

Summary of Key Briefing Points

1030-1130am MST Wednesday February 3, 2016

Current Conditions as of Wednesday 12Z-15Z February

3 Tropics and Mid-latitudes

Over the Tropical Pacific:

- Convection: An area of active Convection in region 165W-155W and 140-150W, 1-6°N this morning.
- Convection continued overnight with element detaching and moving north to about 5N
- Cloud track upper level winds indicate strong poleward 170W-160W, 4-7°N.
- Light (~10 kt) upper level easterlies south of 8N
- Upper level northwesterly 10-20kt in NE corner of domain to 7N, 155-150W suppressing convection there
- Water vapor image at 14Z Wed shows dry intrusion to 6N in 160W-150W band, similar to Tuesday

Tropical Outlook

- Convection for Wednesday aftn HNL to be active mainly west of 145W, 4-7N.
 - Confidence is somewhat high based on EC/GFS model agreement
 - Confidence is high based on consistency of forecasts among successive Initializations
 - Convection to be more active in a zonal band between 3N-5N, 165W to 155W Tues aftn HNL
- By 00Z FRI 5 FEB (Thursday aftn HNL), convection expected to remain active 167W-150W, mostly north of EQ.
 - New EC fcst continues to indicate convection in W quadrant of mission region Thur aftn HNL time.
 -
- Convection to diminish and be weak by 00Z Sun (2PM Sat HNL).
 - *in summary, the indication from Wed forecasts is for active convection Wed aftn in east quadrant of FD*
 - *Convection to reduce considerably by Friday-Saturday and perhaps stay inactive per EC guidance.*

Midlatitude Conditions/Outlook

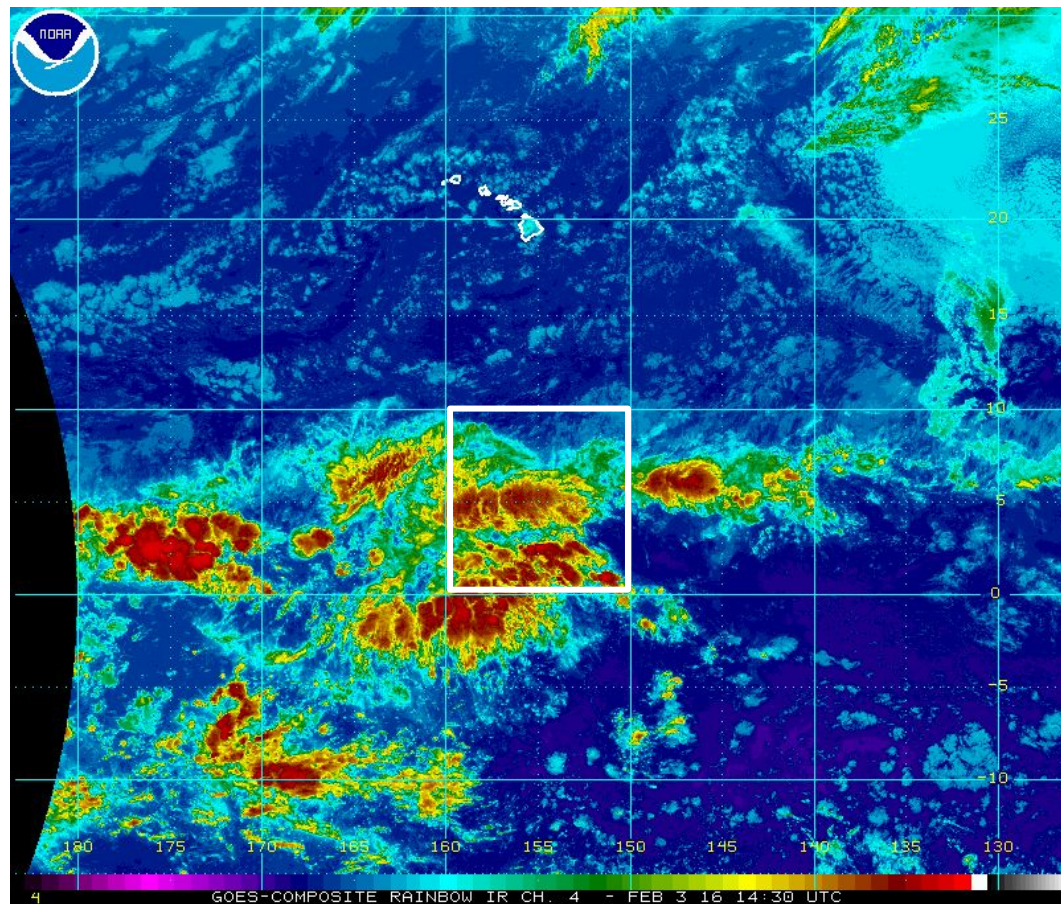
Short Term:

- CA mostly quiet
- Weak frontal rains in north mid-week, otherwise dry
- 8-station NSierra index on 31 Jan is 121%, 5-station CSierra index is 124%, Tulare Basin Index: 128%

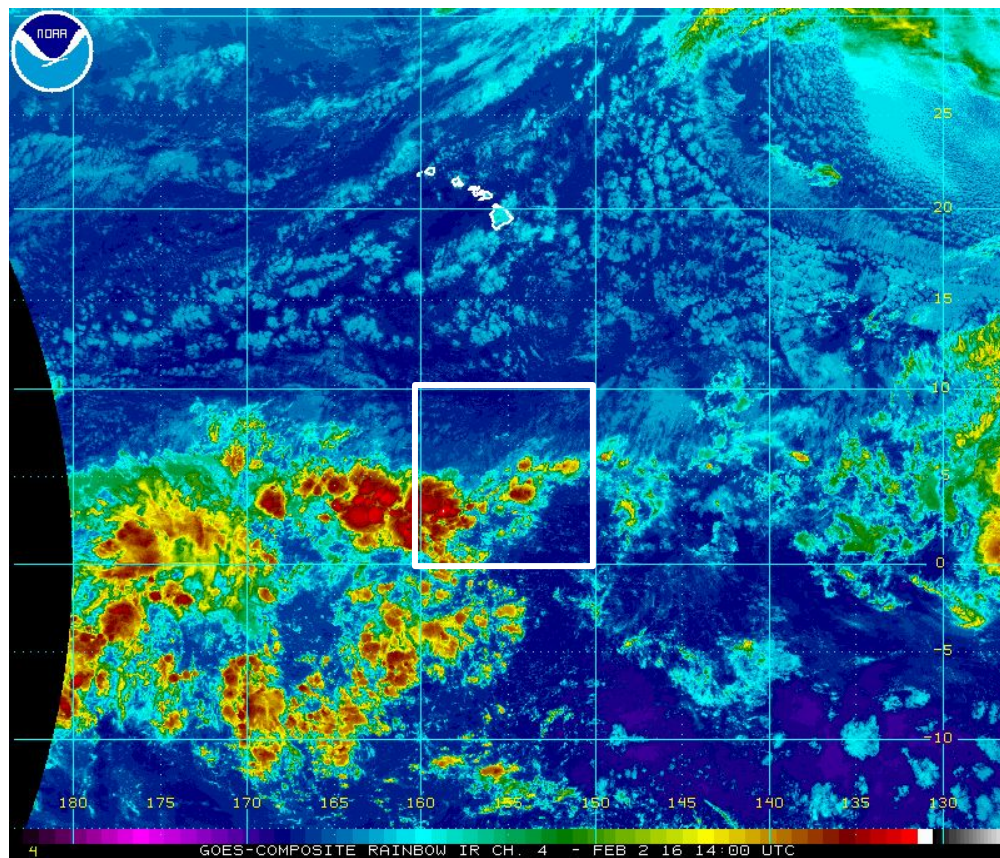
Medium - Long Term:

- Day 0-7 accumulated pcpn for CA shows little pcpn
- CPC 6-10 day (Feb 7-11) pcpn probabilities have high probabilities of below normal statewide
- Days 7 -10 fcsts from 00 TUE 2 Feb runs indicate sharp WCOAST Ridge
----confidence high (strong model agreement) that Tue 9 Feb thru Fri 12 Feb to be quiet in CA and NE Pacific
- Day 8-15 Calibrated Pcpn for CA (00Z Mon fcst) indicates a change, with above normal risks for >2" rainfall in region from SFO to SAN.
--- confidence low given poor model performance in prior long lead predictions.

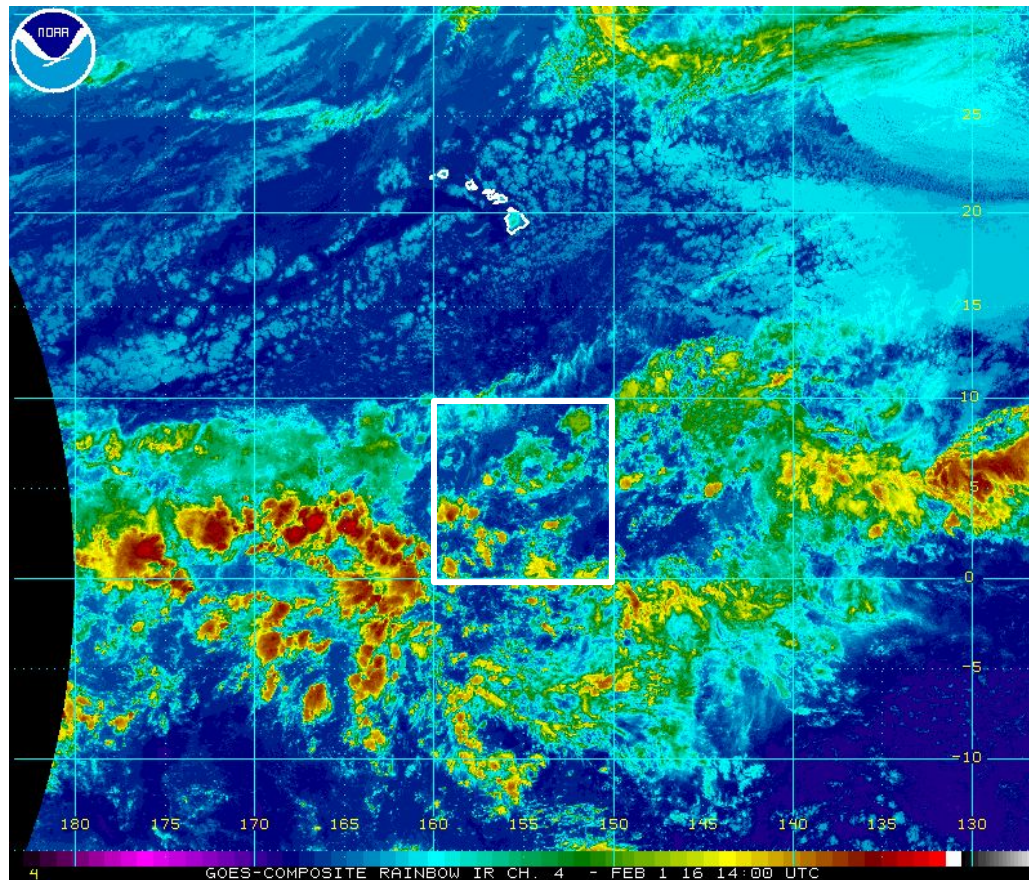
Wednesday 14:30Z February 3 Enhanced IR Image



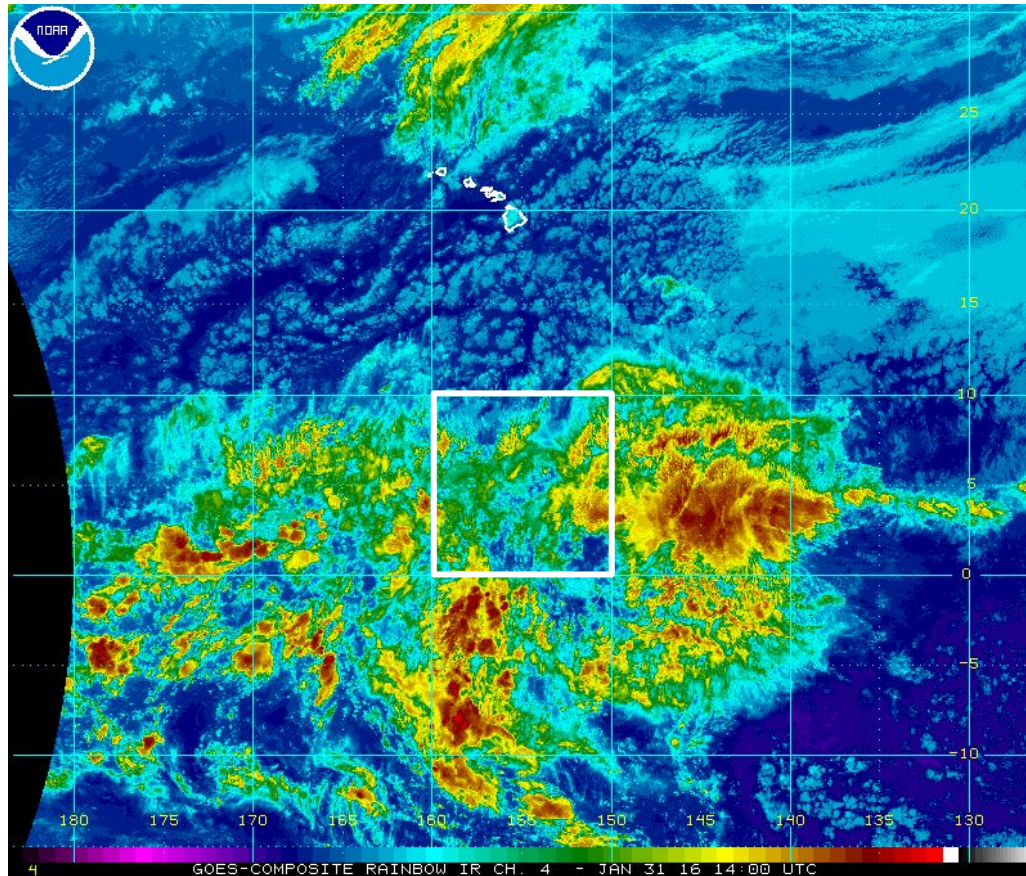
Tuesday 14Z February 2 Enhanced IR Image



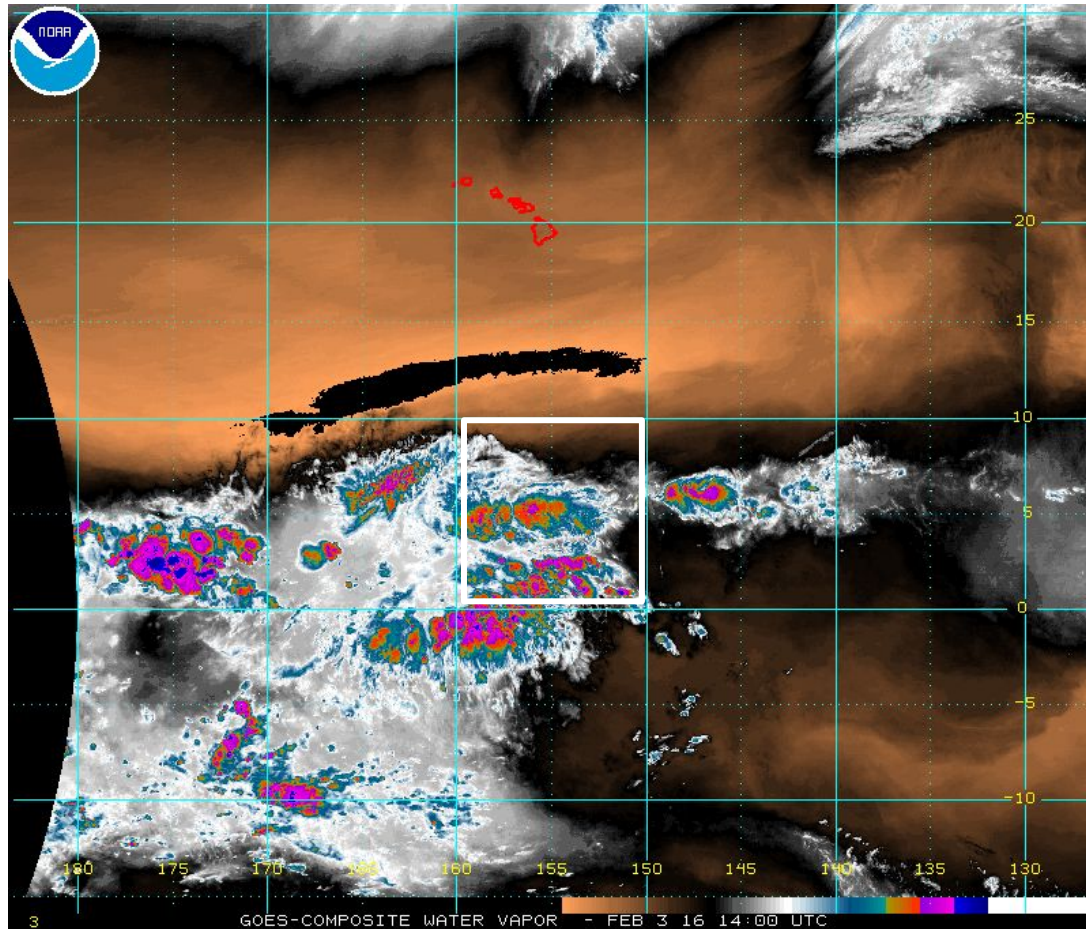
Monday 14Z February 1 Enhanced IR Image



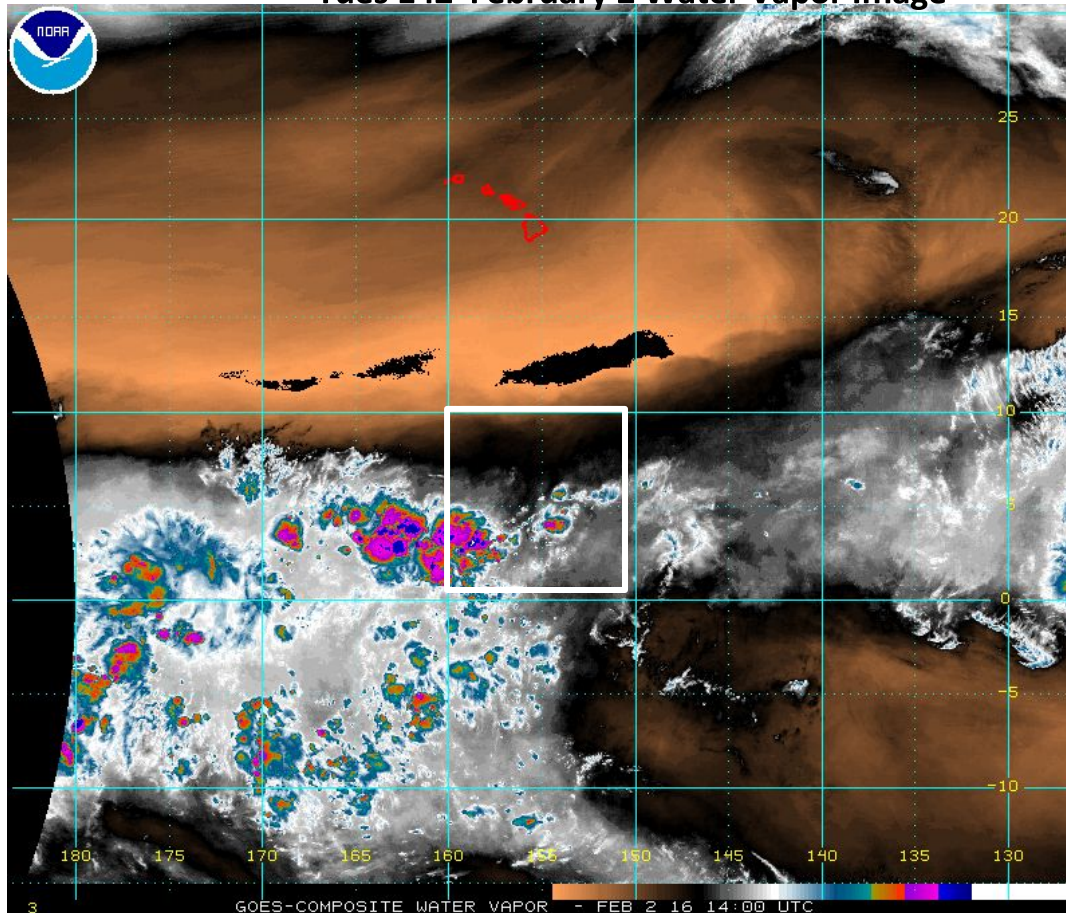
Sunday 14Z January 31 Enhanced IR Image



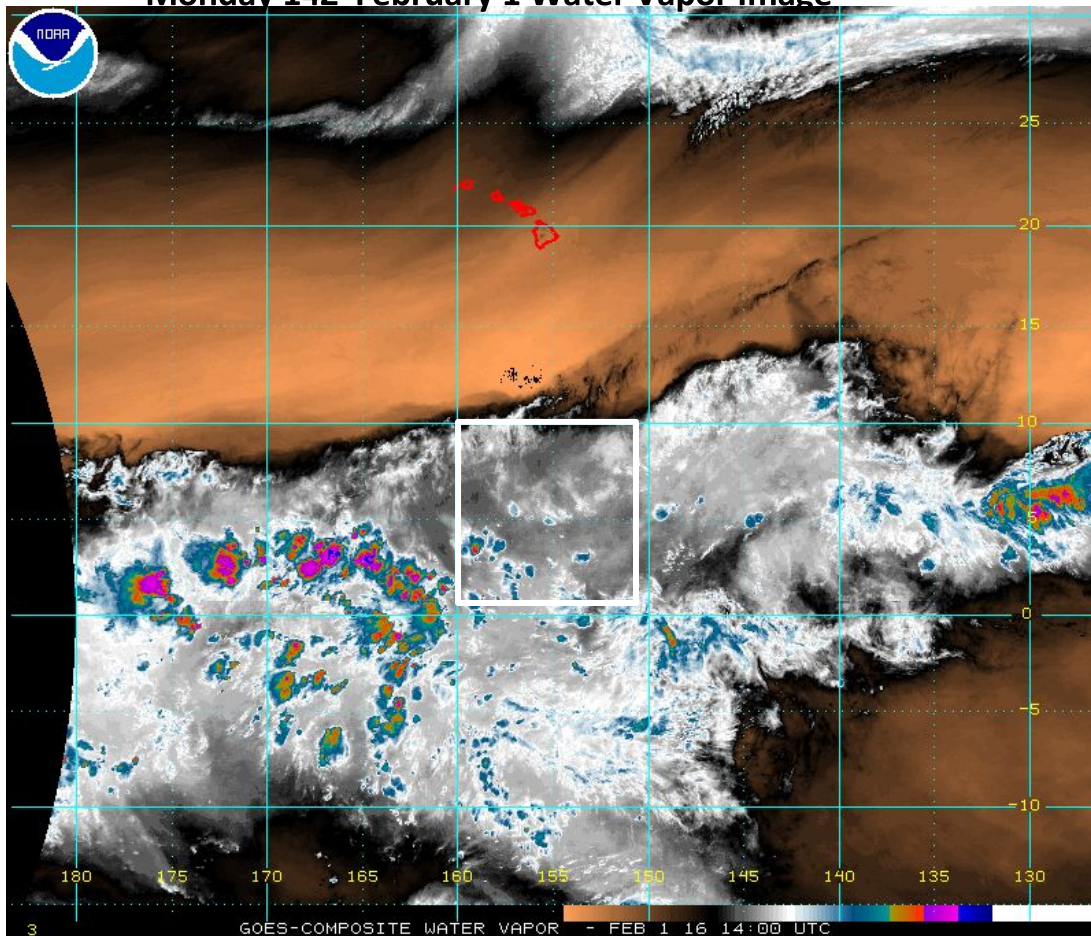
Wednesday 14Z February 3 Water Vapor



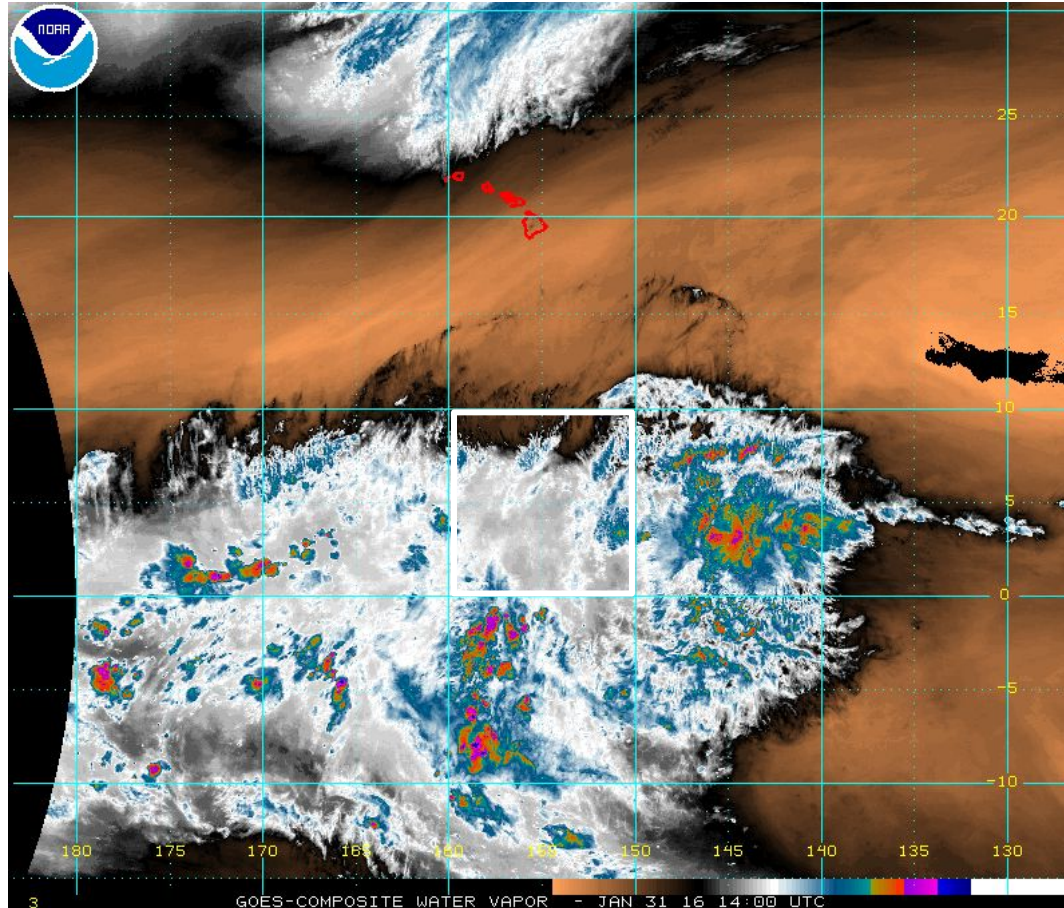
Tues 14Z February 2 Water Vapor Image



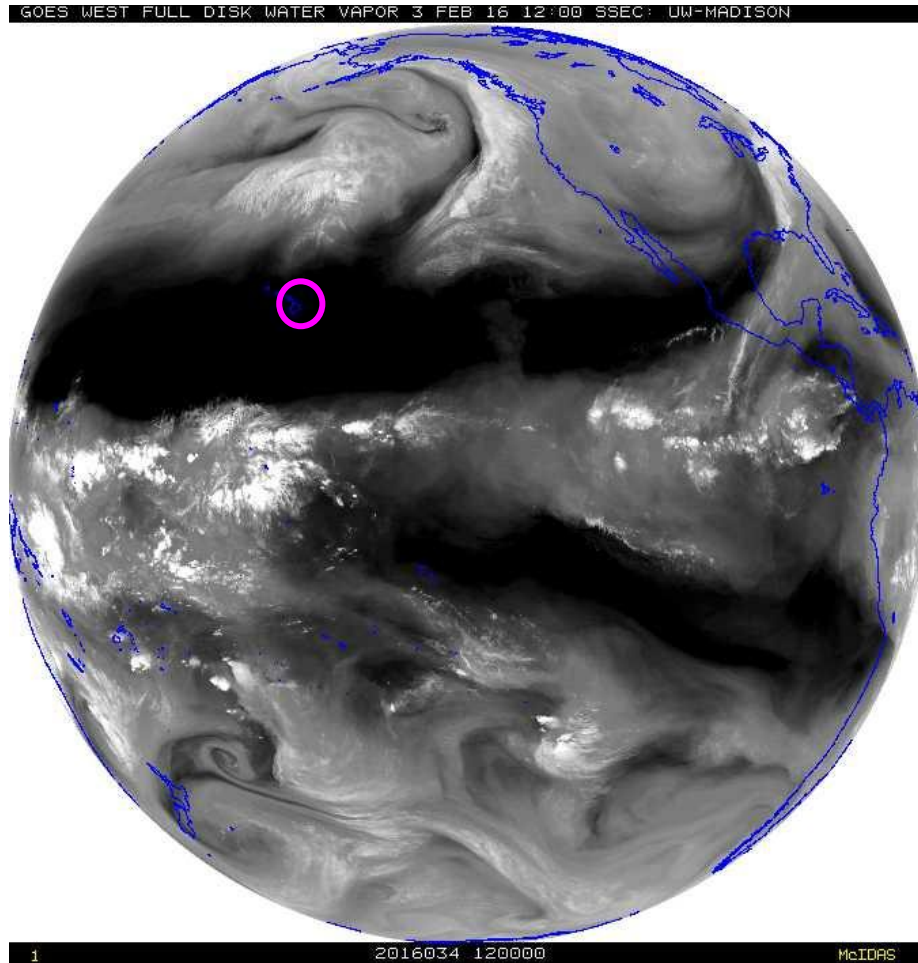
Monday 14Z February 1 Water Vapor Image



Sunday 14Z January 31 Water Vapor Image



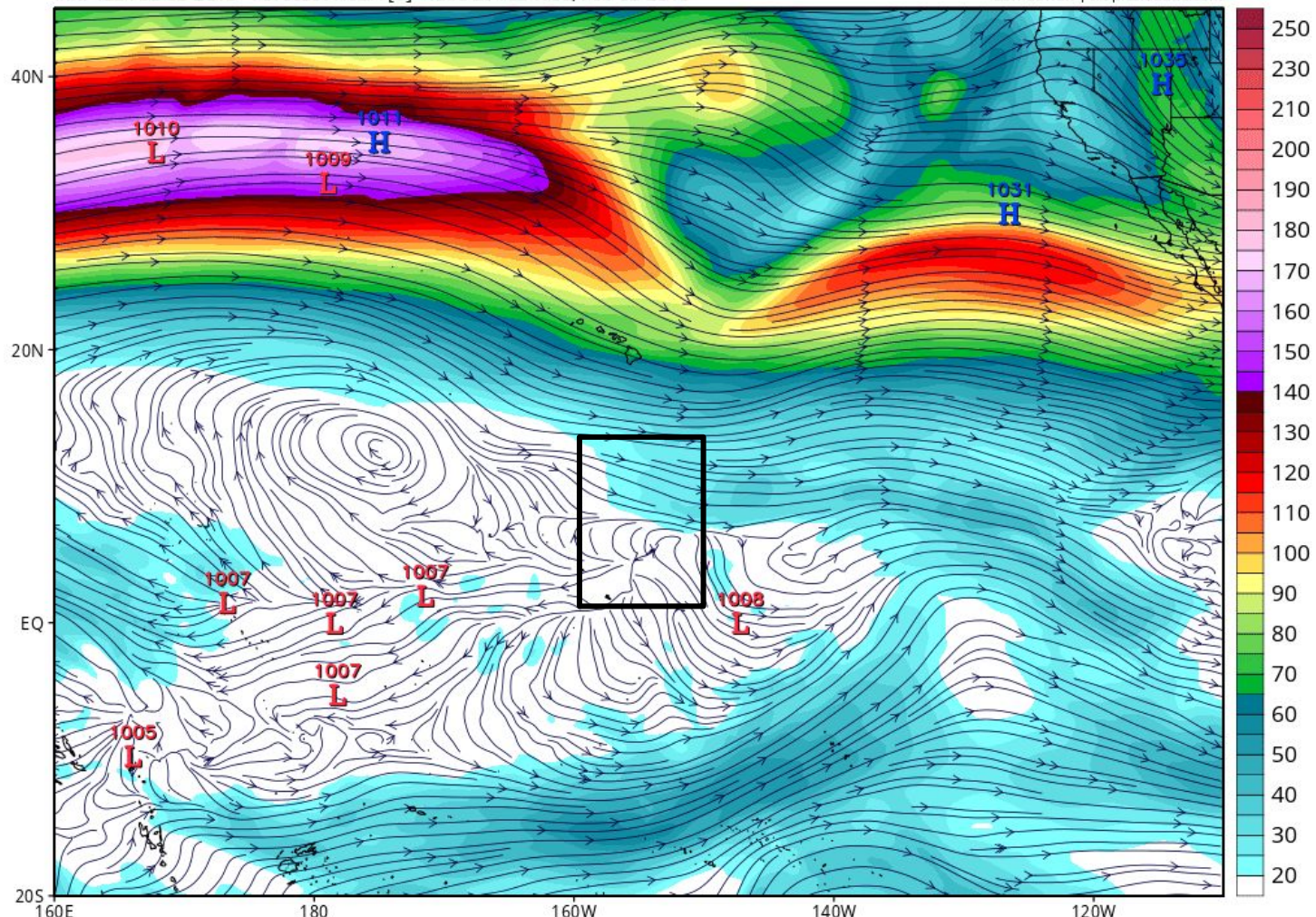
Wednesday 12Z February 3 GOES West Water Vapor Image



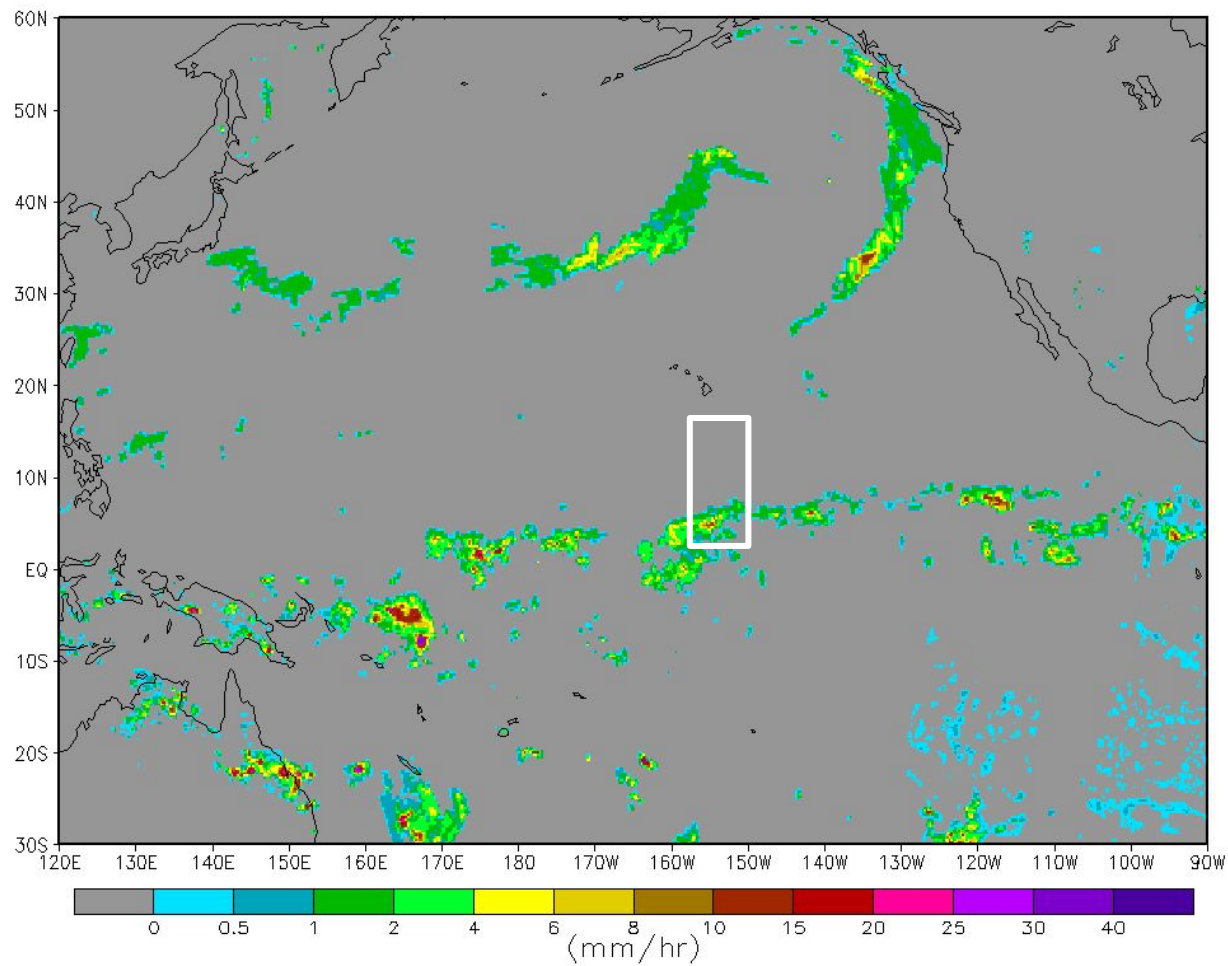
GFS 200mb Wind Speed/Streamlines (kt) & MSLP Extrema (mb)

Init: 12z Feb 03 2016 Forecast Hour: [6] valid at 18z Wed, Feb 03 2016

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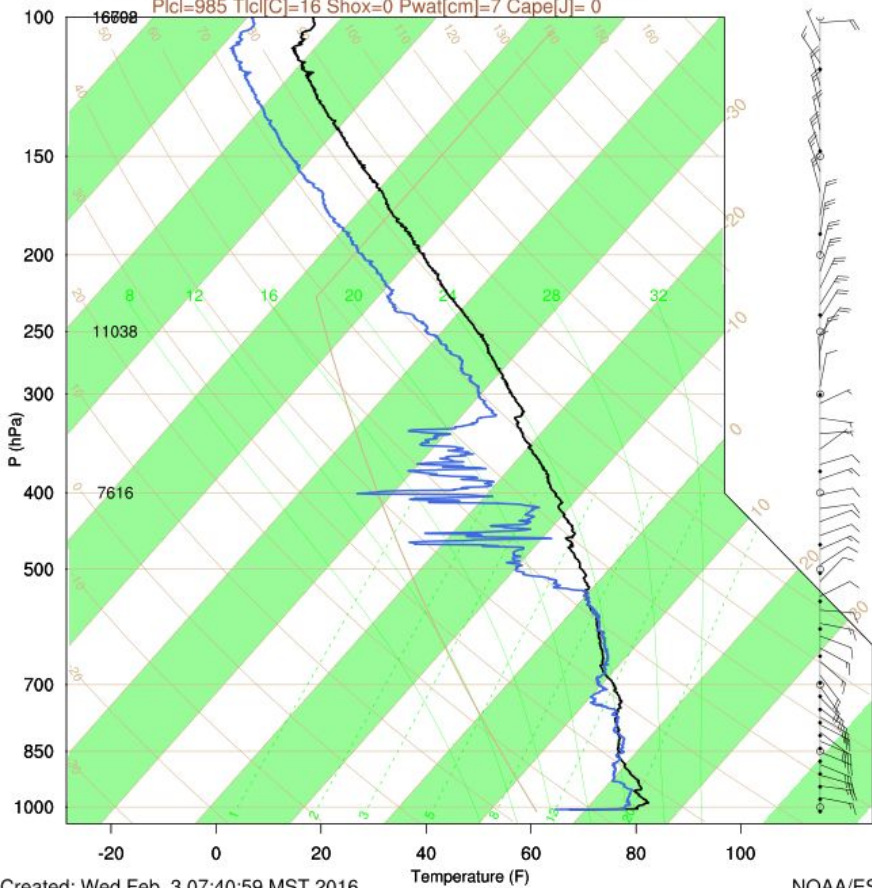


CMORPH_RAW_RT @ 2016-Feb-03 13:00Z



Kiritimati Is: 02/02/2016 2321Z 2.01N 157.40W

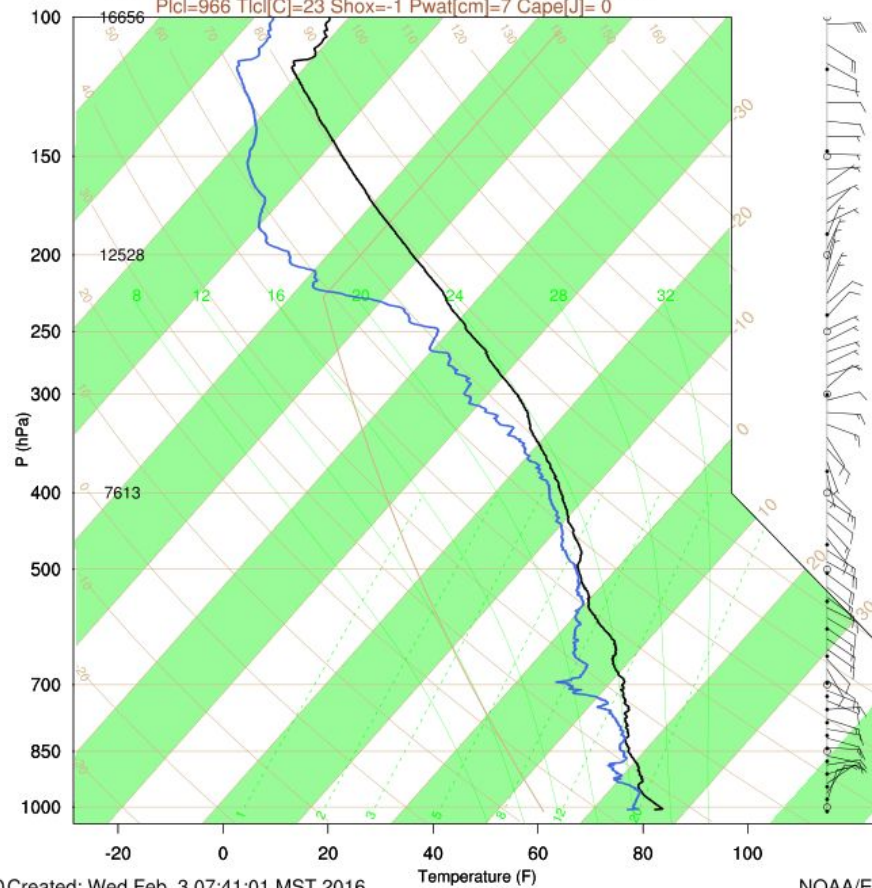
Ptcl=985 Ttcl[C]=16 Shox=0 Pwat[cm]=7 Cape[J]= 0



Created: Wed Feb 3 07:40:59 MST 2016

Kiritimati Is: 02/03/2016 1124Z 2.01N 157.40W

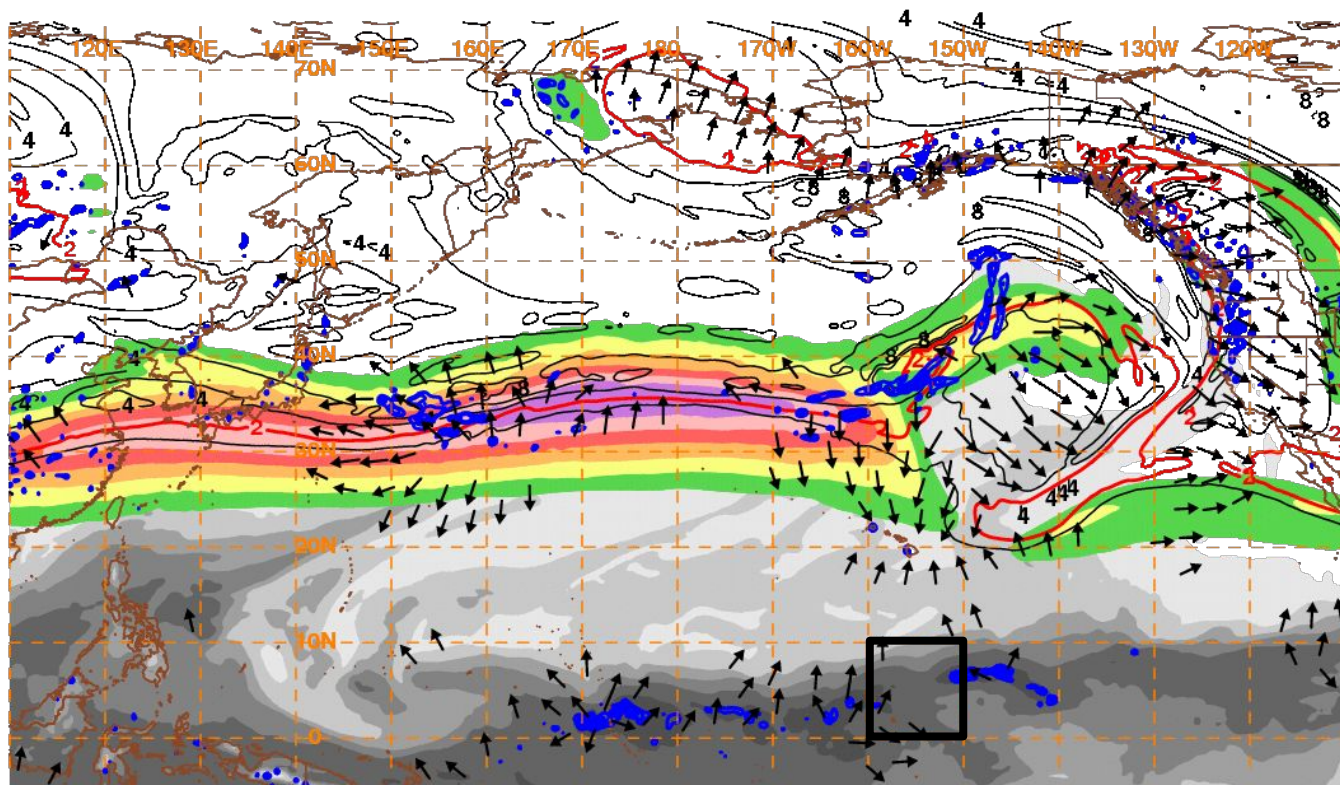
Ptcl=966 Ttcl[C]=23 Shox=-1 Pwat[cm]=7 Cape[J]= 0



NOAA/ESRL PSD Created: Wed Feb 3 07:41:01 MST 2016

NOAA/ESRL PSD

GFS 18 HR FCST Valid 00Z Thur Feb 4: 200 mb DIV Wind Vectors

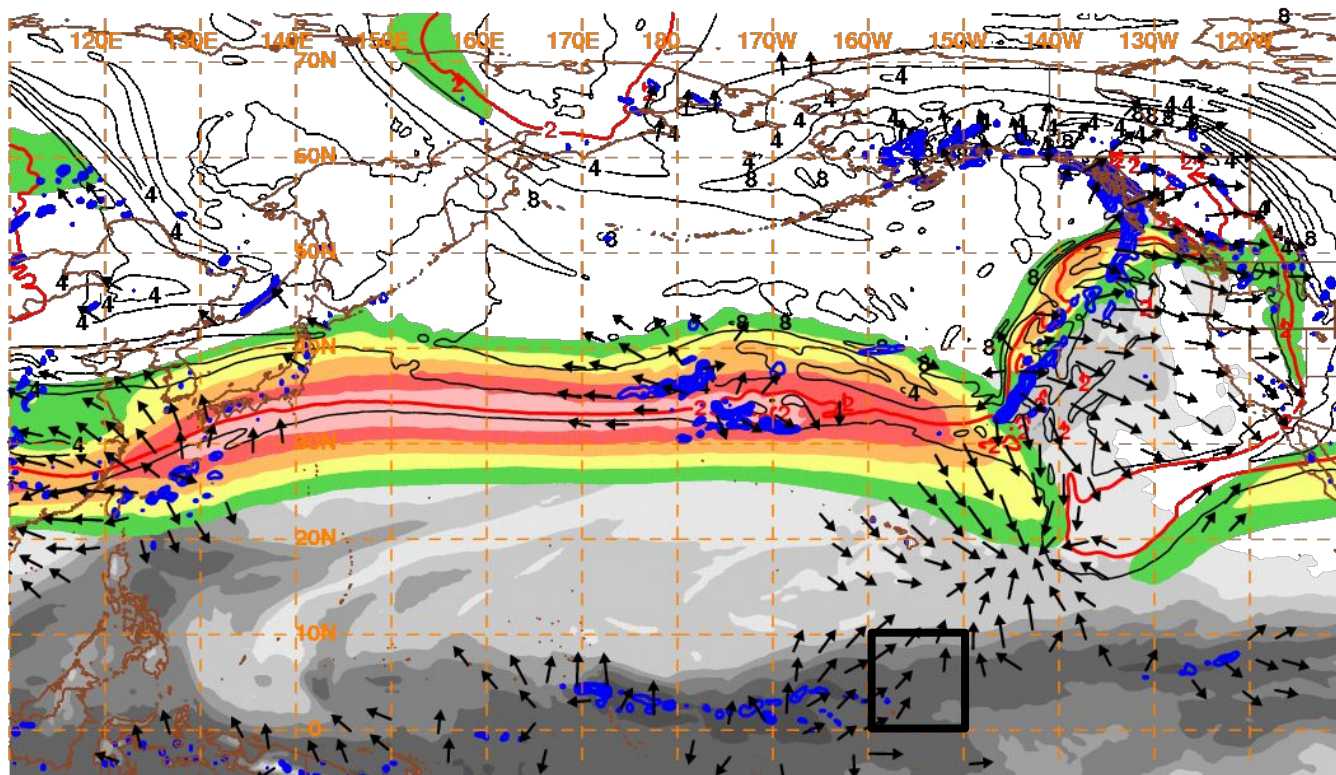


10 m/s → **160204/0000V018 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel**

40 50 60 70 80 90 100

15 25 35 45 55 65

GFS 42 HR FCST Valid 00Z FRI Feb 5: 200 mb DIV Wind Vectors

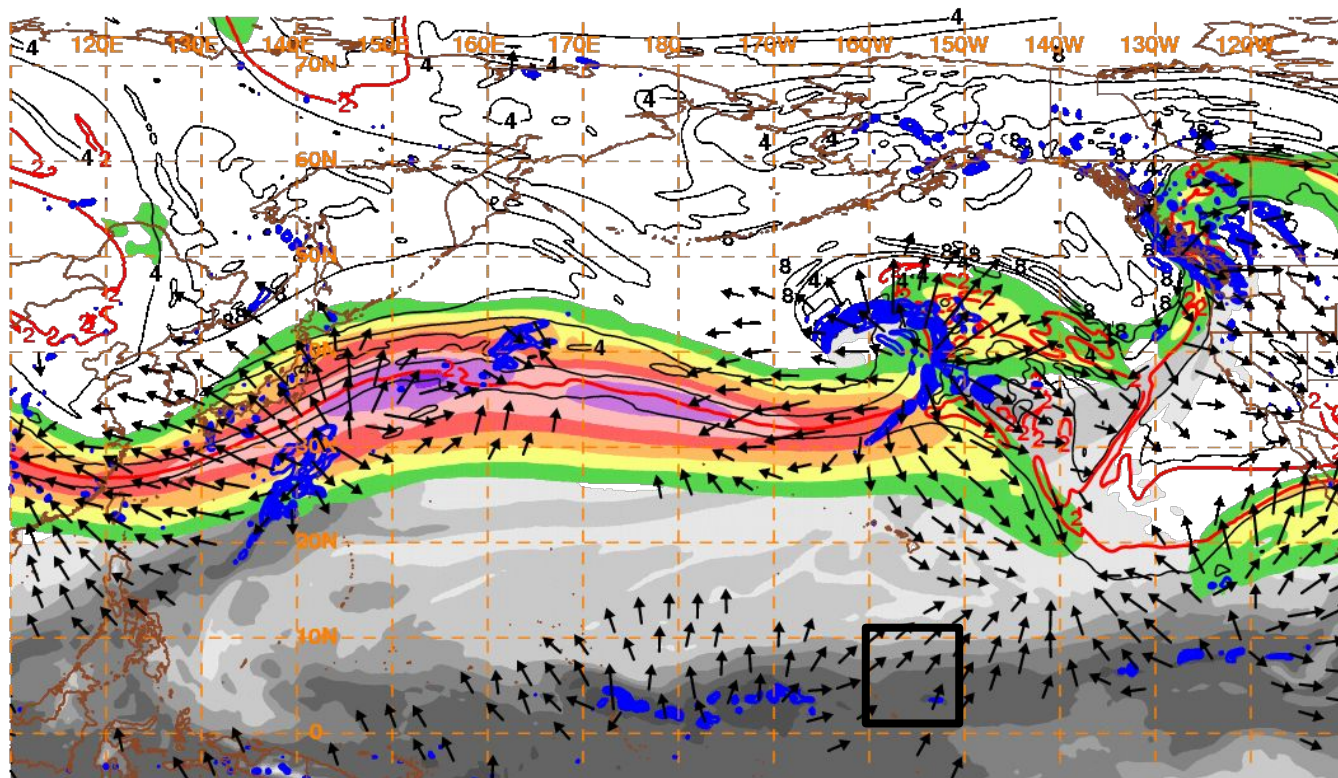


10 m/s → 160205/0000V042 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel

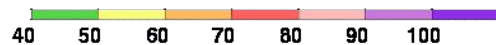
40 50 60 70 80 90 100

15 25 35 45 55 65

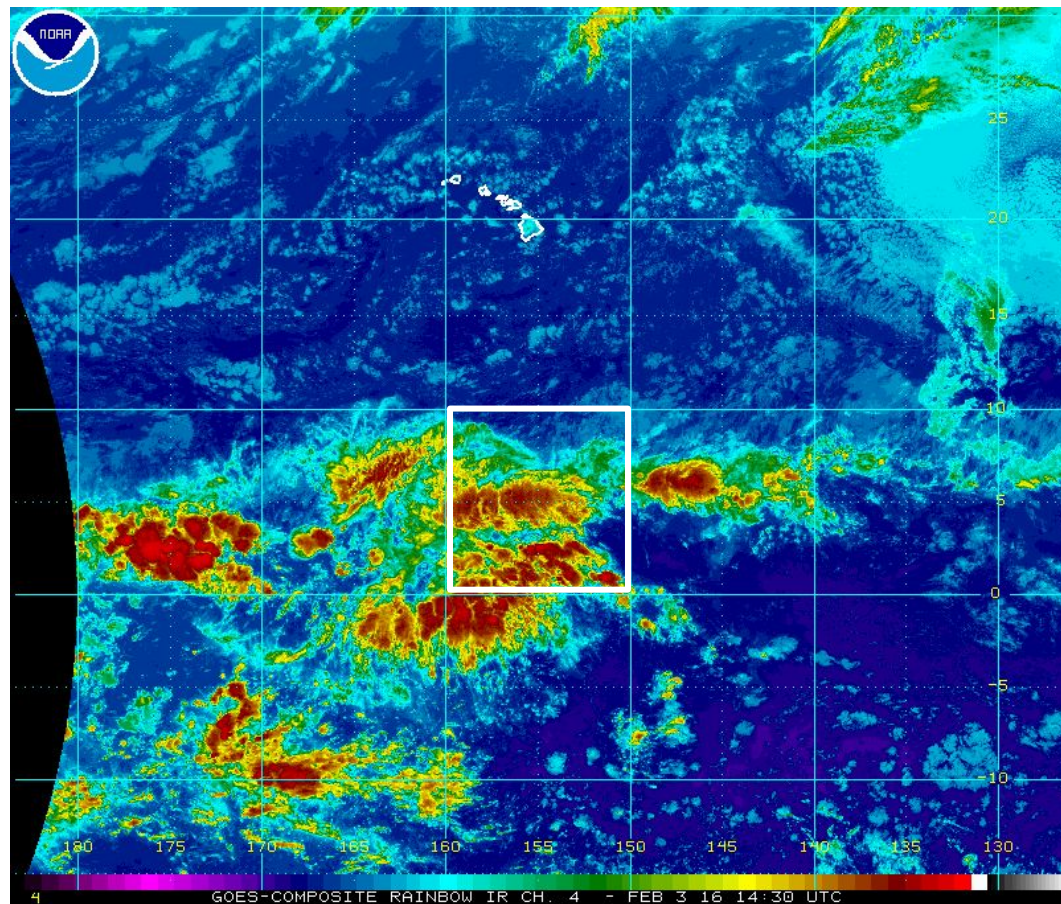
GFS 66 HR FCST Valid 00Z SAT Feb 6: 200 mb DIV Wind Vectors



10 m/s → 160206/0000V066 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel



Wednesday 14:30Z February 3 Enhanced IR Image

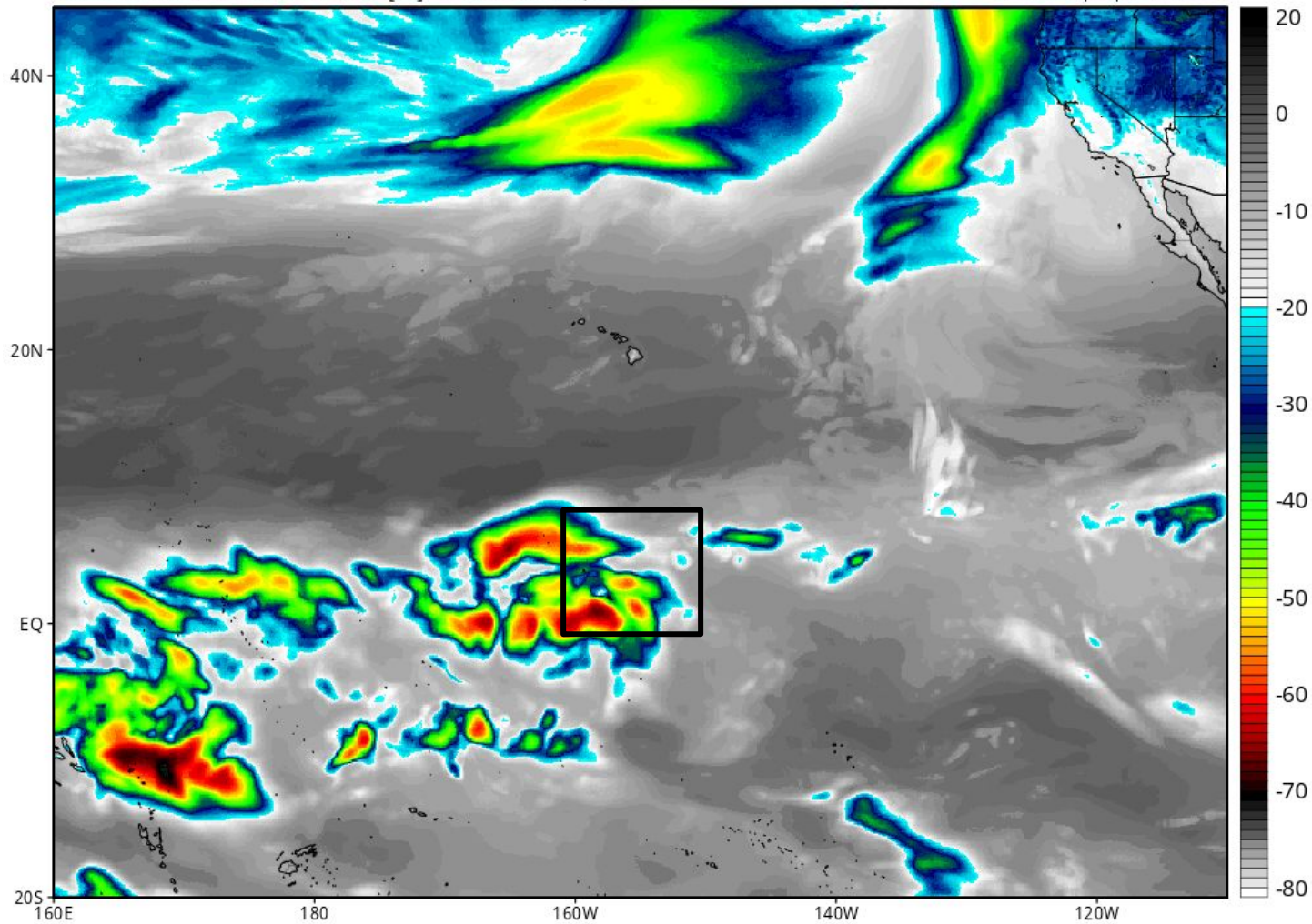


GFS Simulated IR Brightness Temperature (°C)

Init: 06z Feb 03 2016 Forecast Hour: [12] valid at 18z Wed, Feb 03 2016

Latest GFS 12HR Fcst Valid 18z Wed

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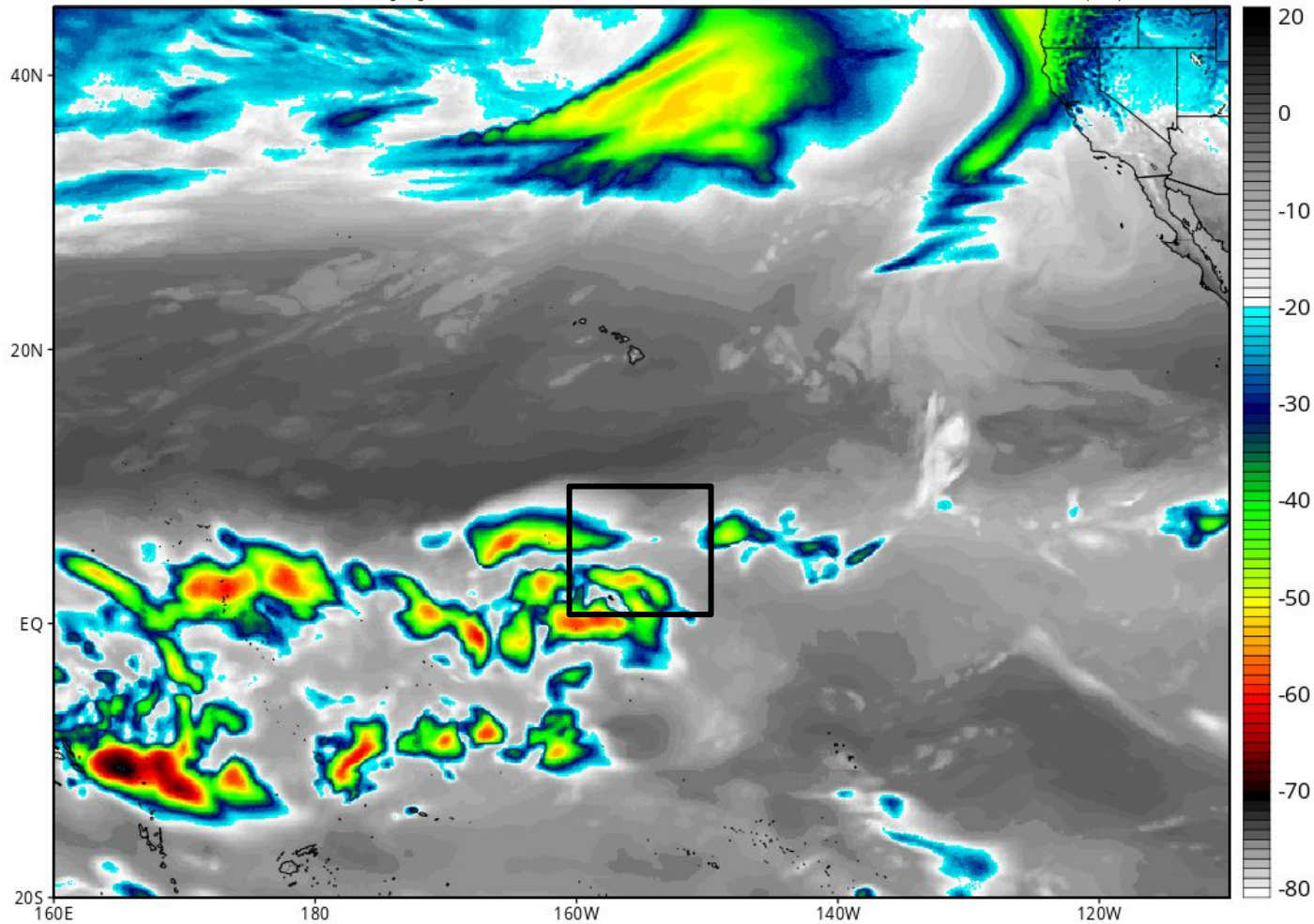


GFS Simulated IR Brightness Temperature (°C)

Latest GFS 18HR Fcst Valid 00Z THU

Init: 06z Feb 03 2016 Forecast Hour: [18] valid at 00z Thu, Feb 04 2016

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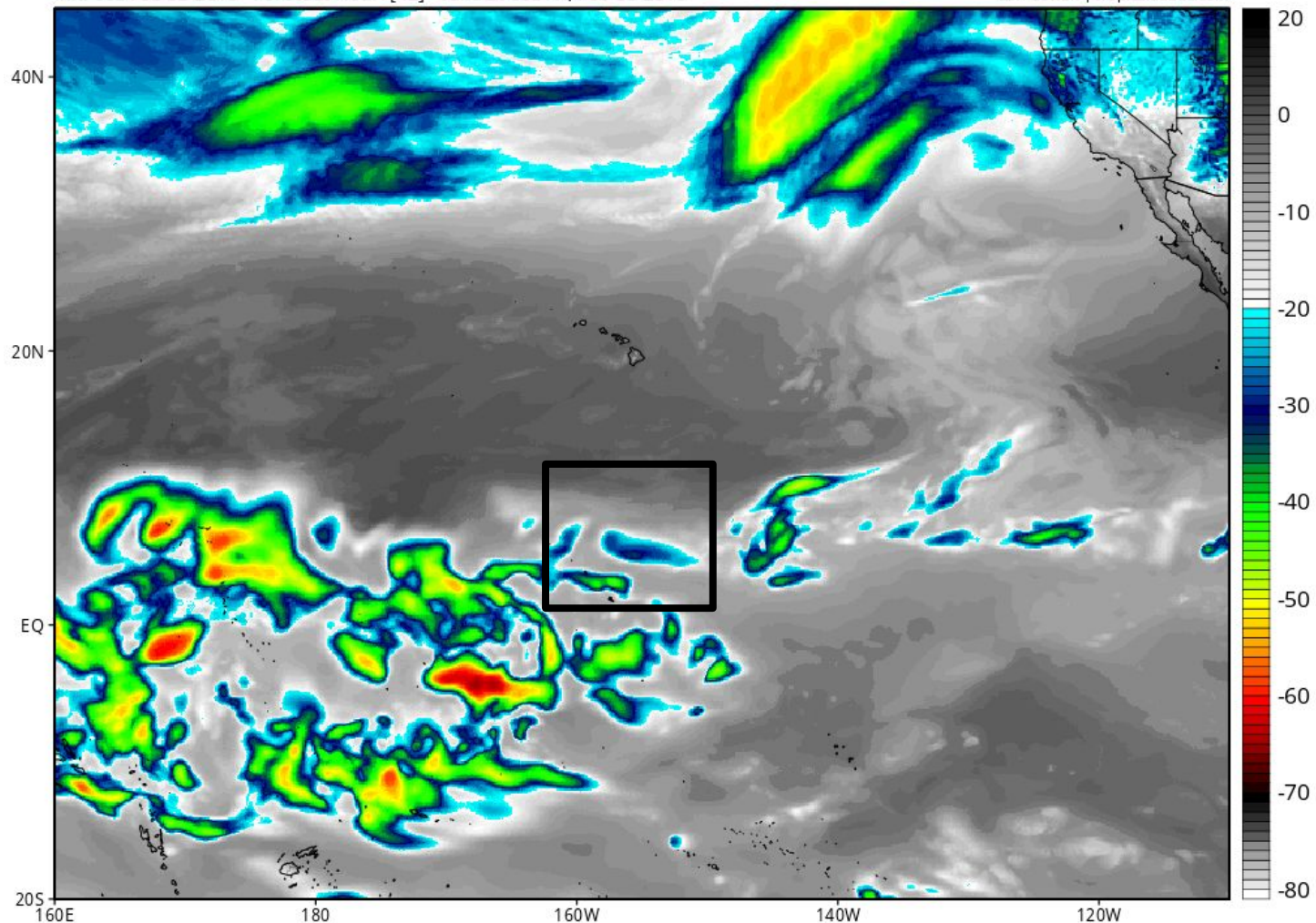


GFS Simulated IR Brightness Temperature (°C)

Init: 06z Feb 03 2016 Forecast Hour: [42] valid at 00z Fri, Feb 05 2016

Latest GFS 42HR Fcst Valid 00z FRI

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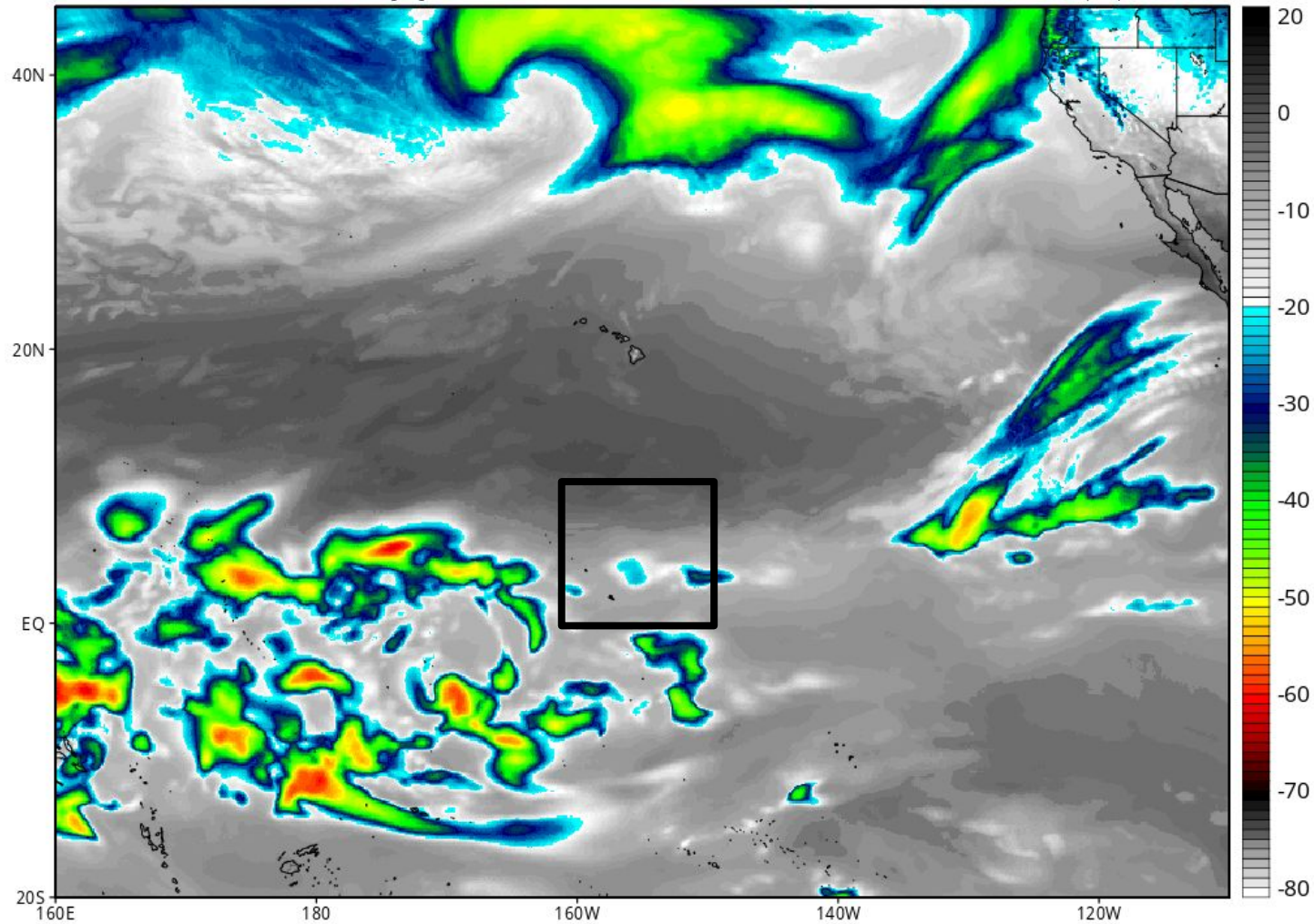


GFS Simulated IR Brightness Temperature (°C)

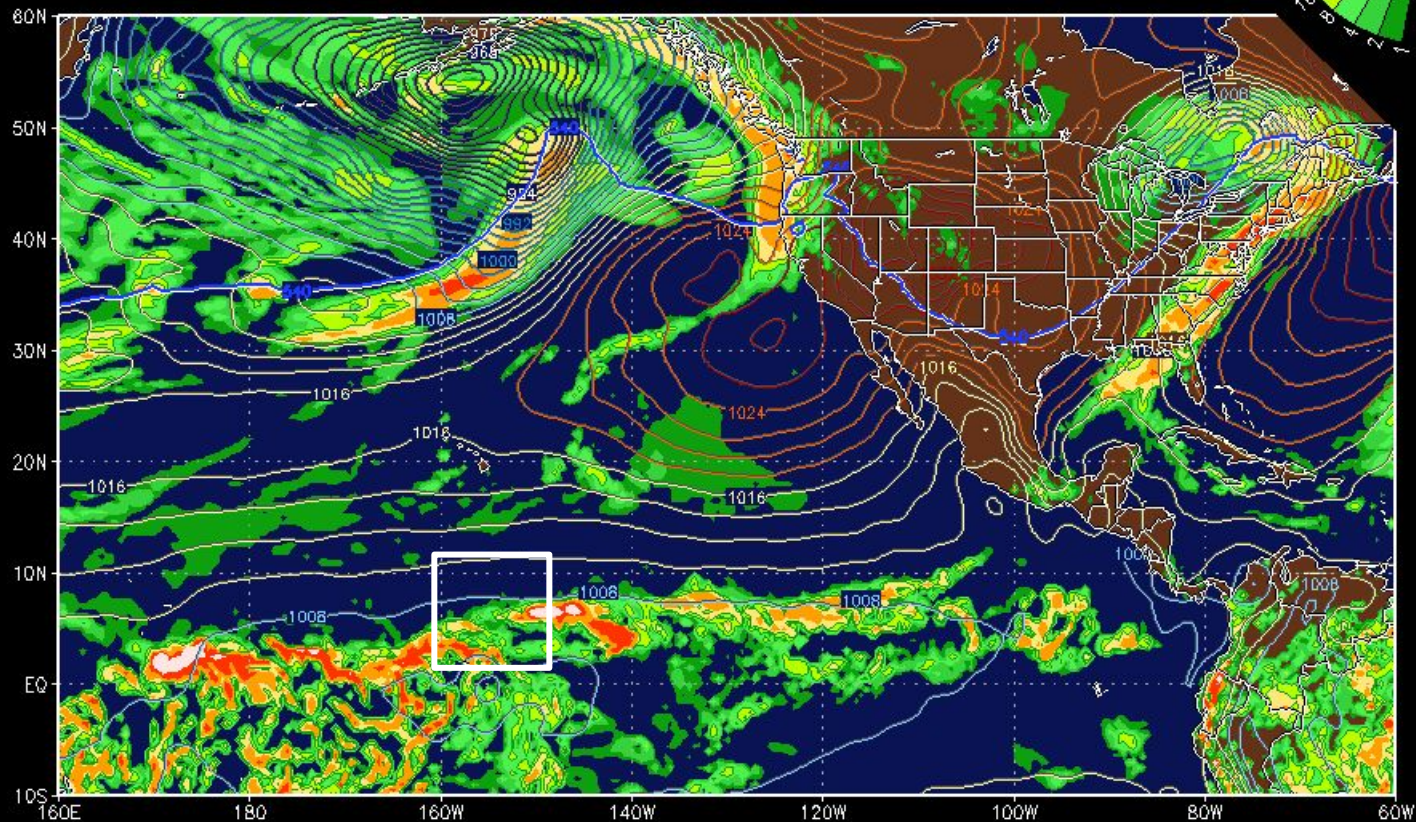
Init: 06z Feb 03 2016 Forecast Hour: [66] valid at 00z Sat, Feb 06 2016

Latest GFS 66HR Fcst Valid 00Z SAT

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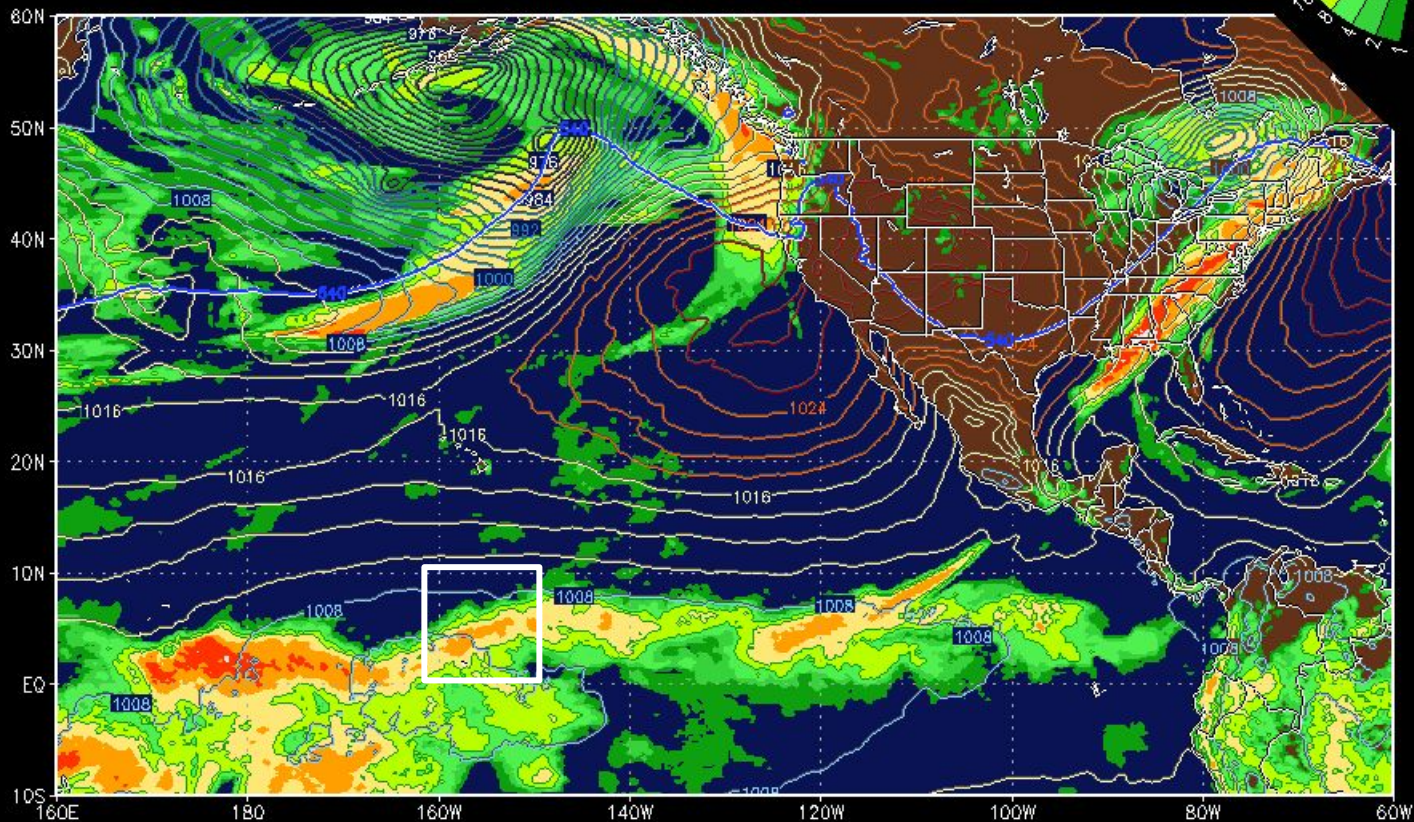
NCEP GFS (T1534(15km)L64) 2016020306 run 0.5° Fields $\tau = 18$ h



Verify: Thu 00Z 04 FEB

SLP [hPa] / 540 Line / Prev 6-h Prop Rate [mm/day]

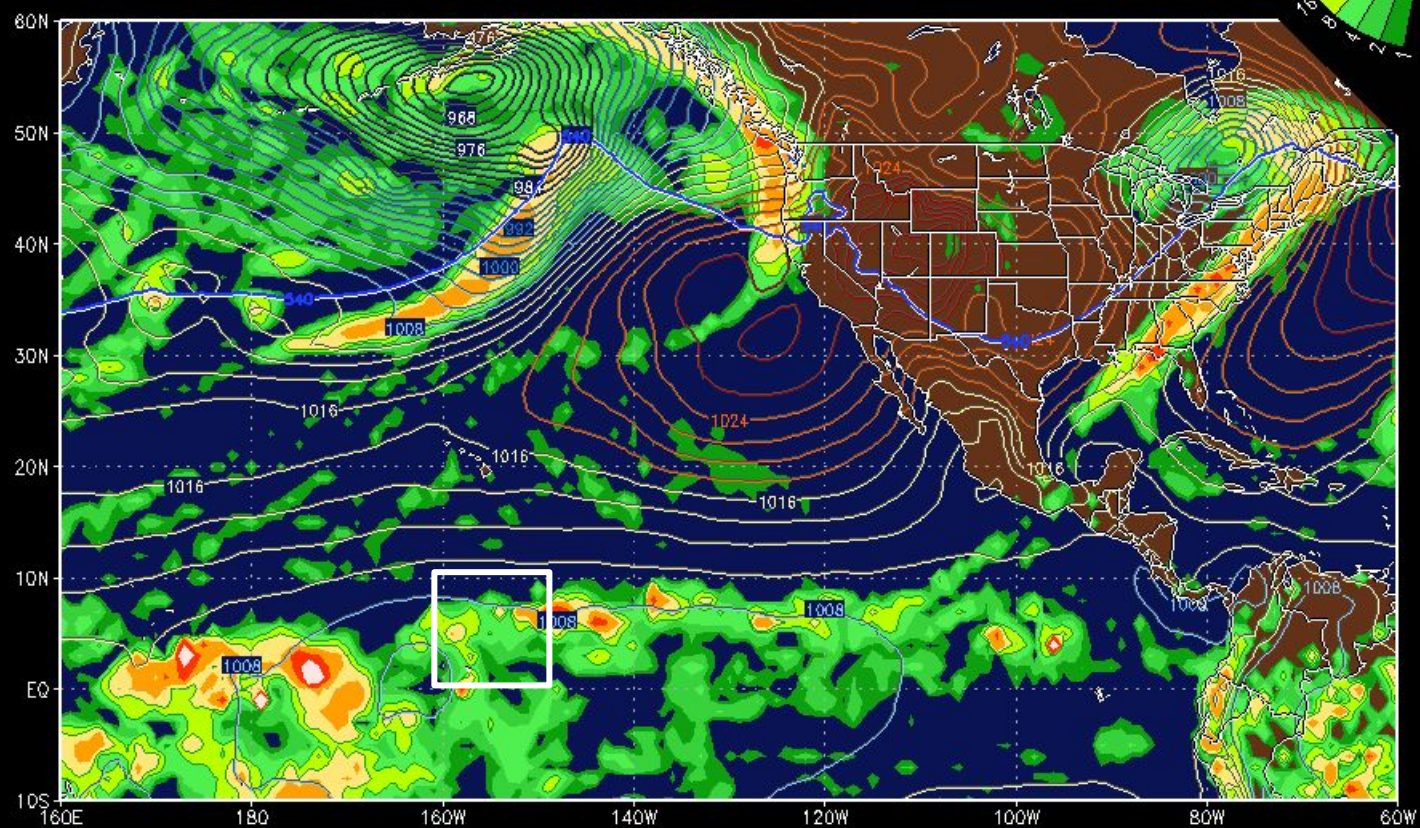
UKMO (0.32x0.24(N384L70)) 2016020300 run 0.7° Fields $\tau = 24$ h



Verify: Thu 00Z 04 FEB

SLP [hPa] / 540 Line / Prev 6-h Prop Rate [mm/day]

ECMWF IFS [T,1279(16km)L91)] 2016020300 run 1.0° Fields $\tau = 24$ h

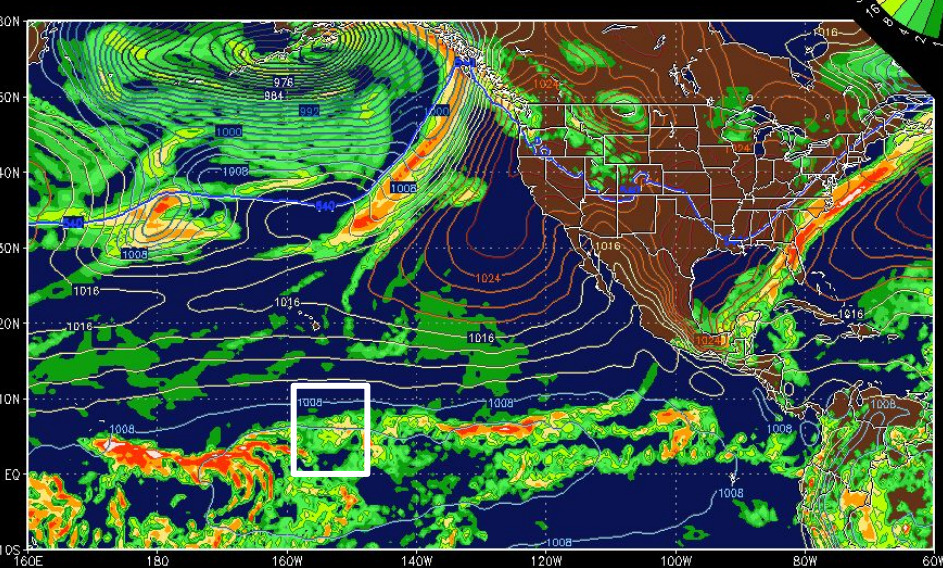
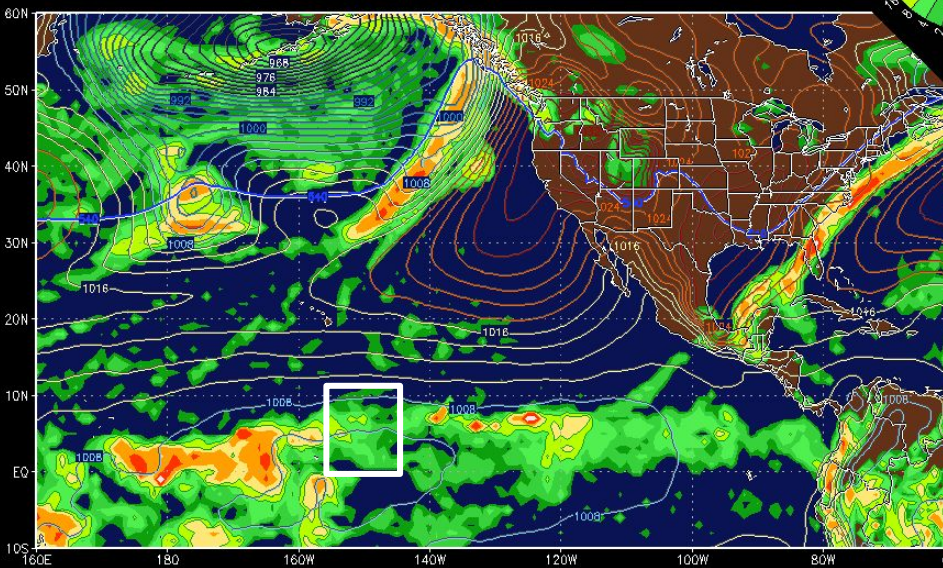


Verify: Thu 00Z 04 FEB

SLP [hPa] / 540 Line / Prev 6-h Precip Rate [mm/day]

ECMWF IFS [T,1279(16km)L91]] 2016020300 run 1.0° Fields $\tau = 48$ h

NCEP GFS (T1534(15km)L64) 2016020306 run 0.5° Fields $\tau = 42$ h



Verify: Fri 00Z 05 FEB

SLP [hPa] / 540 Line / Prev 6-h Prop Rate [mm/day]

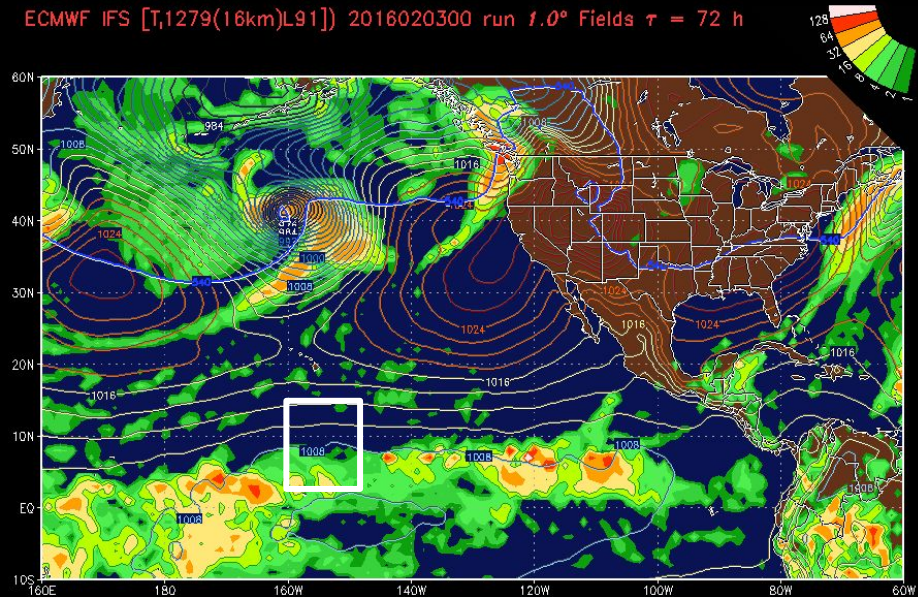
ECMWF Data Courtesy of NCEP/NCO
Dr. Mike Fiorino (michael.fiorino@noaa.gov) ESRL/GSD/AMB, Boulder, CO 20160203 1

Verify: Fri 00Z 05 FEB

SLP [hPa] / 540 Line / Prev 6-h Prop Rate [mm/day]

NCEP GFS courtesy NCEP/NCO
Dr. Mike Fiorino (michael.fiorino@noaa.gov) ESRL/GSD/AMB, Boulder, CO 20160203 10:54

ECMWF IFS [T,1279(16km)L91]) 2016020300 run 1.0° Fields $\tau = 72$ h



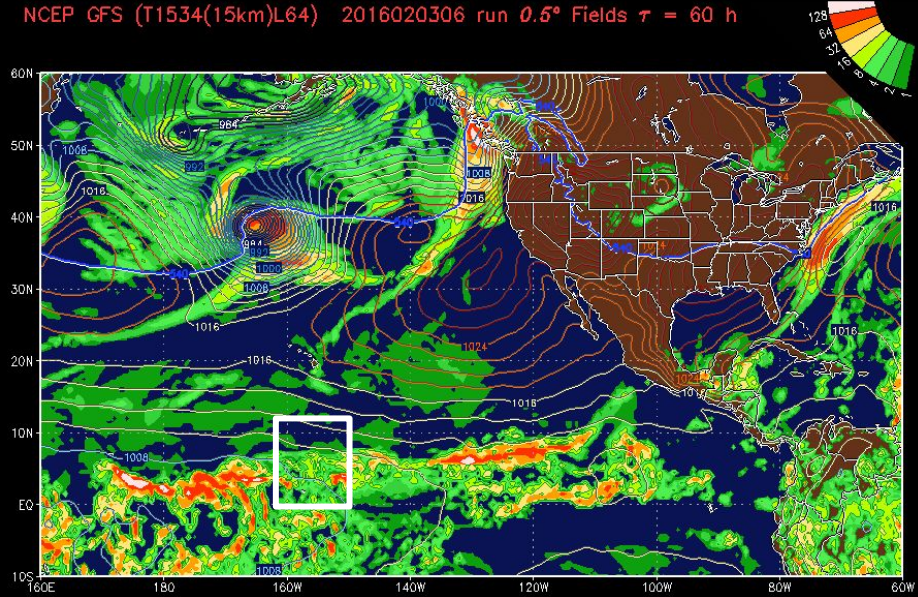
Verify: Sat 00Z 06 FEB

SLP [hPa] / 540 Line / Prev 8-h Prop Rate [mm/day]

ECMWF Data Courtesy of NCEP/NCO
Dr. Mike Fiorino (michael.fiorino@noaa.gov) ESRL/GSD/AMB, Boulder, CO

20160203 07:10

NCEP GFS (T1534(15km)L64) 2016020306 run 0.5° Fields $\tau = 60$ h



Verify: Fri 18Z 05 FEB

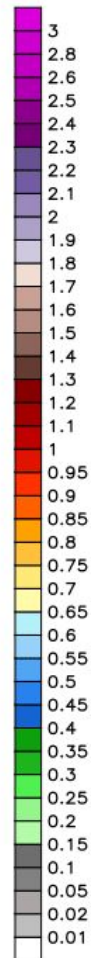
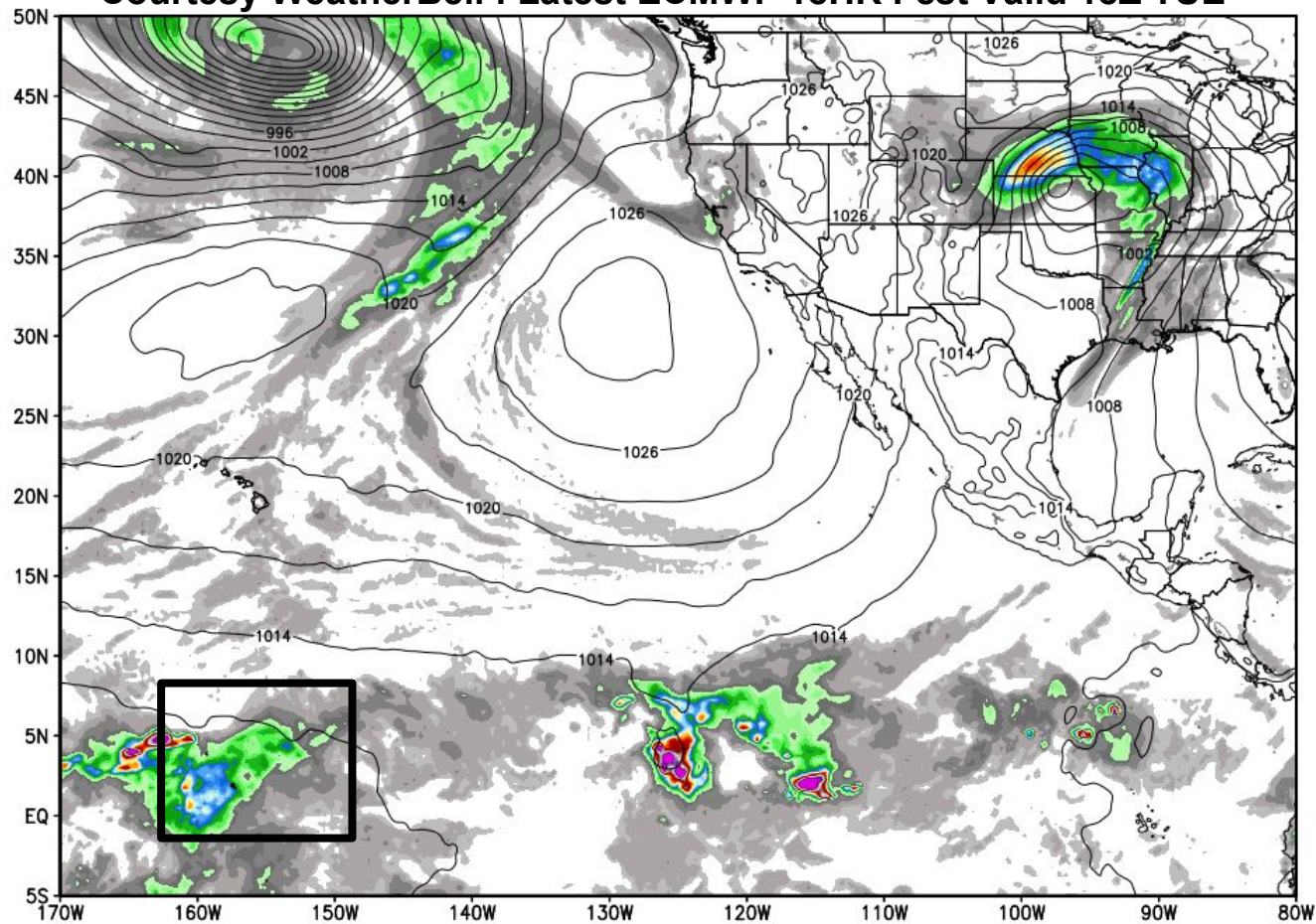
SLP [hPa] / 540 Line / Prev 8-h Prop Rate [mm/day]

NCEP GFS courtesy NCEP/NCO
Dr. Mike Fiorino (michael.fiorino@noaa.gov) ESRL/GSD/AMB, Boulder, CO

20160203 10:54

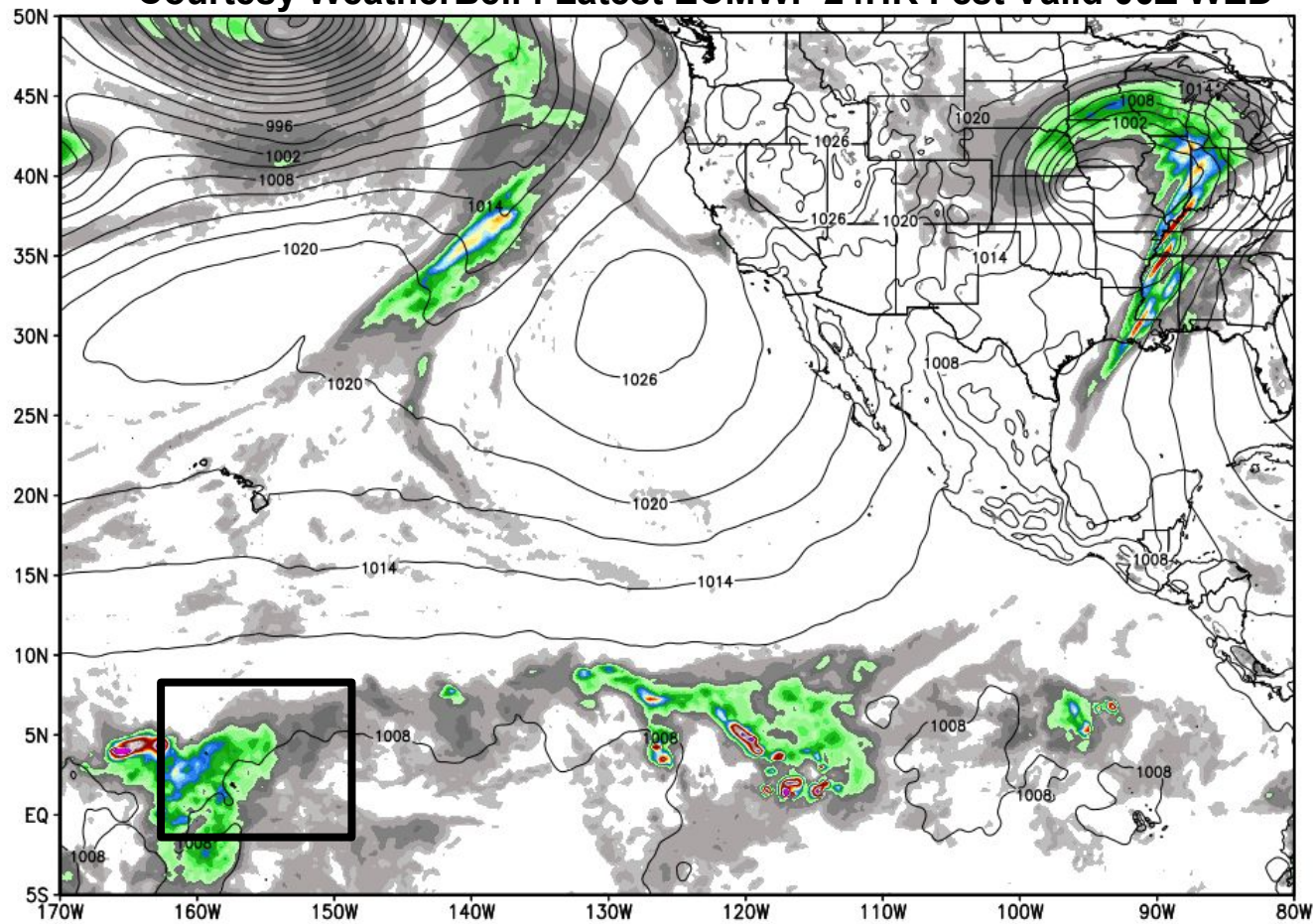
ECMWF 6-hourly Precipitation [inches] between 12Z02FEB2016 -- 18Z02FEB2016 & MSLP [hPa]
INIT: 00Z02FEB2016 fx: [018] hr --> Tue 18Z02FEB2016

Courtesy WeatherBell : Latest ECMWF 18HR Fcst Valid 18Z TUE



ECMWF 6-hourly Precipitation [inches] between 18Z02FEB2016 -- 00Z03FEB2016 & MSLP [hPa]
INIT: 00Z02FEB2016 fx: [024] hr --> Wed 00Z03FEB2016

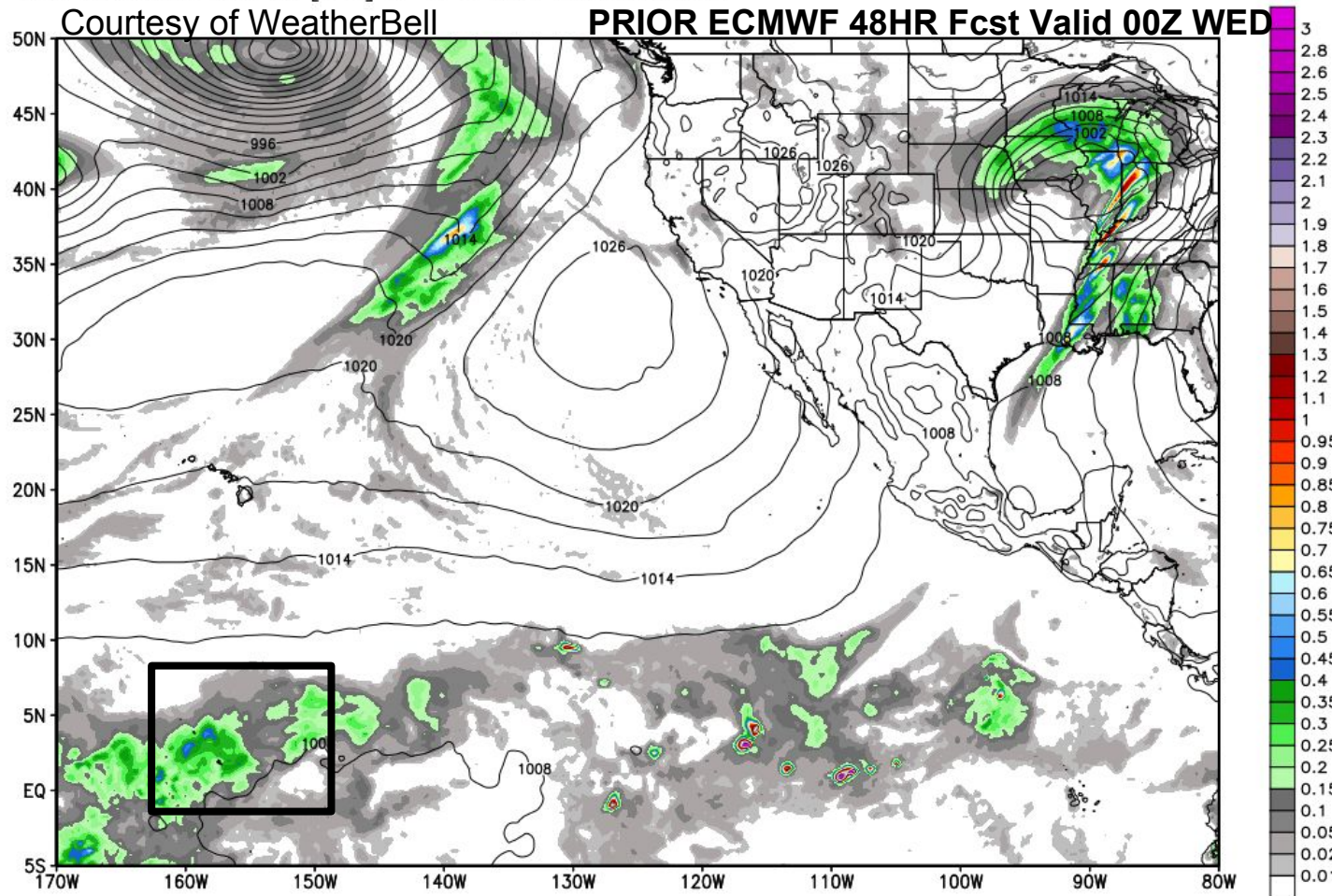
Courtesy WeatherBell : Latest ECMWF 24HR Fcst Valid 00Z WED



ECMWF 6-hourly Precipitation [inches] between 18Z02FEB2016 -- 00Z03FEB2016 & MSLP [hPa]
INIT: 00Z01FEB2016 fx: [048] hr --> Wed 00Z03FEB2016

Courtesy of WeatherBell

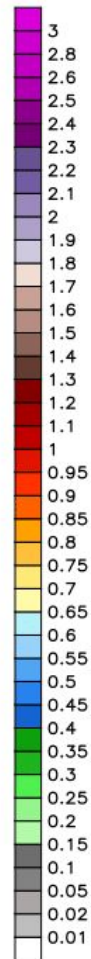
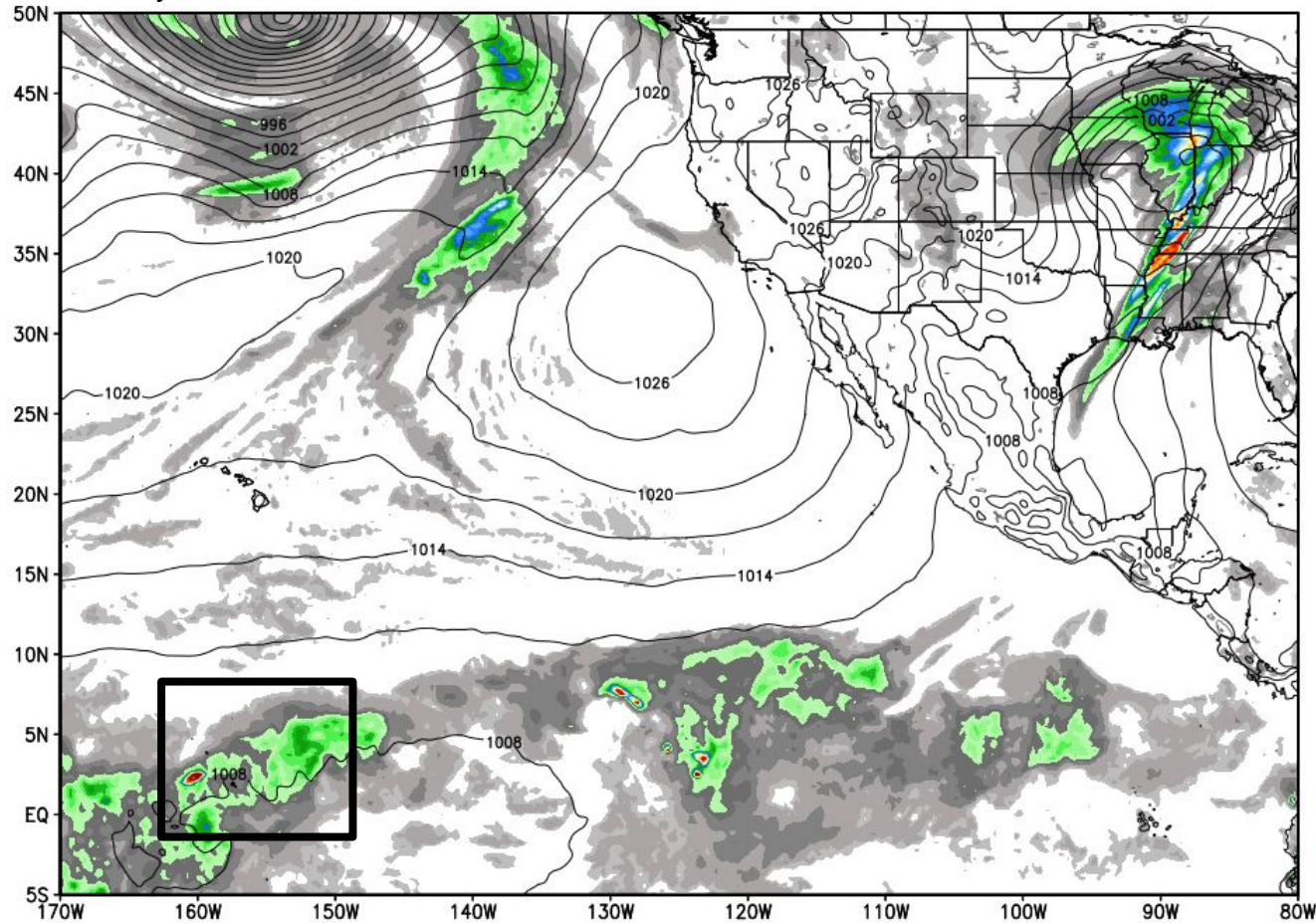
PRIOR ECMWF 48HR Fcst Valid 00Z WED



ECMWF 6-hourly Precipitation [inches] between 18Z02FEB2016 -- 00Z03FEB2016 & MSLP [hPa]
INIT: 00Z31JAN2016 fx: [072] hr --> Wed 00Z03FEB2016

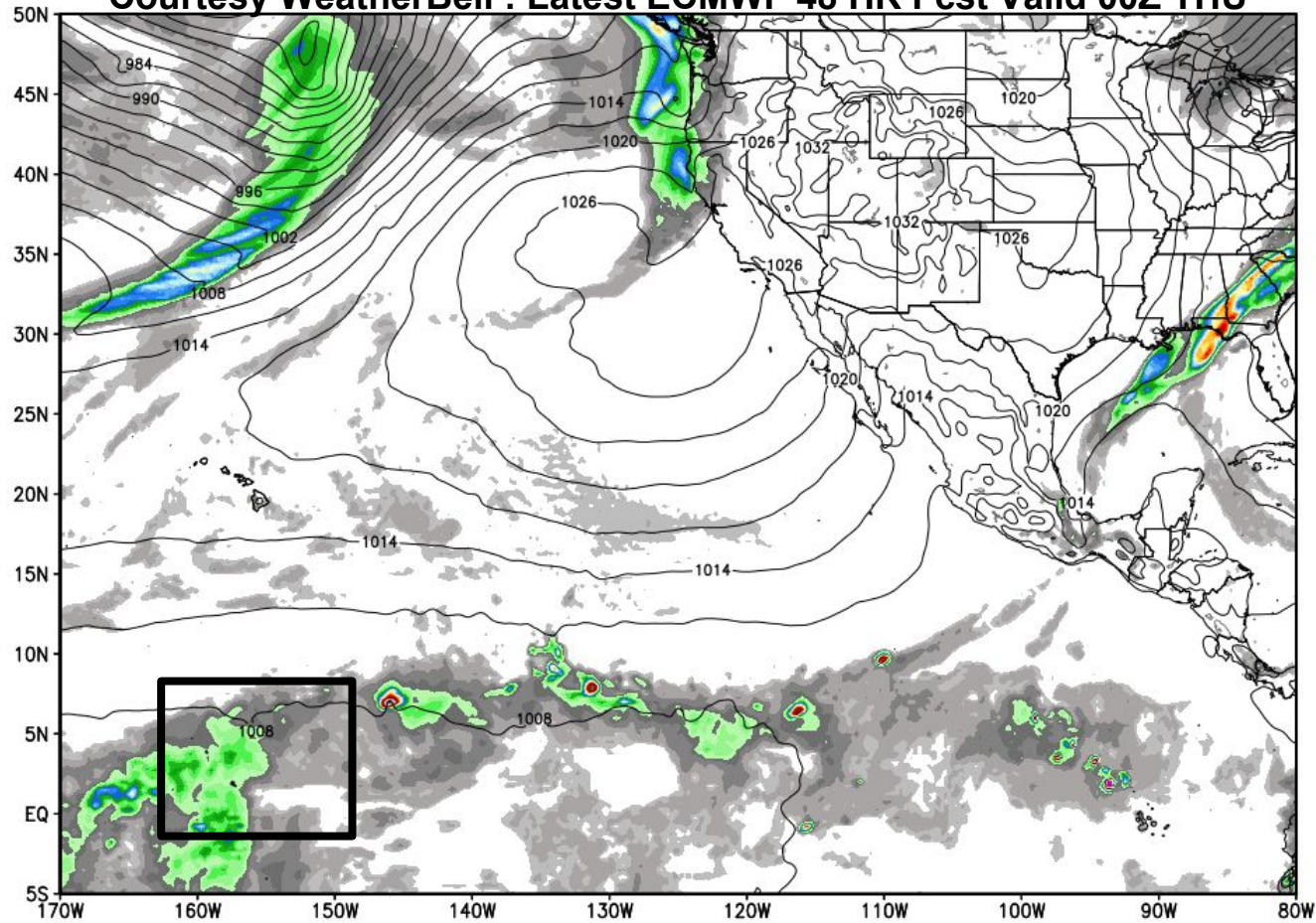
Courtesy WeatherBell

Prior ECMWF 72 HR Fcst Valid 00Z WED



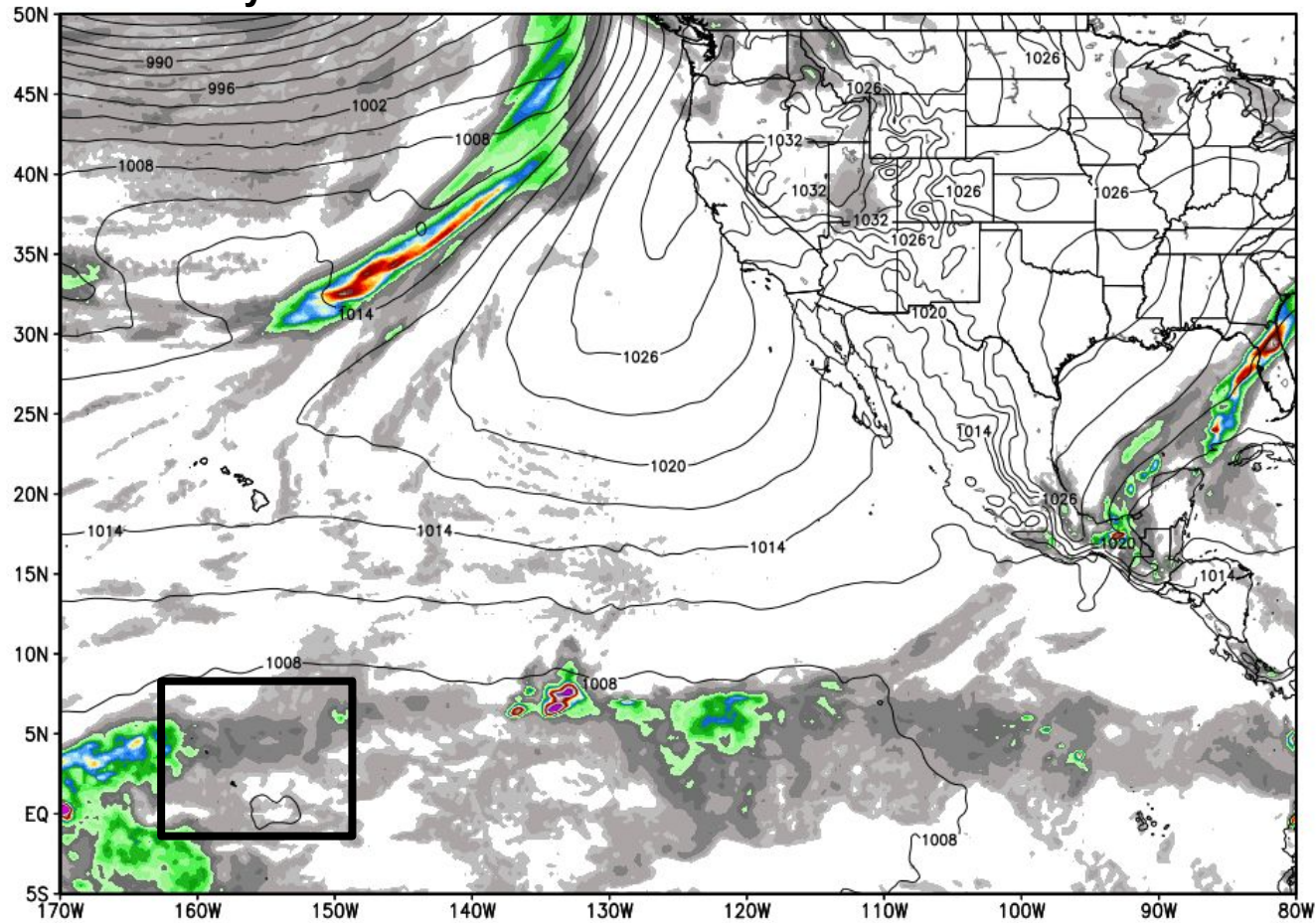
ECMWF 6-hourly Precipitation [inches] between 18Z03FEB2016 -- 00Z04FEB2016 & MSLP [hPa]
INIT: 00Z02FEB2016 fx: [048] hr --> Thu 00Z04FEB2016

Courtesy WeatherBell : Latest ECMWF 48 HR Fcst Valid 00Z THU



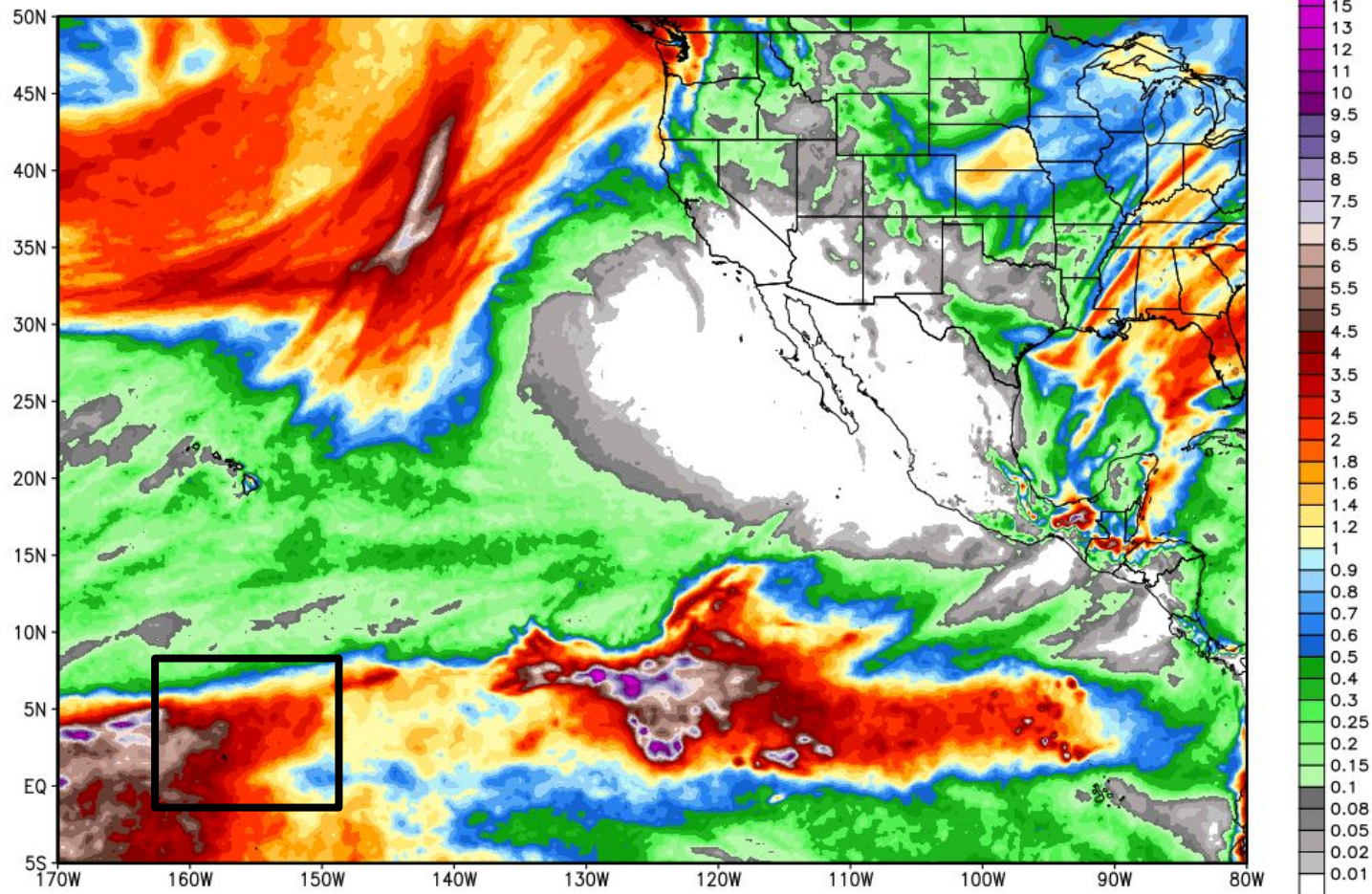
ECMWF 6-hourly Precipitation [inches] between 18Z04FEB2016 -- 00Z05FEB2016 & MSLP [hPa]
INIT: 00Z02FEB2016 fx: [072] hr --> Fri 00Z05FEB2016

Courtesy WeatherBell : Latest ECMWF 72 HR Fcst Valid 00Z FRI



ECMWF Total Precipitation [inches] between 00Z02FEB2016 -- 00Z09FEB2016
INIT: 00Z02FEB2016 fx: [168] hr --> Tue 00Z09FEB2016

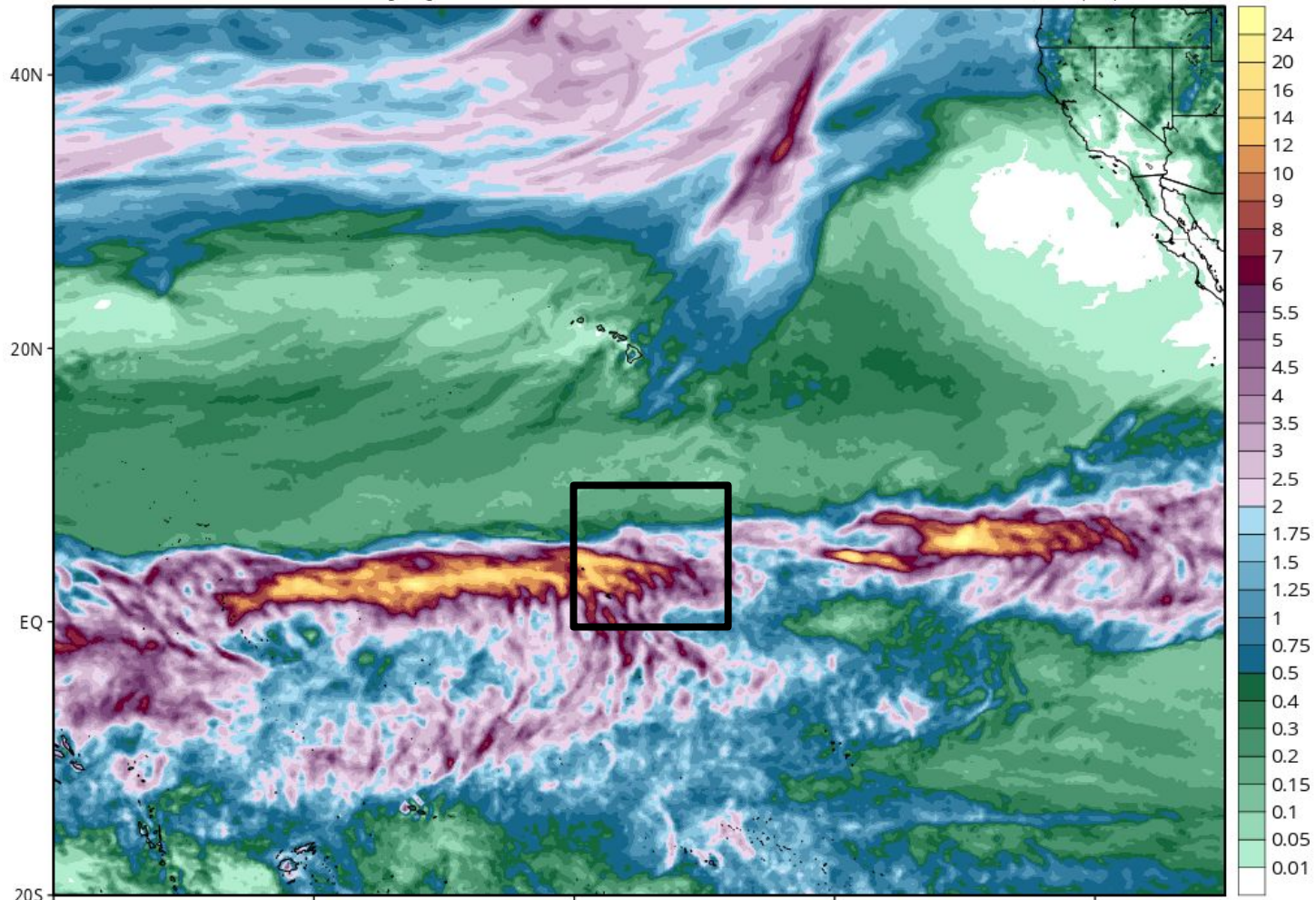
Max 18.1 in



GFS Total Accumulated Precipitation (inches) from 06z01Feb2016 to 00z08Feb2016

Init: 06z Feb 01 2016 Forecast Hour: [162] valid at 00z Mon, Feb 08 2016

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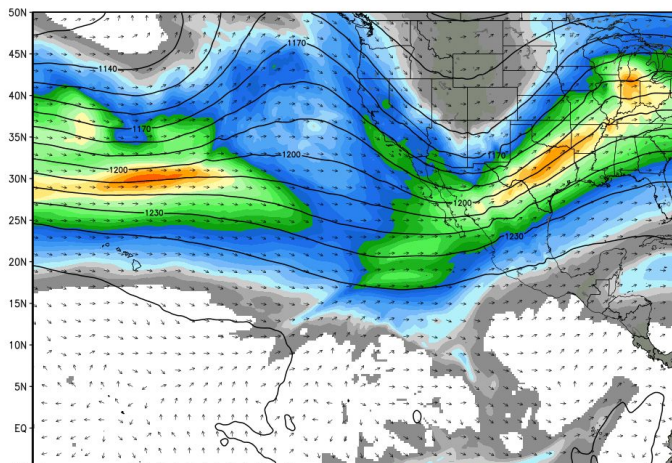


18Z Tues Feb 2

18Z Fri Feb 5

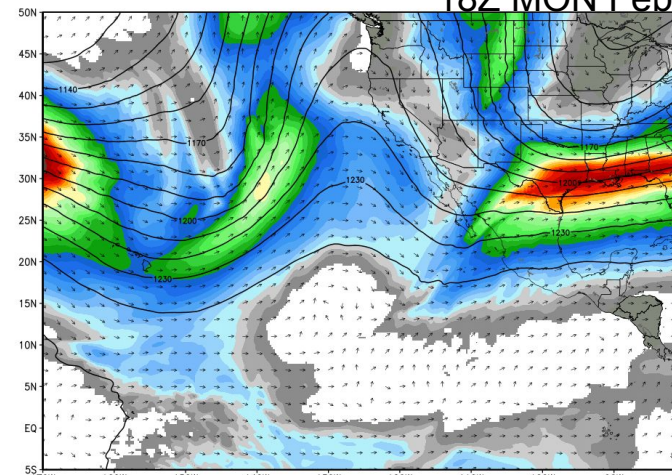
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]
INIT: 00Z02FEB2016 fx: [018] hr --> Tue 18Z02FEB2016

Max Wind 135.4 knots



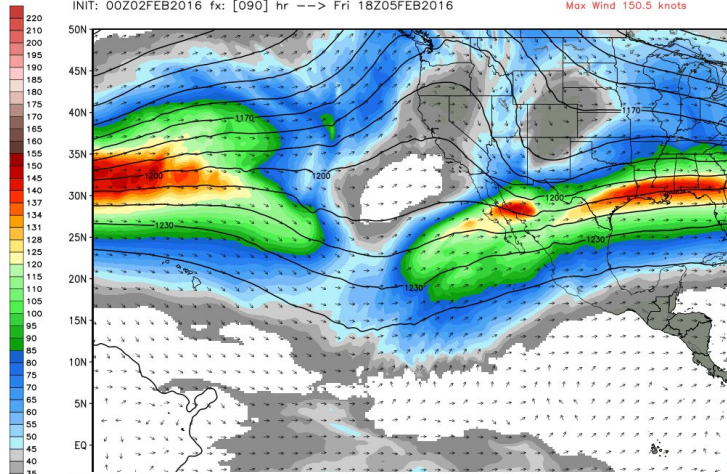
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]
INIT: 00Z02FEB2016 fx: [162] hr --> Mon 18Z08FEB2016

18Z MON Feb 8



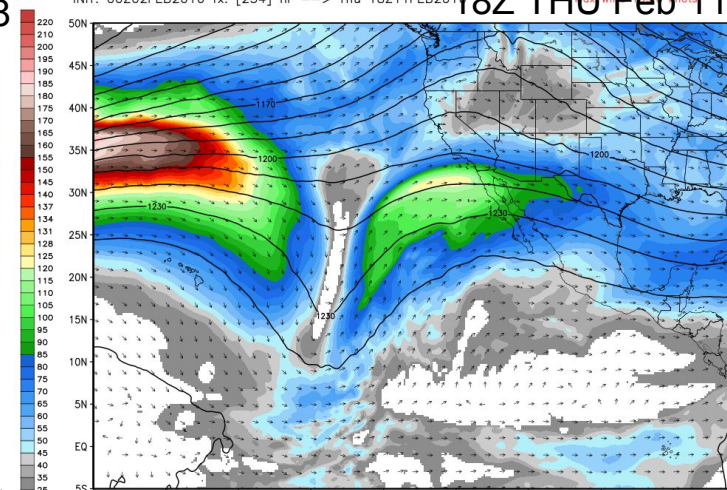
ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]
INIT: 00Z02FEB2016 fx: [090] hr --> Fri 18Z05FEB2016

Max Wind 150.5 knots



ECMWF 200 hPa Wind Speed & Vector Direction [knots], Height [dm]
INIT: 00Z02FEB2016 fx: [234] hr --> Thu 18Z11FEB2016

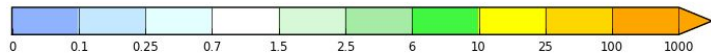
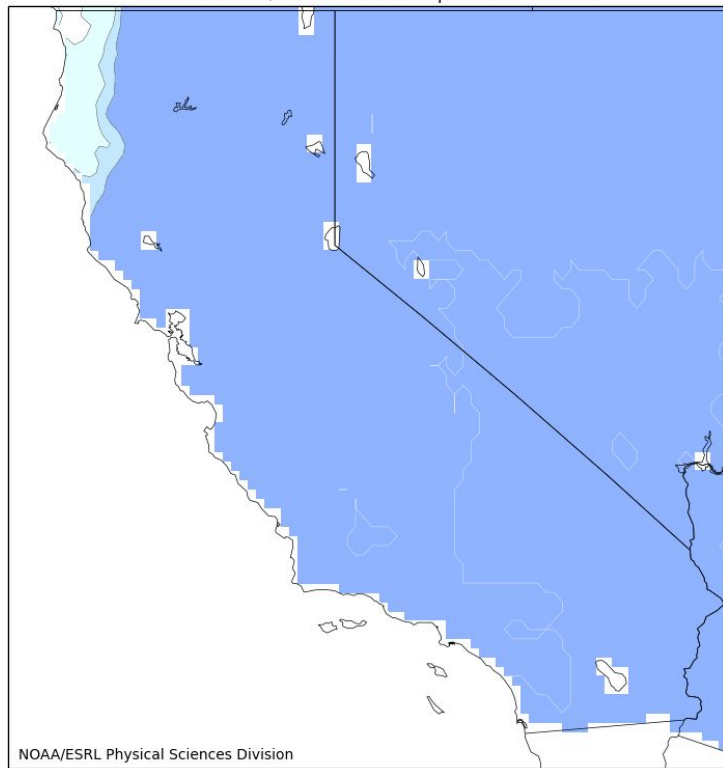
18Z THU Feb 11



Medium - Long Range Forecast

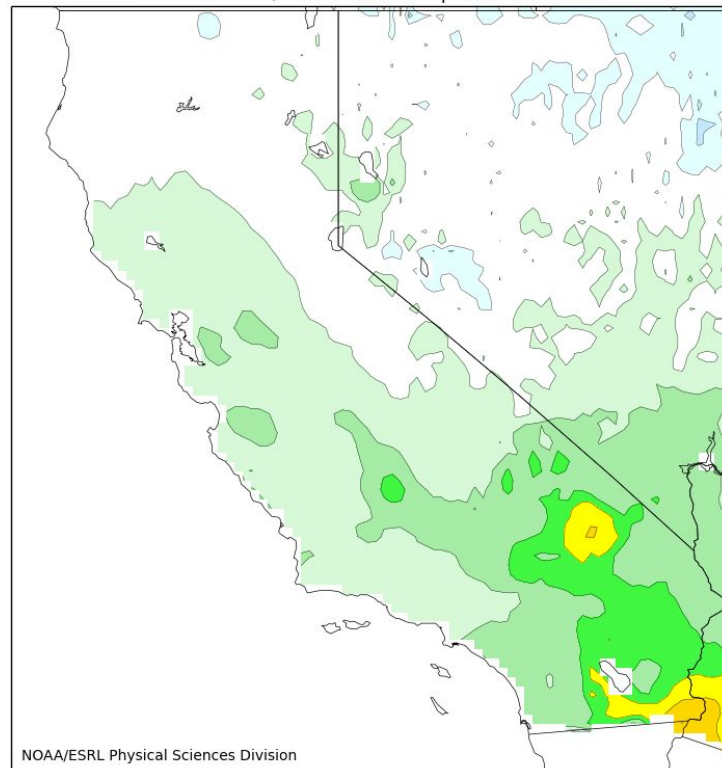
ESRL-Calibrated Reforecast Pcpn : Day 0-7 and 8-15 Day Fcst *(from the 00Z WED3 FEB ensembles of the experimental reforecast system)*

000-168hr fcst from 00Z Wed Feb 03. Valid 00Z Wed Feb 03 - 00Z Wed Feb 10
Ratio. Forecast/Climo Prob of Precip > 50mm. CSGD.



Ratio: Forecast Probability / Climatological Probability

198-360hr fcst from 00Z Wed Feb 03. Valid 06Z Thu Feb 11 - 00Z Thu Feb 18
Ratio. Forecast/Climo Prob of Precip > 50mm. CSGD.

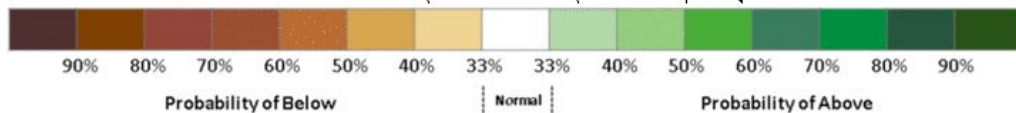


Ratio: Forecast Probability / Climatological Probability



6-10 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 1 FEB 2016
VALID FEB 07 - 11, 2016

DASHED BLACK LINES ARE CLIMATOLOGY
(TENTH OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
UNSHADED AREAS ARE NEAR-NORMAL



Medium - Long Range Forecast

Day 7-10 Initialized 00Z WED 03 Feb

