

Summary of Key Briefing Points:1030-1130am MST January 24, 2016

Current Conditions as of Sunday 12Z 24 January

Tropics and Midlatitudes

Over the Tropical Pacific:

- Convection: Convection is mostly muted in the region 165-140W, 0-5N this morning.
 - Small patch of enhanced convection E-5S, 150W-160W at 12Z Sun
- Two other Active convection regions 12Z Sun:
 - one located 15-120° Longitude west of Christmas Island on the Eq.
 - other located in a extended zonal band from 140W eastward, near 5°N.
- SPCZ convection remains active...less so than Saturday as per 12Z Sun IR imagery
- Low level 850 mb circulation at 12Z Sun continues to show a well defined cyclonic center located slightly south of the equatorward, mostly west of Dateline, propagating westward.
- Strong NE Trade winds of 30 kts near 2N, in the 160W-150W sector. This flow, which is analyzed stronger than in prior Fri and Sat forecasts, is likely focusing convection near and south of the EQ this Sunday morning.
- Jetstream: Large scale 250 mb winds over the NPAC at 12Z SUN shows
 - a strong polar jet centered at 35N, with a jet core speed of 190 kt from 160E-160W.
 - a subtropical branch in EPac, entrance region near 15N, 140W, curving o/ Baja 150kt

Over CA:

- Quiet Today....
 - 8 & 5-Station CADWR monitoring indicates *above normal accumulation* WY at 118% and 123% of normal as of 24 January..

Tropical Outlook

- By 00Z Tuesday 25 Jan, principal divergent outflow in the 0-10N band expected to have developed within mission domain.
 - Confidence for large scale poleward outflow in mission region is high based on GFS/EC/FIM/CMC model agreement....though mesoscale details differ.
- By 00Z Wednesday 25 Jan, principal divergent outflow in the 0-10N band expected to have developed within mission domain.
 - Confidence for large scale poleward outflow in mission region is moderately high based on GFS/EC/FIM/CMC model agreement.... mesoscale details differ.
- Slight westward movement of this large scale convective element, may dictate some westward adjustment of flight mission on Wednesday compared to Tuesday.

--- in summary, the preliminary indication from 12Z Sun forecasts is that Monday and Tuesday would be favorable convective regimes for flight missions S

- Looking ahead toward Wednesday, middle of next week, we find a general agreement among forecast models for continued active convection from 0-5N and 180W-150W. agreement on a large scale picture for the equatorial Pacific convection:
 - that convection will continue to mainly reside 0N-5N, aside from the the SPCZ activity (which itself is east of the normal location that continues in the SH)
 - little convection is expected to develop in the next south of the Eq, in the band 150W-110 W week .
 - *that a G-IV flight campaign launched from HNL rather than Tahiti makes the best sense for next week, at least as per Friday forecast guidance.*

Midlatitude Outlook

Short Term:

- Quiet CA next 24 hours.
- The MidAtlantic snow totals are still preliminary, but include NYC/CP 26.8, Dulles 29.3, DCA 17.8, NWK 28.1, JFK 30.5, BWI 29.2

Medium - Long Term:

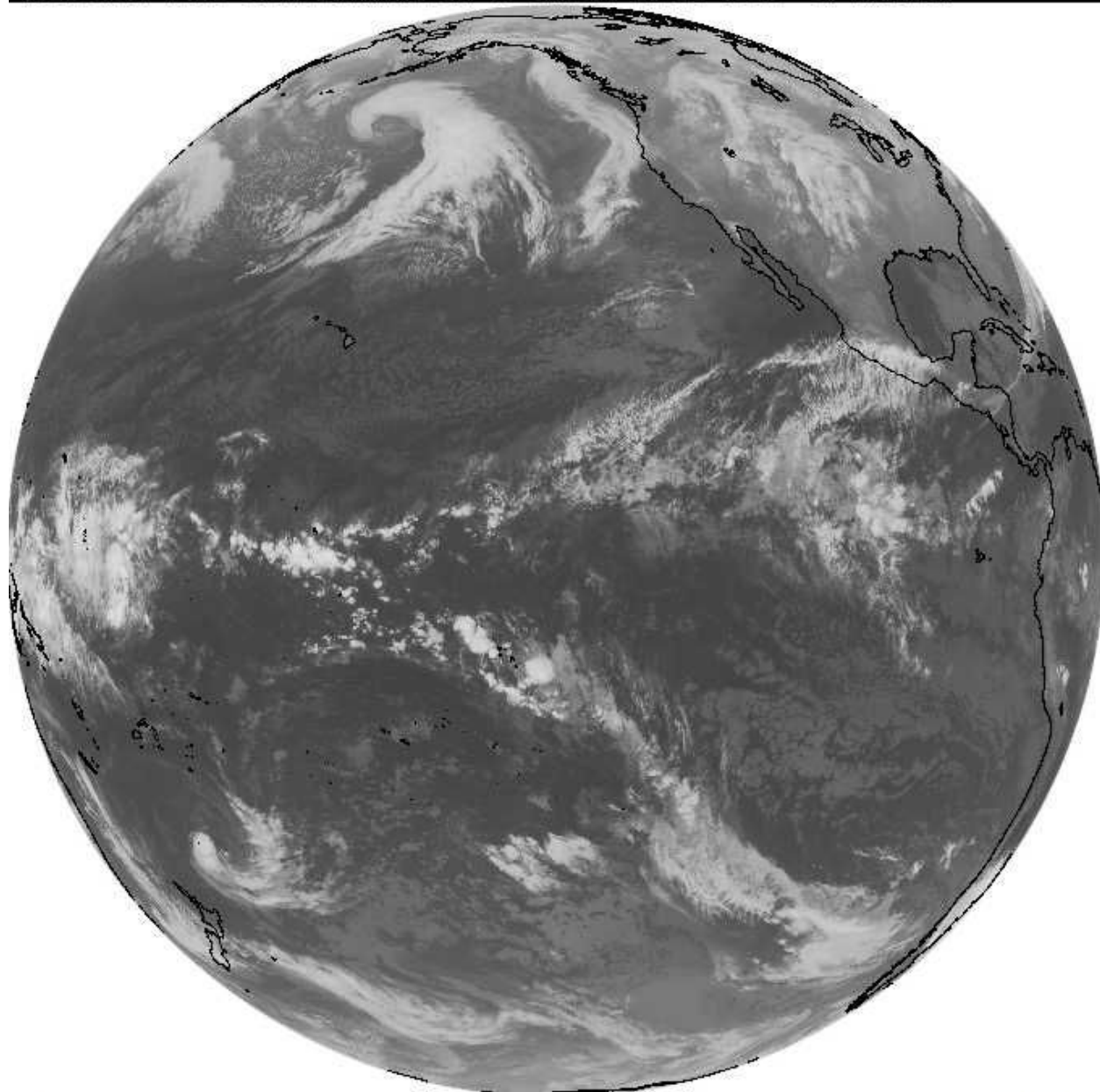
- High confidence that CA will be mostly dry in the period 24 Jan thru Thu 28 Jan.
---- GEFS ensemble in strong agreement to 168 hr lead (Thur 28 Jan) for a transient Ridge on the Pacific coast.
- Days 7-10 indicates a flattening of the West Coast ridge, exposing CA to intrusions of moisture
--- moderate confidence of a return to wetter conditions for CA from Fri 28 Feb thru Sun 31 Jan some uncertainty between EC and GFS on Fri/Sat storm potential for

CA

- Will keep close eye on future forecast as to the threat of CA storms in the first week of February (days 11-15 in the forecasts...), as the Global Hawk is set to deploy Tuesday Feb 2.
- GFS ensemble shows strong subtropical jet impinging the West Coast in the long range (valid 2 February)...storms are likely to be embedded in this pattern, though the daily synoptic details cannot be discerned at this time.
- Major changes predicted in Wk 2 (31 Jan - 8 Feb), with active wet CA regime.

SUN 12Z January 24 GOES West IR Image

GOES WEST FULL DISK LONGWAVE IR 24 JAN 16 12:00 SSEC: UW-MADISON



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2016024 120000

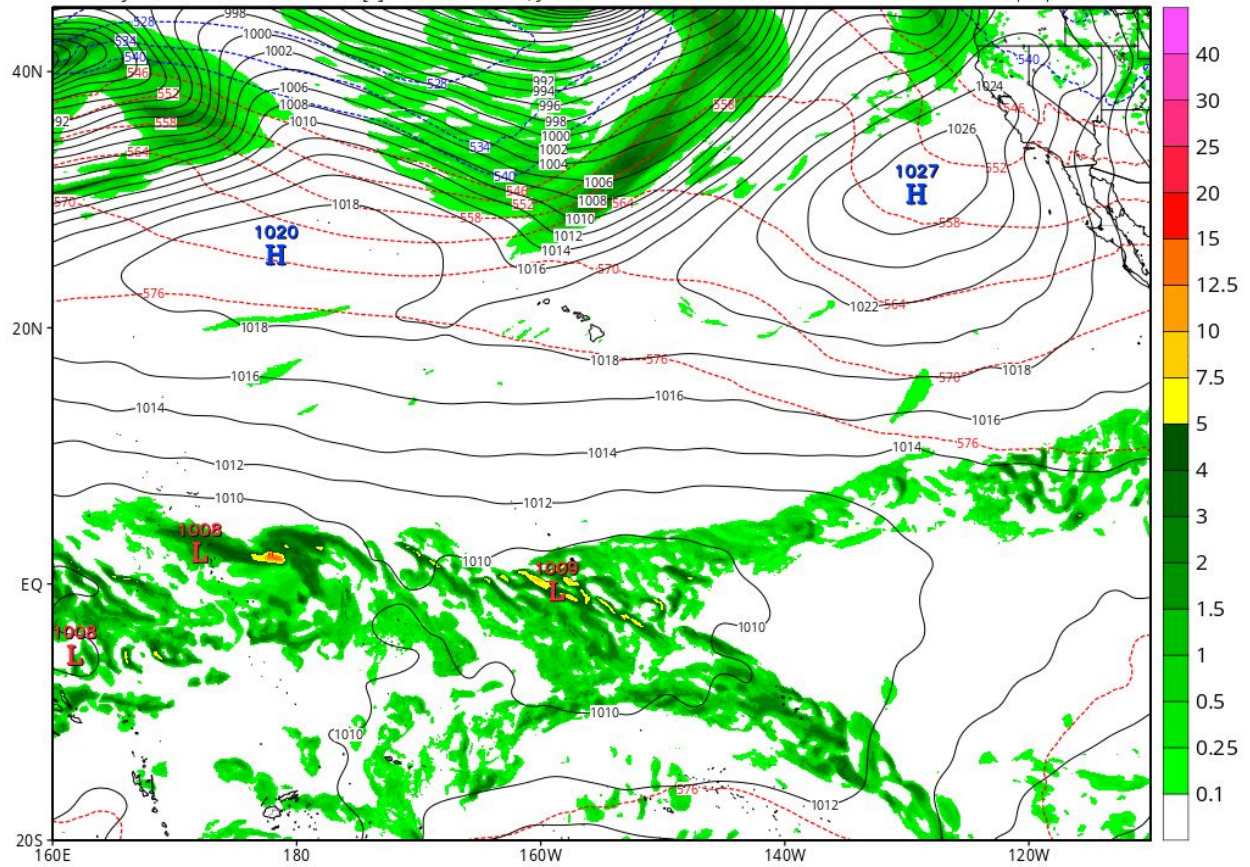
McIDAS

GFS 12Z Sunday 24 January Initialized/Analysis : SLP/pcpn

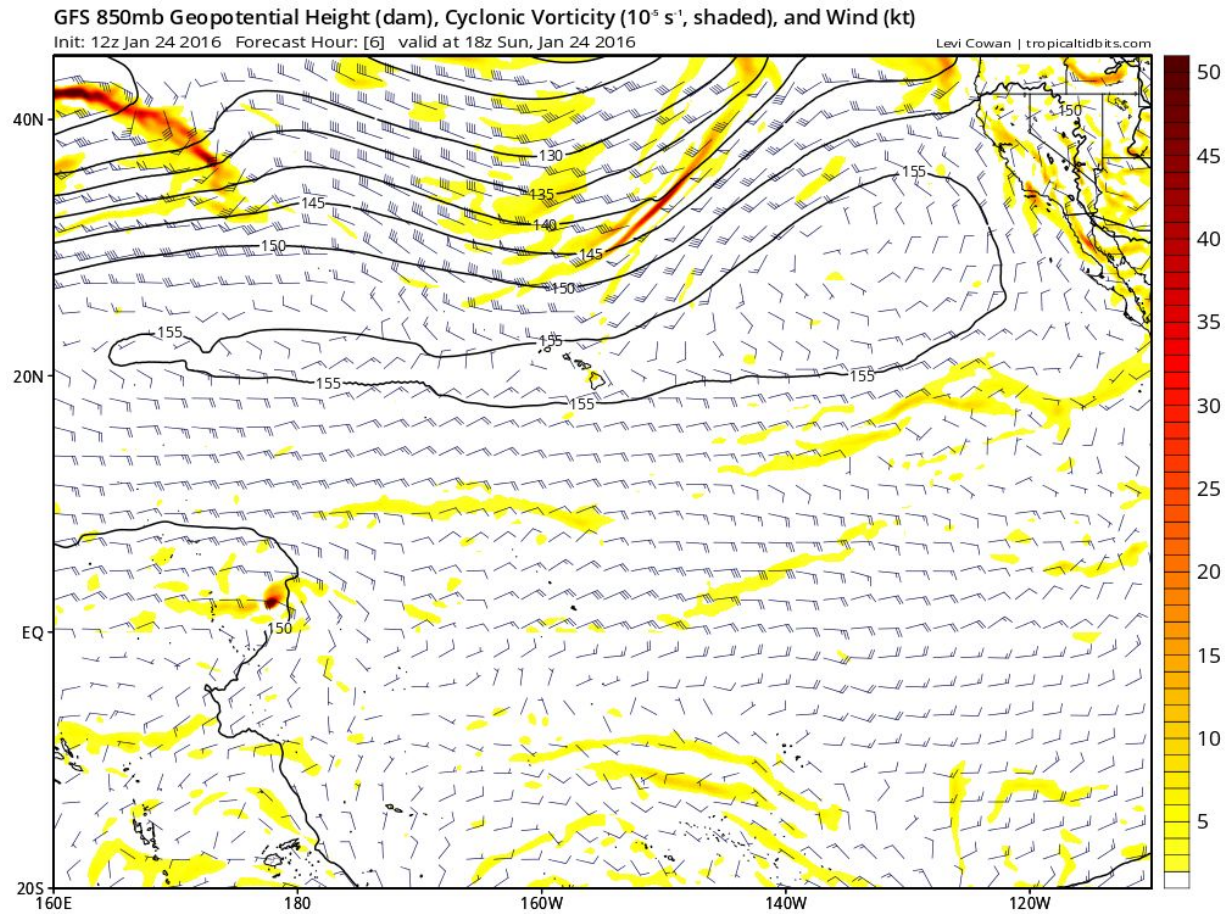
GFS 6-hour Averaged Precip Rate (mm/hr), MSLP (hPa) & 1000-500mb Thickness (dam)

Init: 12z Jan 24 2016 Forecast Hour: [6] valid at 18z Sun, Jan 24 2016

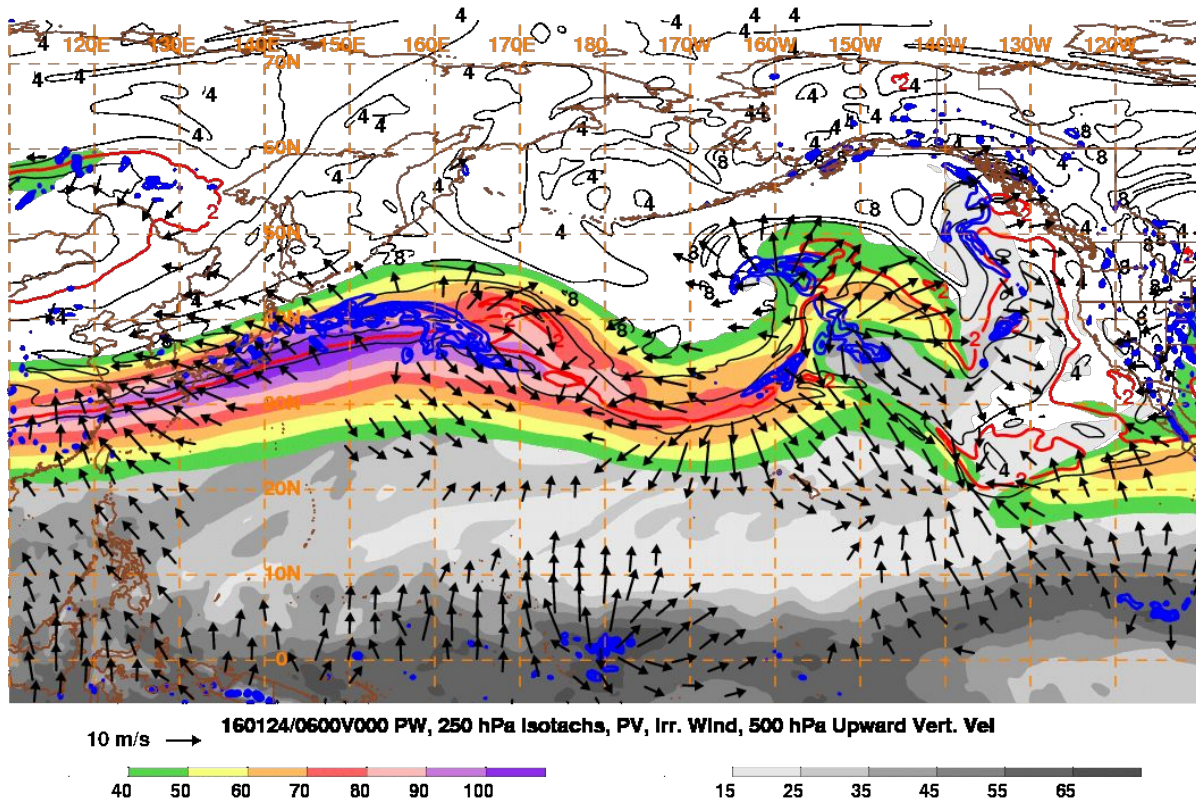
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GFS 12Z Sunday 24 January Analysis : 850 mb pressure and winds



GFS 06Z Sunday 24 January Analysis

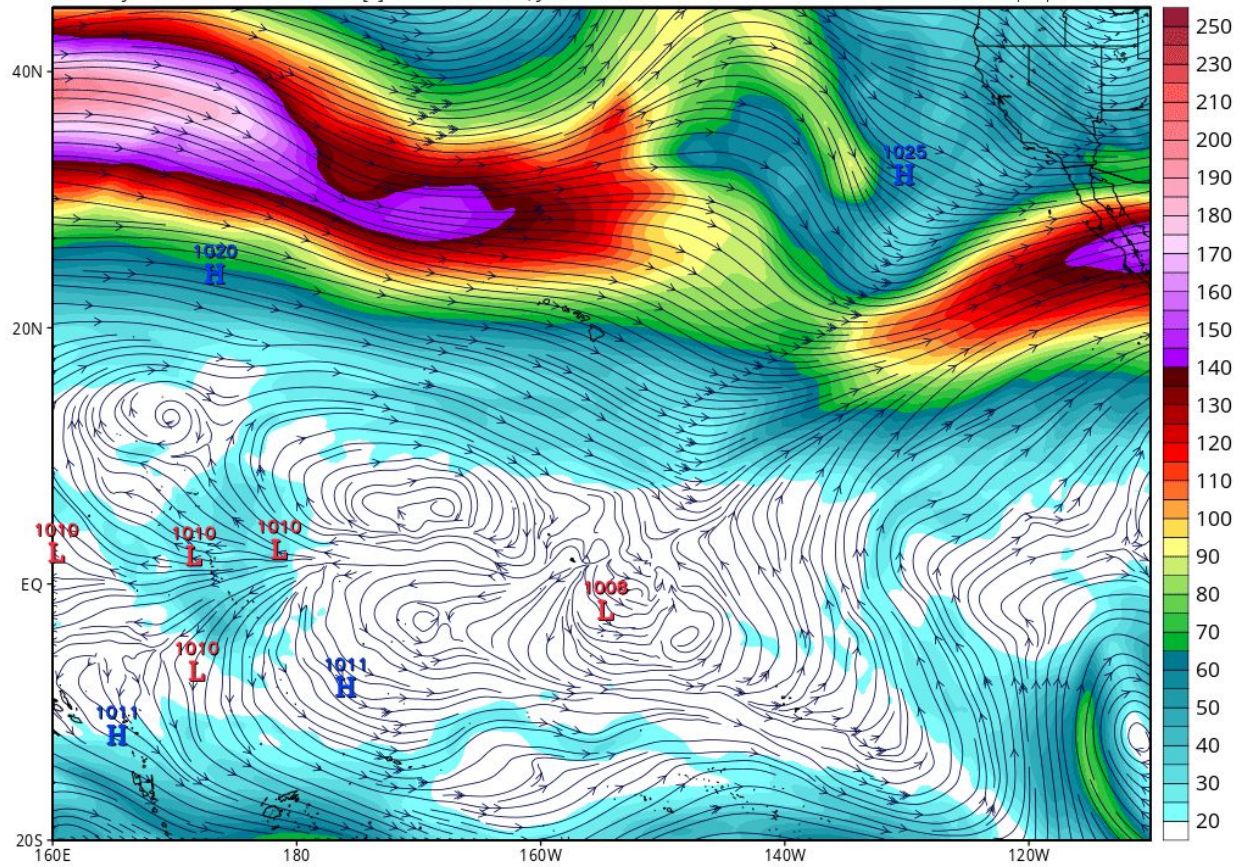


GFS 12Z SUN 24 January Analysis : 200 mb isotachs and streamlines

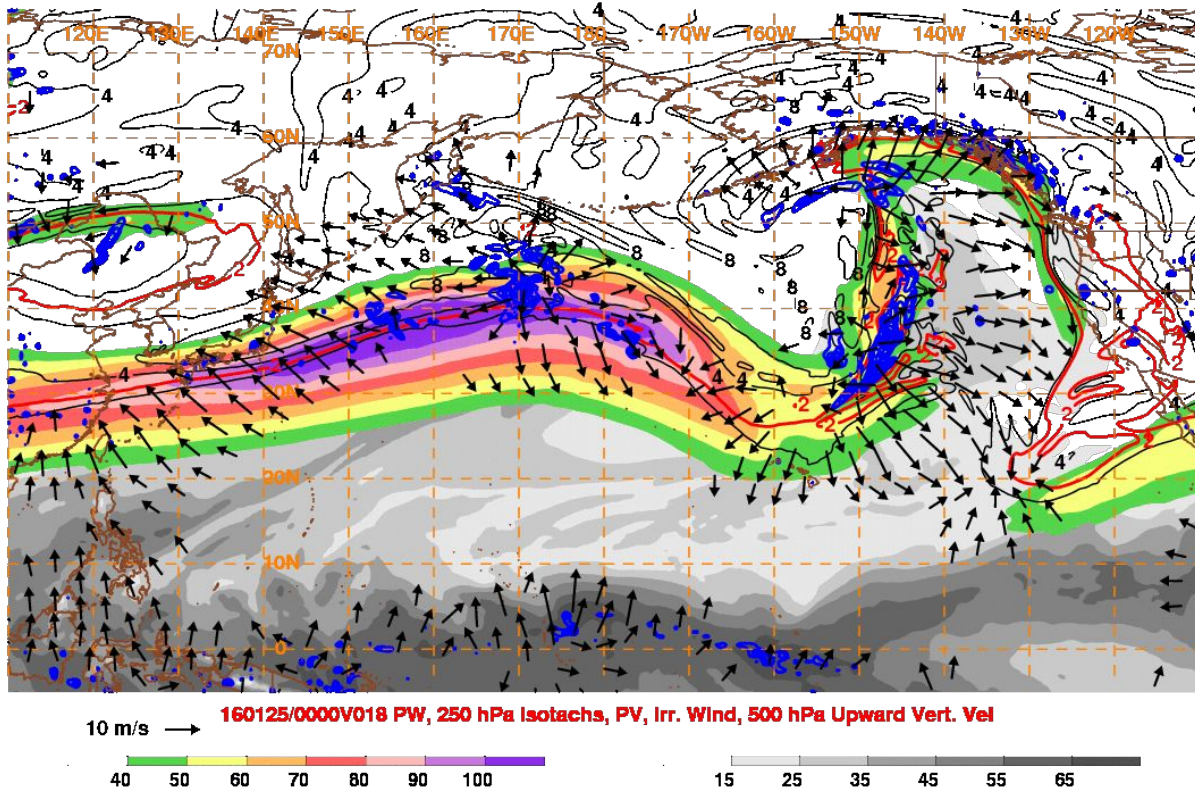
GFS 200mb Wind Speed/Streamlines (kt) & MSLP Extrema (mb)

Init: 12z Jan 24 2016 Forecast Hour: [0] valid at 12z Sun, Jan 24 2016

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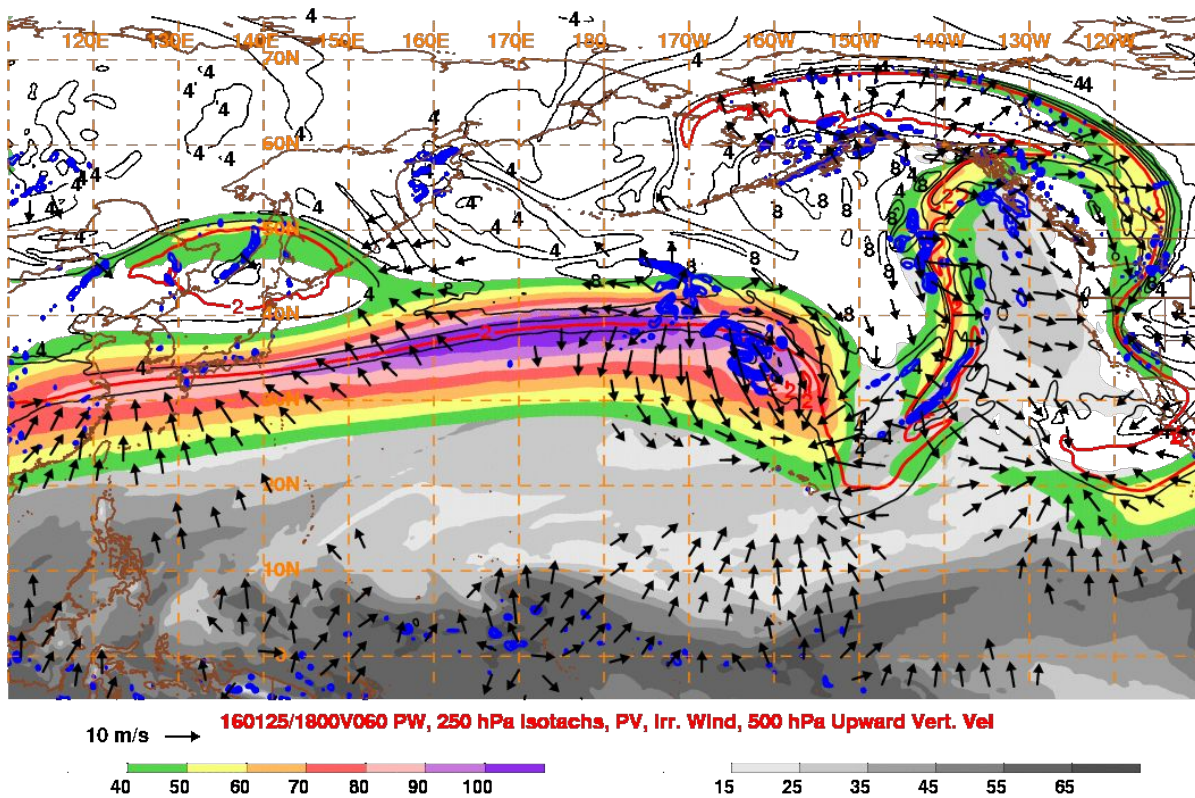


GFS 18-hr Fcst Valid 00Z 25 January Monday (2PM HT Sunday)



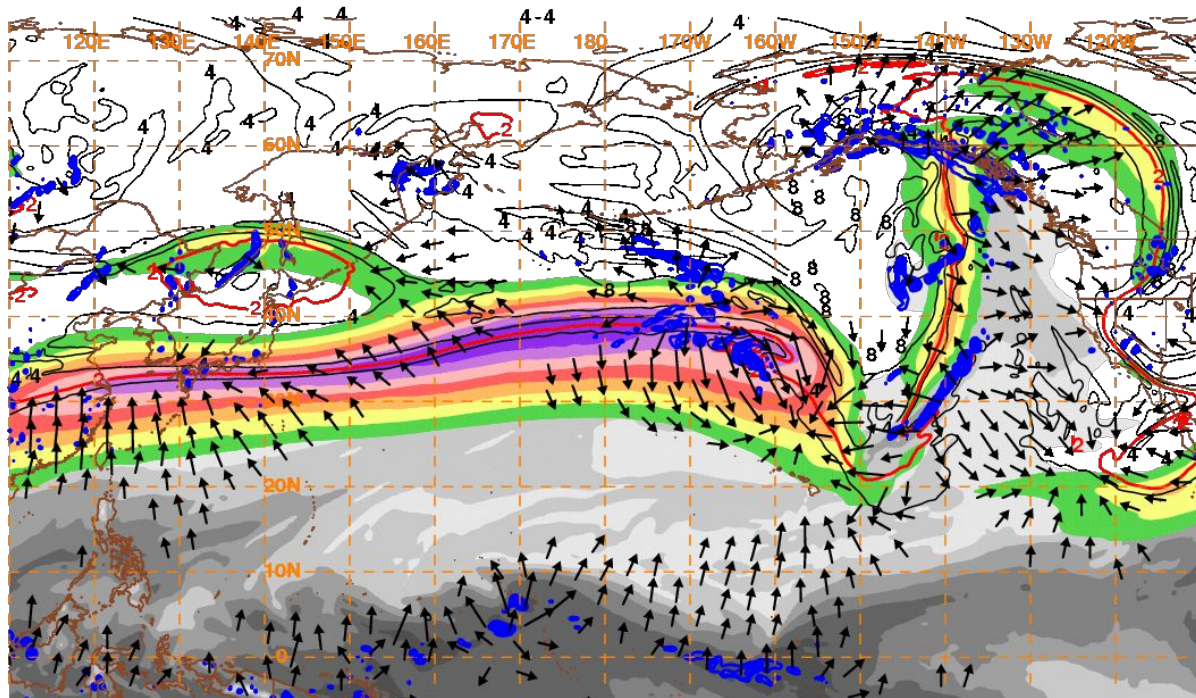
From Earlier Initialization of GFS (06Z Sat 23 Jan)

GFS 60-hr Fcst Valid 18Z 25 January Monday



From Latest Initialization of GFS (06Z Sun 24 Jan)

GFS 36-hr Fcst Valid 18Z 25 January Monday (8am local HT Monday)

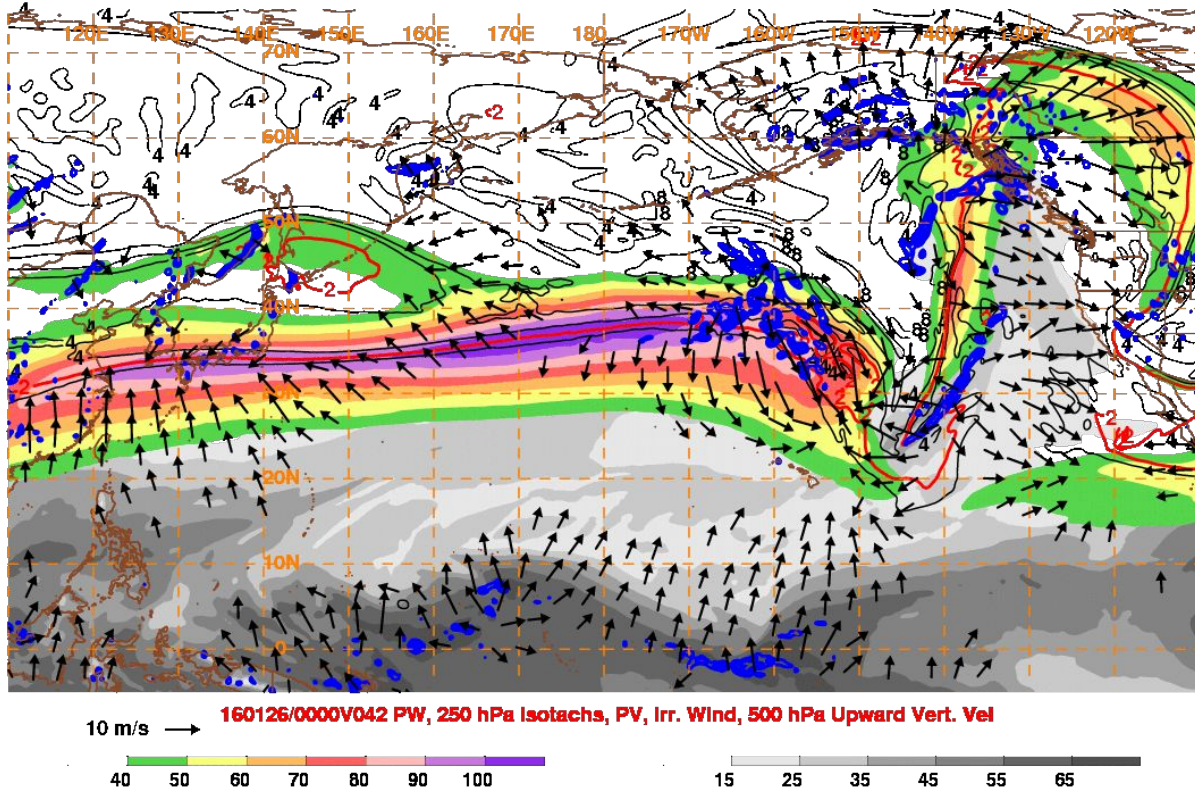


10 m/s → **160125/1800V036 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel**

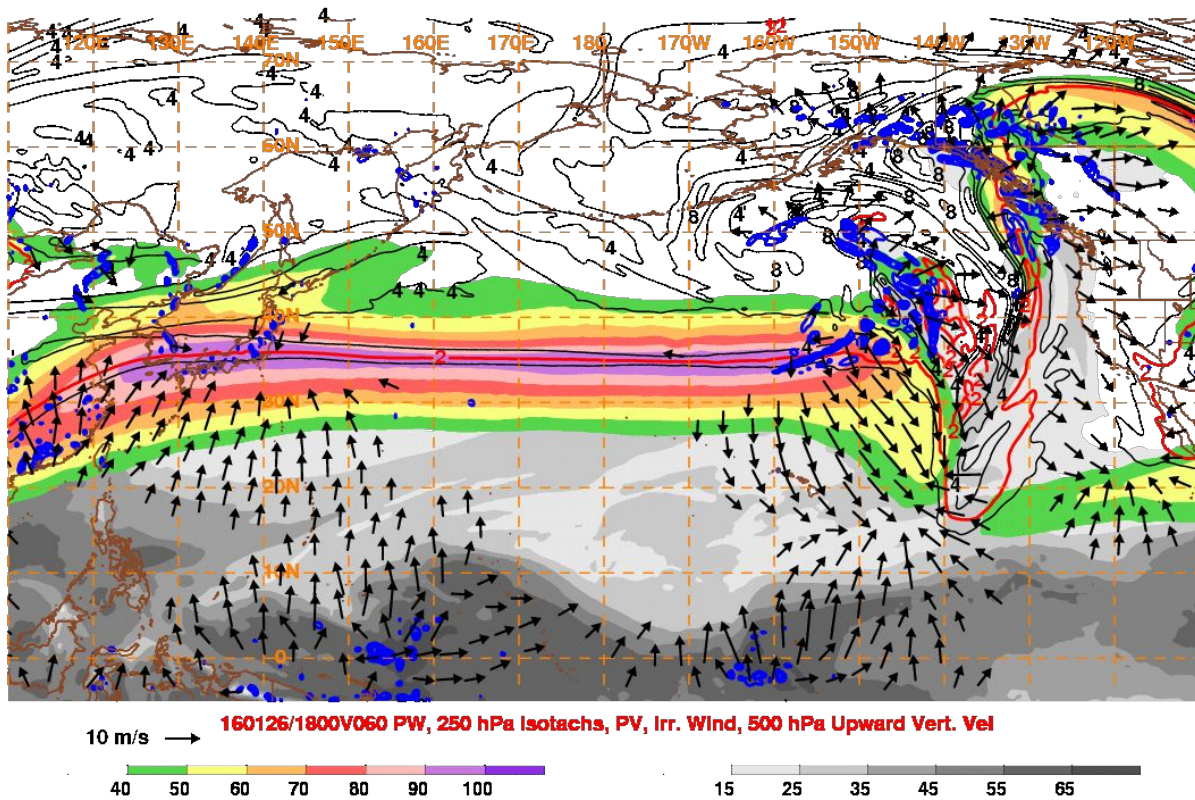
40 50 60 70 80 90 100

15 25 35 45 55 65

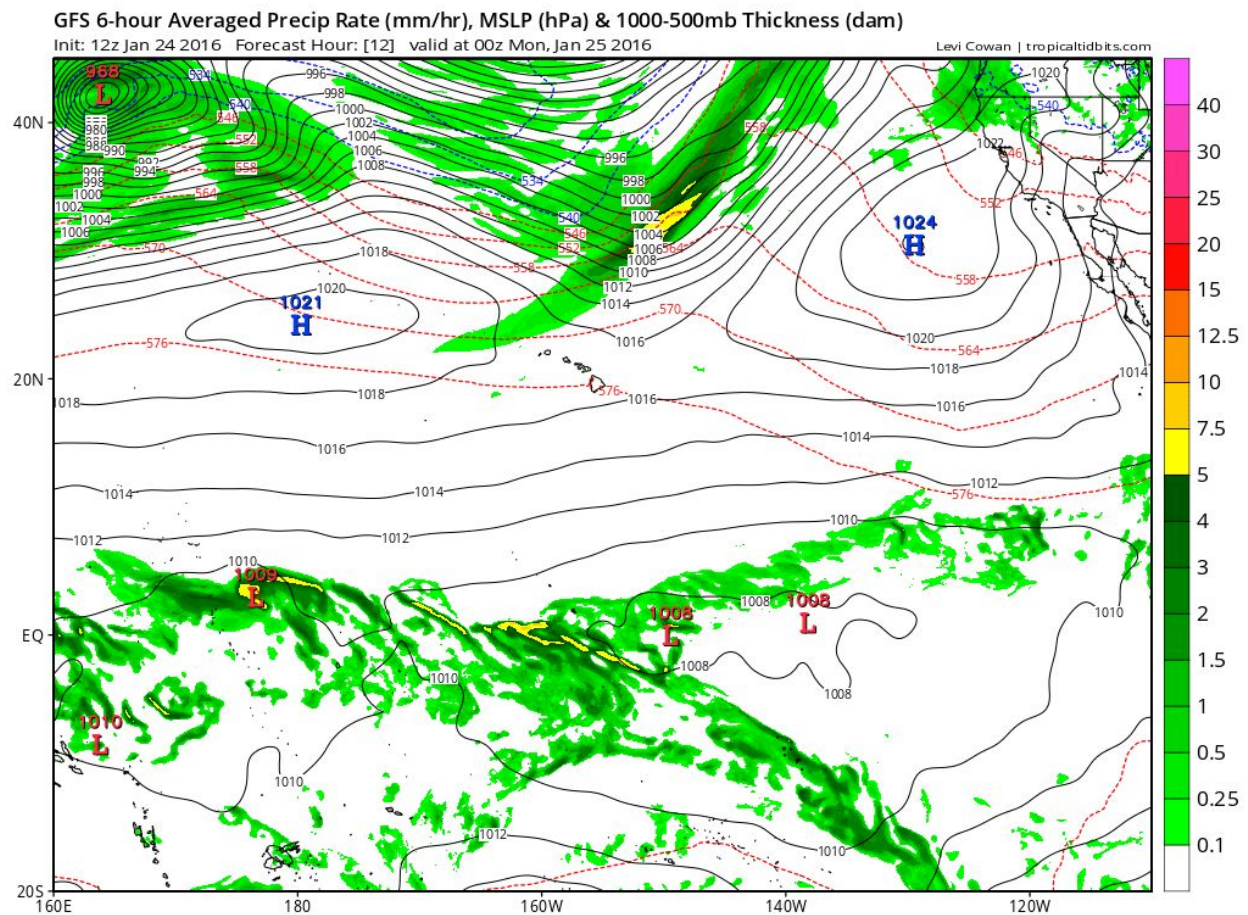
GFS 42-hr Fcst Valid 00Z 26 January Tues (2pm local HT Mon)



GFS 60-hr Fcst Valid 18Z 25 January Tuesday (8am local HT Tuesday)



GFS 6-HR Forecast Valid 00Z Monday 25 January (2PM Sun 24 Jan HNL Time)

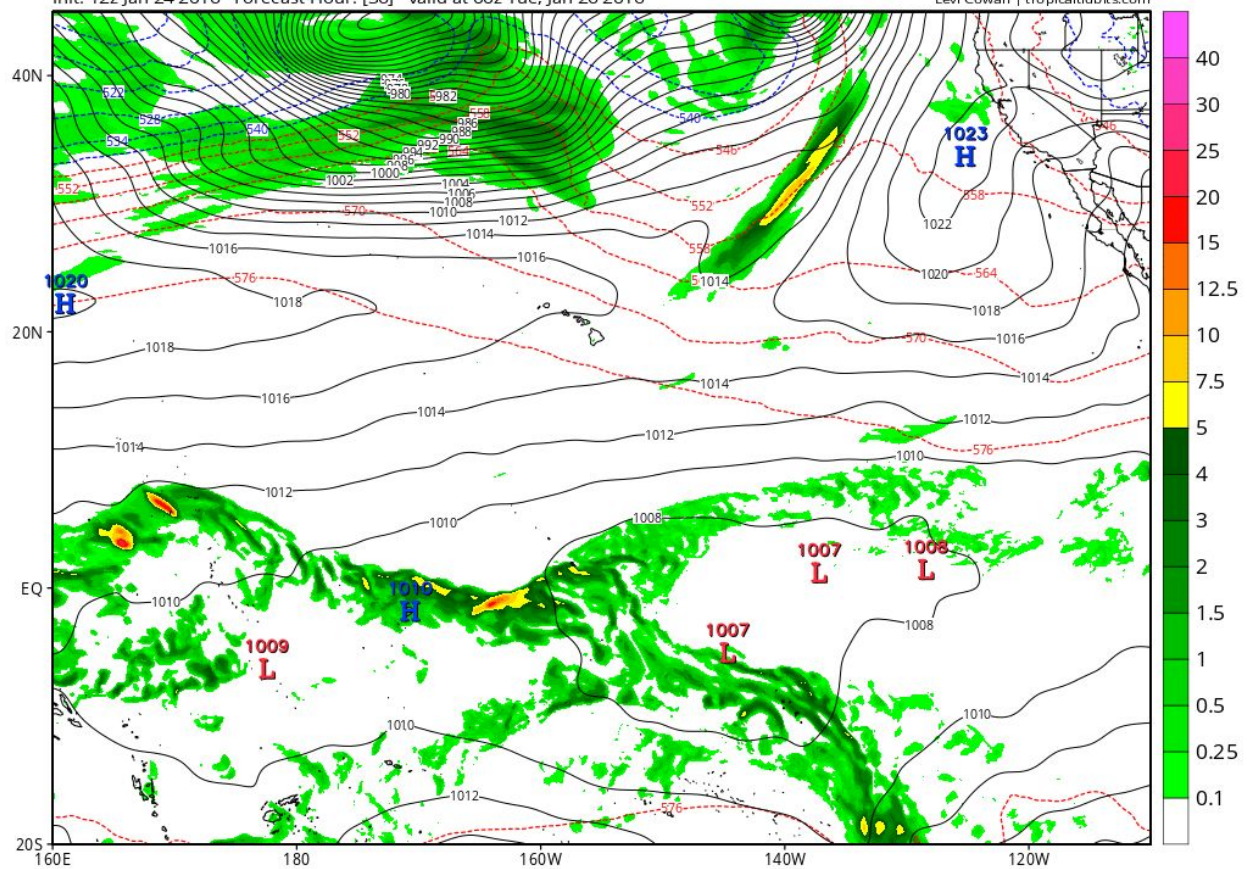


GFS 36-HR Forecast Valid 00Z Tuesday 26 January (2PM HT Monday 25 Jan)

GFS 6-hour Averaged Precip Rate (mm/hr), MSLP (hPa) & 1000-500mb Thickness (dam)

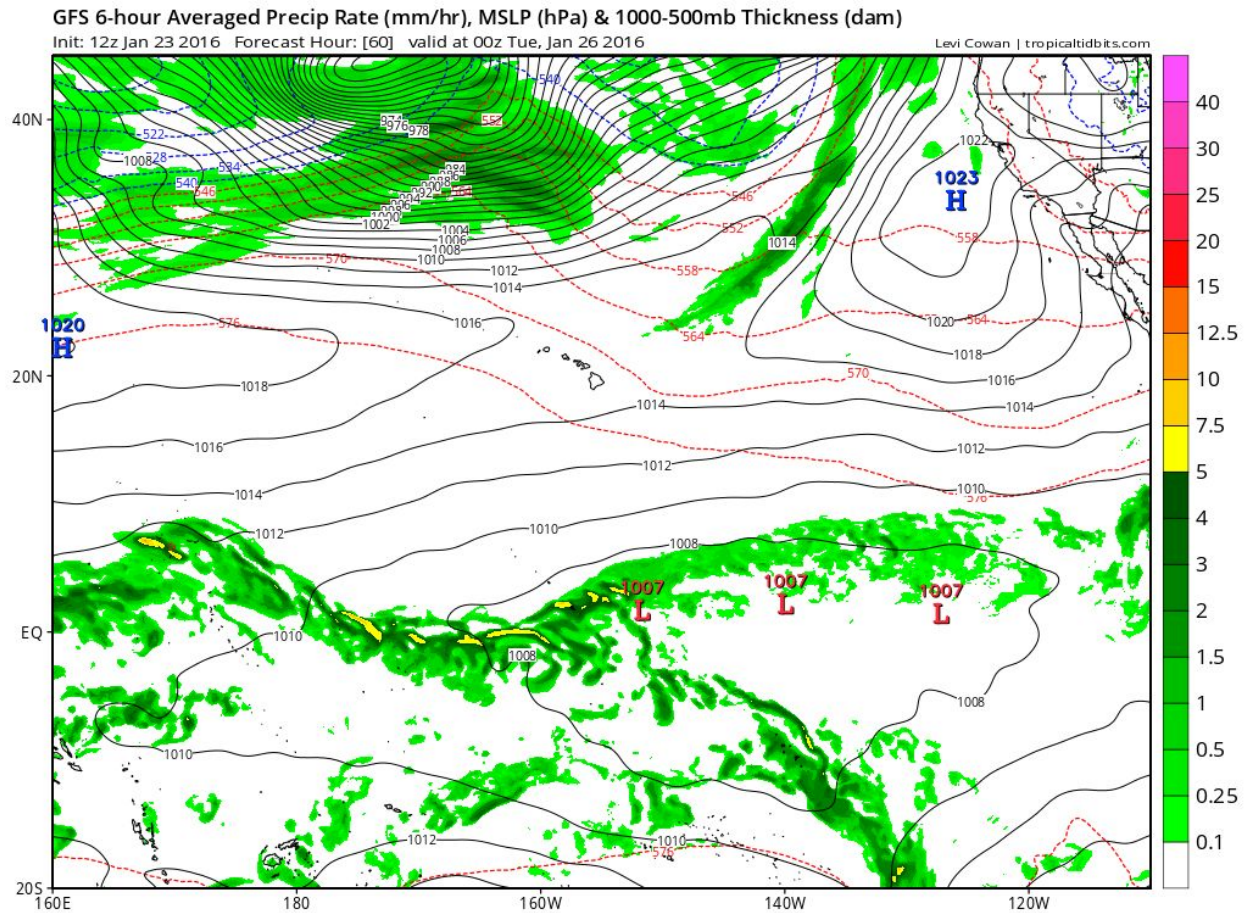
Init: 12z Jan 24 2016 Forecast Hour: [36] valid at 00z Tue, Jan 26 2016

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From Prior Day's GFS Model Initialized 12z Jan 23 Saturday

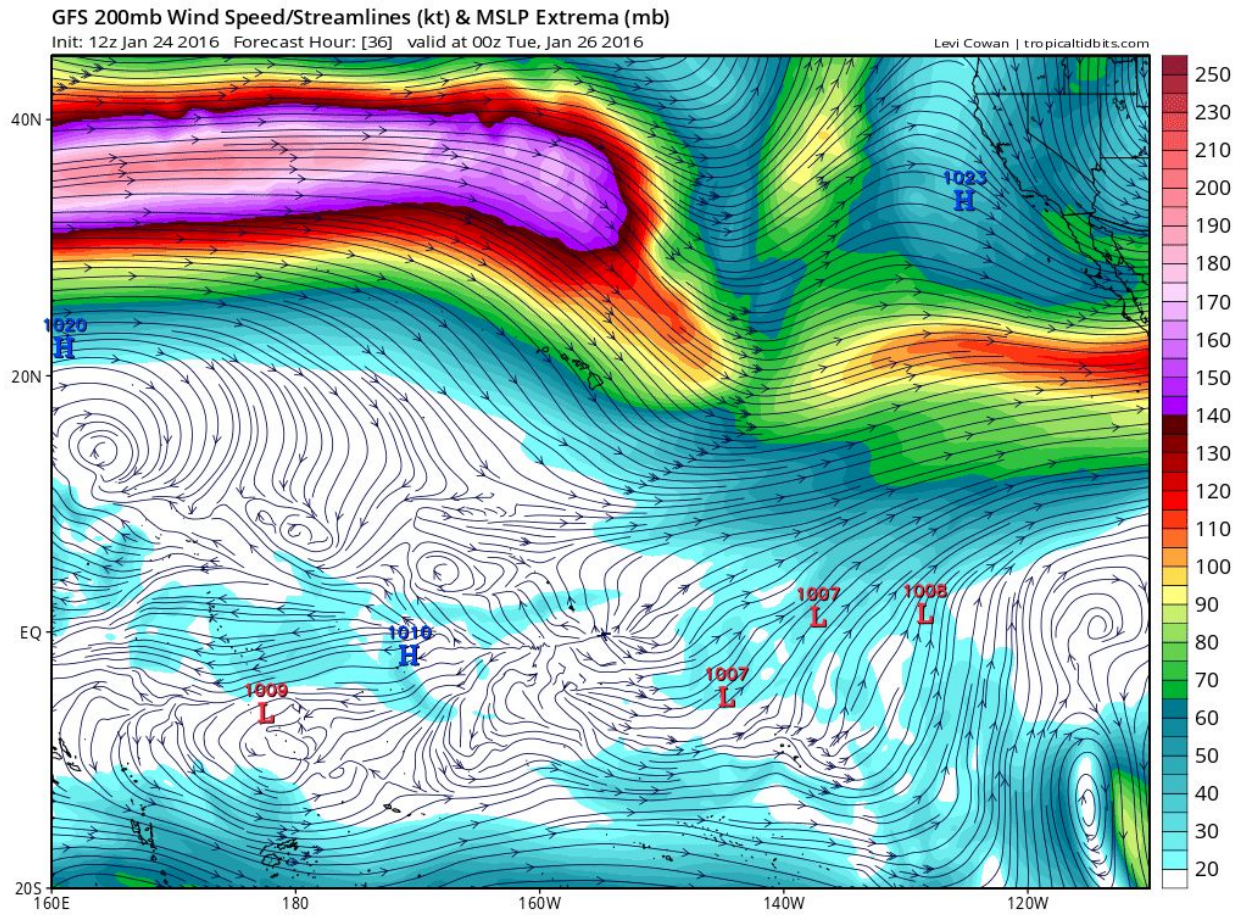
GFS 60-HR Forecast Valid 00Z Tue 26 January : SLP/Pcpn (2PM Monday HT)



GFS 60-HR Forecast Valid 00Z Wed 27 January : SLP/Pcpn (2PM Tues HNL Time)

Init: 12z Jan 24 2016 Forecast Hour: [60] valid at 00z Wed, Jan 27 2016

GFS 36-HR Forecast Valid 00Z Tuesday 26 January: 200mb



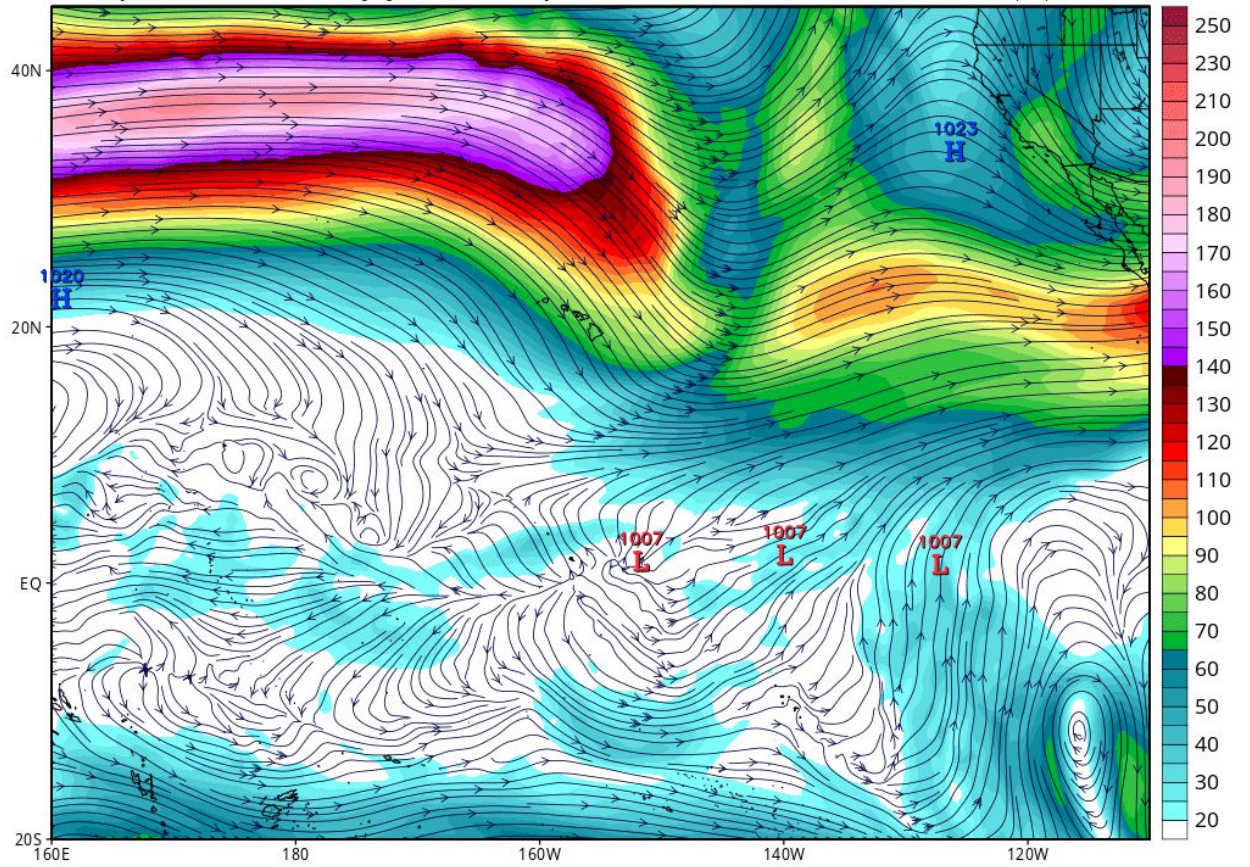
From Prior Day's GFS Model Initialized 12z Jan 23 Saturday

GFS 60-HR Forecast Valid 00Z Tuesday 26 January: 200mb

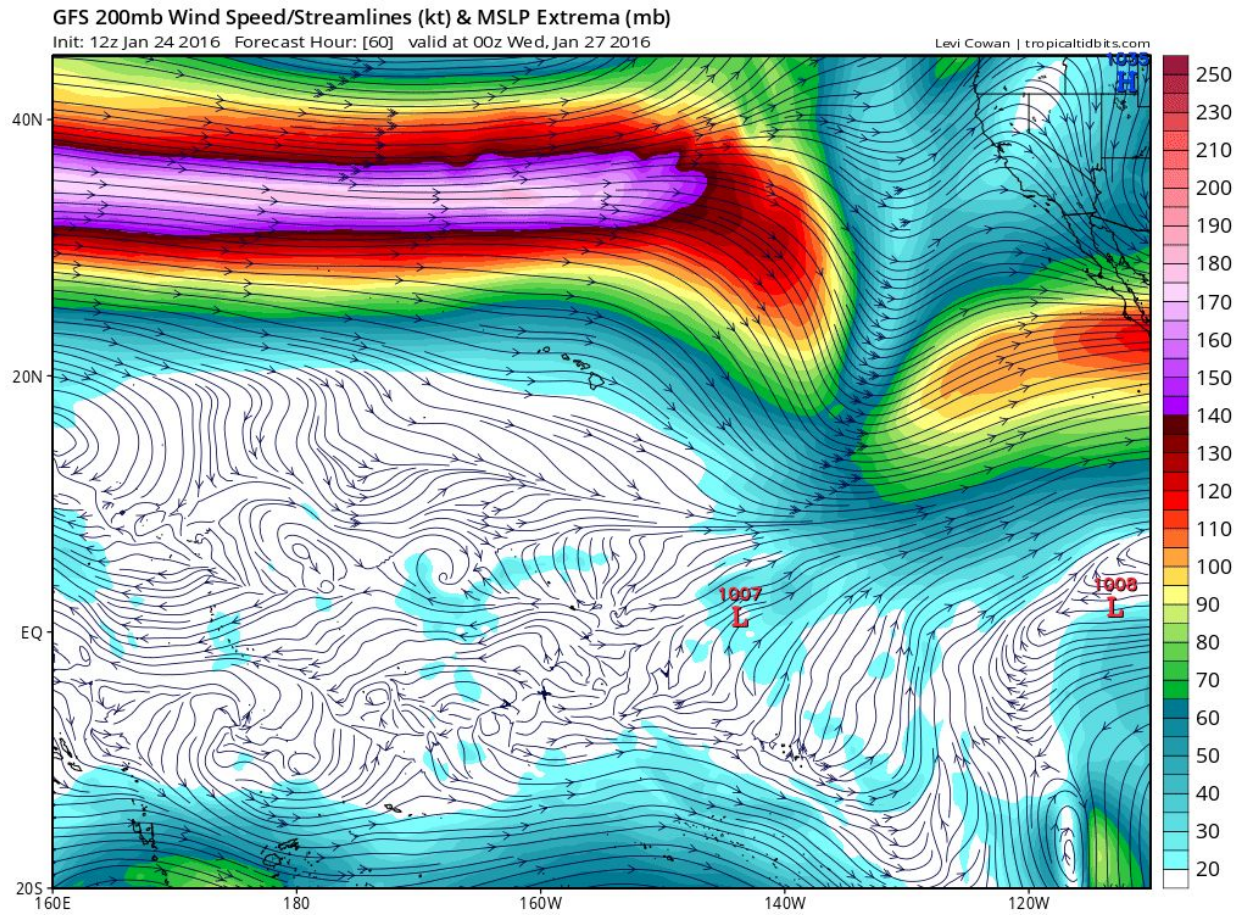
GFS 200mb Wind Speed/Streamlines (kt) & MSLP Extrema (mb)

Init: 12z Jan 23 2016 Forecast Hour: [60] valid at 00z Tue, Jan 26 2016

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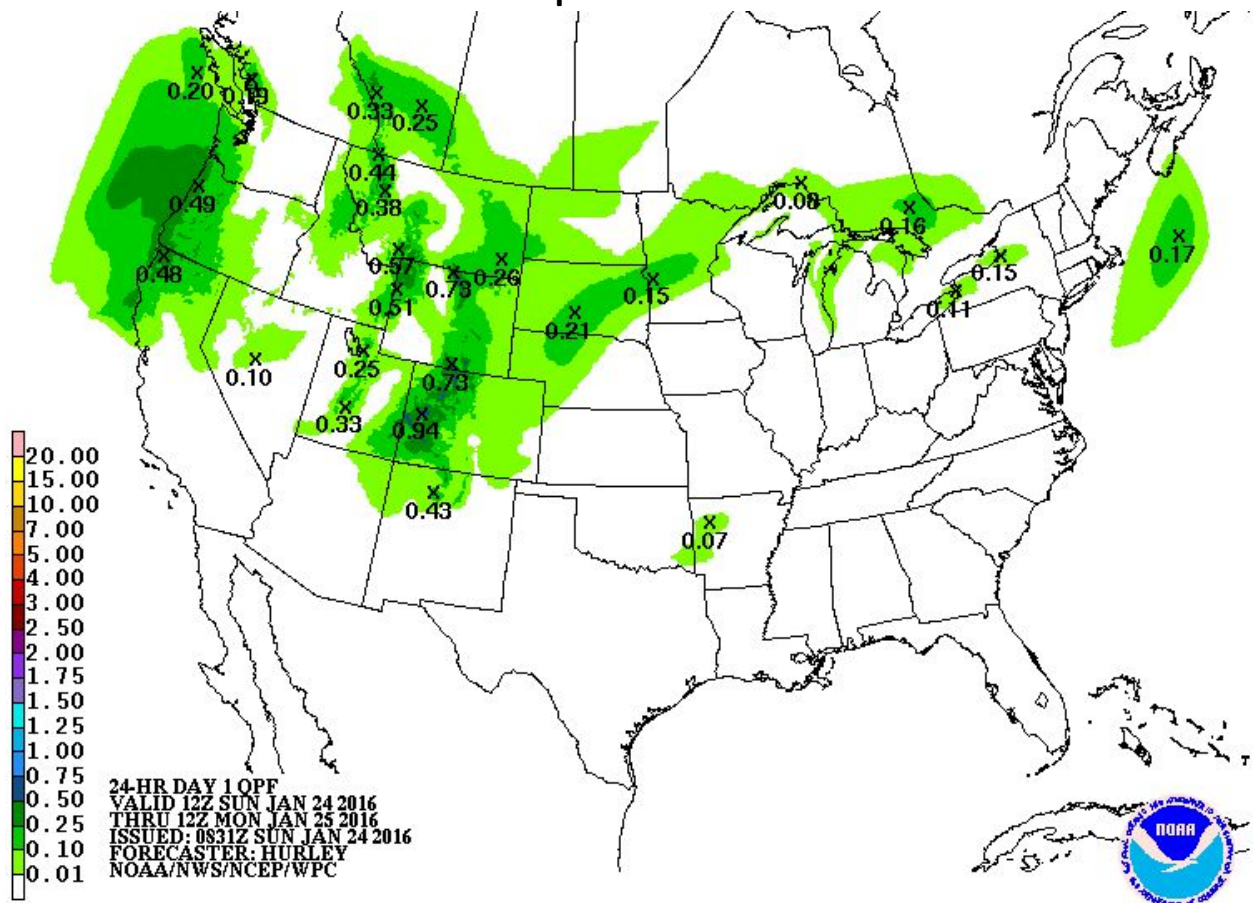


GFS 60-HR Forecast Valid 00Z Wednesday 27 January: 200mb (2PM HN, Tues)



Short Range NWS Official Outlook

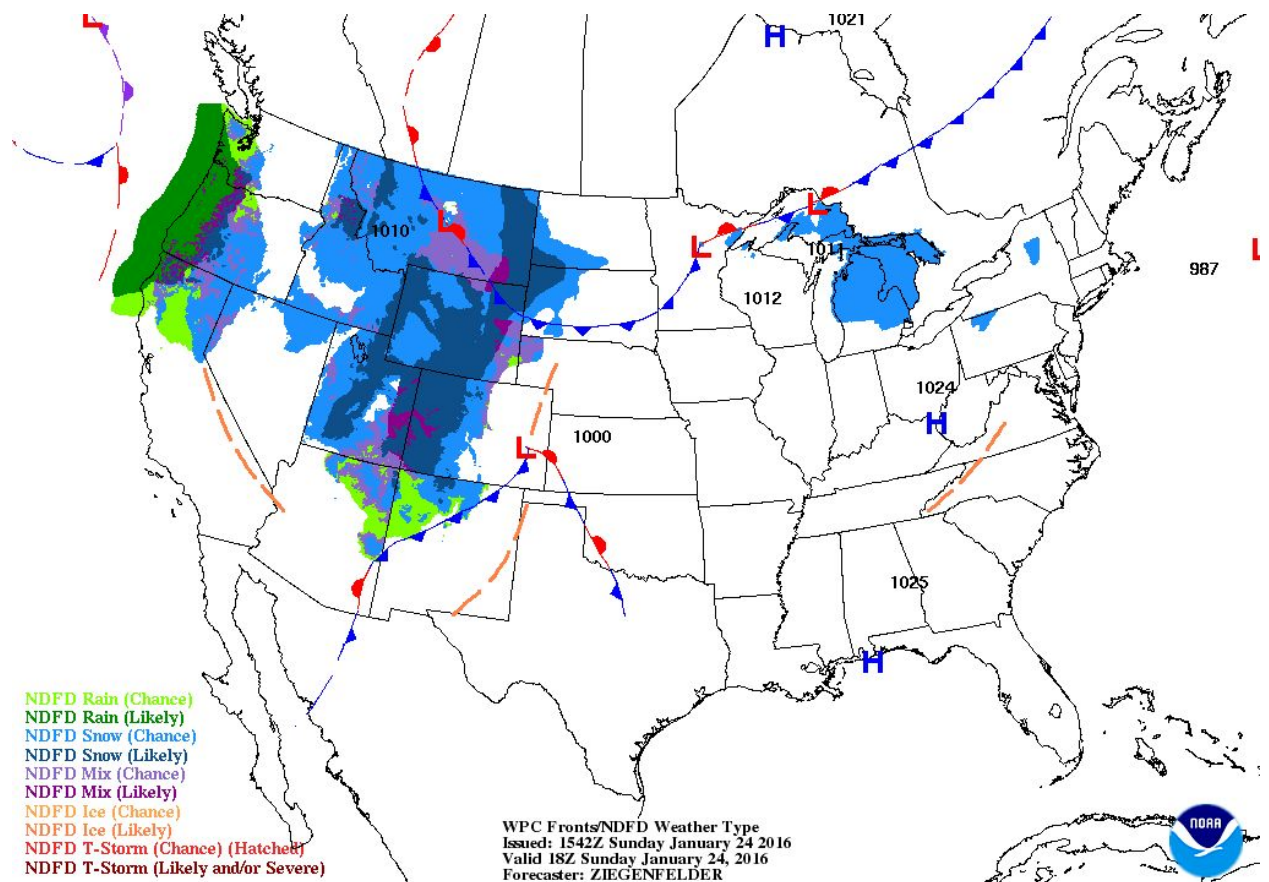
NOAA Weather Prediction Center 24-hr Pcpn Total: 12Z Sun- 12Z Mon Jan 25



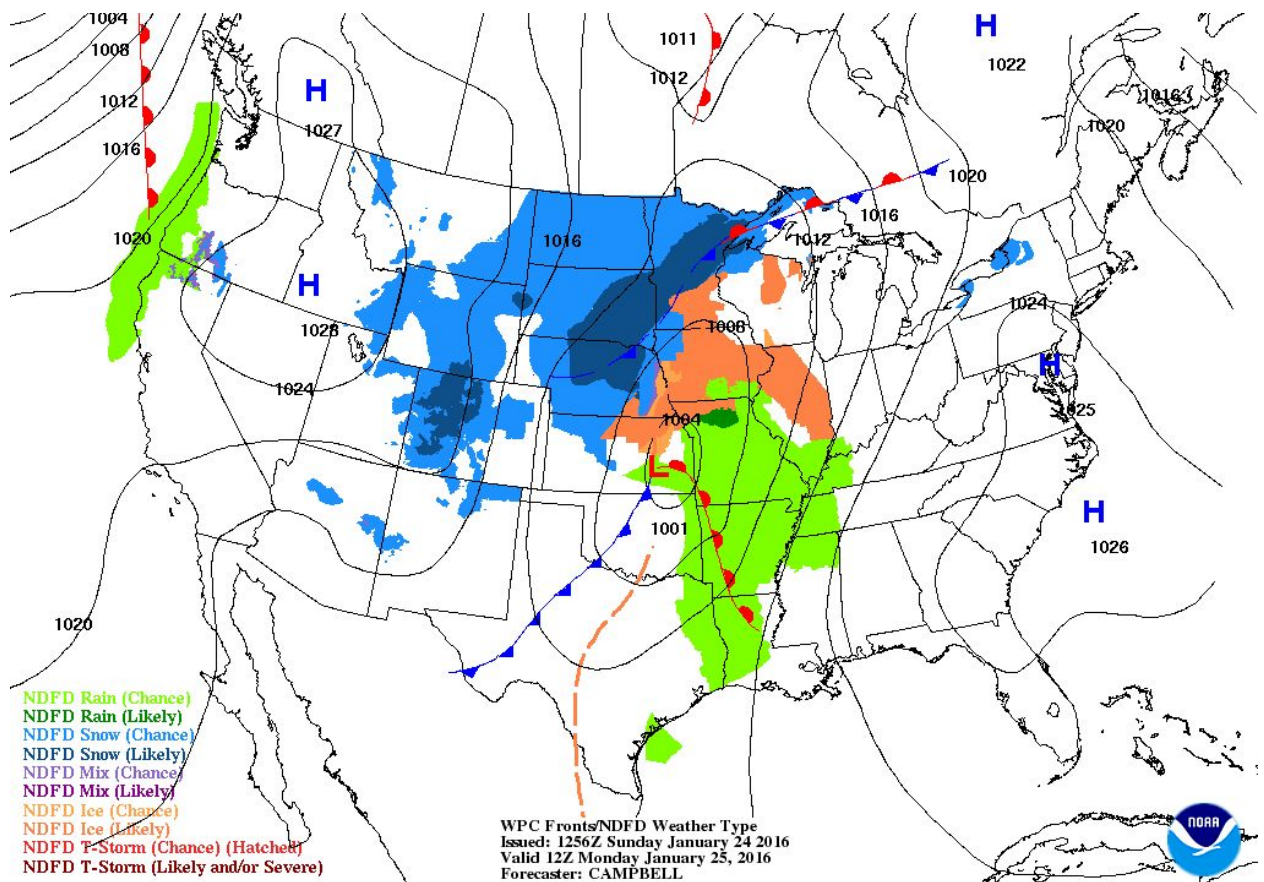
**NOAA Weather Prediction Center 24-hr Total Pcpn Outlook: 12Z Sat- 12Z Sun
Jan 24**

Short Range NWS Official US Outlook

NOAA Weather Prediction Center 6-hr Outlook: Valid 18Z SUN Jan 24



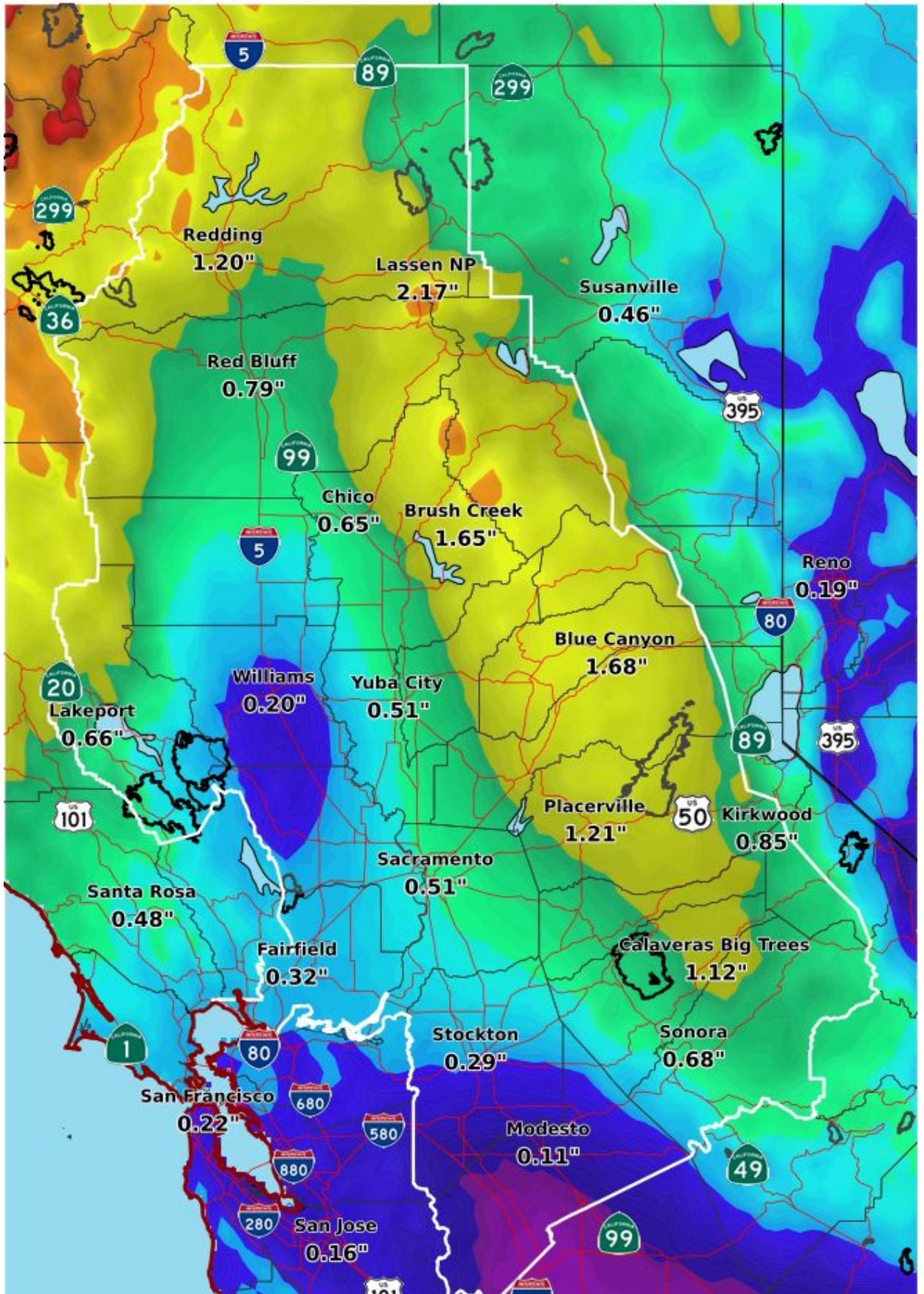
NOAA Weather Prediction Center 24-hr Outlook: Valid 12Z MON Jan 25



CNRFC Forecast 6 day Pcpn Sun 24 Jan thru Sat 30 Jan

6-Day Forecast Precipitation (Inches)

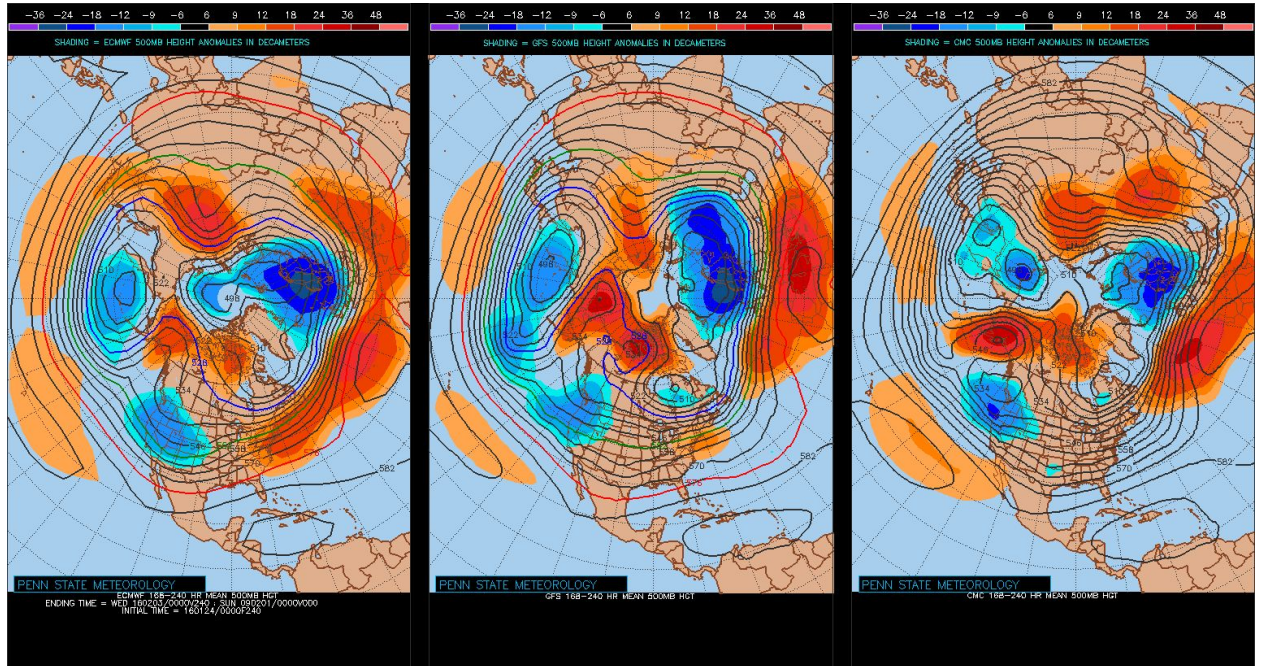
Valid: Sun Jan 24, 2016 at 04 AM PST to Sat Jan 30, 2016 at 04 AM PST



Medium - Long Range Forecast

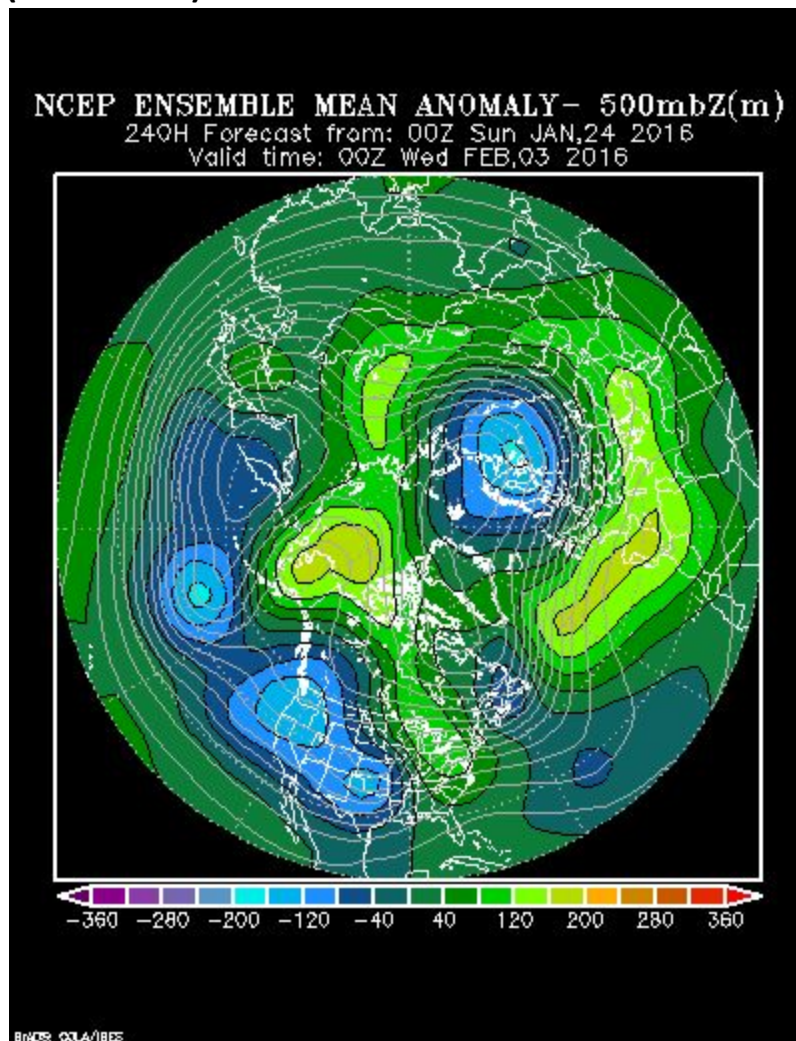
3 Model Intercomparison Deterministic Fcsts of 500Z/anomalies :

Day 7-10 Mean/anomalies (from 00Z Sun 24 Jan initializations)



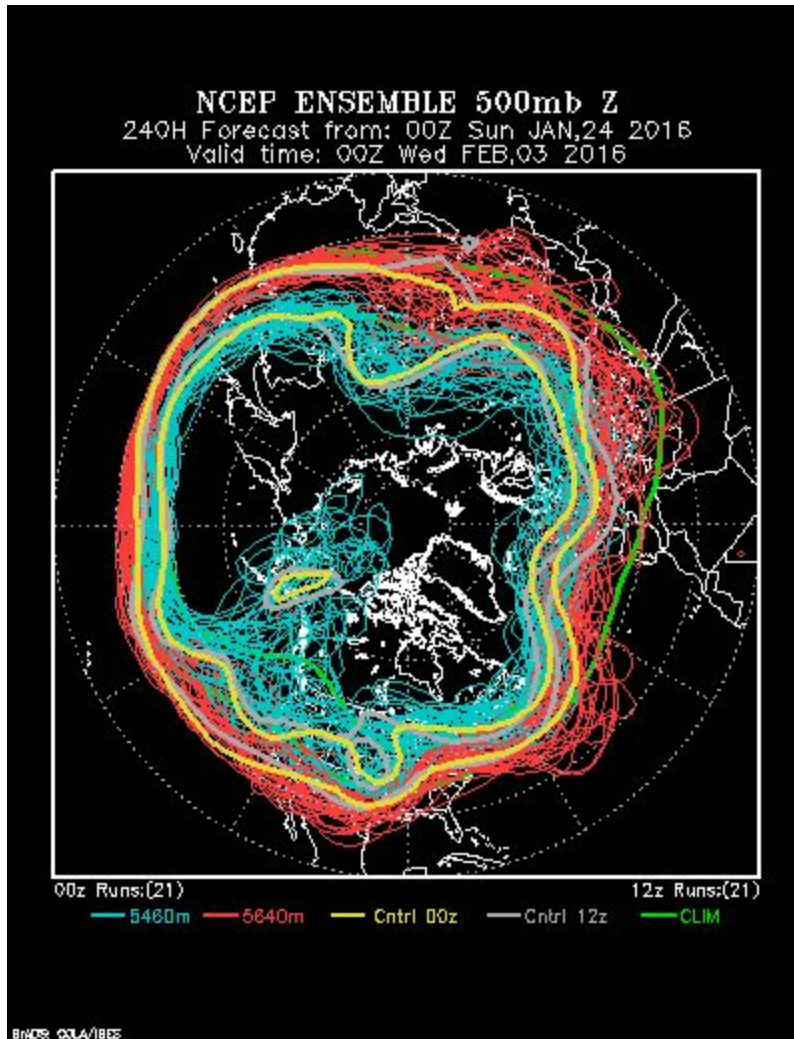
Day 10 Ensemble Mean 500Z Forecast

NCEP GEFS Ensemble 500 mb Height and Anomalies Valid 00Z Feb 3
(240 Hr Fcst)

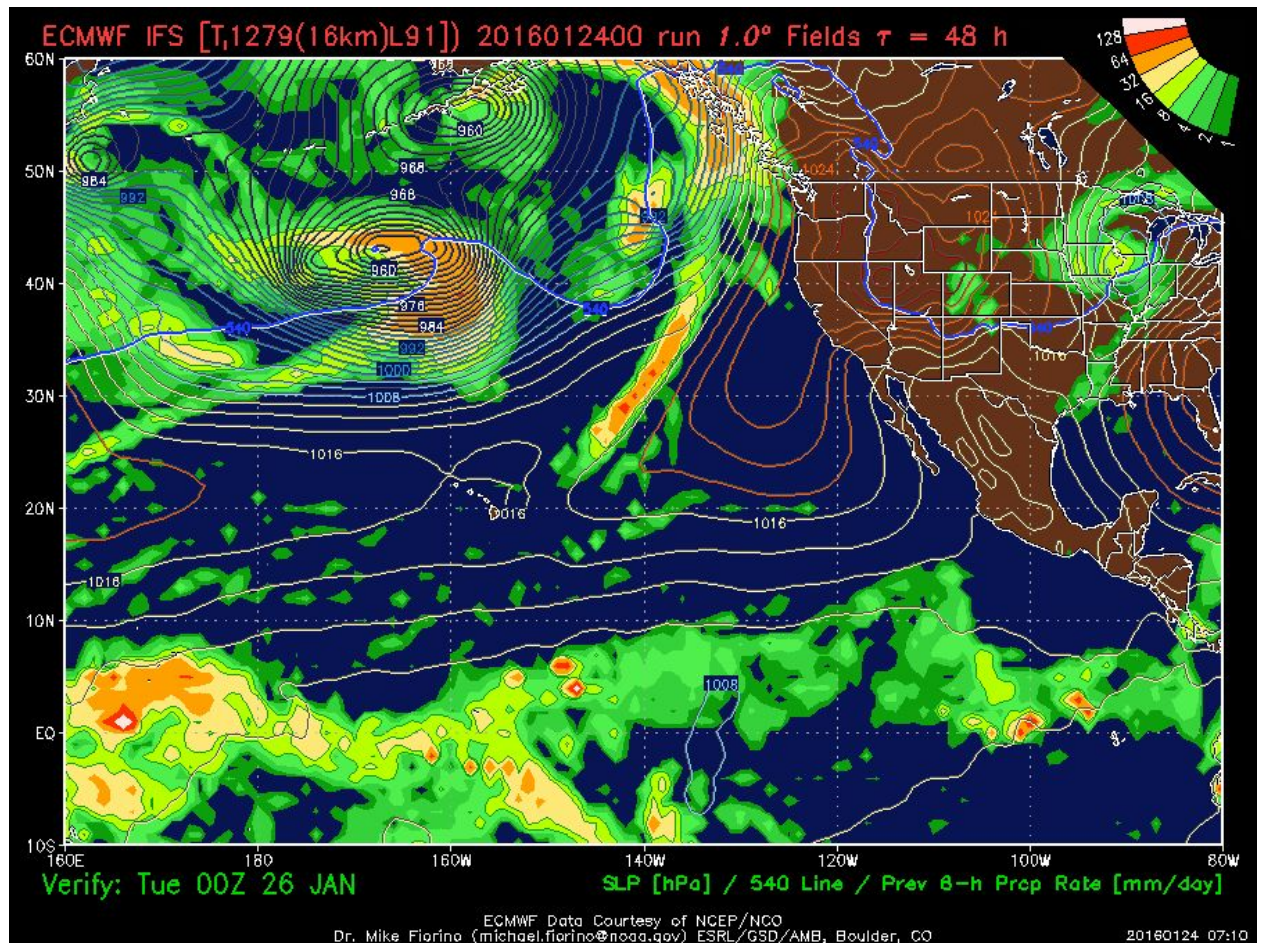


Day 10 Ensemble Mean 500Z Forecast Uncertainty

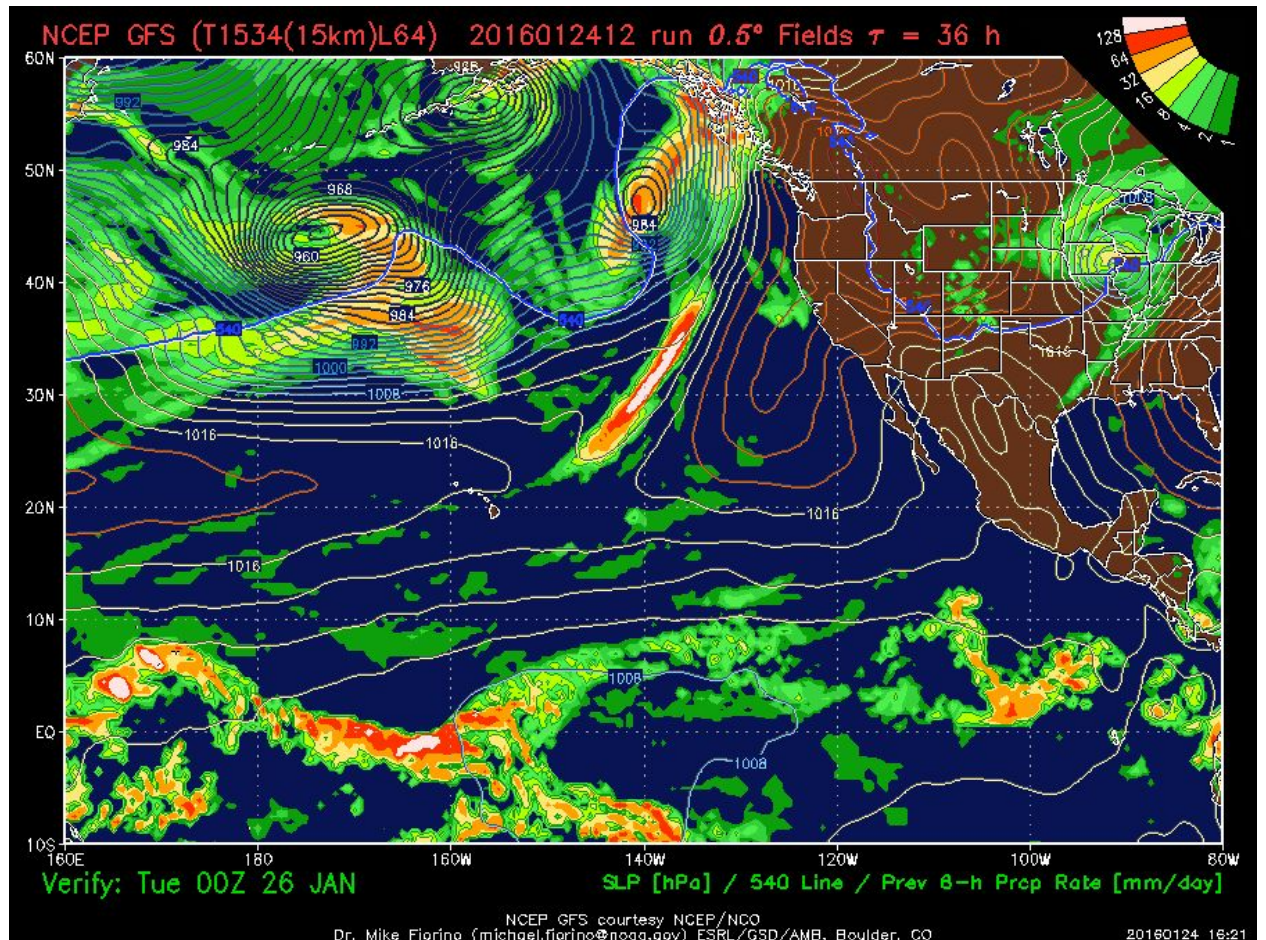
NCEP GEFS Individual Runs 500 mb Height Valid 00Z Feb 3 (240 Hr Fcst)



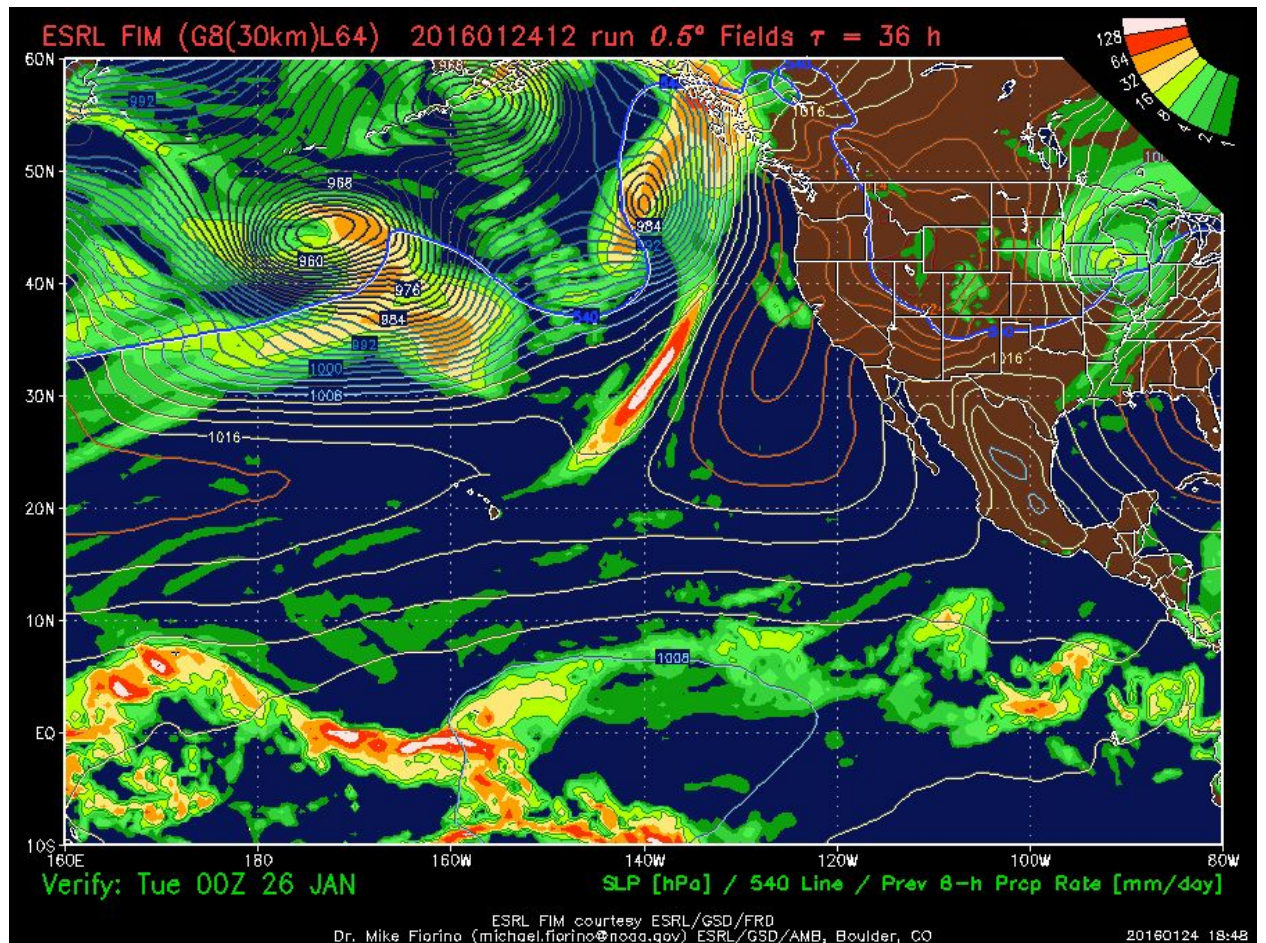
ECMWF 48 HR Fcst for 00Z Tue 26 Jan (from 00Z Sun Run)



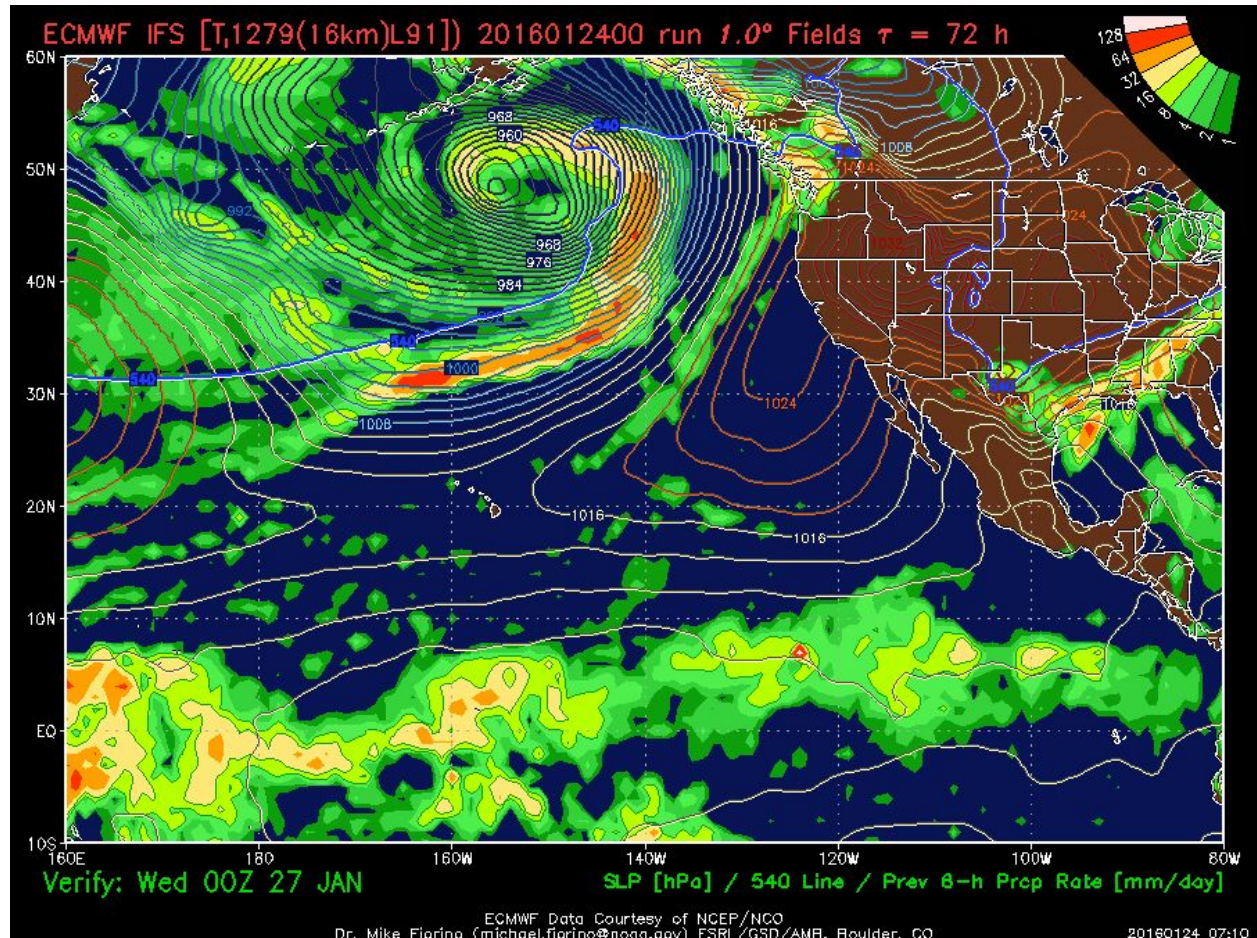
GFS 36 HR Fcst for 00Z Tuesday 26 Jan (from 12Z Sunday Run)



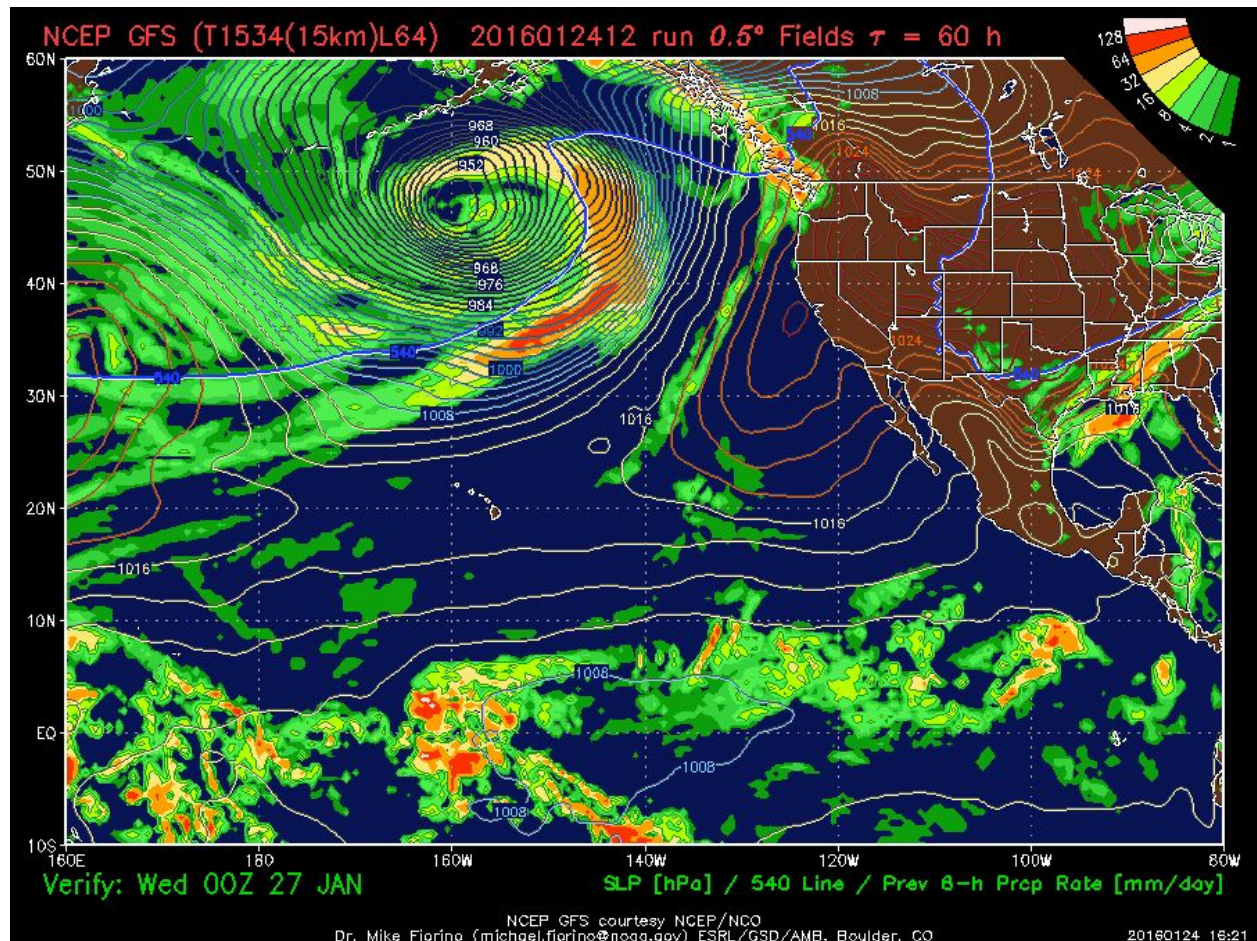
ESRL-FIM 36 HR Fcst for 00Z Tuesday 26 Jan (from 12Z Sunday Run)



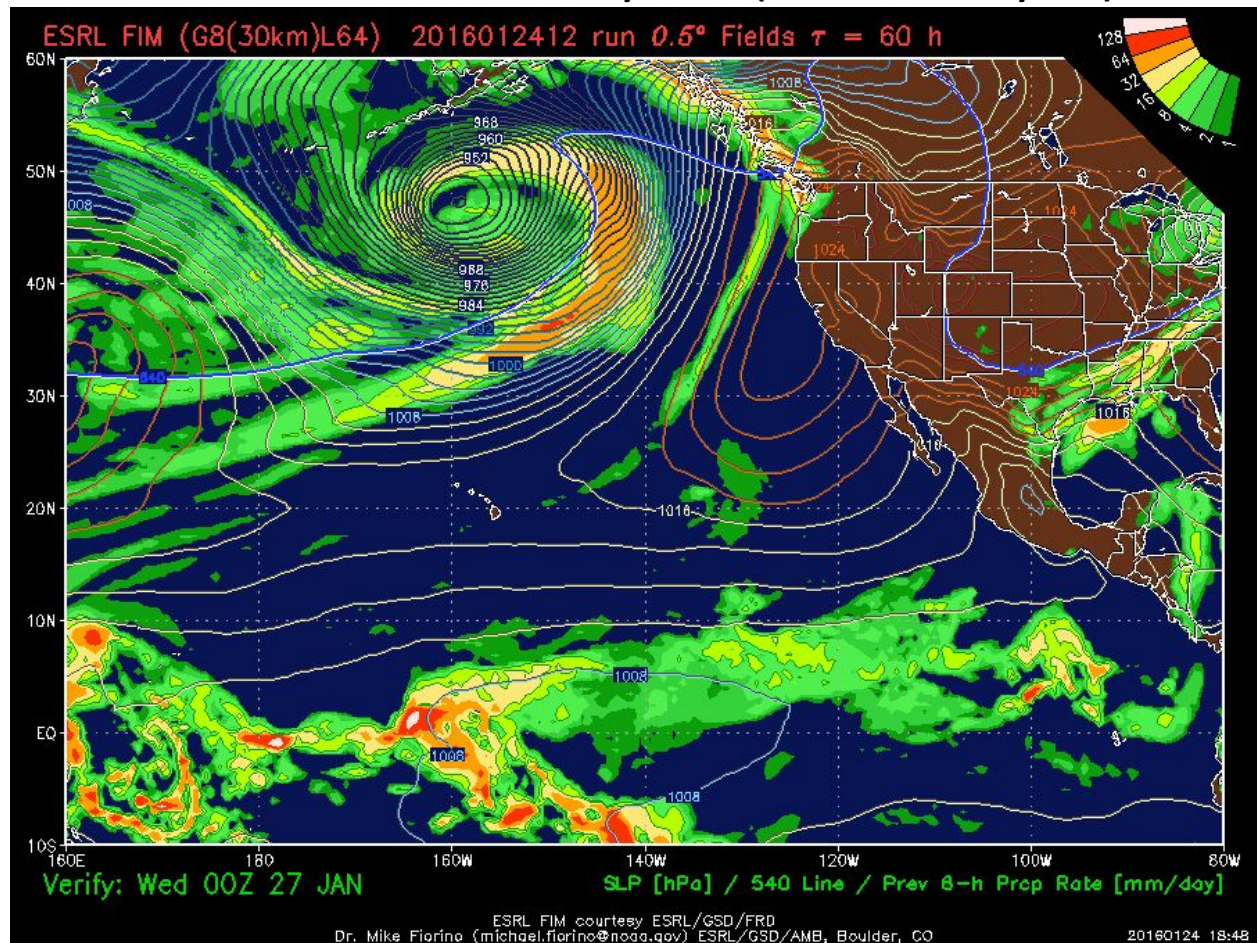
ECMWF 72 HR Fcst for 00Z Wed 27 Jan (from 00Z Sun Run)



GFS 60 HR Fcst for 00Z Wednesday 27 Jan (from 12Z Sunday Run)



ESRL-FIM 60 HR Fcst for 00Z Wednesday 27 Jan (from 12Z Sunday Run)

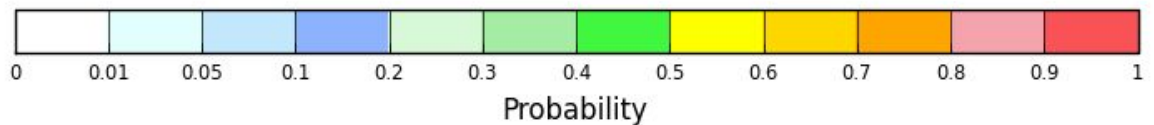
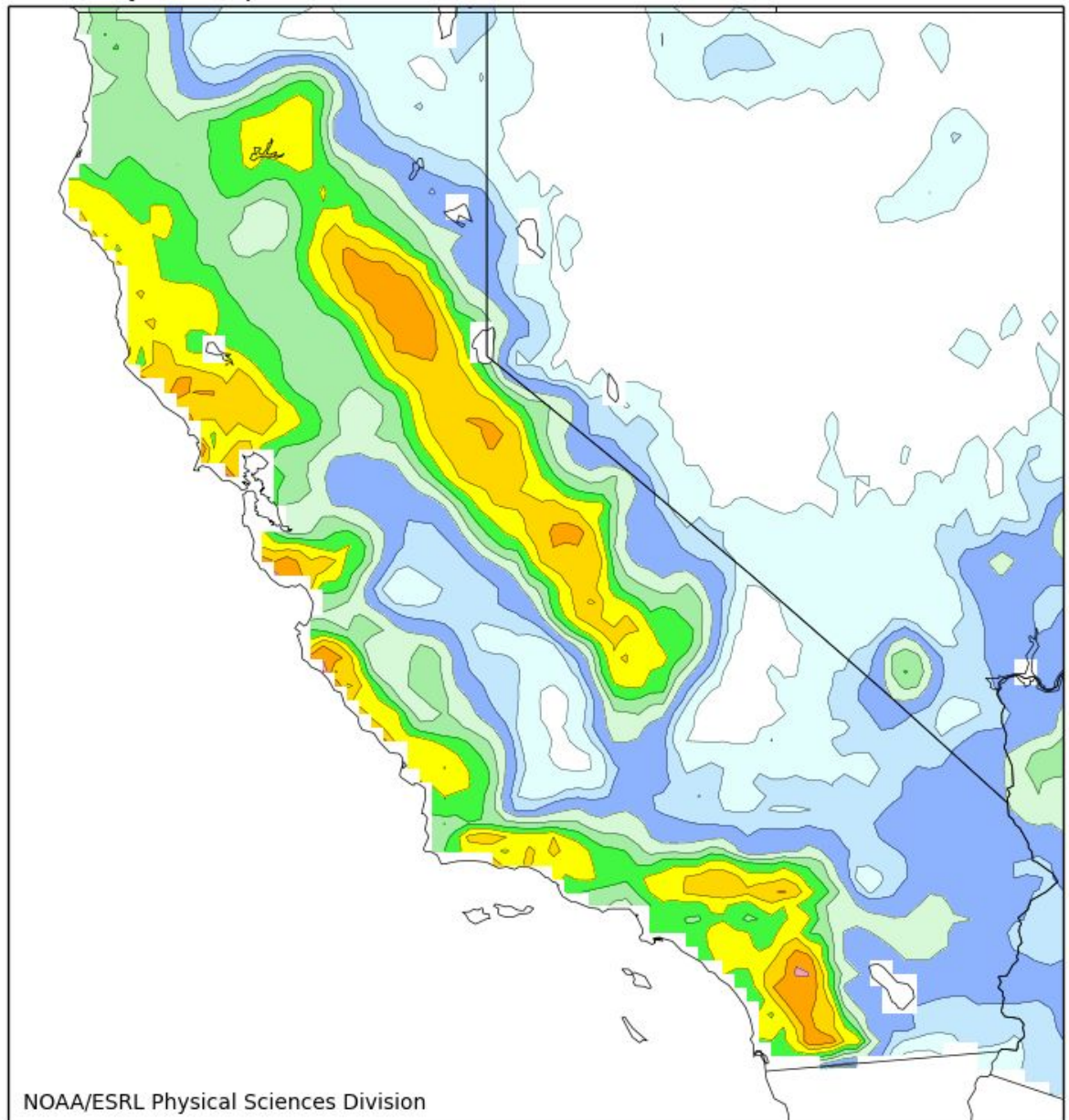


ESRL-Calibrated Reforecast Pcpn :

Day 6-10 Fcst for 00z 29 January -00z Wed February 3

(from the 00Z Sunday ensembles of the experimental reforecast system)

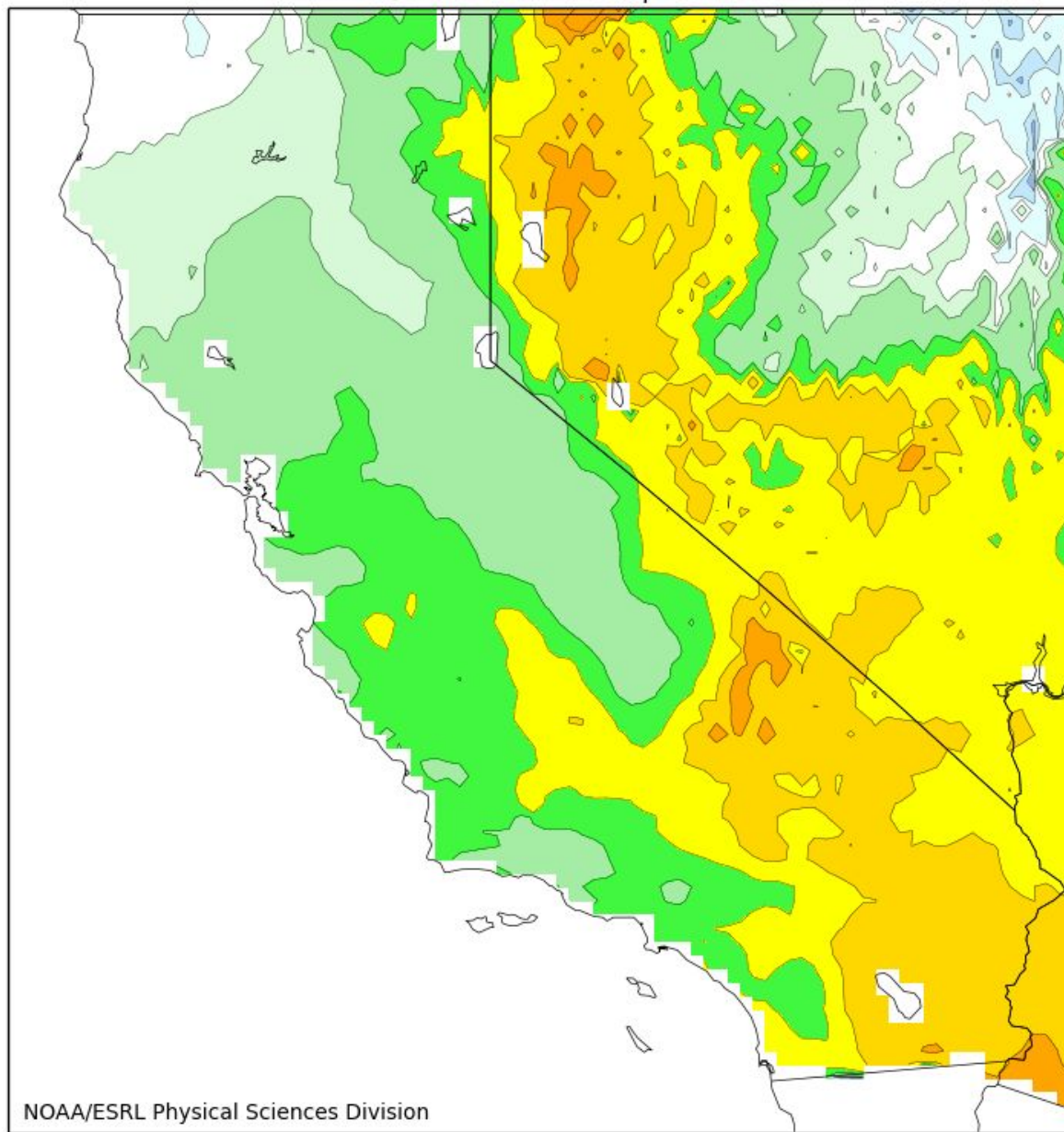
120-240hr fcst from 00Z Sun Jan 24. Valid 00Z Fri Jan 29 - 00Z Wed Feb 03
Probability of Precip > 50mm. CSGD. 2002-2013 CCPA and Reforecast2 Calibration.



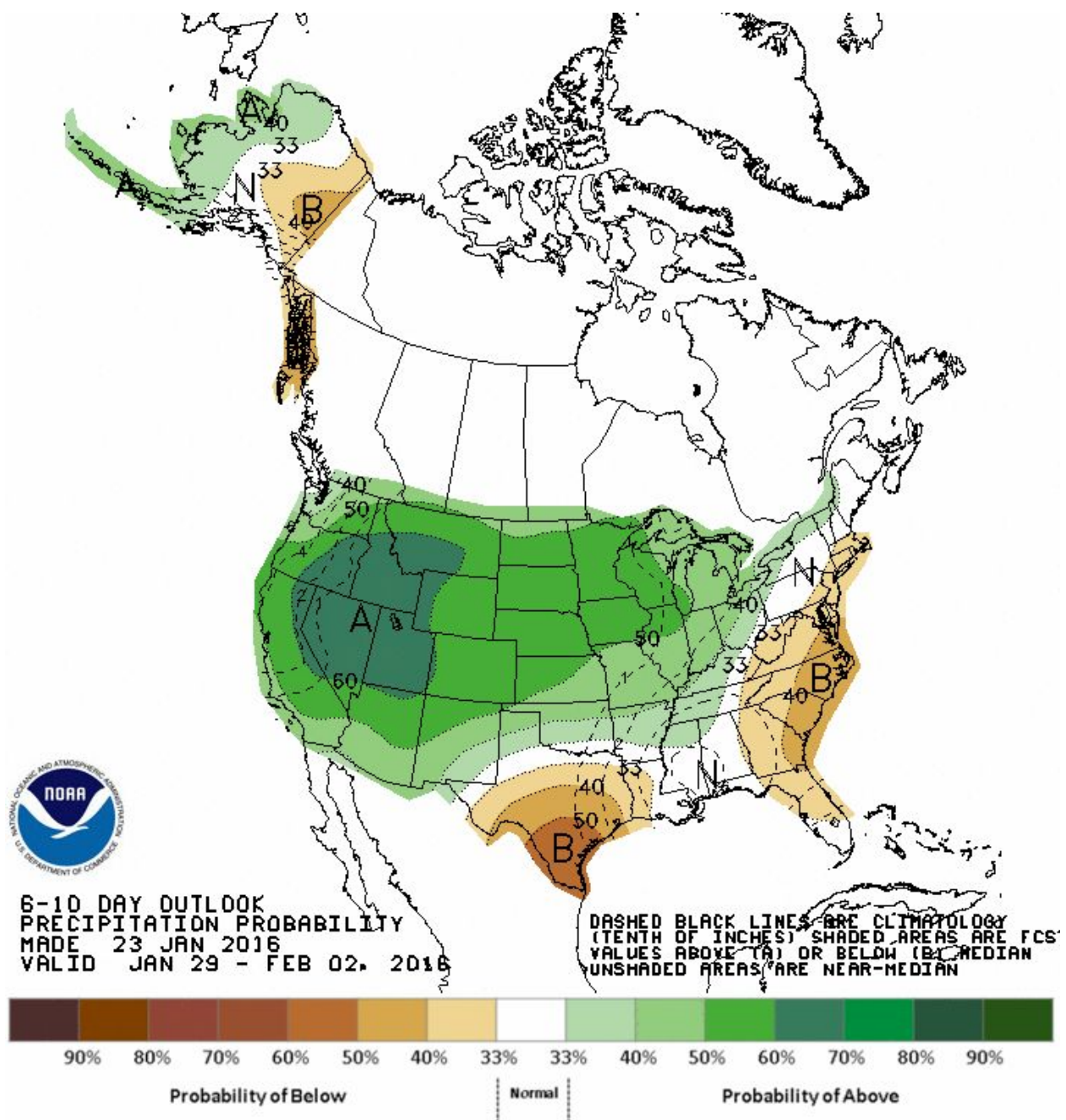
**ESRL-Calibrated Reforecast Fractional Change in % Compared to Climo :
Day 6-10 Fcst for 00zFrid -00z Wed February 3**

(from the 00Z Sunday ensembles of the experimental reforecast system)

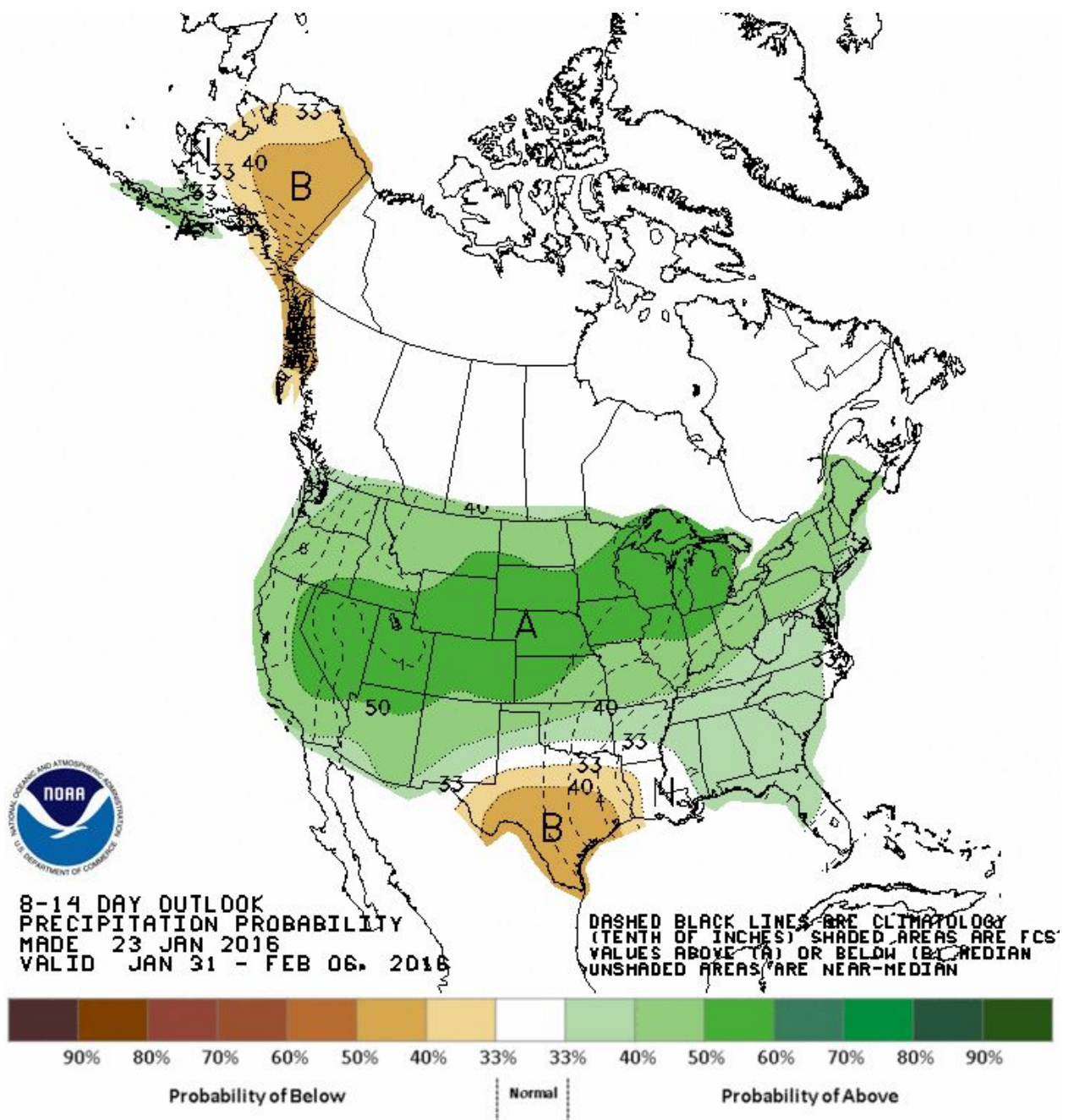
120-240hr fcst from 00Z Sun Jan 24. Valid 00Z Fri Jan 29 - 00Z Wed Feb 03
Ratio. Forecast/Climo Prob of Precip > 50mm. CSGD.



CPC 6-10 Day Pcpn Outlook Valid 29 Jan - 02 Feb 2016

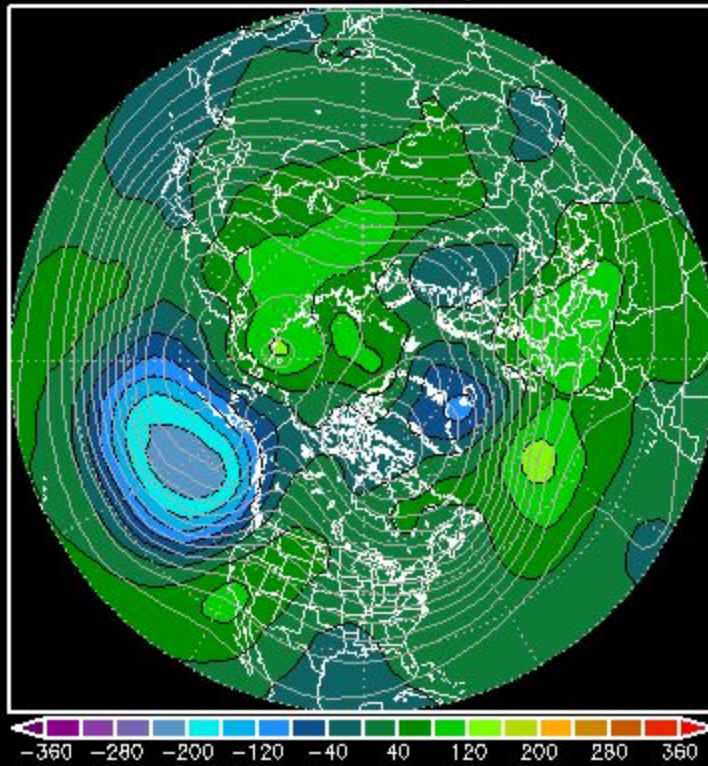


CPC 6-10 Day Pcpn Outlook Valid 29 Jan - 02 Feb 2016



360 Hr Fcst Ensemble Mean 500 Z Anom : Valid 8 Feb 2016

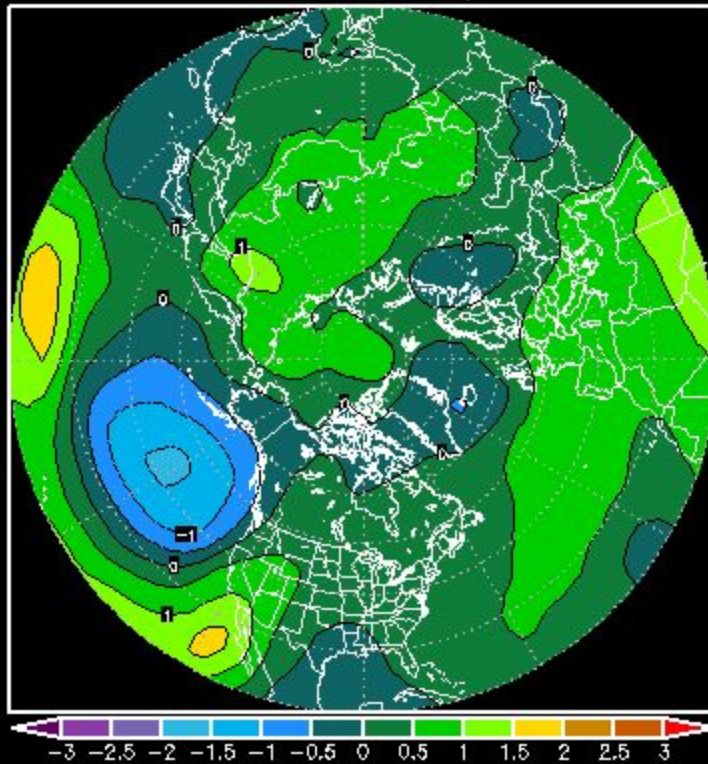
NCEP ENSEMBLE MEAN ANOMALY- 500mbZ(m)
360H Forecast from: 00Z Sun JAN,24 2016
Valid time: 00Z Mon FEB,08 2016



BR/OS COLA/IBES

360 Hr Fcst Standardized Ensemble Mean 500 Z Anom : Valid 8 Feb 2016

NCEP ENS. MEAN NORM. ANOM - 500mb Z(m)
360H Forecast from: 00Z Sun JAN,24 2016
Valid time: 00Z Mon FEB,08 2016

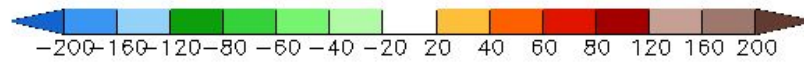
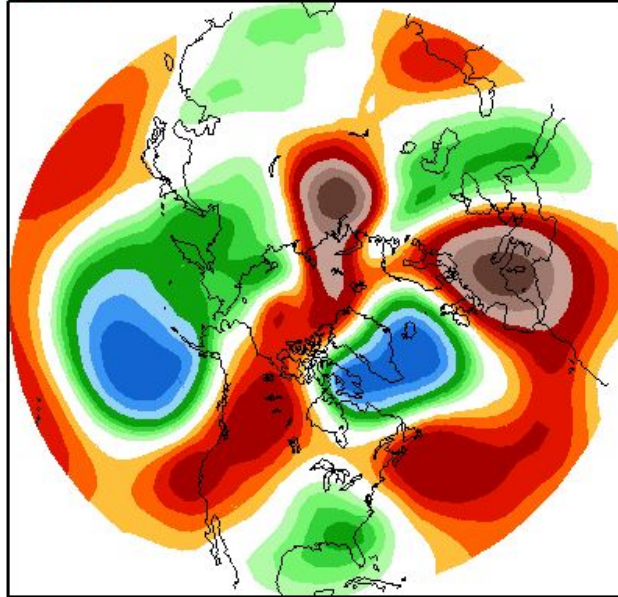


BR/OS COLA/IBES

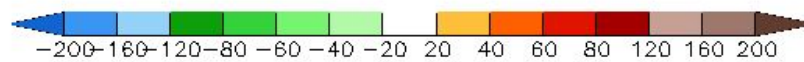
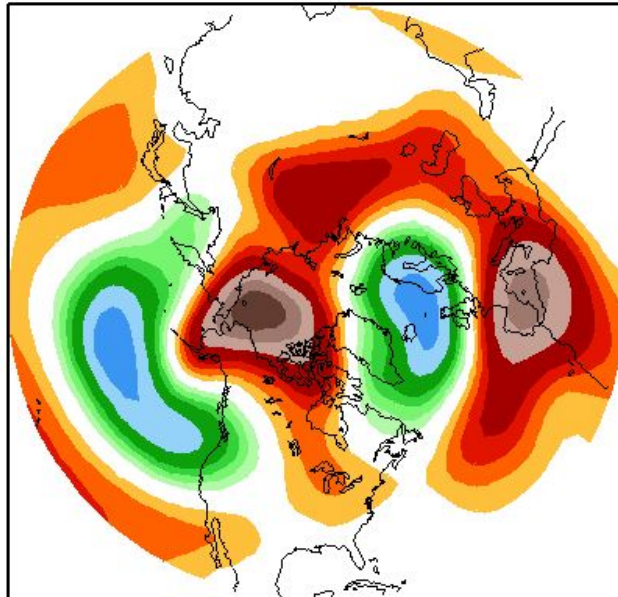
CFS Week 1 and Week 2 500 mb Height Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 500 hPa Z Anomalies (m)
16 Member Ensemble Mean Forecast from 23Jan2016

Week 1 24Jan2016–30Jan2016



Week 2 31Jan2016–6Feb2016



CFS Week 1 and Week 2 NA Pcpn Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 23Jan2016

