

NOAA Climate Science & Services

Monthly Climate Update

A look back at January

A preview of March-May

Jake Crouch

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NOAA's National Climatic Data Center

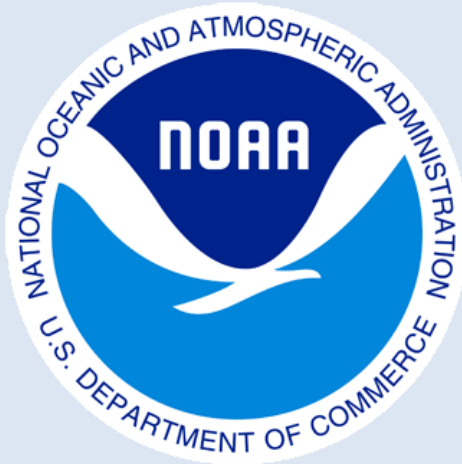
Kathie Dello

Deputy Director, Oregon Climate Service at
Oregon State University

Anthony Artusa

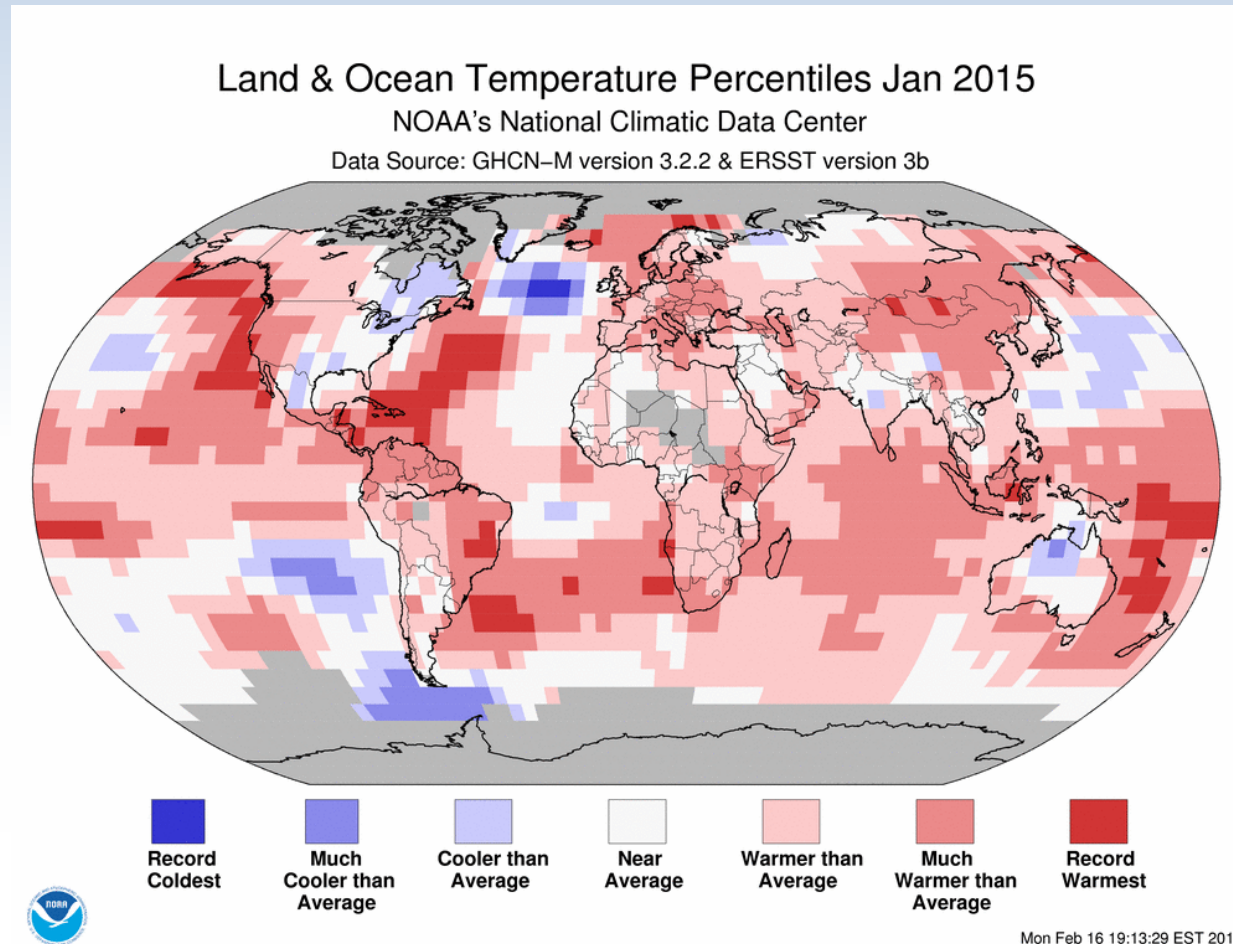
Seasonal Forecaster

NOAA's Climate Prediction Center



Global Temperature: January 2015

- January $+1.39^{\circ}\text{F}$ warmer than 20th century average
 - 2nd warmest Jan on record
 - Jan 2007 was warmer
- Land: $+2.57^{\circ}\text{F}$
 - 2nd warmest
- Ocean: $+0.95^{\circ}\text{F}$
 - 3rd warmest



The global temperature record dates to 1880 (136 years)

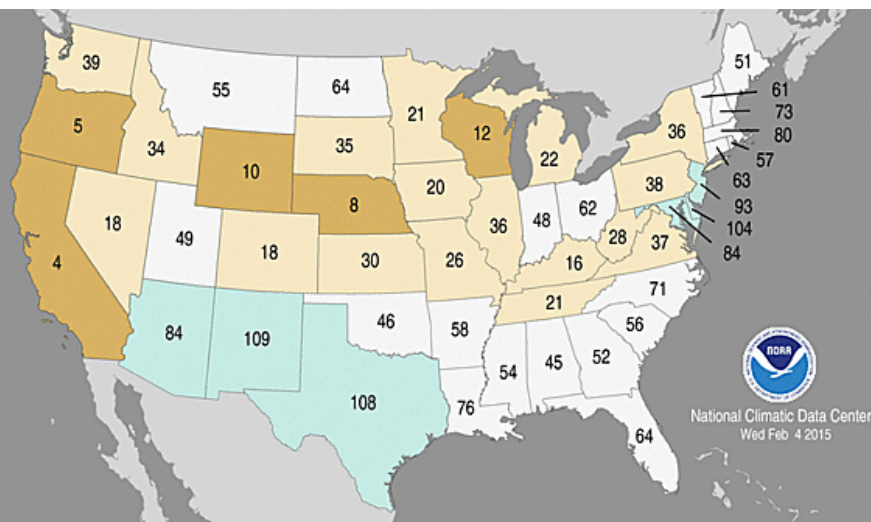
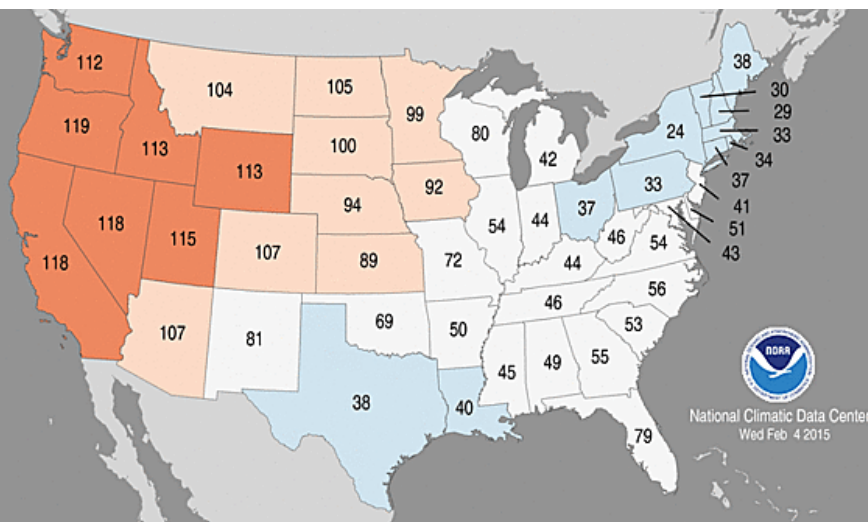
Contiguous U.S. January 2015

Temperature: 33.0°F, +2.9°F, 24th warmest January

Precipitation: 1.75", -0.56", 18th driest January

Statewide Temperature Ranks, January 2015
Period: 1895-2014 (121 years)

Statewide Precipitation Ranks, January 2015
Period: 1895-2014 (121 years)



Record Coldest (1) Much Below Average Below Average Near Average Above Average Much Above Average Record Warmest (121)

Record Driest (1) Much Below Average Below Average Near Average Above Average Much Above Average Record Wettest (121)

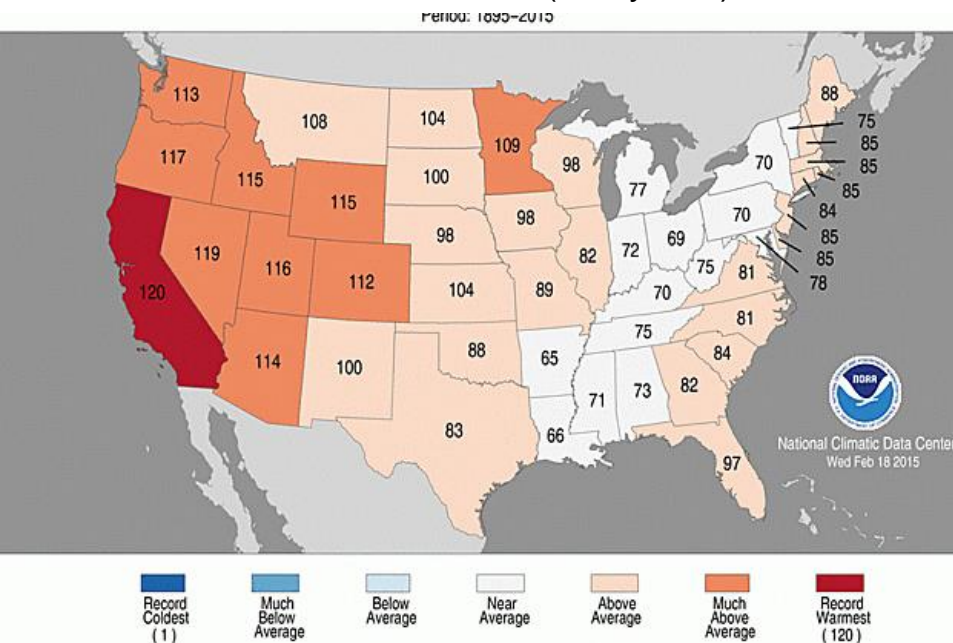
- The West was warm, where seven states were top 10 warm. No state was record warm.
- Southern Plains and Northeast were cool, no state was top 10 cool.
- Nearly 4x as many warm daily records than cold ones.

- The West and northern tier were dry. Four states were top 10 dry, but no state was record dry.
- Third consecutive much drier than average Jan for CA.
- The Southern Plains and Southwest were wet.
- 18th smallest Jan snow cover extent for the Lower 48.
- Nor'easter impacted New England at end of month.

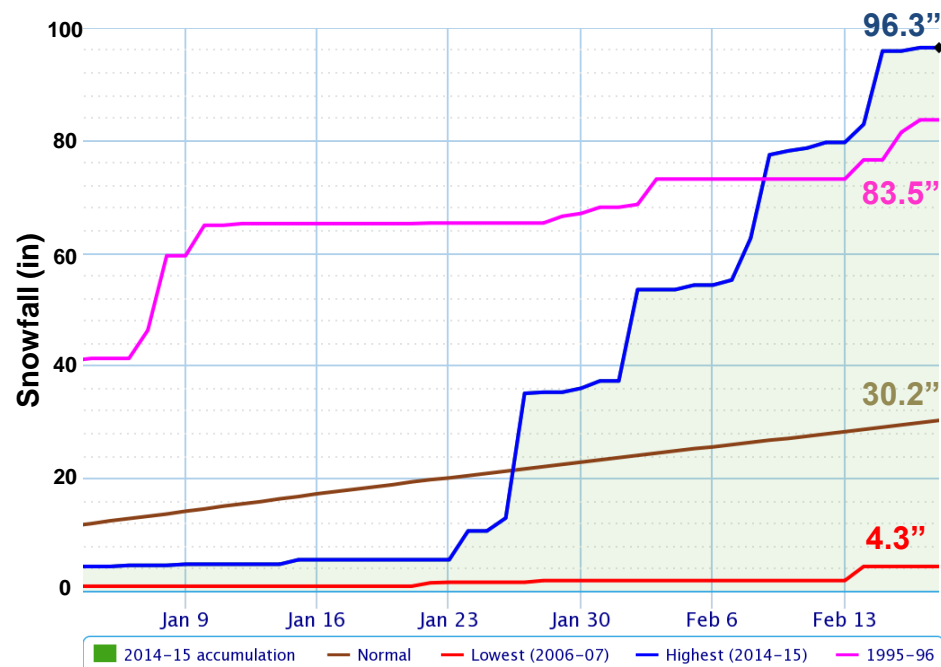
U.S. Winter to Date

- **Dec 2014-Jan 2015:** 34.9°F, +3.5°F, 6th warmest Dec-Jan on record.
- California record warm for second consecutive Dec-Jan.
- Snowfall surpluses in New England and snowfall deficits in the West.
 - Several Nor'easters and other snow storms in the East.
 - Warmth in the West resulted in most precipitation to fall as rain.

Statewide Precipitation Ranks, Dec-Jan 2014/15
Period: 1895-2015 (120 years)



Boston-Logan Int'l Airport
Season-to-Date Snowfall Accumulation

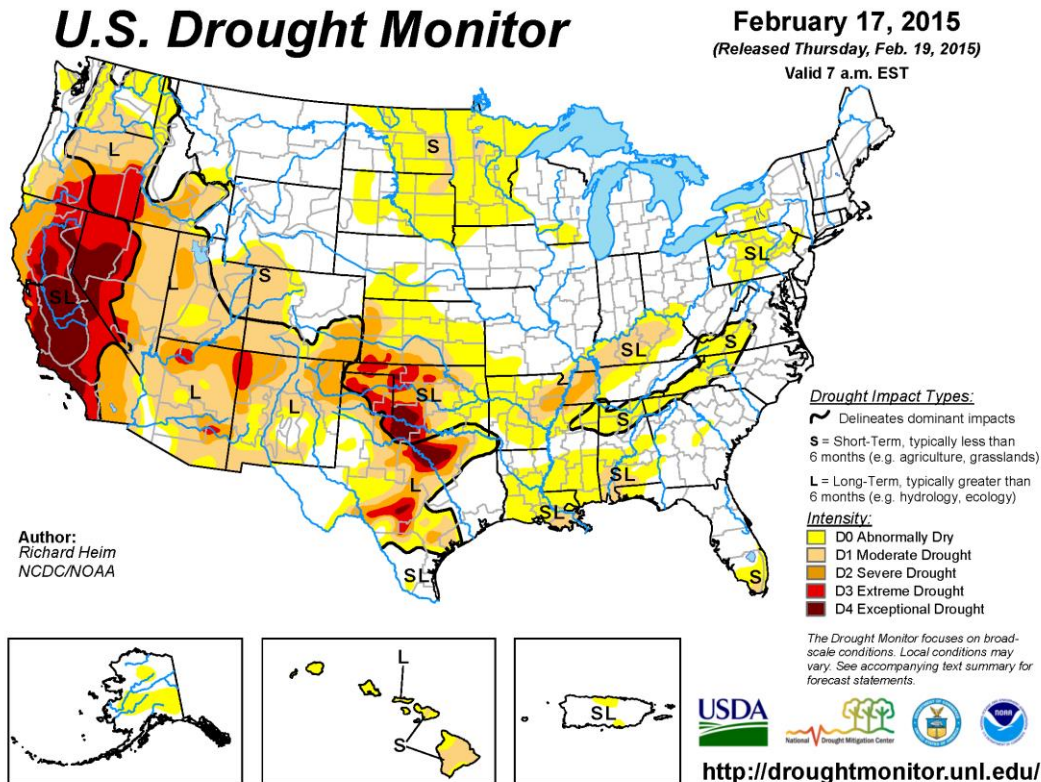


Current U.S. Drought

32.1% of Contiguous U.S. in Drought

(↑ 3.4% since beginning of January)

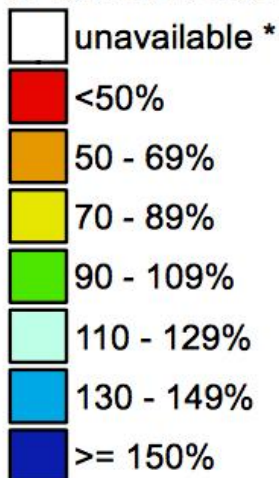
- **Improvement:** Parts of the West, interior Northwest, Southwest, Southern Plains
- **Degradation:** Central Rockies, Upper Midwest, Mid-South, and Hawaii
- **Status quo:** Central Plains, Southern California, Inter-basin West.



Current Snow Water Equivalent % of Normal

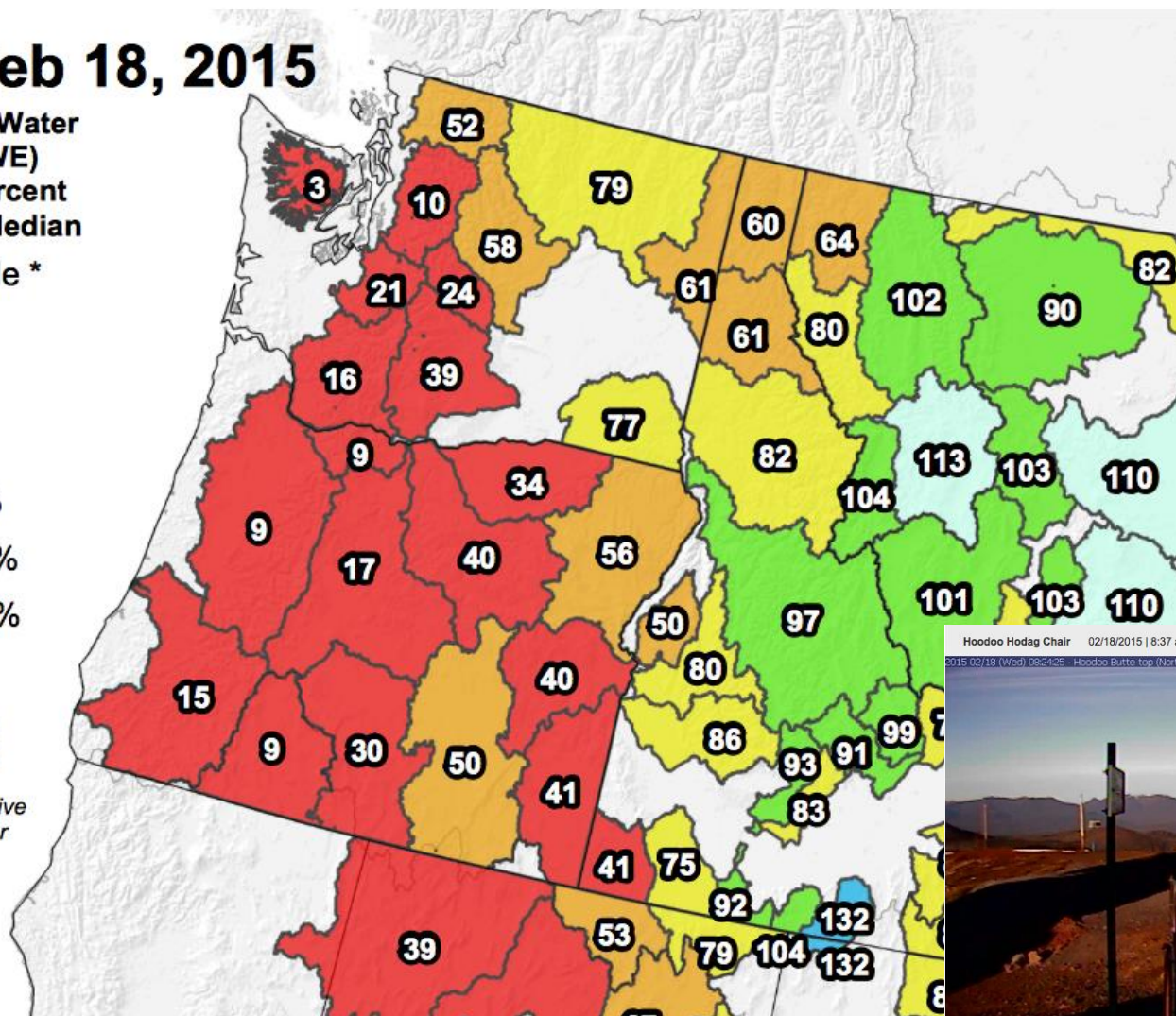
Feb 18, 2015

**Current Snow Water Equivalent (SWE)
Basin-wide Percent
of 1981-2010 Median**

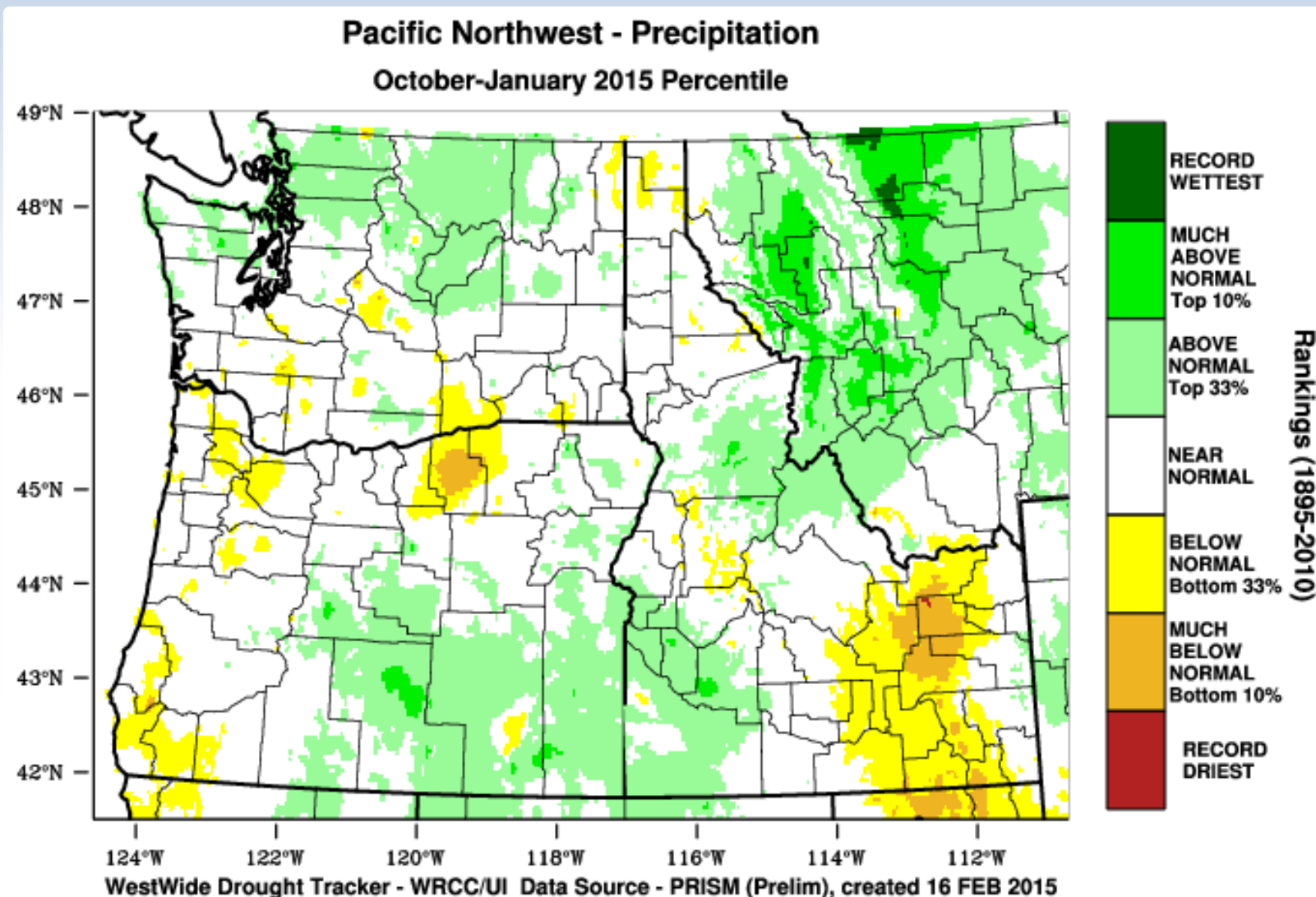


* Data unavailable
at time of posting
or measurement
is not representative
at this time of year

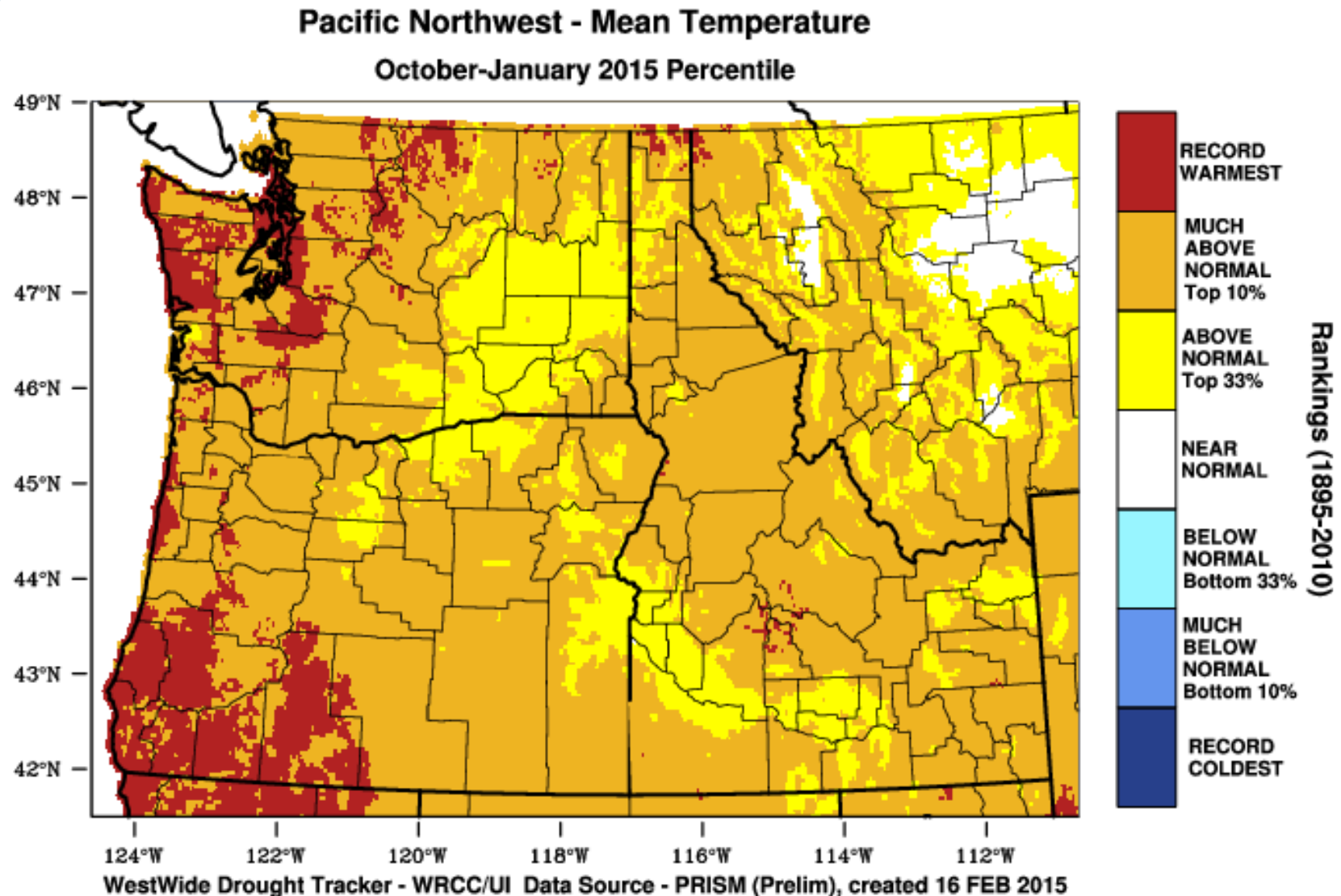
NRCS



Water Year (Oct-Jan) Precipitation

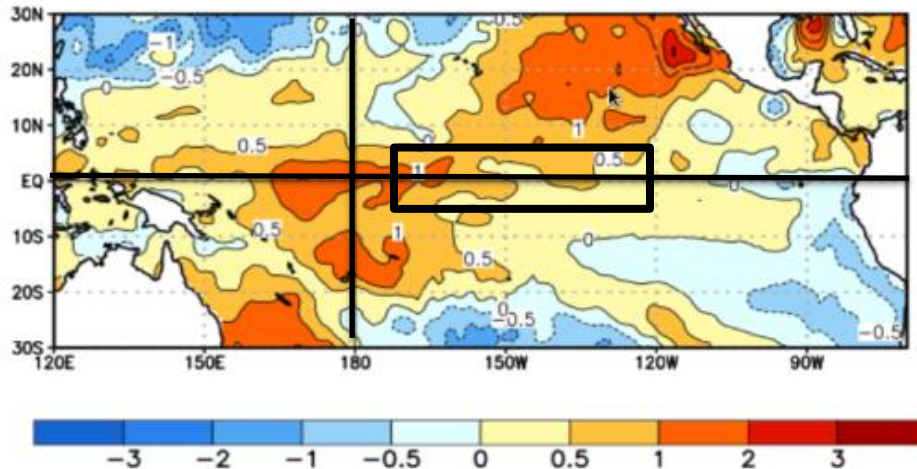


Water Year (Oct-Jan) Mean Temperature



Sea Surface Temperatures and ENSO

Average SST Anomalies
11 JAN 2015 – 7 FEB 2015



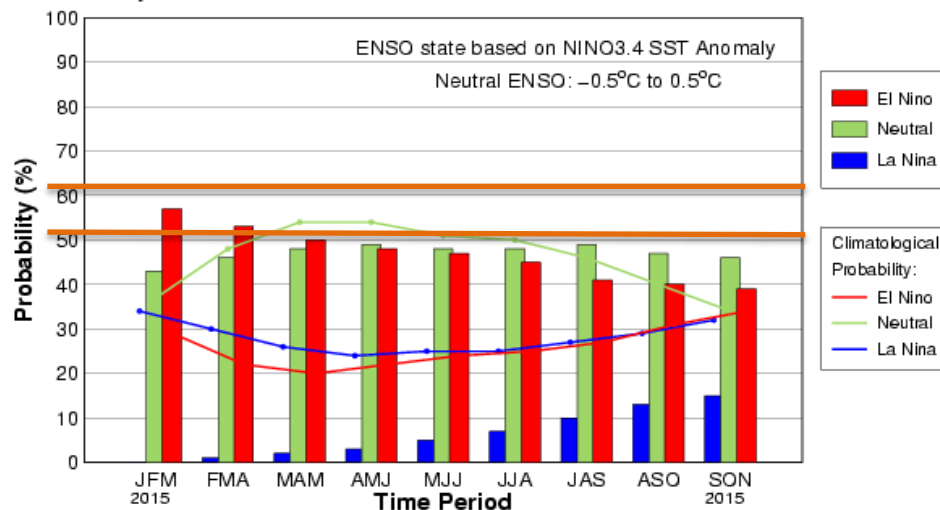
Sea surface temperatures

- Above normal SSTs across the western/central equatorial Pacific, west coast of N. America (not shown)
- Near to Below normal SSTs in eastern equatorial Pacific

• ENSO forecast

- 50-60 % chance of El Niño in next 2 months, then Neutral
- Anomalies between +0.5 C and +1.0 C, favors a weak El Niño

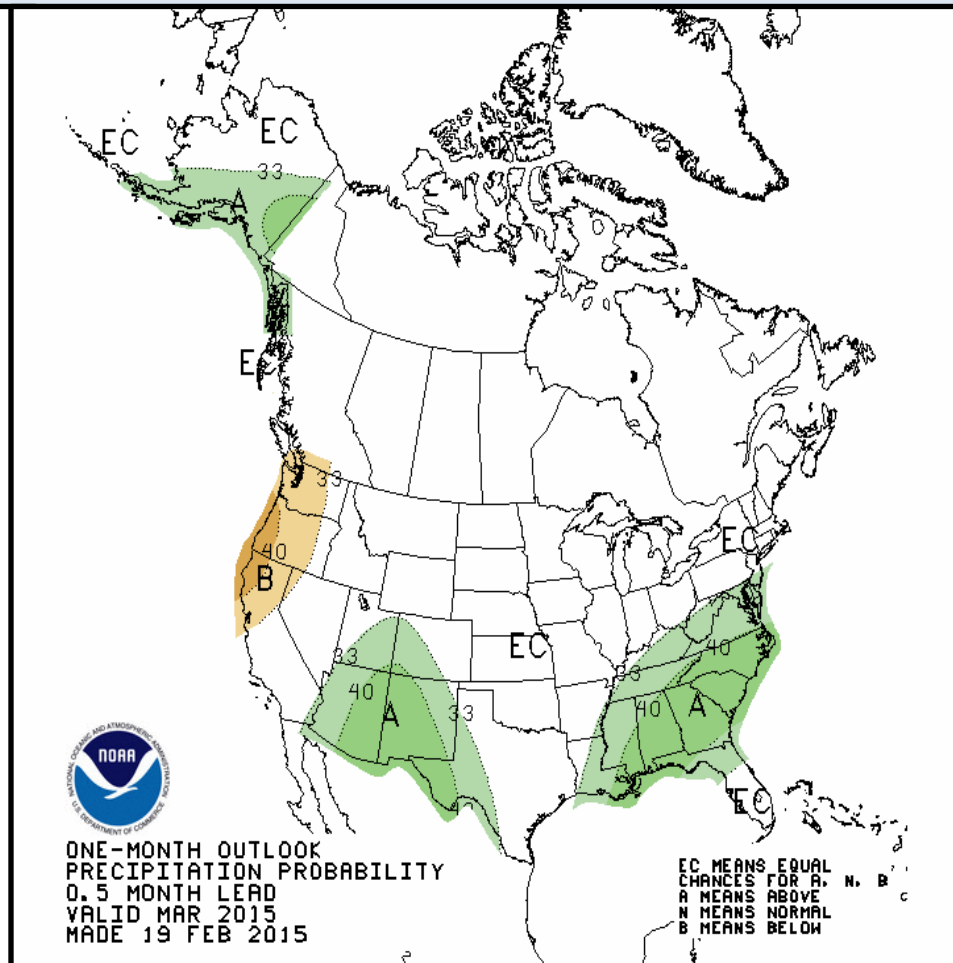
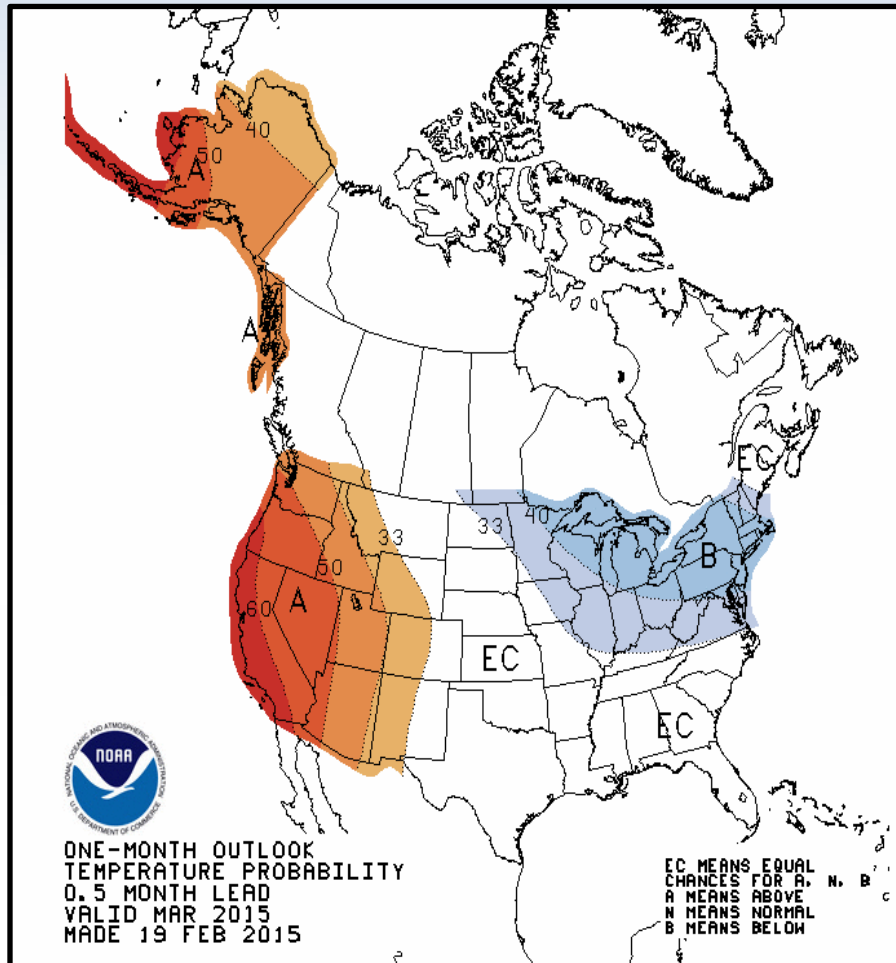
Early-Feb CPC/IRI Consensus Probabilistic ENSO Forecast



Monthly Forecast (March)

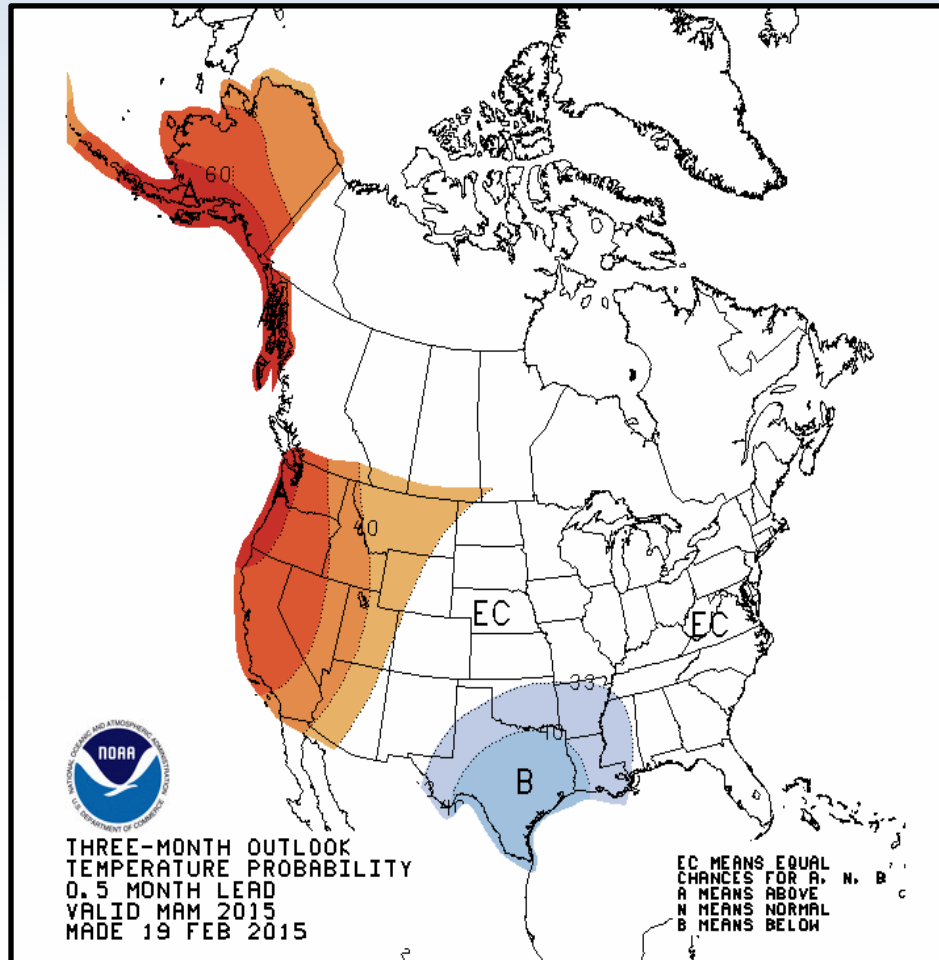
March Average
Temperature Probability

March Total
Precipitation Probability

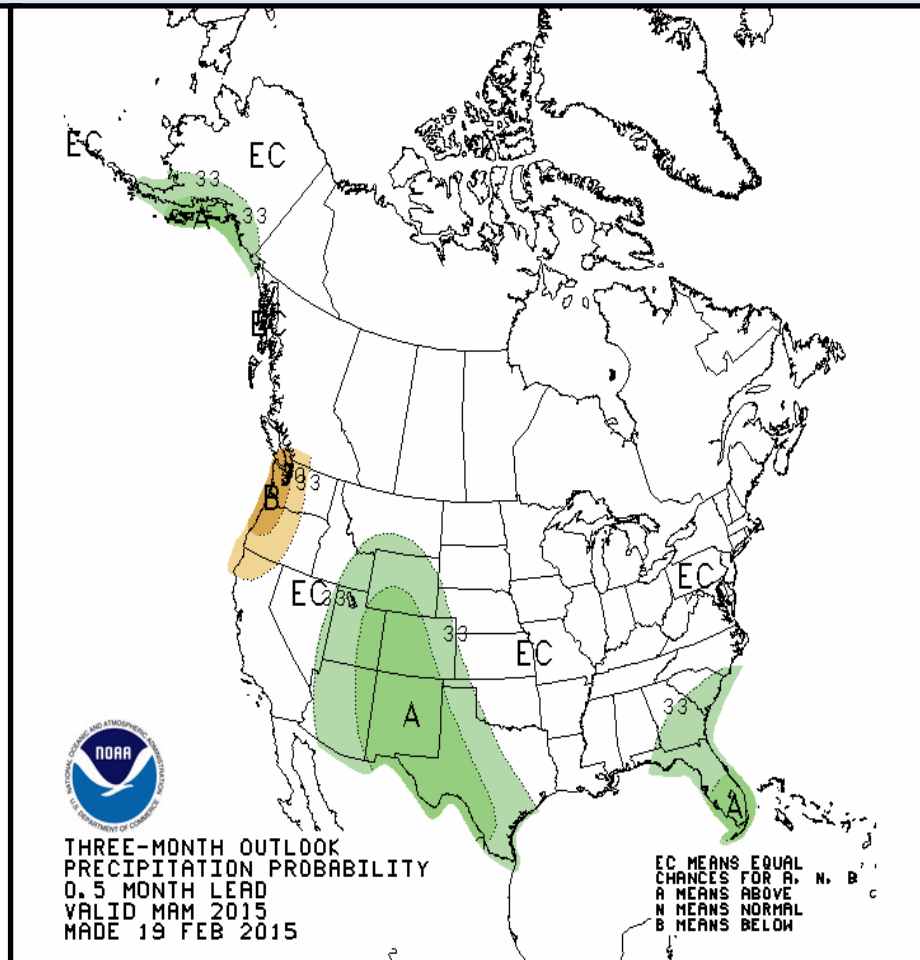


Seasonal Forecast (Mar-Apr-May)

March-May Average Temperature Probability



March-May Total Precipitation Probability





U.S. Drought Outlook

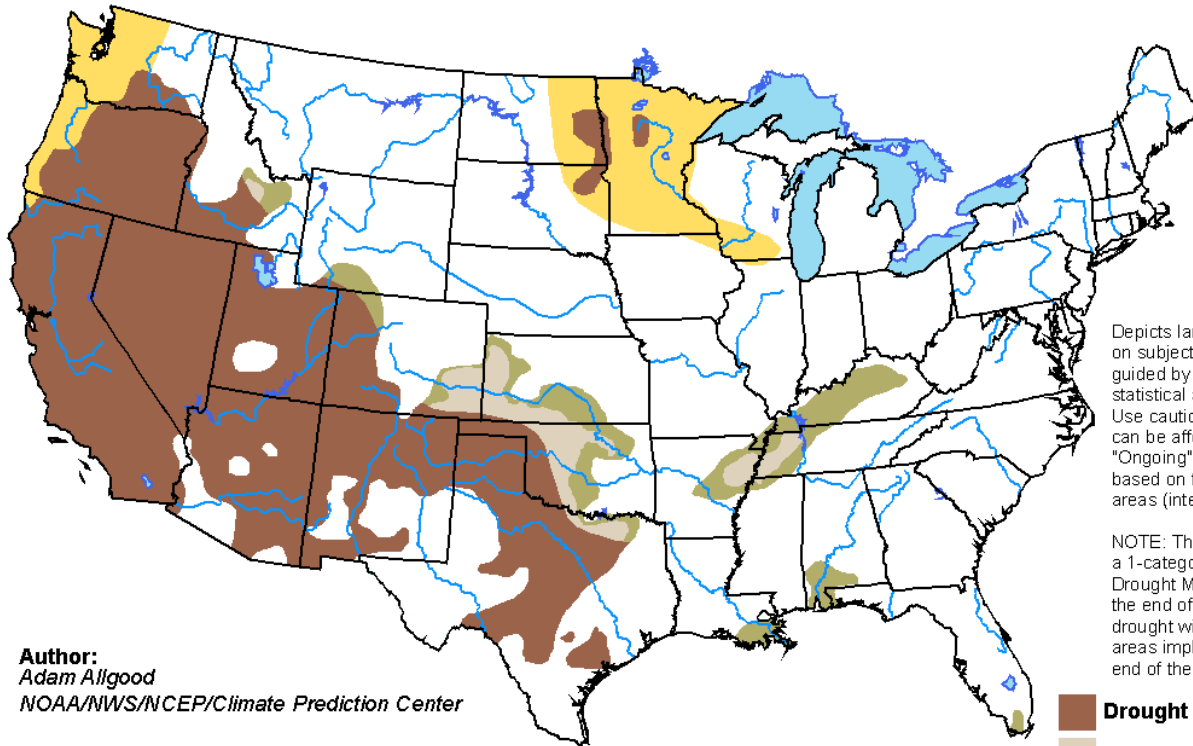
Drought Tendency During the Valid Period
February 19, 2015 – May 31, 2015; Released Feb 19, 2015



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for February 19 - May 31, 2015
Released February 19, 2015

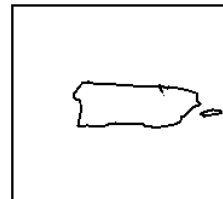
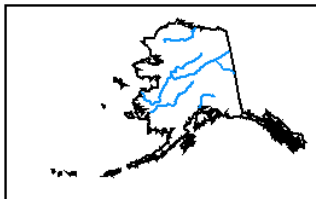


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Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists/intensifies**
- Drought remains but improves**
- Drought removal likely**
- Drought development likely**



<http://go.usa.gov/hHTe>

For More Information



TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Climatic Data Center: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- Dates for upcoming reports: <http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases>

Oregon Climate Service at Oregon State University: <http://www.ocs.oregonstate.edu/>

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

U.S. Drought Monitor: <http://drought.gov>

Climate Portal: www.climate.gov

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