

2020 Agricultural Climate Outlook

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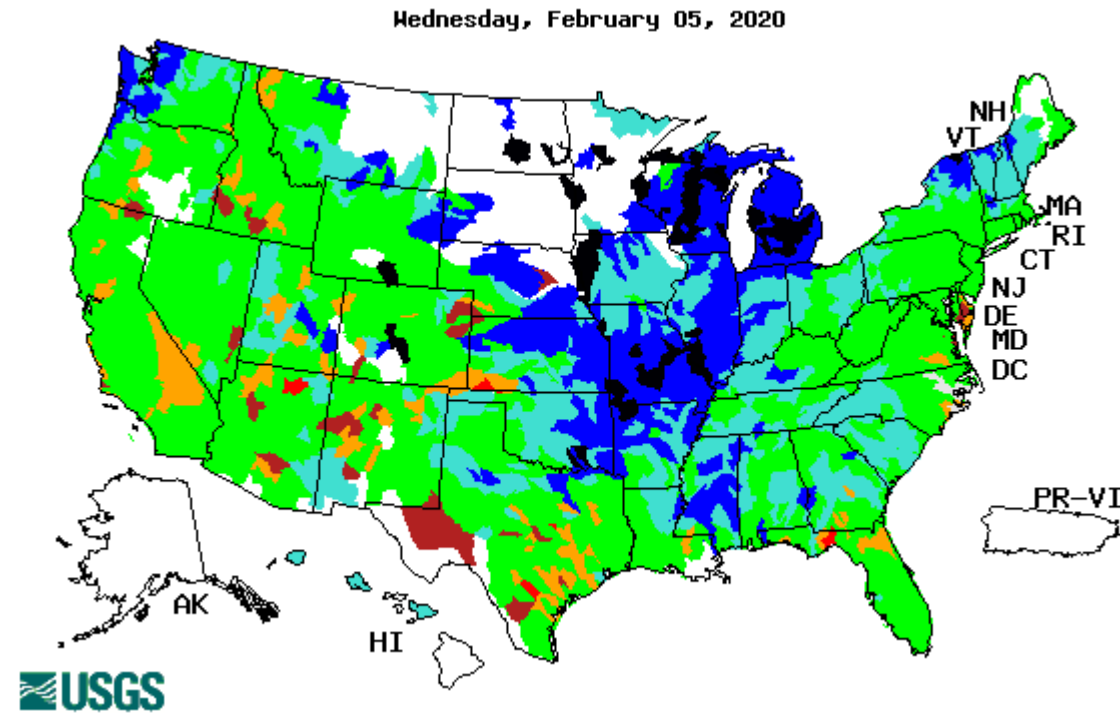
Presentation for the Wilbur Crop Clinic. Lincoln, NE: February 7

, 2020

NOAA Flood Risk Statements

- NOAA Flood Risk Statement (October):
 - https://www.weather.gov/media/crh/Fall_Flood_2019_Outlook.pdf
- NOAA Flood Risk Statement (January):
 - Missouri River Basin:
 - <https://www.weather.gov/media/crh/MissouriBasin.pdf>
 - Upper Mississippi and Red River Valleys:
 - <https://www.weather.gov/media/crh/UpperMiss.pdf>

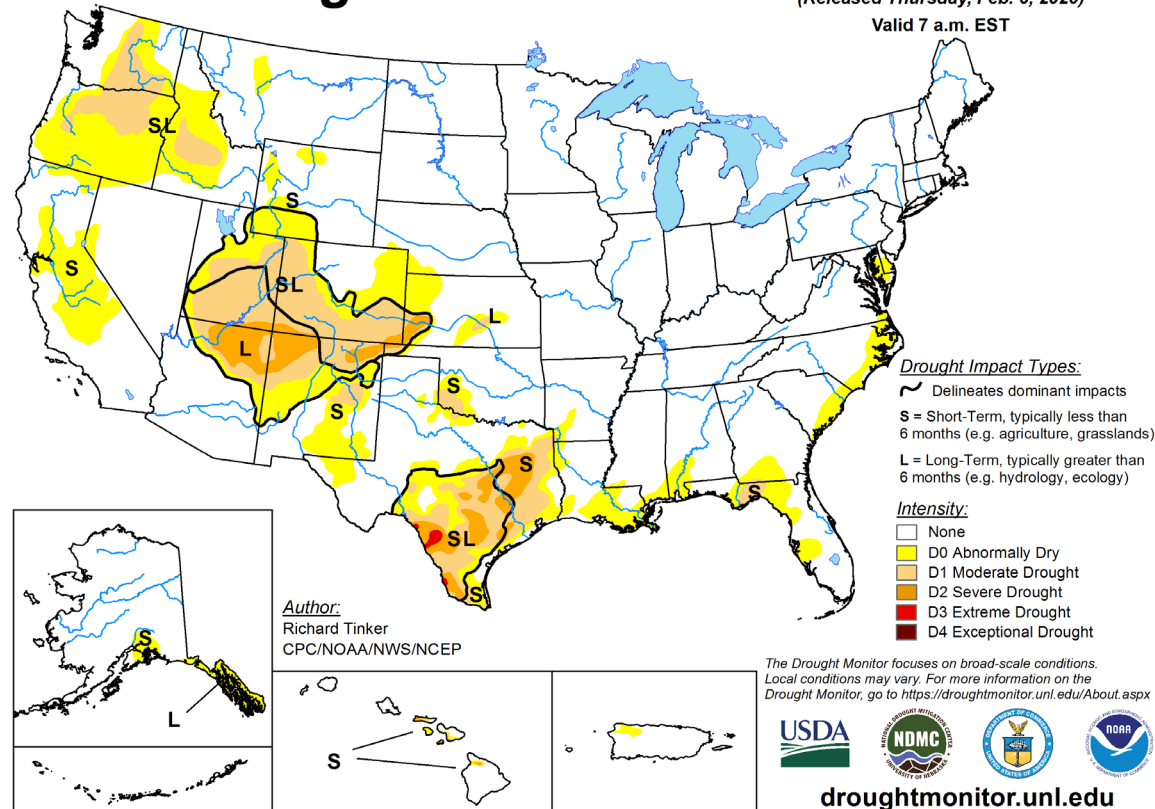
Current Streamflow by River Basin 28 Day Percentile Rating



Current Drought Monitor

U.S. Drought Monitor

February 4, 2020
(Released Thursday, Feb. 6, 2020)
Valid 7 a.m. EST



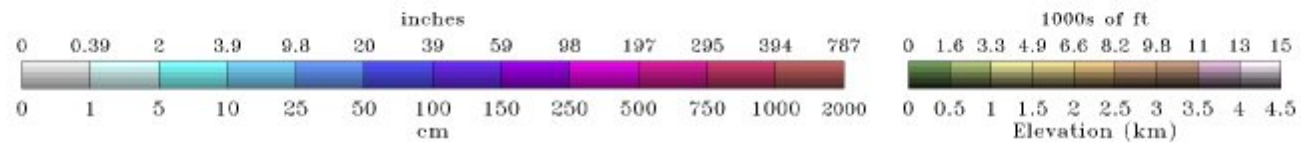
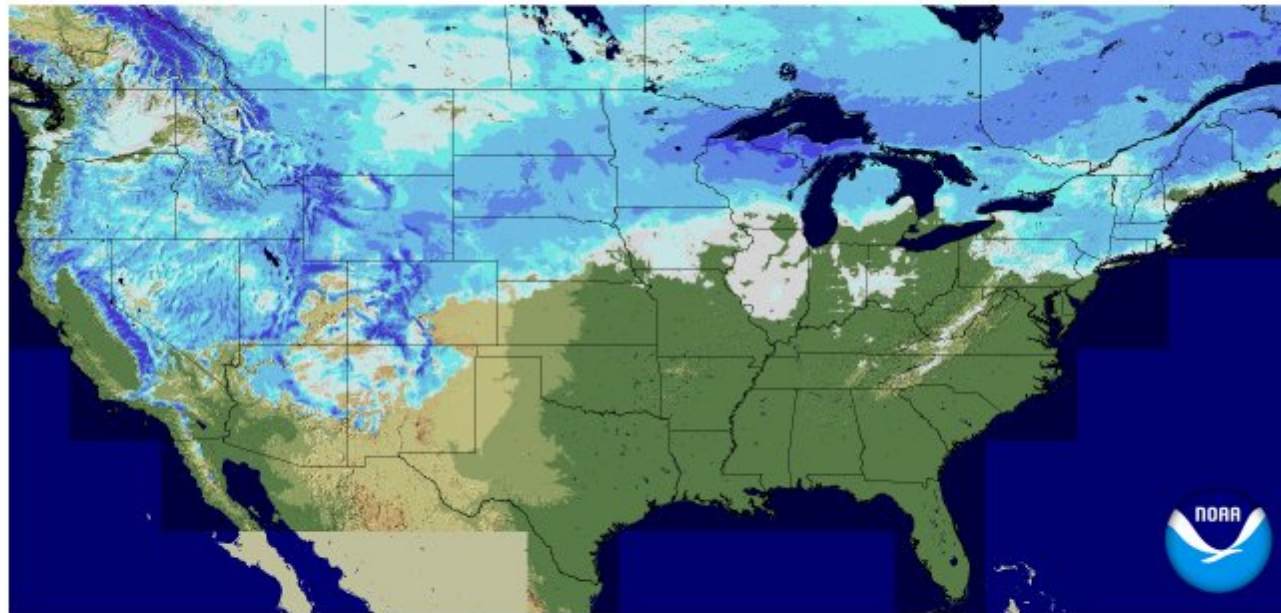
Snow Totals: 2020 vs 2019

• Scottsbluff:	30.3	19.4
• Valentine:	26.9	17.6
• North Platte:	18.6	11.5
• Grand Island:	20.9	15.2
• Hastings:	19.3	11.8
• Norfolk:	21.9	11.8
• Omaha:	13.8	23.1
• Lincoln:	10.7	26.0

National Snowpack Map: December 2

OWP | OFFICE OF WATER PREDICTION
National Snow 2018-2019 Analysis 2019

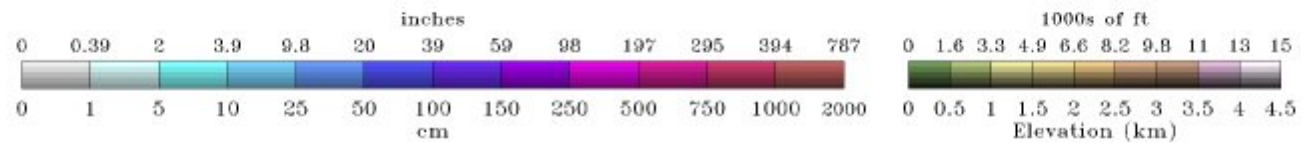
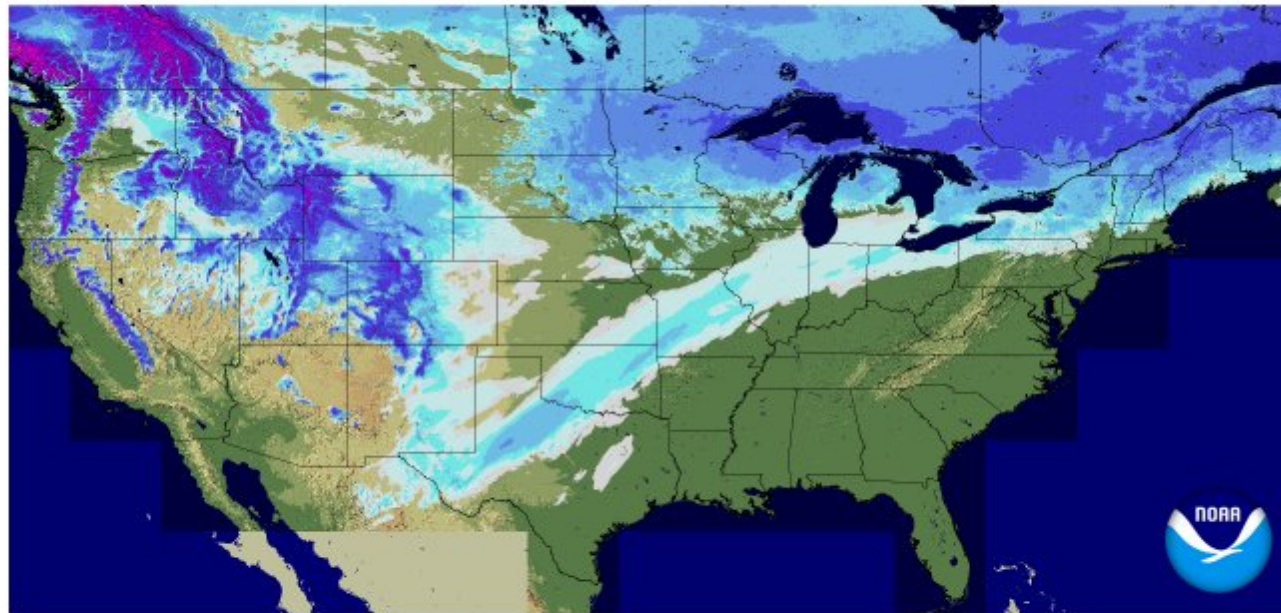
Snow Depth
2019-12-02 06 UTC



Current National Snowpack Map

National Snow 2018-
Analysis 2019
OWP OFFICE OF
WATER
PREDICTION

Snow Depth
2020-02-06 06 UTC



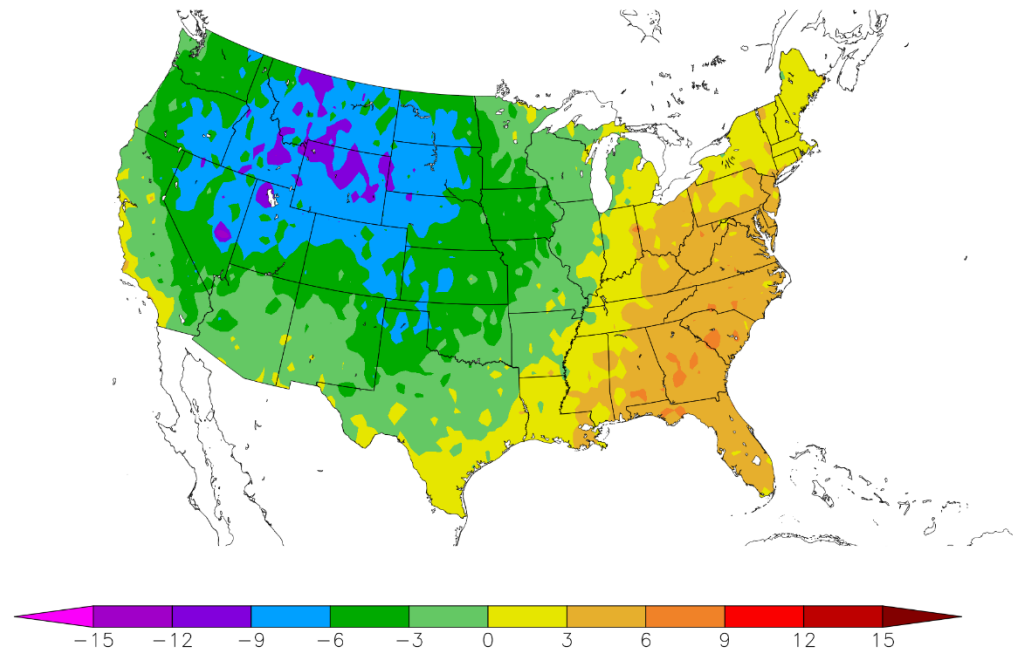
Current Mountain Snowpack Conditions

- Northern Rockies: Normal to above normal, drying trend
- Central Rockies: Normal to slightly above normal, normal trend
- Southern Rockies: Normal to below normal, drying trend

- Keep abreast on conditions by viewing the NRCS weekly snowpack update at:
 - <https://www.wcc.nrcs.usda.gov/cgibin/water/drought/wdr.pl>

National October Temperature Trend

Departure from Normal Temperature (F)
10/1/2019 – 10/31/2019

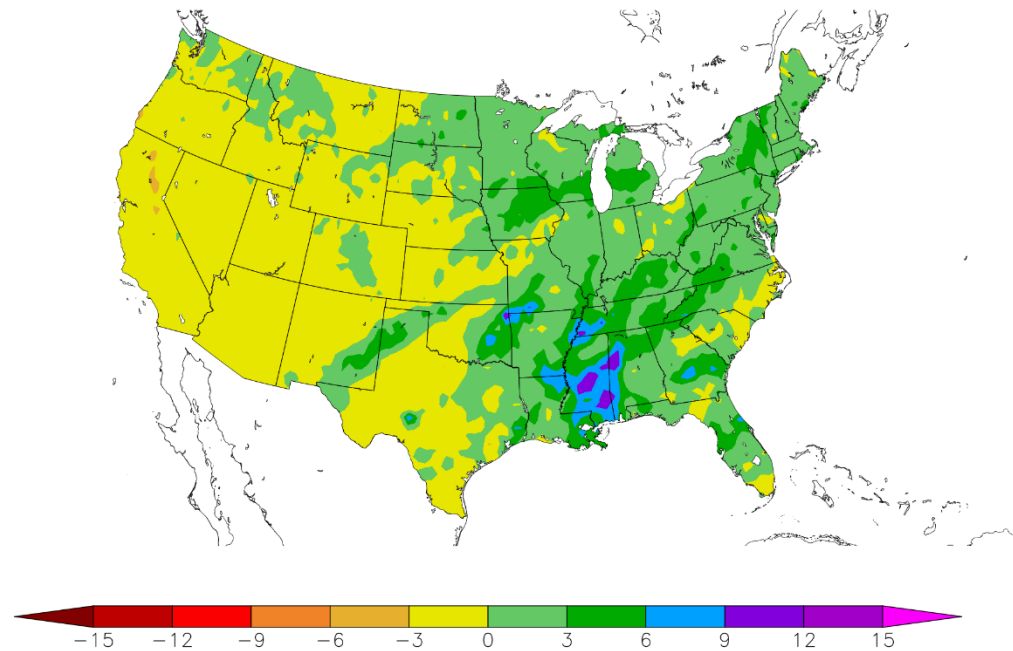


Generated 11/20/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

National October Precipitation Trend

Departure from Normal Precipitation (in)
10/1/2019 – 10/31/2019

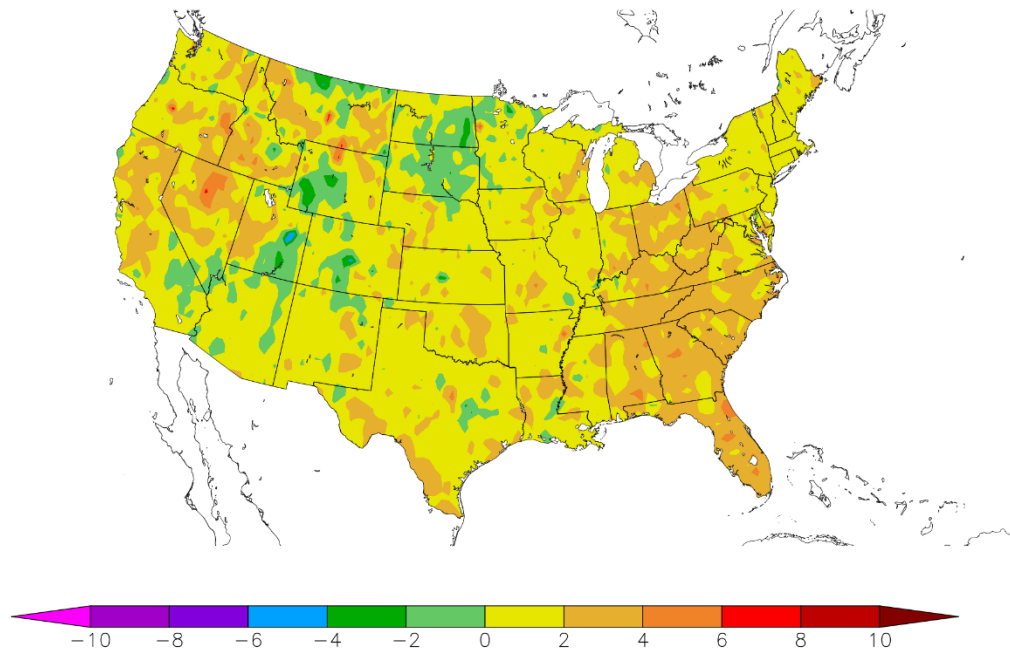


Generated 11/20/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

90 Day Temperature Trend

Departure from Normal Temperature (F)
10/30/2019 – 1/27/2020

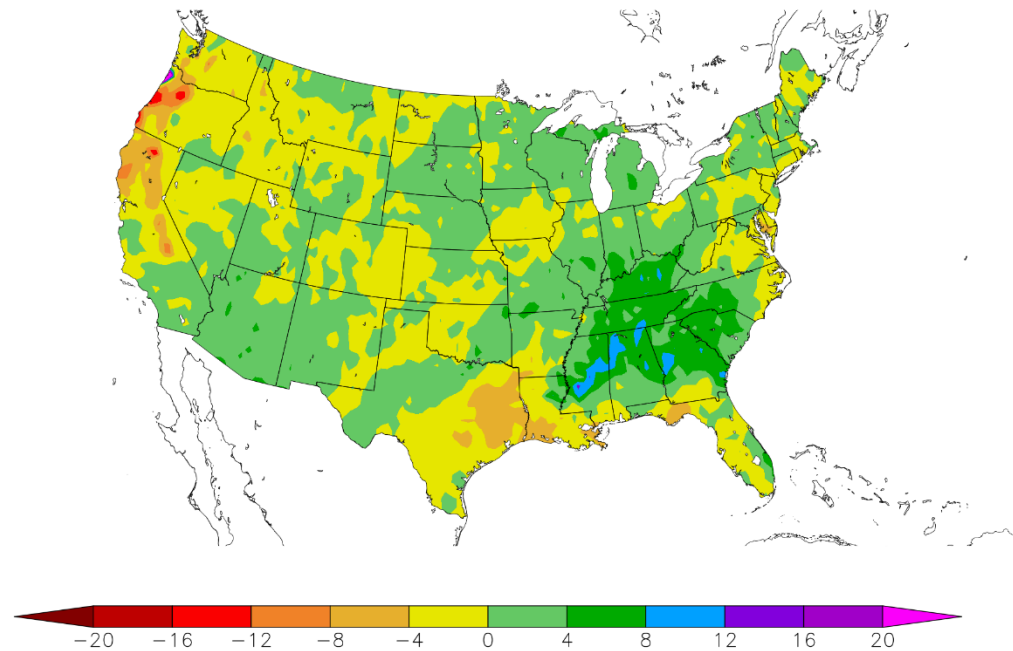


Generated 1/28/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

90 Day Precipitation Trend

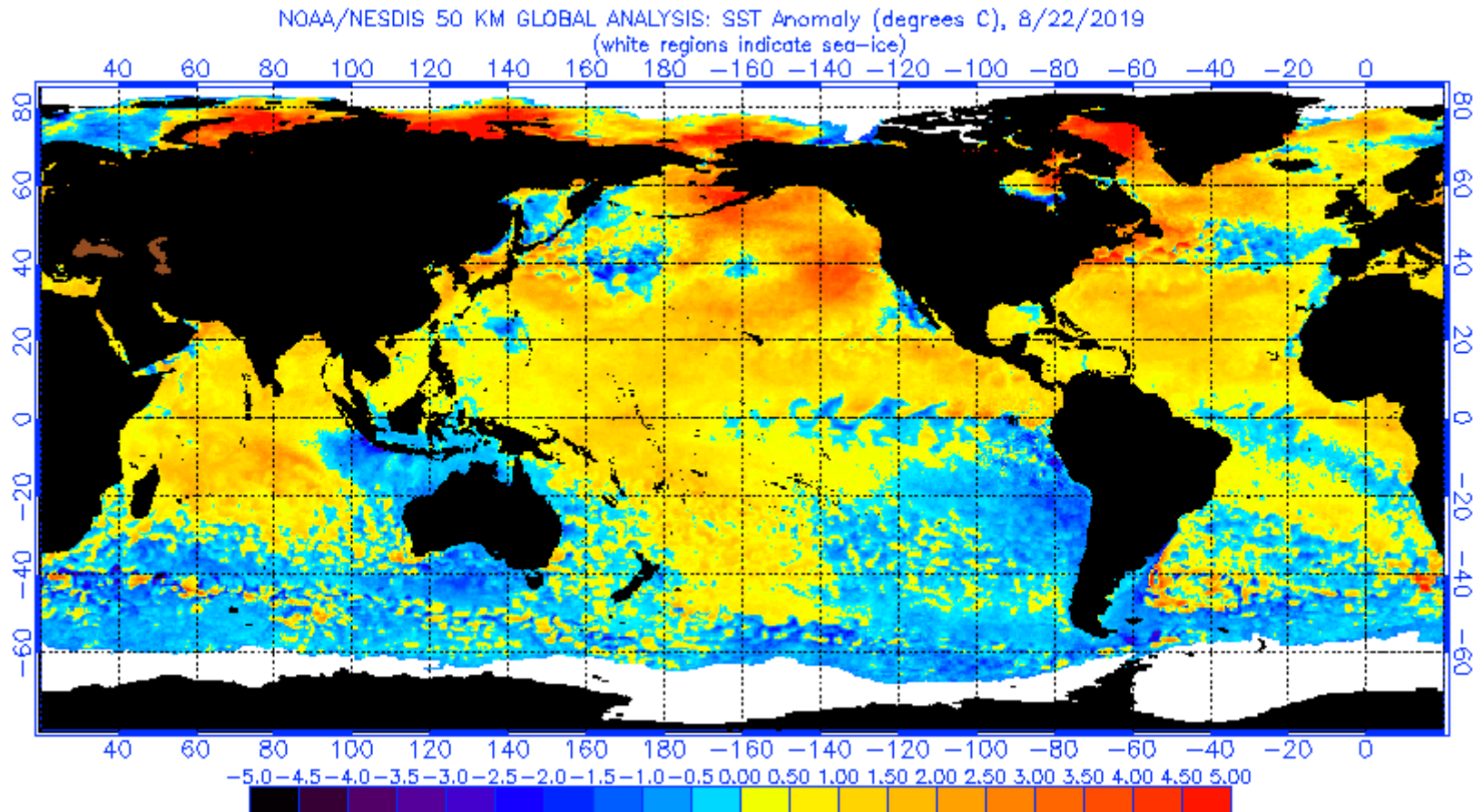
Departure from Normal Precipitation (in)
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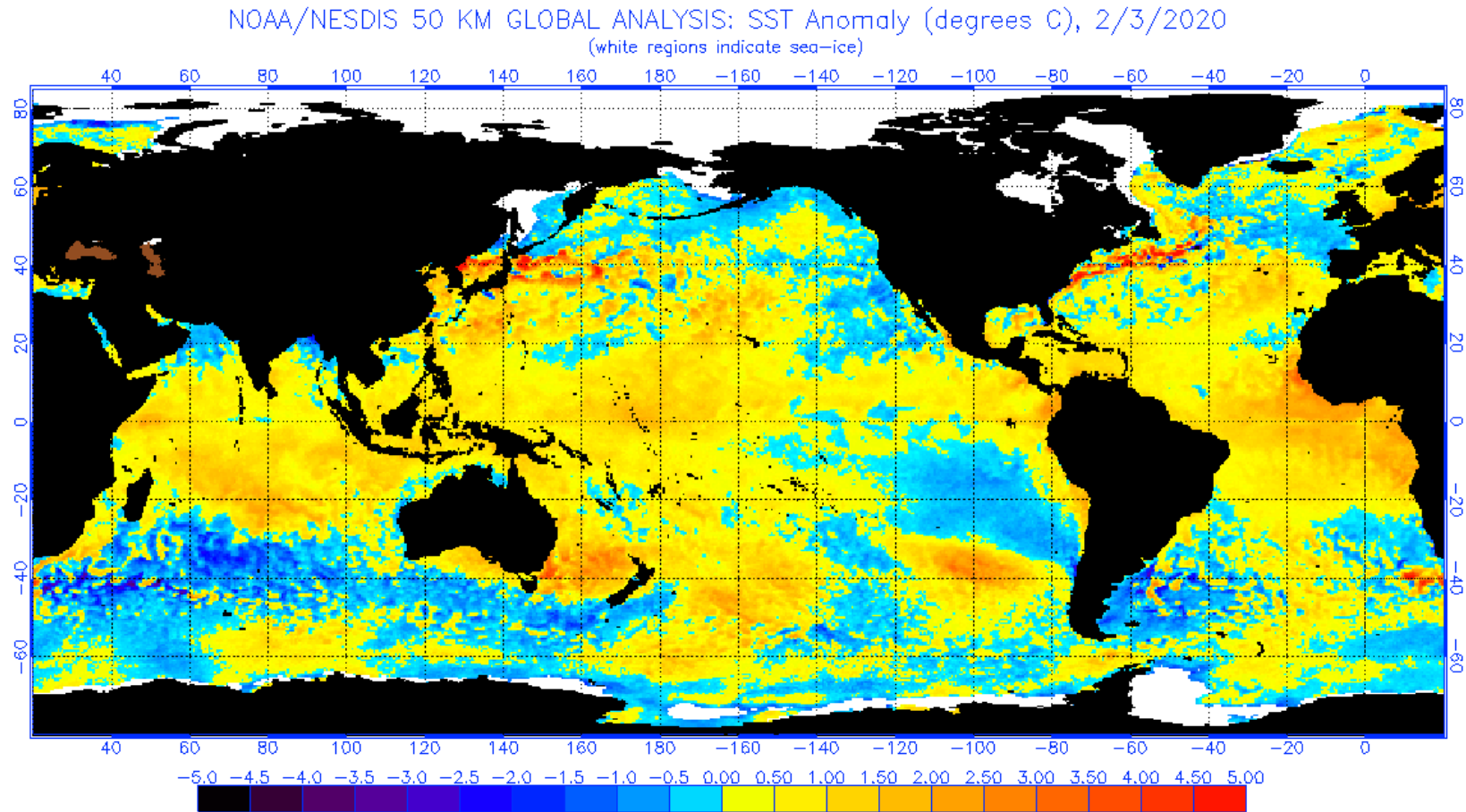
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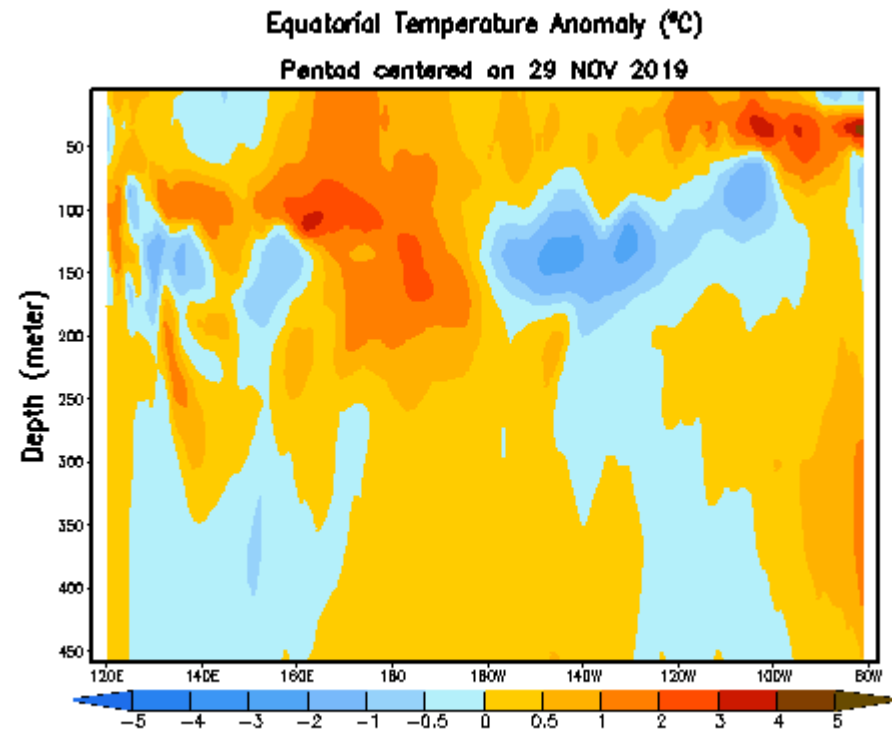
Six Month Animated Global SST's Through February 3, 2020



Static Global SST's: February 3, 2020



Equatorial Pacific Sub-Surface Heat Content Animation



Consensus ENSO 12 Month Outlook

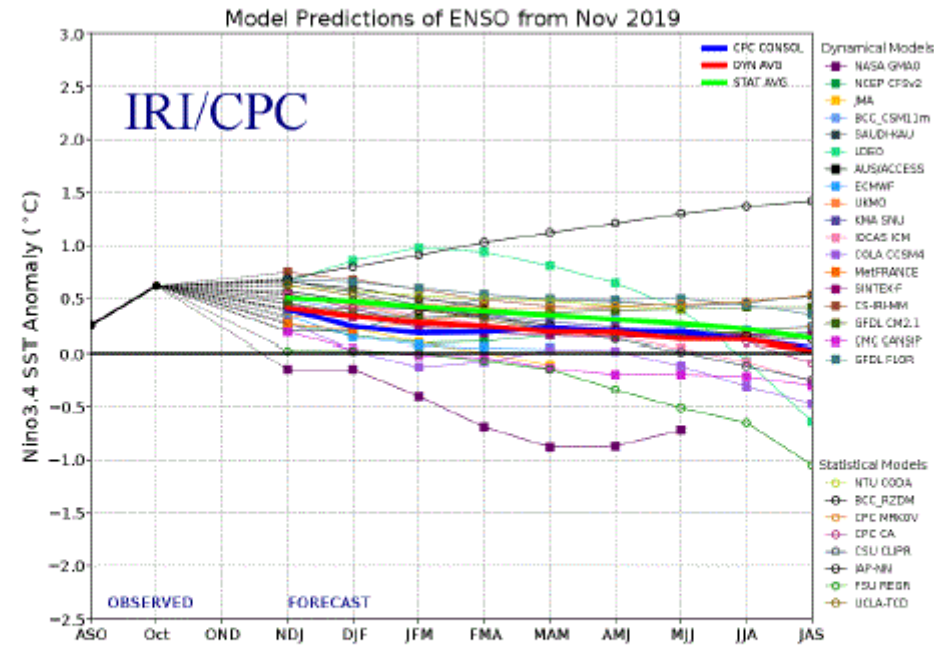
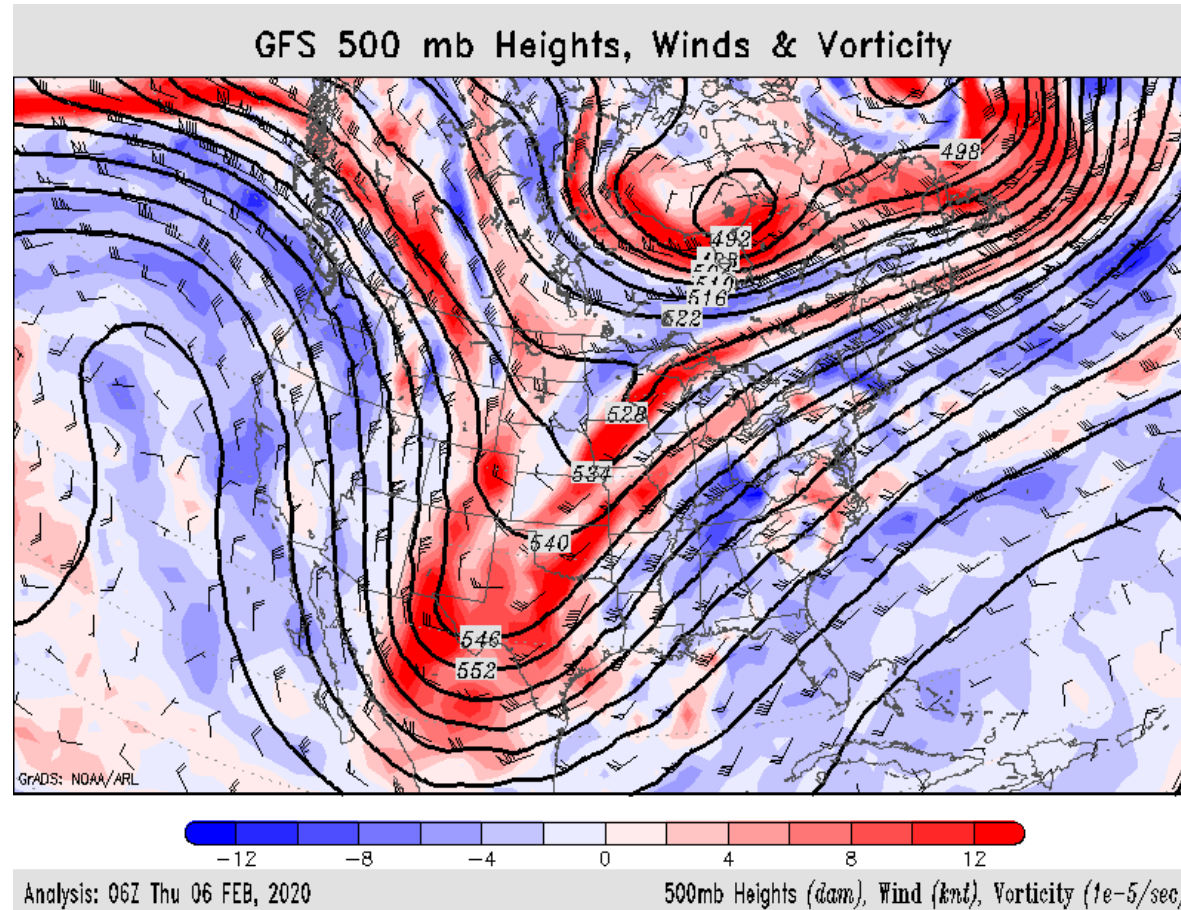
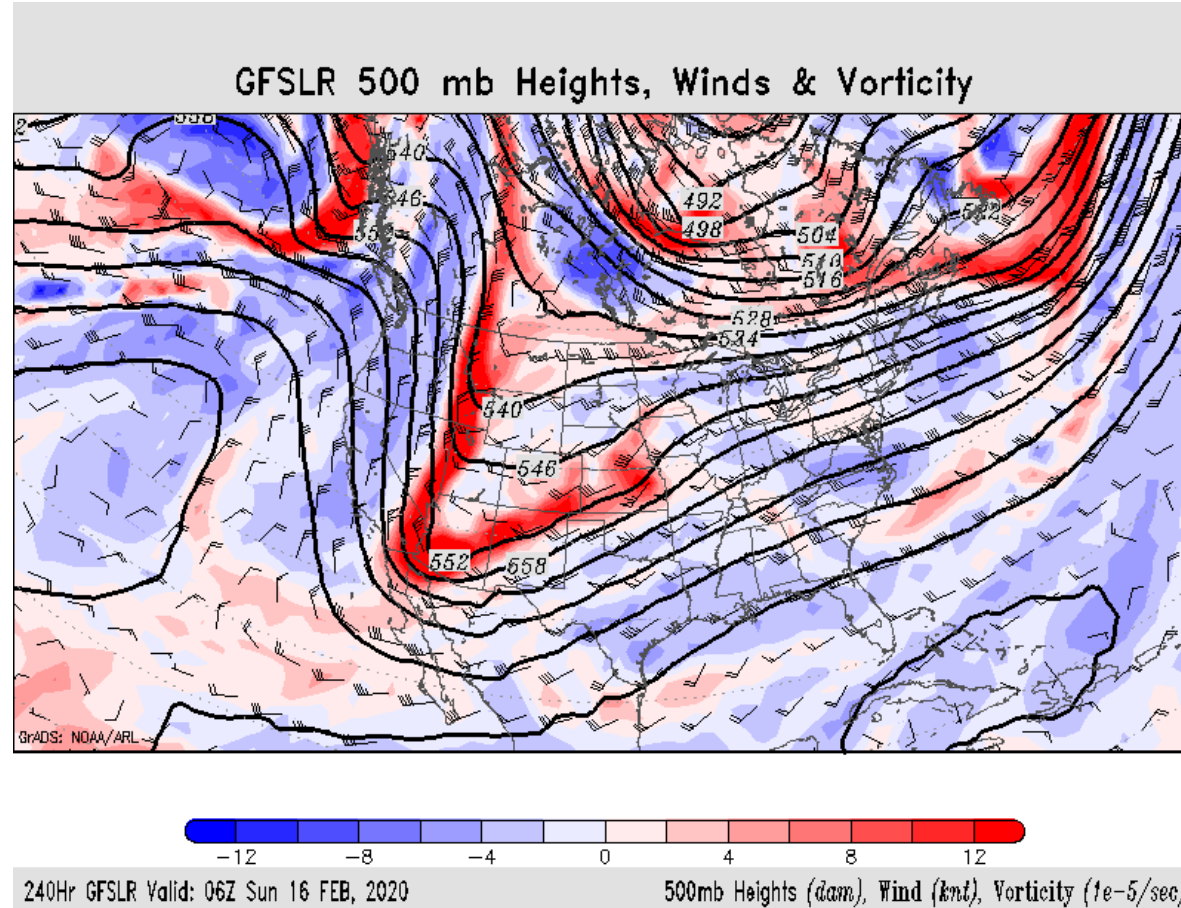


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N-5°S, 120°W-170°W). Figure updated 19 November 2019.

Current Storm Pattern: Next 10 Days



Current Storm Pattern: mid February – late February



Concluding Statements

- An elevated flood risk exist for much of the corn belt through next spring
 - Mesonet.unl.edu daily soil temperatures indicate frost depth over 8 inches northern 1/3 of the state, range 32 to 38 F statewide
 - 20 inch daily soil temperatures range from 34 to 38 statewide
 - 40 inch daily soil temperatures range from 37 to 43 statewide
- The degree of flood risk will ultimately be determined by precipitation, temperature, frost depth, and storm tracks through the first half of this year. River levels higher than last year and may mitigate significant ice accumulations on local tributaries
- The current storm track puts eastern Nebraska in favorable storm track position, less optimism for western Nebraska during February where driest conditions exist
- Overall patterns this winter lasting 6-8 weeks
- Moisture favored much further north and east than last winter with a lower count of southern stream storms.
- ENSO neutral conditions through 2020, cooling favored second half of 2020.