

Global Tropics Hazards And Benefits Outlook

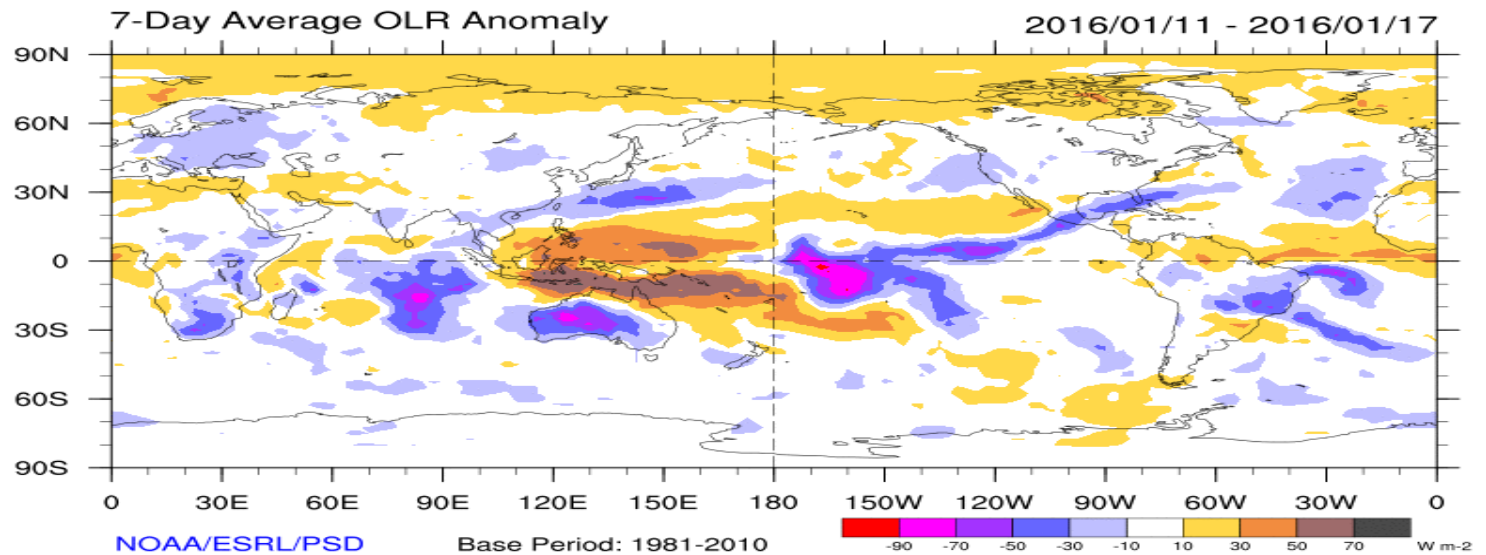
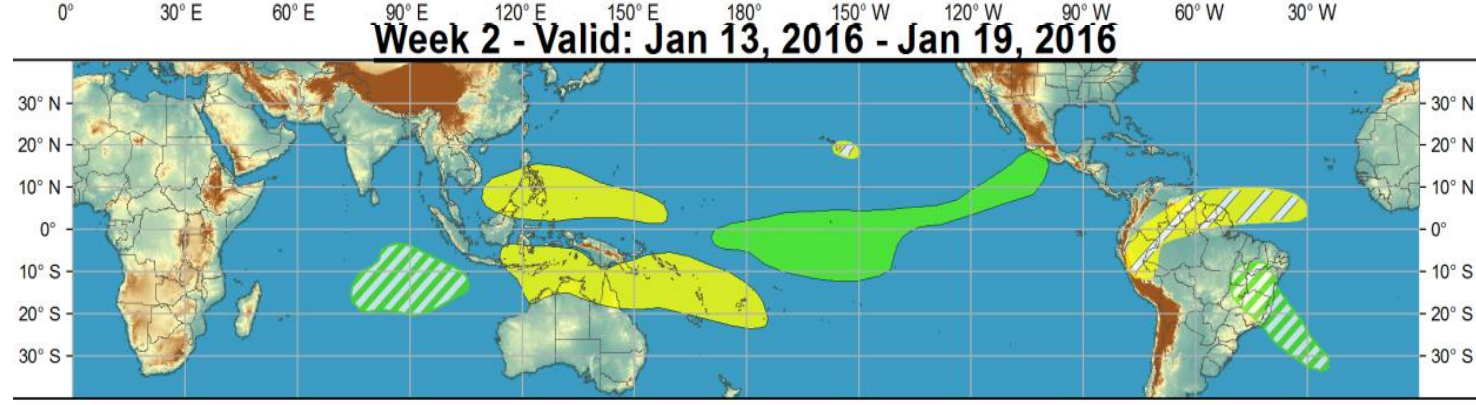
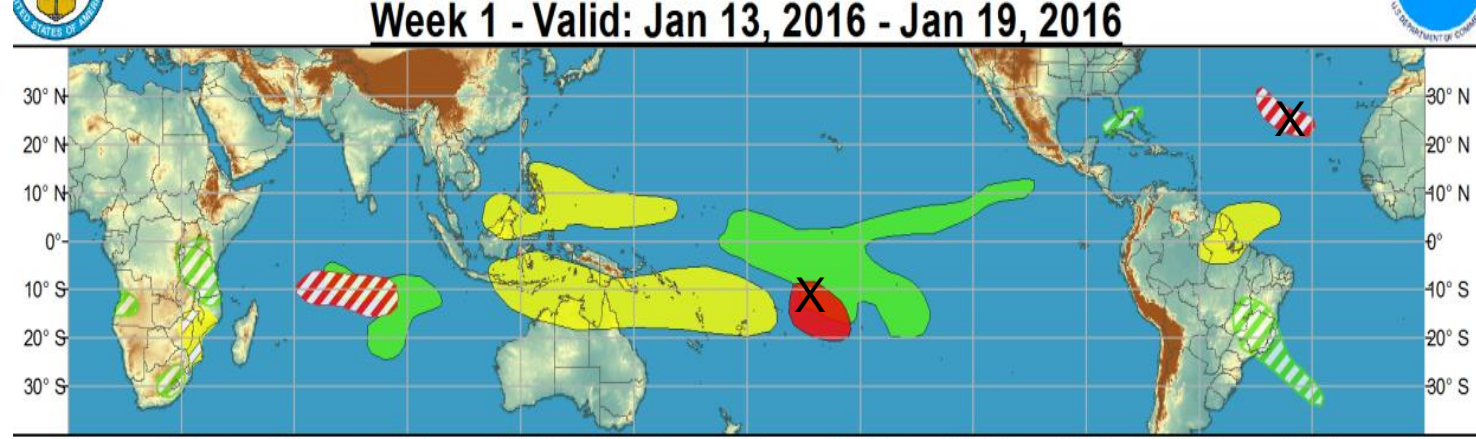
Jan 19, 2016

Brad Pugh

Outline

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

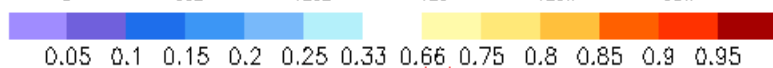
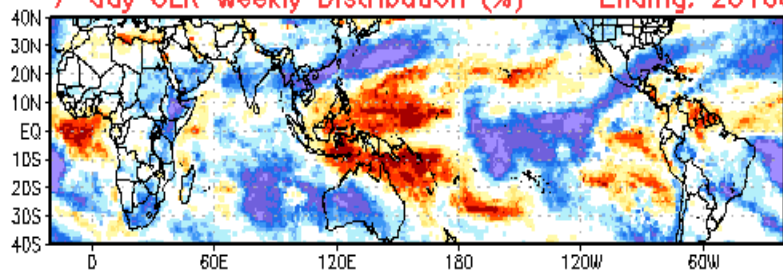
Outlook Review



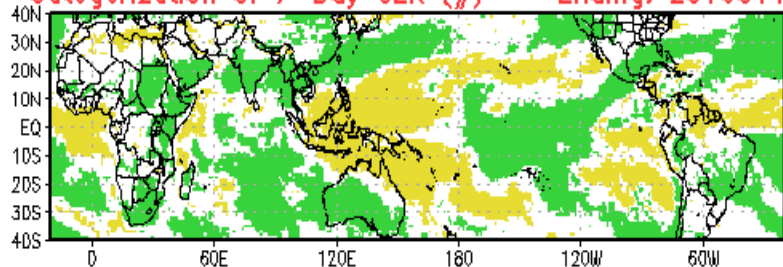
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

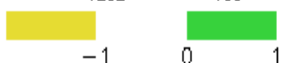
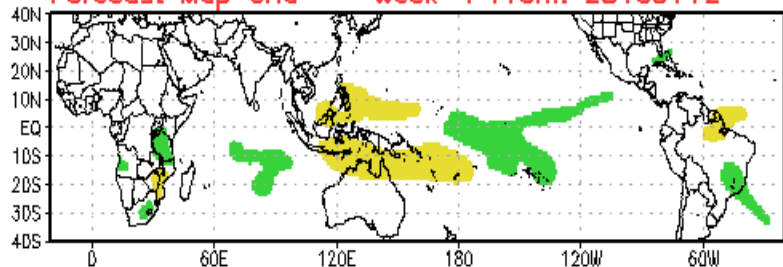
7-day OLR Weekly Distribution (%) -- Ending: 20160119



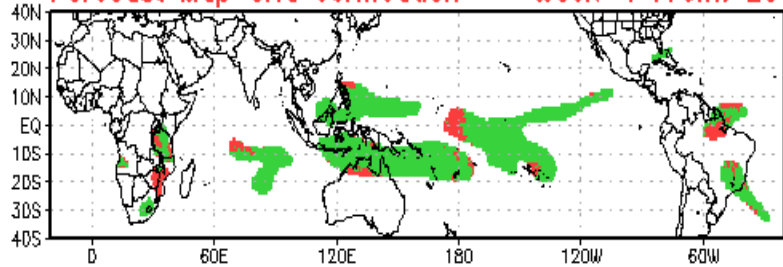
Categorization of 7-Day OLR (#) -- Ending: 20160119



Forecast Map Grid -- Week-1 From: 20160112

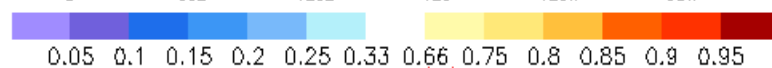
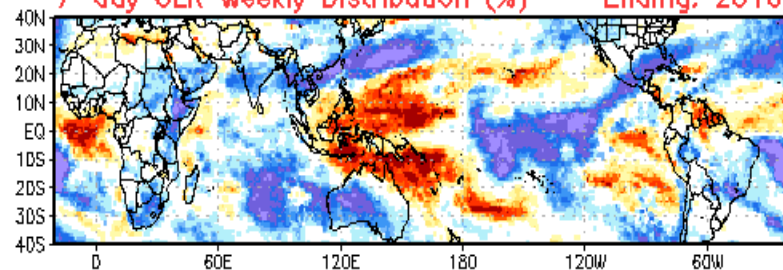


Forecast Map Grid Verification -- Week-1 From: 20160112

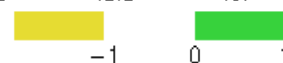
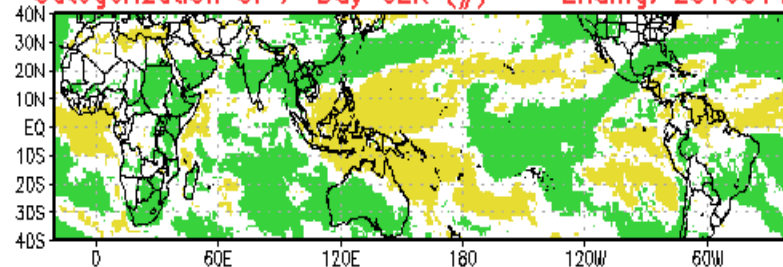


Hit: Green, Miss: Red
Heidke Skill Score: 79.3776

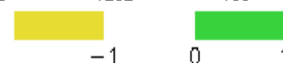
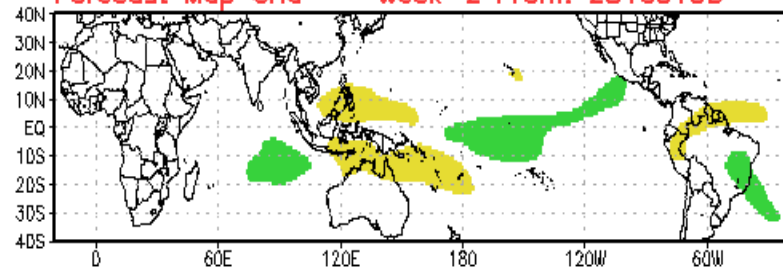
7-day OLR Weekly Distribution (%) -- Ending: 20160119



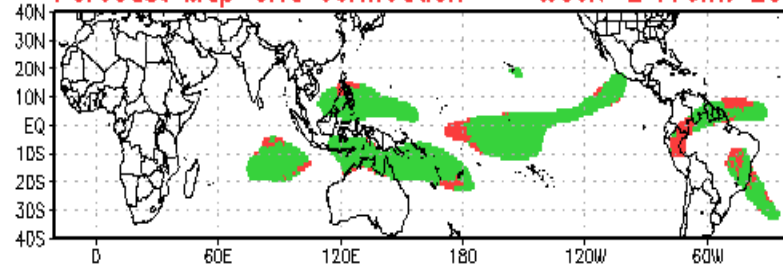
Categorization of 7-Day OLR (#) -- Ending: 20160119



Forecast Map Grid -- Week-2 From: 20160105



Forecast Map Grid Verification -- Week-2 From: 20160105



Hit: Green, Miss: Red
Heidke Skill Score: 79.3696

Synopsis of Climate Modes

ENSO:

- Current: [El Niño Advisory](#)
- Outlook: El Niño is expected to remain strong through the Northern Hemisphere winter 2015-16, with a transition to ENSO-neutral anticipated during late spring or early summer 2016.

MJO and other subseasonal tropical variability:

- The MJO remained active through early January with constructive interference with the ongoing El Niño.
- MJO weakened recently with a Kelvin Wave ahead of it.
- Dynamical model MJO index forecasts depict a weak signal during Week-1 with a re-emerging signal and propagation towards the Maritime Continent by Week-2.

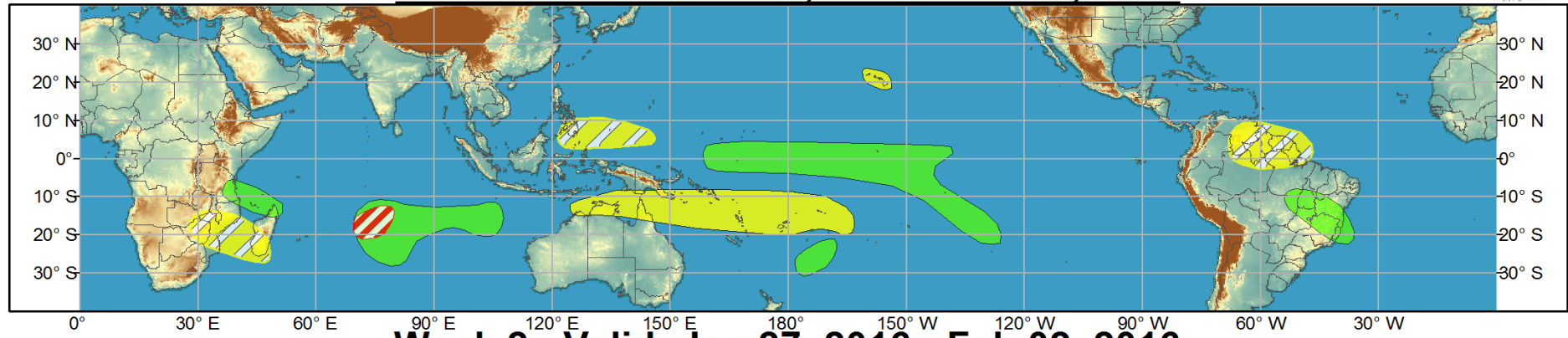
Extratropics:

- The MJO influence on the extratropics is more uncertain since the signal weakened but its current position favors a warmer pattern across the lower 48 by the end of January.

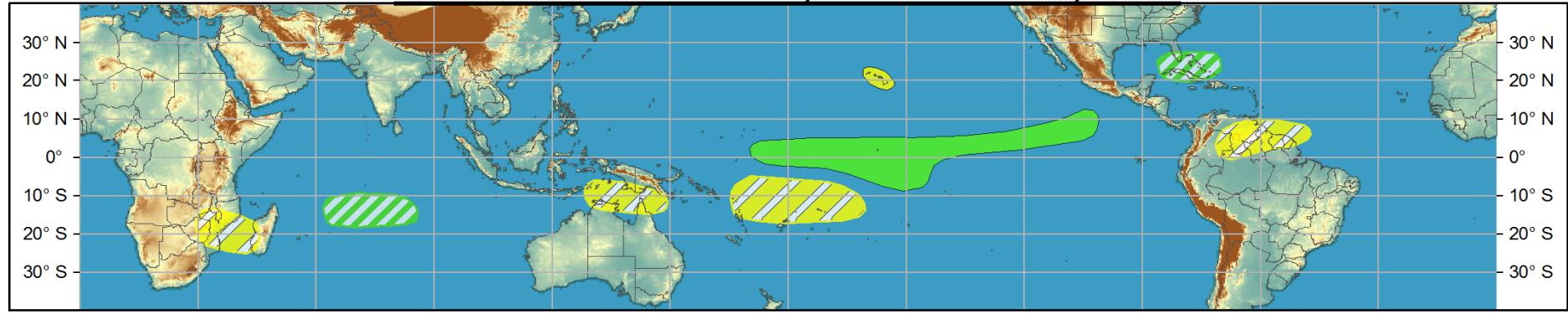


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jan 20, 2016 - Jan 26, 2016



Week 2 - Valid: Jan 27, 2016 - Feb 02, 2016



Produced: 01/19/2016
Forecaster: Pugh

	Confidence		
	High	Moderate	
Tropical Cyclone Formation			Development of a tropical cyclone (tropical depression - TD, or greater 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.
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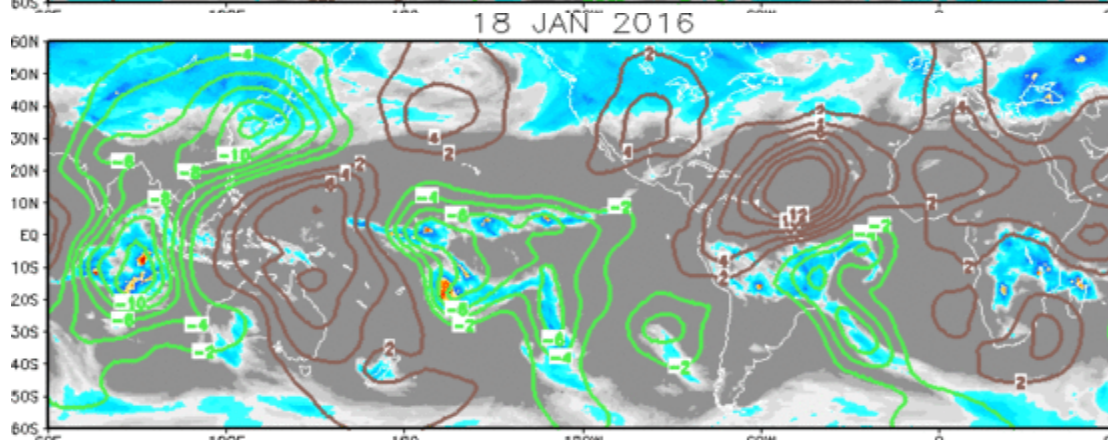
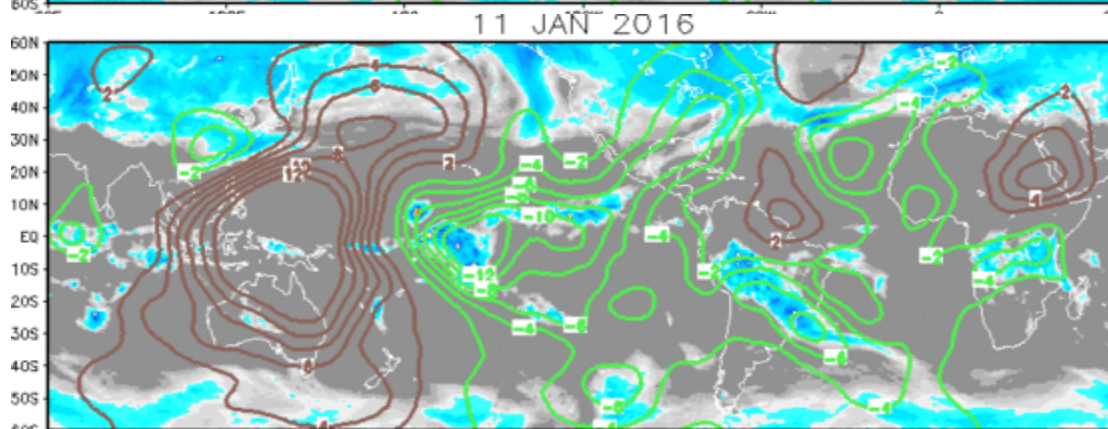
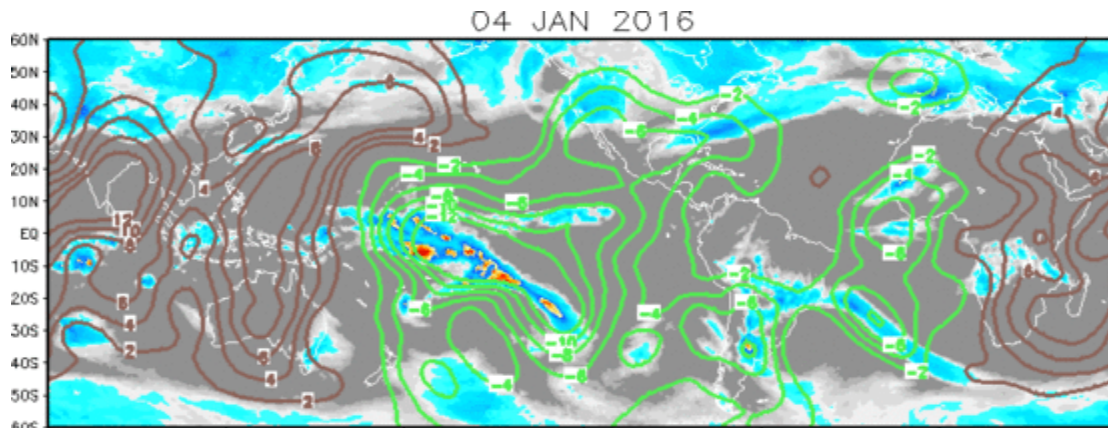
Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



IR Satellite & 200-hpa Velocity Potential Anomalies

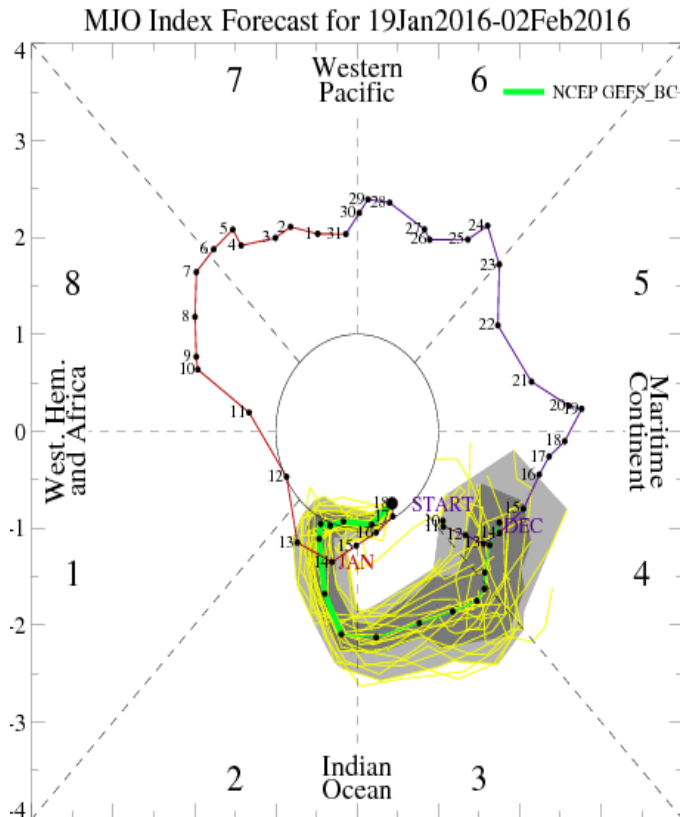
Green: Enhanced Divergence Brown: Enhanced Convergence

Constructive interference between MJO and El Nino.

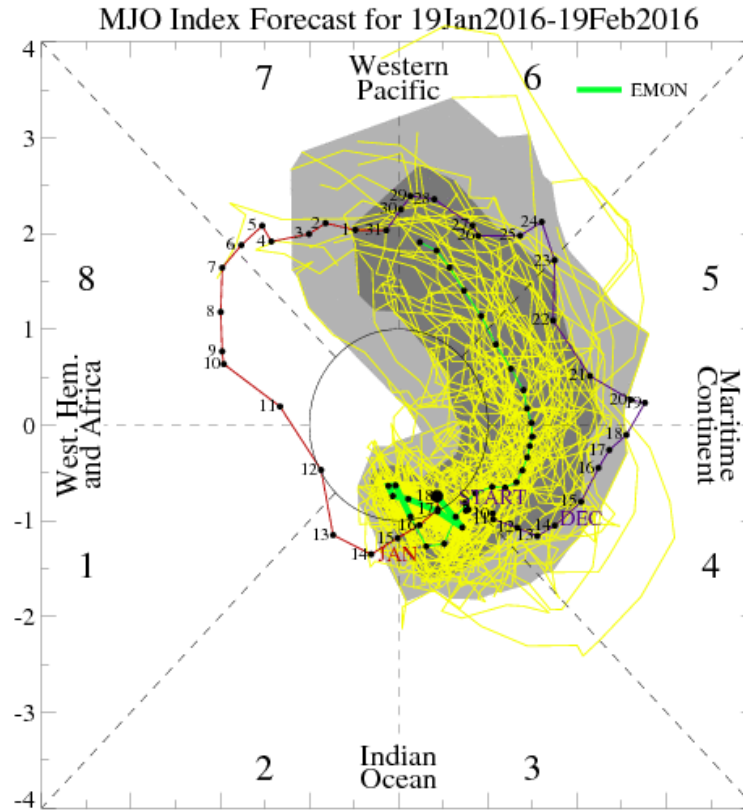


Pattern less coherent as MJO weakens and convection returns to Indian Ocean.

MJO Observation/Forecast

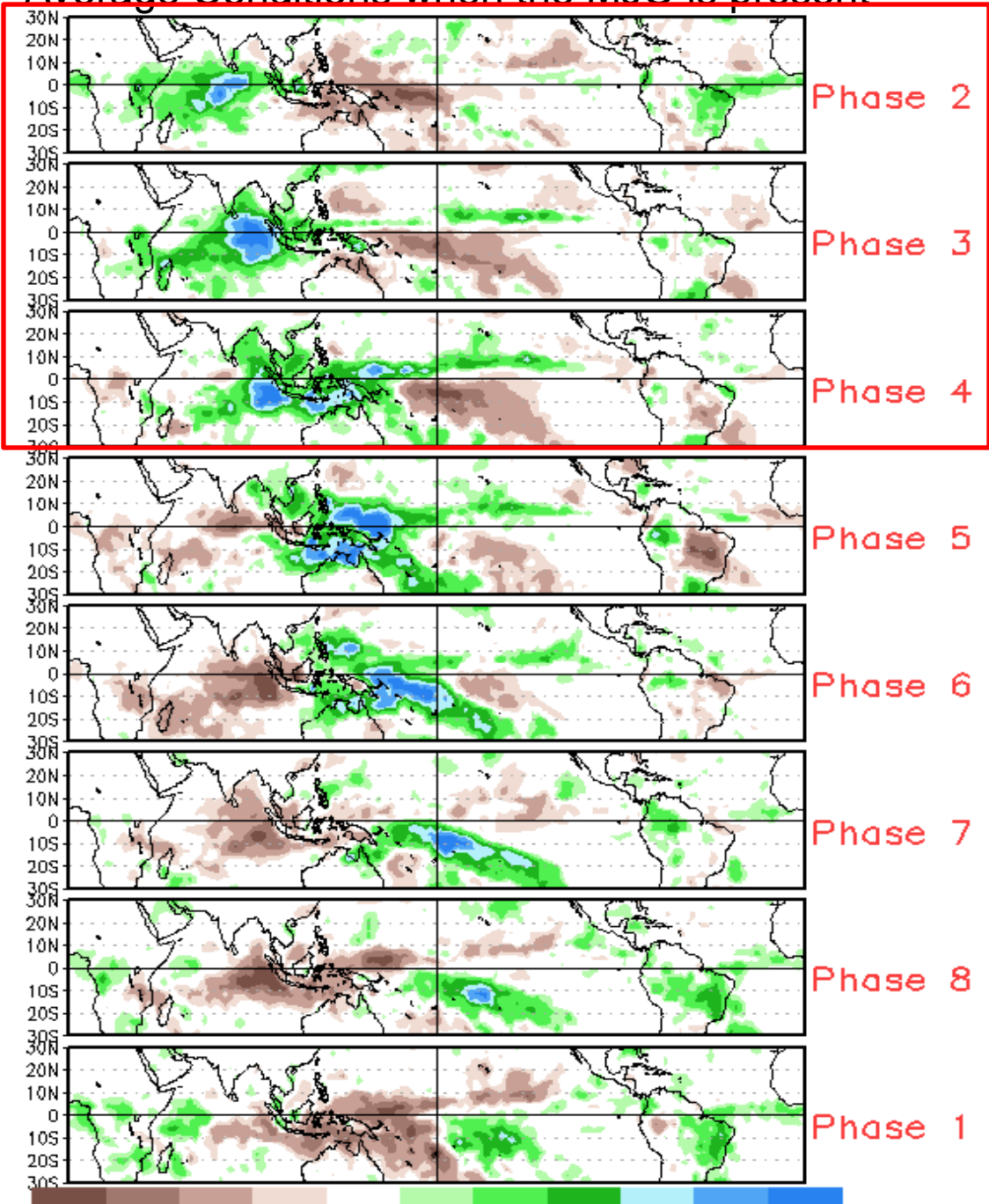


GFS



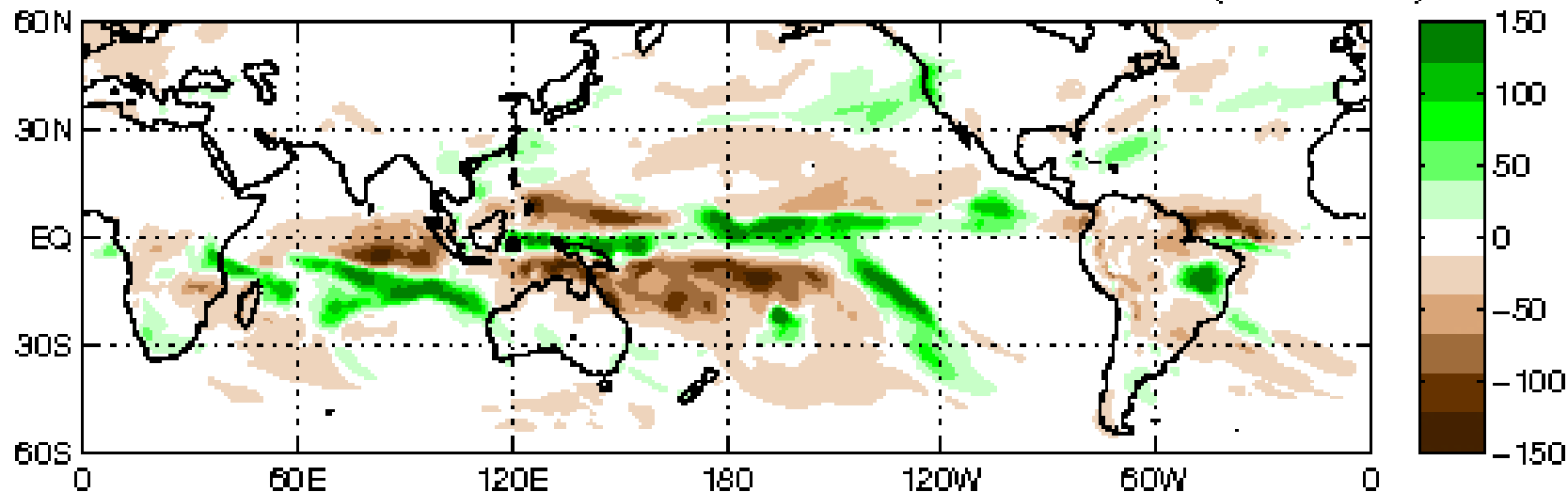
ECMWF

Average Conditions when the MJO is present

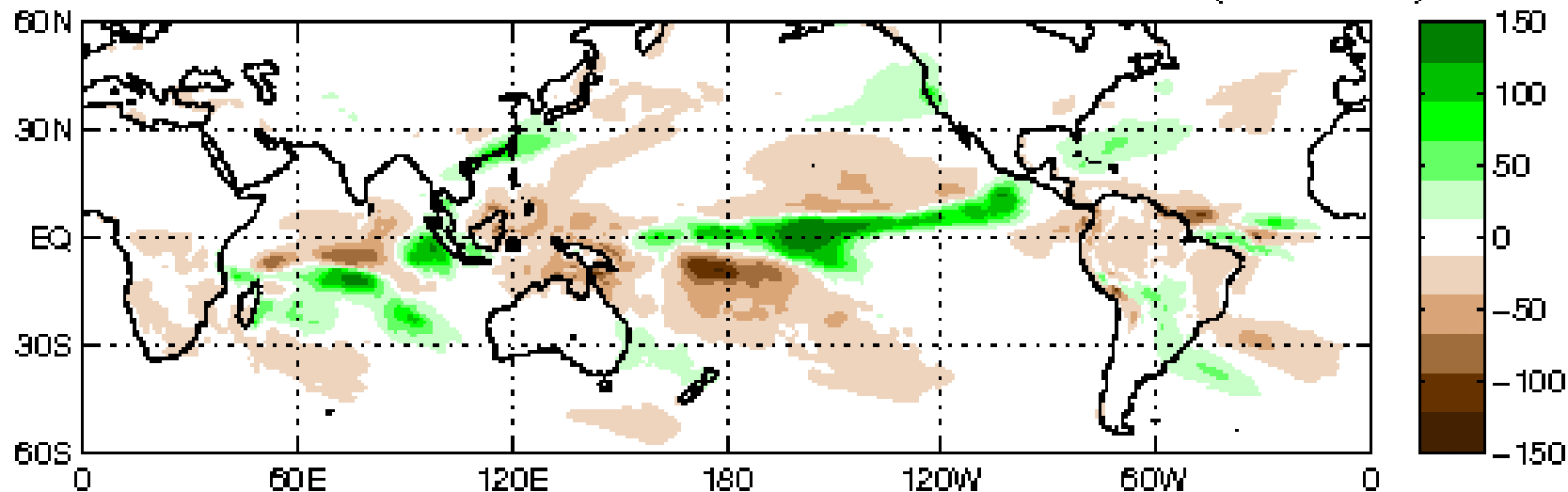


CAVEAT: These panels are representative of robust MJO events, with all phases of ENSO.

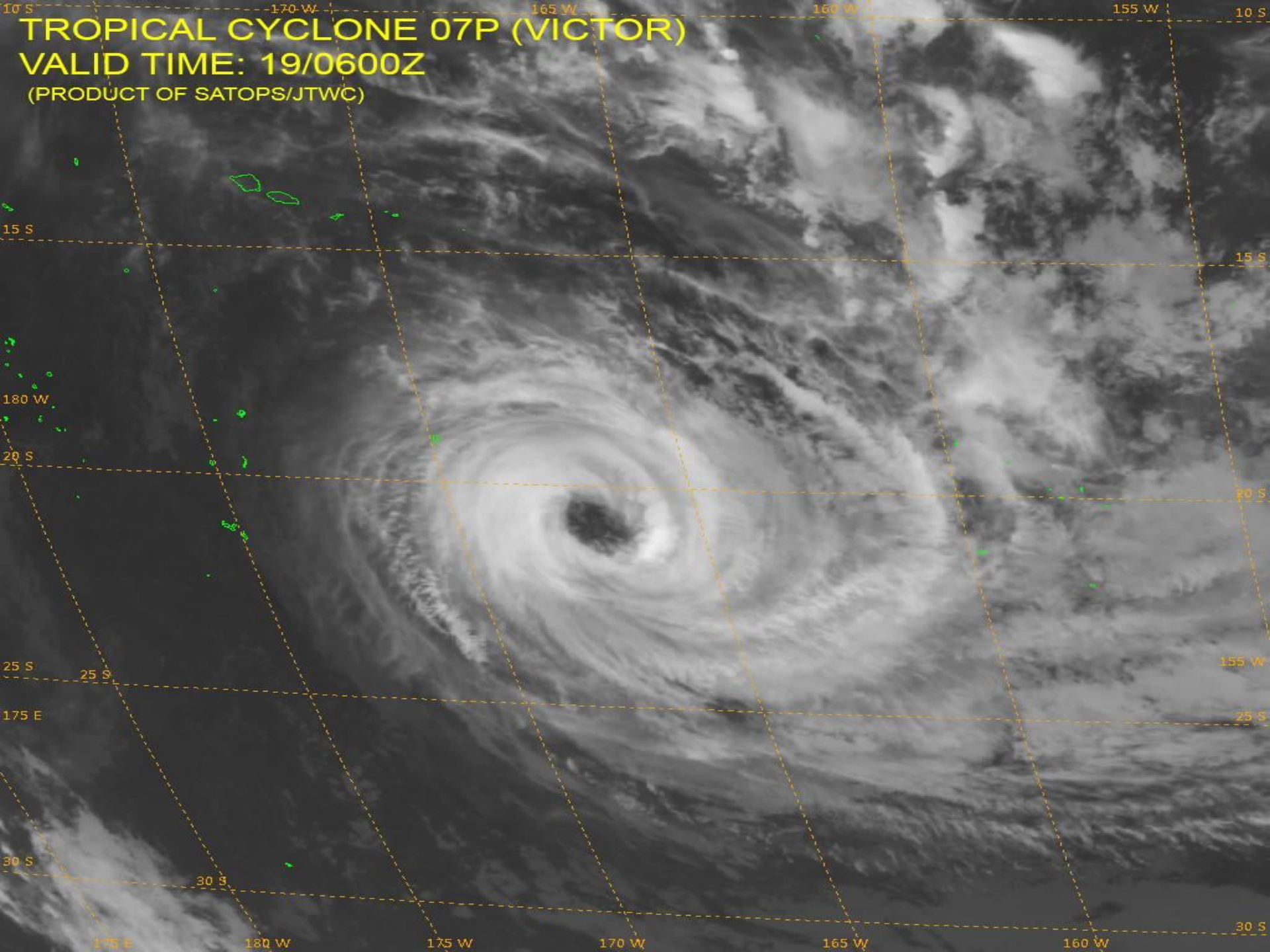
CFS: Anom. PREC Week: 1: 20-Jan-2016 to 26-Jan-2016 (mm/week)



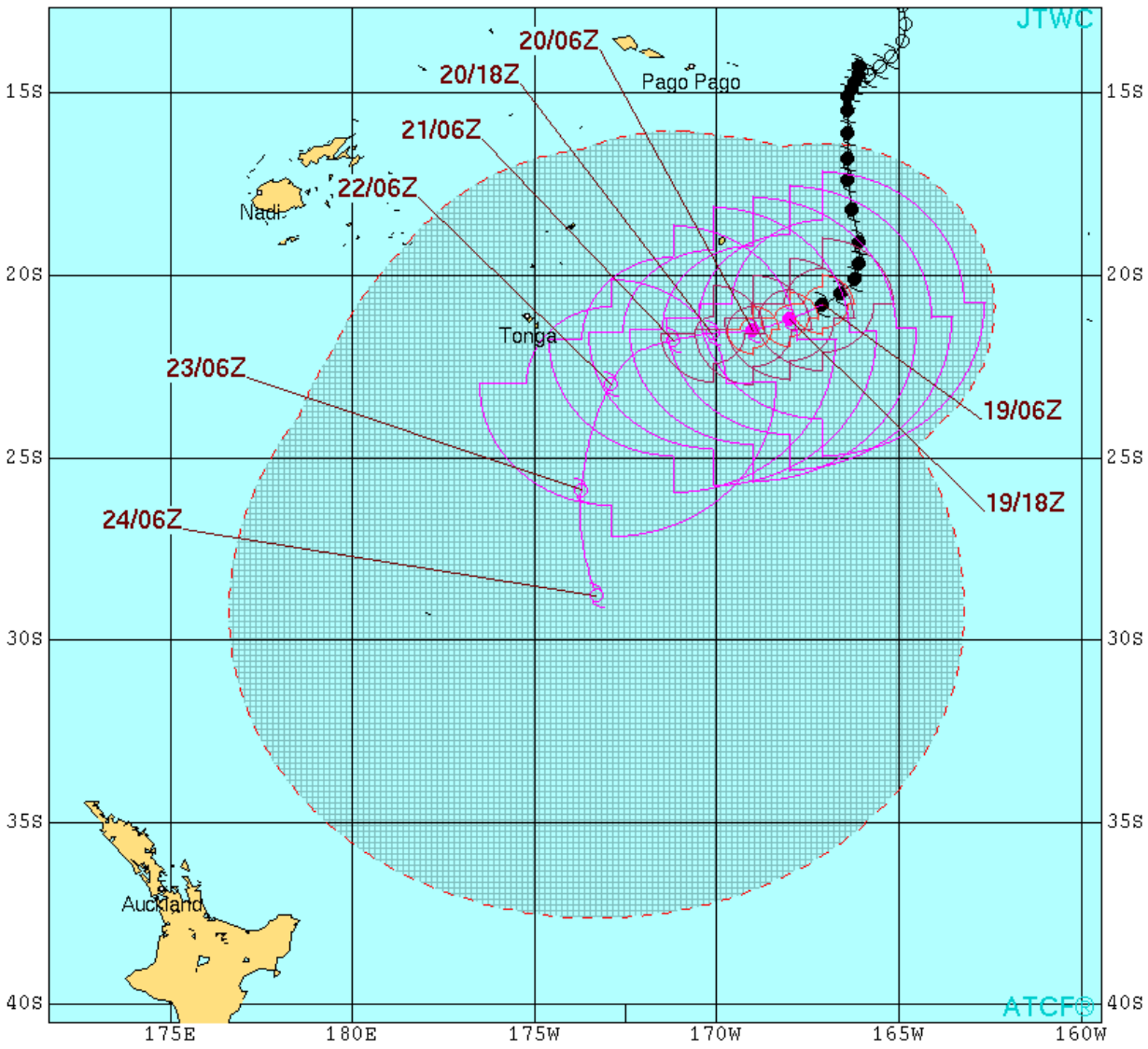
CFS: Anom. PREC Week: 2: 27-Jan-2016 to 02-Feb-2016 (mm/week)



TROPICAL CYCLONE 07P (VICTOR)
VALID TIME: 19/0600Z
(PRODUCT OF SATOPS/JTWC)



Joint Typhoon Warning Center

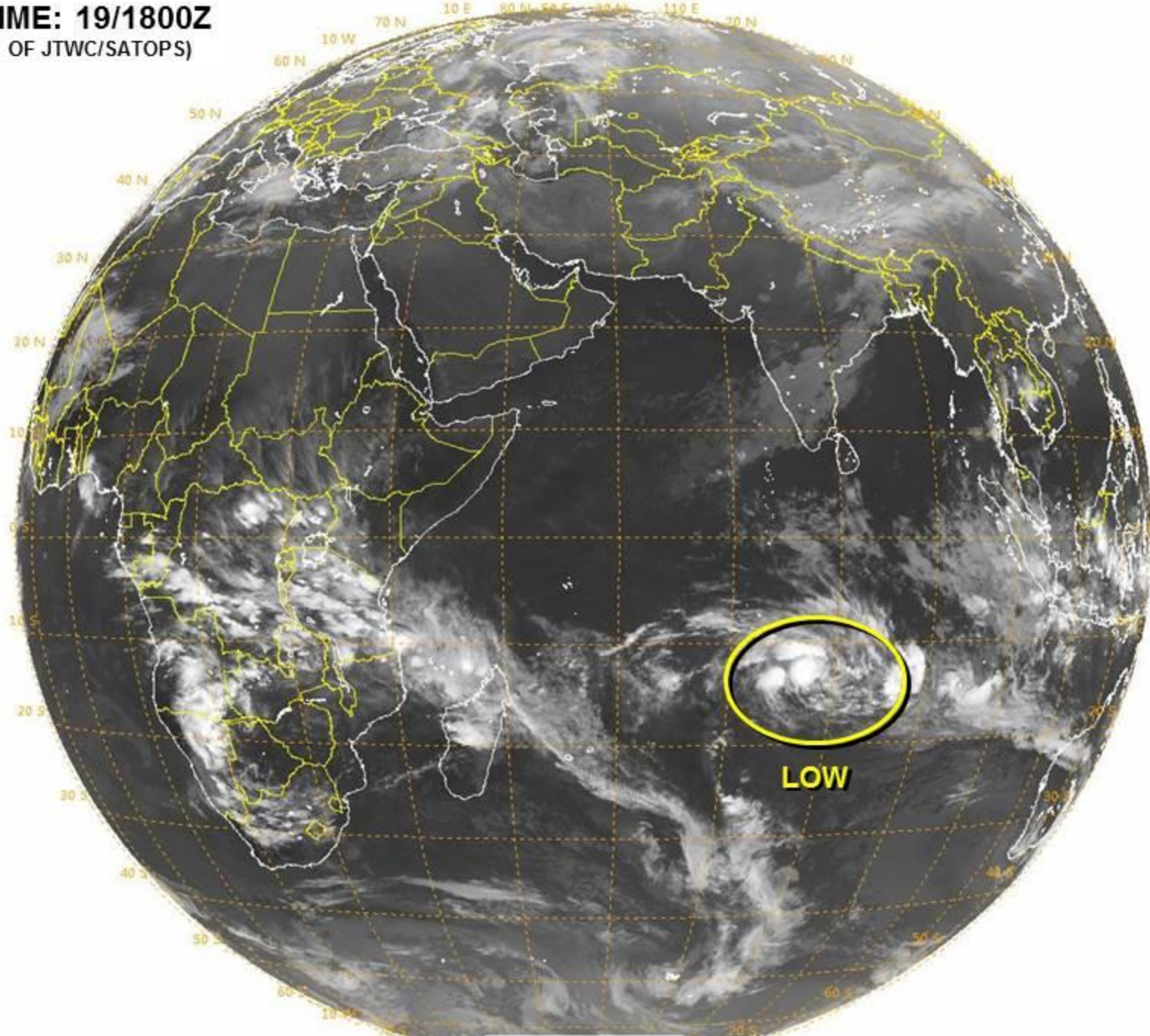


TROPICAL CYCLONE 07P (VICTOR) WARNING #10
 WTPS31 PHNC 190900
 190600Z POSIT: NEAR 20.8S 167.1W
 MOVING 235 DEGREES TRUE AT 06 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 32 FEET
 19/06Z, WINDS 080 KTS, GUSTS TO 100 KTS
 19/18Z, WINDS 075 KTS, GUSTS TO 090 KTS
 20/06Z, WINDS 070 KTS, GUSTS TO 085 KTS
 20/18Z, WINDS 060 KTS, GUSTS TO 075 KTS
 21/06Z, WINDS 050 KTS, GUSTS TO 065 KTS
 22/06Z, WINDS 040 KTS, GUSTS TO 050 KTS
 23/06Z, WINDS 035 KTS, GUSTS TO 045 KTS
 24/06Z, WINDS 035 KTS, GUSTS TO 045 KTS

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

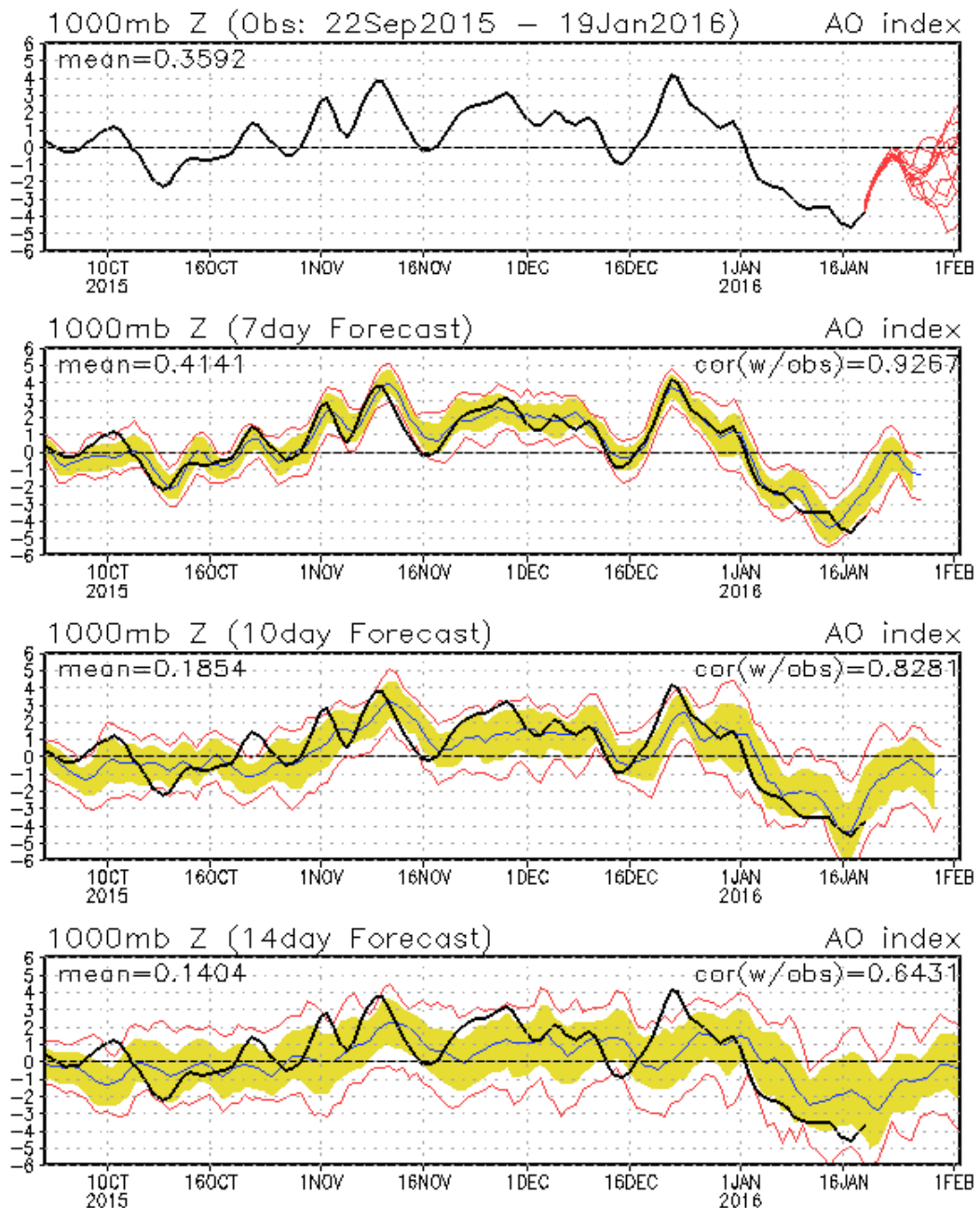


VALID TIME: 19/1800Z
(PRODUCT OF JTWC/SATOPS)

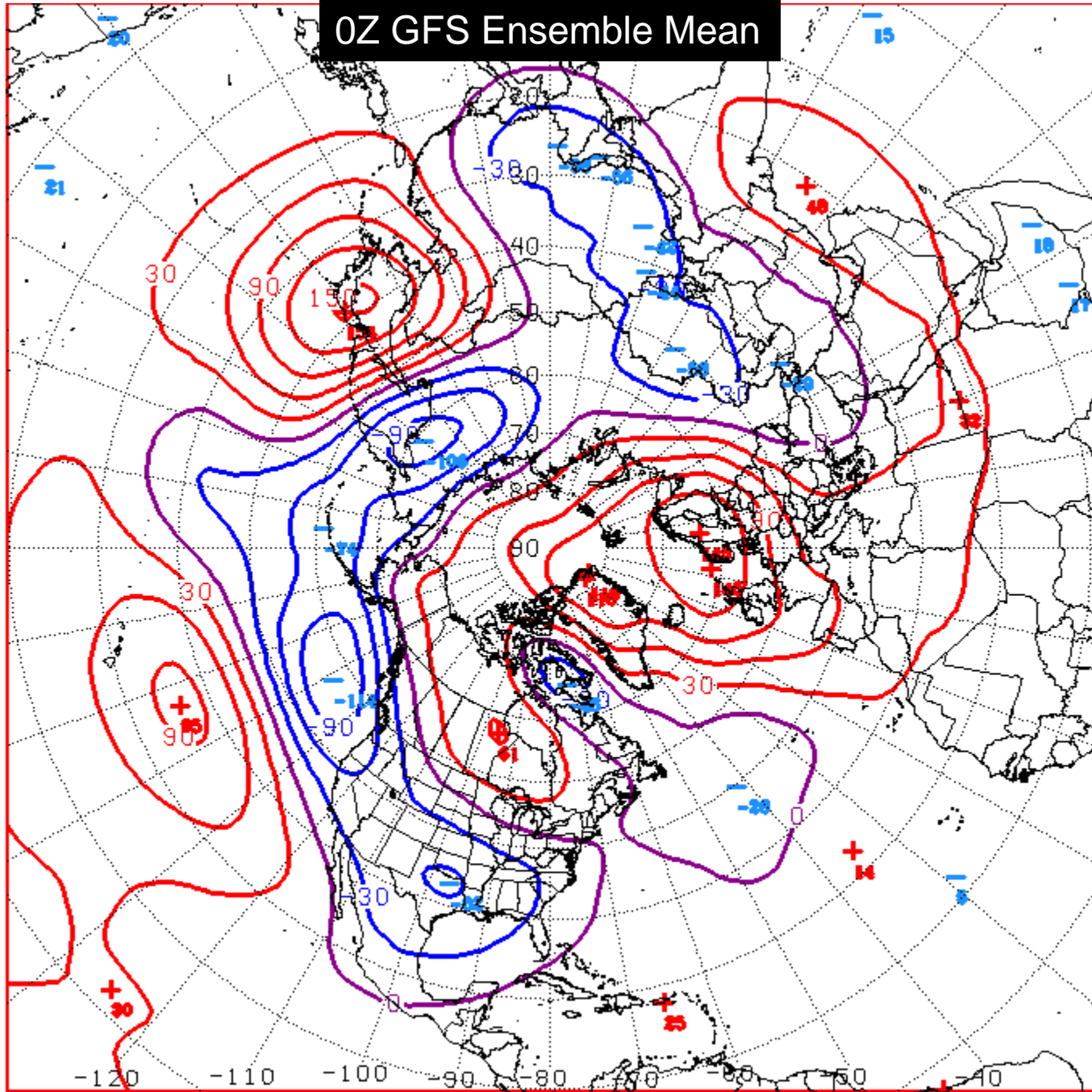


Connections to U.S. Impacts

AO: Observed & ENSM forecasts



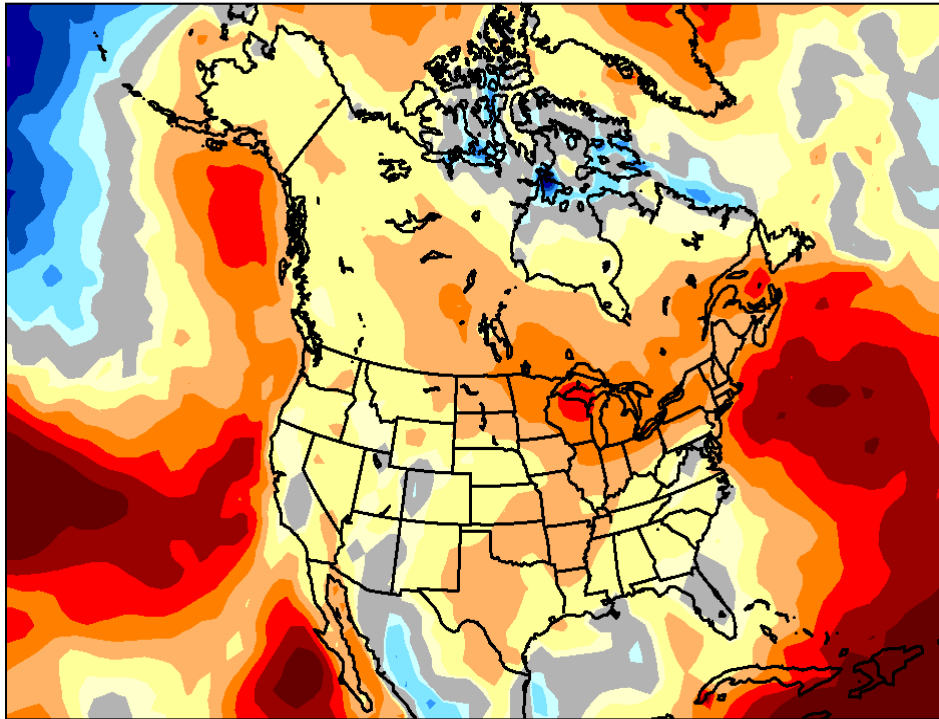
0Z GFS Ensemble Mean



D+11 500 MB ANOMALIES FROM 00Z ENSM
CPC MAP MADE JAN 19 2016 0629 UTC CNTD JAN 30 2016

Week 2 – Temperature and Precipitation

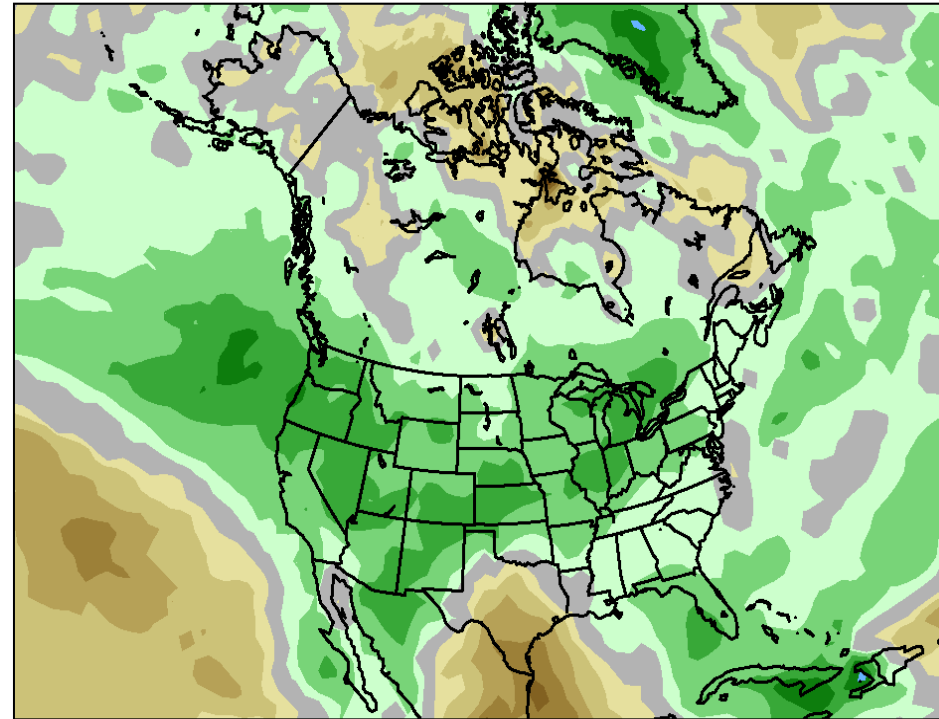
2016-01-19 GEFS Rfcst-Calib Temperature Forecast for Days 8-14



Probability of Below Normal Normal Probability of Above Normal

90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%

2016-01-19 GEFS Rfcst-Calib Precipitation Forecast for Days 8-14



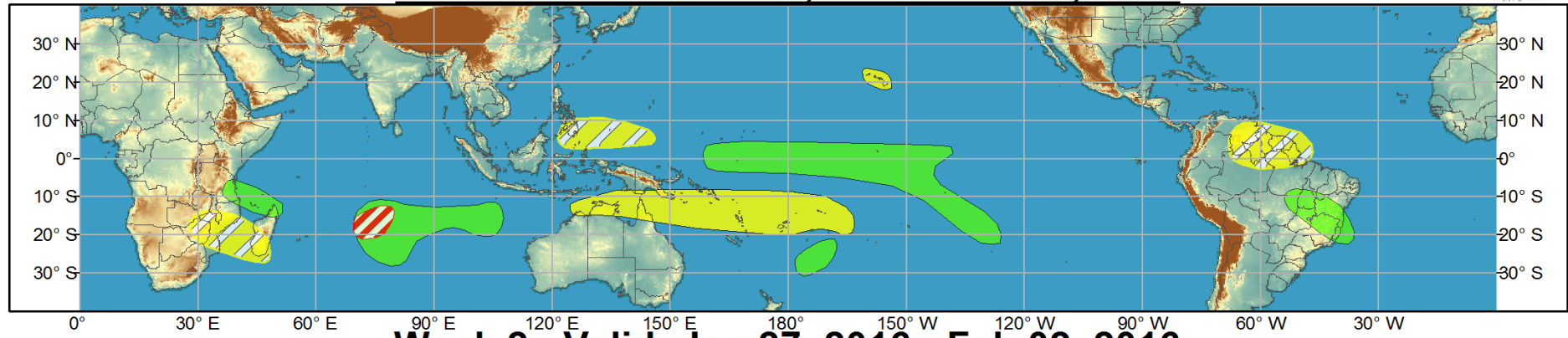
Probability of Below Median Median Probability of Above Median

90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%

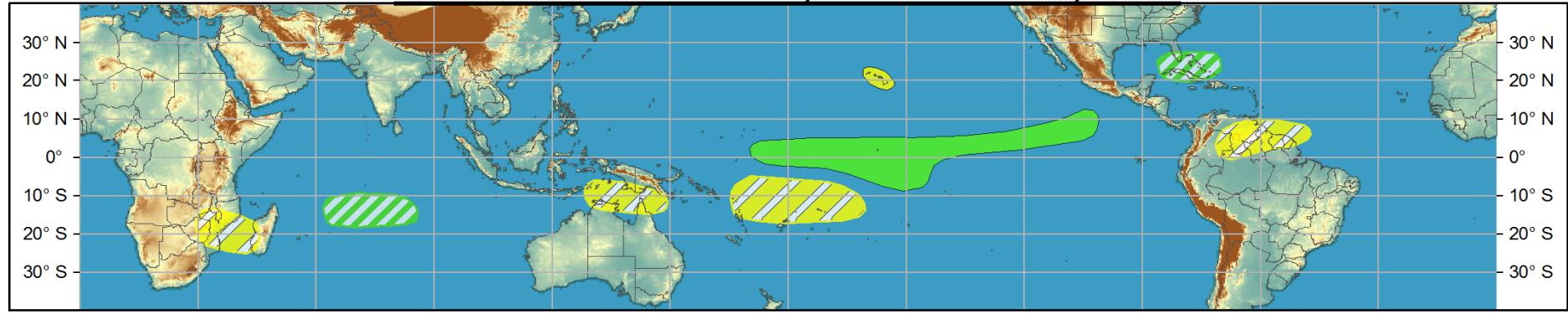


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