

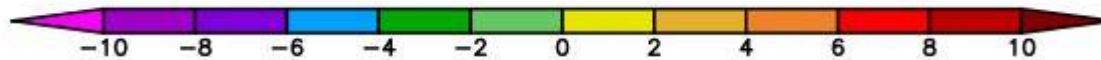
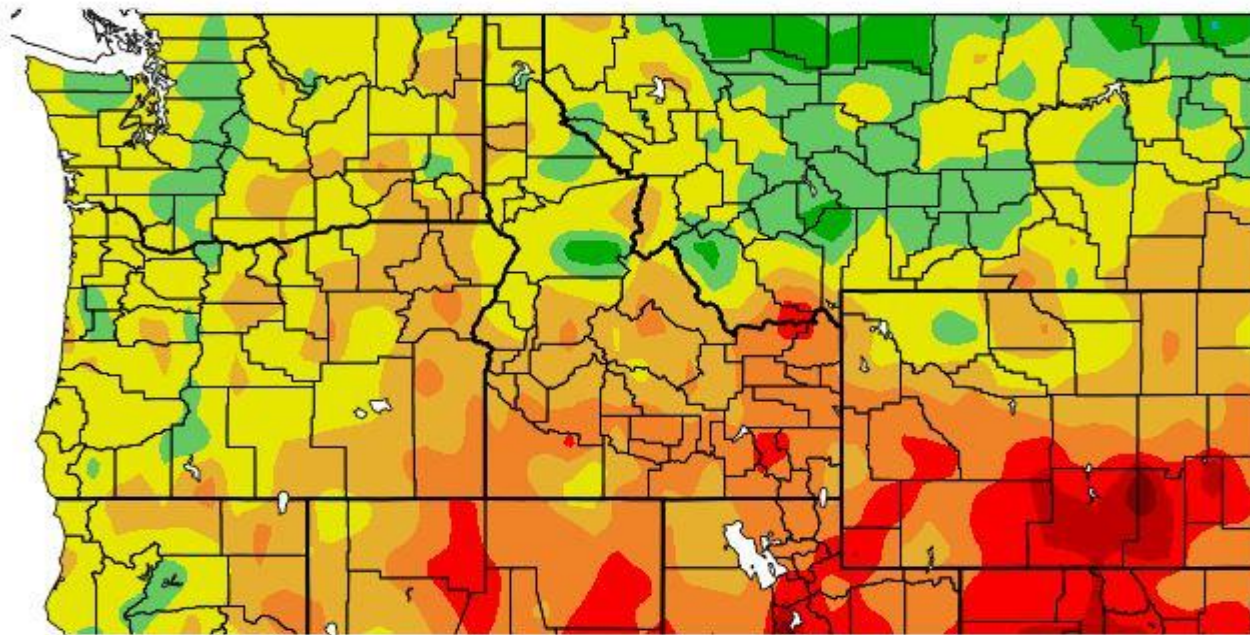
The Month In Review

November 2017

National Weather Service
Pendleton, Oregon

Departure from Normal Temperatures

Departure from Normal Temperature (F)
11/1/2017 - 11/30/2017

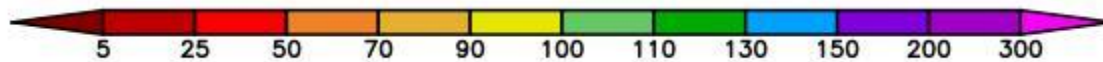
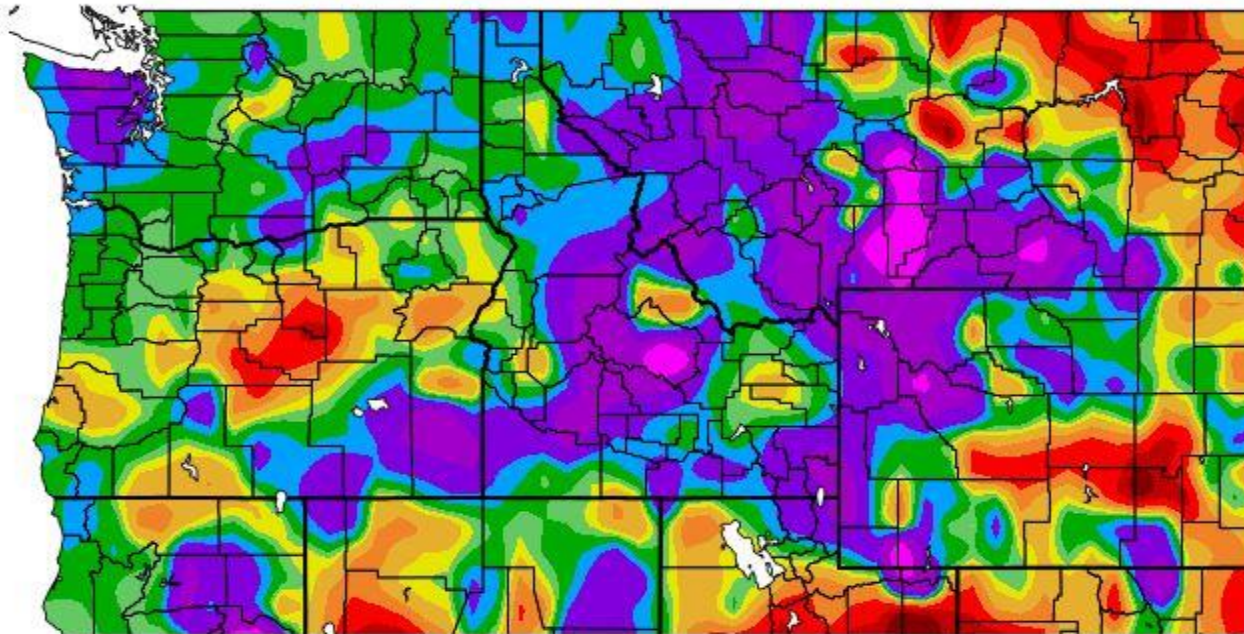


Generated 12/6/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)

Percent of Normal Precipitation (%)
11/1/2017 - 11/30/2017



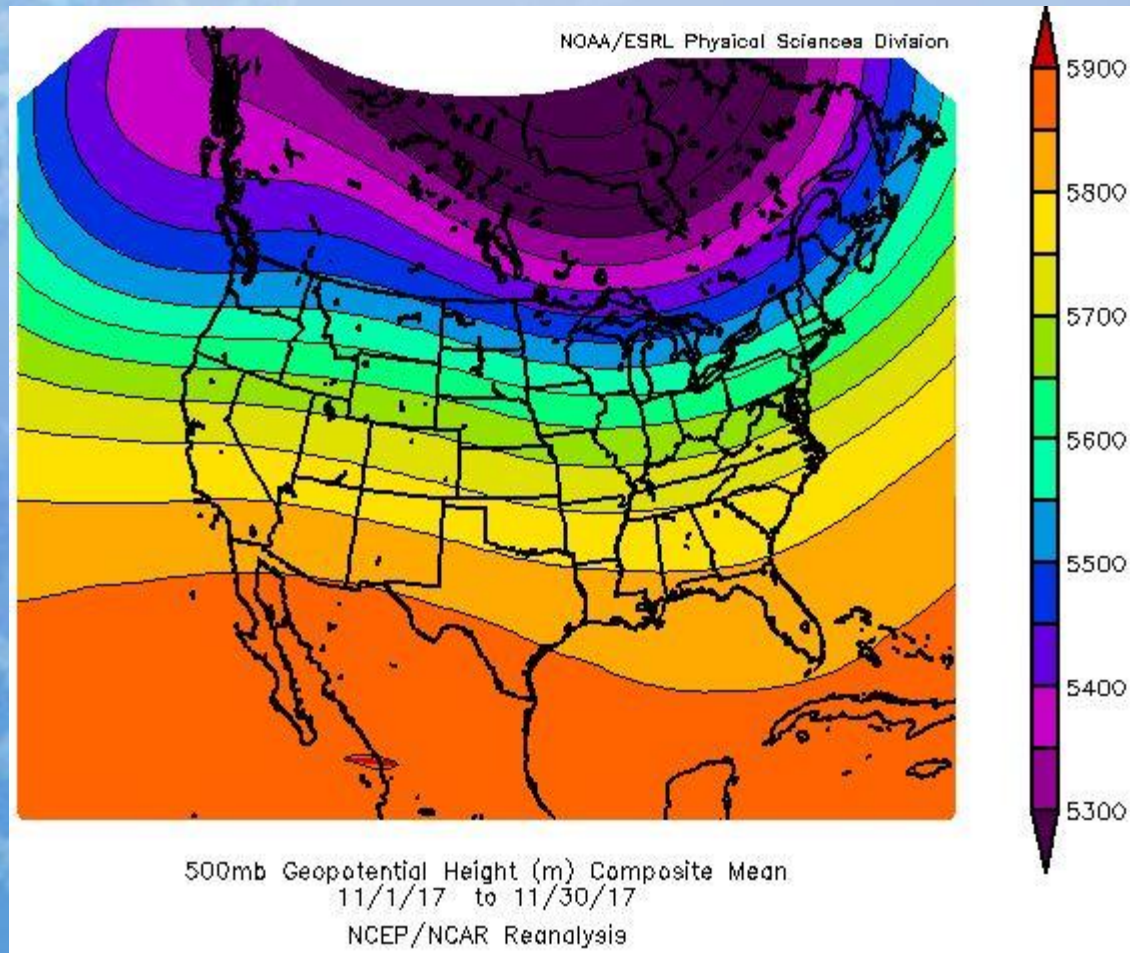
Generated 12/6/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

Select November Averages and Departures

| | Max T | Max T D | Min T | Min T D | Avg T | Avg T D | PCPN | PCPN D |
|------------------------------|-------|---------|-------|---------|-------|---------|------|--------|
| Yakima | 50.1 | 2.2 | 32.3 | 5.5 | 50.1 | 2.2 | 1.14 | 0.09 |
| Kennewick | 53.0 | 2.4 | 36.8 | 1.3 | 44.9 | 1.8 | 1.3 | 0.30 |
| Walla Walla | 51.7 | 3.2 | 37.6 | 2.4 | 44.7 | 2.8 | 2.88 | 0.01 |
| The Dalles | 51.6 | 1.3 | 37.3 | 1.6 | 44.5 | 1.5 | 2.20 | 0.04 |
| Redmond | 51.5 | 2.6 | 28.5 | 2.7 | 40.0 | 2.6 | 0.47 | -0.49 |
| Pendleton Airport | 51.9 | 2.7 | 34.6 | 0.6 | 43.0 | 1.7 | 1.56 | 0.04 |
| La Grande | 50.0 | 0.38 | 32.5 | 2.6 | 41.2 | 3.2 | 2.08 | 0.05 |

November 2017 Average Weather Pattern



The upper level pattern (500 mb) was generally from the west-southwest. This led to near normal temperatures and precipitation for the month without any extreme cold or warm periods. The warmest day of the month was on Thanksgiving Day when temperatures soared to near 70 degrees F. in the lower elevations, which is not that unusual even for November.

Record Warm November Temperatures

| City | New Record | Previous Record |
|------------------------|----------------|-----------------|
| Pendleton, Airport, OR | 70, 11/24 | 66, 1959 |
| Meacham, OR | 60, 11/24 | 57, 1954 |
| Redmond, OR | 67, 11/24 | 65, 1959 |
| The Dalles, OR | 67, 11/24 tied | 67, 1929 |
| Yakima, WA | 69, 11/24 tied | 69, 1959 |
| Hermiston, OR | 70, 11/24 | 69, 1913 |

Heavy Snow in the Higher Elevations

| Office | Report Time | Report Time UTC | County | Location | ST | Event Type | Mag. | Source | Lat | Lon | Remark |
|--------|----------------|-----------------|-----------|-----------------|----|---------------|------|------------------|-------|---------|--|
| PDT | 11/5/17 8:00 | 11/5/17 16:00 | DESCHUTES | 5 NNW LA PINE | OR | SNOW | 5.00 | TRAINED SPOTTER | 43.74 | -121.54 | NEW SNOW ACCUMULATION OF 5 INCHES. |
| PDT | 11/5/17 8:52 | 11/5/17 16:52 | KITTITAS | 1 SE ELLENSBURG | WA | SNOW | 1.50 | TRAINED SPOTTER | 46.99 | -120.53 | SNOW ACCUMULATION SINCE MIDNIGHT. |
| PDT | 11/5/17 10:00 | 11/5/17 18:00 | KITTITAS | EASTON | WA | SNOW | 4.00 | CO-OP OBSERVER | 47.23 | -121.18 | |
| PDT | 11/5/17 19:15 | 11/6/17 3:15 | UMATILLA | 4 NW MEACHAM | OR | SNOW | 5.00 | TRAINED SPOTTER | 45.55 | -118.47 | 5 INCHES OF NEW SNOW SINCE 6AM TODAY. TOTAL SNOW SINCE SATURDAY AFTERNOON IS 8 INCHES. ELEVATION 3735 FEET. |
| PDT | 11/5/17 20:16 | 11/6/17 4:16 | WALLOWA | FLORA | OR | SNOW | 5.00 | DEPT OF HIGHWAYS | 45.90 | -117.31 | 5 INCHES OF NEW SNOW IN THE PAST 24 HOURS. ELEVATION 4360 FEET. |
| PDT | 11/6/17 7:11 | 11/6/17 15:11 | UMATILLA | MEACHAM | OR | SNOW | 0.00 | DEPT OF HIGHWAYS | 45.51 | -118.42 | THE MEACHAM COOP REPORTED 5 NEW INCHES OF SNOW. ODOT REPORTED BLACK ICE ON THE ROAD THIS MORNING AT MEACHAM AND A VEHICLE ACCIDENT WITH HAZMAT CLEAN UP. WESTBOUND AND EASTBOUND LANES ARE BOTH CLOSED ON THE I 84 FROM MP-216 THROUGH THE OREGON, IDAHO BORDER. |
| PDT | 11/8/17 16:03 | 11/9/17 0:03 | DESCHUTES | 2 E TUMALO | OR | FREEZING RAIN | 0.10 | TRAINED SPOTTER | 44.15 | -121.30 | |
| PDT | 11/9/17 7:30 | 11/9/17 15:30 | JEFFERSON | 8 NW TERREBONNE | OR | SNOW | 2.00 | TRAINED SPOTTER | 44.44 | -121.27 | 2 INCHES OF NEW SNOW IN THE PAST 12 HOURS. ELEVATION 2770 FEET. |
| PDT | 11/9/17 8:29 | 11/9/17 16:29 | KITTITAS | 1 SE ELLENSBURG | WA | SNOW | 2.00 | TRAINED SPOTTER | 46.99 | -120.53 | 2 INCHES OF NEW SNOW SINCE 3AM. ELEVATION 1758 FEET. |
| PDT | 11/19/17 19:30 | 11/20/17 3:30 | KITTITAS | SW EASTON | WA | HEAVY SNOW | 1.50 | TRAINED SPOTTER | 47.23 | -121.18 | 1.5 INCHES IN ONE HOUR. CURRENTLY 32 DEGREES. |
| PDT | 11/19/17 22:00 | 11/20/17 6:00 | KITTITAS | CLE ELUM | WA | SNOW | 3.00 | PUBLIC | 47.19 | -120.93 | |

Twice during November there were snow events that dropped several Inches of snow over the higher terrain as shown above.

Monthly Total Precipitation and Snowfall

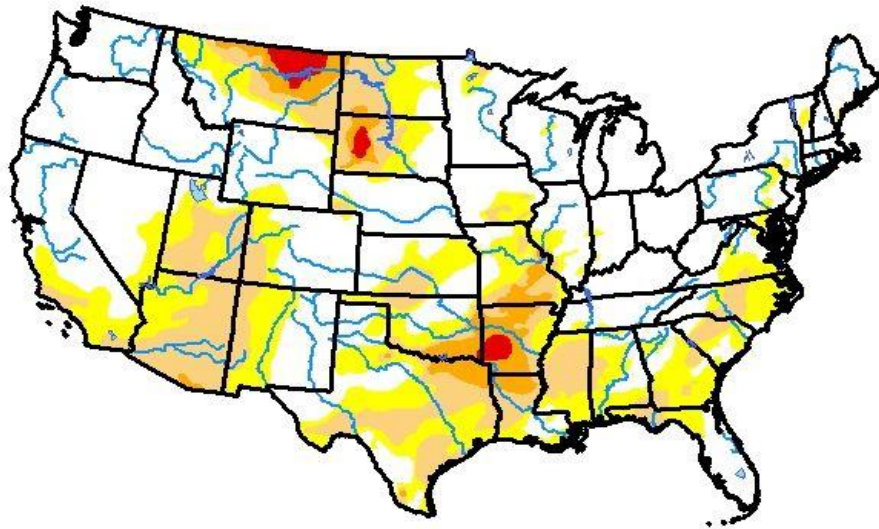
| Location | Total Monthly Precip | Total Snowfall |
|-------------|----------------------|----------------|
| Easton | 8.25" | 9.5" |
| Ellensburg | 1.81" | M |
| Yakima | 1.14" | 0.4" |
| Pasco | 1.17" | T |
| The Dalles | 2.05" | M |
| Walla Walla | 2.88" | T |
| Hermiston | 0.96" | 0.0" |
| Pendleton | 1.56" | 0.0" |
| Redmond | 0.47" | T |
| Meacham | 5.56" | 13.5" |
| John Day | 1.23" | M |
| Mt Adams RS | 4.48" | 2.0" |

Monthly Max & Min Temperatures

| Location | Highest Maximum Temperature | Lowest Minimum Temperature |
|-----------------|-----------------------------|----------------------------|
| Pendleton, OR | 70 | 19 |
| Redmond, OR | 67 | 13 |
| Pasco, WA | 70 | 21 |
| Yakima, WA | 69 | 25 |
| Walla Walla, WA | 65 | 26 |
| Bend, OR | 65 | 19 |
| Ellensburg, WA | 56 | 22 |
| Hermiston, OR | 70 | 18 |
| John Day, OR | 70 | 20 |
| La Grande, OR | 60 | 19 |
| Prineville, OR | 67 | 18 |
| The Dalles, OR | 66 | 27 |

U.S. Drought Monitor Continental U.S. (CONUS)

November 28, 2017
(Released Thursday, Nov. 30, 2017)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|-------|-------|-------|-------|-------|------|
| Current | 57.34 | 42.66 | 21.14 | 4.88 | 1.03 | 0.00 |
| Last Week <i>11-21-2017</i> | 63.18 | 36.82 | 15.40 | 4.14 | 0.75 | 0.00 |
| 3 Months Ago <i>08-29-2017</i> | 71.43 | 28.57 | 11.82 | 5.74 | 2.65 | 1.21 |
| Start of Calendar Year <i>01-03-2017</i> | 53.89 | 46.11 | 22.53 | 8.63 | 3.15 | 0.96 |
| Start of Water Year <i>09-26-2017</i> | 63.07 | 36.93 | 13.81 | 4.99 | 2.36 | 0.87 |
| One Year Ago <i>11-29-2016</i> | 43.69 | 56.31 | 31.46 | 16.60 | 8.66 | 2.68 |

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Simeral
Western Regional Climate Center

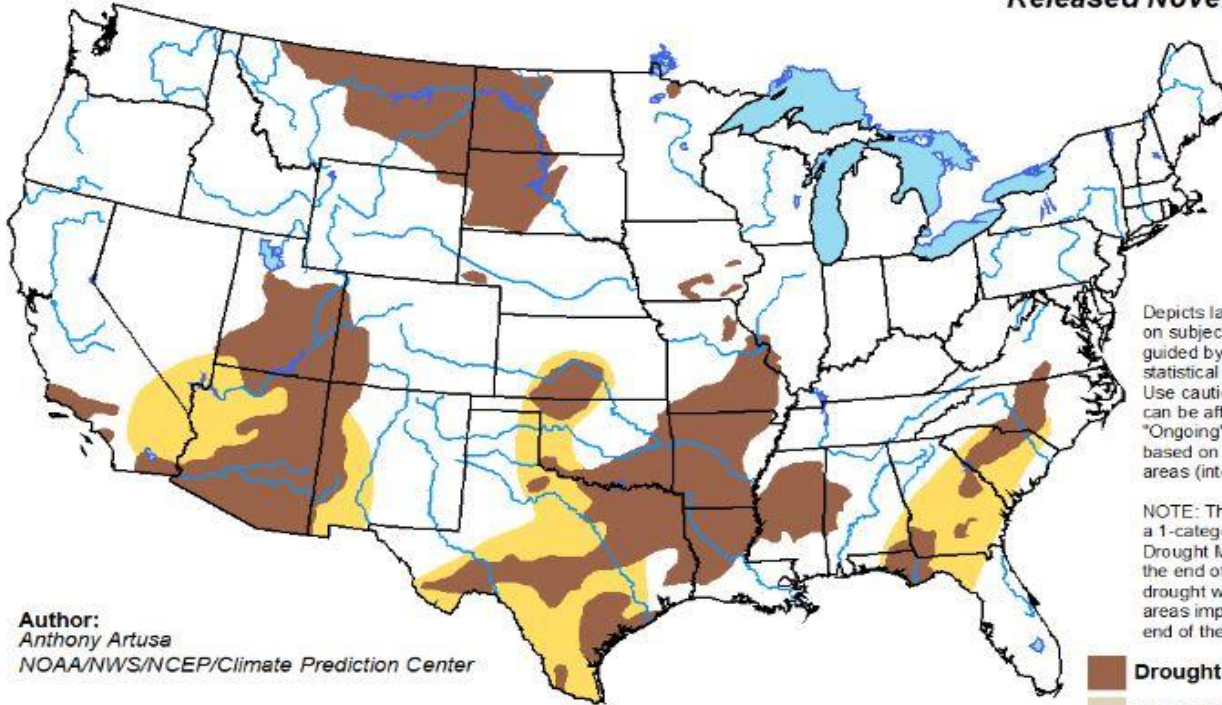


For the most part the Month of November had normal drought conditions. Looking at the map you can see that Oregon and Washington is in the white, indicating normal conditions, as of November 28th, 2017.

U.S. Monthly Drought Outlook

Drought Tendency During the Valid Period

Valid for December 2017
Released November 30, 2017

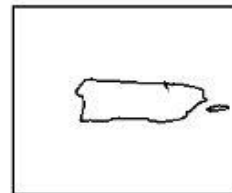


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

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Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center

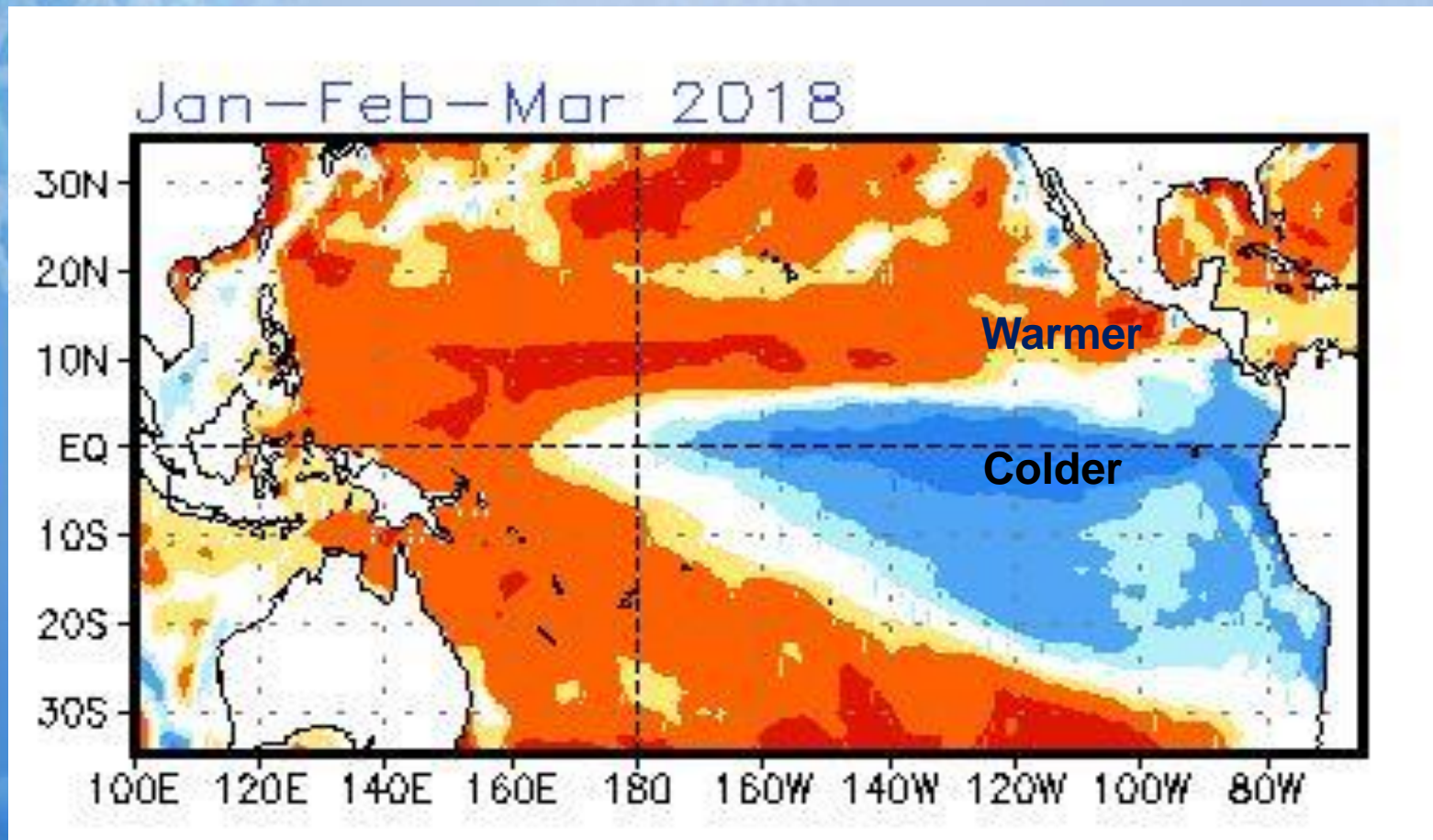
-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZGd>

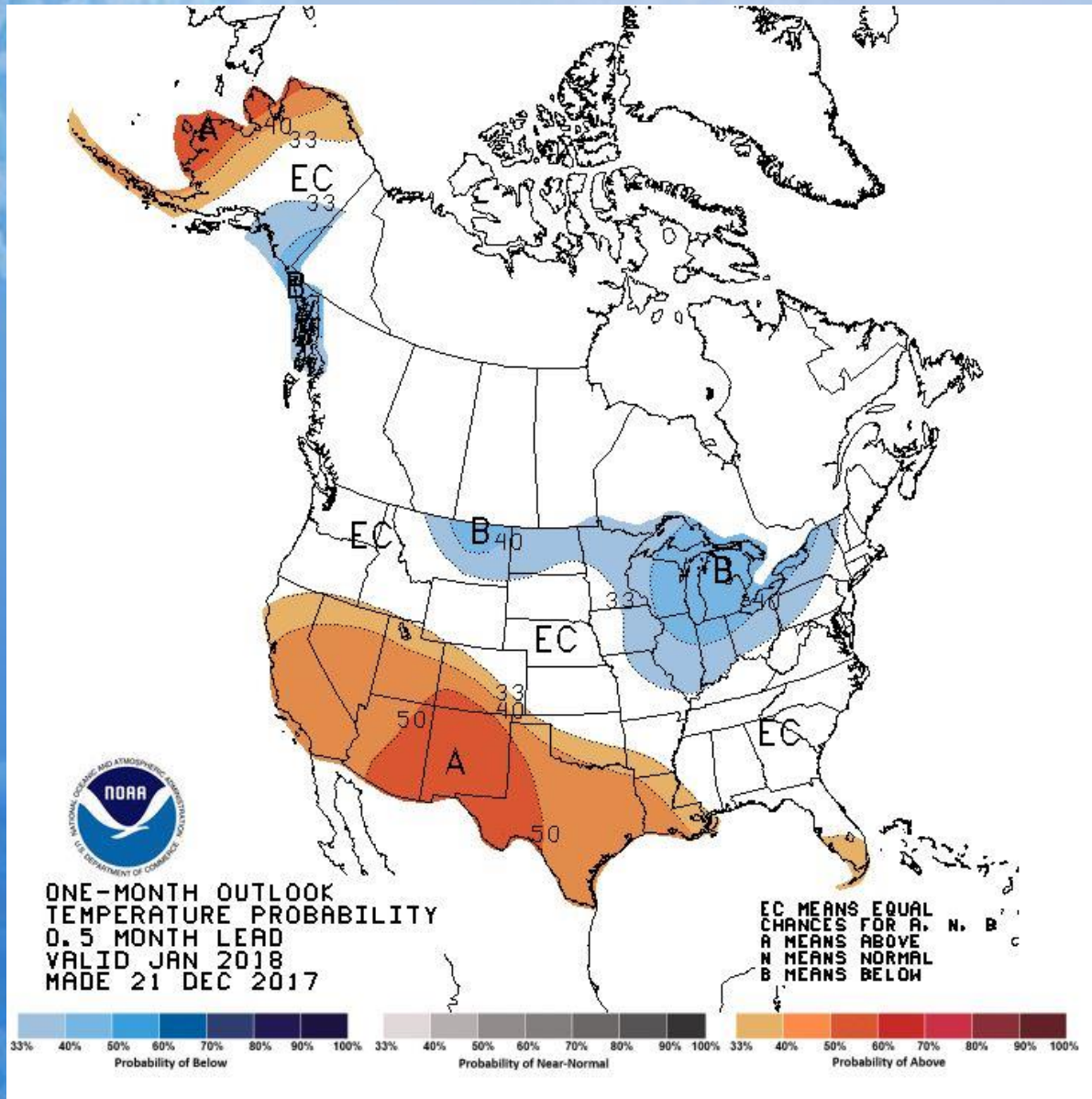
For the month of December, 2017, the drought outlook calls for near normal drought conditions with both Oregon and Washington in the white, indicating Normal conditions.

Winter El Nino/La Nina Outlook, Jan – March 2018



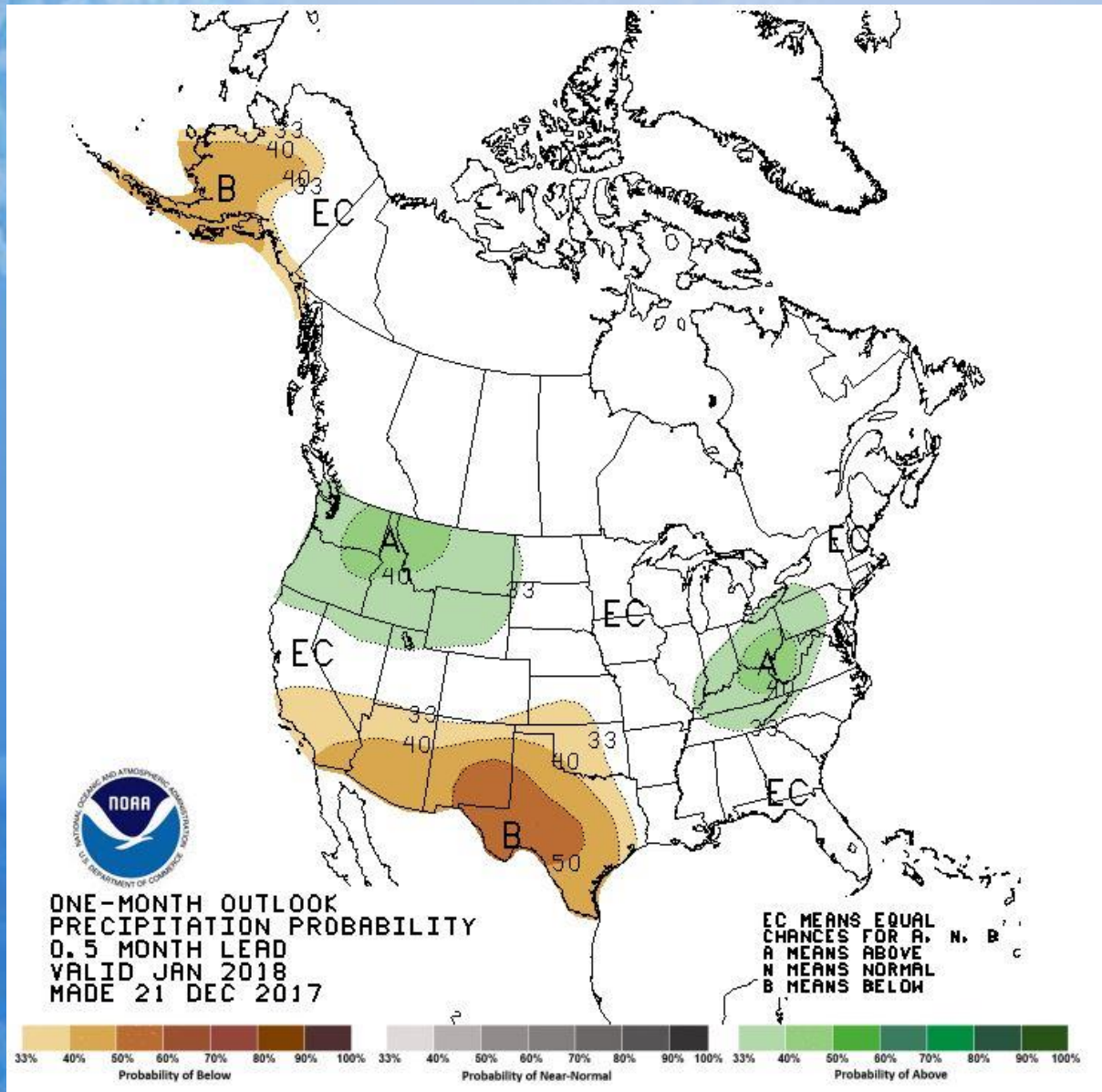
For the winter months of January – March the Sea Surface Temperatures that are in Blue near the equator indicate a somewhat La Nina episode, but the SST's just off the west coast are forecast to be warmer than normal, indicating an El Nino episode. The result is an “in between” or neutral Enso event...i.e. neither an El Nino nor La Nina event.

January Monthly Temperature Outlook



Through the month of January we can expect equal chances of above or below normal temperatures over the Pacific Northwest.

January Monthly Precipitation Outlook



Through the month of January we can expect above normal chances of precipitation over Oregon and Washington.



Thank You!