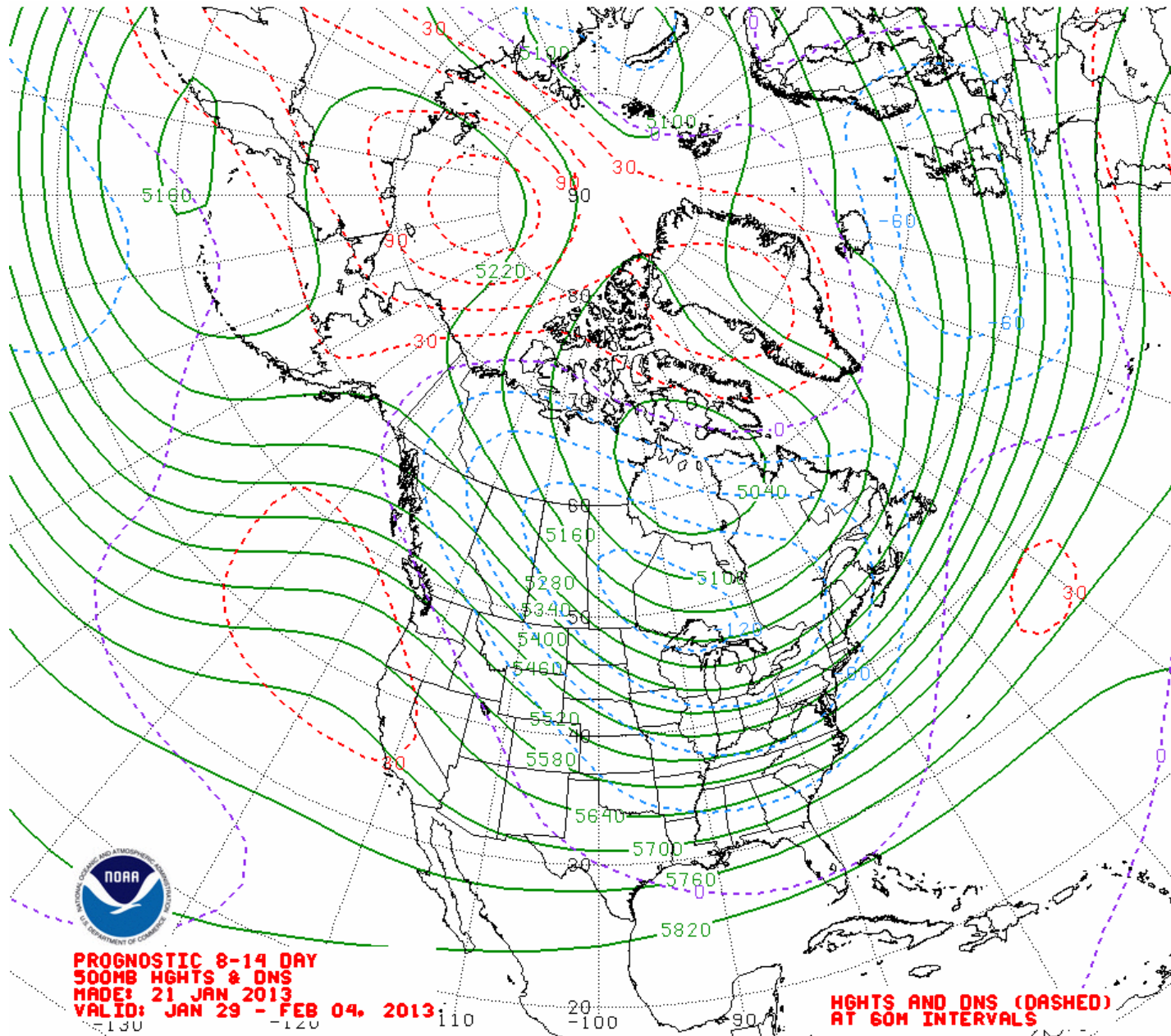
PNA: Observed & ENSM forecasts



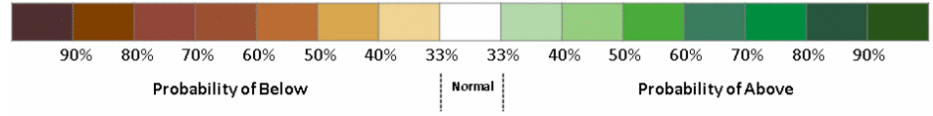
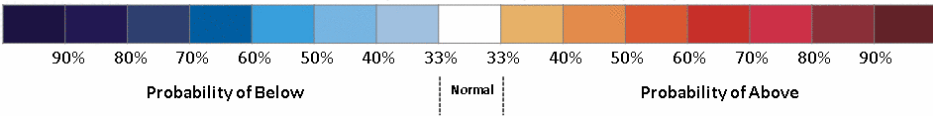
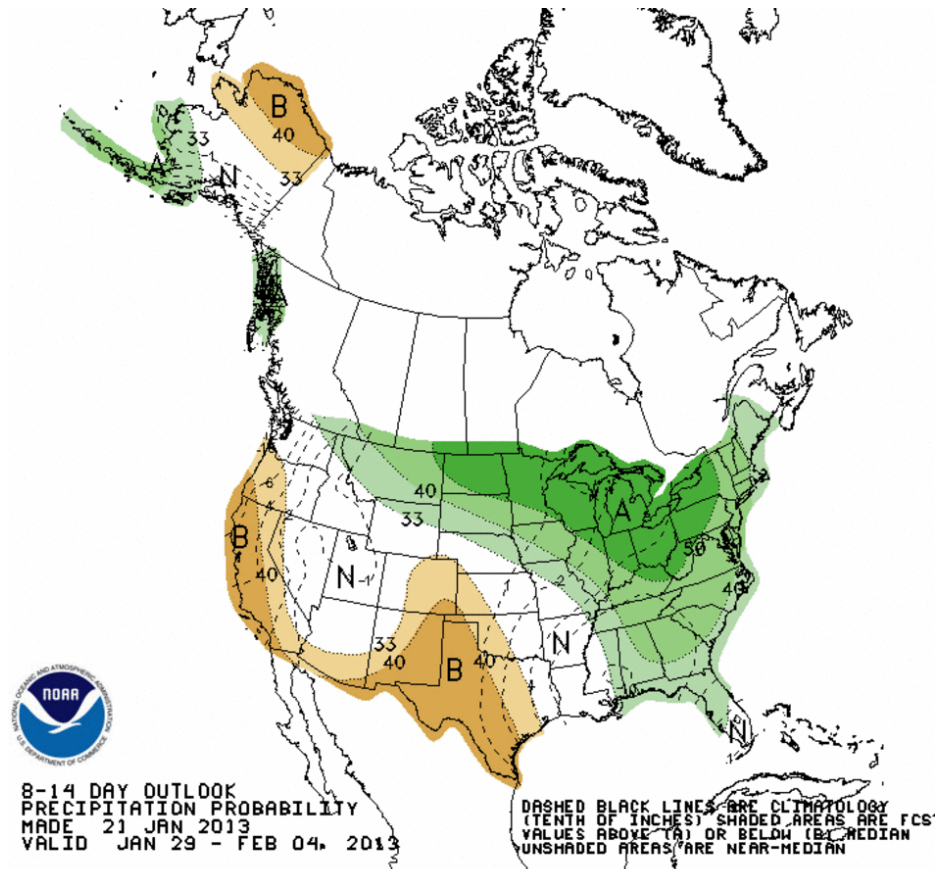
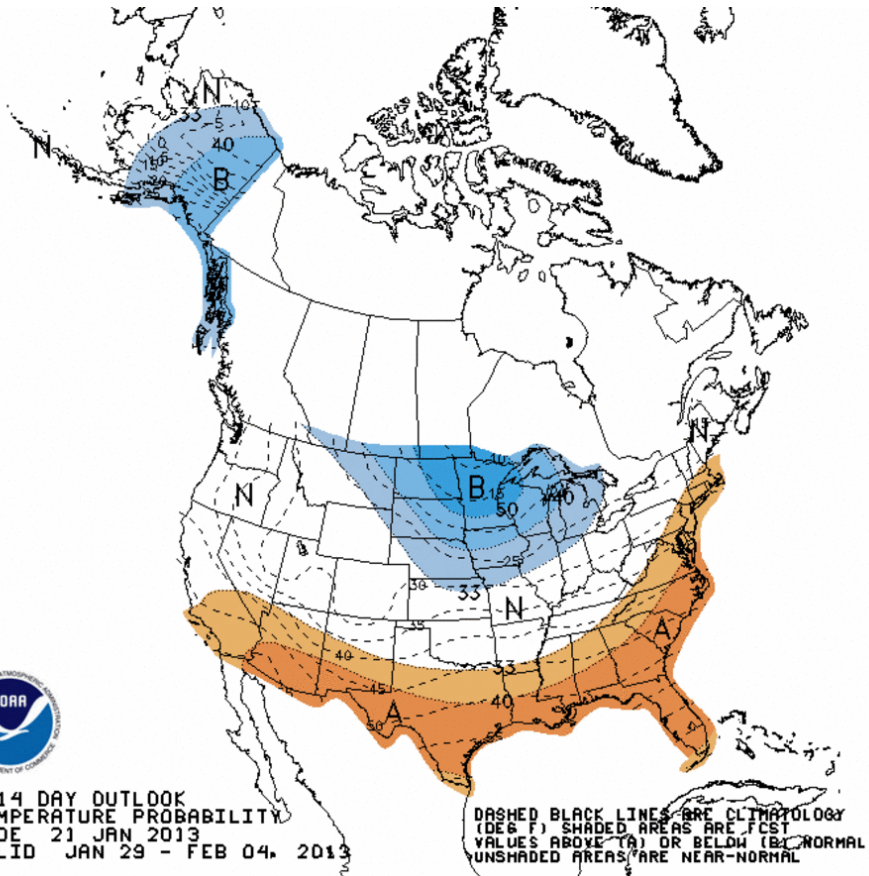
Normalized GPH anomaly (65°N–90°N)
(22Sep2012 – 19Jan2013)



Week 2 500-hPa Manual Chart

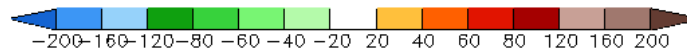
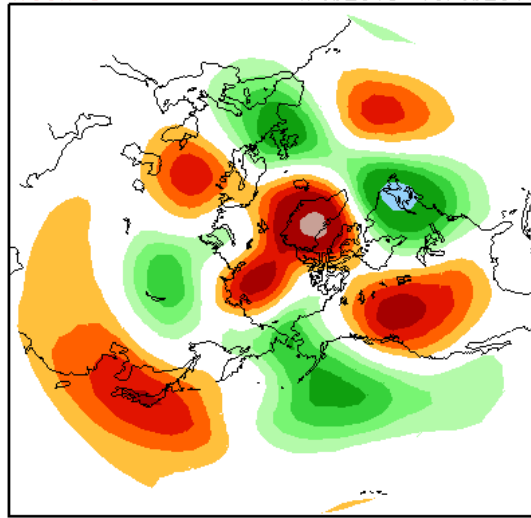


Week 2 – Temperature and Precipitation

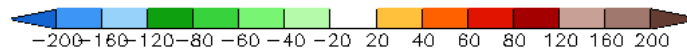
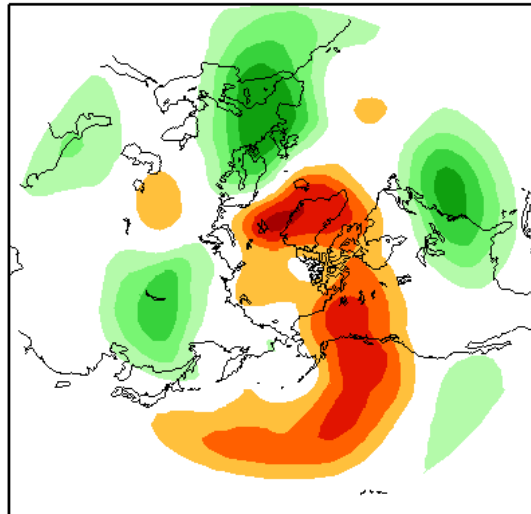


CFSv2 Weeks 3 & 4 500 hPa Z Anomalies (m)
16 Member Ensemble Mean Forecast from 20Jan2013

Week 3 4Feb2013–10Feb2013



Week 4 11Feb2013–17Feb2013

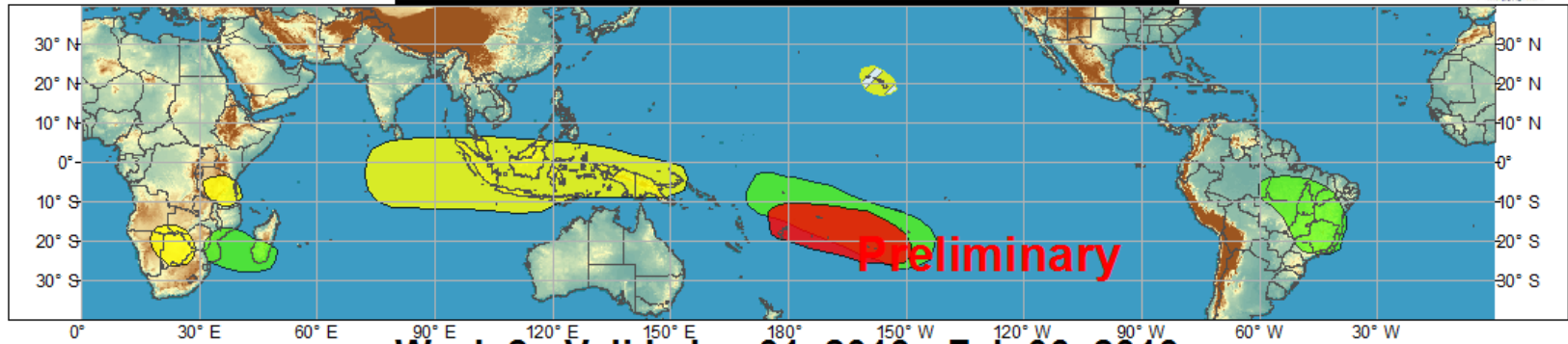




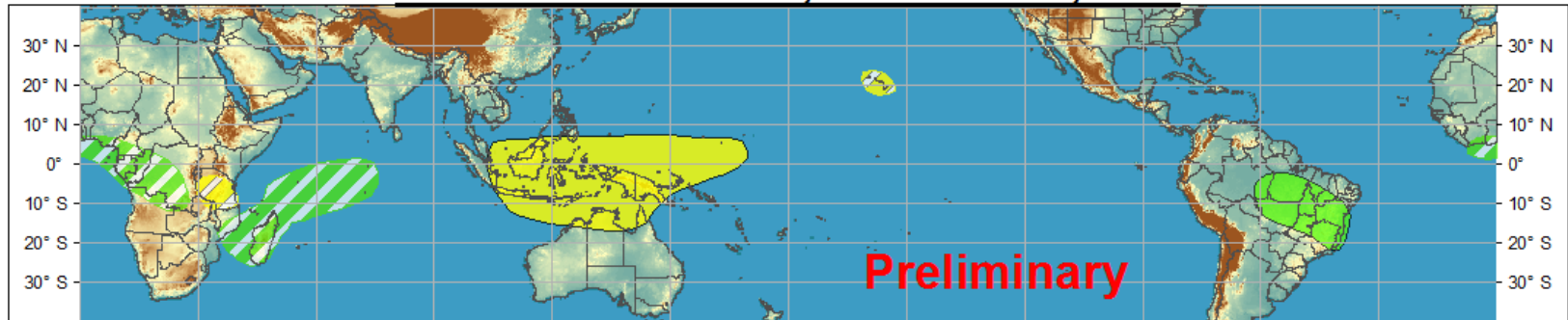
Global Tropical Hazards/Benefits Outlook - Climate Prediction Center













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Week 2 - Valid: Jan 31, 2013 - Feb 06, 2013



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- | | | | |
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Forecaster: Gottschalck

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