

The Month In Review

January 2018

National Weather Service
Pendleton, Oregon

January, 2018 Climate Summary

Overall January has been a quiet month with near normal precipitation on the whole, and very little snow in the lower elevations, and a few heavy snow events over the mountains. The month can be said to be dominated by high pressure aloft much of the time with periods of low stratus and fog, and only a few weather systems. For the month, Pendleton, Oregon had an average temperature of 4.6 degrees F above normal. Total precipitation was a little above normal for Pendleton, with 0.16 of an inch above normal. There was only a trace of snow for the entire month at Pendleton, which happened on the 3rd of the month. There were periods of fog in January, which is more typical of a winter in the lower elevations of northeast Oregon/southeast Washington, compared to the unusually cold and snowy 2016 – 2017 season. This report will show climate details for the month for the forecast area.



Foggy at the South Hill



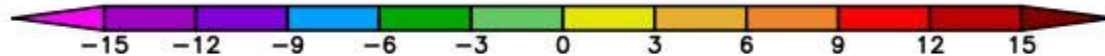
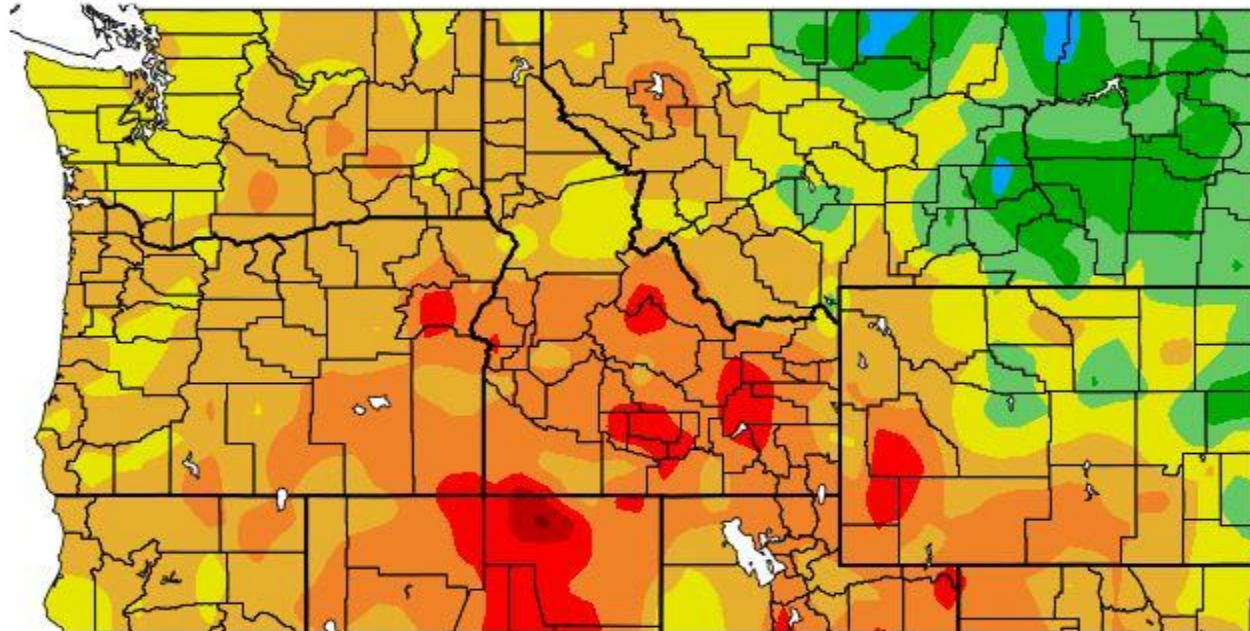
Fog lifting off in the distance



Fog lifting off in the distance.

Departure from Normal Temperatures

Departure from Normal Temperature (F)
1/1/2018 - 1/31/2018



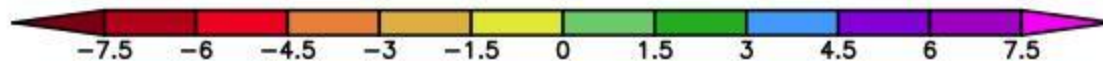
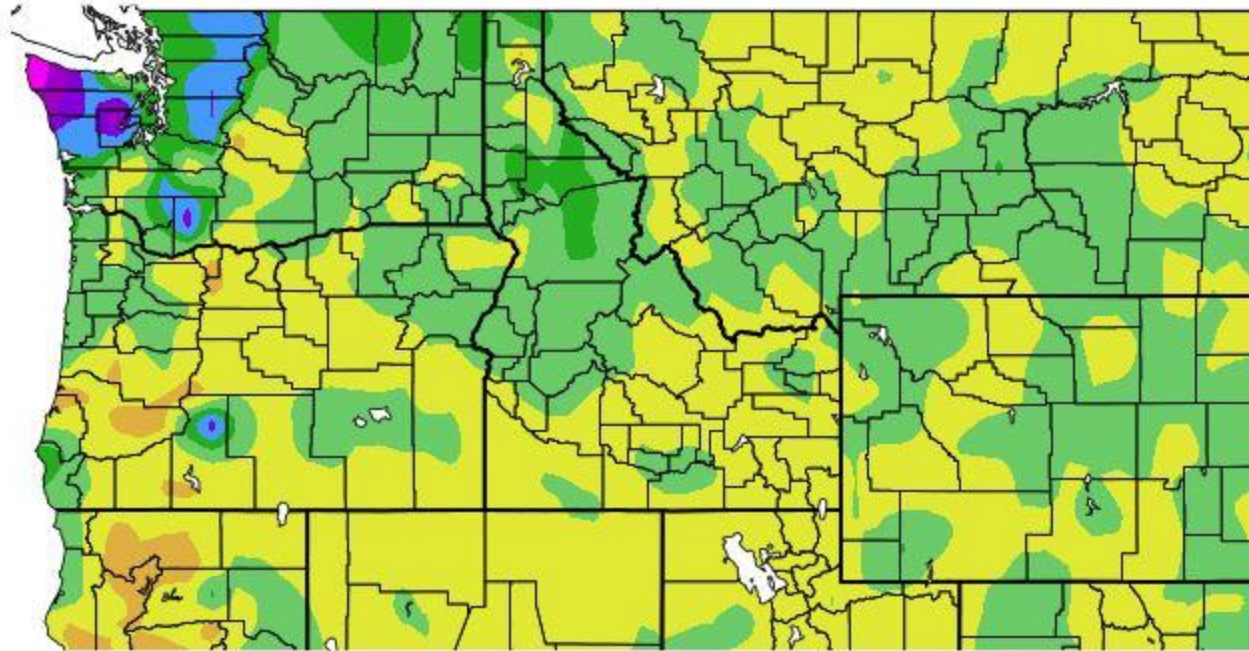
Generated 2/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

As the map shows, most of the Pacific Northwest had warmer than normal temperatures.

Percent of Normal Precipitation (%)

Departure from Normal Precipitation (in)
1/1/2018 – 1/31/2018



Generated 2/10/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

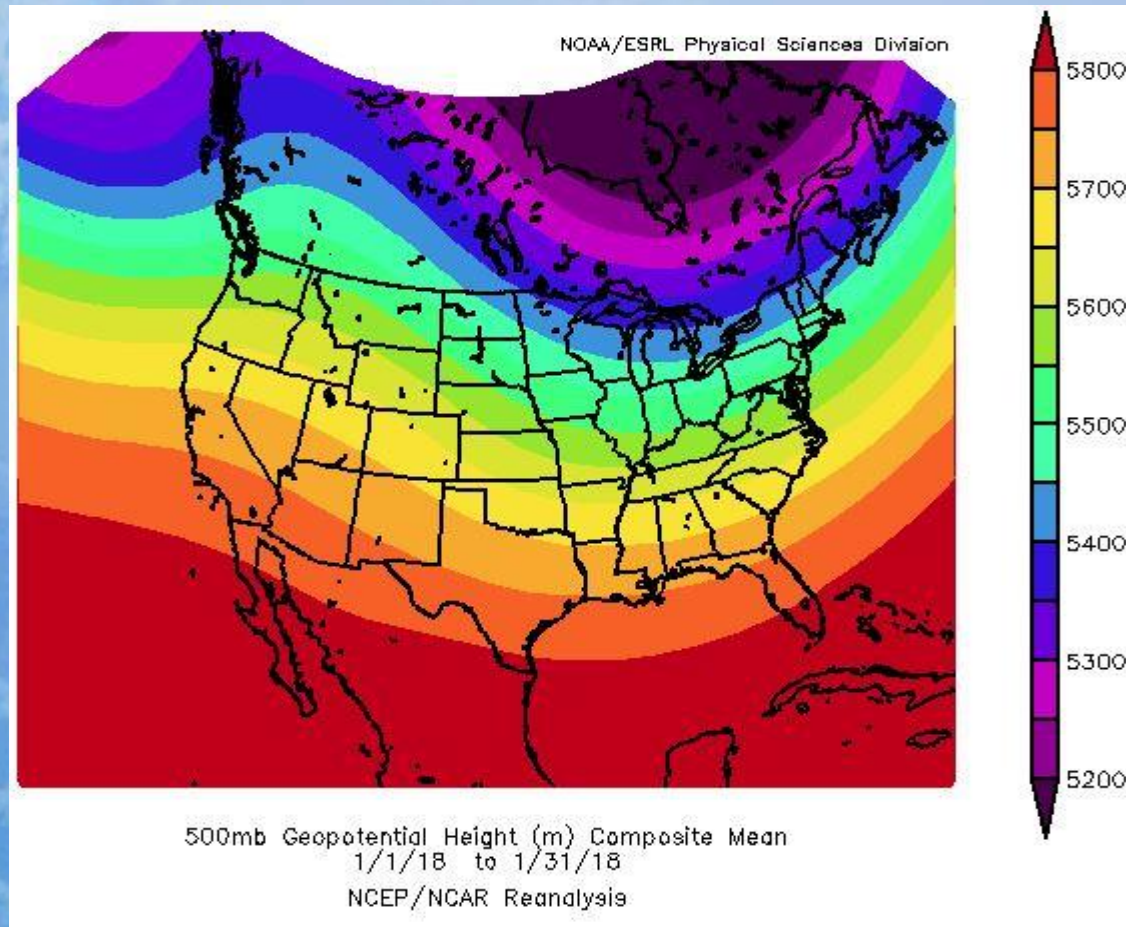
This image shows that for the month of January, precipitation amounts were near normal overall in northeast OR/southeast WA.

Select January Averages and Departures

	Max Temp	Departure	Min Temp	Departure	Ave Temp	Departure	Precip	Departure
Yakima	46.1	7.5	31.0	7.7	38.6	7.7	.90	-0.25
Kennewick	45.8	4.3	35.0	5.5	40.4	4.9	1.25	0.17
Walla Walla	47.5	6.6	35.4	6.0	41.5	6.0	2.33	-0.20
The Dalles	47.3	6.0	35.5	6.0	41.4	5.5	1.39	-1.25
Redmond	46.3	3.9	27.0	3.9	36.7	4.0	0.17	-1.04
Pendleton								
Airport	46.5	4.7	33.3	4.5	39.9	4.6	0.17	-8.0
La Grande	45.0	6.6	29.4	4.9	37.2	5.8	1.66	0.03

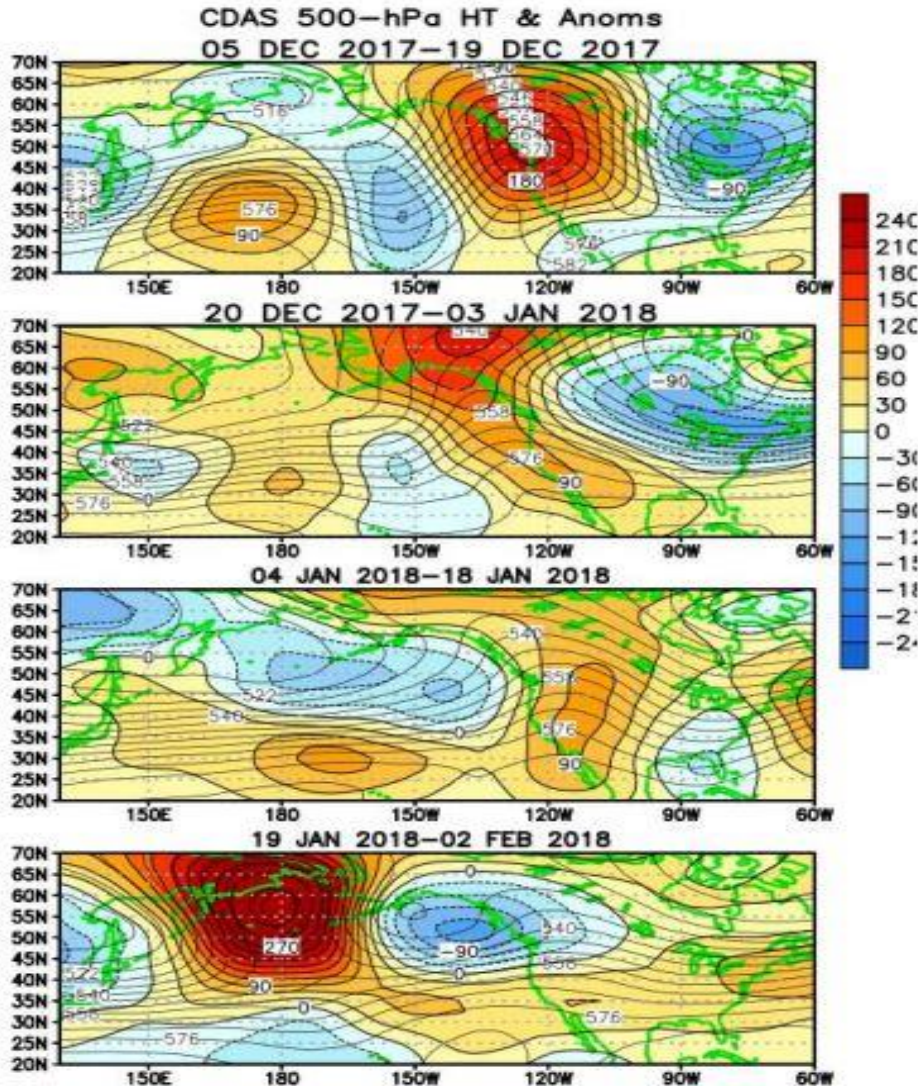
Average maximum temperatures for the month of January were above normal by about 4 to 8 degrees. Average minimum temperatures were above normal by 3 to 8 degrees, and the average mean temperature was about 4 to 8 degrees above normal. Average precipitation was mostly below normal by about -0.25 inches to -1.25 inches. However, La Grande was 0.03 above normal and Kennewick was 0.17 above normal.

January 2018 Average 500 MB Weather Pattern



This image shows the average 500 MB height pattern for the month of January for the USA. As shown, the western USA, and especially the Pacific Northwest, shows an overall 500 MB ridge, which resulted in several periods of low stratus and fog over the lower elevations, and mostly clear and mild weather in the Mountains.

Detailed 500 MB Analysis for January, 2018



January was largely dominated by high pressure aloft, which caused deep valley and basin inversions. There was not a single amount of snow greater than a trace reported during the entire month at the NWS office. The month did have periodic breaks in the upper ridge pattern during the month, but it was too warm and only rain fell in the valleys and basin, with snow only in the mountains, especially over the highest peaks. Land boundaries are in thick green lines.

Significant Weather Events – January 11th, 2018

ZCZC PDXLSRPDT

NWUS56 KPDT 120026

PRELIMINARY LOCAL STORM REPORT

NATIONAL WEATHER SERVICE PENDLETON OR

426 PM PST THU JAN 11 2018

..TIME... ..EVENT... ..CITY LOCATION... ..LAT..LON...
..DATE... ..MAG.... ..COUNTY LOCATION..ST.. ..SOURCE....
..REMARKS..

0403 PM HEAVY SNOW 9 SW SKI BLUEWOOD 45.98N 117.95W

01/11/2018 M10.0 INCH WALLOWA OR MESONET

THE MILK SHAKES SNOTEL RECORDED 10 INCHES OF SNOW
ACCUMULATION IN UNDER 24 HOURS. ELEVATION 5580 FEET.

0403 PM HEAVY SNOW 3 NNW SKI BLUEWOOD 46.12N 117.85W

01/11/2018 M11.0 INCH COLUMBIA WA MESONET

THE TOUCHET SNOTEL REPORTED 11 INCHES OF SNOW
ACCUMULATION IN UNDER 24 HOURS. ELEVATION 5530 FEET.

0403 PM HEAVY SNOW 8 SSW RIMROCK 46.55N 121.17W

01/11/2018 M11.0 INCH YAKIMA WA MESONET

THE GREEN LAKE SNOTEL RECORDED 11 INCHES OF SNOW
ACCUMULATION IN UNDER 24 HOURS. ELEVATION 5920 FEET.

0403 PM HEAVY SNOW 6 NNW GLENWOOD 46.10N 121.33W

01/11/2018 M16.0 INCH YAKIMA WA MESONET

BUMPING RIDGE SNOTEL RECORDED 16 INCHES OF SNOW
ACCUMULATION SINCE 7 PM THE PRIOR DAY. ELEVATION 4610
FEET.

Heavy Snow on the Cascade East Slopes & Wallowa County.

WSDOT I-90
Snoqualmie Pass Summit



Significant Weather Events – January 19th, 2018

ZCZC PDXLSRPDT				
NWUS56 KPDT 191601				
PRELIMINARY LOCAL STORM REPORT				
NATIONAL WEATHER SERVICE PENDLETON OR				
801 AM PST FRI JAN 19 2018				
..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...	
..DATE...MAG....	..COUNTY LOCATION..ST..SOURCE....	
..REMARKS..				
0600 AM	SNOW	3 N JOSEPH	45.39N 117.23W	
01/19/2018	M2.5 INCH	WALLOWA	OR	TRAINED SPOTTER
0745 AM	SNOW	SE JOSEPH	45.35N 117.22W	
01/19/2018	M4.5 INCH	WALLOWA	OR	TRAINED SPOTTER
4.5 INCHES FELL IN 14 HRS.				

Moderate to heavy
snow in Wallowa
County



Significant Weather Events – January 26th, 2018

ZCZC PDXLSRPDT					
NWUS56 KPDT 270215					
PRELIMINARY LOCAL STORM REPORT					
NATIONAL WEATHER SERVICE PENDLETON OR					
613 PM PST FRI JAN 26 2018					
..TIME... ..EVENT... ..CITY LOCATION...					
..LAT.LON...					
..DATE... ..MAG.... ..COUNTY LOCATION..ST.. ..SOURCE....					
..REMARKS..					
0600 PM	HEAVY SNOW	SW EASTON	47.23N	121.18W	
01/26/2018	M11.5 INCH	KITTITAS	WA	TRAINED SPOTTER	
SINCE 10AM THIS MORNING					
0600 PM	HEAVY SNOW	7 NNW EASTON	47.32N	121.25W	
01/26/2018	M16.0 INCH	KITTITAS	WA	TRAINED SPOTTER	
ACCUMULATION OVER THE LAST 26 HOURS					

Heavy Snow on the Cascade East Slopes



Significant Weather Events – January 26th, 2018 (Continued)

ZCZC PDXLSRPDT				
NWUS56 KPDT 272349				
PRELIMINARY LOCAL STORM REPORT...SUMMARY				
NATIONAL WEATHER SERVICE PENDLETON OR				
349 PM PST SAT JAN 27 2018				
..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...	
..DATE...	...MAG....	..COUNTY LOCATION..ST.	...SOURCE....	
..REMARKS..				
0600 PM	HEAVY SNOW	SW EASTON	47.23N 121.18W	
01/26/2018	M11.5 INCH	KITTTTAS	WA	TRAINED SPOTTER
SINCE 10AM THIS MORNING				
0731 PM	HEAVY SNOW	5 ENE EASTON	47.25N 121.06W	
01/26/2018	M8.0 INCH	KITTTTAS	WA	DEPT OF HIGHWAYS
ACCUMULATION SINCE THIS MORNING AND STILL SNOWING. ELEVATION 2250 FT.				
0740 PM	HEAVY SNOW	2 SSE SNOQUALMIE PASS	47.39N 121.39W	
01/26/2018	M20.0 INCH	KITTTTAS	WA	TRAINED SPOTTER
ACCUMULATION OVER THE LAST 36 HOURS. STILL SNOWING. ELEVATION 2568 FT.				
0700 AM	SNOW	2 WNW BEND	44.08N 121.35W	
01/27/2018	M2.8 INCH	DESCHUTES	OR	COCORAHS
24 HOUR COCORAHNS REPORT. ALL SNOW FELL AFTER 10 PM.				
ELEVATION 3786 FEET.				

Heavy Snow on
the Cascades
East Slopes &
Central OR.



Significant Weather Events – January 27th, 2018

0700 AM SNOW 2 WNW SISTERS 44.30N 121.59W
 01/27/2018 E2.5 INCH DESCHUTES OR COCORAHS

24 HOUR COCORAHS REPORT. ALL SNOW FELL AFTER 10 PM.
 ELEVATION 3235 FEET.

0733 AM SNOW 9 N ELGIN 45.69N 117.92W
 01/27/2018 M2.0 INCH UNION OR CO-OP OBSERVER

24 HOUR COCORAHS REPORT. ELEVATION 2873 FEET.

0800 AM SNOW 11 NNW NACHES 46.88N 120.79W
 01/27/2018 M2.5 INCH YAKIMA WA COCORAHS

24 HOUR COCORAHS REPORT

0830 AM HEAVY SNOW NW EASTON 47.23N 121.18W
 01/27/2018 M10.0 INCH KITTTITAS WA CO-OP OBSERVER

24 HR SNOWFALL 10 INCHES...TOTAL SNOW DEPTH 26
 INCHES...MELTED SNOW/RAIN 0.73 INCH. EASTON DAM.

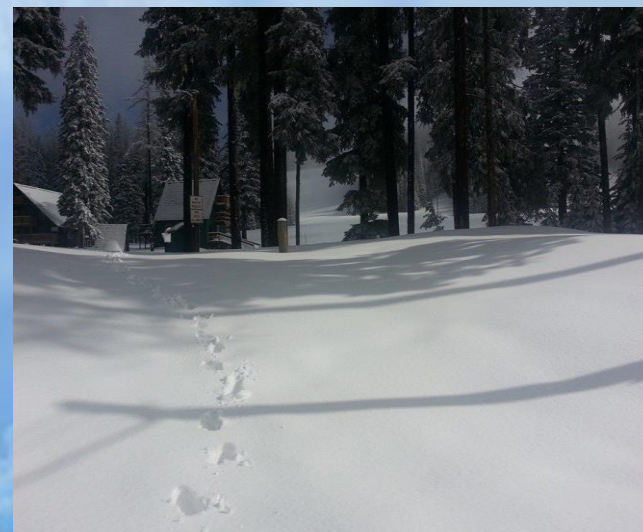
0900 AM SNOW TIETON 46.70N 120.75W
 01/27/2018 M3.0 INCH YAKIMA WA PUBLIC

OVERNIGHT ACCUMULATION. REPORT FROM FACEBOOK.

0900 AM HEAVY SNOW 7 NNW EASTON 47.32N 121.25W
 01/27/2018 M20.0 INCH KITTTITAS WA TRAINED SPOTTER

STORM TOTAL 48 HR SNOWFALL 20 INCHES...2 OF THOSE INCHES
 FELL PAST 12 HRS. CURRENTLY 33 DEGREES AND NOT SNOWING.

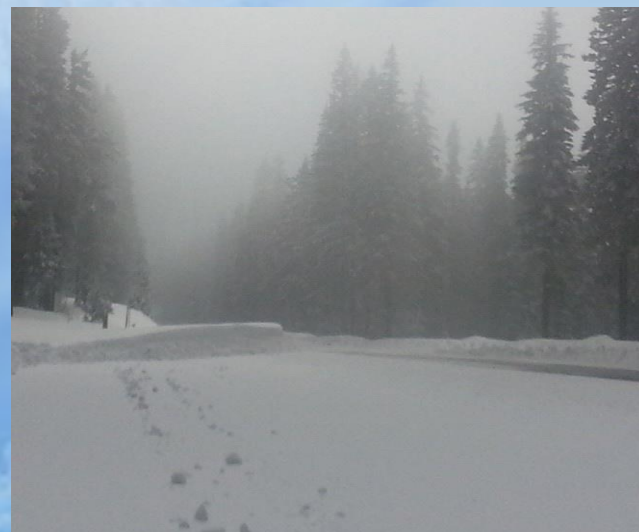
Heavy Snow on
 the Cascade East
 Slopes, North
 Central OR &
 NE Oregon.



Significant Weather Events – January 27th, 2018 (Continued)

0900 AM	HEAVY SNOW	SW EASTON	47.23N 121.18W
01/27/2018	M15.5 INCH	KITTITAS	WA TRAINED SPOTTER
10	TOTAL ACCUMULATION SINCE 10 AM FRIDAY. 7.5 INCHES FROM		
	AM UNTIL 4 PM, 4 INCHES FROM 4 PM TO 7 PM AND ANOTHER 4		
	INCHES OVERNIGHT.		
1000 AM	SNOW	N TROUT LAKE	46.00N 121.53W
01/27/2018	M4.5 INCH	KLICKITAT	WA TRAINED SPOTTER
	RECEIVED 4.5 INCHES		
	OVERNIGHT.		
0700 AM	SNOW	6 ESE PAULINA	44.10N 119.85W
01/27/2018	M1.5 INCH	CROOK	OR COCORAHS
	24 HOUR COCORAHS REPORT. ELEVATION 3952 FEET.		

Heavy Snow on
the Cascade East
Slopes & North
Central Oregon.



Monthly Total Precipitation and Snowfall

Location	Total Monthly Precip	Total Snowfall
Easton	5.34"	30.5"
Ellensburg	0.93"	M
Yakima	0.90"	T "
Pasco	0.97"	T "
The Dalles	1.39"	M
Walla Walla	2.33"	T "
Hermiston	1.10"	0.0"
Pendleton	1.59"	T "
Redmond	0.17"	T "
Meacham	5.42"	16.1"
John Day	0.48"	T "
Mt Adams RS	9.46"	4.0"

Monthly Max & Min Temperatures

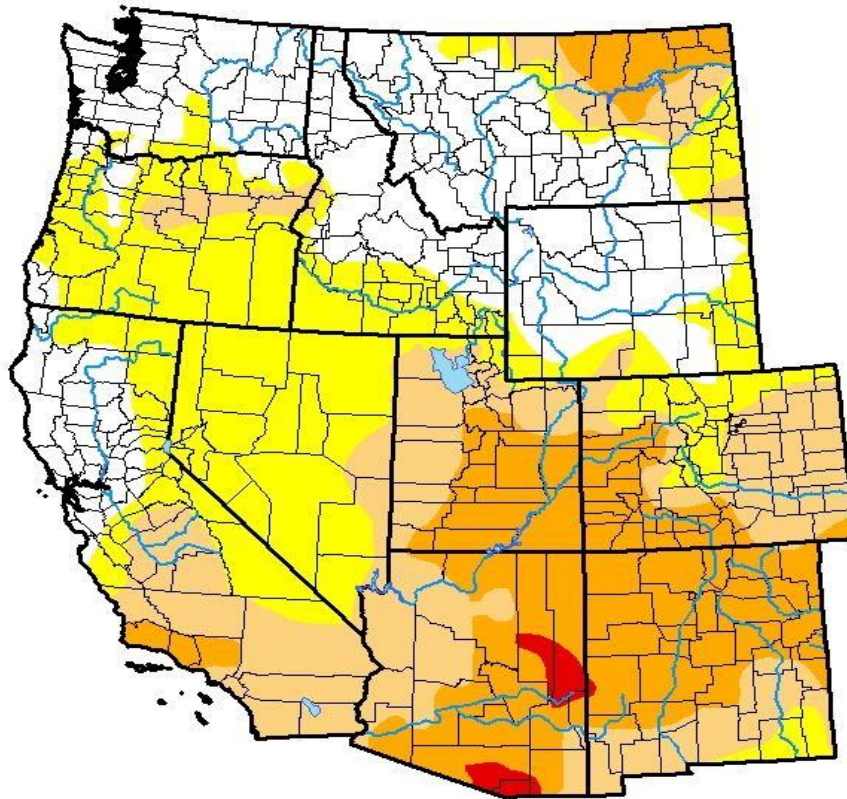
Location	Highest Maximum Temperature	Lowest Minimum Temperature
Pendleton, OR	65	26
Redmond, OR	70	19
Pasco, WA	55	22
Yakima, WA	61	23
Walla Walla, WA	67	27
Bend, OR	59	15
Ellensburg, WA	49	17
Hermiston, OR	61	24
John Day, OR	56	17
La Grande, OR	51	17
Prineville, OR	61	16
The Dalles, OR	56	28

Temperatures were not that extreme during January for the area.

January 2018 Drought Index

U.S. Drought Monitor West

January 30, 2018
(Released Thursday, Feb. 1, 2018)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.92	73.08	44.29	21.57	0.88	0.00
Last Week <i>01-23-2018</i>	40.25	59.75	38.41	17.68	0.00	0.00
3 Months Ago <i>10-31-2017</i>	58.13	41.87	16.48	5.34	1.85	0.00
Start of Calendar Year <i>01-02-2018</i>	48.76	51.24	29.03	8.60	1.52	0.00
Start of Water Year <i>09-26-2017</i>	55.72	44.28	21.01	8.72	5.30	2.17
One Year Ago <i>01-31-2017</i>	70.84	29.16	13.38	2.83	0.25	0.00

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.

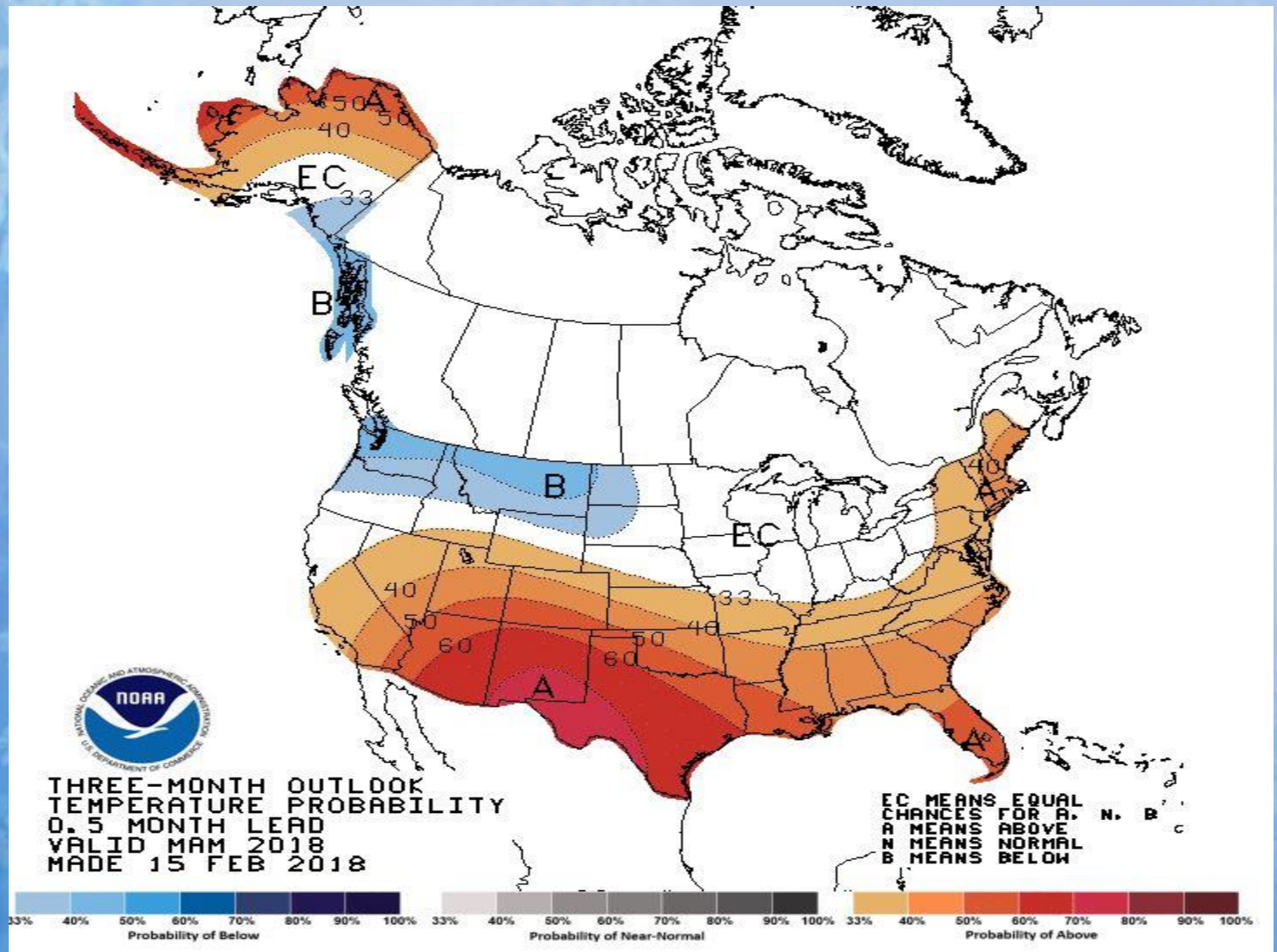
Author:

Richard Heim
NCEI/NOAA



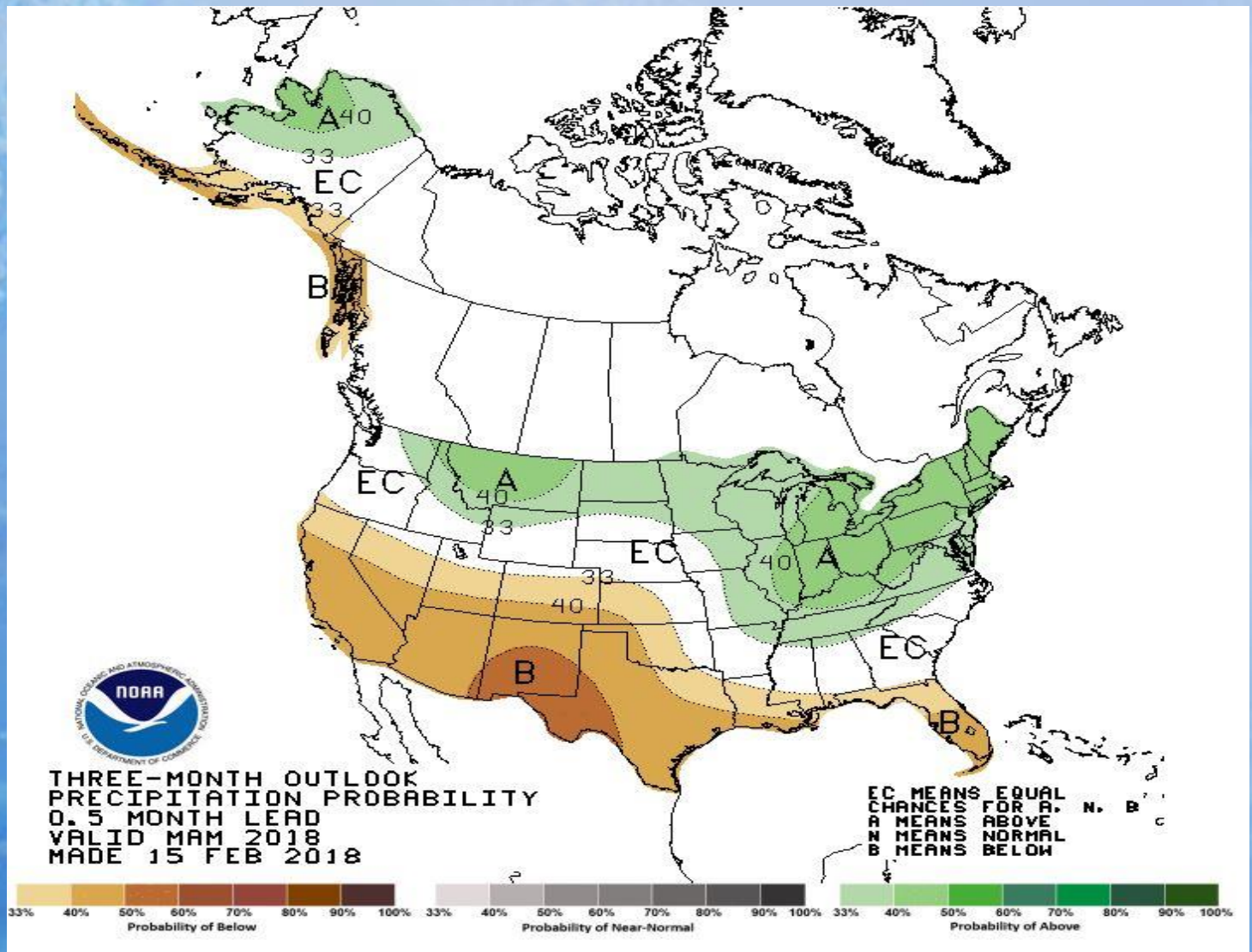
At the end of the month the map shows the Pacific Northwest was near normal in Washington, but drier than normal in Oregon.

USA Three Month Temperature Outlook



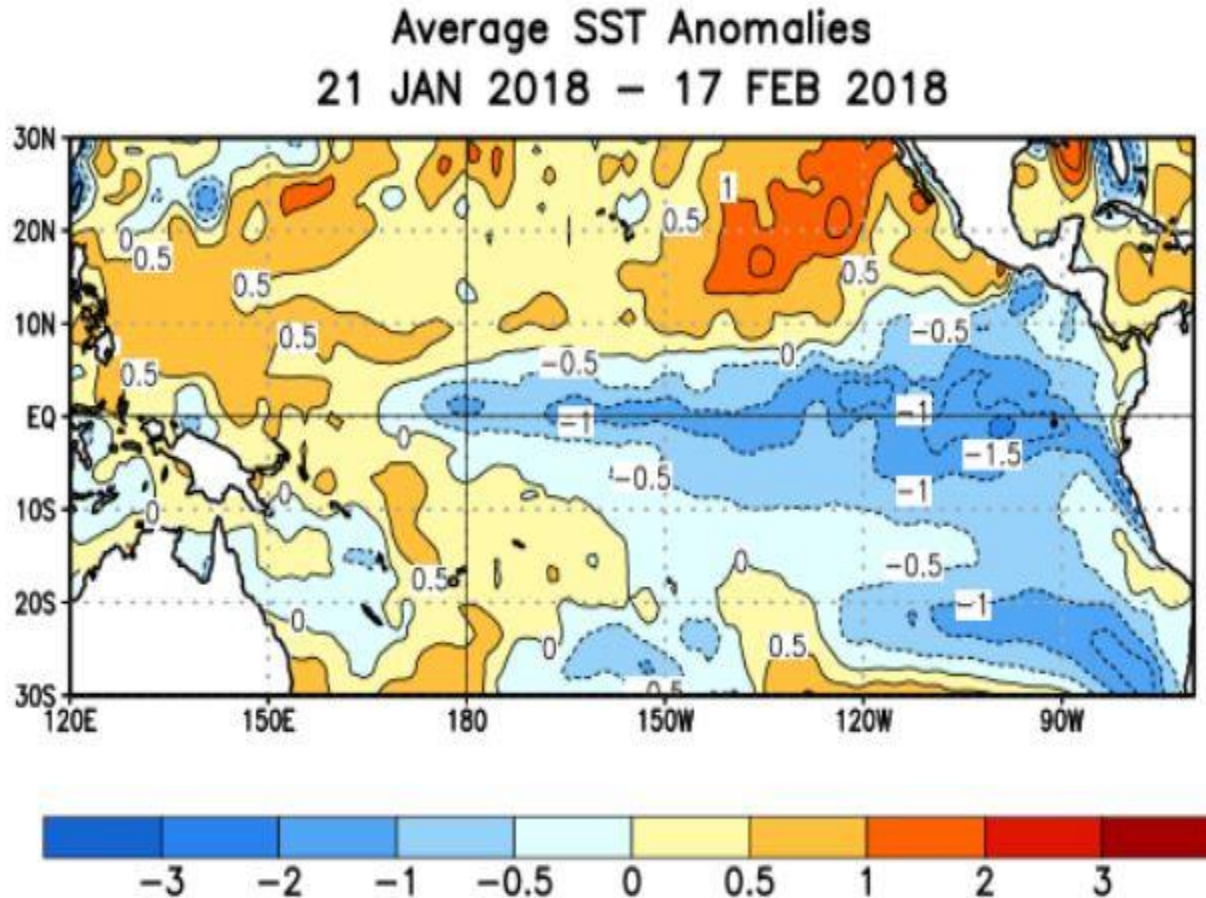
The temperature outlook for the next three months shows mostly below normal temperatures for the Pacific Northwest.

USA Three Month Temperature Outlook



The precipitation outlook for the next three months shows equal chances of above or below normal precipitation.

El Nino/La Nina Index January - February 2018



The El-nino/La Nina index for January – February 2018 shows above normal Sea Surface Temperatures (SSTs) off the North American coast with colder than normal SSTs along the equator. This suggests an El-Nino event off the North American coast.



Thank You!