

## **Summary of Key Briefing Points**

**1030-1130am MST WED February 10, 2016**

# Current Conditions as of WED 12Z-15Z February 10

## Tropics and Mid-latitudes

### *Over the Tropical Pacific:*

- Convection: Active convection in the SW region of FD 170W-156W, 0-5N, today
- Slight westward drift of convective elements
- Satellite upper level winds show 30-50kt W winds across the east portion of FD today, to EQ
- Upper Div outflow most evident in N and W quadrant of convection region this morning

# Tropical Outlook

- GFS and EC broadly consistent in indicating most likely precipitation in the 0-10N to be in SW portion of FD Thursday/Fri
- Subtropical convection associated with cutoff low to develop Sat 15N, 125W

# Midlatitude Conditions/Outlook

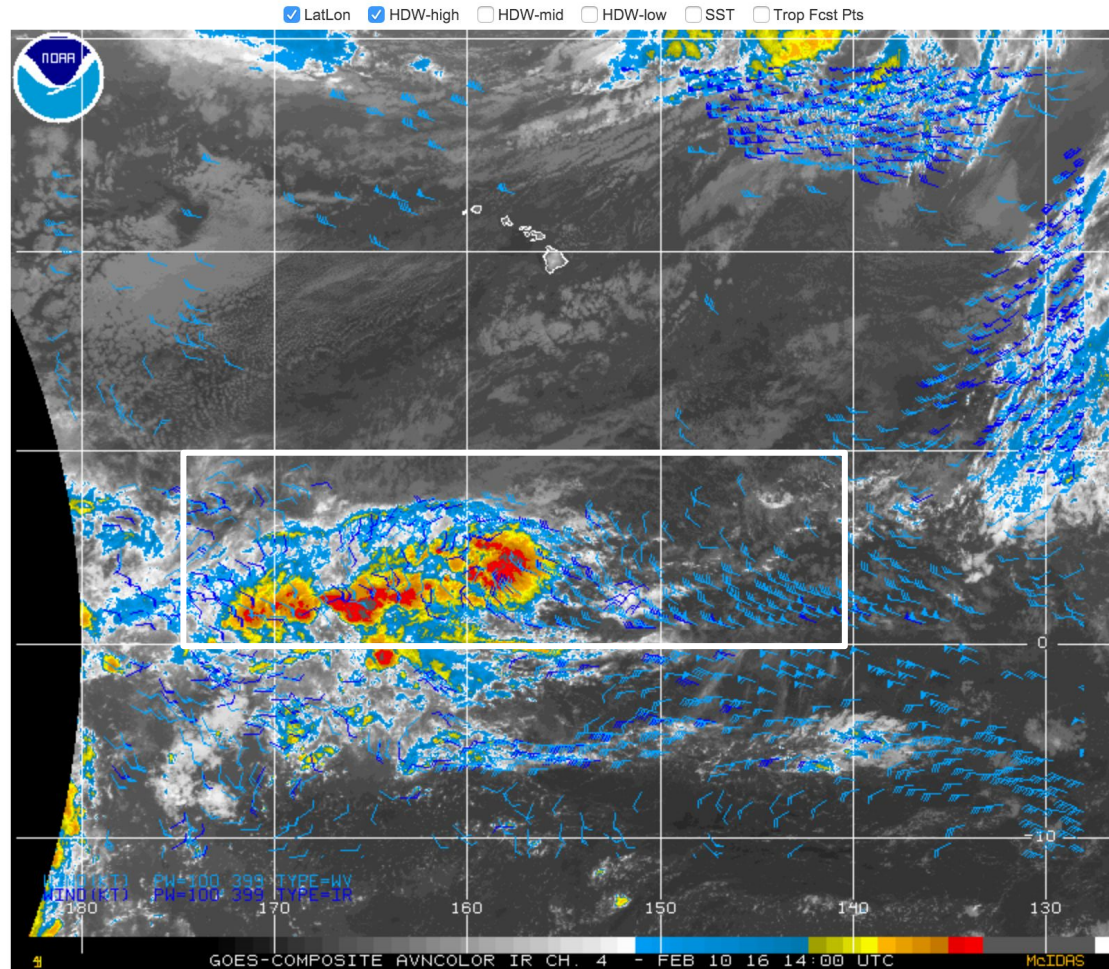
## Short Term:

- CA to be mostly quiet for this week.

## Medium - Long Term:

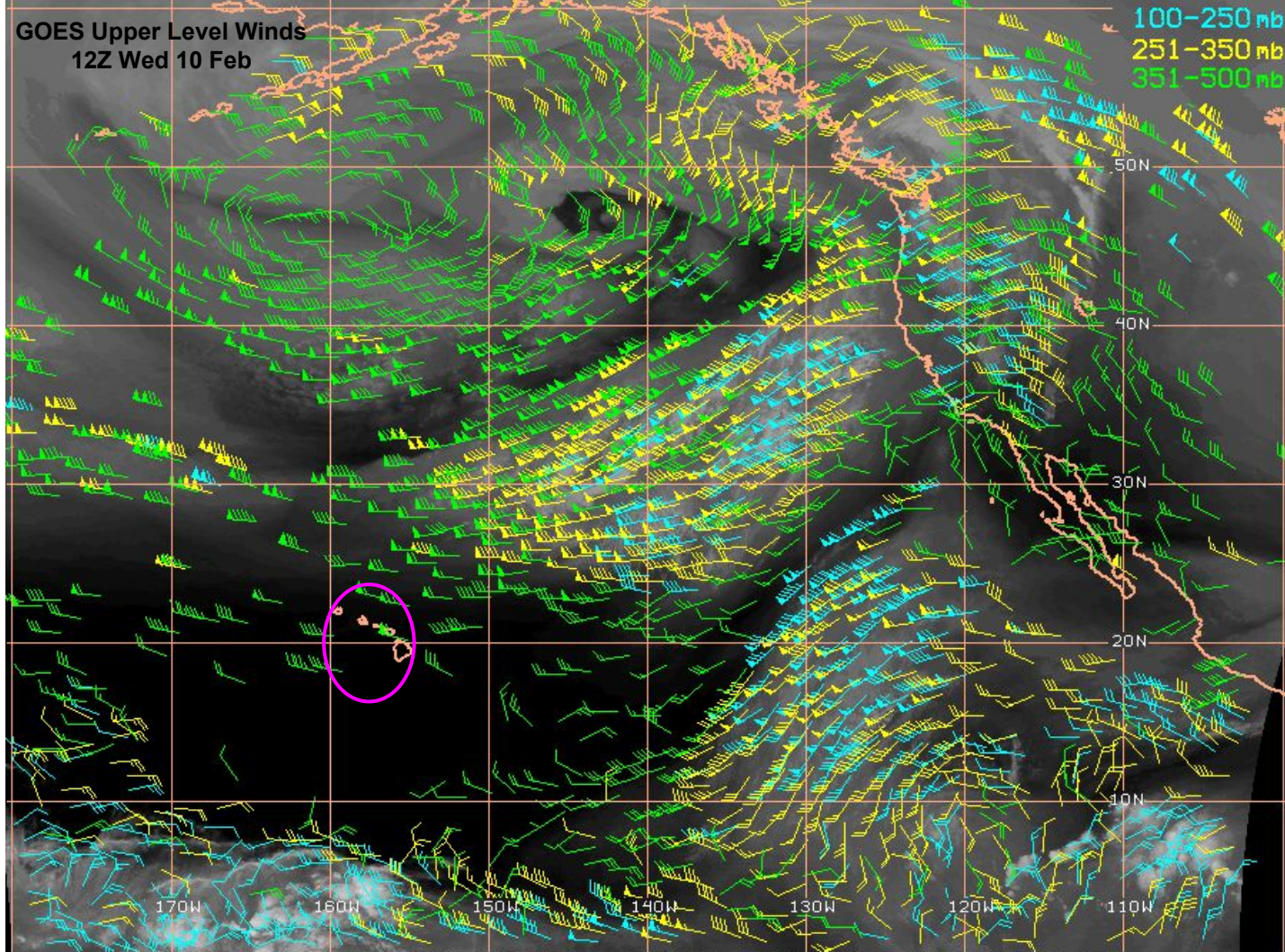
- Day 0-7 accumulated pcpr for CA shows little pcpr
- EC model indicates rains returning to NSierra, Days8-10

# GOES Composite - El Niño Support – AVN Color Infrared Loop



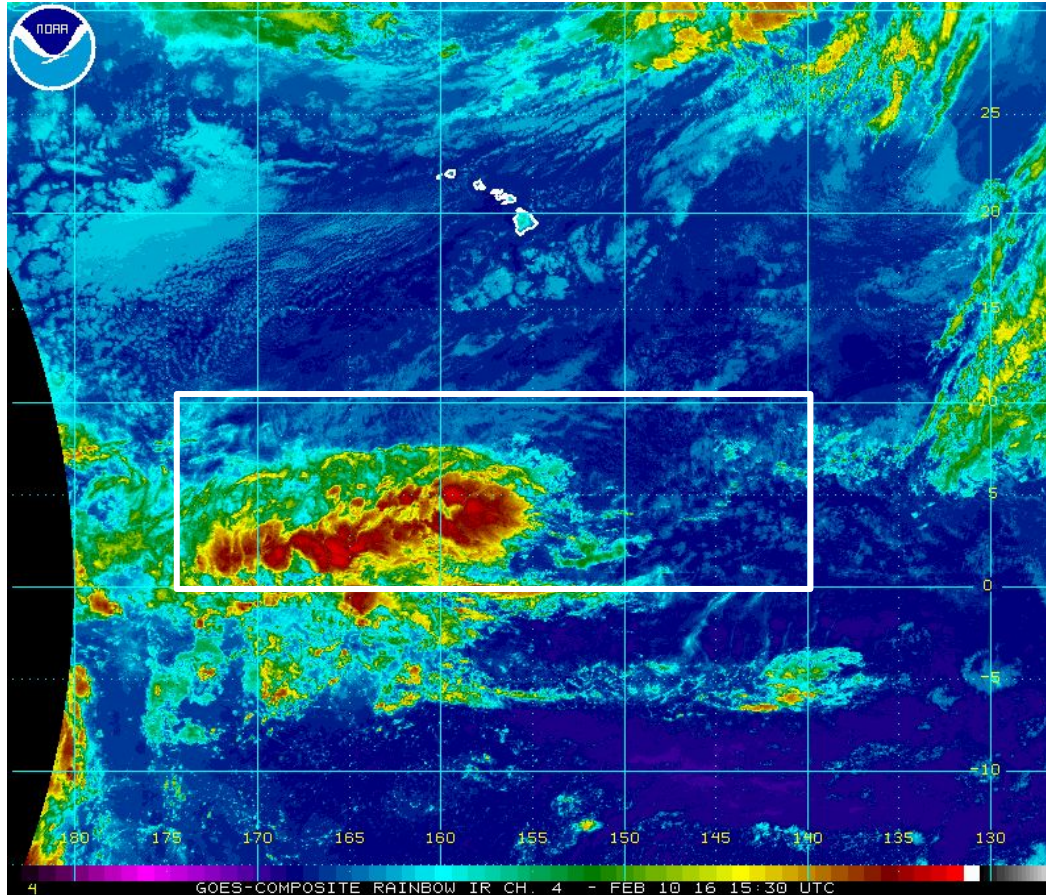
GOES Upper Level Winds  
12Z Wed 10 Feb

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

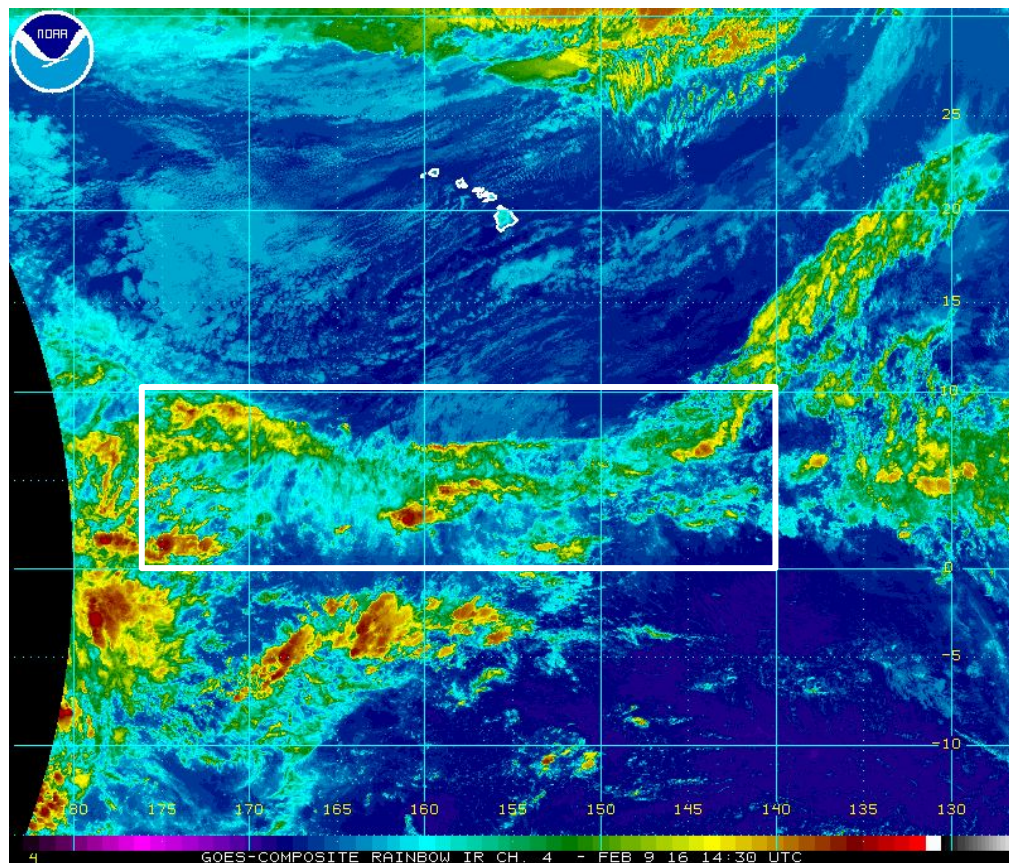


GOES-WEST MID-UPPER LEVEL WINDS 1200 UTC 10FEB16 UW-CIMSS/NESDIS

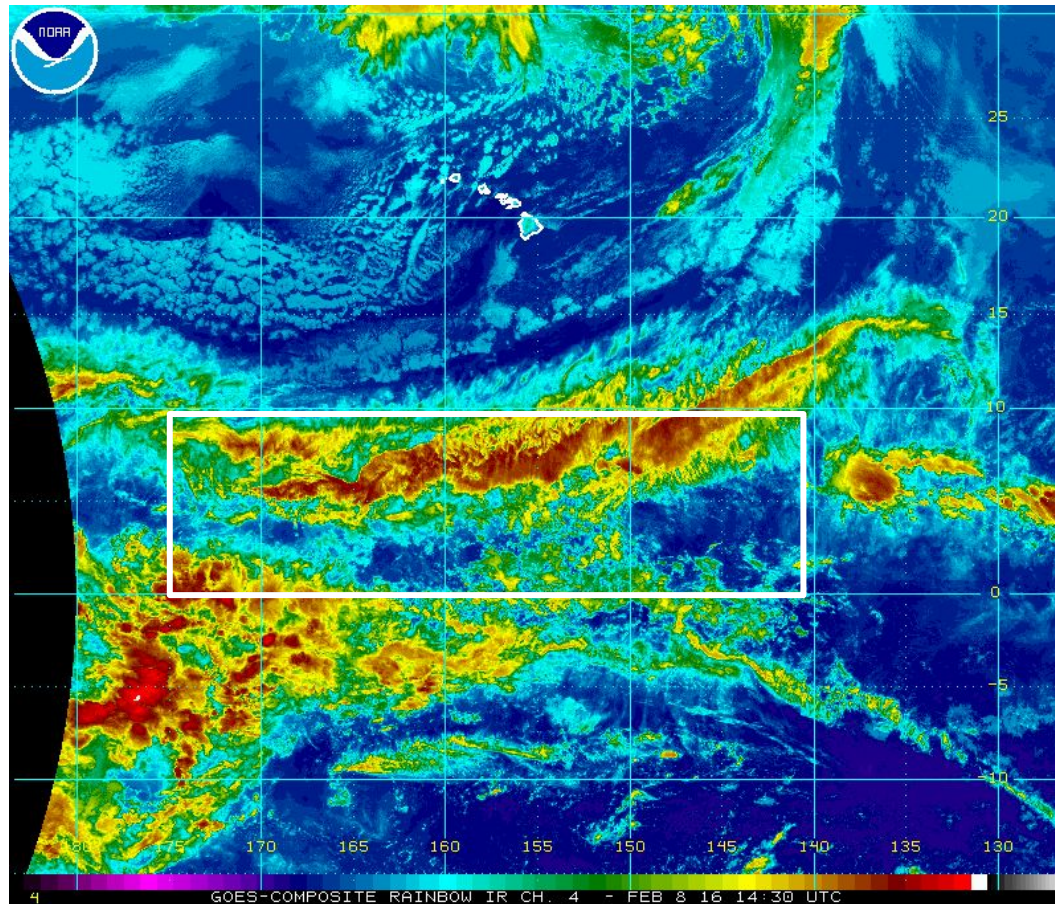
# WED 15:30Z February 10 Enhanced IR Image



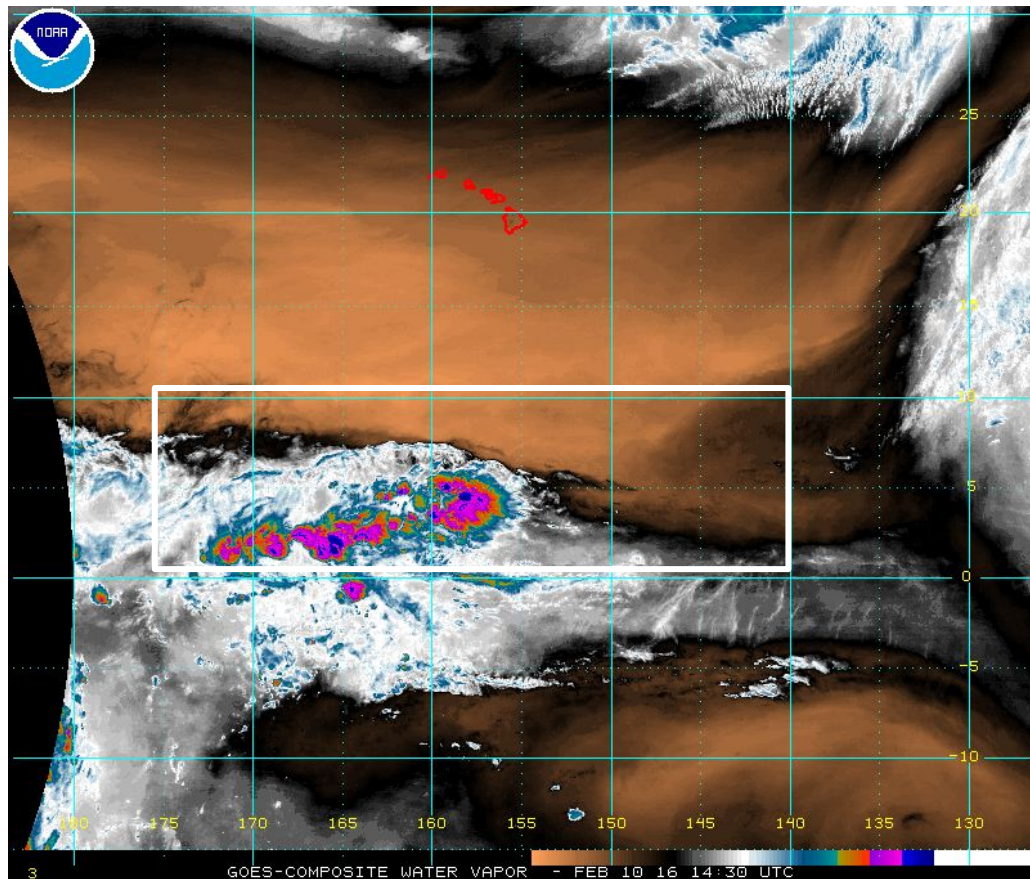
## TUE 14:30Z February 9 Enhanced IR Image



# MON 14:30Z February 8 Enhanced IR Image

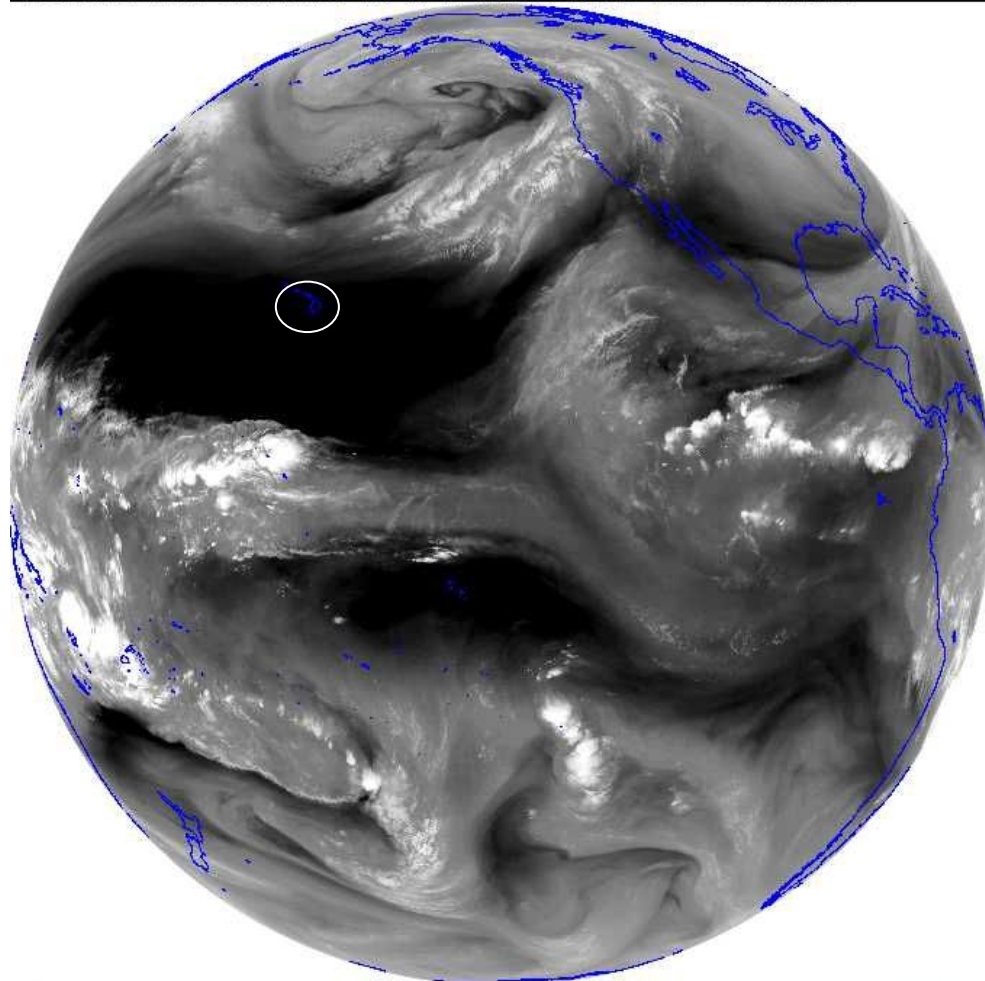


# WED 14:30Z February 10 Water Vapor



# WED 15Z February 10 GOES West Water Vapor Image

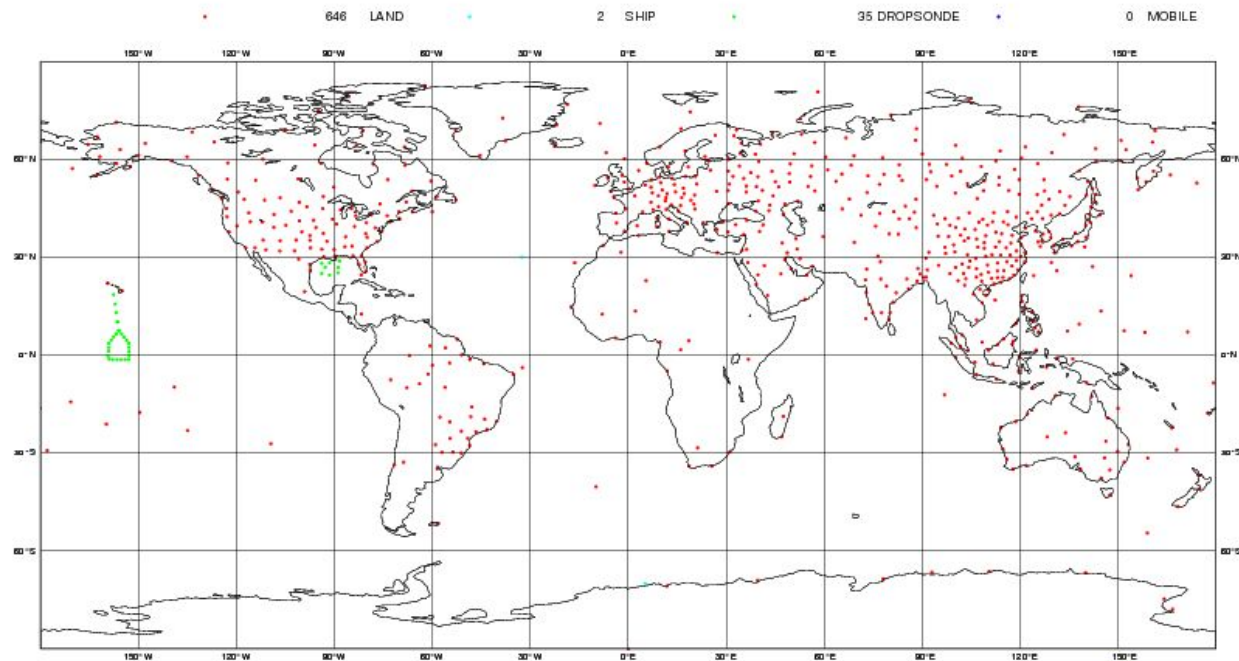
GOES WEST FULL DISK WATER VAPOR 10 FEB 16 15:00 SSEC: UW-MADISON

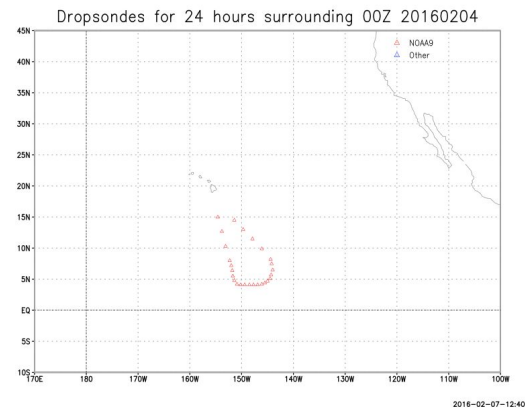
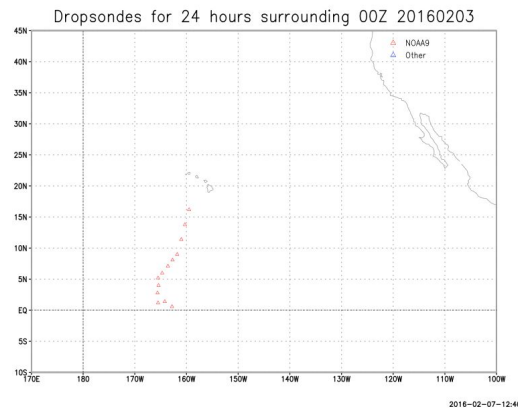
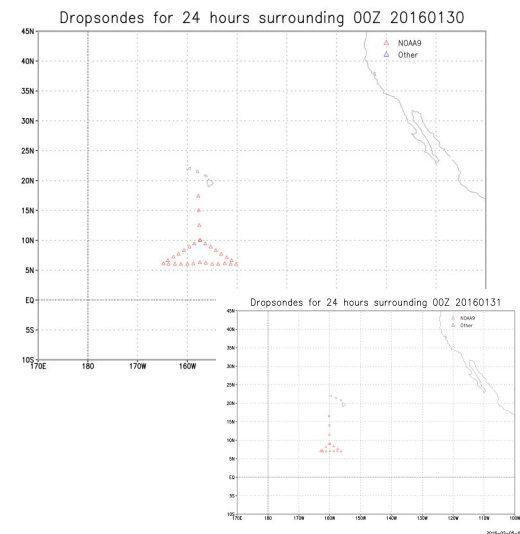
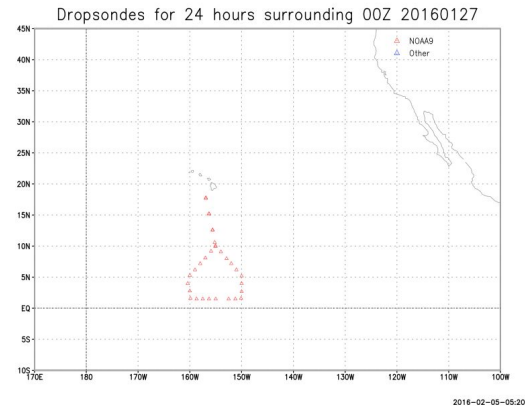
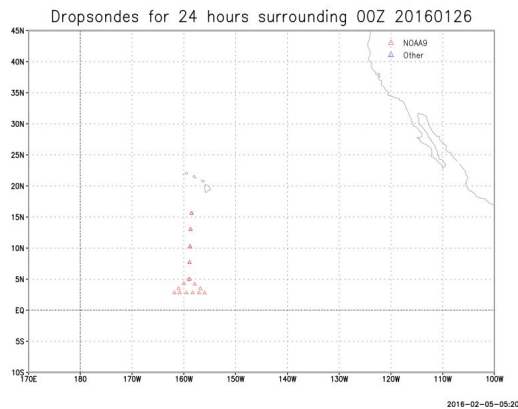
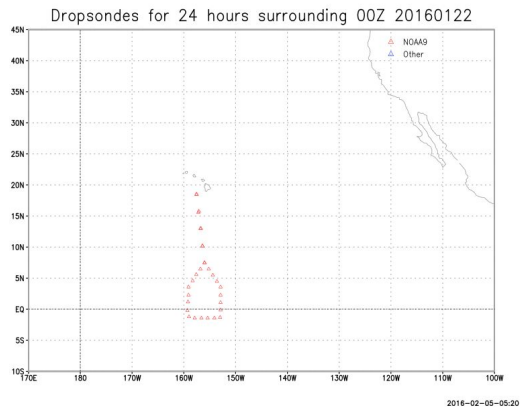


# ECMWF Data Coverage (All obs DA) - Temp

22/Jan/2016; 00 UTC

Total number of obs = 683

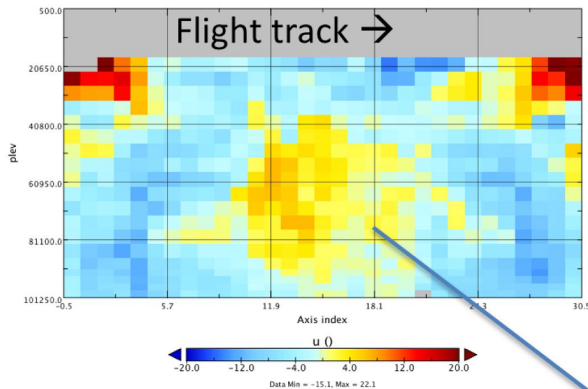




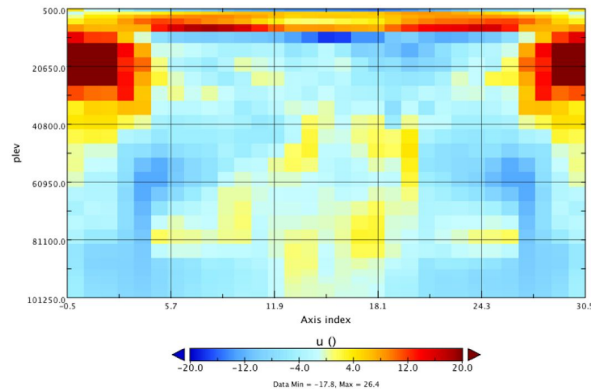
**G-IV Missions: Dropsonde Input to NOAA Global Analysis**

# U- Wind Flight 01 21 JAN 2016

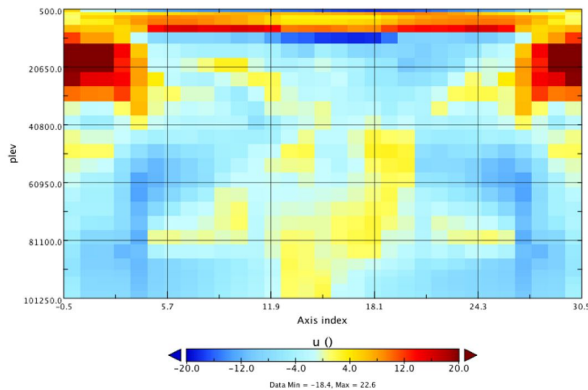
## Dropsondes on GFS Pressure levels



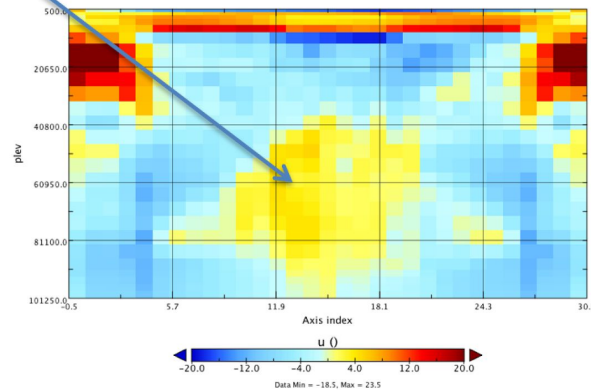
## GFS 20160121 18Z Analysis



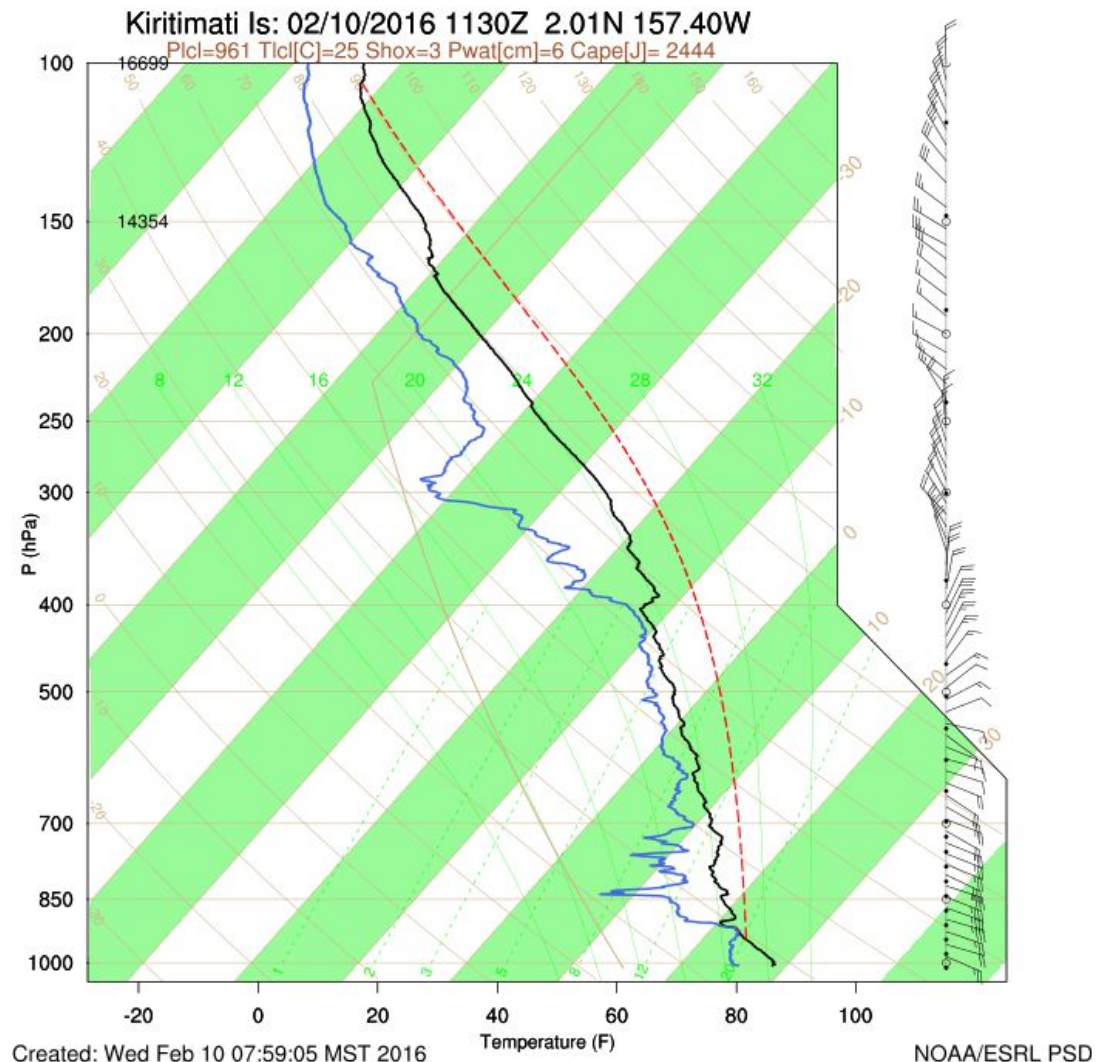
## GFS 20160121 18Z 6 hour forecast valid 20160122 00Z



## GFS 20160122 00Z Analysis

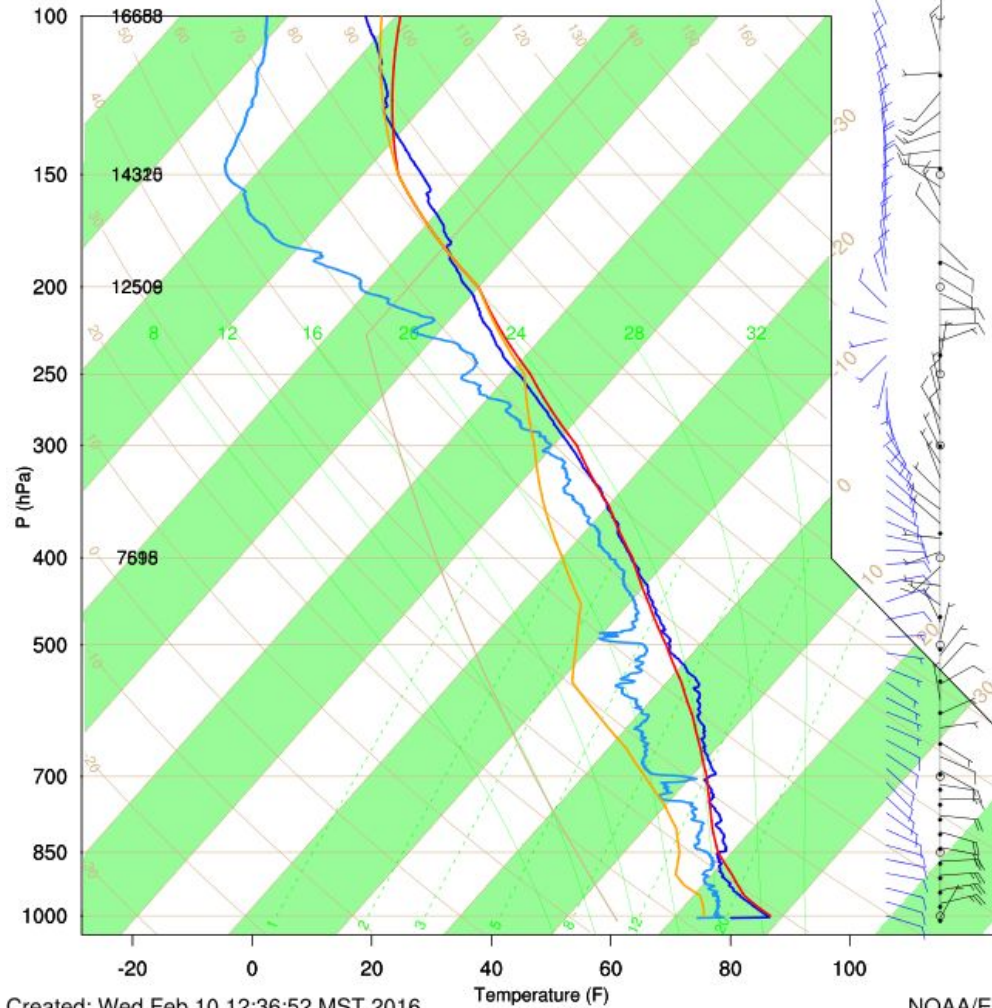


**Kiritimati Sonde: 1130Z**  
**WED Feb 10**



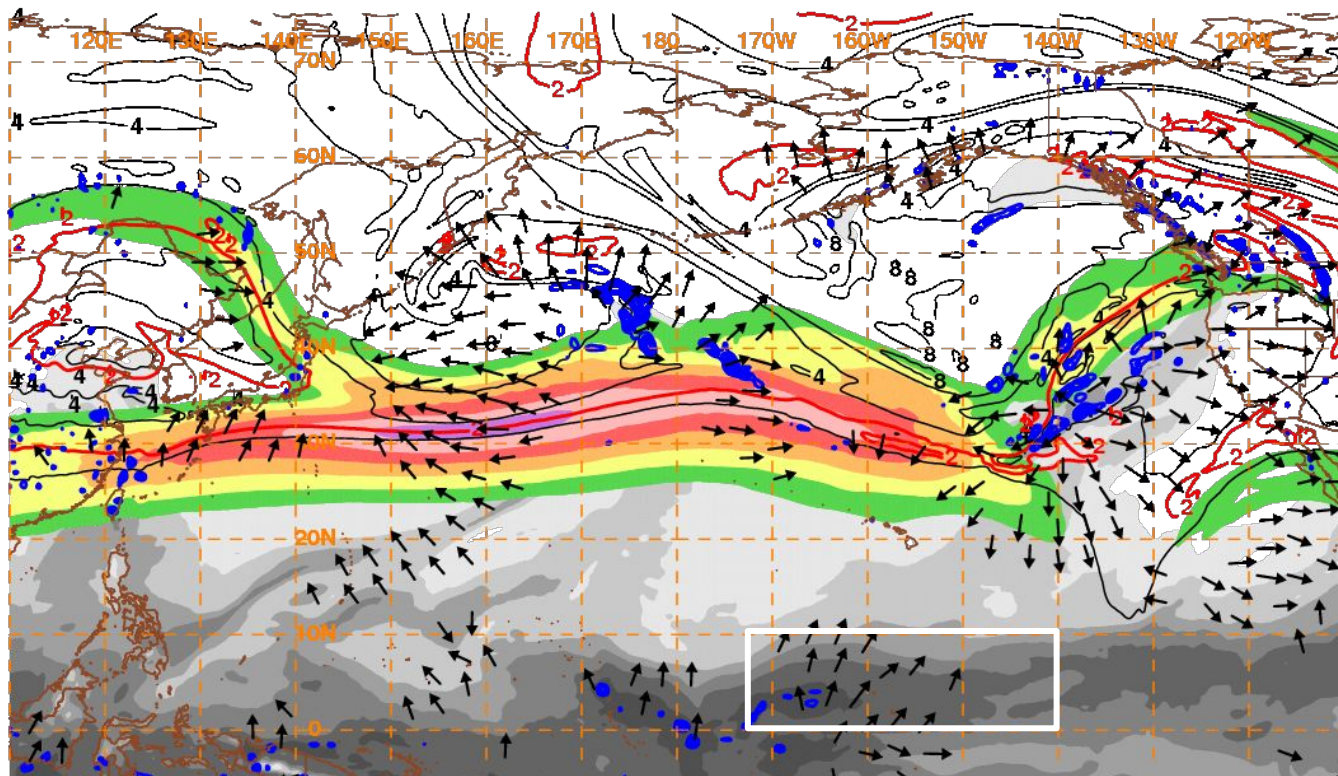
2/4 1116

# Preliminary GFS Analysis Assessment @ Kiritimati



NOAA/ESRL PSD

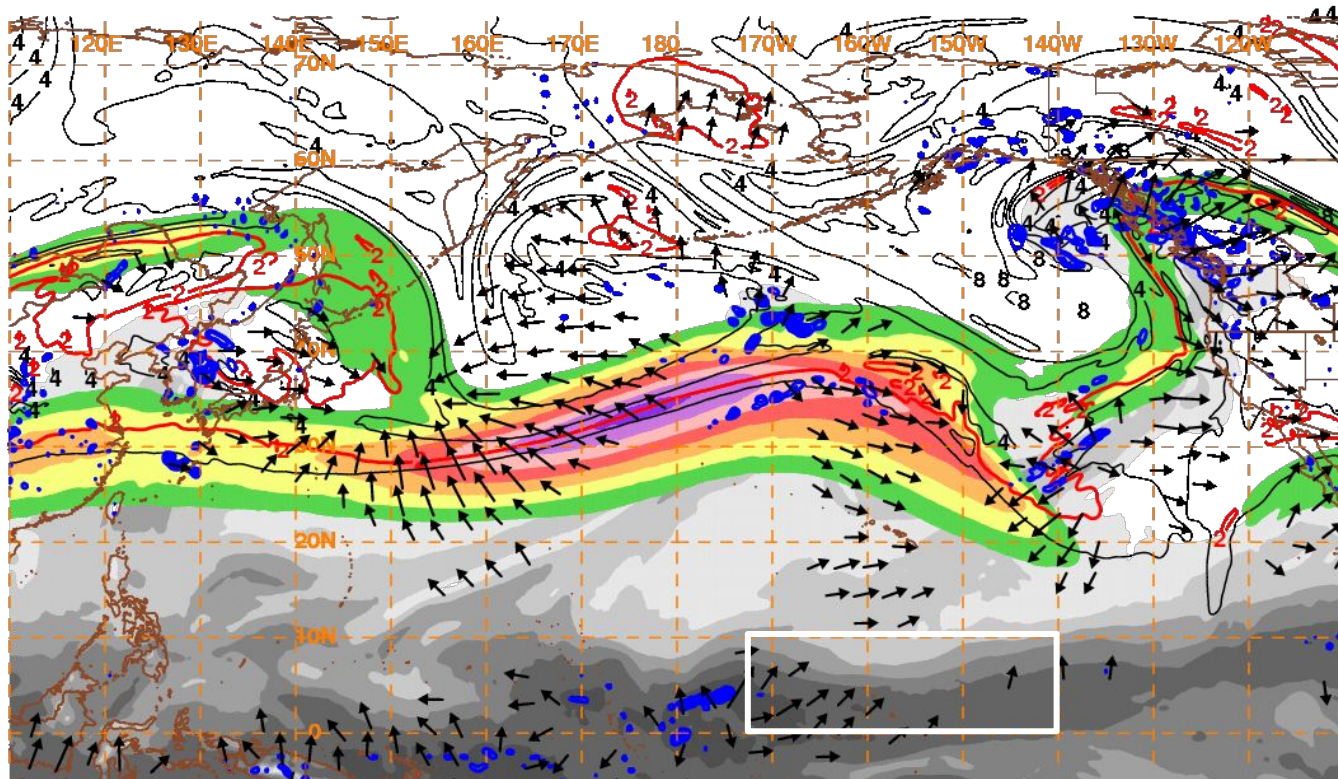
# GFS 18HR FCST Valid 00Z THU Feb 11: 200 mb DIV Wind Vectors



10 m/s → 160211/0000V018 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



# GFS 42HR FCST Valid 00Z FRI Feb 12: 200 mb DIV Wind Vectors

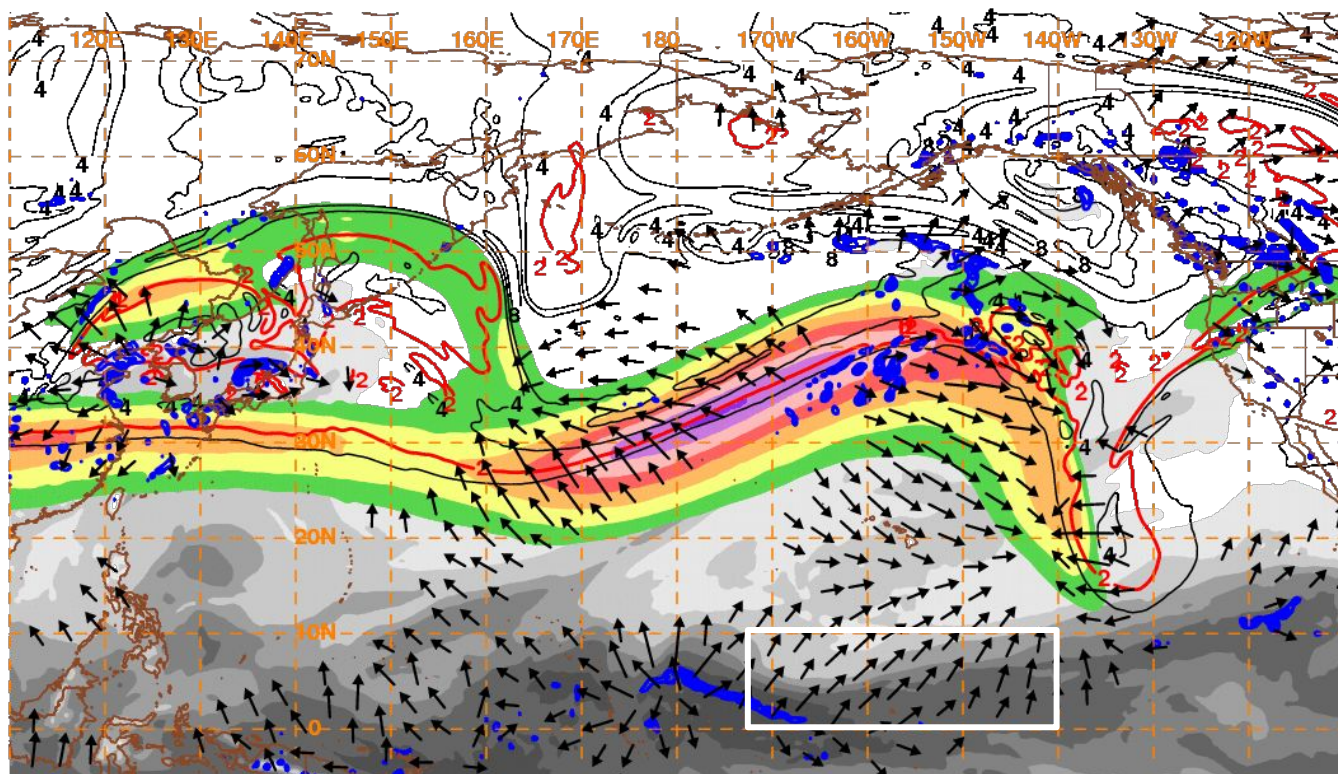


10 m/s → **160212/0000V042 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel**

40 50 60 70 80 90 100

15 25 35 45 55 65

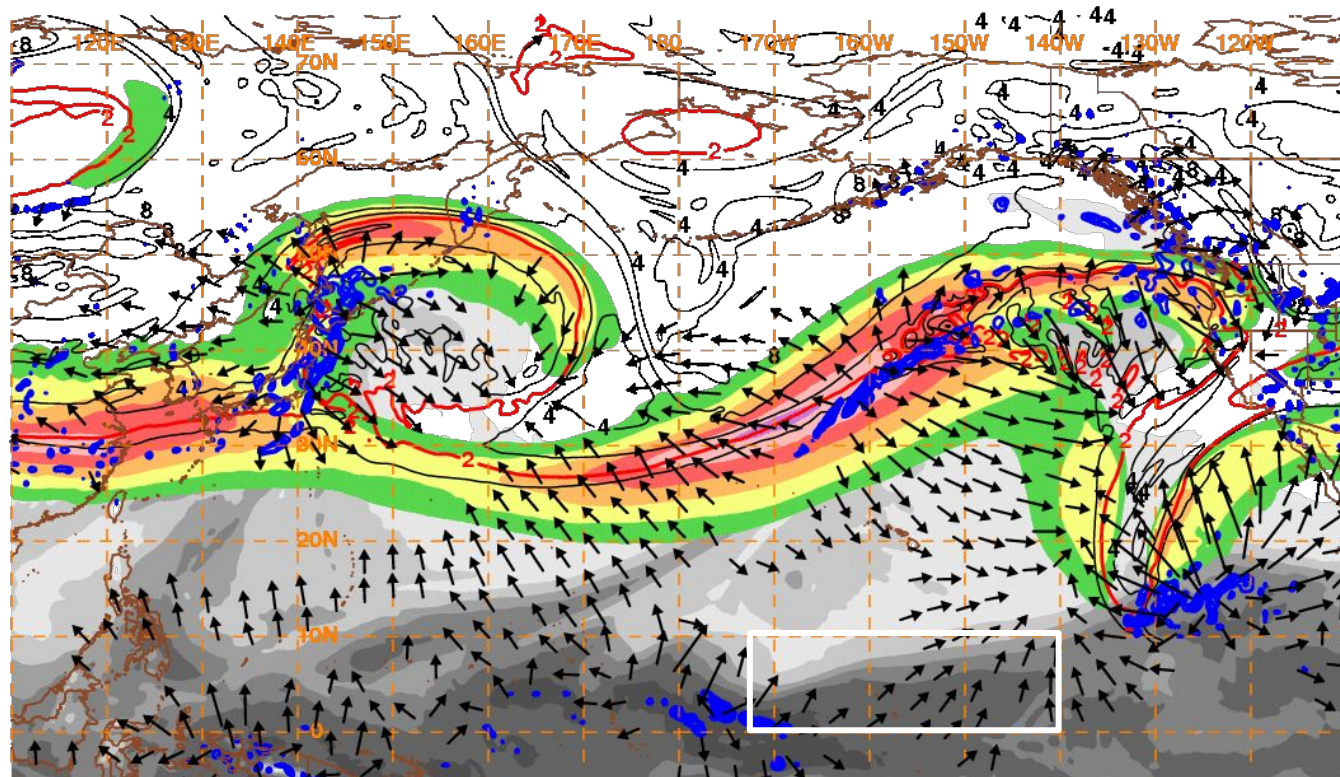
# GFS 66HR FCST Valid 00Z SAT Feb 13: 200 mb DIV Wind Vectors



10 m/s → 160213/0000V066 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



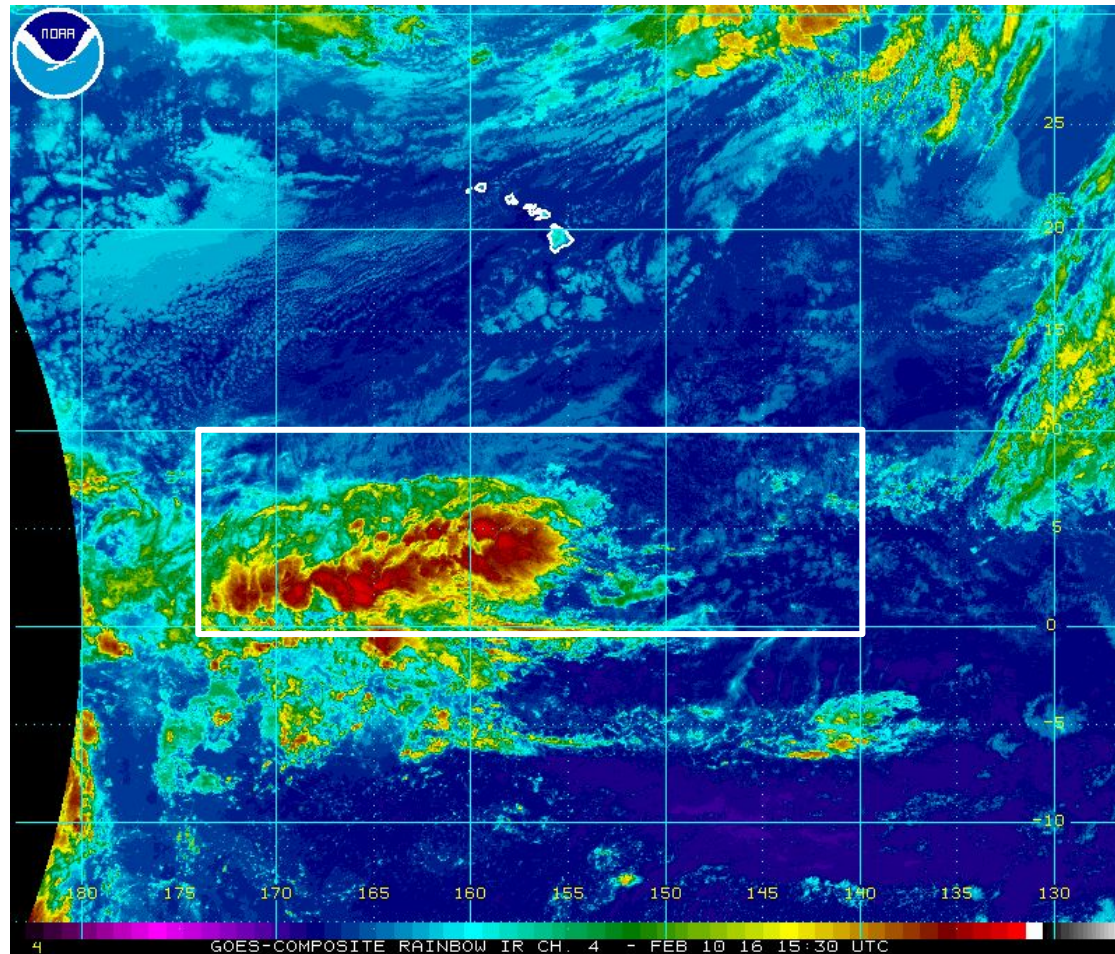
# GFS 90HR FCST Valid 00Z SUN Feb 14: 200 mb DIV Wind Vectors



10 m/s → 160214/0000V090 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



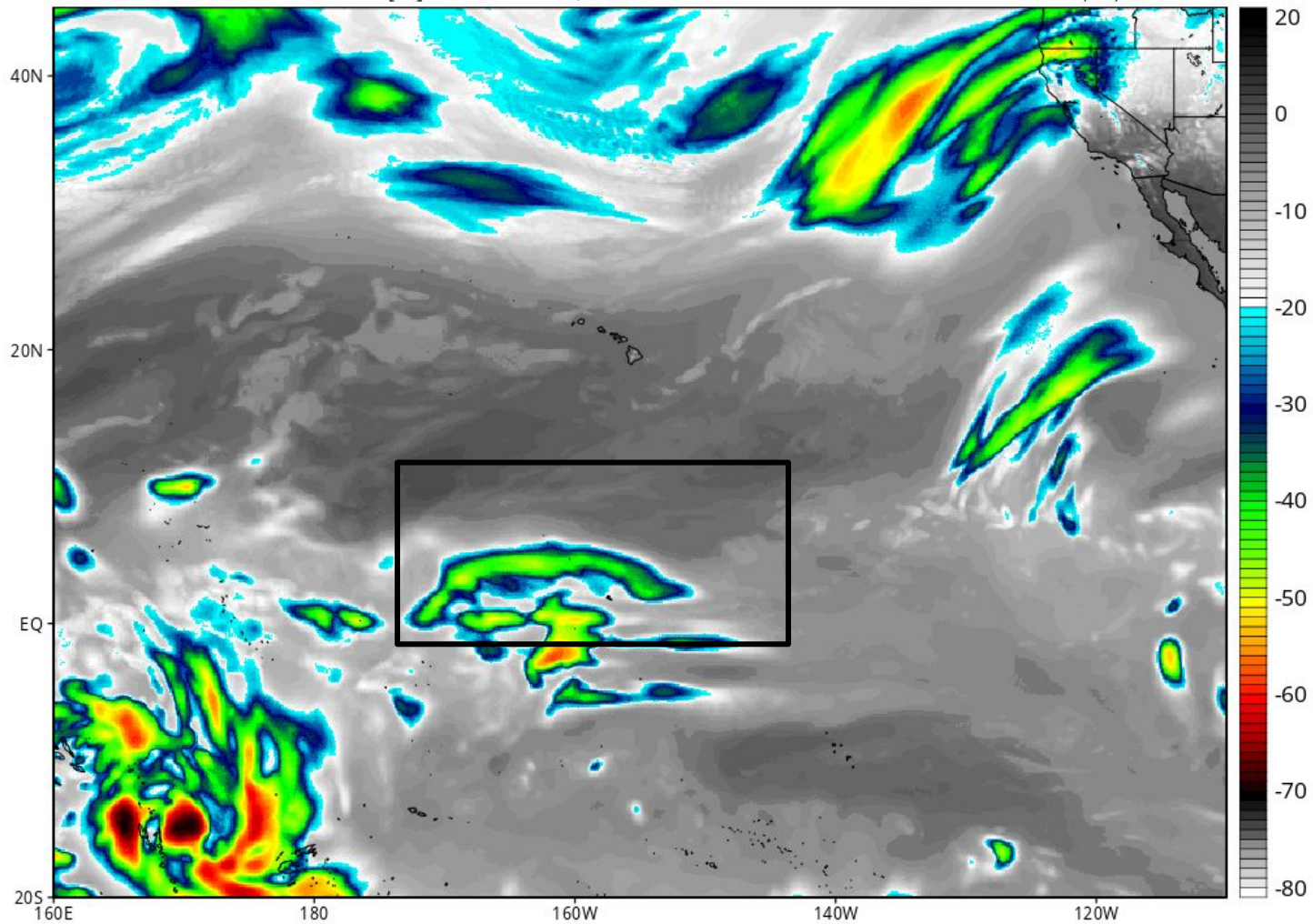
# WED 1530Z February 10 Enhanced IR Image



# GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 10 2016 Forecast Hour: [12] valid at 00z Thu, Feb 11 2016

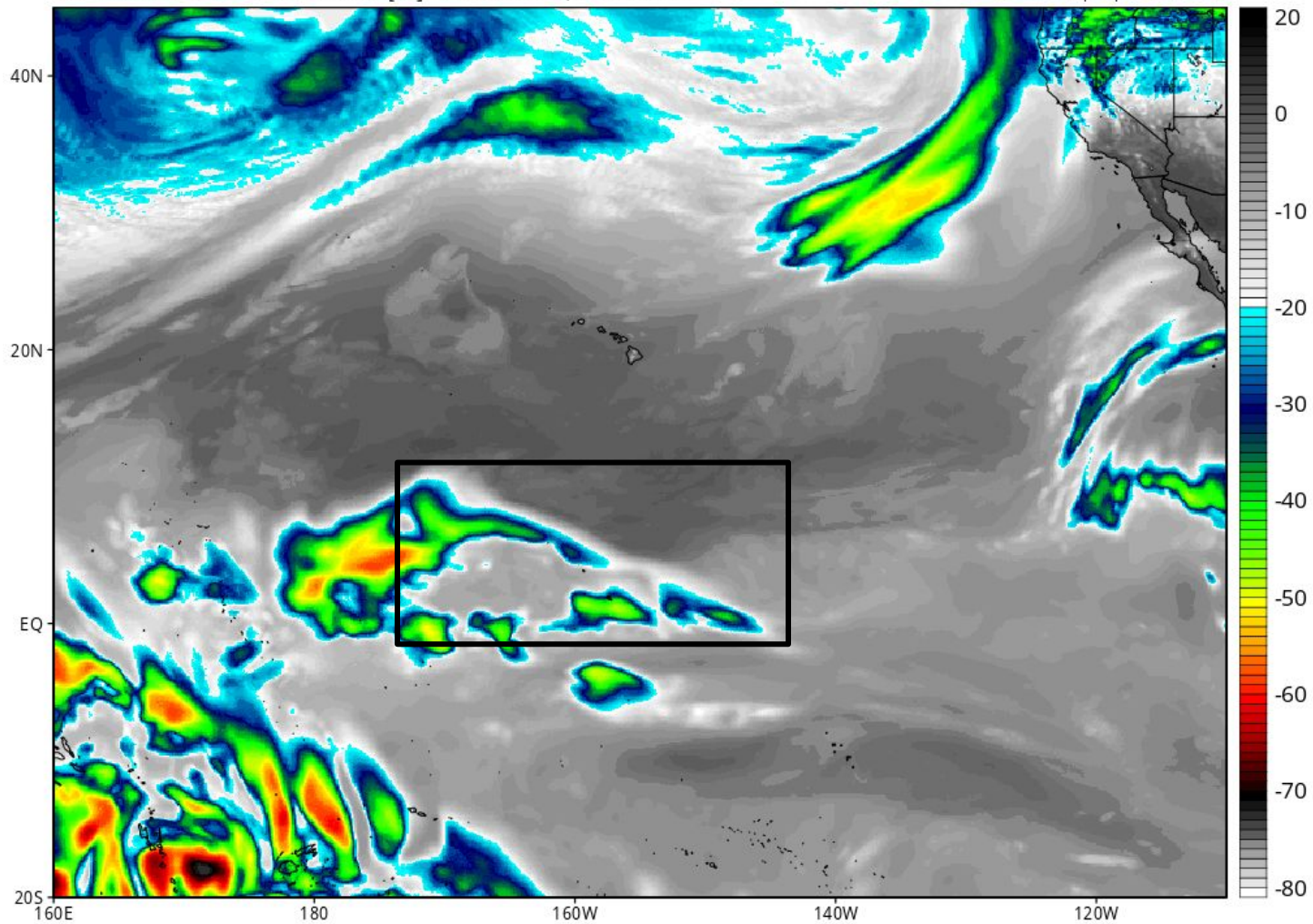
Levi Cowan | tropicaltidbits.com



# GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 10 2016 Forecast Hour: [36] valid at 00z Fri, Feb 12 2016

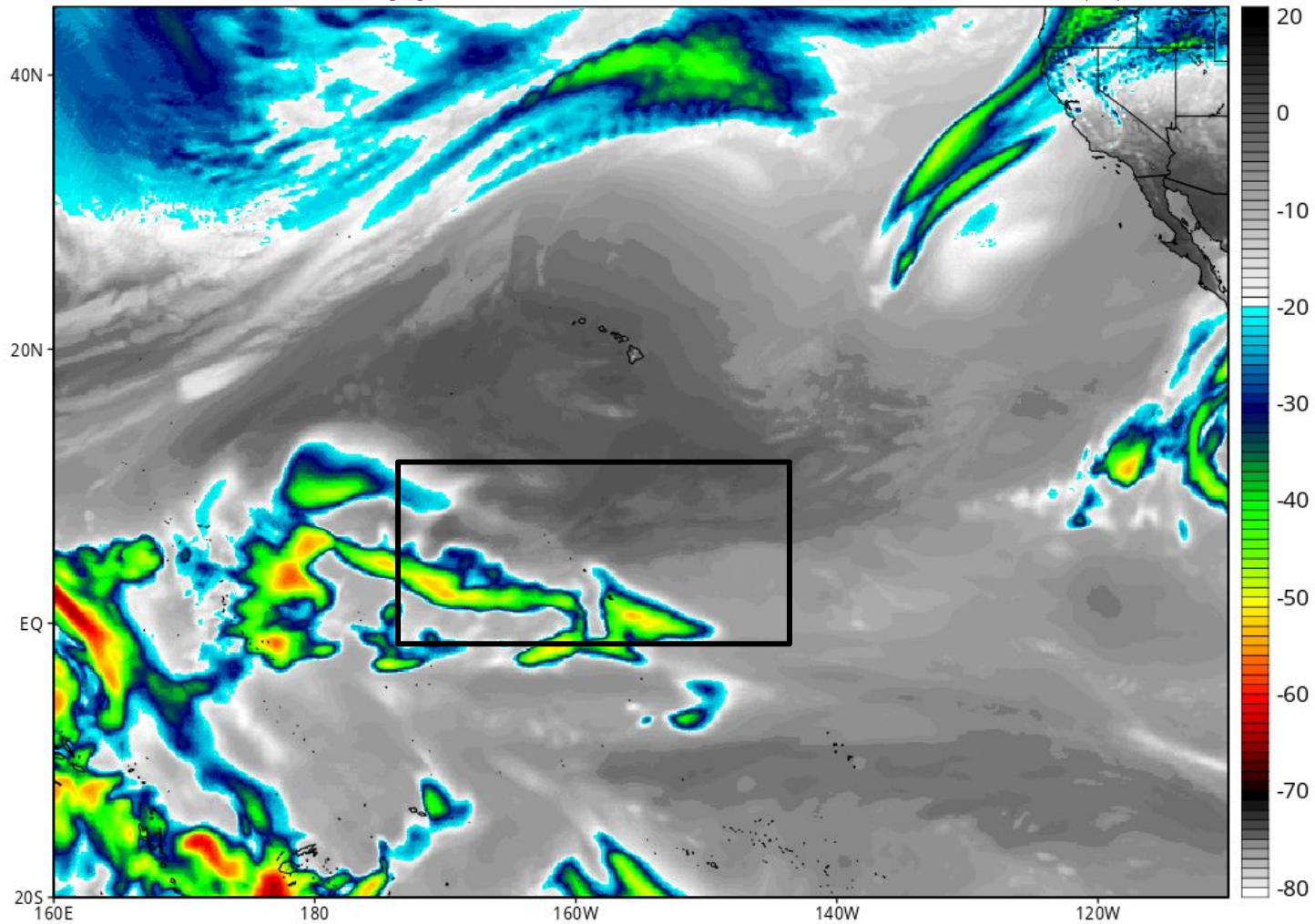
Levi Cowan | tropicaltidbits.com



# GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 10 2016 Forecast Hour: [60] valid at 00z Sat, Feb 13 2016

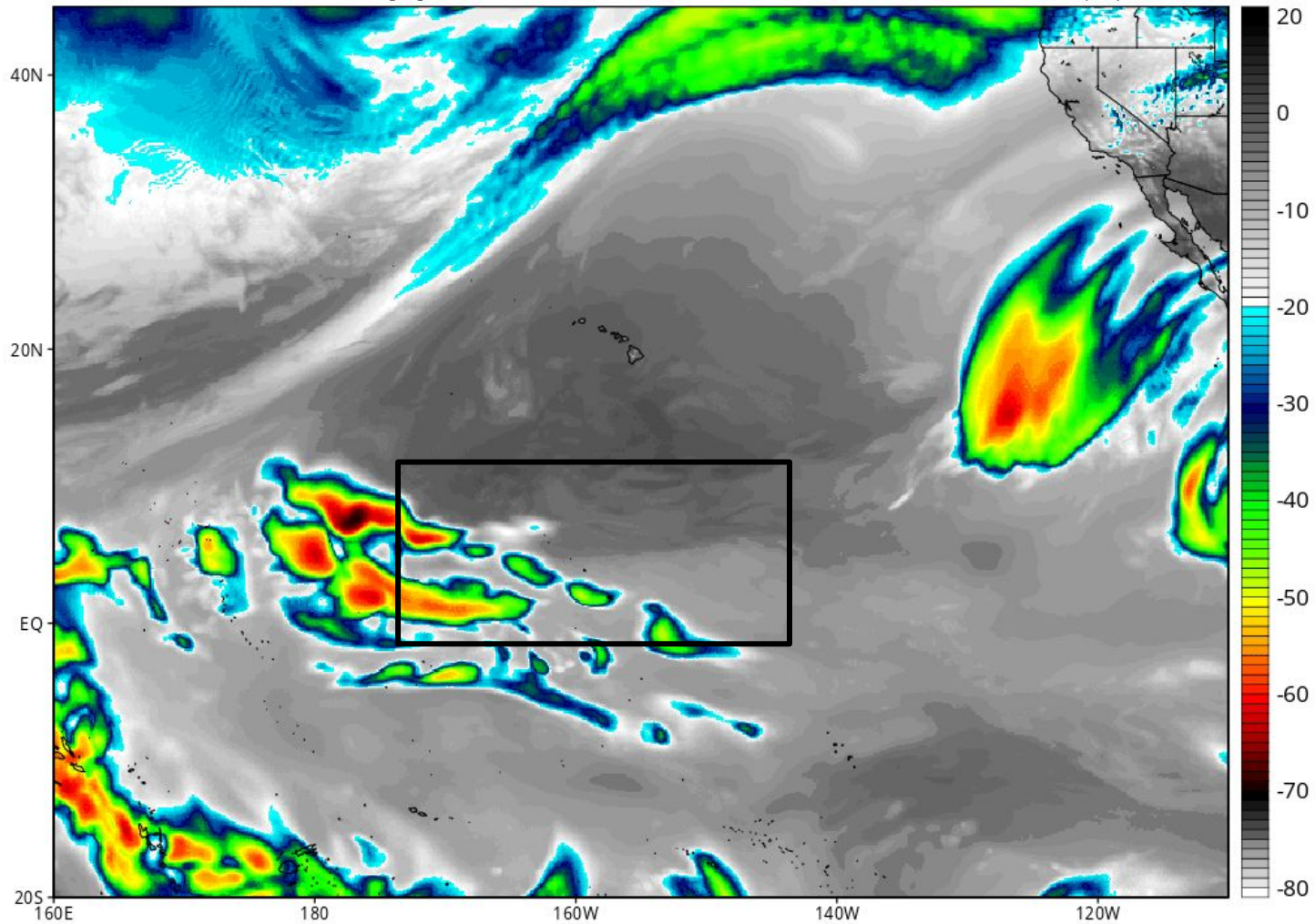
Levi Cowan | tropicaltidbits.com



# GFS Simulated IR Brightness Temperature (°C)

Init: 12z Feb 10 2016 Forecast Hour: [84] valid at 00z Sun, Feb 14 2016

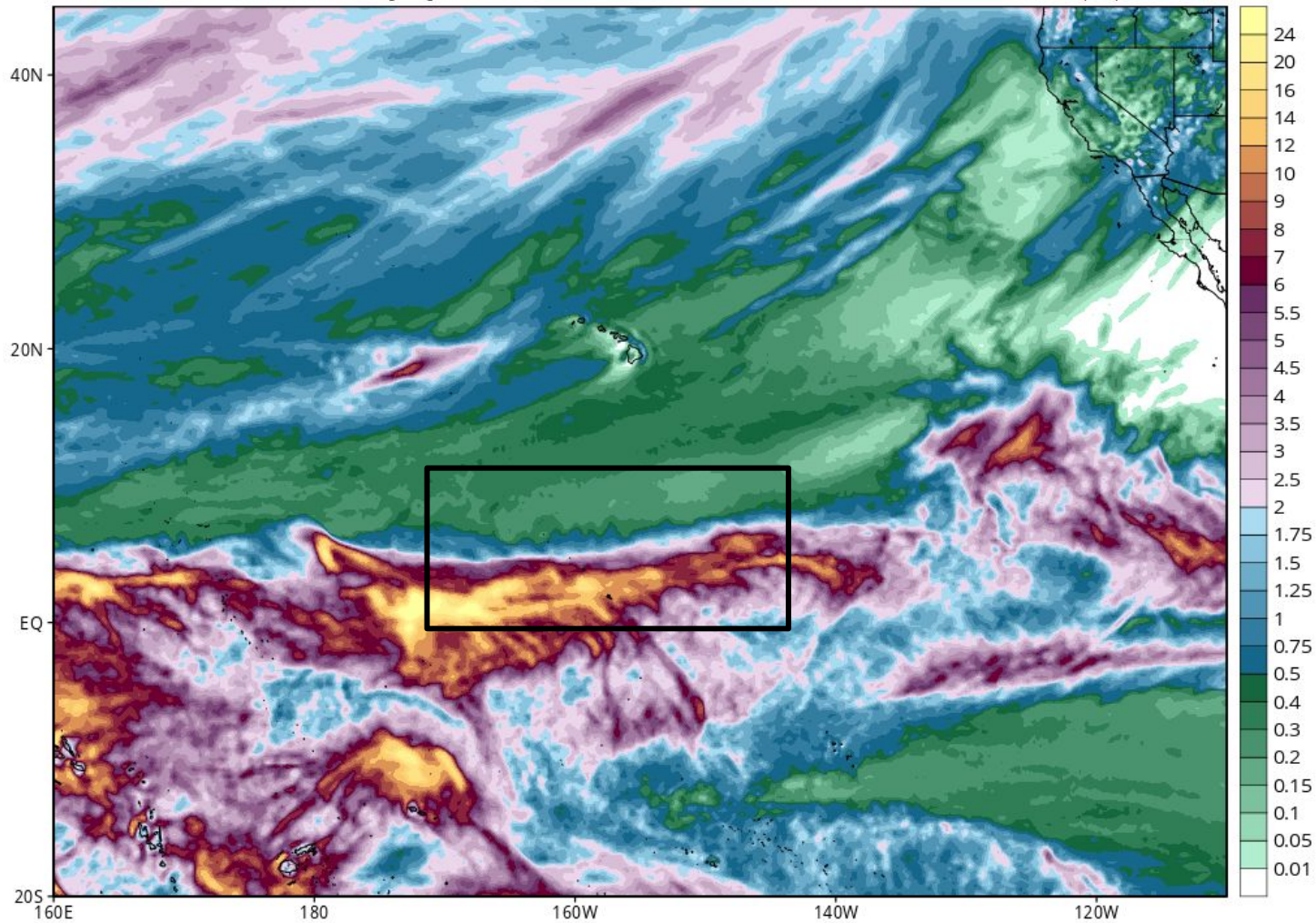
Levi Cowan | tropicaltidbits.com



# GFS Total Accumulated Precipitation (inches) from 12z10Feb2016 to 06z20Feb2016

Init: 12z Feb 10 2016 Forecast Hour: [234] valid at 06z Sat, Feb 20 2016

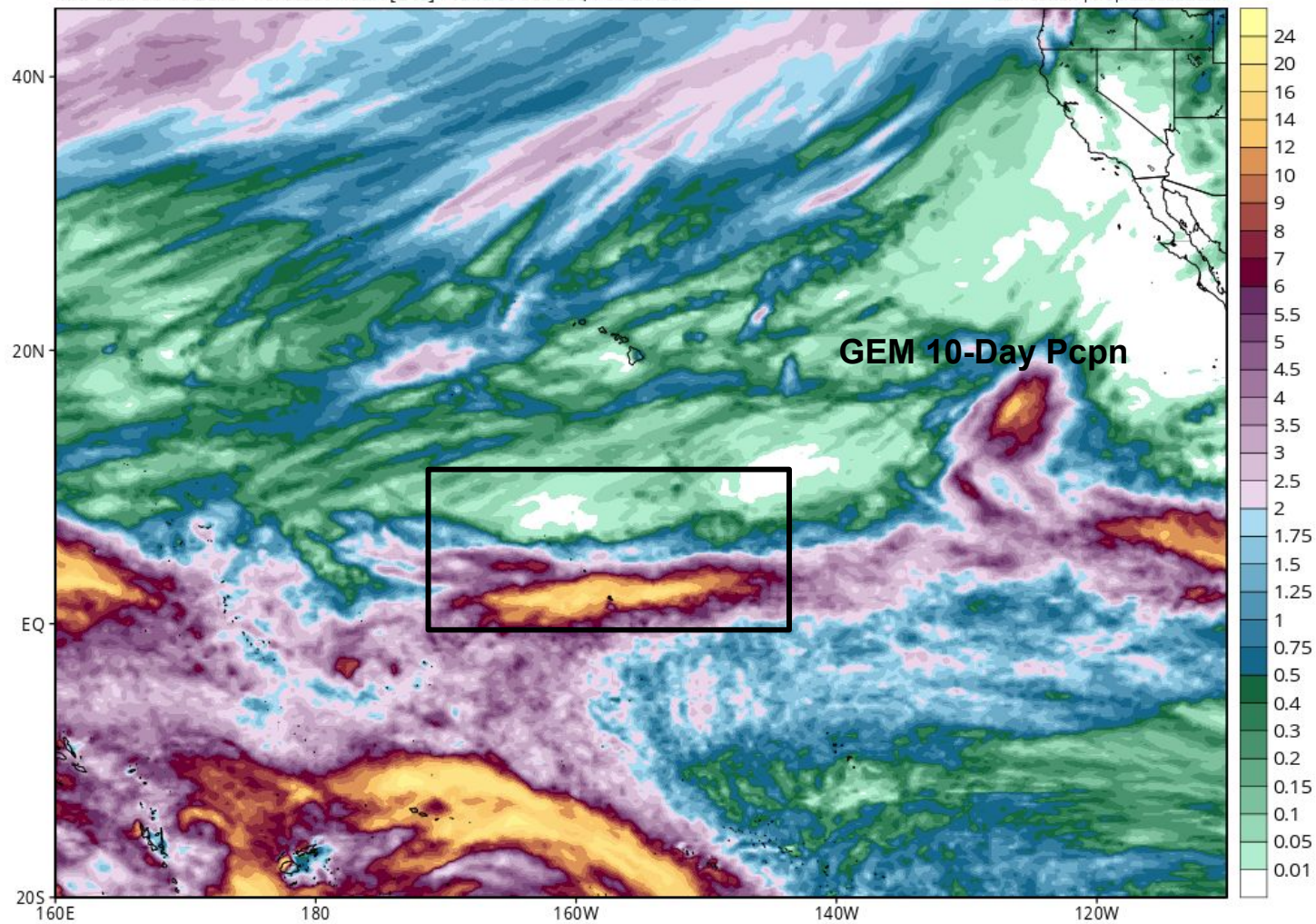
Levi Cowan | tropicaltidbits.com



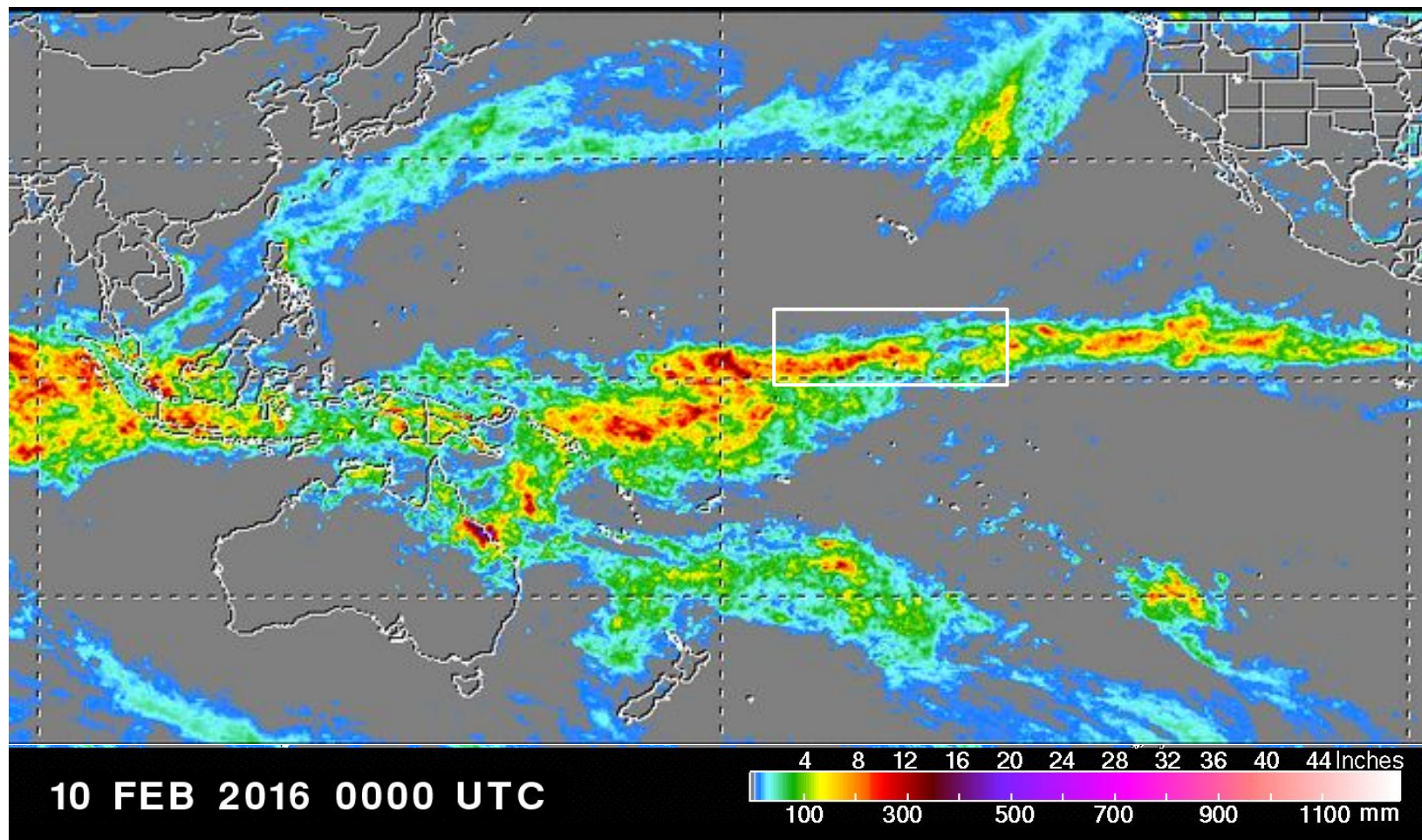
# GEM Total Accumulated Precipitation (inches) from 00z10Feb2016 to 00z20Feb2016

Init: 00z Feb 10 2016 Forecast Hour: [240] valid at 00z Sat, Feb 20 2016

Levi Cowan | tropicaltidbits.com



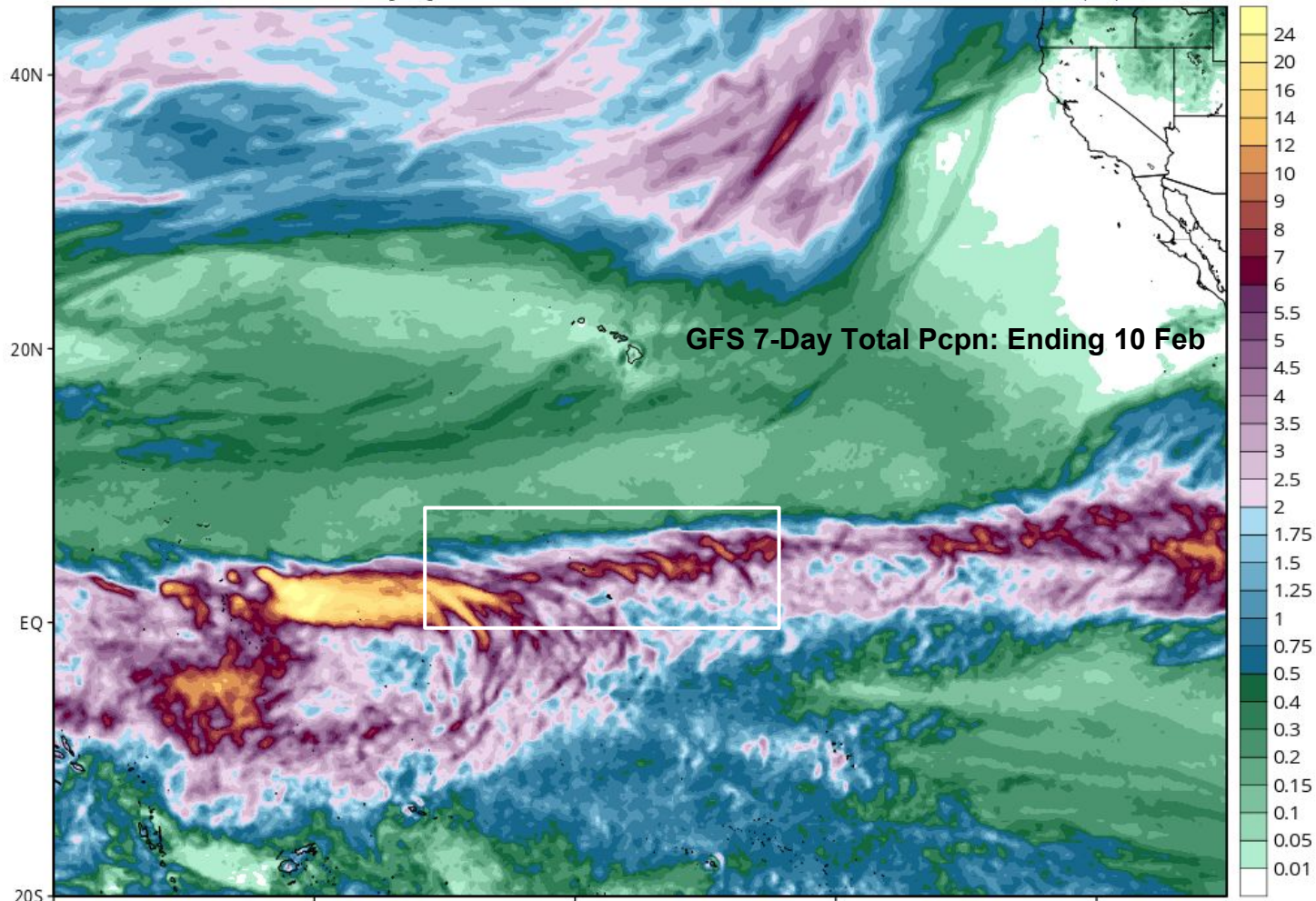
# Satellite Estimated (TRMM) Weekly Total Rainfall (ending Feb 10)



# GFS Total Accumulated Precipitation (inches) from 06z04Feb2016 to 18z10Feb2016

Init: 06z Feb 04 2016 Forecast Hour: [156] valid at 18z Wed, Feb 10 2016

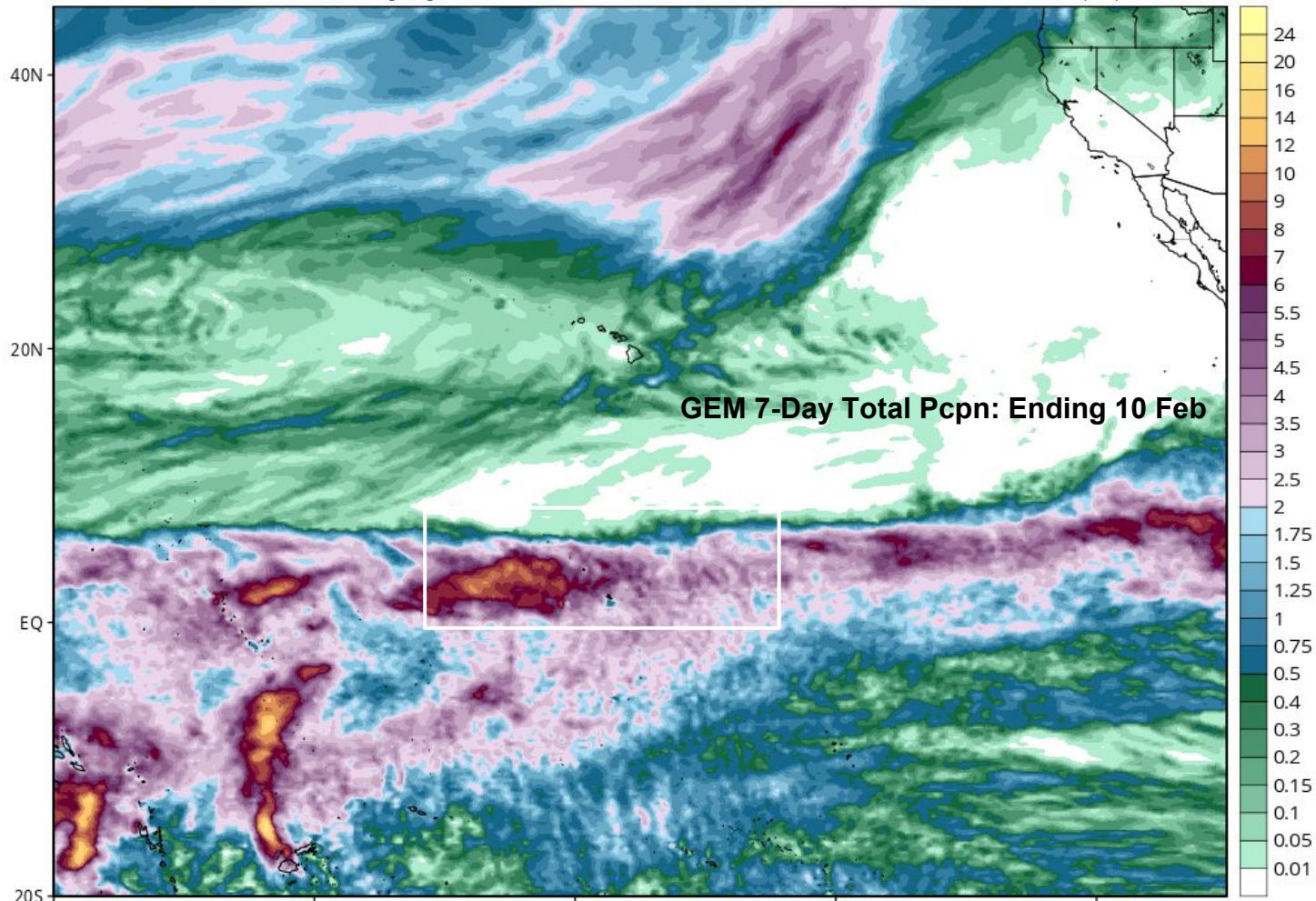
Levi Cowan | tropicaltidbits.com



# GEM Total Accumulated Precipitation (inches) from 00z04Feb2016 to 18z10Feb2016

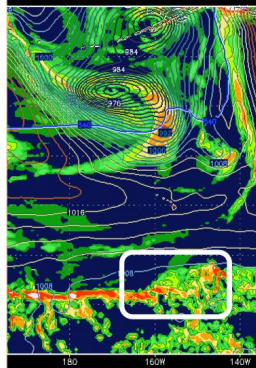
Init: 00z Feb 04 2016 Forecast Hour: [162] valid at 18z Wed, Feb 10 2016

Levi Cowan | tropicaltidbits.com



**168h forecast**

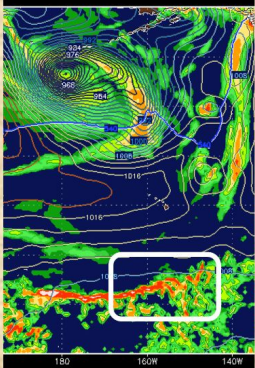
GFS (T1534(15km)L64) 20160202



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**144h forecast**

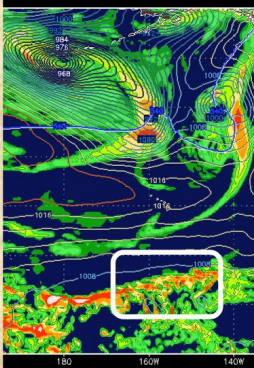
GFS (T1534(15km)L64) 20160203



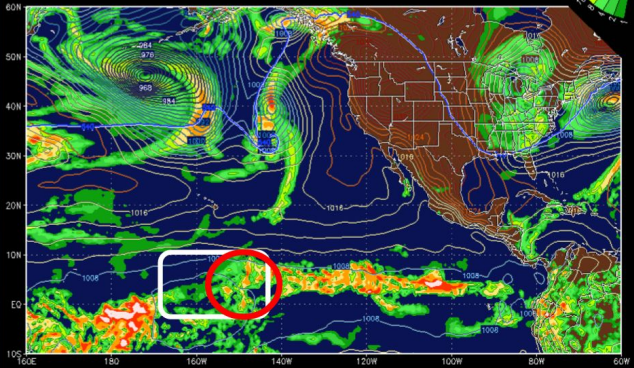
Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**120h forecast**

GFS (T1534(15km)L64) 20160204



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**Target: Monday afternoon (0z, 9feb16)**NCEP GFS (T1534(15km)L64) 2016020900 run 0.5° Fields  $\tau = 0$  h

Verify: Tue 00Z 09 FEB

NCEP GFS courtesy NCEP/NCAR  
Dr. Mike Florino (michael.florino@noaa.gov), ESD/AFSD/AMB, Boulder, CO**96h forecast**

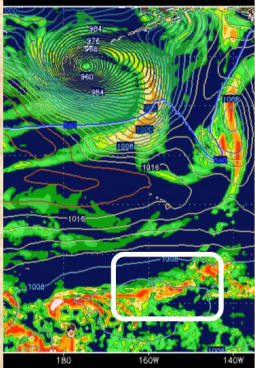
GFS (T1534(15km)L64) 20160205



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**72h forecast**

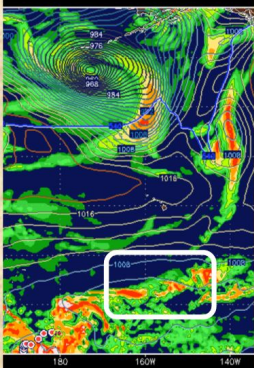
GFS (T1534(15km)L64) 20160206



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**60h forecast**

GFS (T1534(15km)L64) 20160206



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**48h forecast**

GFS (T1534(15km)L64) 20160207



Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)**36h forecast**

GFS (T1534(15km)L64) 20160207



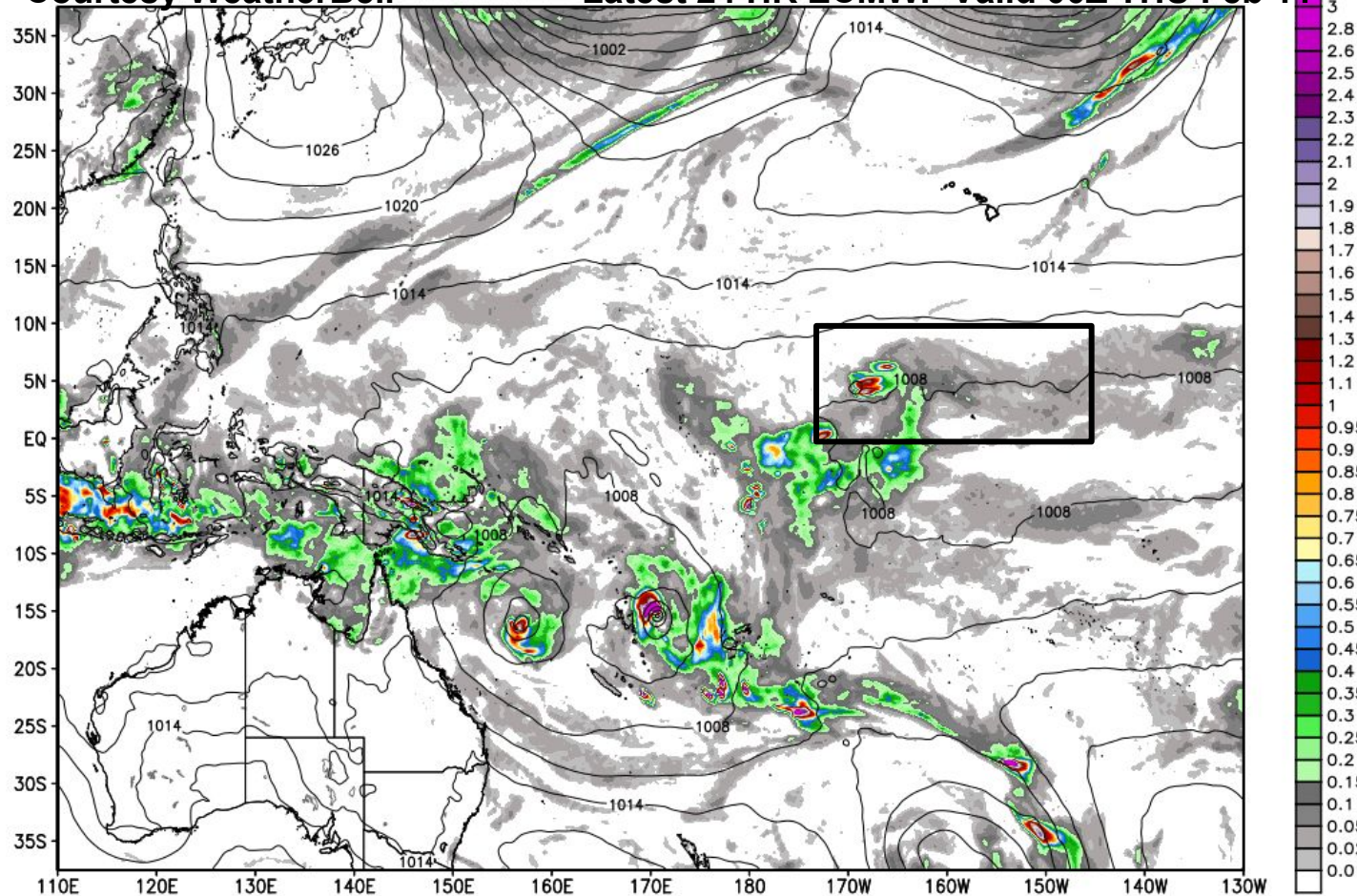
Tue 00Z 09 FEB

NCEP GFS  
Dr. Mike Florino (michael.florino@noaa.gov)

ECMWF 6-hourly Precipitation [inches] between 18Z10FEB2016 -- 00Z11FEB2016 & MSLP [hPa]  
INIT: 00Z10FEB2016 fx: [024] hr --> Thu 00Z11FEB2016

Courtesy WeatherBell

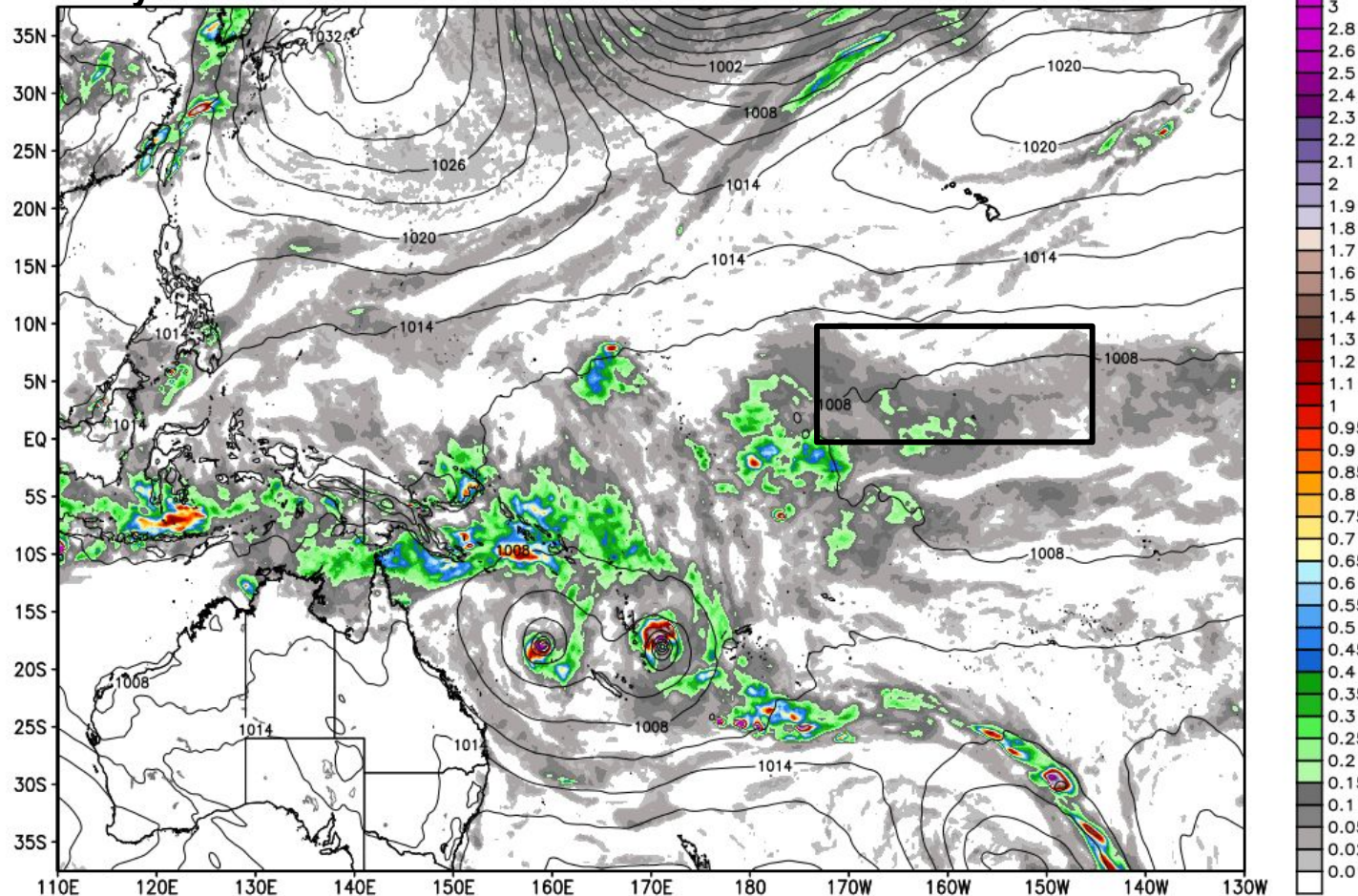
Latest 24 HR ECMWF Valid 00Z THU Feb 11



ECMWF 6-hourly Precipitation [inches] between 18Z11FEB2016 -- 00Z12FEB2016 & MSLP [hPa]  
INIT: 00Z10FEB2016 fx: [048] hr --> Fri 00Z12FEB2016

Courtesy WeatherBell

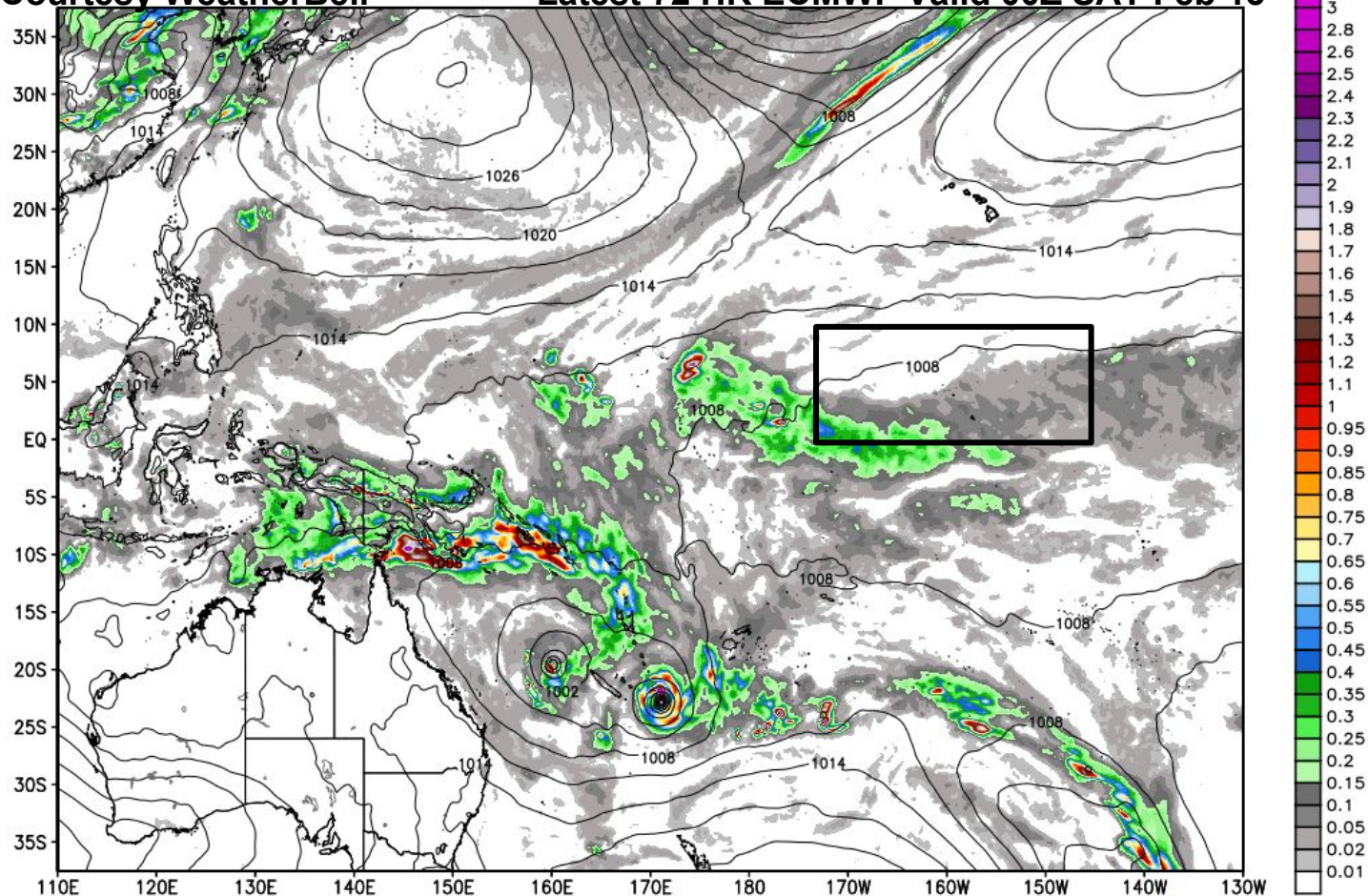
Latest 48 HR ECMWF Valid 00Z FRI Feb 12



ECMWF 6-hourly Precipitation [inches] between 18Z12FEB2016 -- 00Z13FEB2016 & MSLP [hPa]  
INIT: 00Z10FEB2016 fx: [072] hr --> Sat 00Z13FEB2016

Courtesy WeatherBell

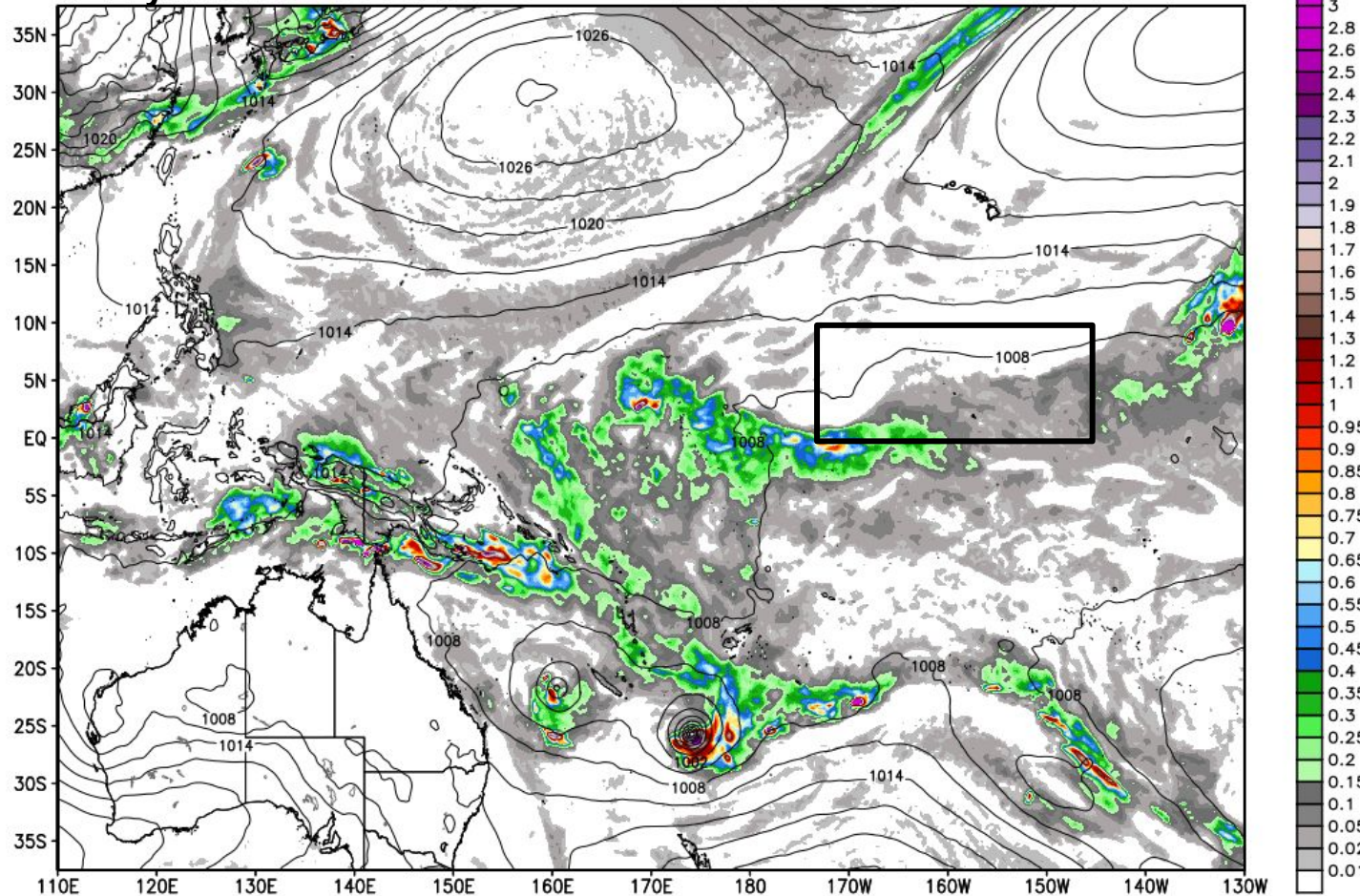
Latest 72 HR ECMWF Valid 00Z SAT Feb 13



ECMWF 6-hourly Precipitation [inches] between 18Z13FEB2016 -- 00Z14FEB2016 & MSLP [hPa]  
INIT: 00Z10FEB2016 fx: [096] hr --> Sun 00Z14FEB2016

Courtesy WeatherBell

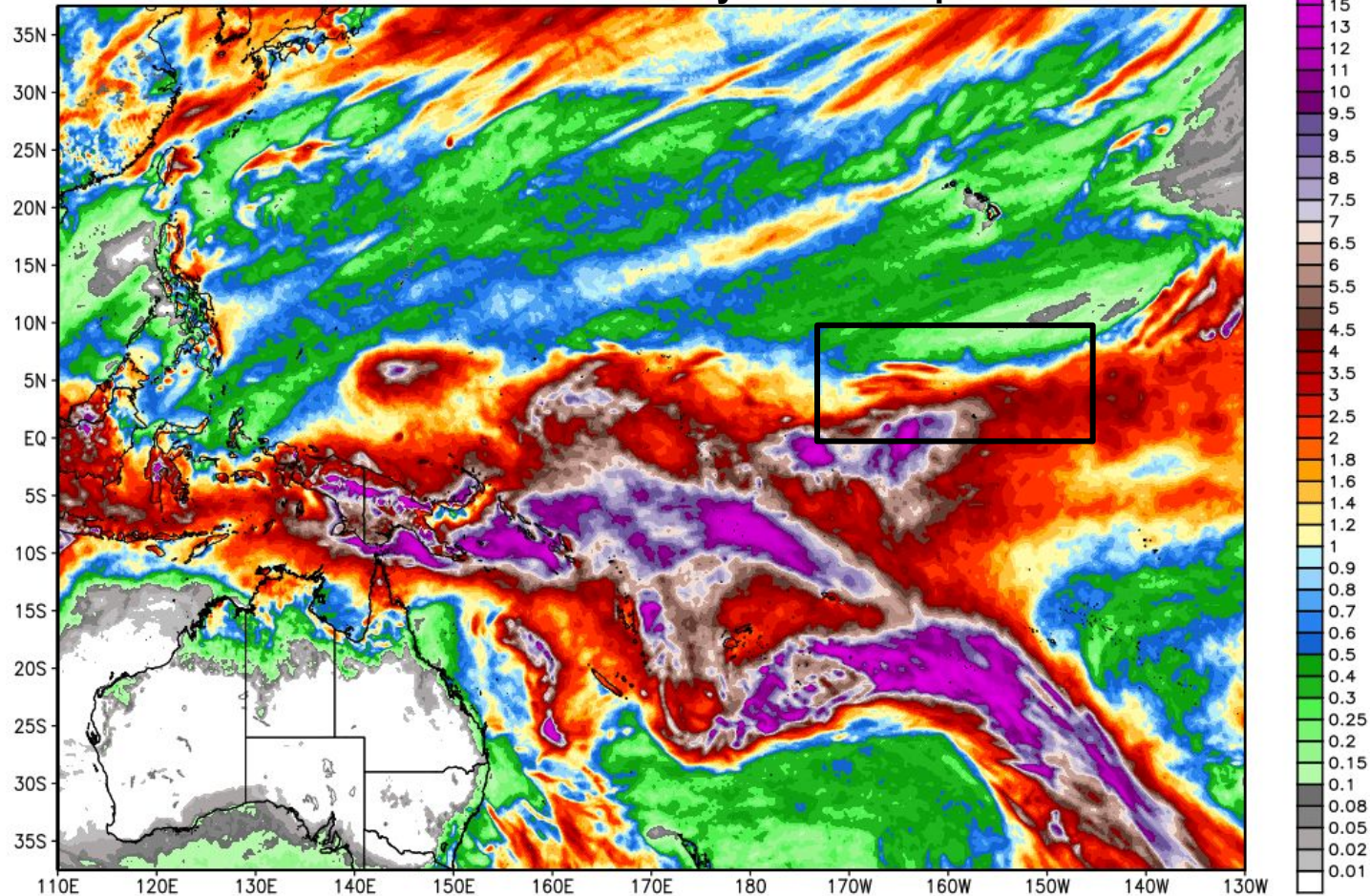
Latest 96 HR ECMWF Valid 00Z SUN Feb 14



ECMWF Total Precipitation [inches] between 00Z10FEB2016 -- 00Z20FEB2016  
INIT: 00Z10FEB2016 fx: [240] hr --> Sat 00Z20FEB2016

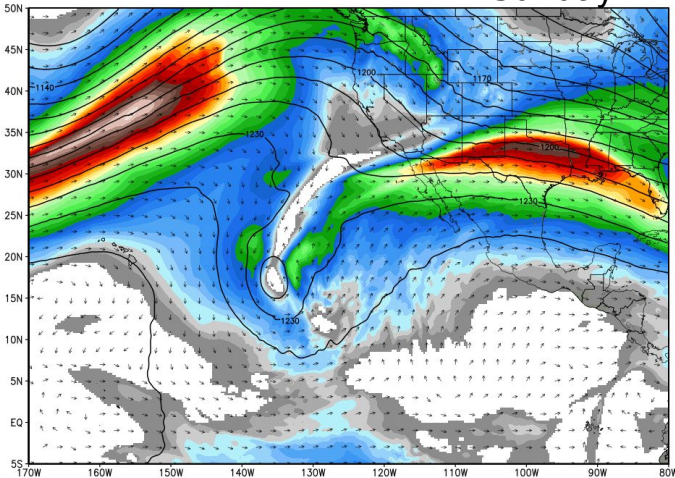
## 10-Day ECMWF Pcpn Thru 20 Feb

Max 31.1 in



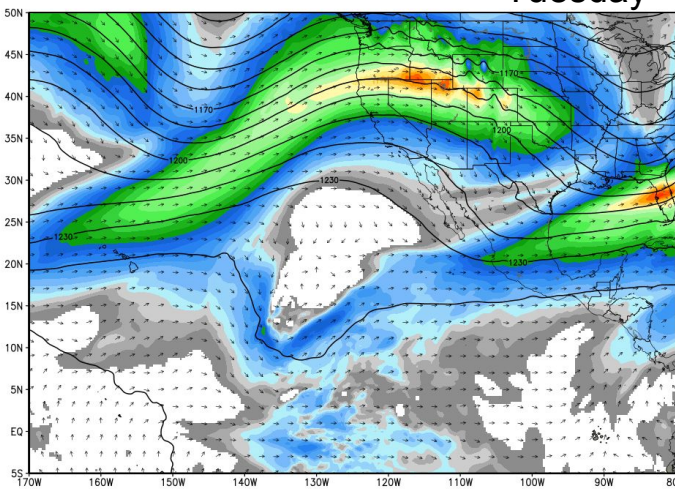
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]  
INIT: 00Z10FEB2016 fx: [108] hr --> Sun 12Z14FEB2016

Sunday



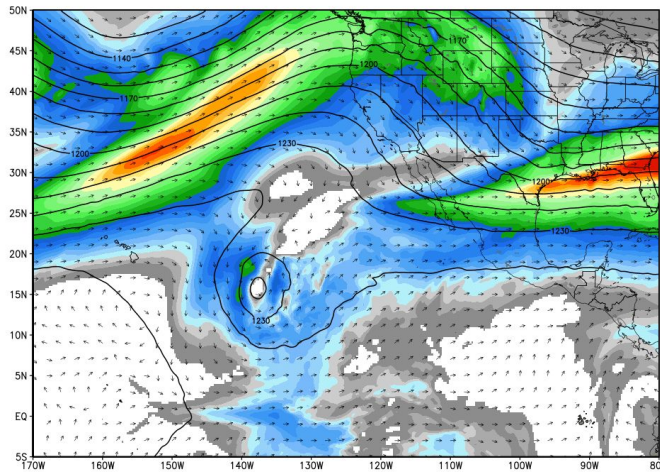
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]  
INIT: 00Z10FEB2016 fx: [156] hr --> Tue 12Z16FEB2016

Tuesday



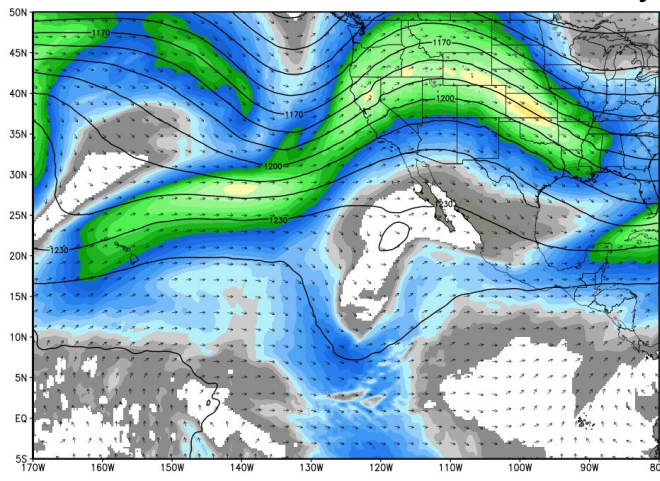
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]  
INIT: 00Z10FEB2016 fx: [132] hr --> Mon 12Z15FEB2016

Monday



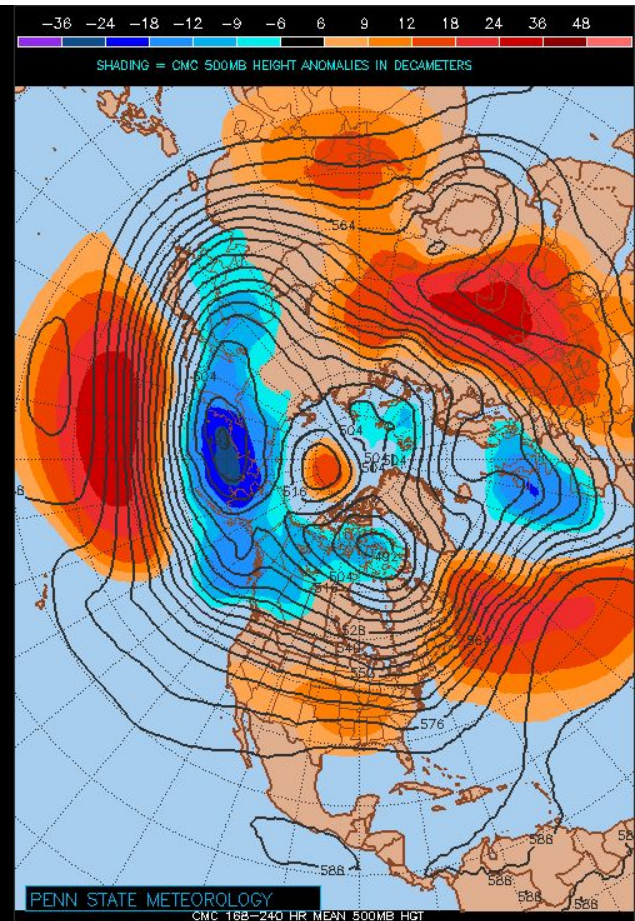
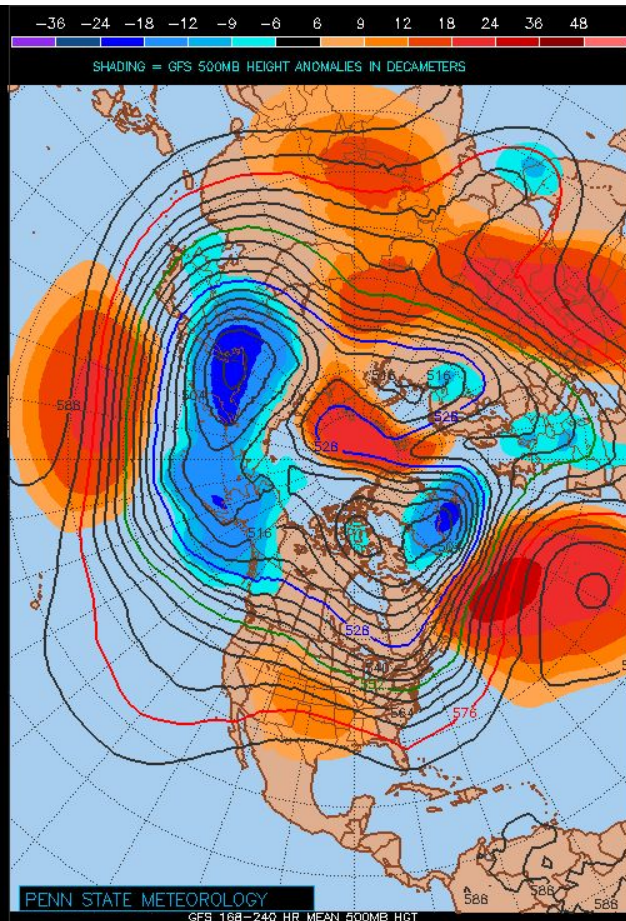
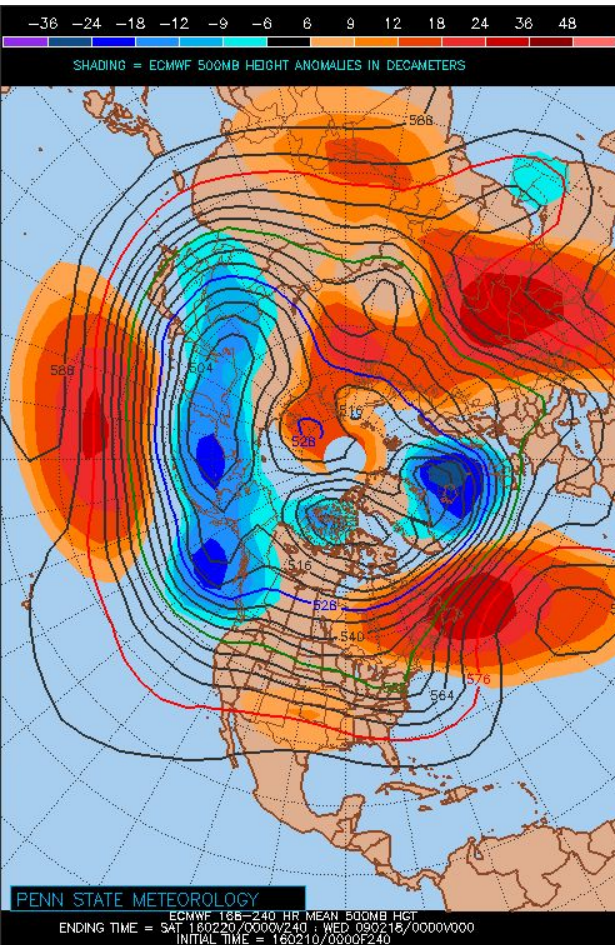
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]  
INIT: 00Z10FEB2016 fx: [180] hr --> Wed 12Z17FEB2016

Wednesday



# Medium - Long Range Forecast

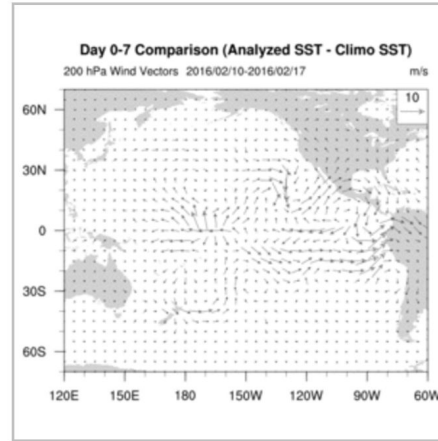
Day 7-10 Initialized 00Z WED 10 Feb



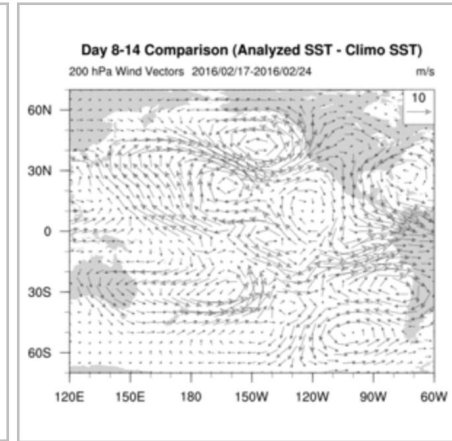
# Comparison Maps - Analyzed SST minus Climo SST

Model Run: 00Z February 10, 2016

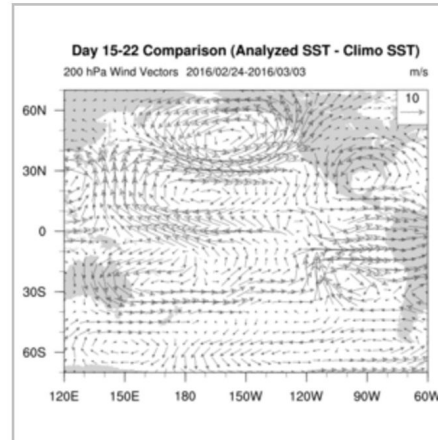
Days 0-7



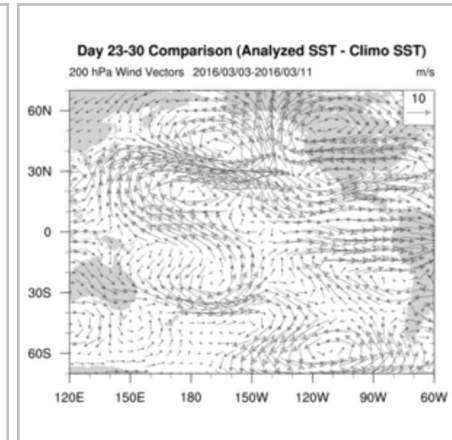
Days 8-14



Days 15-22

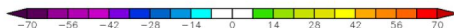
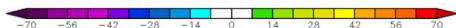
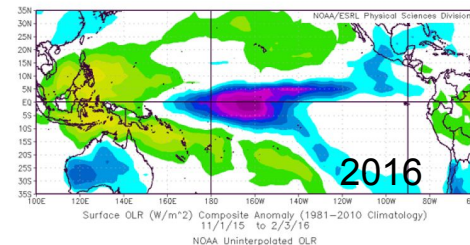
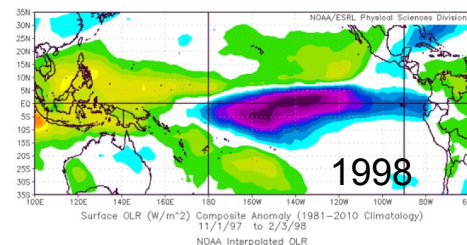
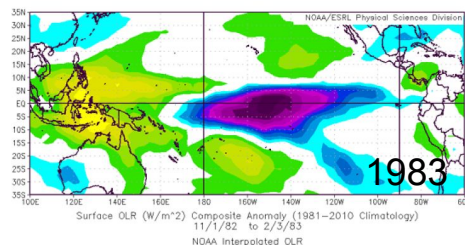
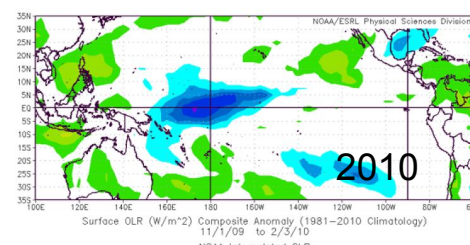
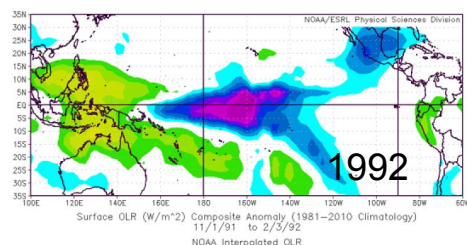
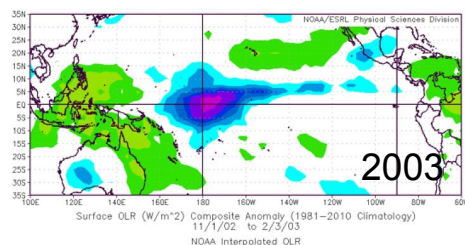
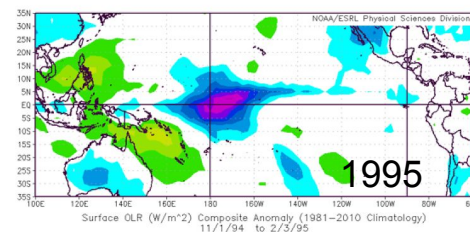
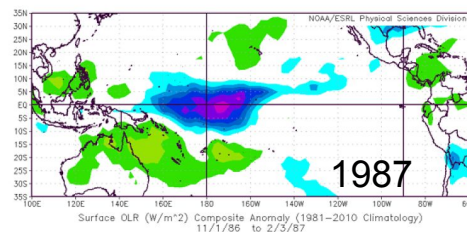
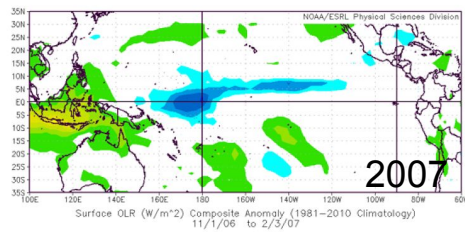


Days 23-30



PSD is running **Version 10** of the Global Ensemble Forecast System (GEFS) (**not the NCEP Operational GEFS (version 11)**) in an experimental mode comparing observed and climatological SSTs. The maps compare the two runs for weekly averages.

# Observed OLR Anomalies : 1 Nov - 3 Feb



# Observed OLR Anomalies : 7 Feb - 7 Mar

