

Summary of Key Briefing Points
1030-1130am MST SAT Feb 20, 2016

Current Conditions as of SAT 12Z-15Z February 20

Tropics and Mid-latitudes

Over the Tropical Pacific:

- Convection: Isolated morning convection
- Active large scale convection in SH/SPCZ region
- Upper level E winds, turning S on northern edge of 0-10N FD,
- Strong anticyclonic turning of upper flow in our 0-10N FD

Tropical Outlook

- GFS EC models agree on convection on the central portion of FD Sunday
- Poleward outflow from convection in SH to continue, may make for another “coat hanger” flight option

Midlatitude Conditions/Outlook

Short Term:

- CA quiet
- **Medium - Long Term:**
- Divergence among models for a possible Fri/Sat NCAL storm
- No appreciable CA pcpn expected over the next 7-10 days
- Week 2-3 in EC and GFS indicate major change in the Pacific circulation

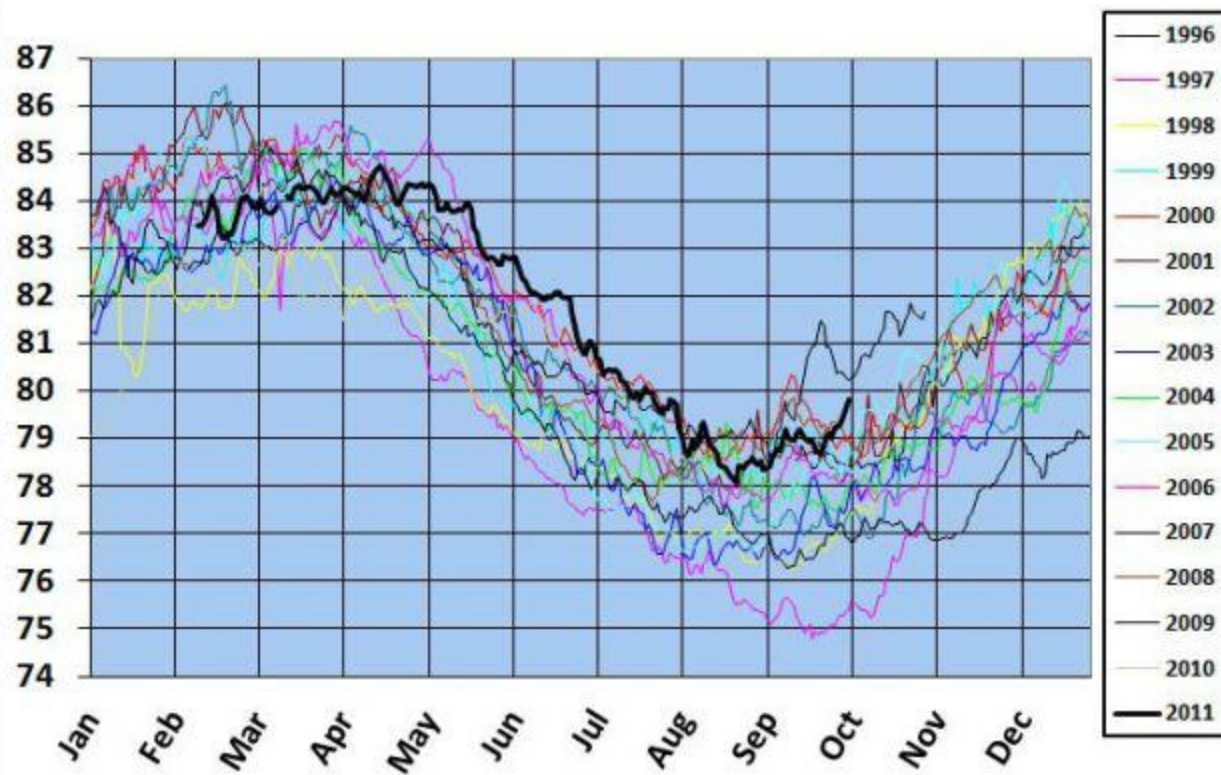
The “*Offices*” of Cook and Castle?

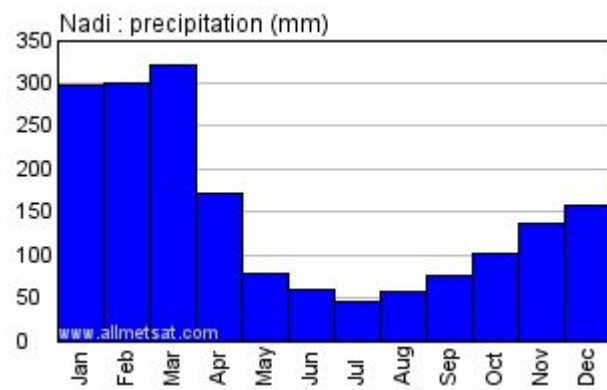


Map of Fiji

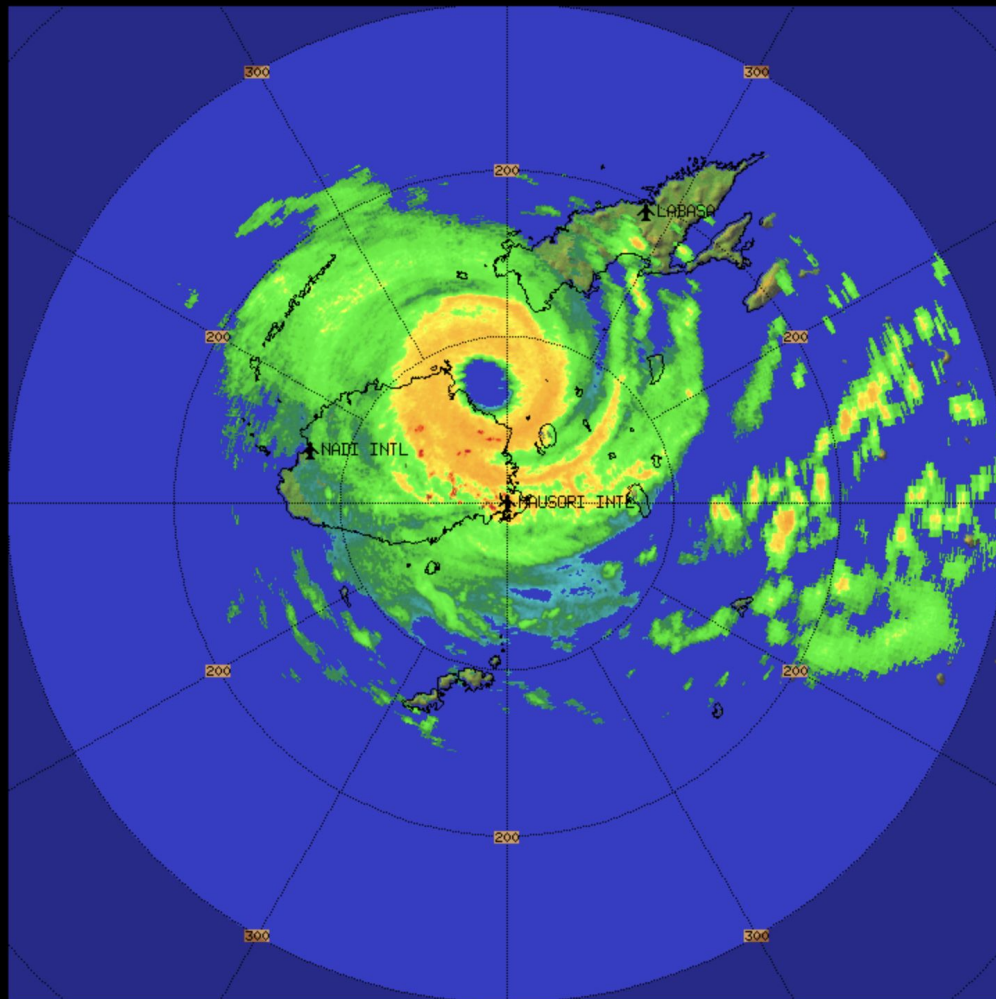


Fiji Water Temperature

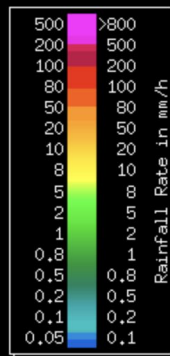




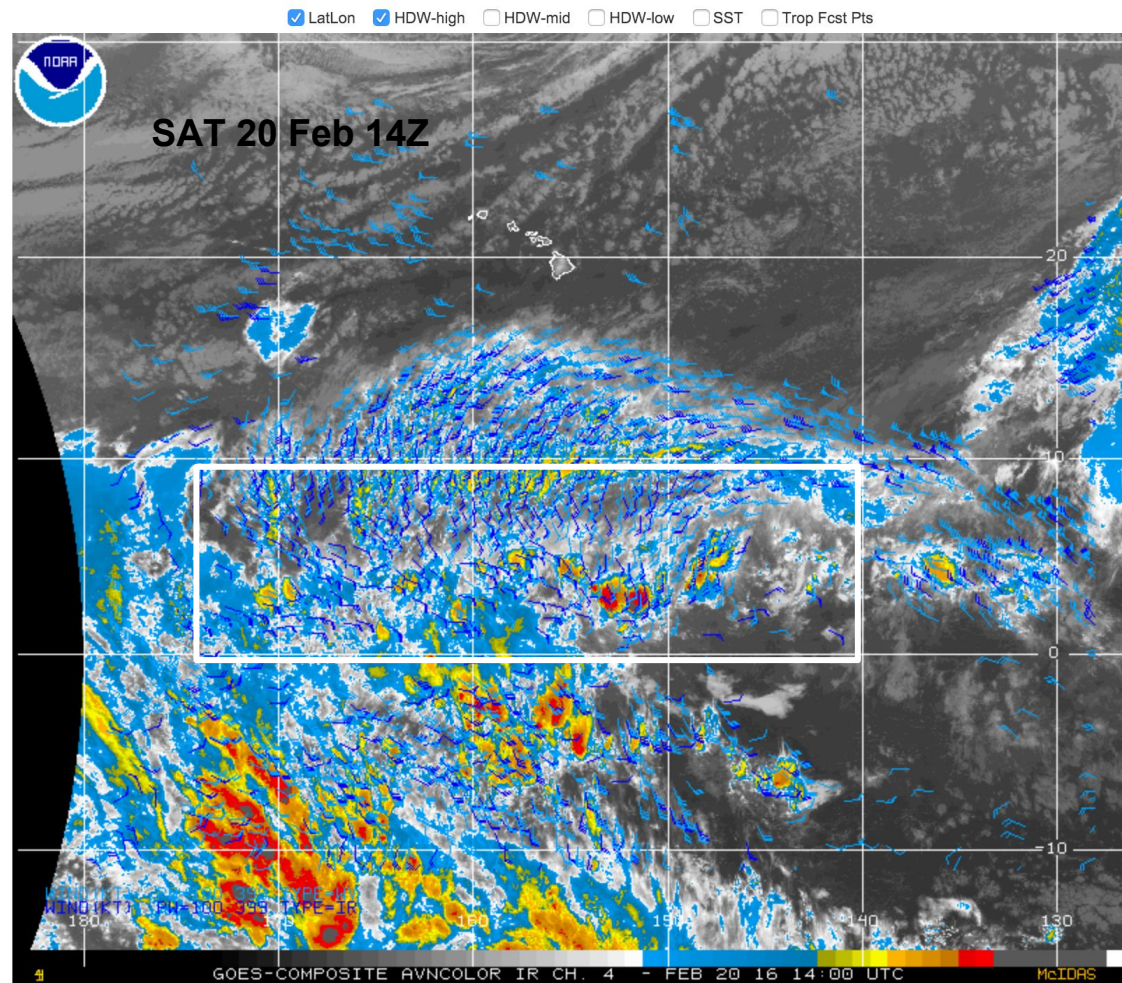
NADI	Av Max C	Av Min C	Rainfall mm	Rain Days >0.1mm
January	31.6	22.7	299	18
February	31.5	23.0	302	18
March	31.1	22.6	324	19
April	30.6	21.7	163	12
May	29.8	20.1	78	7
June	29.2	19.3	62	6
July	28.5	18.3	46	5
August	28.7	18.4	58	5
September	29.4	19.3	77	6
October	30.2	20.4	103	9
November	30.9	21.5	138	11
December	31.4	22.1	159	13



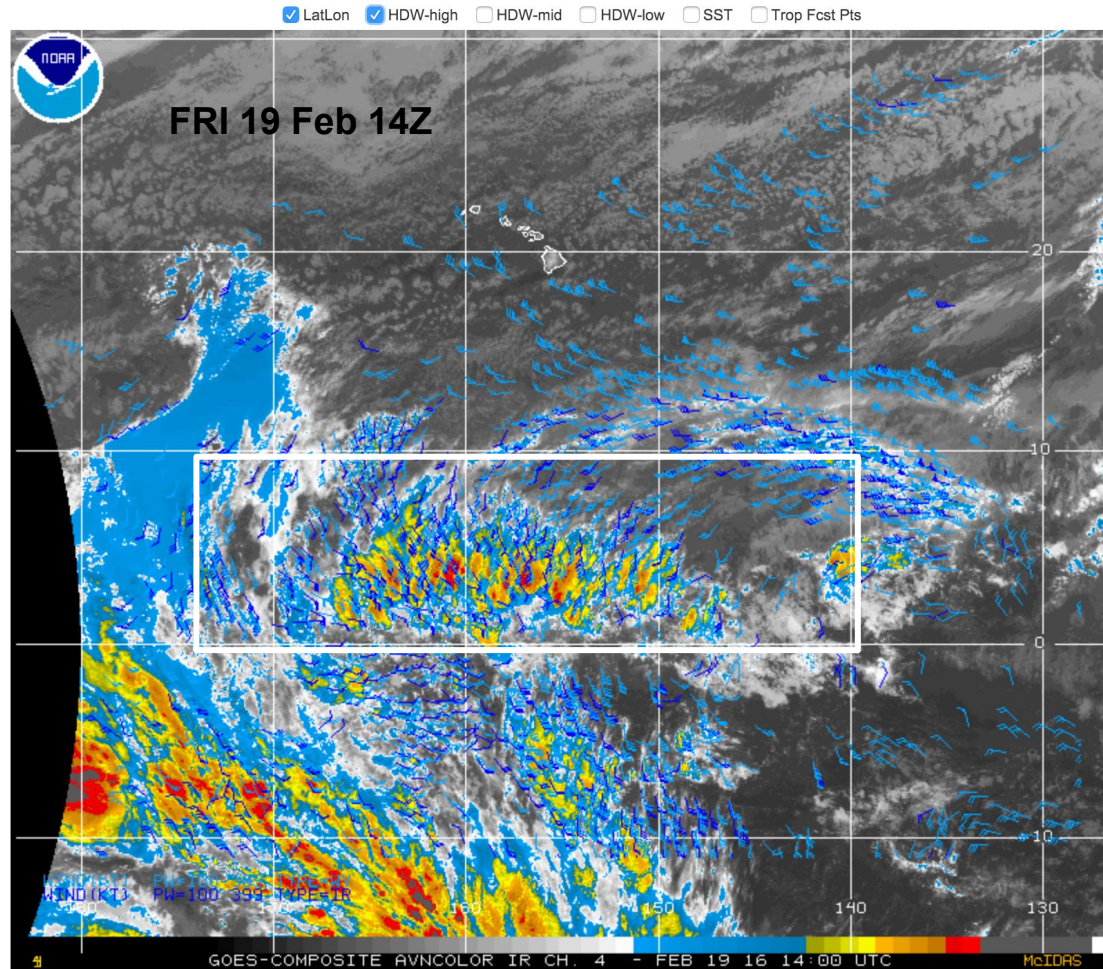
nausori-radar
PPI
LONG_RANGE_R
Task: PPIVOL_A
PRF: 300Hz
Elevation:1.0
Max Range:300 km
06:30:24Z
20 FEB 2016 UTC



GOES Composite - El Niño Support – AVN Color Infrared Loop

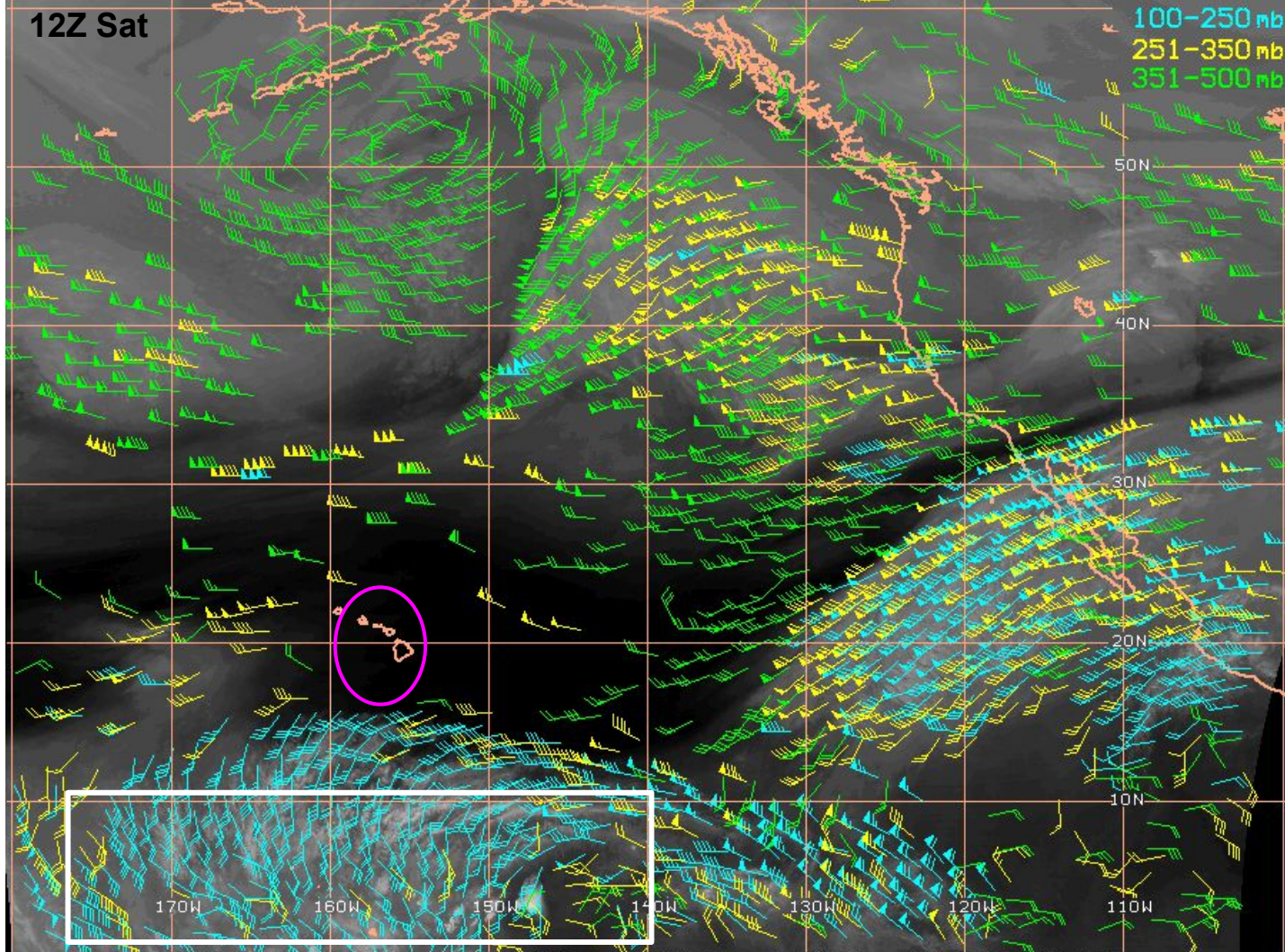


GOES Composite - El Niño Support – AVN Color Infrared Loop



12Z Sat

100-250 mb
251-350 mb
351-500 mb



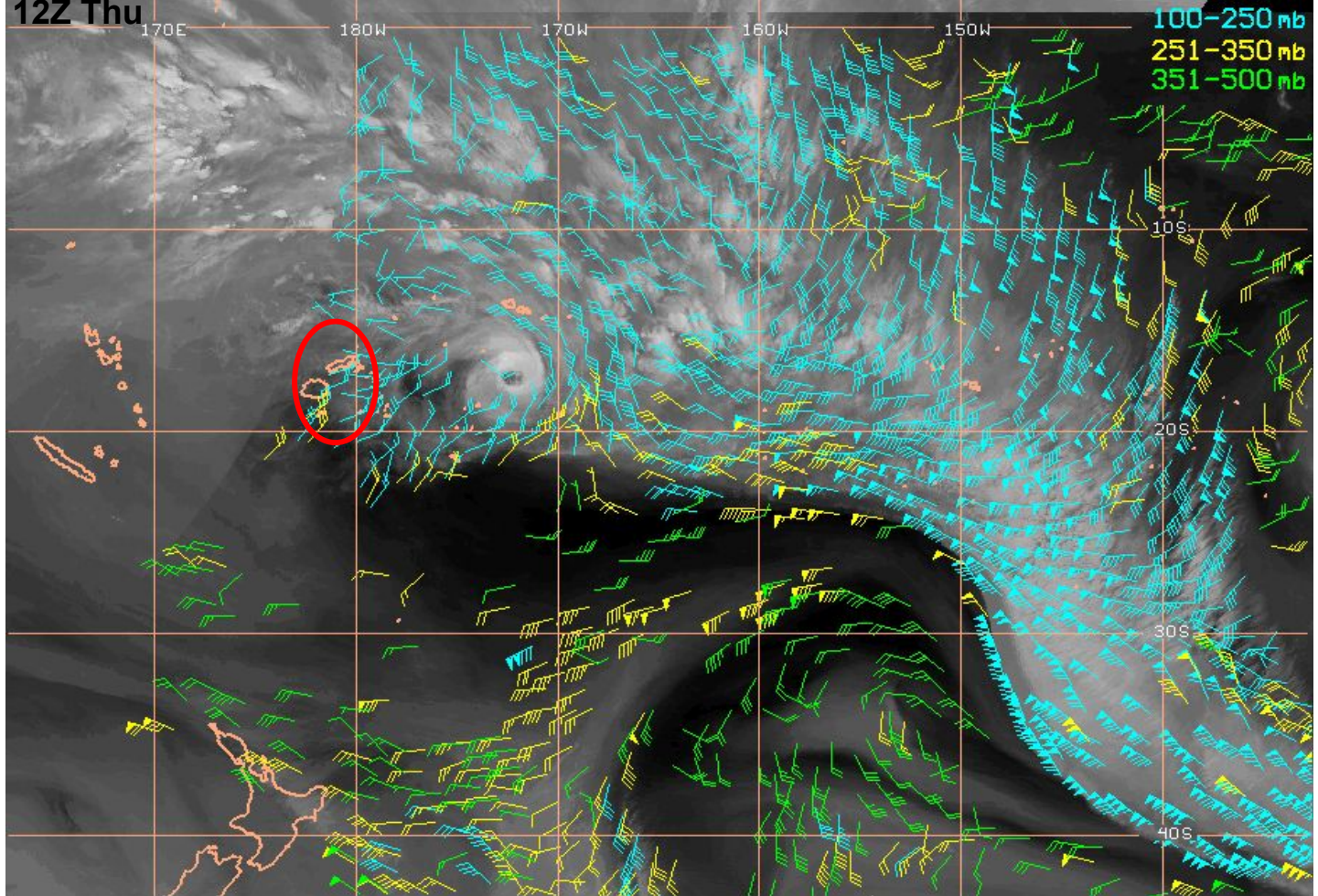
GOES-WEST MID-UPPER LEVEL WINDS

1200 UTC

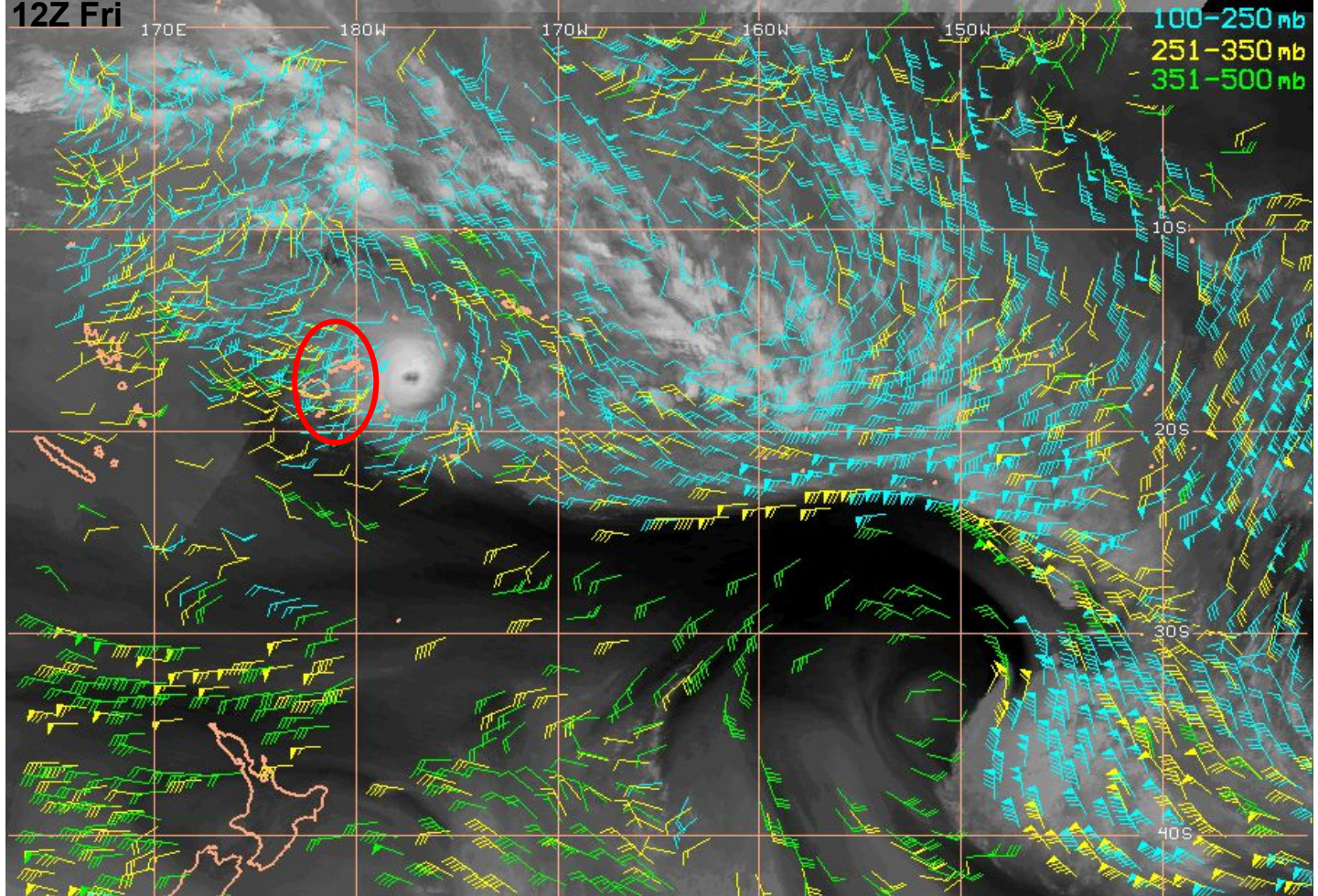
20FEB16

UW-CIMSS/NESDIS

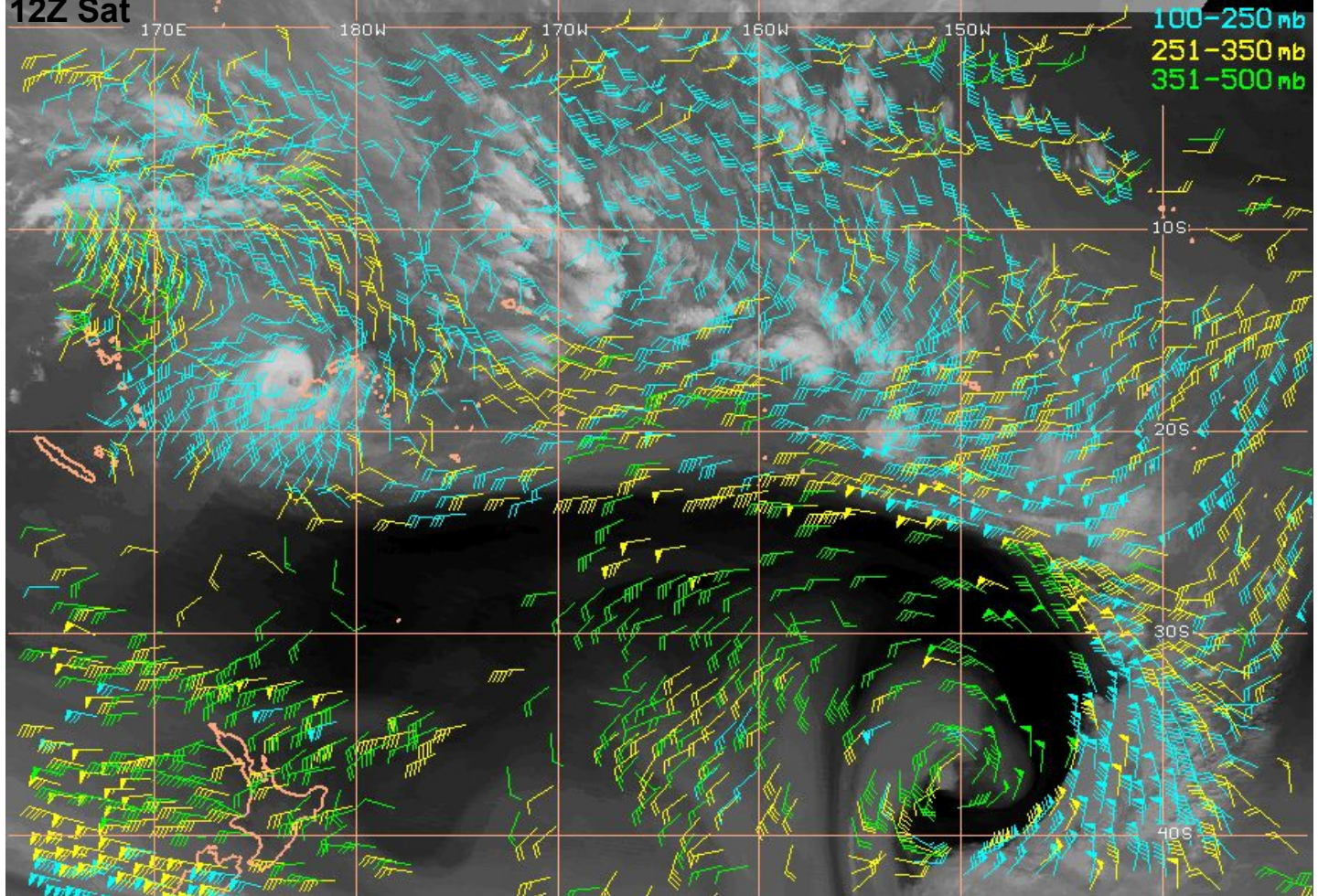
122 Thu



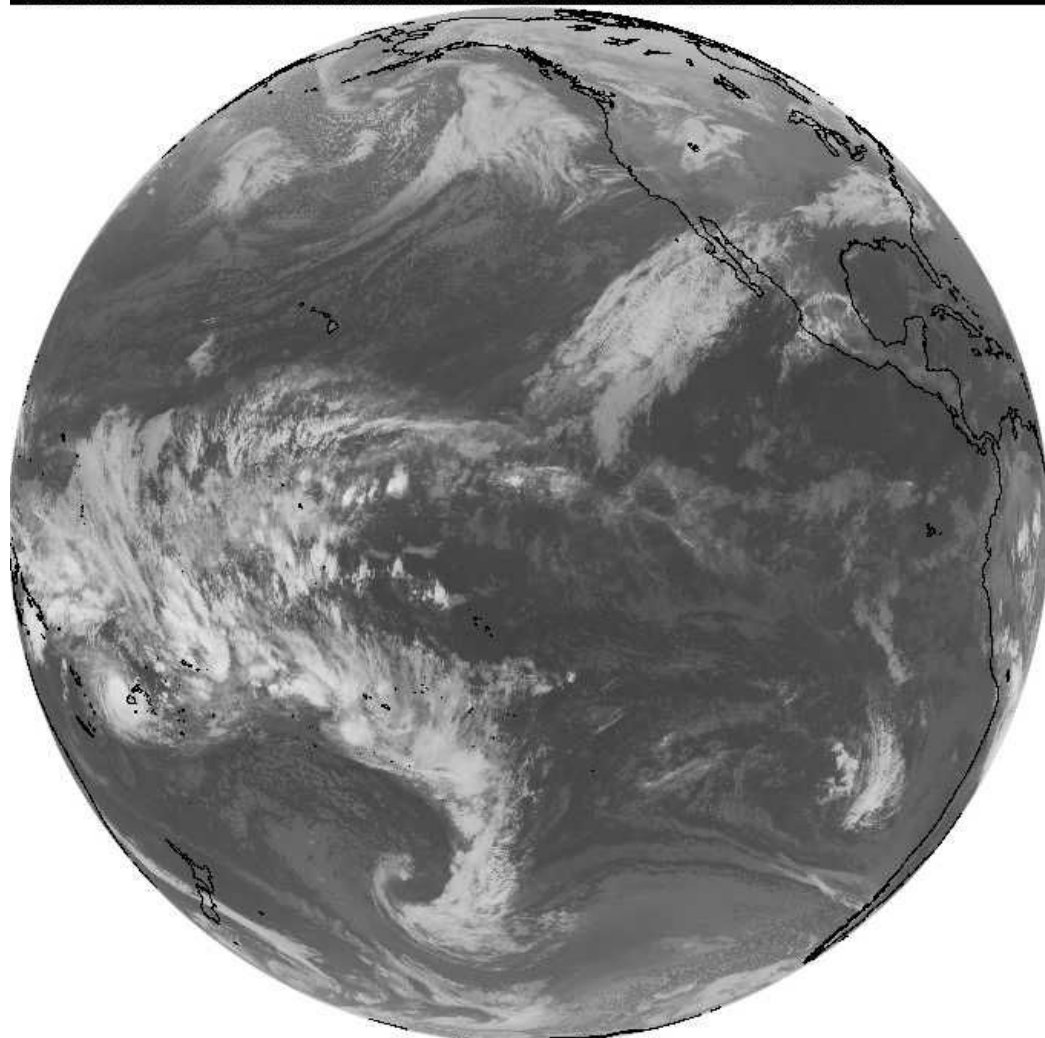
12Z Fri



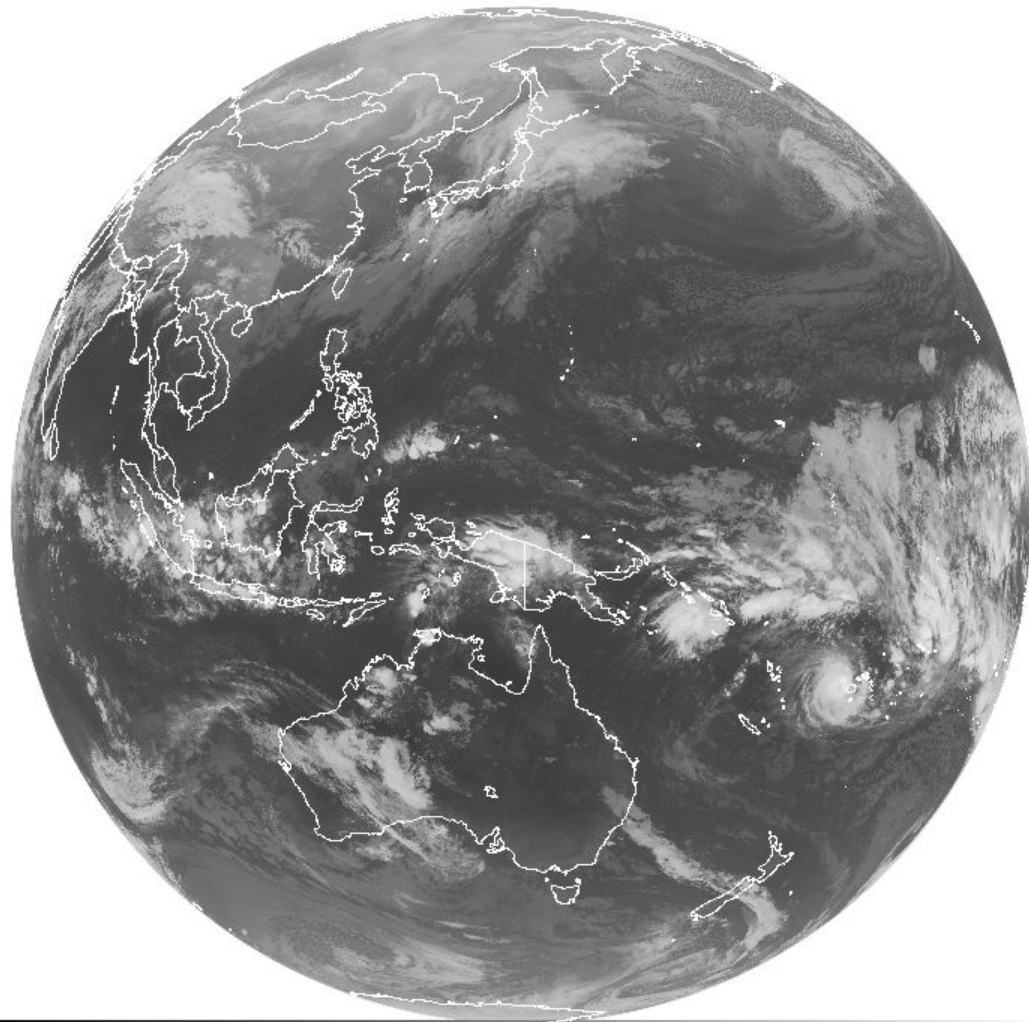
12Z Sat



Sat 12Z IR

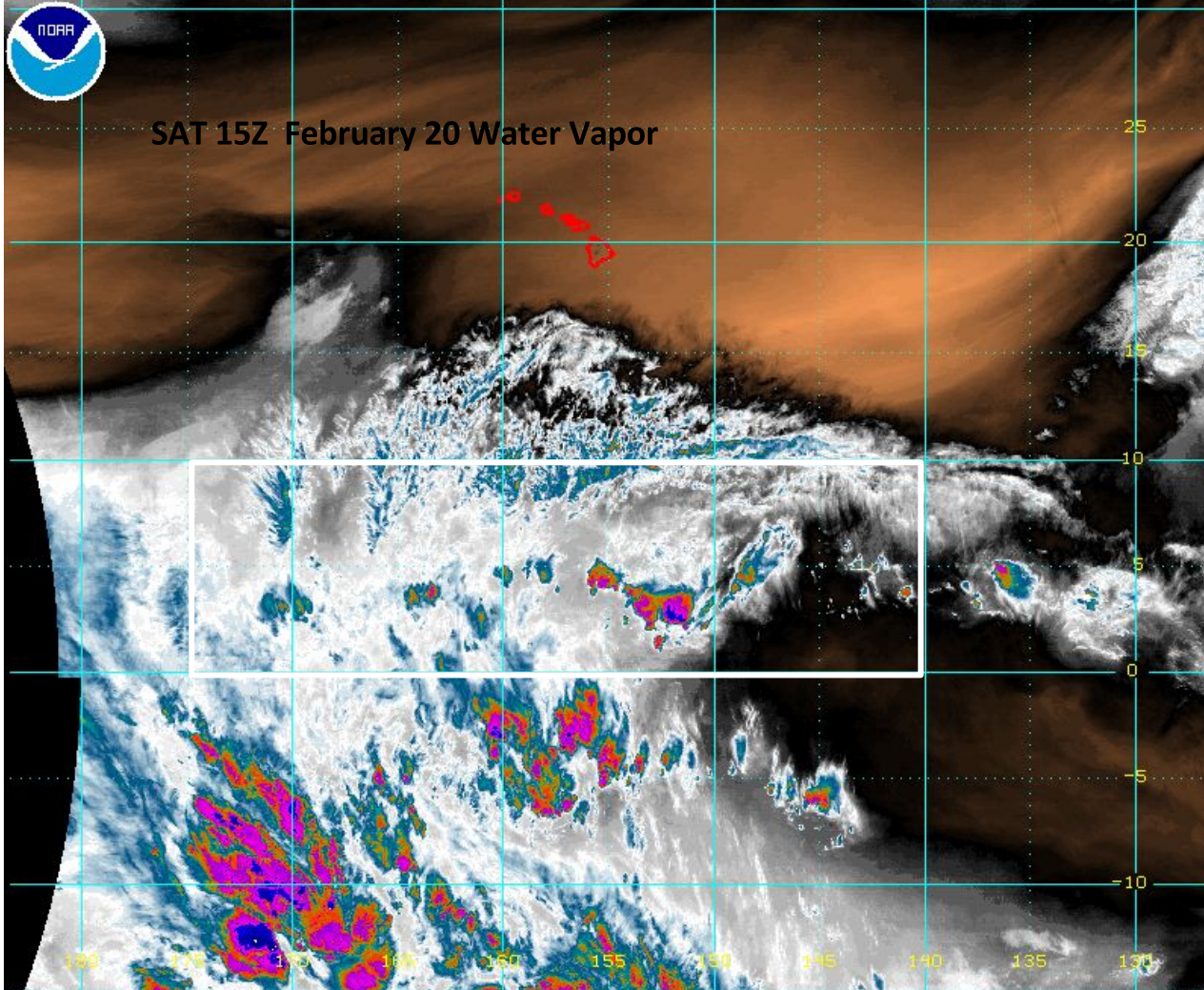


Sat 14Z IR



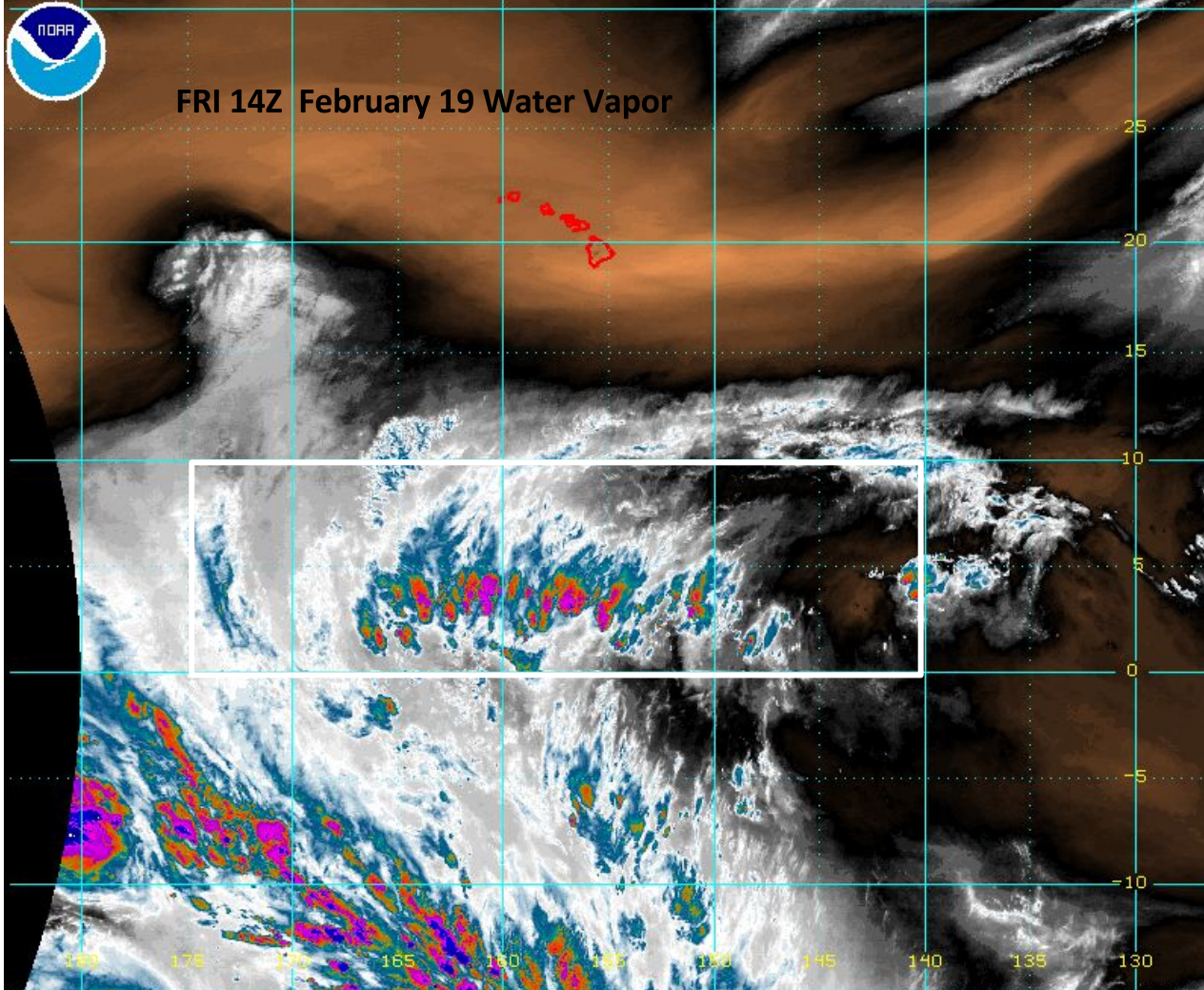


SAT 15Z February 20 Water Vapor



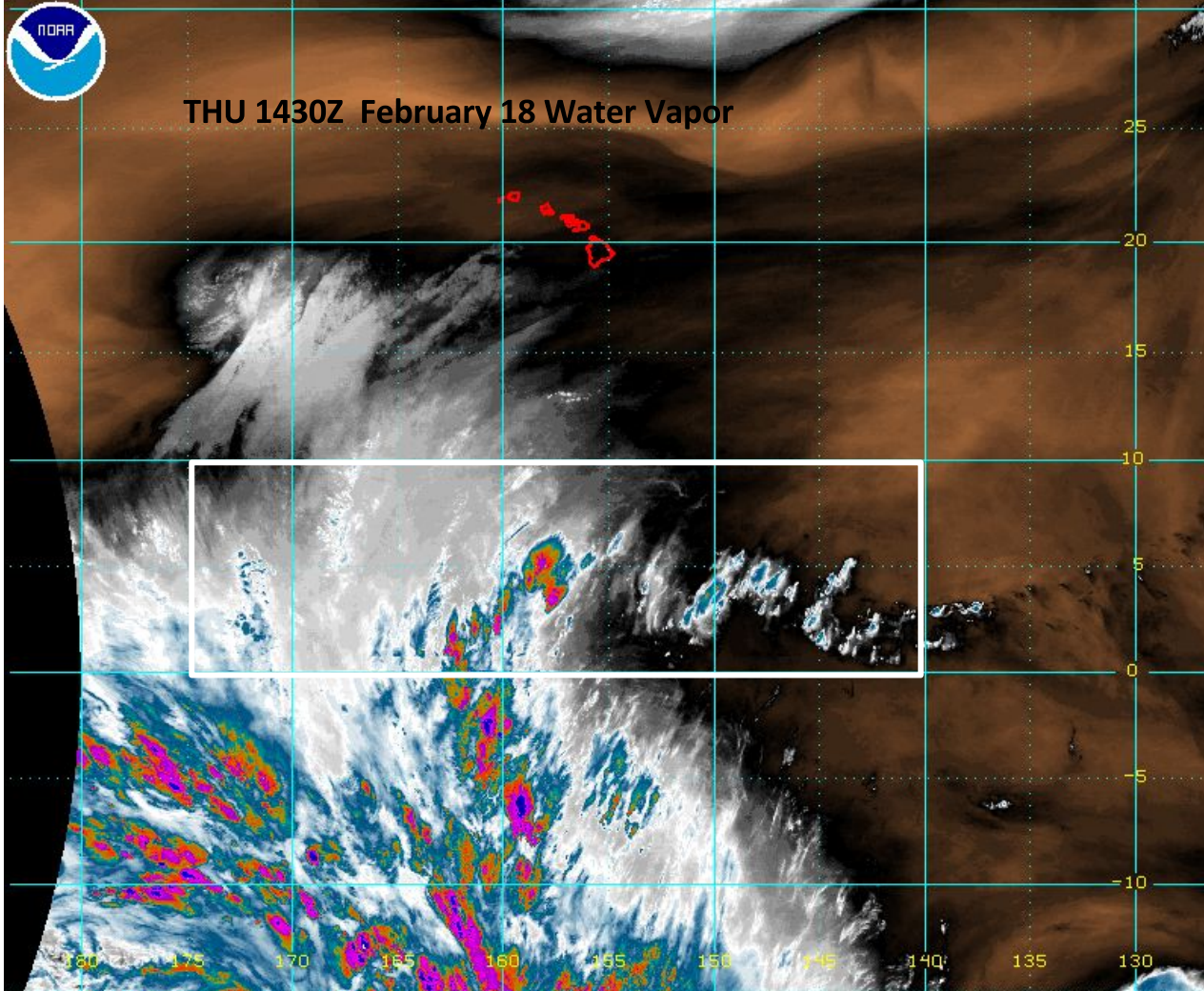


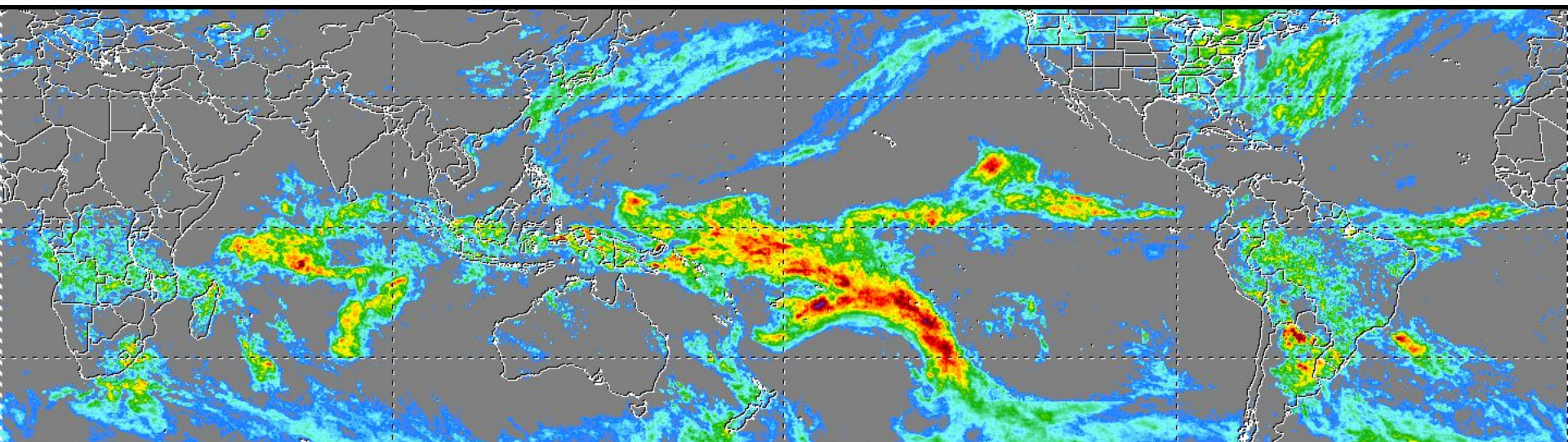
FRI 14Z February 19 Water Vapor



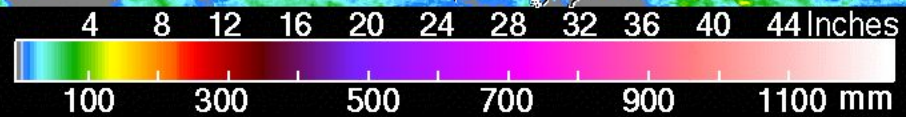


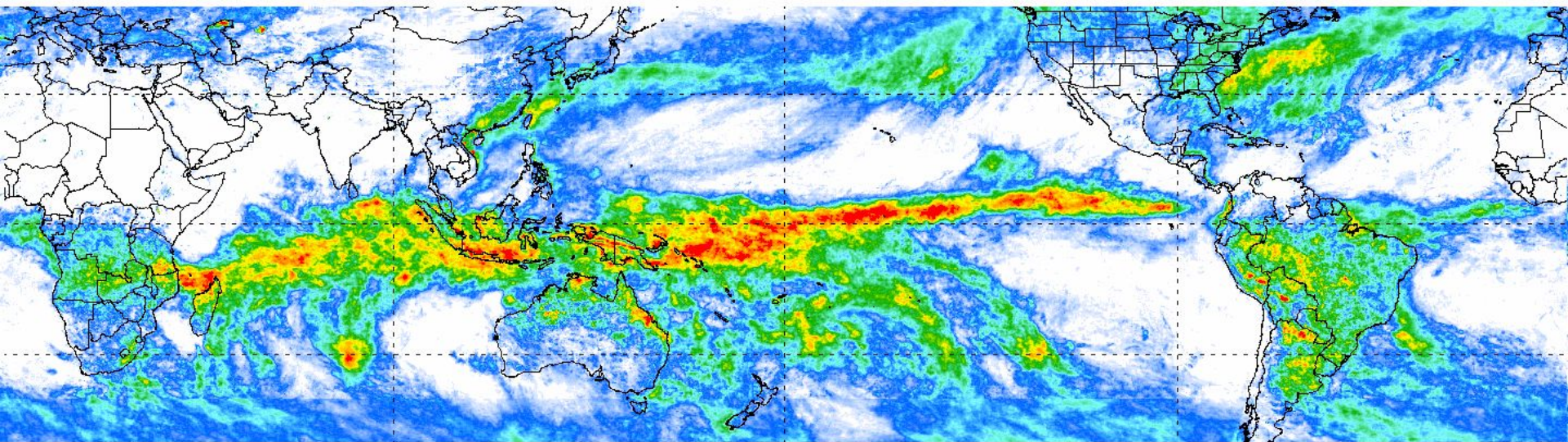
THU 1430Z February 18 Water Vapor





20 FEB 2016 0900 UTC





20 FEB 2016

Average Rainfall
For Last 30 Days (mm/d)



Kiritimati
Sonde-
Hot, Muggy
SAT

Launch: 128LT, 1128UTC: Very still out, making it hot and muggy. Can see the moon through the clouds. UPS not working, so are on Hotel power only, high risk of premature termination of sounding due to power failure.

145LT: Very still out, no air moving at surface. Clouds cover the sky. Clouds seem thin and non-threatening. Can't see moon.

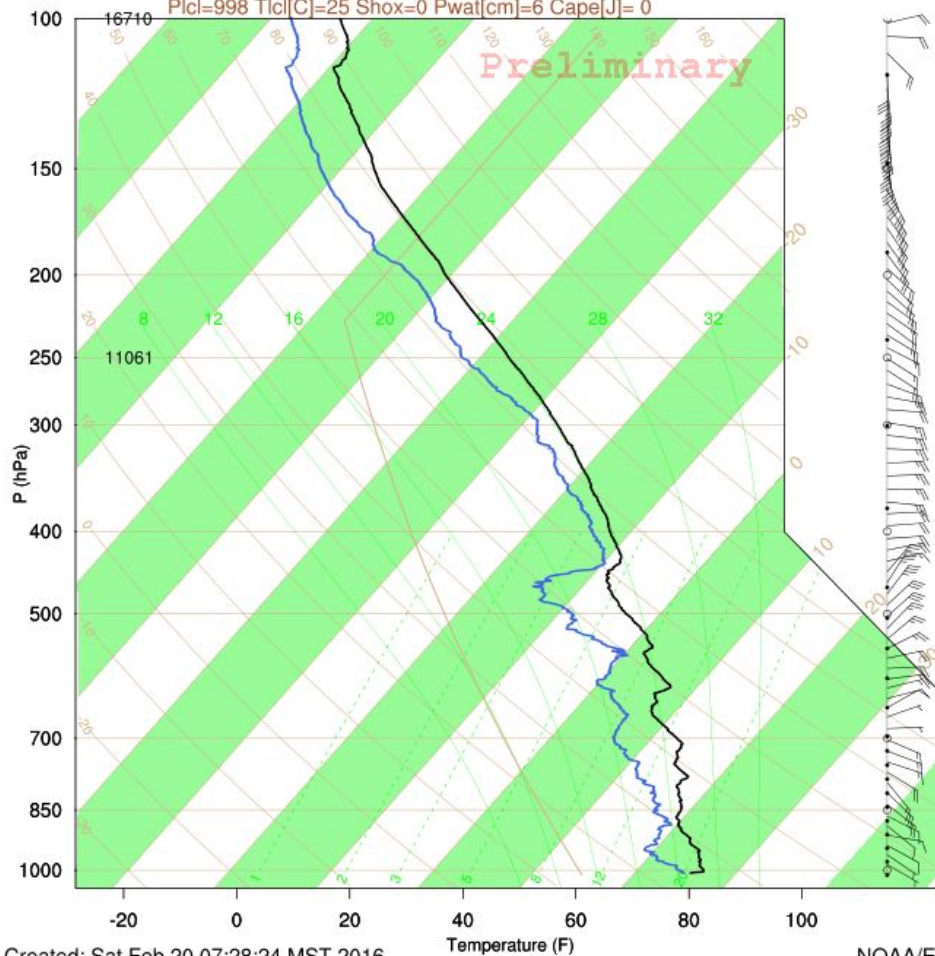
220LT: About same as 145 report. Clouds cover entire sky. Can't see moon, but can tell it is out. Cloud layer doesn't seem to thick. Air at surface is very still, making it very hot and muggy.

235LT: Sonde on way down. This launch used more He than some, and was faster. I think this contributes to not going as high. Top was 20994m.

Paul

Kiritimati Is: 02/20/2016 1128Z 2.01N 157.40W

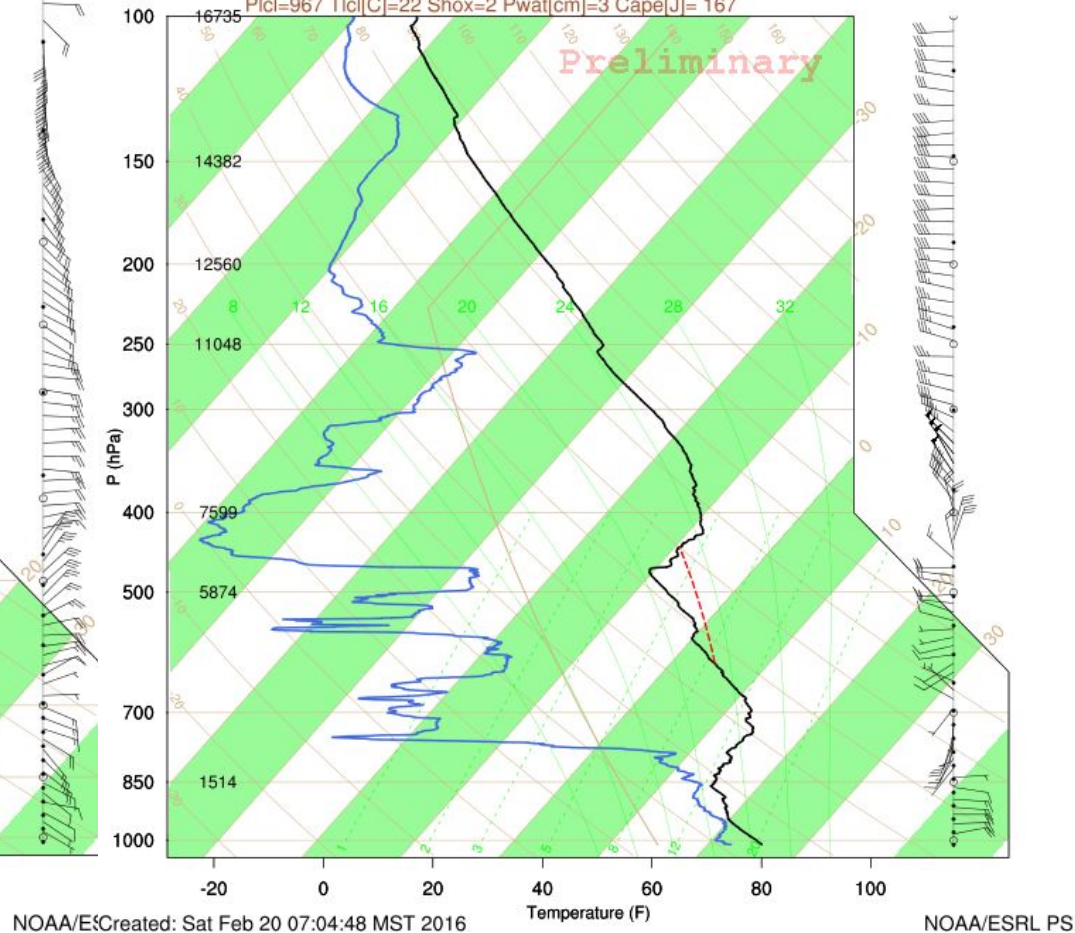
Plcl=998 Tlcl[C]=25 Shox=0 Pwat[cm]=6 Cape[J]= 0



Created: Sat Feb 20 07:28:24 MST 2016

Ronald H. Brown: 02/20/2016 0709Z (12.99N,146.67W)

Plcl=967 Tlcl[C]=22 Shox=2 Pwat[cm]=3 Cape[J]= 167



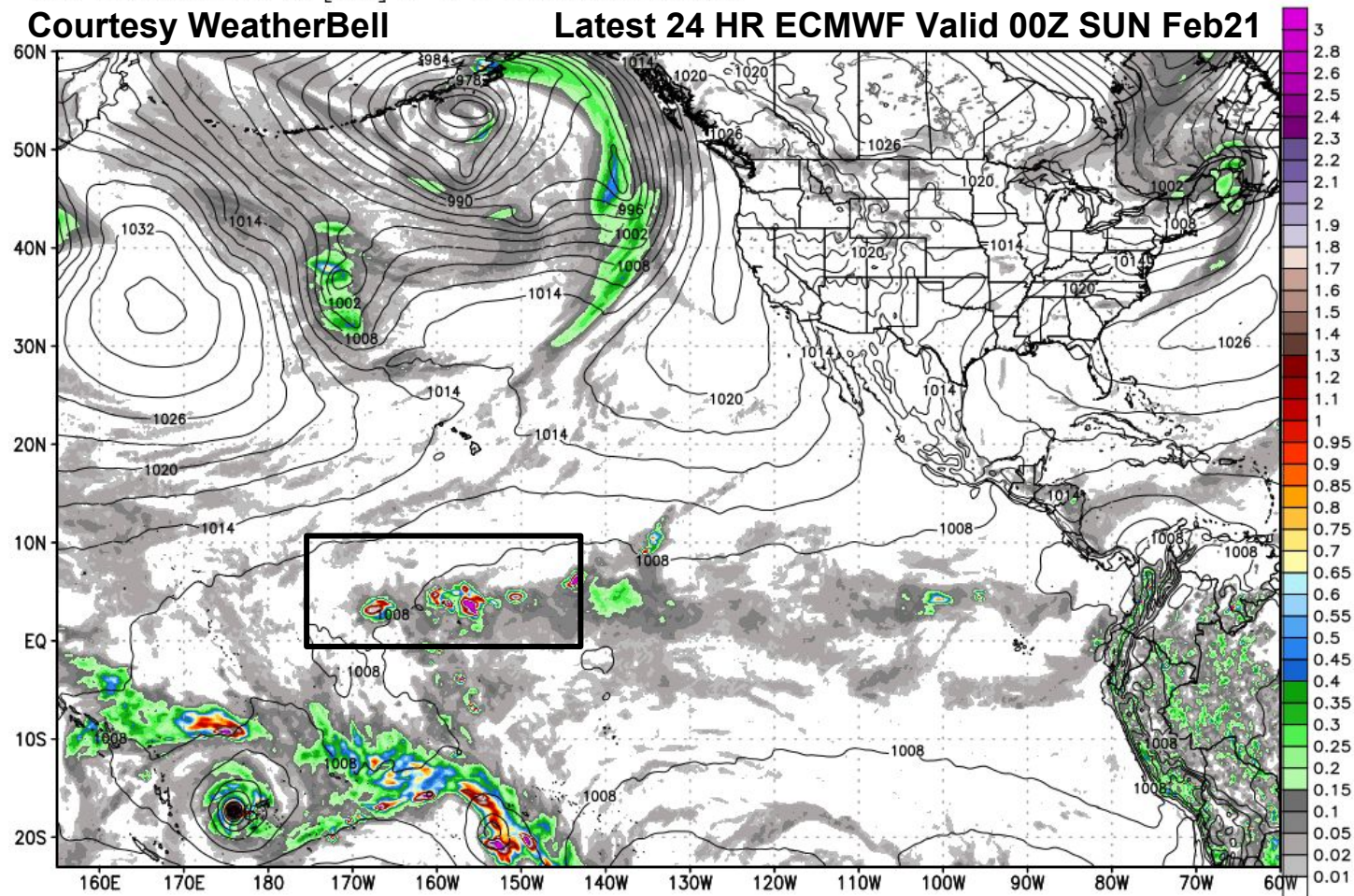
Created: Sat Feb 20 07:04:48 MST 2016

NOAA/ESRL PS

ECMWF 6-hourly Precipitation [inches] between 18Z20FEB2016 -- 00Z21FEB2016 & MSLP [hPa]
INIT: 00Z20FEB2016 fx: [024] hr --> Sun 00Z21FEB2016

Courtesy WeatherBell

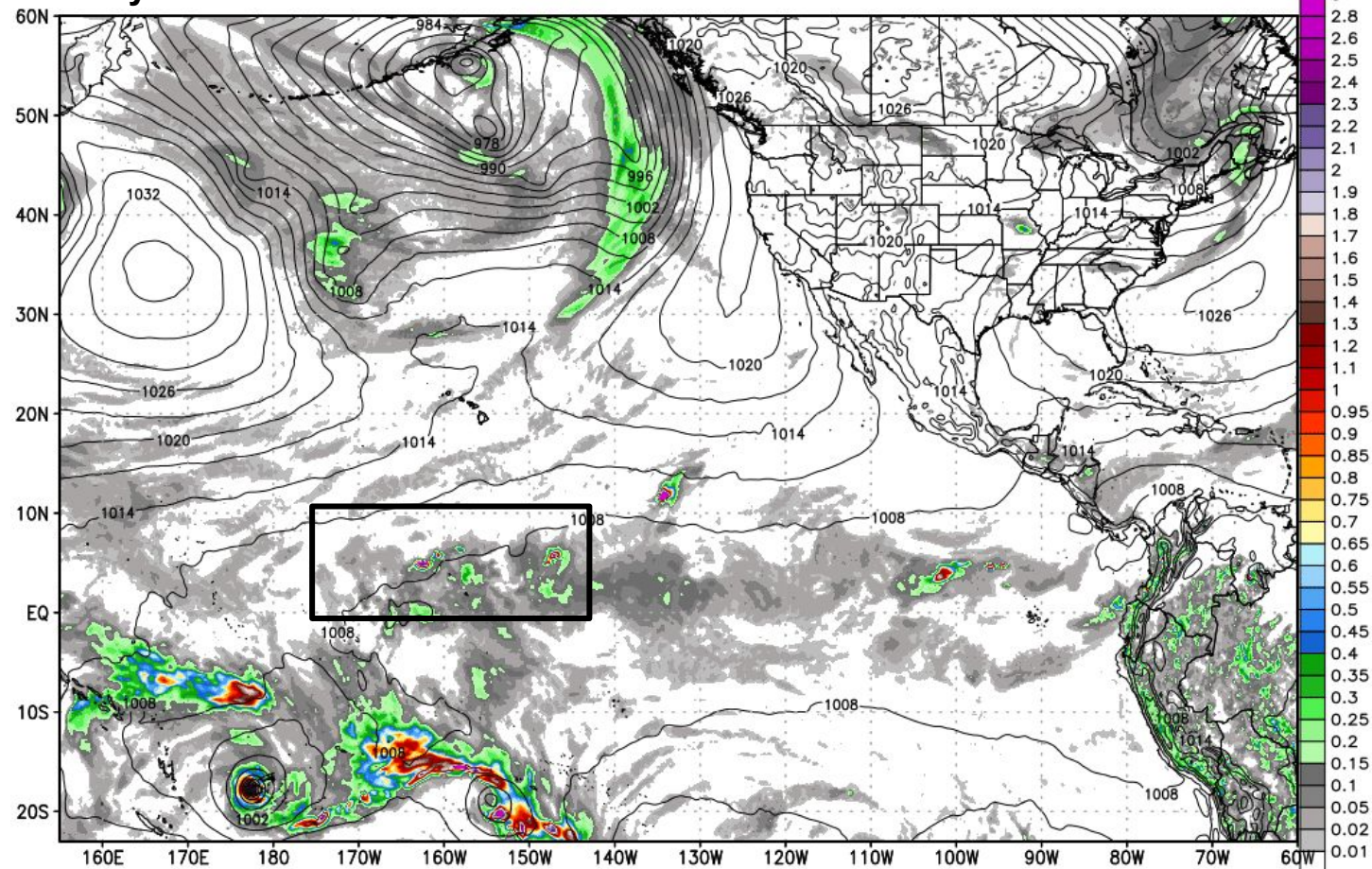
Latest 24 HR ECMWF Valid 00Z SUN Feb21



ECMWF 6-hourly Precipitation [inches] between 18Z20FEB2016 -- 00Z21FEB2016 & MSLP [hPa]
INIT: 00Z19FEB2016 fx: [048] hr --> Sun 00Z21FEB2016

Courtesy WeatherBell

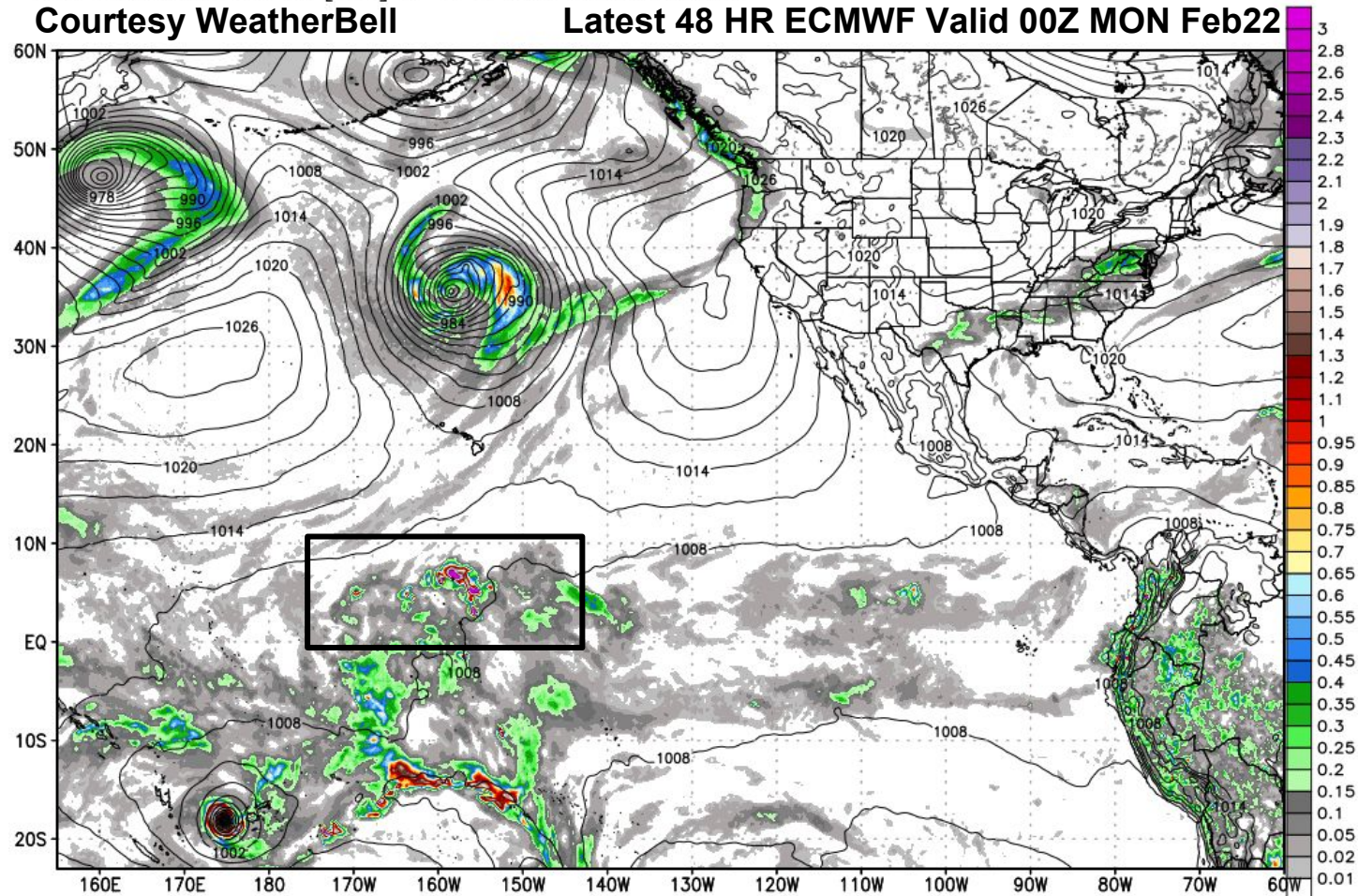
Prior 48 HR ECMWF Valid 00Z SUN Feb21



ECMWF 6-hourly Precipitation [inches] between 18Z21FEB2016 -- 00Z22FEB2016 & MSLP [hPa]
INIT: 00Z20FEB2016 fx: [048] hr --> Mon 00Z22FEB2016

Courtesy WeatherBell

Latest 48 HR ECMWF Valid 00Z MON Feb22

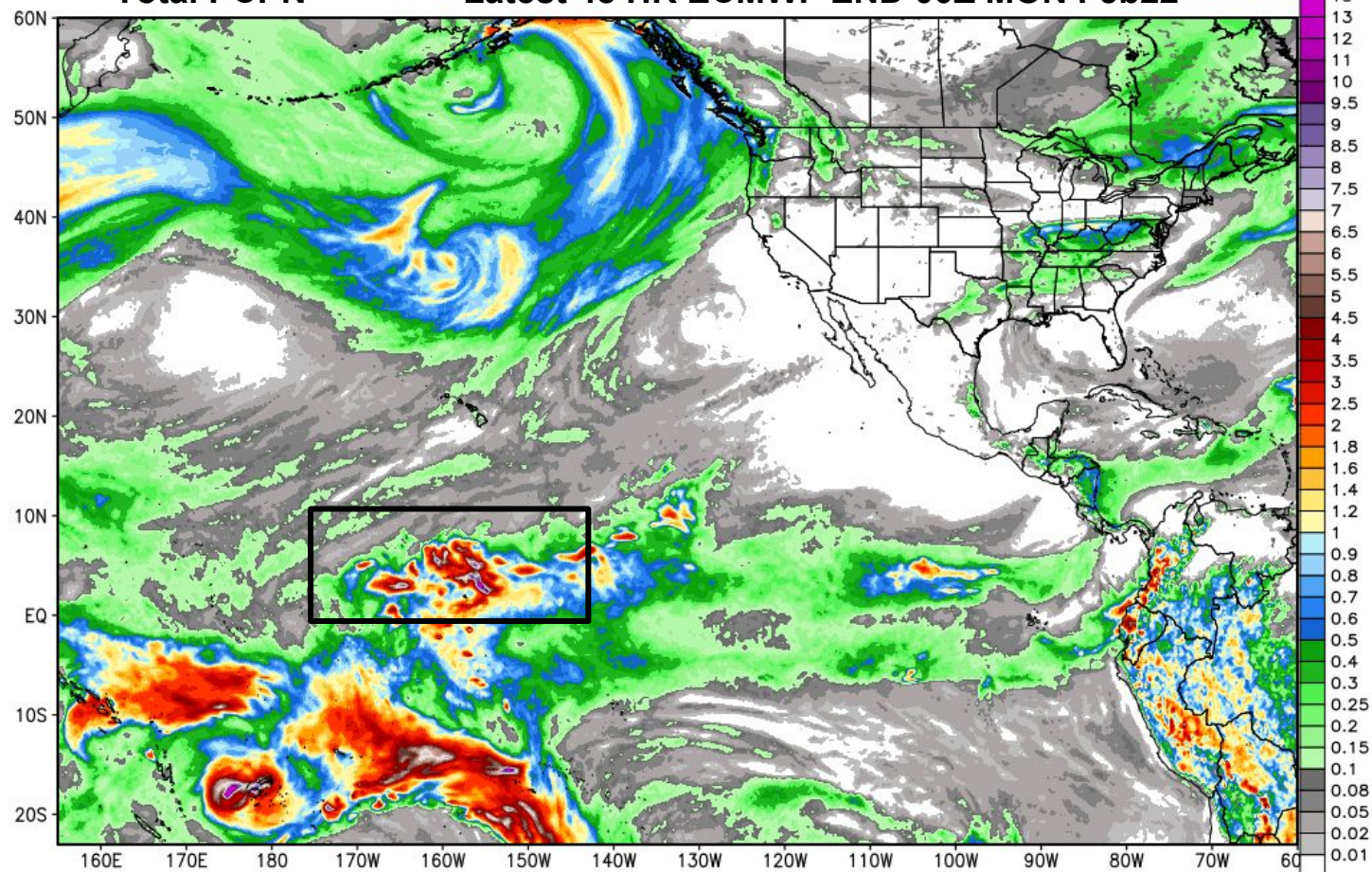


ECMWF Total Precipitation [inches] between 00Z20FEB2016 -- 00Z22FEB2016
INIT: 00Z20FEB2016 fx: [048] hr --> Mon 00Z22FEB2016

Max 19.6 in

Total PCPN

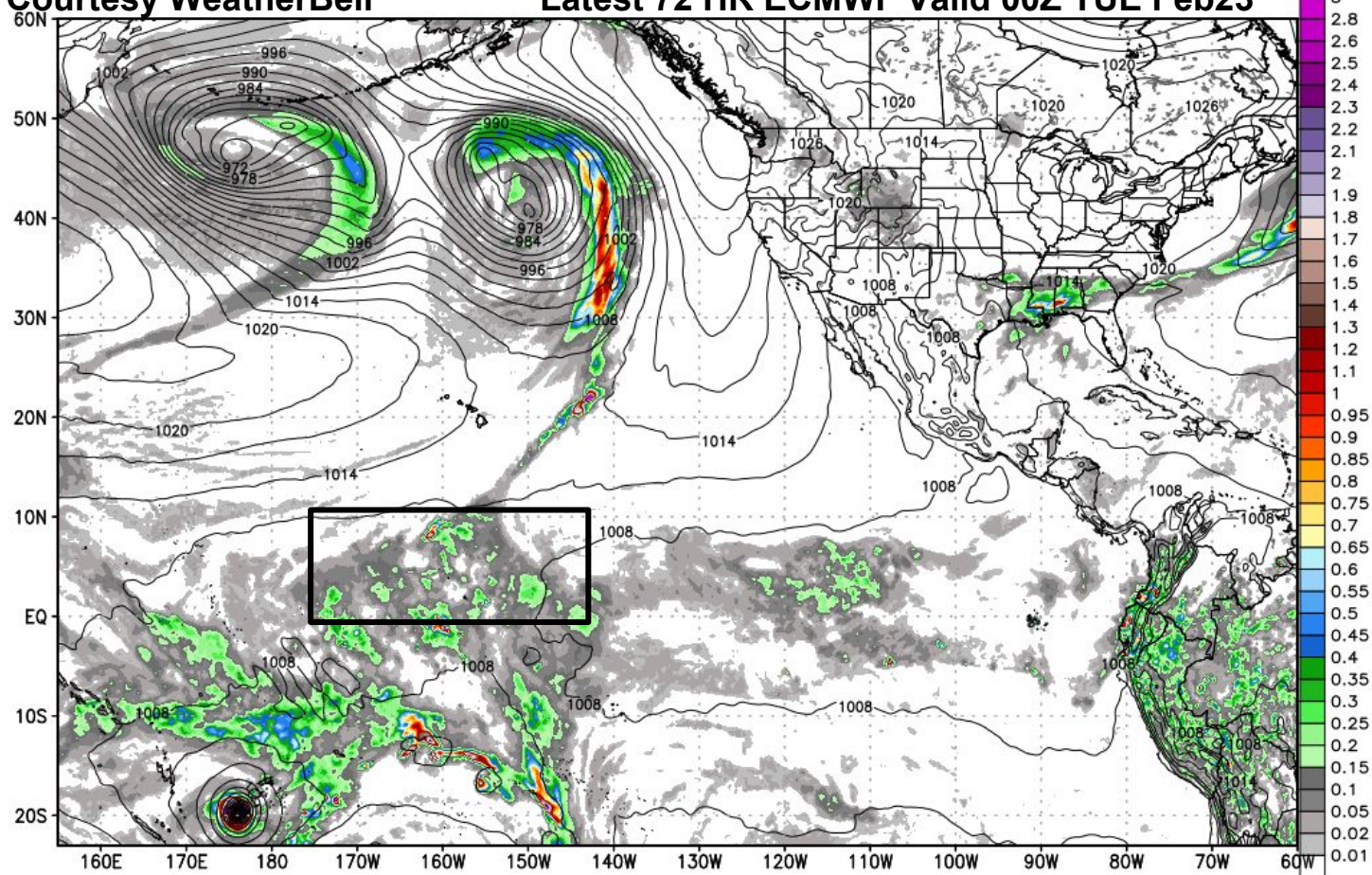
Latest 48 HR ECMWF END 00Z MON Feb22



ECMWF 6-hourly Precipitation [inches] between 18Z22FEB2016 -- 00Z23FEB2016 & MSLP [hPa]
INIT: 00Z20FEB2016 fx: [072] hr --> Tue 00Z23FEB2016

Courtesy WeatherBell

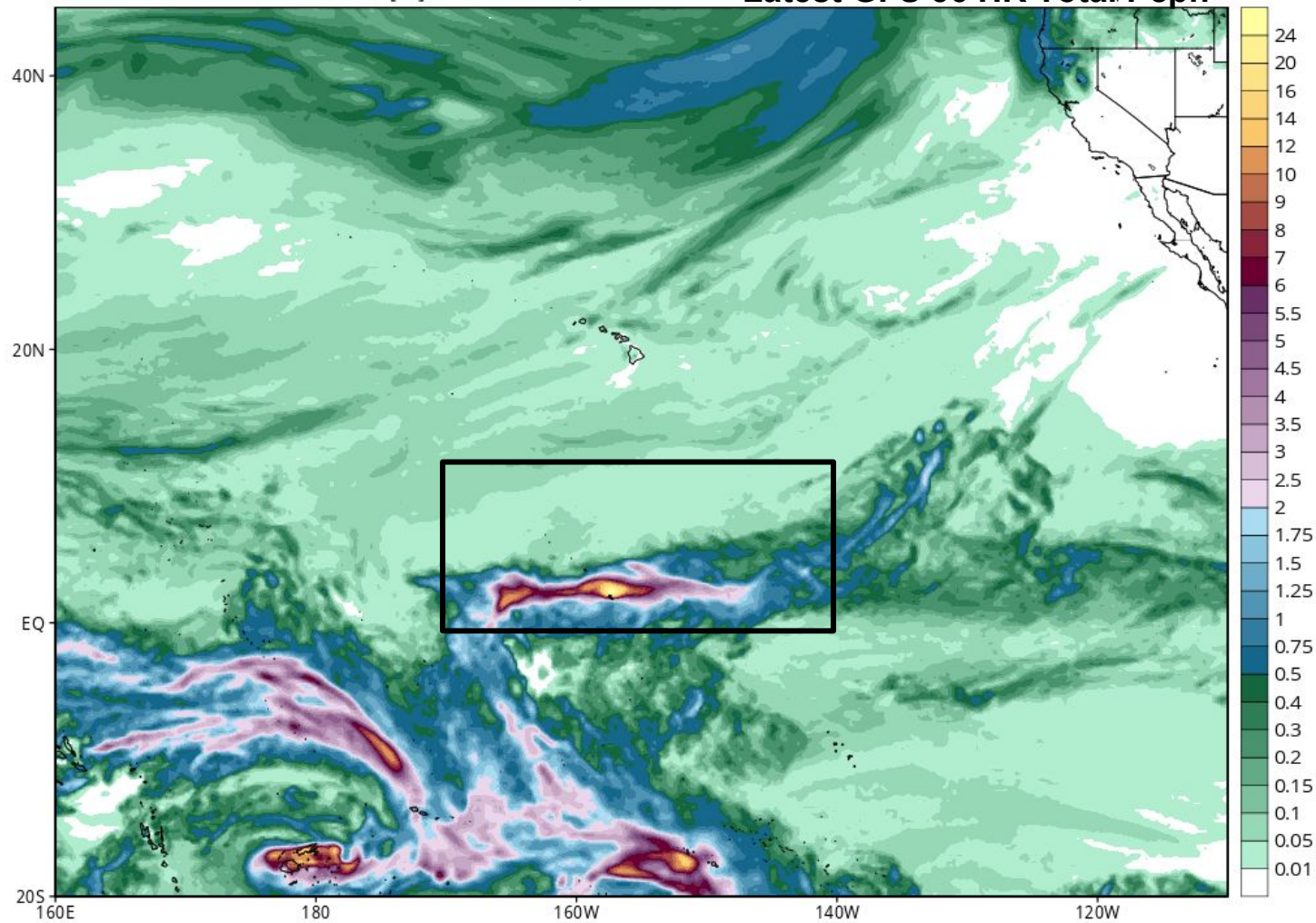
Latest 72 HR ECMWF Valid 00Z TUE Feb23



GFS Total Accumulated Precipitation (inches) from 12z19Feb2016 to 00z21Feb2016

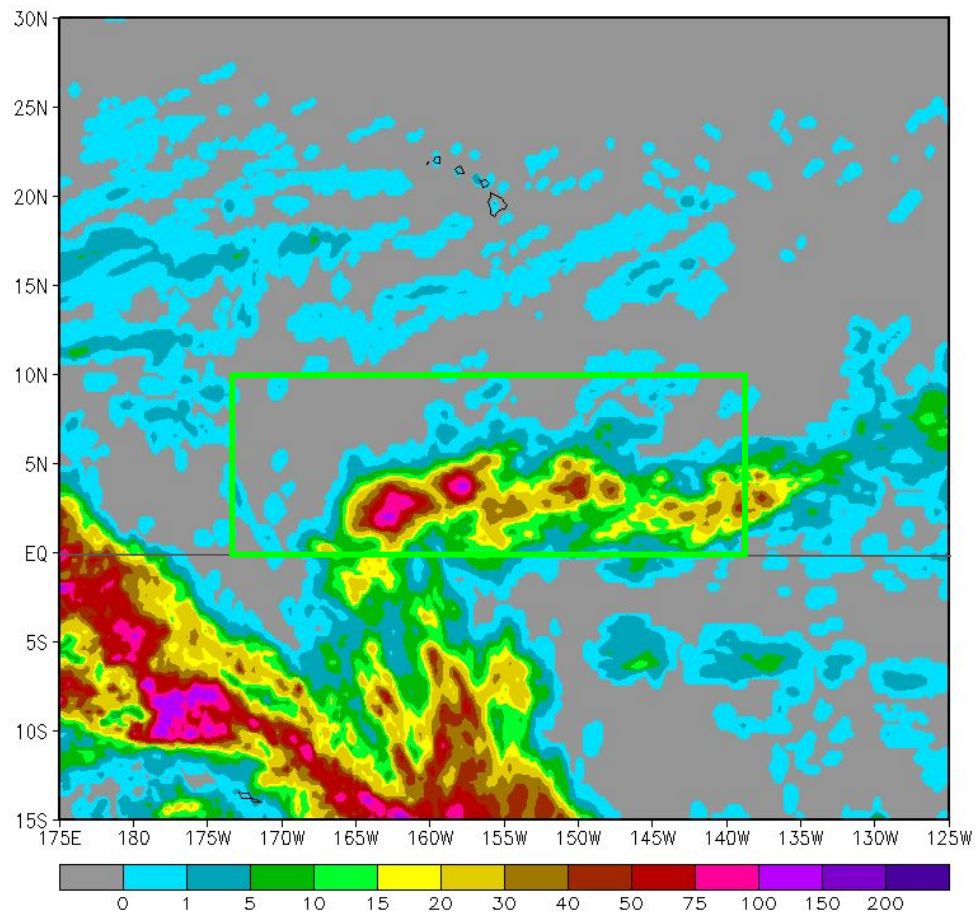
Init: 12z Feb 19 2016 Forecast Hour: [36] valid at 00z Sun, Feb 21 2016

Latest GFS 36 HR Total Popn



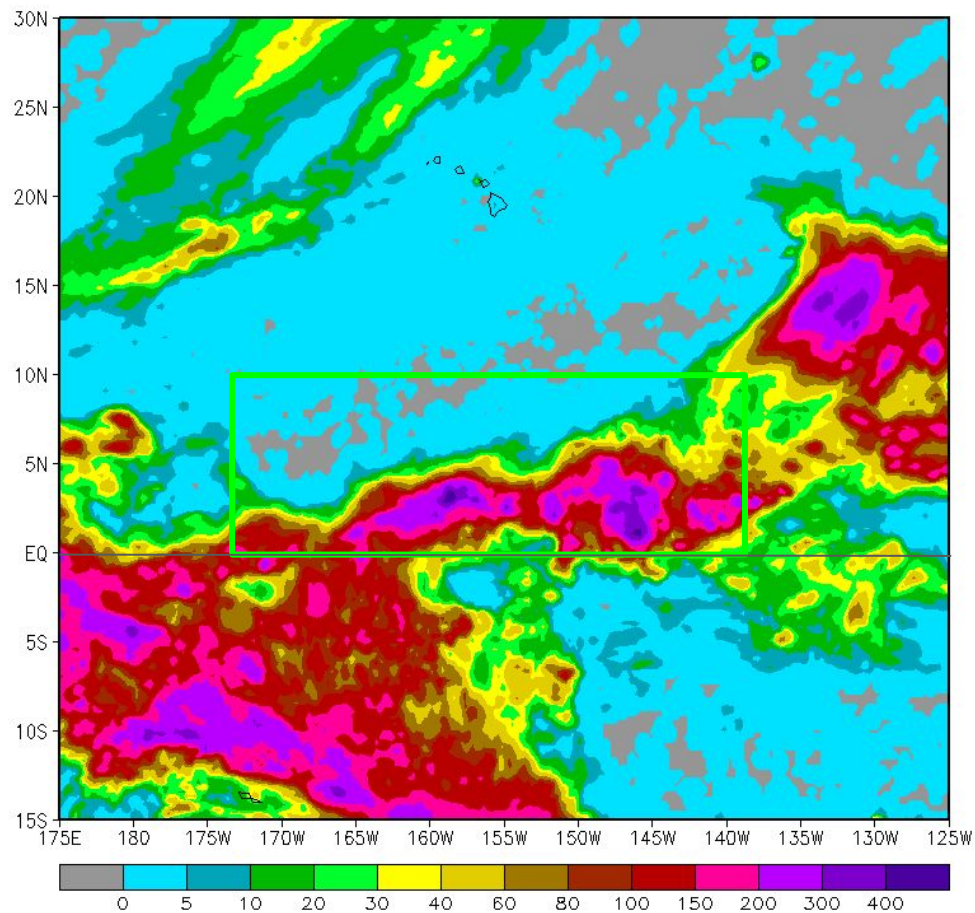
CMORPH 24-hour Rainfall Accumulation (mm)

(18Feb2016 12Z – 19Feb2016 12Z)



CMORPH 7-day Rainfall Accumulation (mm)

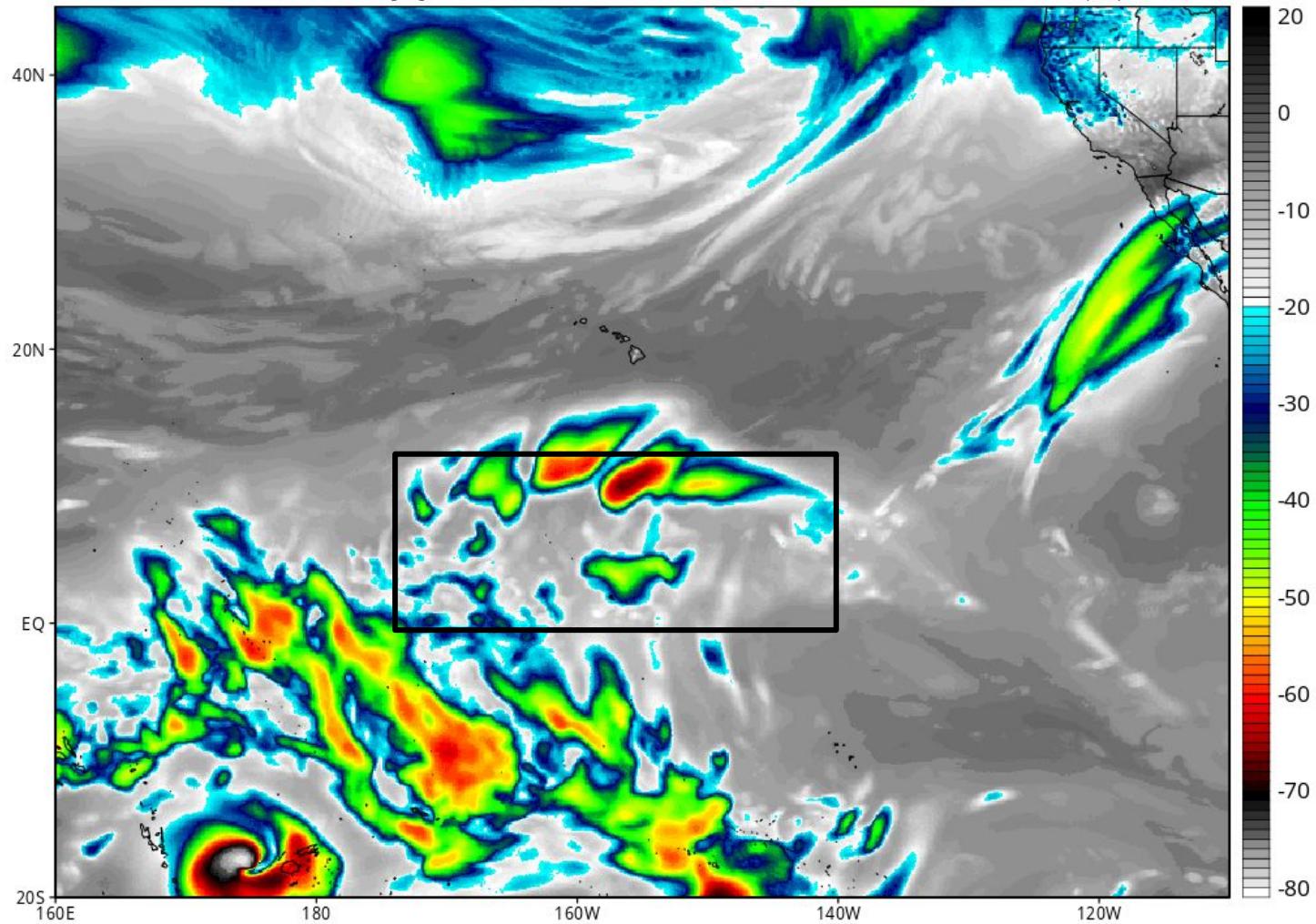
(12Feb2016 12Z – 19Feb2016 12Z)



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 20 2016 Forecast Hour: [12] valid at 00z Sun, Feb 21 2016

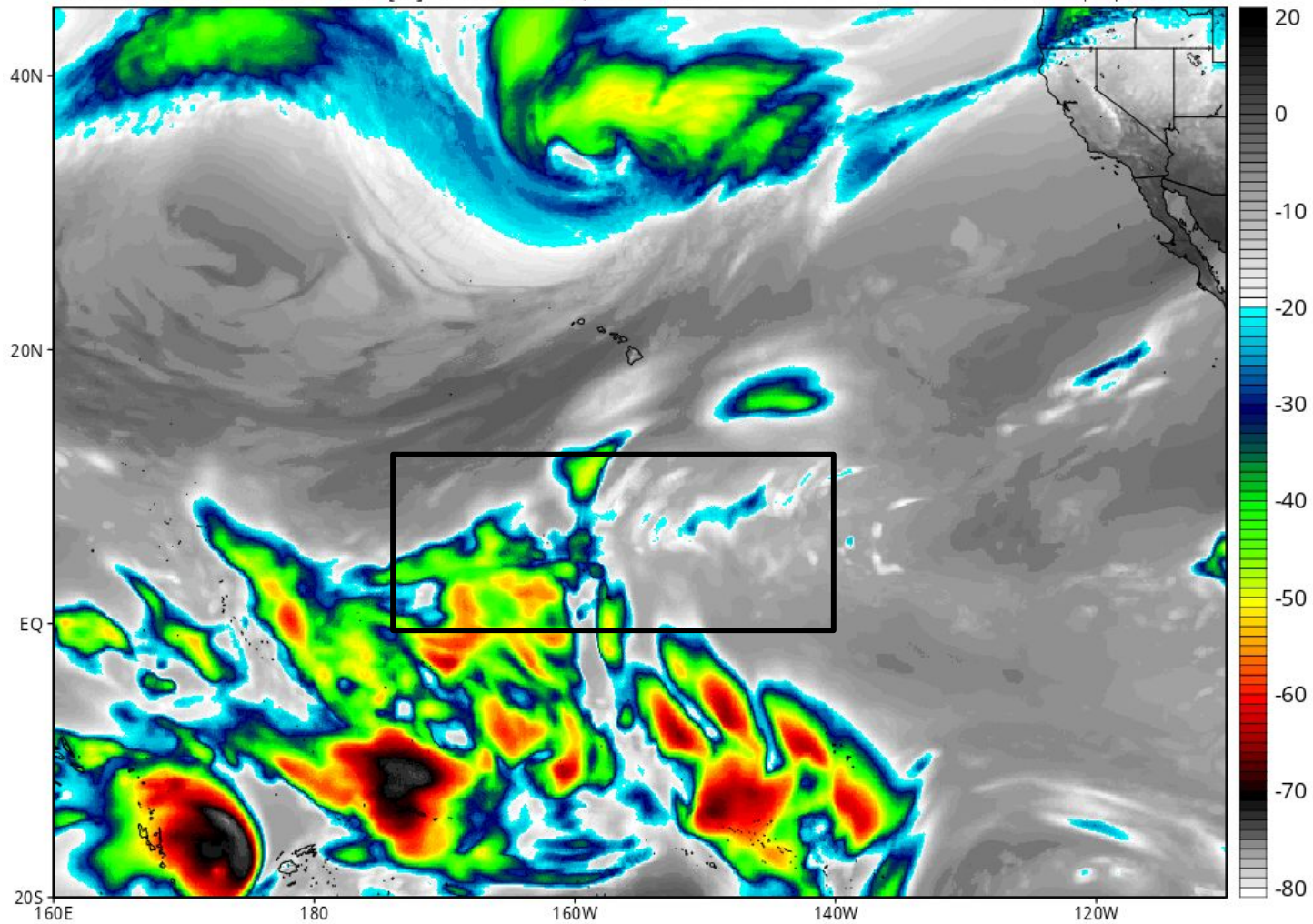
Levi Cowan | tropicaltidbits.com



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 20 2016 Forecast Hour: [36] valid at 00z Mon, Feb 22 2016

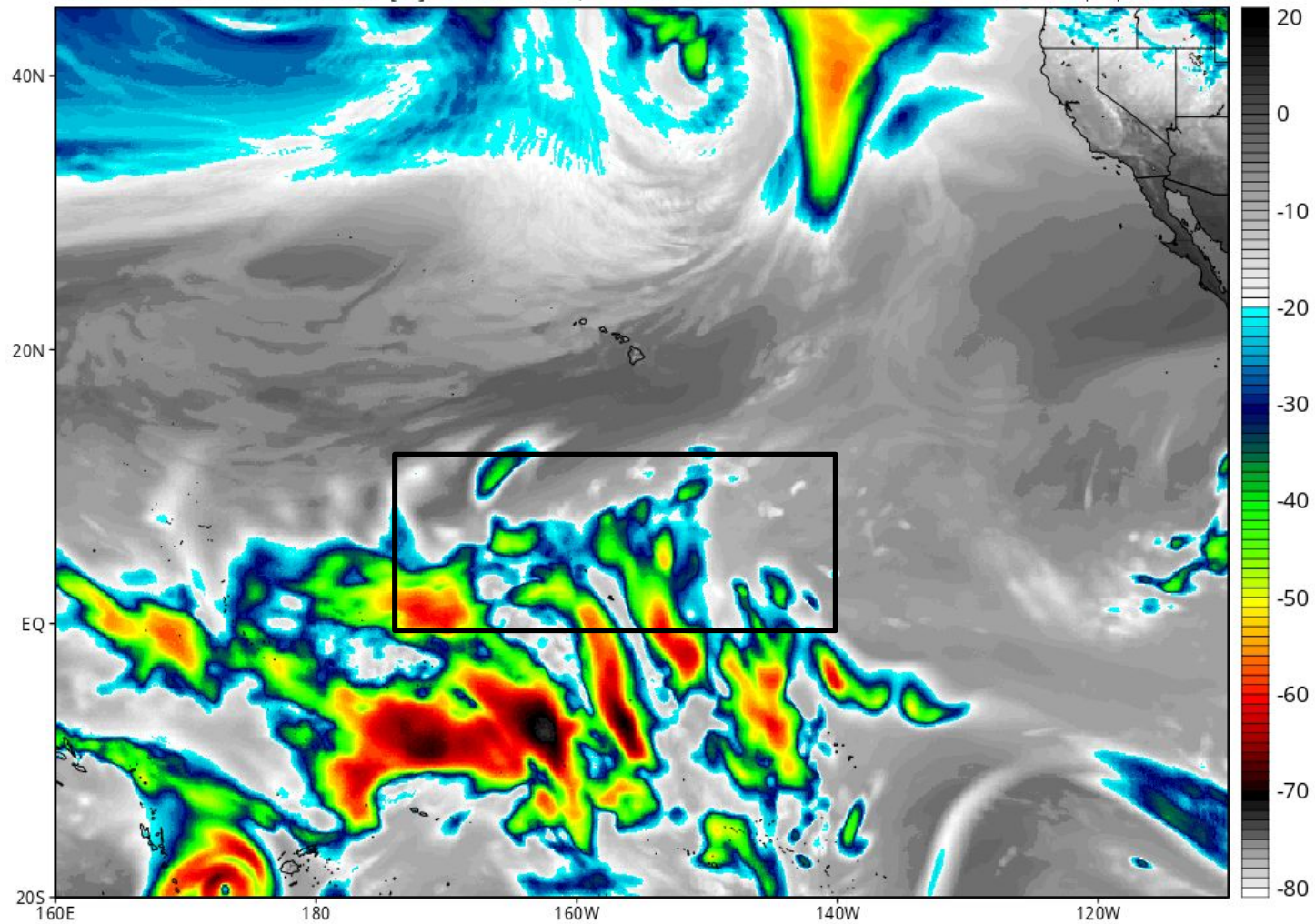
Levi Cowan | tropicaltidbits.com



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 20 2016 Forecast Hour: [60] valid at 00z Tue, Feb 23 2016

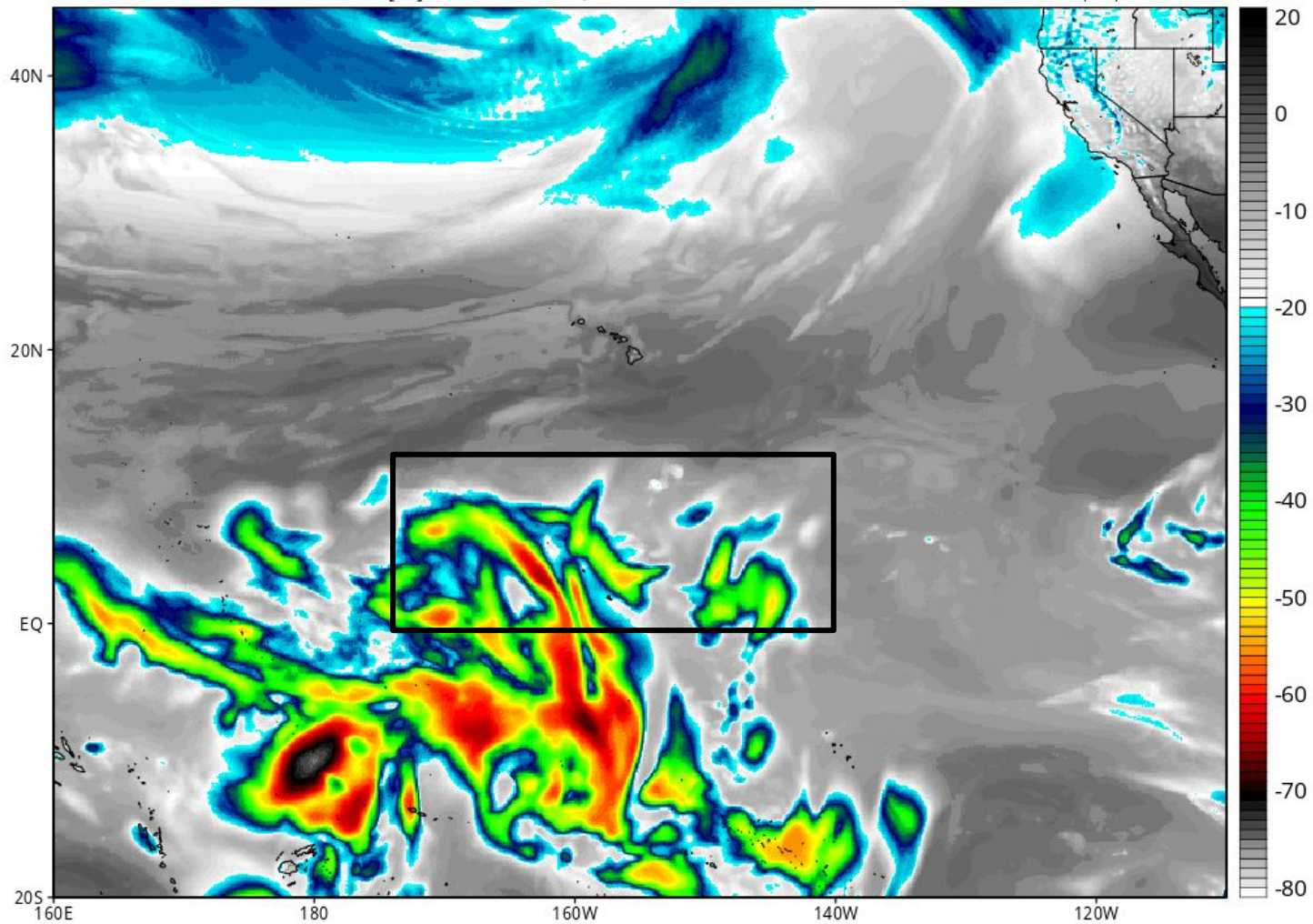
Levi Cowan | tropicaltidbits.com



GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 20 2016 Forecast Hour: [84] valid at 00z Wed, Feb 24 2016

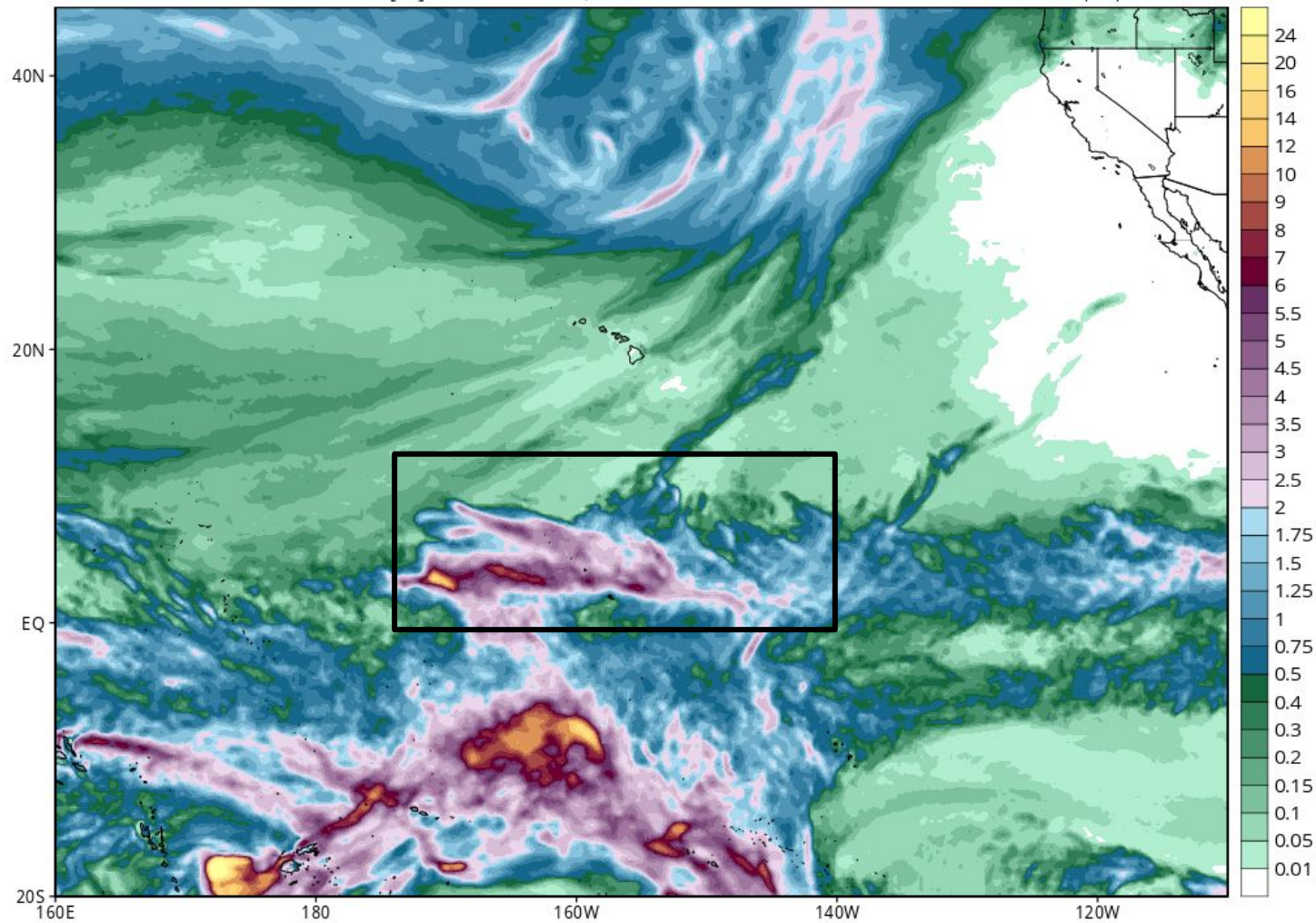
Levi Cowan | tropicaltidbits.com



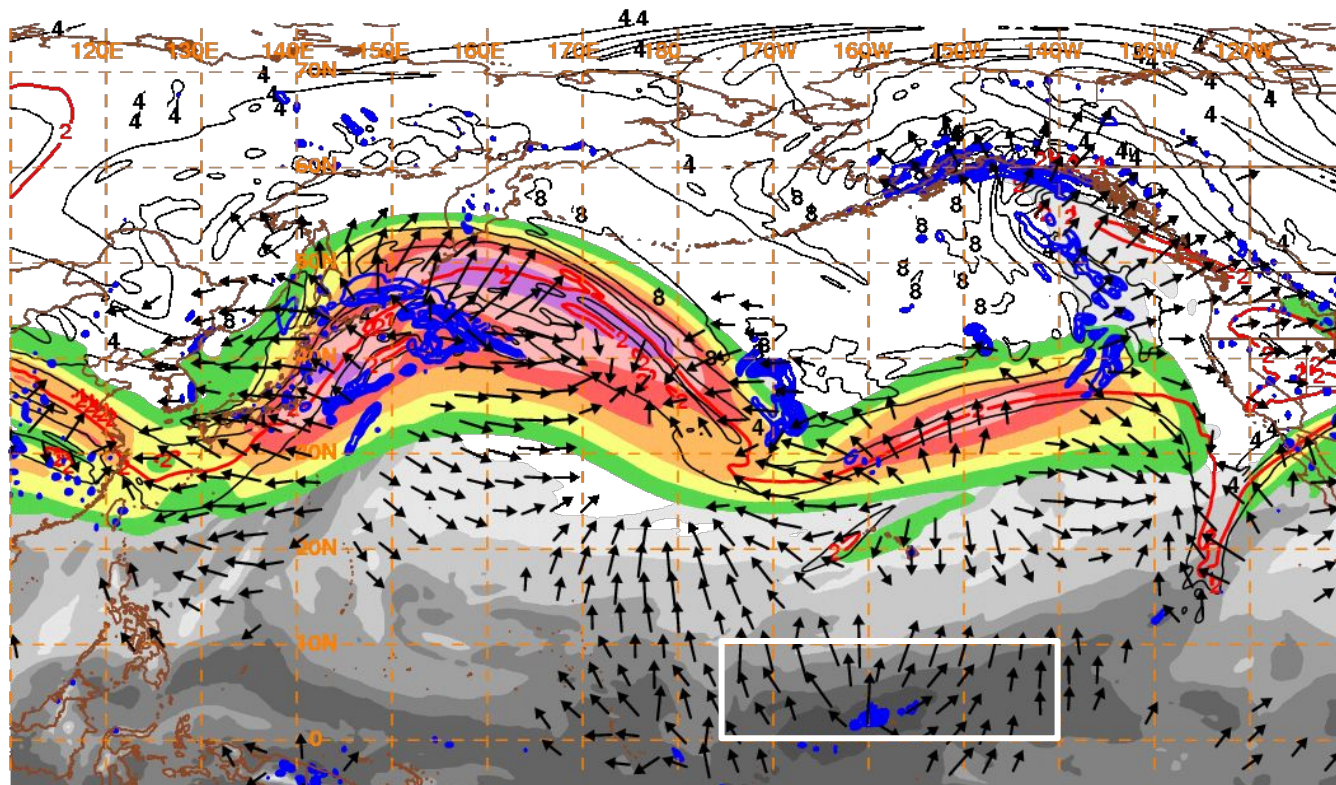
GFS Total Accumulated Precipitation (inches) from 12z20Feb2016 to 00z24Feb2016

Init: 12z Feb 20 2016 Forecast Hour: [84] valid at 00z Wed, Feb 24 2016

Levi Cowan | tropicaltidbits.com



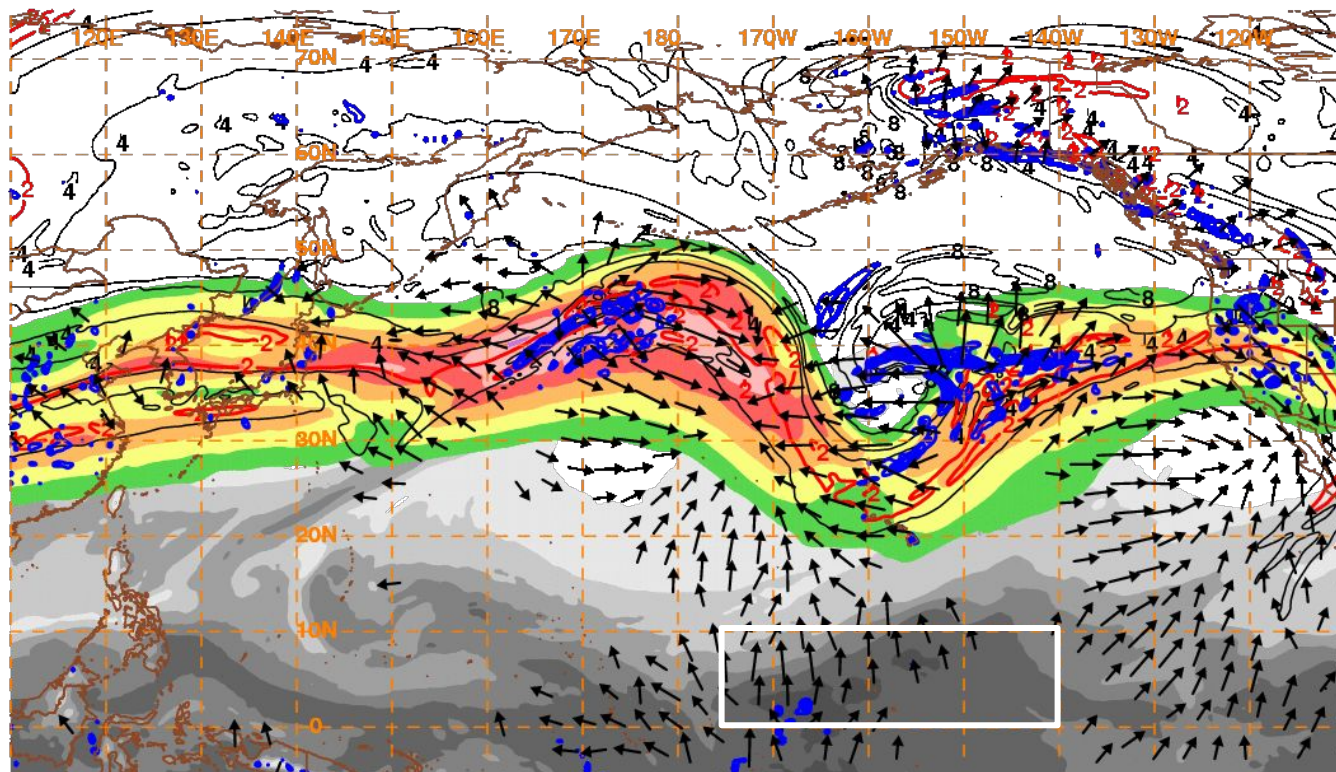
GFS 18HR FCST Valid 00Z SUN Feb 21: 200 mb DIV Wind Vectors



10 m/s → 160221/0000V018 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



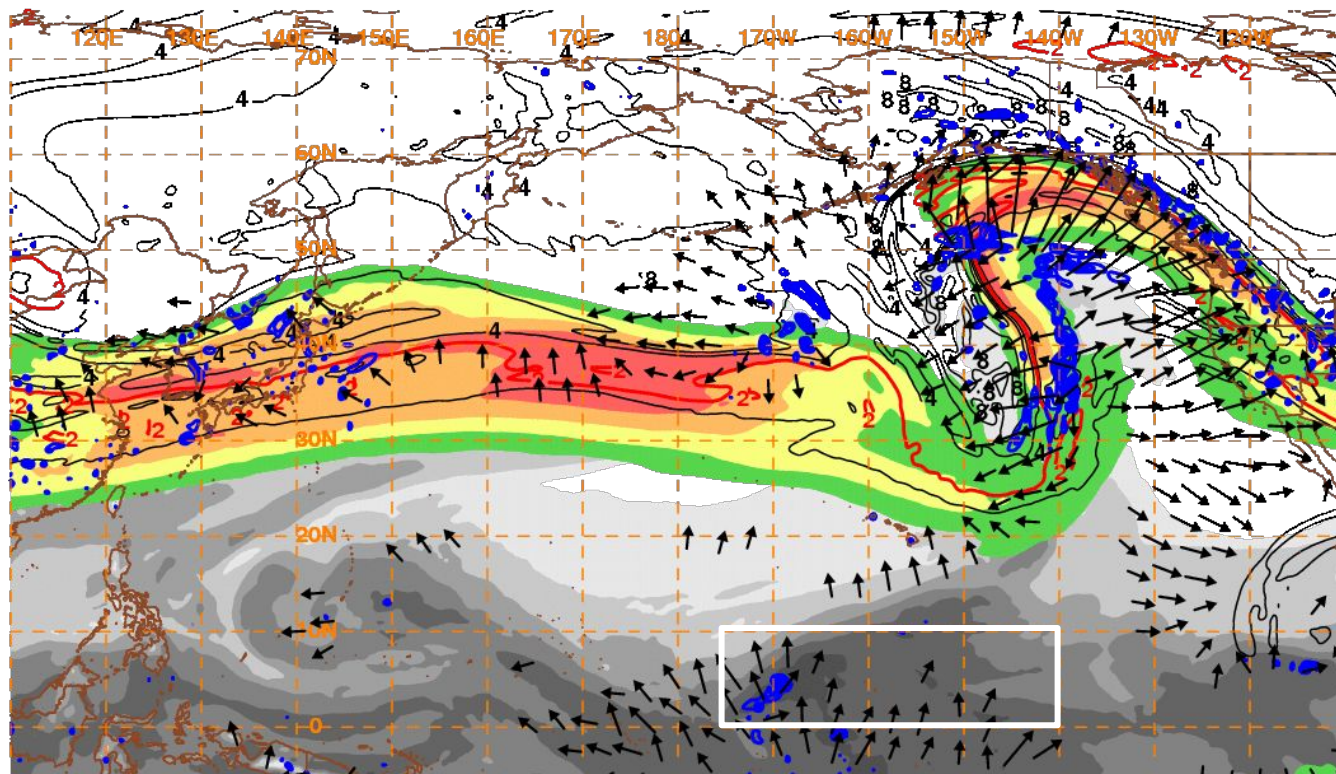
GFS 42HR FCST Valid 00Z MON Feb 22: 200 mb DIV Wind Vectors



10 m/s → 160222/0000V042 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



GFS 66HR FCST Valid 00Z TUE Feb 23: 200 mb DIV Wind Vectors

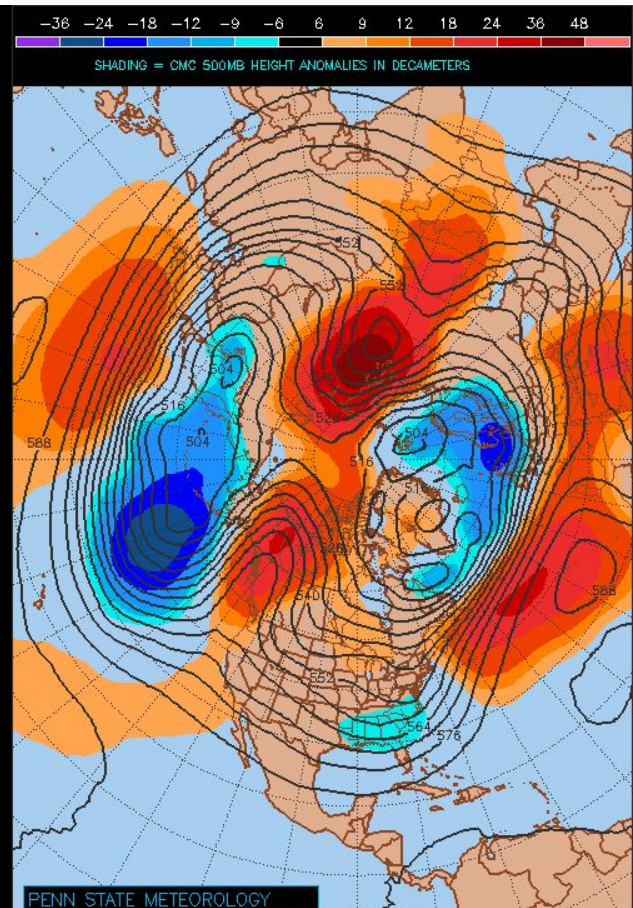
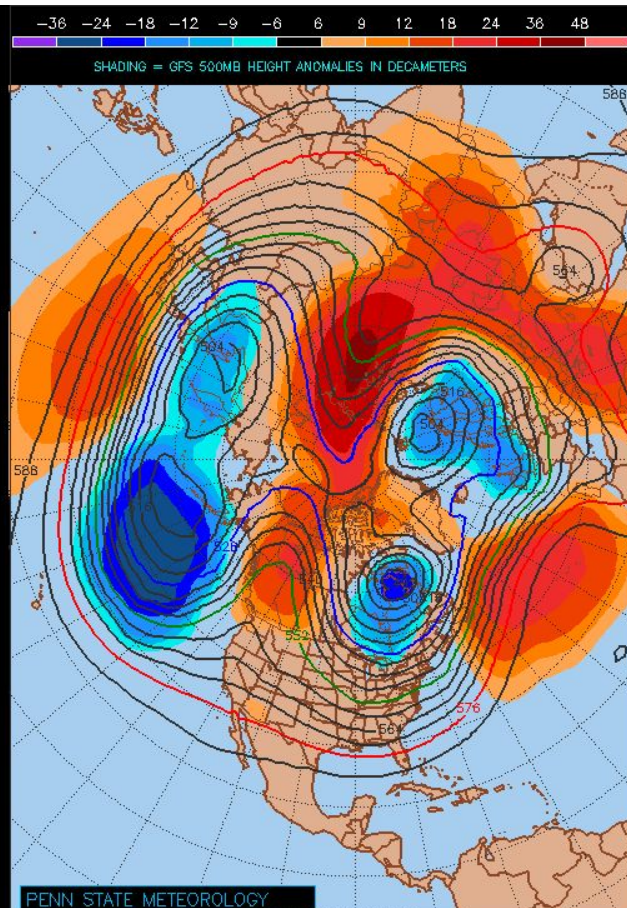
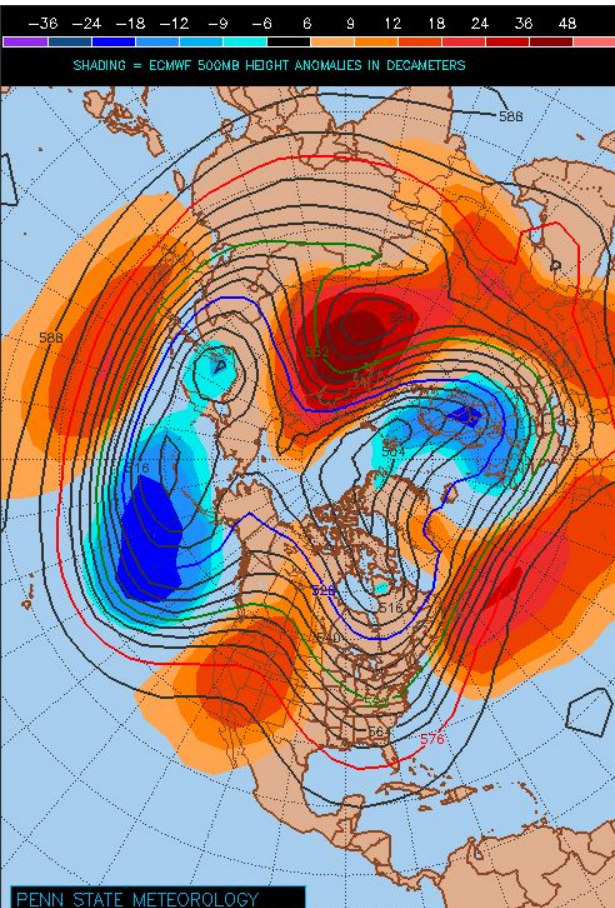


10 m/s → 160223/0000V066 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



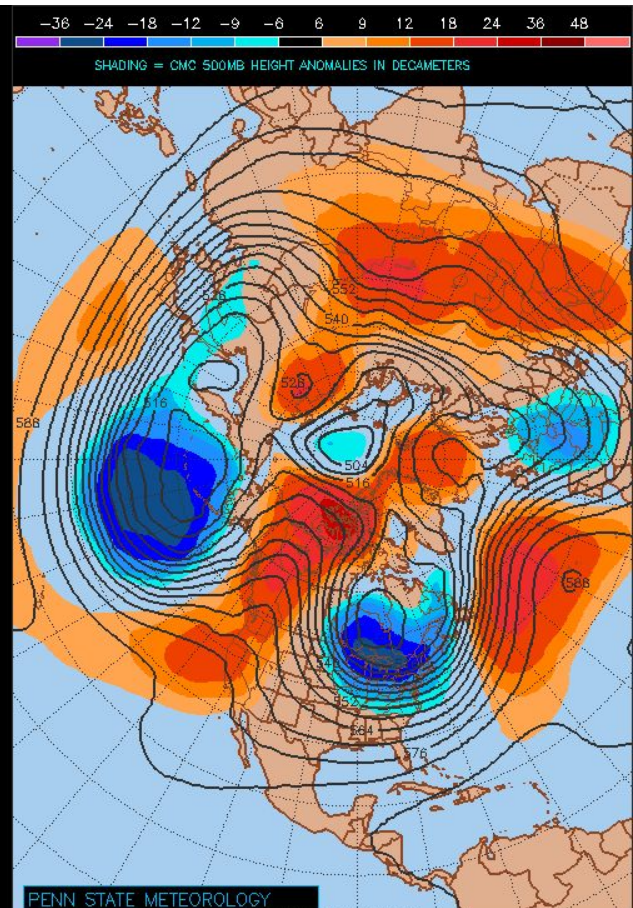
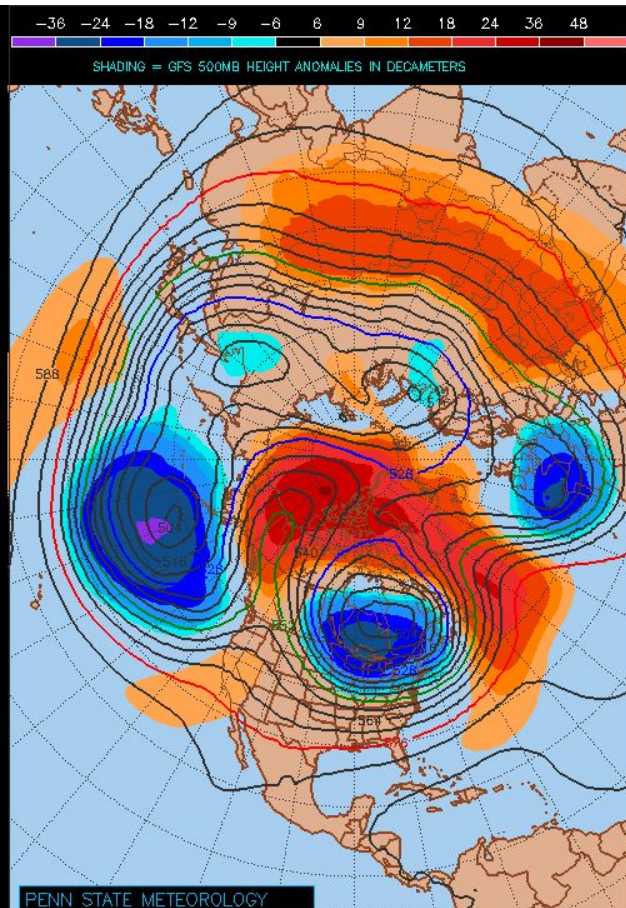
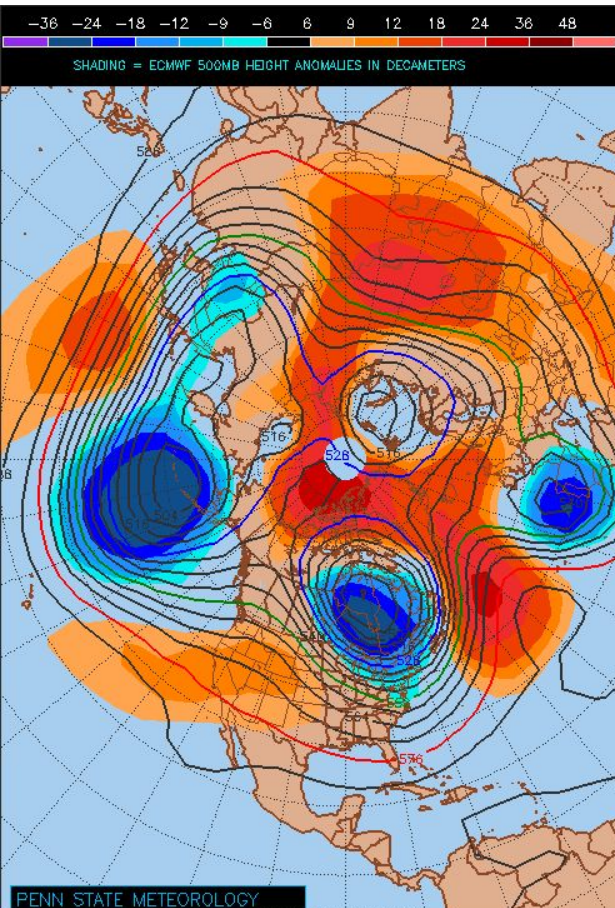
Medium - Long Range Forecast

Day 7-10 Initialized 00Z TUE 16 Feb



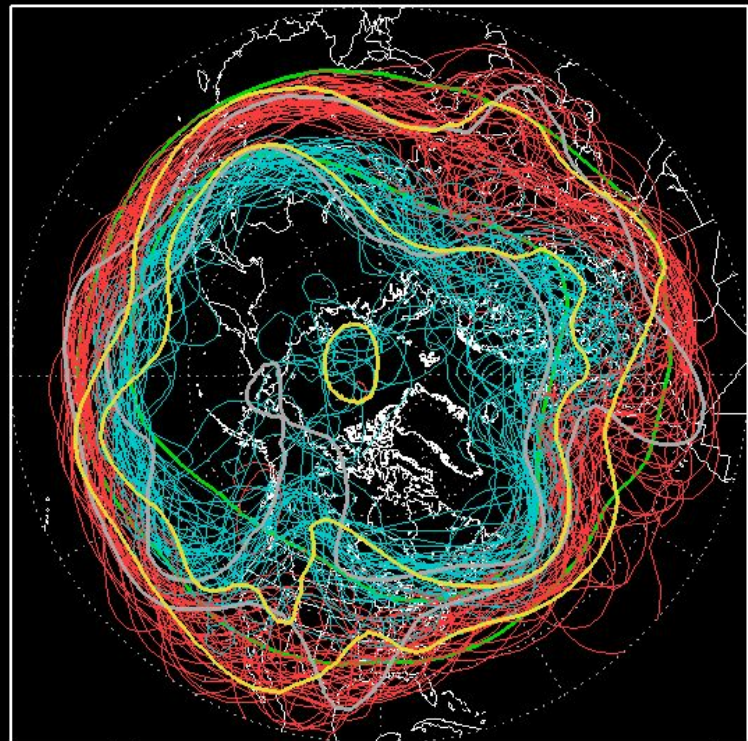
Medium - Long Range Forecast

Day 7-10 Initialized 00Z SAT 20 Feb



NCEP ENSEMBLE 500mb Z

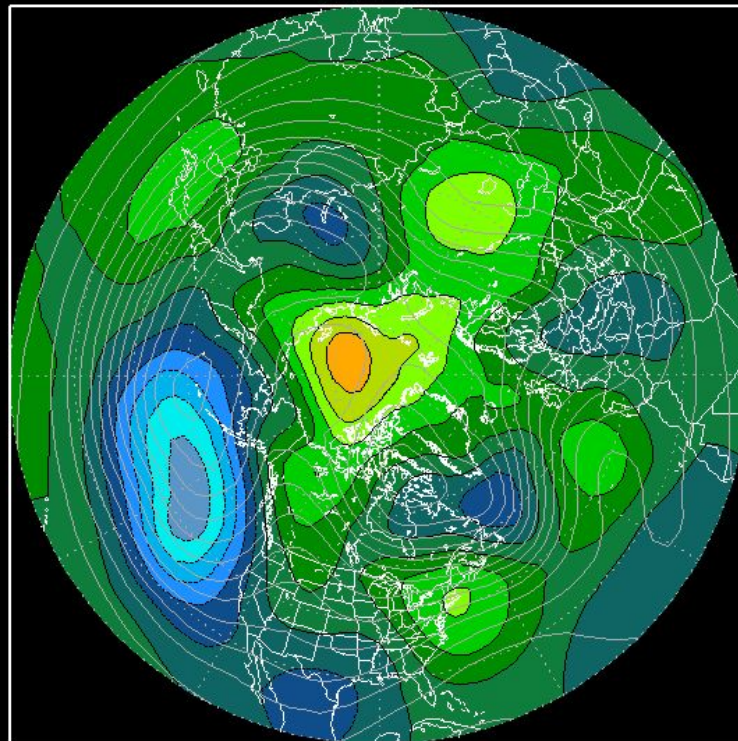
336H Forecast from: 00Z Sat FEB,20 2016
Valid time: 00Z Sat MAR,05 2016



00z Runs:(21) 12z Runs:(21)
5460m 5700m Cntrl 00z Cntrl 12z CLIM

NCEP ENSEMBLE MEAN ANOMALY- 500mbZ(m)

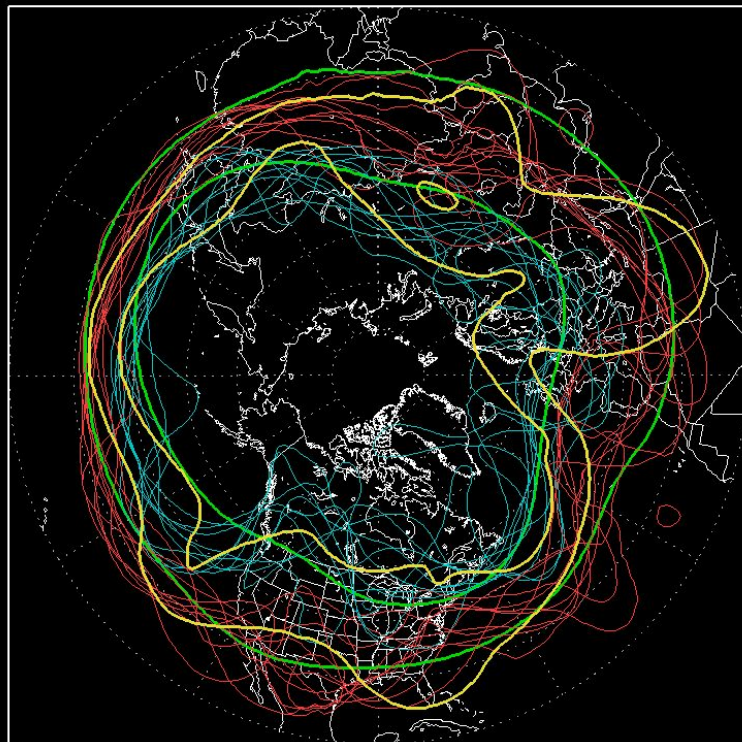
336H Forecast from: 00Z Sat FEB,20 2016
Valid time: 00Z Sat MAR,05 2016



-360 -280 -200 -120 -40 40 120 200 280 360

500mb HEIGHT SPAG, ESRL/PSD

336H Forecast from: 00Z Sat FEB 20 2016
Valid time: 00Z Sat MAR 05 2016

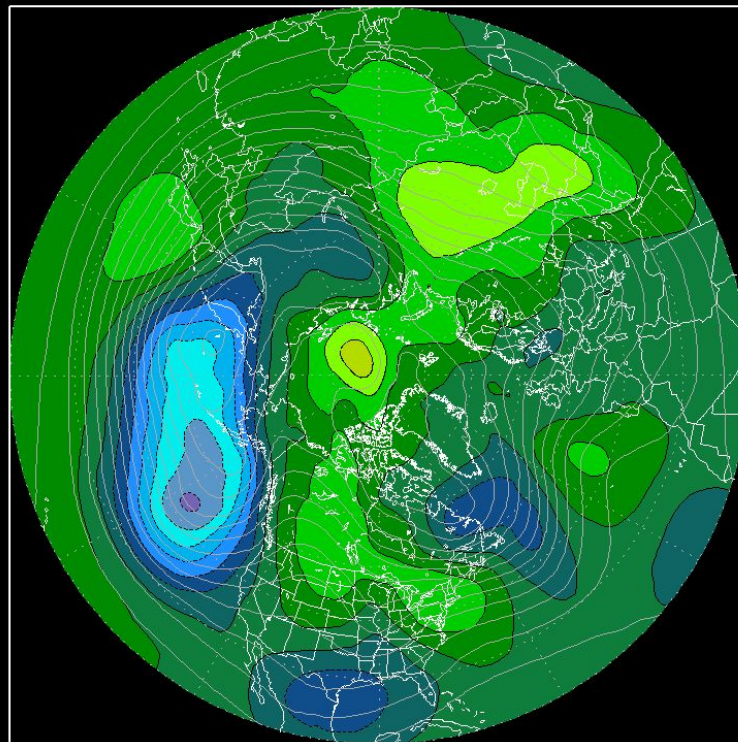


00z Runs:(11)

— 5460m — 5700m — Control 00z — CLIM

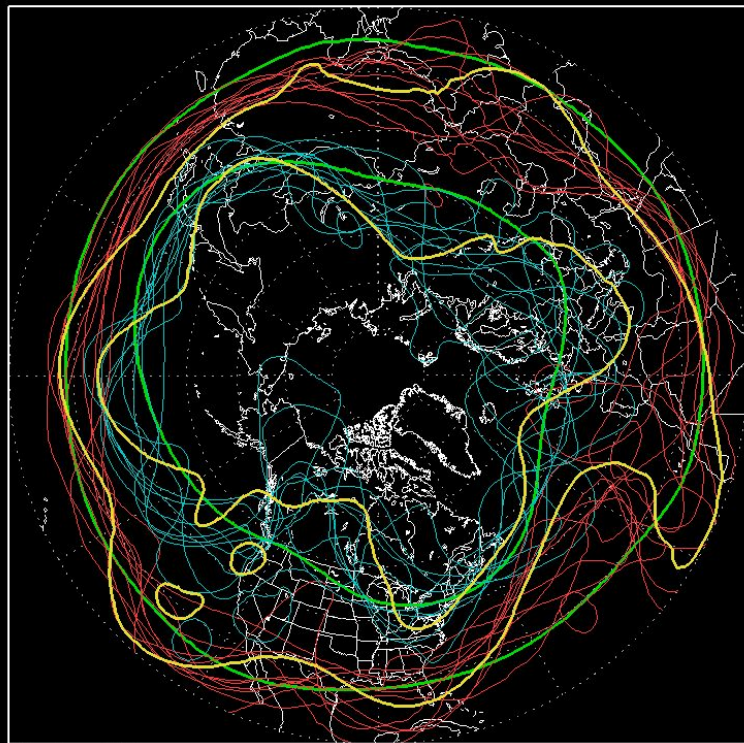
500mb HEIGHT ANOMALY(m), ESRL/PSD

336H Forecast from: 00Z Sat FEB 20 2016
Valid time: 00Z Sat MAR 05 2016



— -360 — -280 — -200 — -120 — -40 — 40 — 120 — 200 — 280 — 360

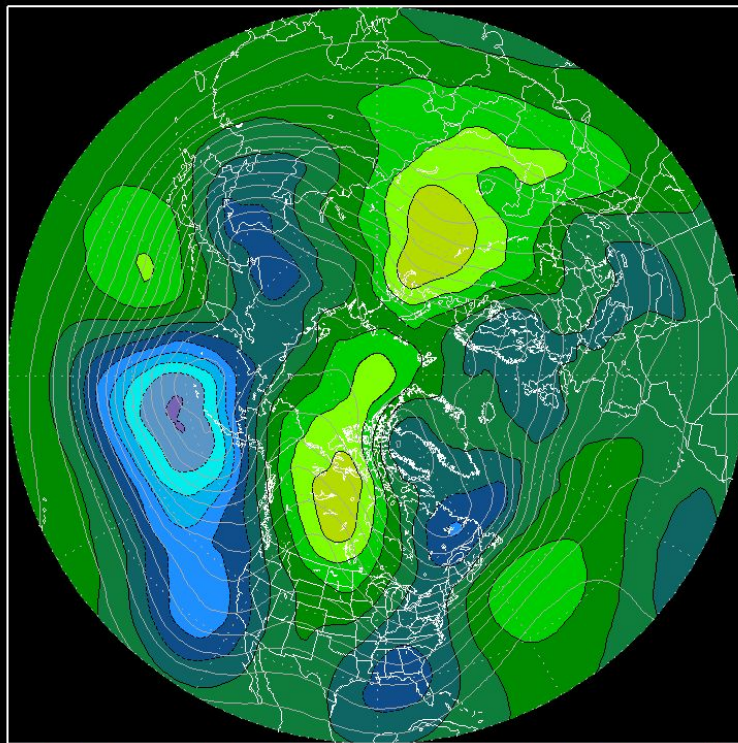
500mb HEIGHT SPAG, ESRL/PSD
360H Forecast from: 00Z Fri FEB 19 2016
Valid time: 00Z Sat MAR 05 2016



00z Runs:(11)

— 5460m — 5760m — Control 00z — CLIM

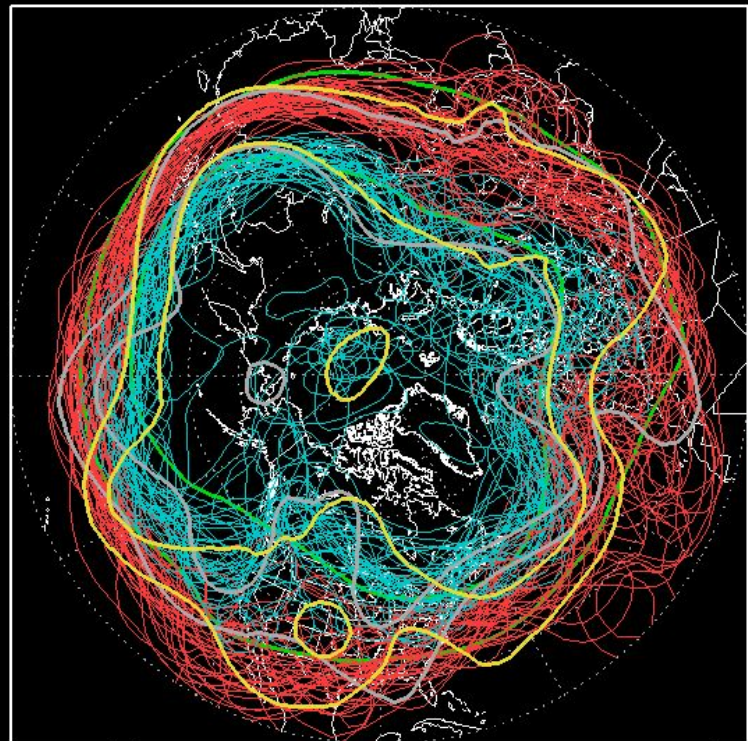
500mb HEIGHT ANOMALY(m), ESRL/PSD
360H Forecast from: 00Z Fri FEB 19 2016
Valid time: 00Z Sat MAR 05 2016



— -360 -280 -200 -120 -40 40 120 200 280 360

NCEP ENSEMBLE 500mb Z

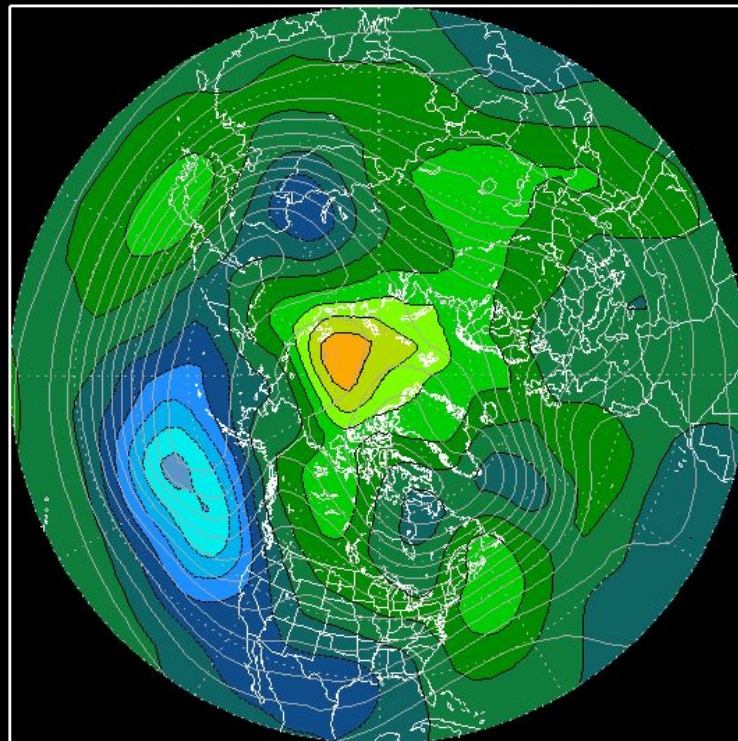
360H Forecast from: 00Z Sat FEB,20 2016
Valid time: 00Z Sun MAR,06 2016



00z Runs:(21) 12z Runs:(21)
— 5460m — 5700m — Cntrl 00z — Cntrl 12z — CLIM

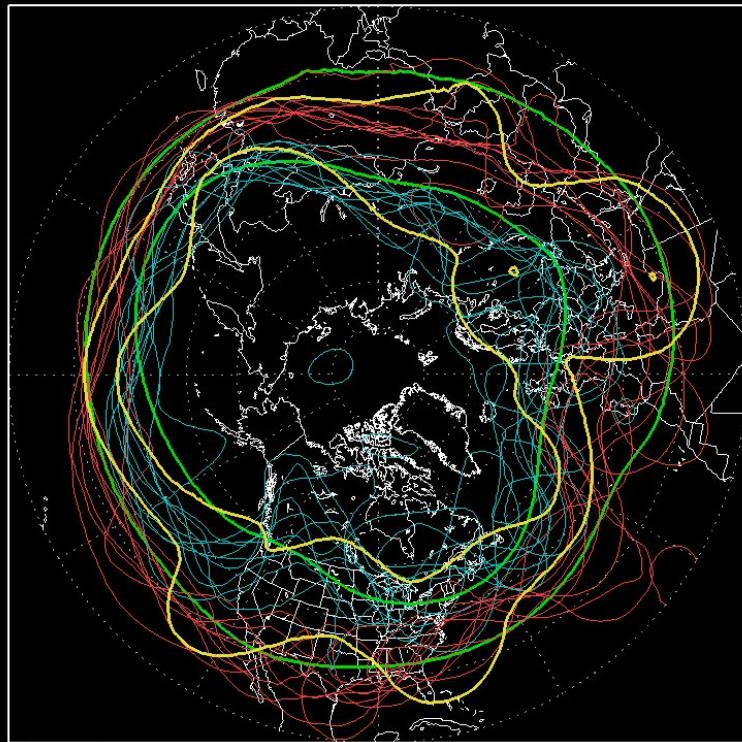
NCEP ENSEMBLE MEAN ANOMALY- 500mbZ(m)

360H Forecast from: 00Z Sat FEB,20 2016
Valid time: 00Z Sun MAR,06 2016



500mb HEIGHT SPAG, ESRL/PSD

360H Forecast from: 00Z Sat FEB 20 2016
Valid time: 00Z Sun MAR 06 2016

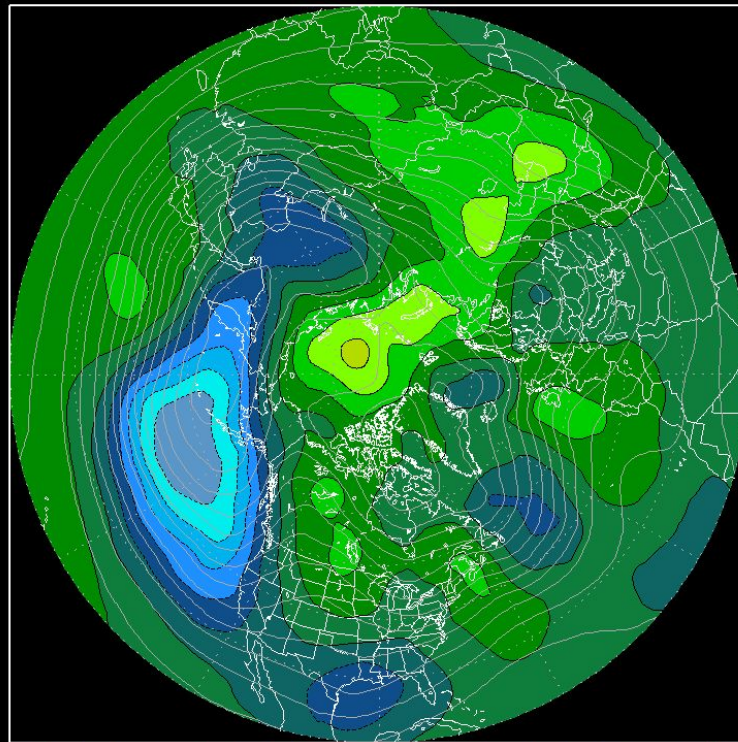


00z Runs:(11)

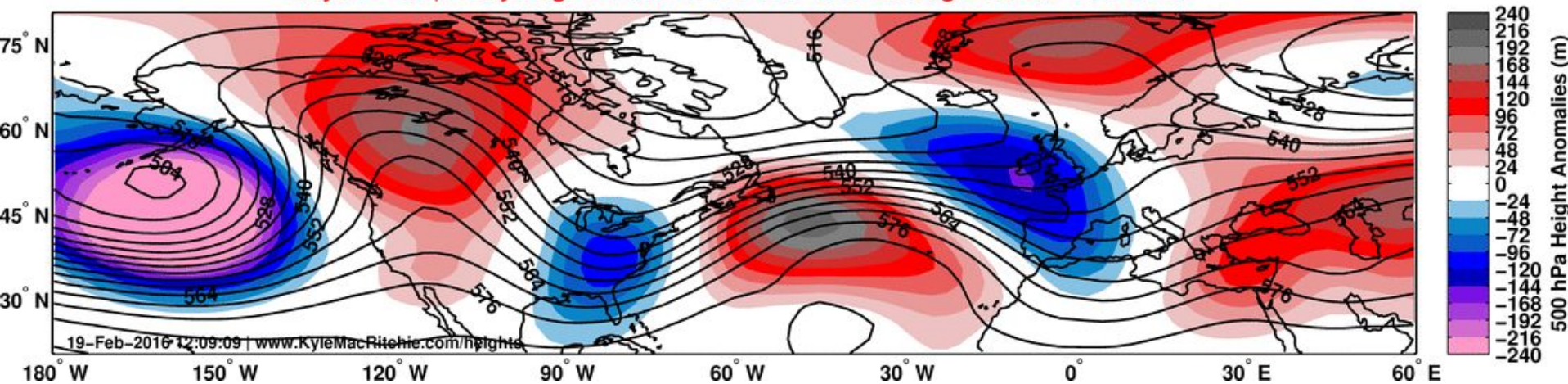
— 5460m — 5700m — Control 00z — CLIM

500mb HEIGHT ANOMALY(m), ESRL/PSD

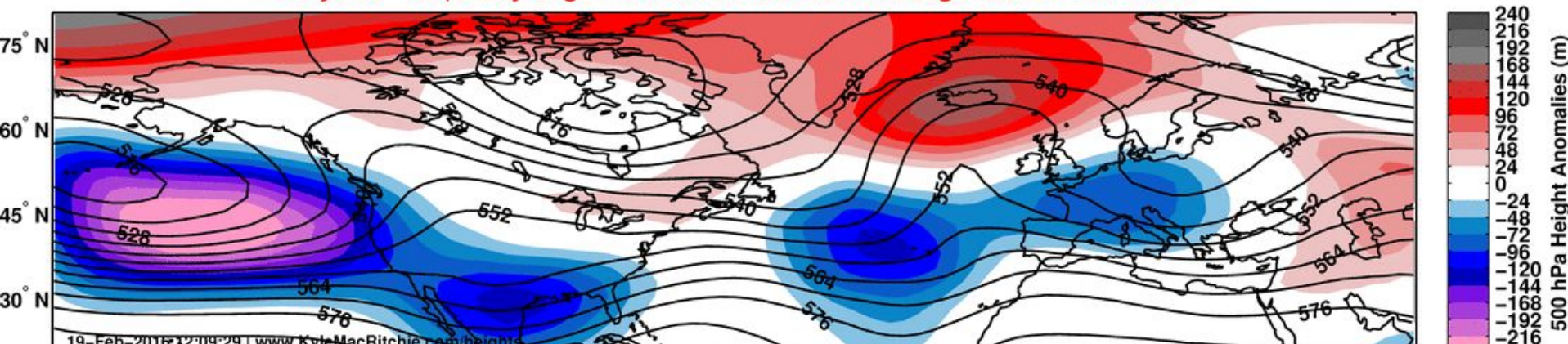
360H Forecast from: 00Z Sat FEB 20 2016
Valid time: 00Z Sun MAR 06 2016



CFS (Ens. Mean) 500 hPa Hgts Anoms & Total | North America/Europe | Run at Fri 19-Feb-2016 00z
Days 6 – 10 | 5 Day Avg. Valid: Wed 24-Feb-2016 through Sun 28-Feb-2016

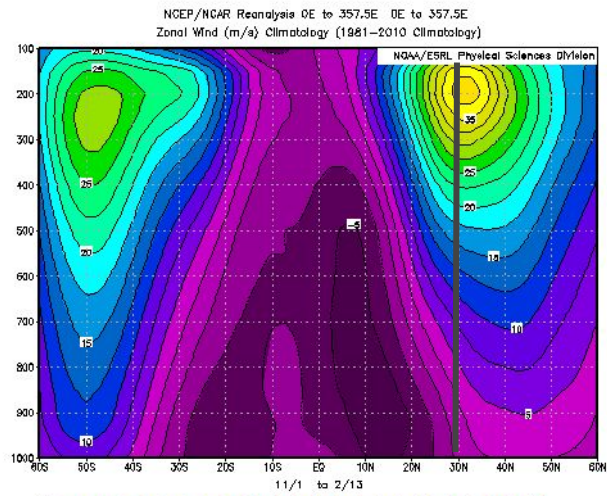


CFS (Ens. Mean) 500 hPa Hgts Anoms & Total | North America/Europe | Run at Fri 19-Feb-2016 00z
Days 16 – 20 | 5 Day Avg. Valid: Sat 05-Mar-2016 through Wed 09-Mar-2016

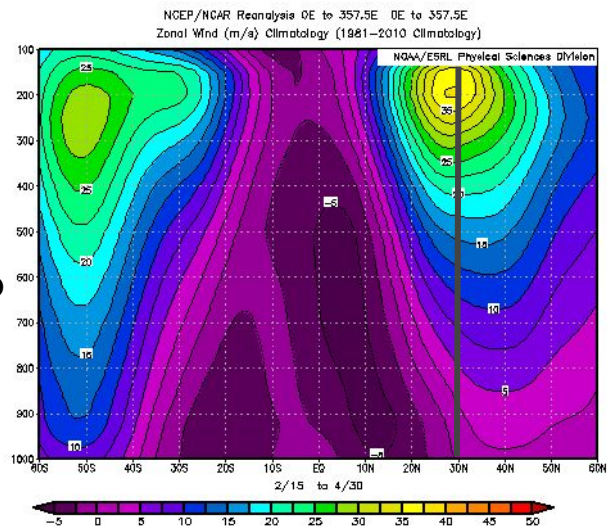


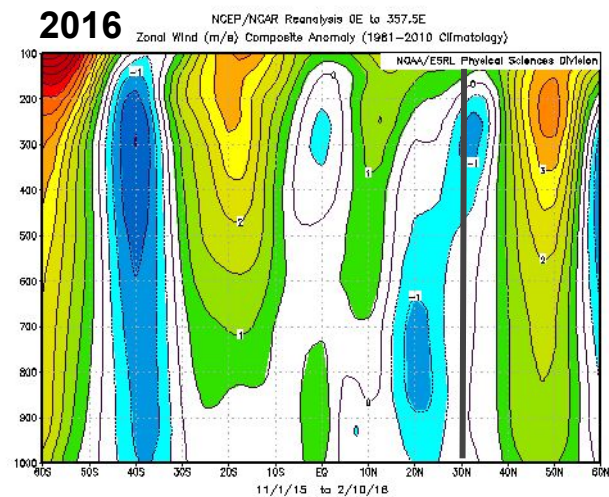
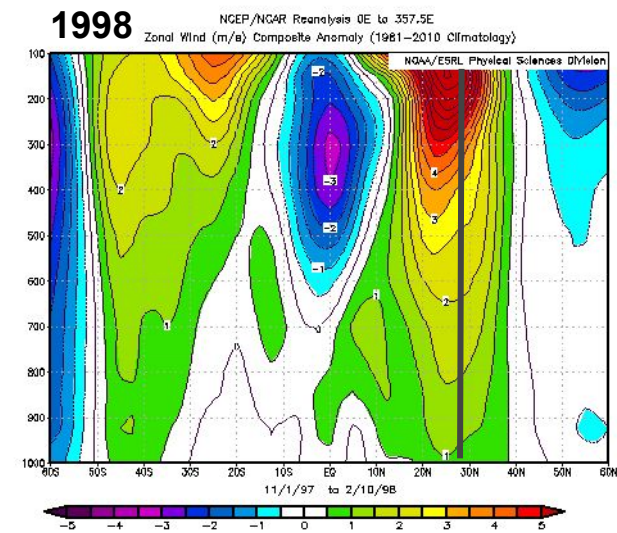
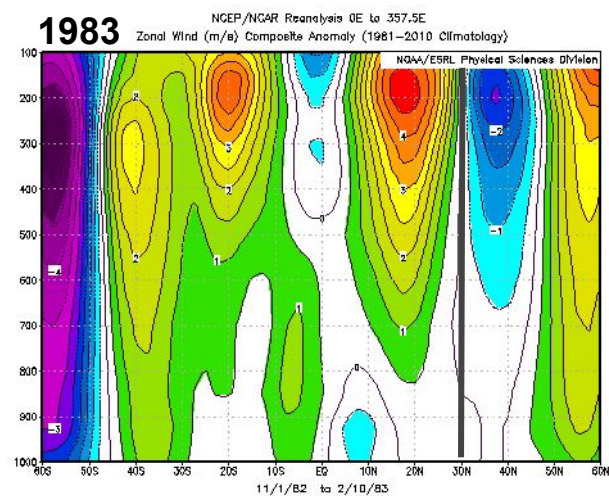
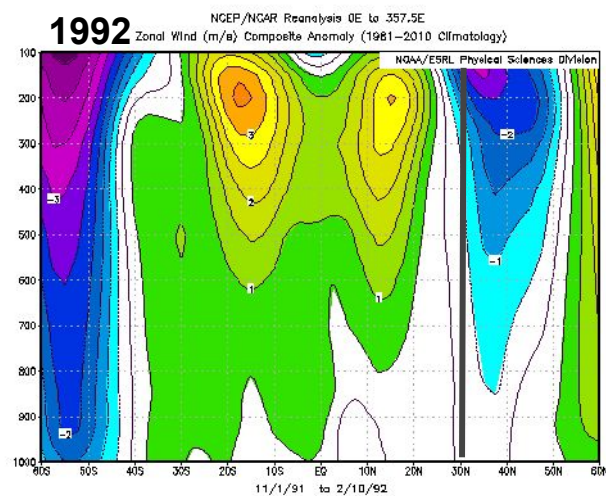
The Curious Incident of the Zonal Mean Zonal Wind in 2016

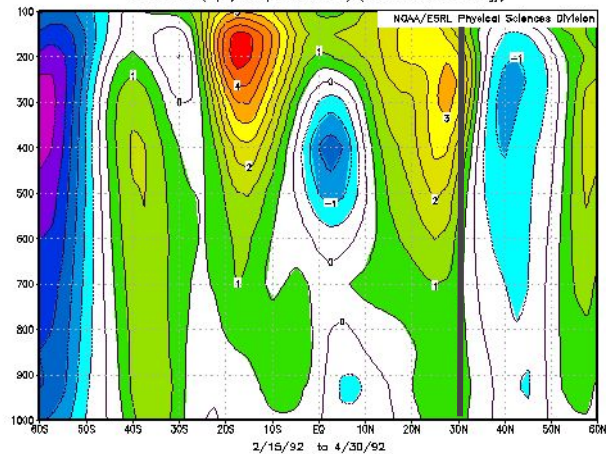
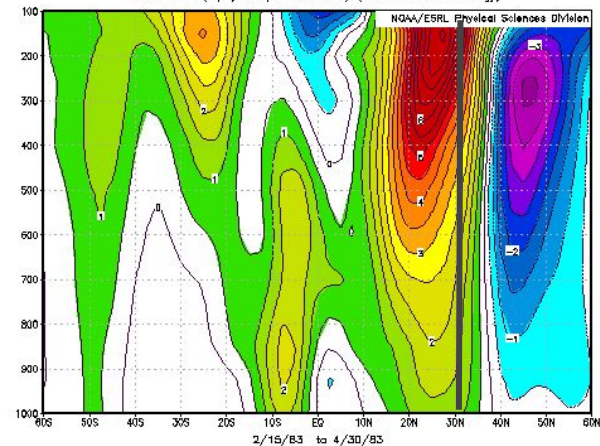
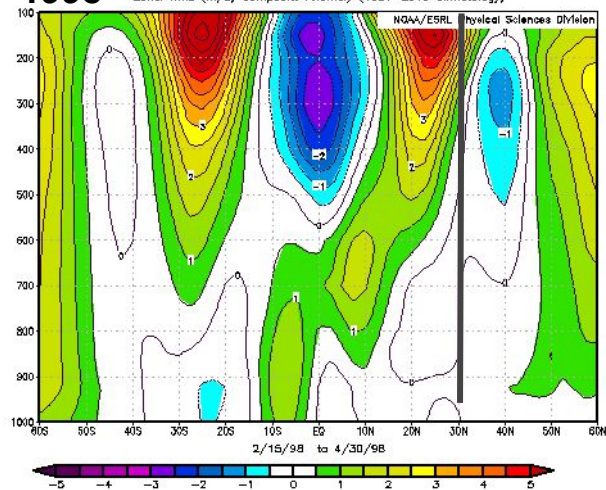
Zonal Mean U Nov 1- Feb 13 Climo



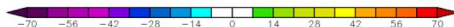
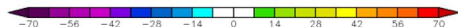
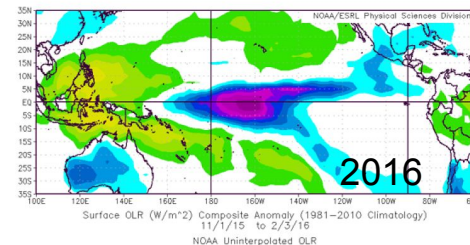
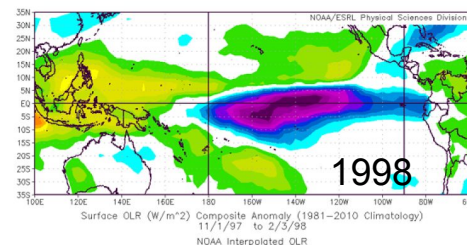
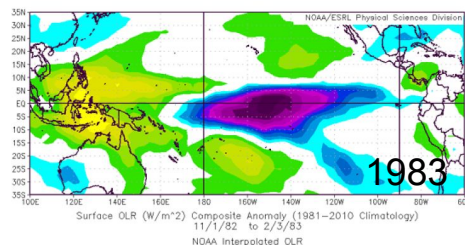
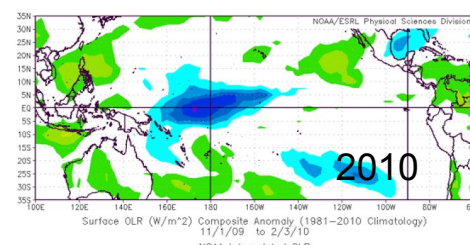
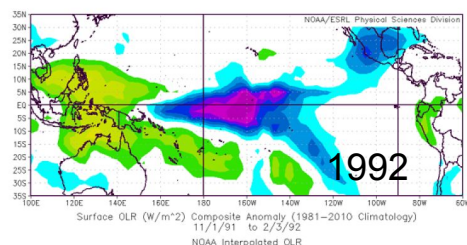
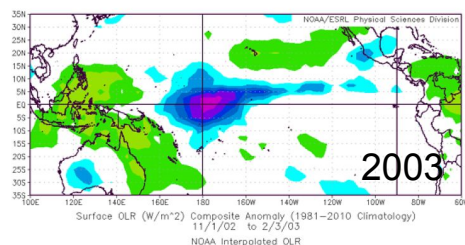
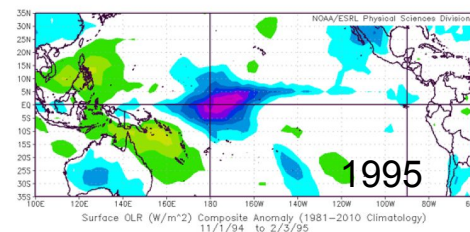
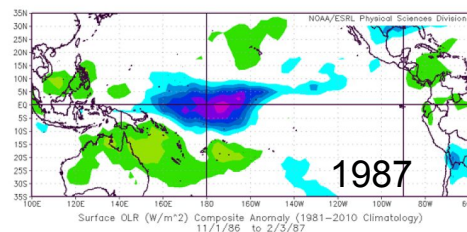
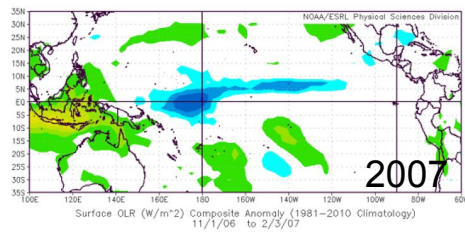
Zonal Mean U Feb 15 - Apr 30 Climo



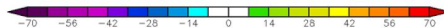
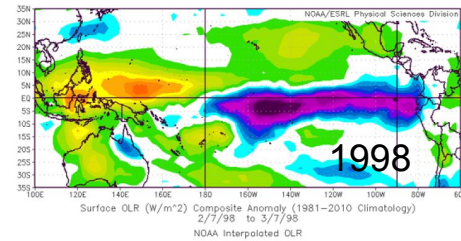
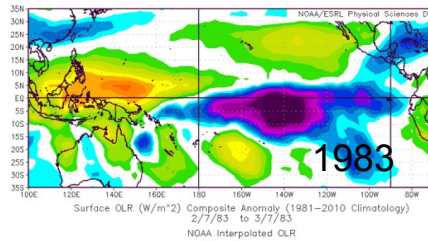
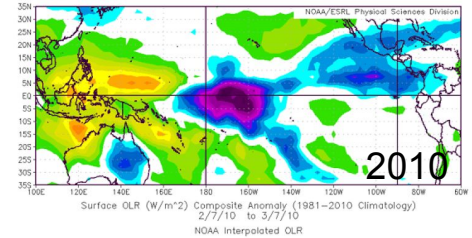
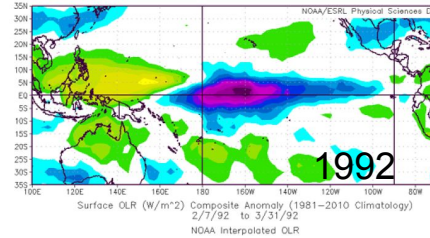
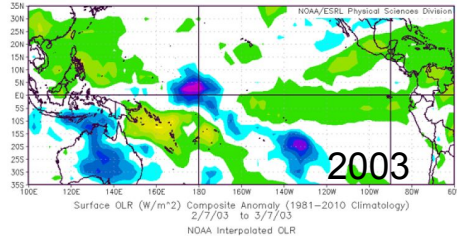
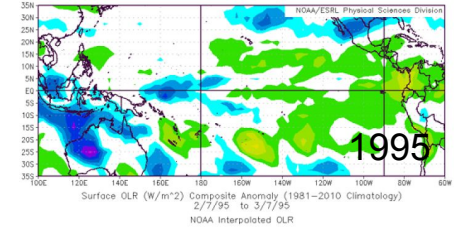
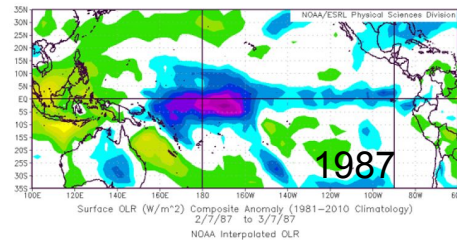
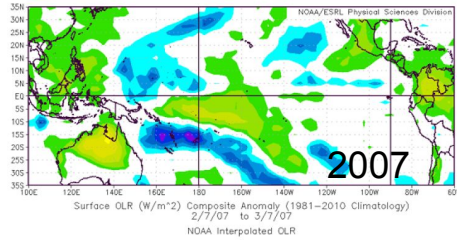


1992NGEP/NGAR Reanalysis 0E to 357.5E
Zonal Wind (m/s) Composite Anomaly (1981–2010 Climatology)**1983**NGEP/NGAR Reanalysis 0E to 357.5E
Zonal Wind (m/s) Composite Anomaly (1981–2010 Climatology)**1998**NGEP/NGAR Reanalysis 0E to 357.5E
Zonal Wind (m/s) Composite Anomaly (1981–2010 Climatology)

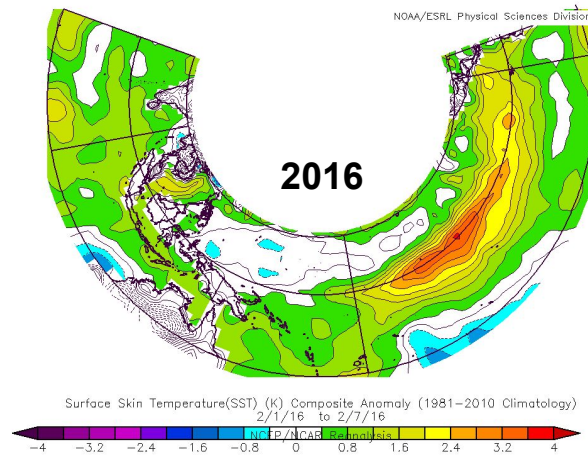
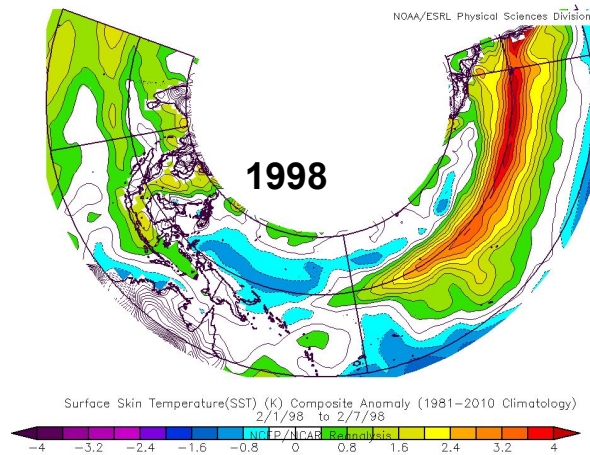
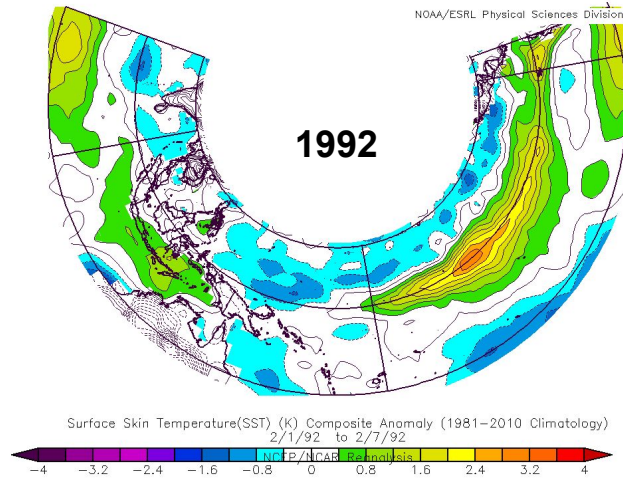
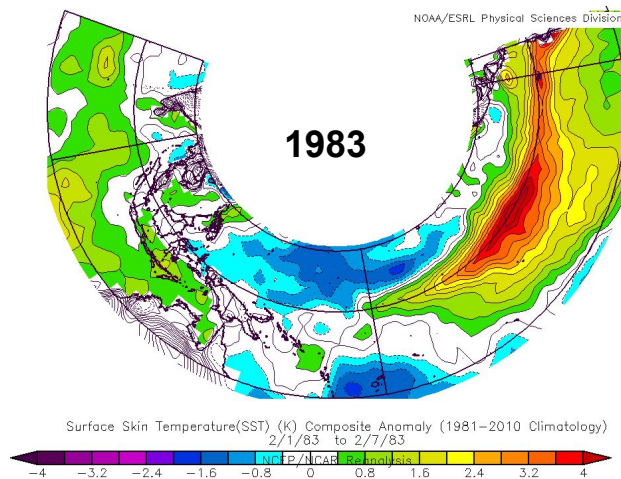
Observed OLR Anomalies : 1 Nov - 3 Feb

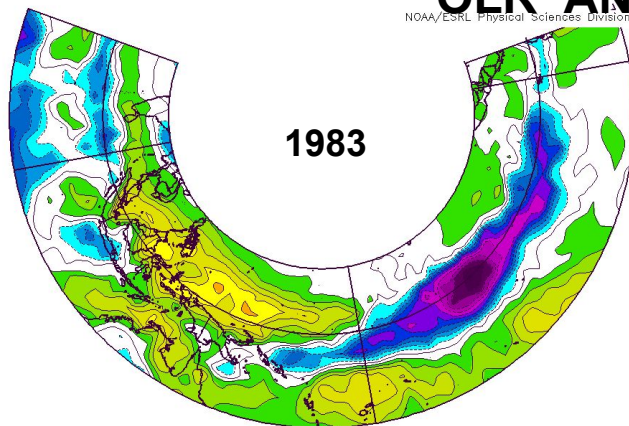


Observed OLR Anomalies : 7 Feb - 7 Mar



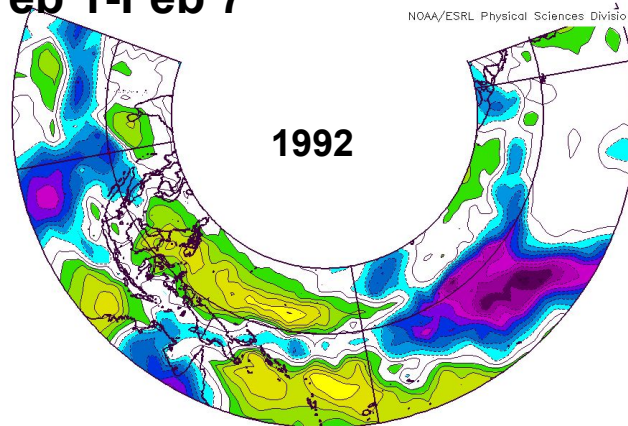
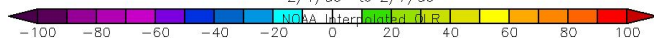
SST ANOM Feb 1-Feb 7





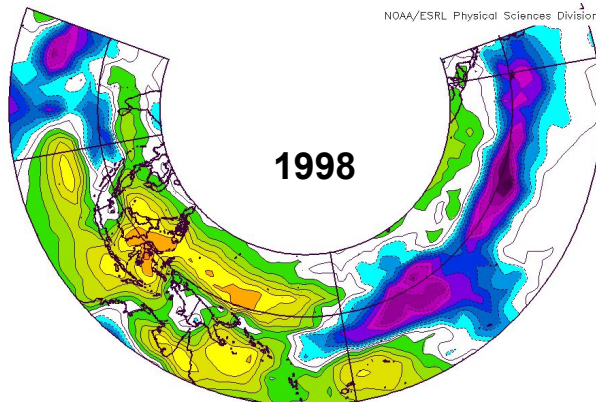
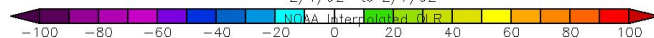
1983

Surface OLR (W/m^2) Composite Anomaly (1981–2010 Climatology)
2/1/83 to 2/7/83



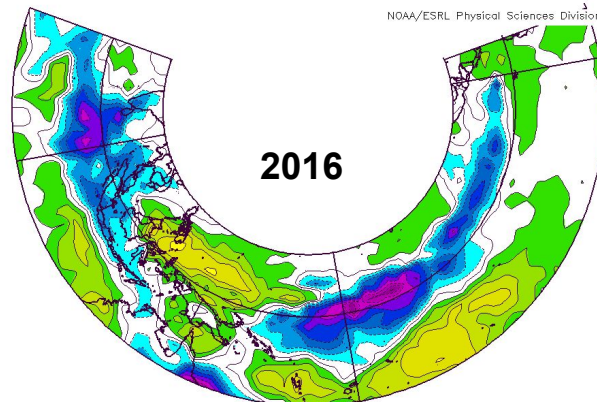
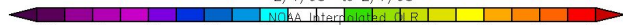
1992

Surface OLR (W/m^2) Composite Anomaly (1981–2010 Climatology)
2/1/92 to 2/7/92



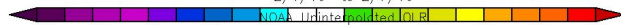
1998

Surface OLR (W/m^2) Composite Anomaly (1981–2010 Climatology)
2/1/98 to 2/7/98



2016

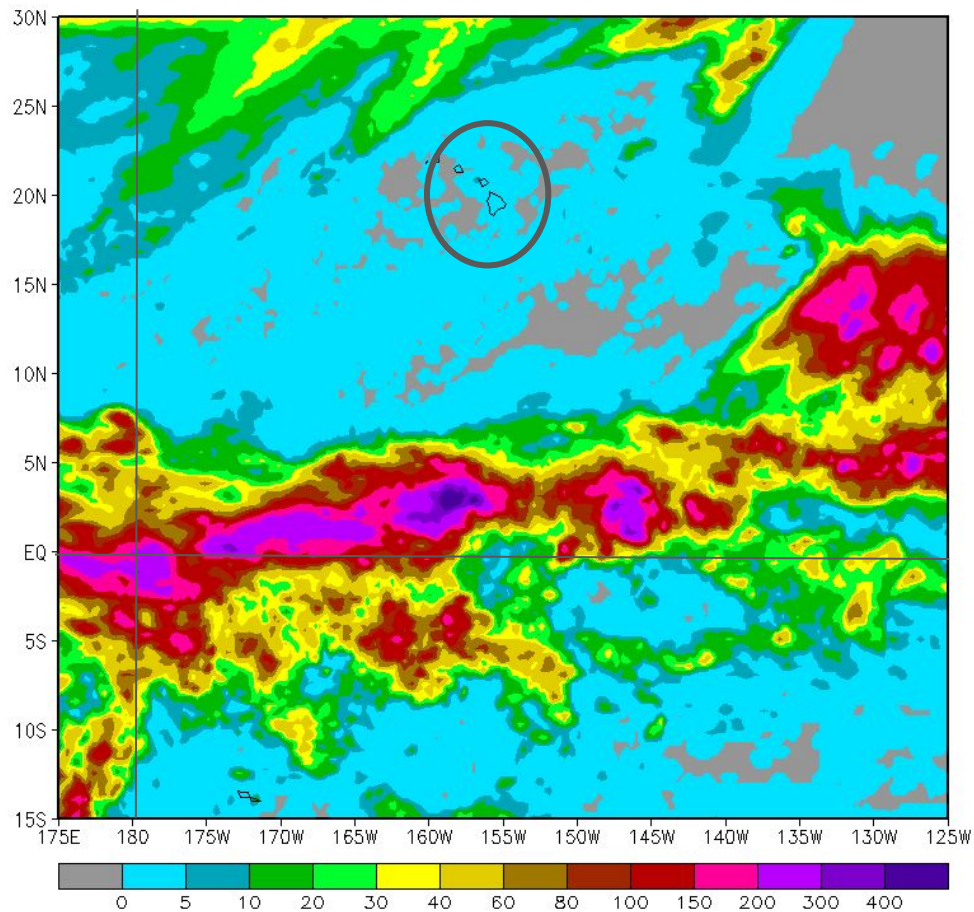
Surface OLR (W/m^2) Composite Anomaly (1981–2010 Climatology)
2/1/16 to 2/7/16



CMORPH 7-day Rainfall Accumulation (mm)
(08Feb2016 12Z - 15Feb2016 12Z)

CMORPH: 7-Day

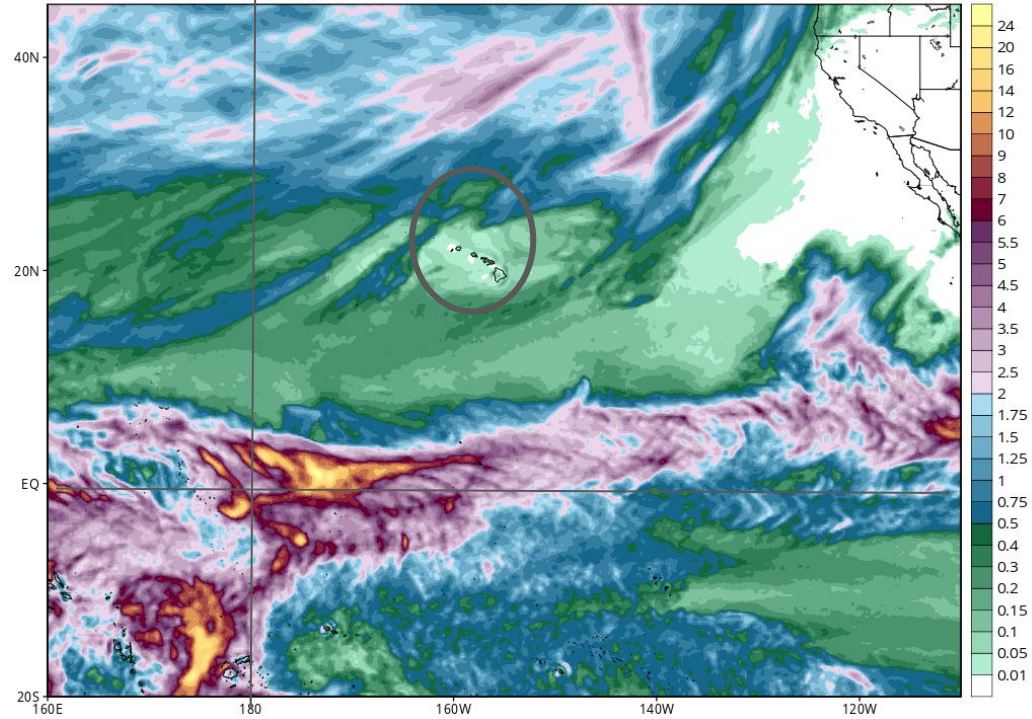
8 - 15 Feb



GFS Total Accumulated Precipitation (inches) from 06z08Feb2016 to 00z15Feb2016

Init: 06z Feb 08 2016 Forecast Hour: [162] valid at 00z Mon, Feb 15 2016

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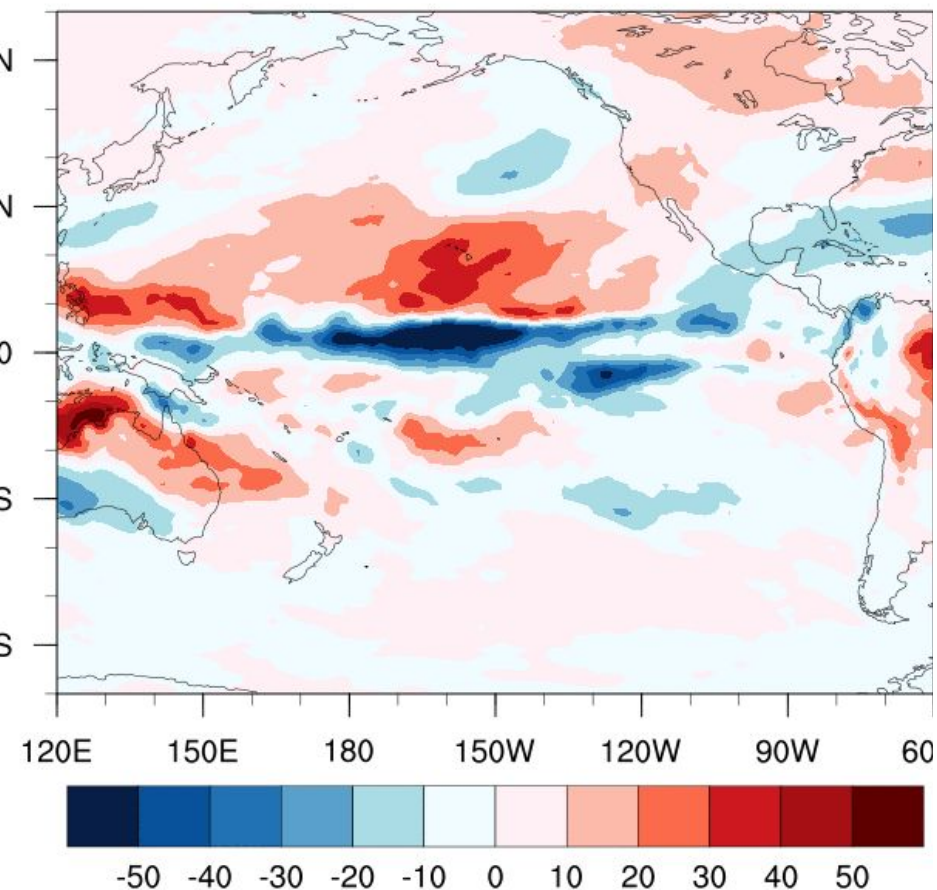
Initial Condition Dependency of the El Niño Signal

Day 23-30 Comparison (Analyzed SST - Climo SST)

OLR

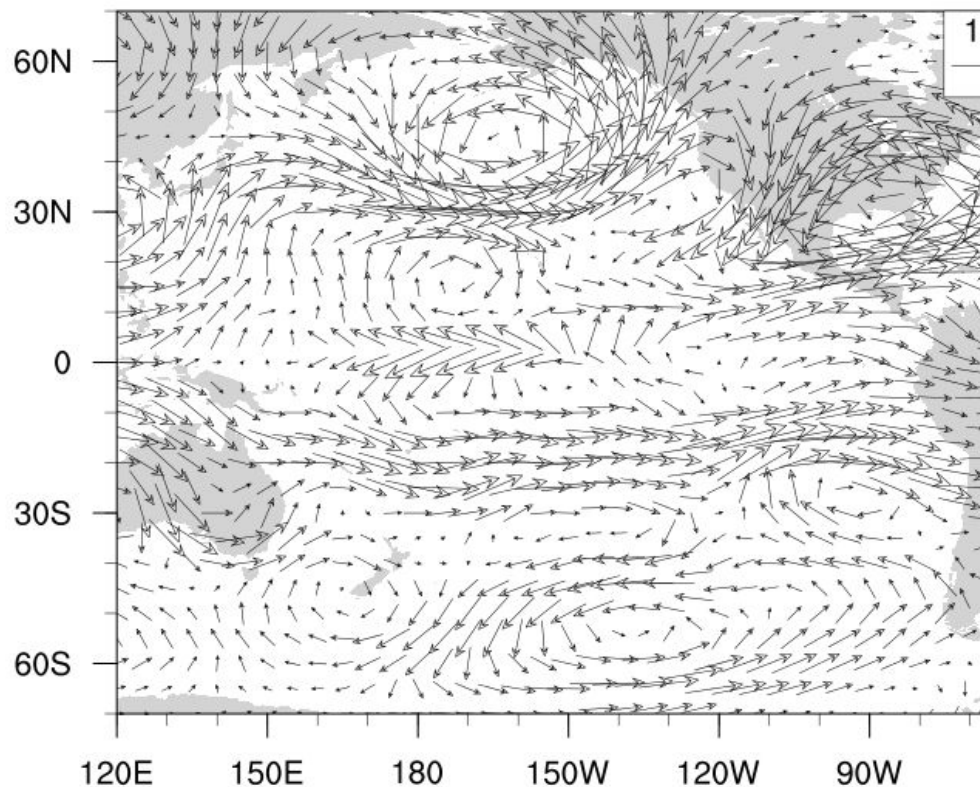
2016/02/21-2016/02/29

W m-2



Day 23-30 Comparison (Analyzed SST - Climo SST)

200 hPa Wind Vectors 2016/02/21-2016/02/29

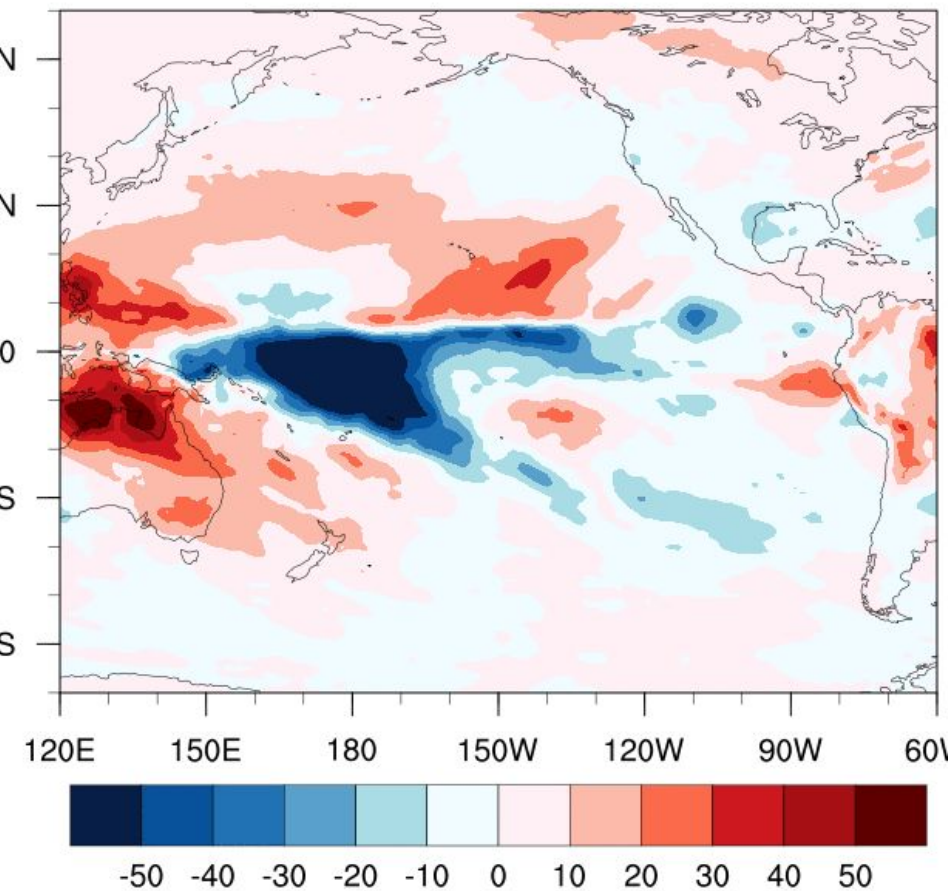


Day 15-22 Comparison (Analyzed SST - Climo SST)

OLR

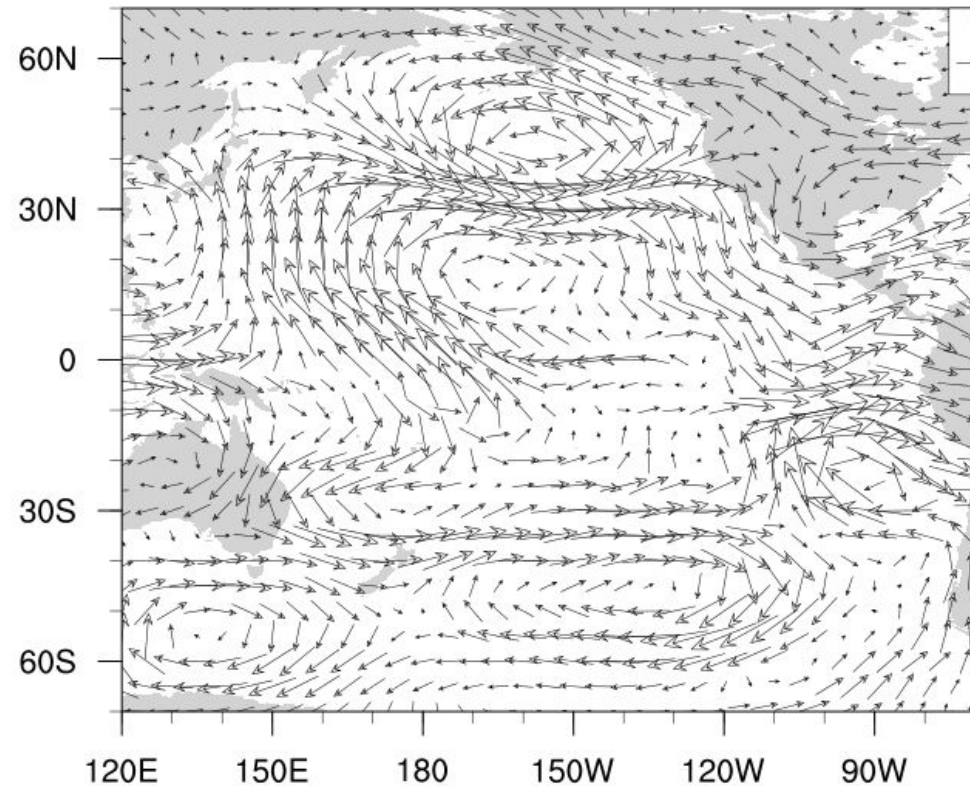
2016/02/21-2016/02/29

W m-2



Day 15-22 Comparison (Analyzed SST - Climo SS

200 hPa Wind Vectors 2016/02/21-2016/02/29

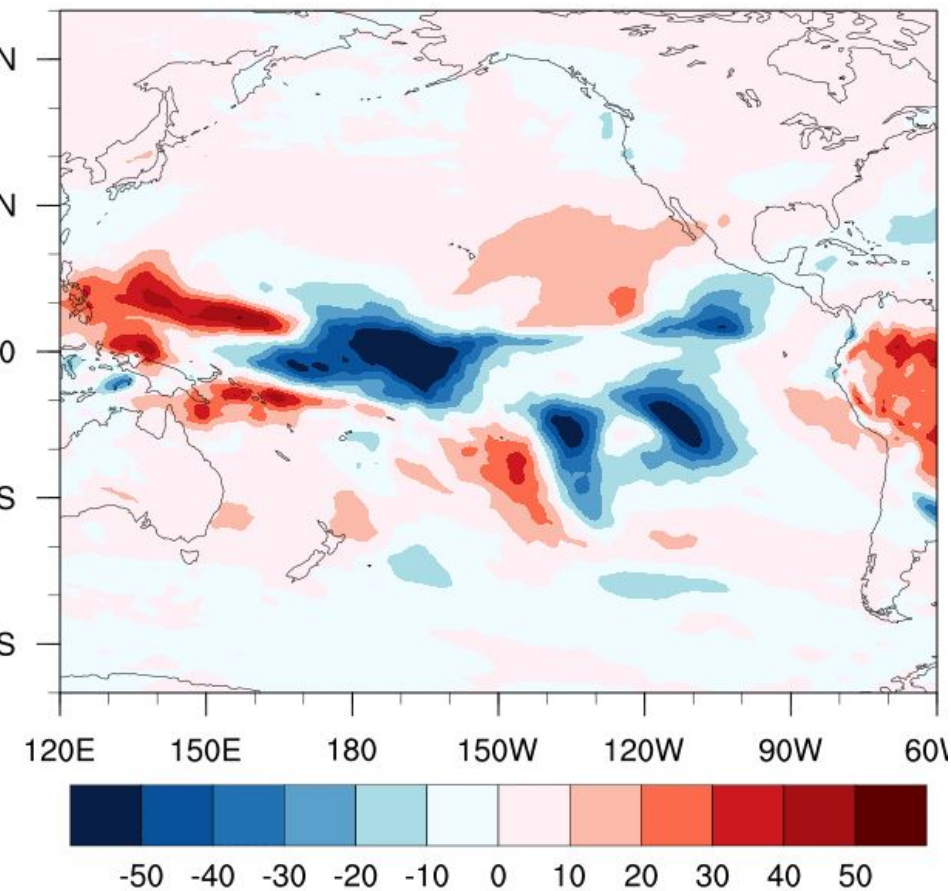


Day 8-14 Comparison (Analyzed SST - Climo SST)

OLR

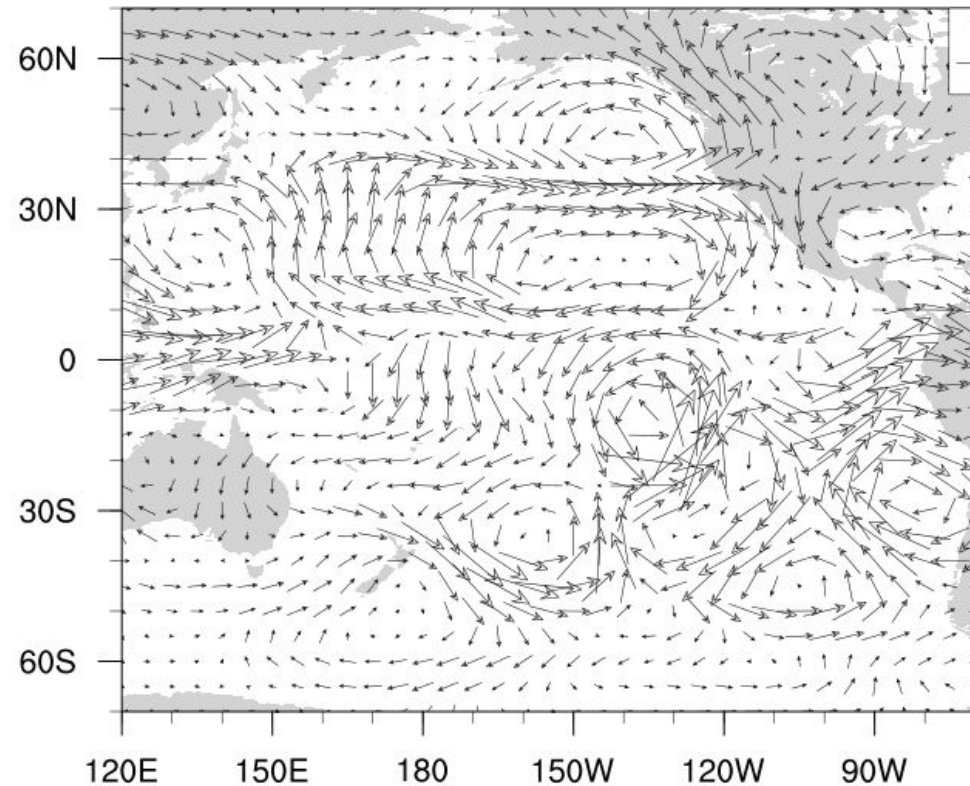
2016/02/22-2016/02/29

W m⁻²



Day 8-14 Comparison (Analyzed SST - Climo SST)

200 hPa Wind Vectors 2016/02/22-2016/02/29

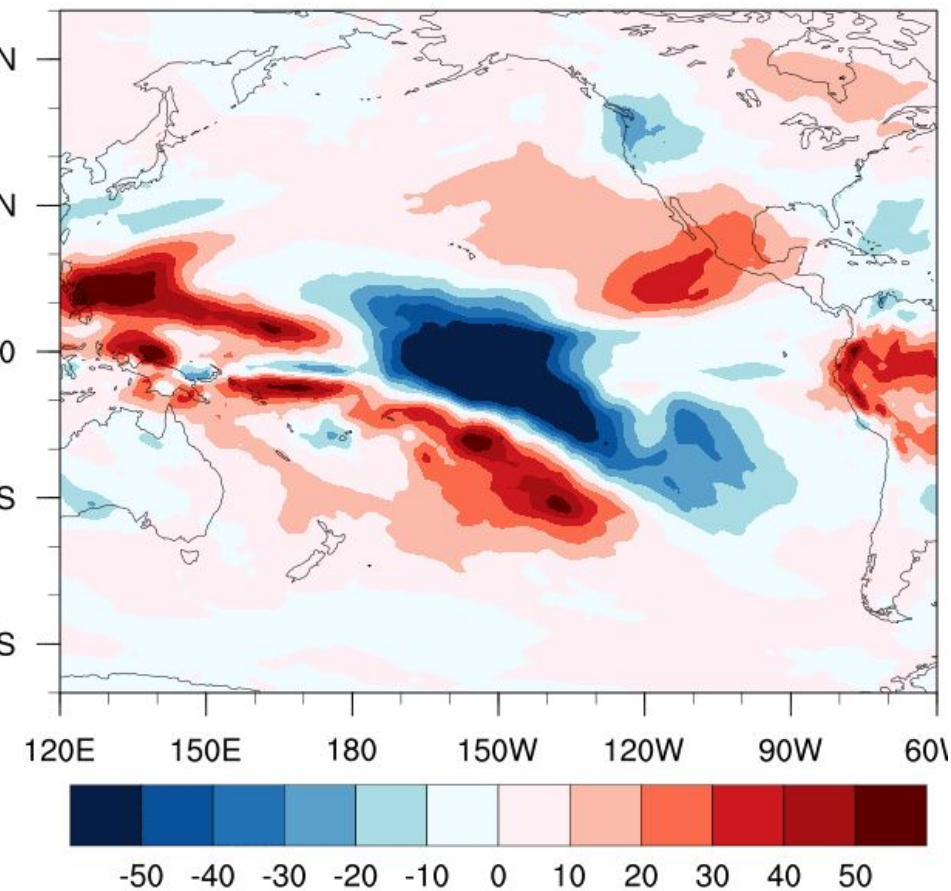


Day 15-22 Comparison (Analyzed SST - Climo SST)

OLR

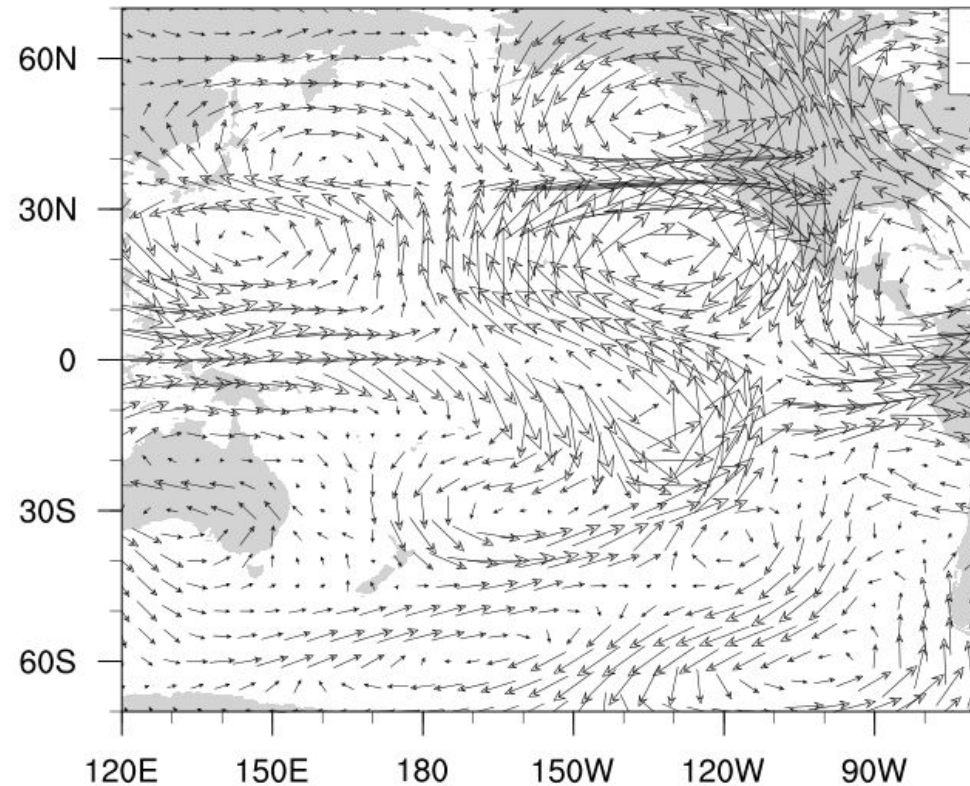
2016/02/29-2016/03/08

W m⁻²



Day 15-22 Comparison (Analyzed SST - Climo SS

200 hPa Wind Vectors 2016/02/29-2016/03/08

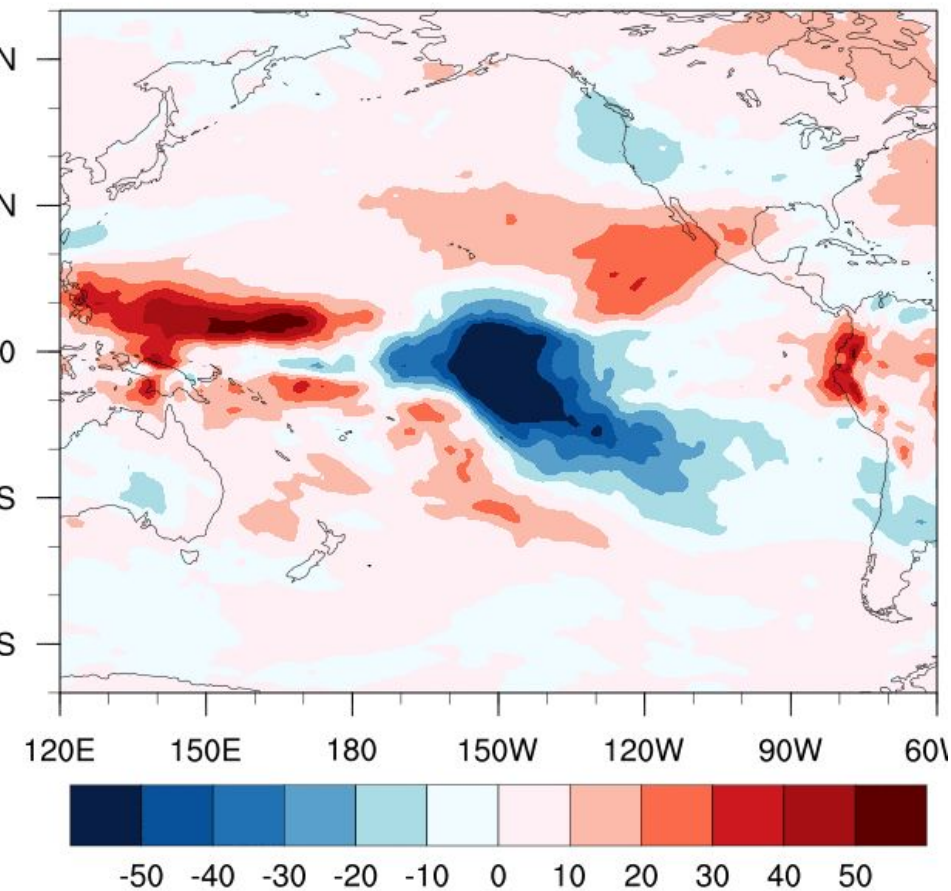


Day 23-30 Comparison (Analyzed SST - Climo SST)

OLR

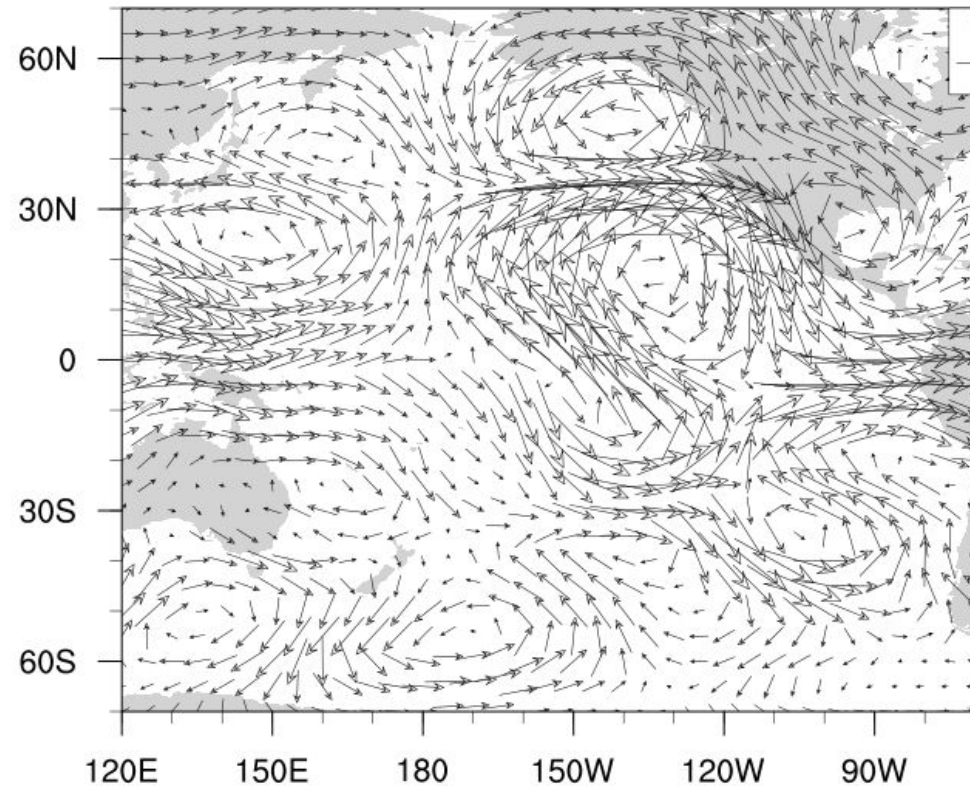
2016/03/08-2016/03/16

W m-2



Day 23-30 Comparison (Analyzed SST - Climo SS

200 hPa Wind Vectors 2016/03/08-2016/03/16

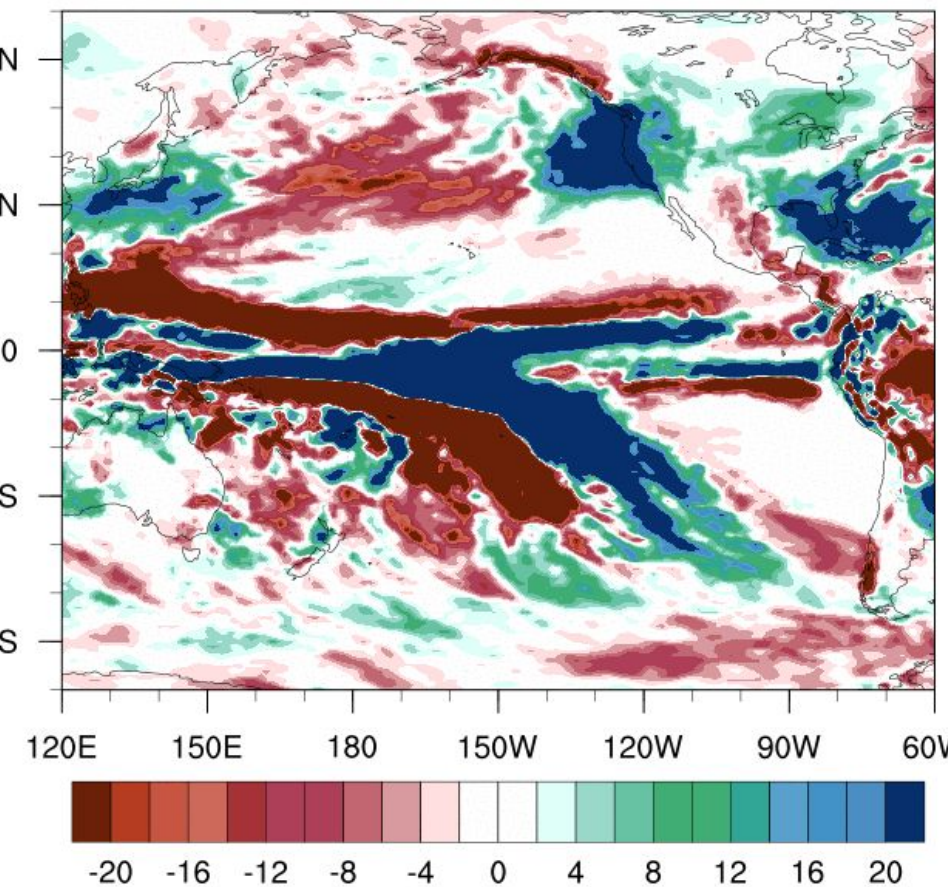


Day 15-22 Comparison (Analyzed SST - Climo SST)

Precipitation

2016/02/29-2016/03/08

mm



Day 23-30 Comparison (Analyzed SST - Climo SST)

Precipitation

2016/03/08-2016/03/16

mm

