



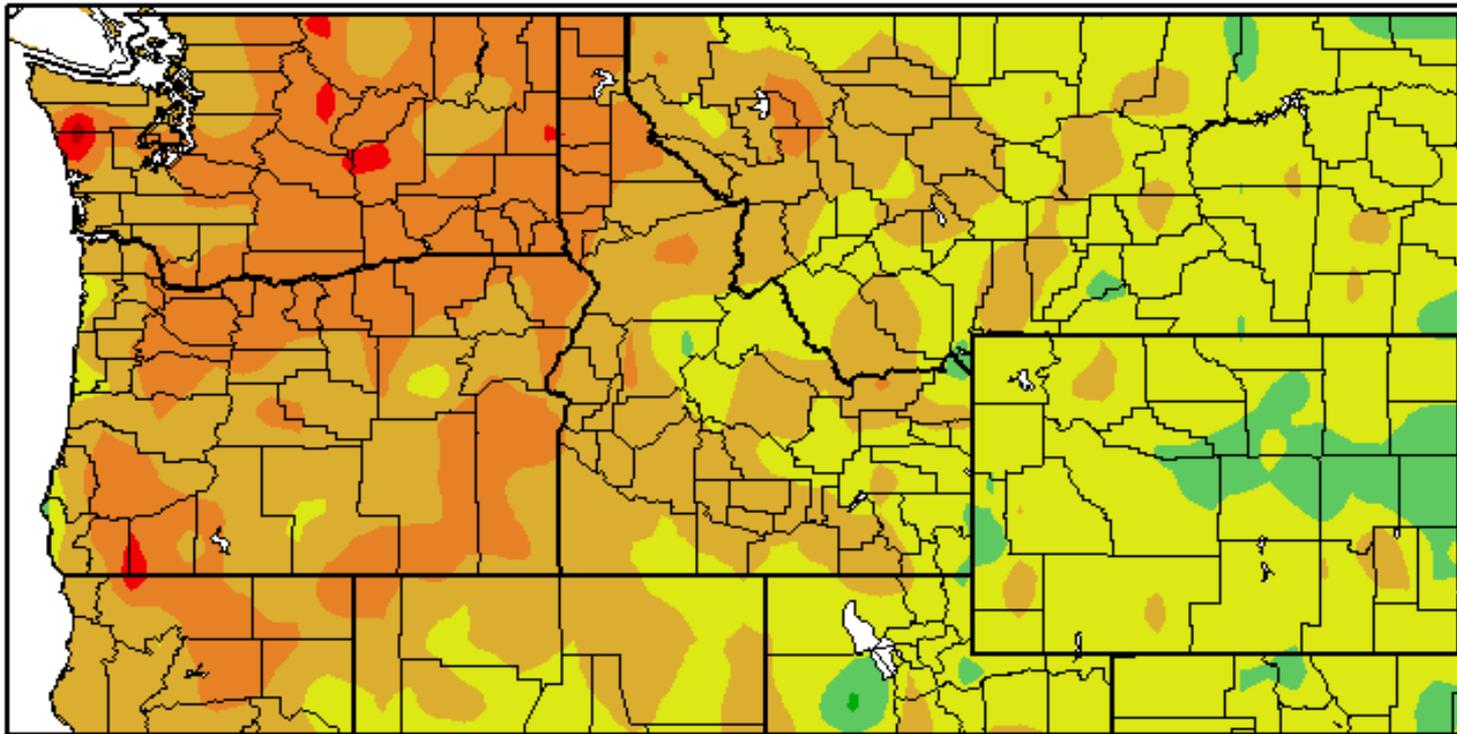
Season In Review

Summer 2015

*National Weather
Service Pendleton, OR*

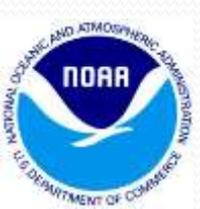
Departure from Normal Temperature (F)

6/1/2015 – 8/31/2015



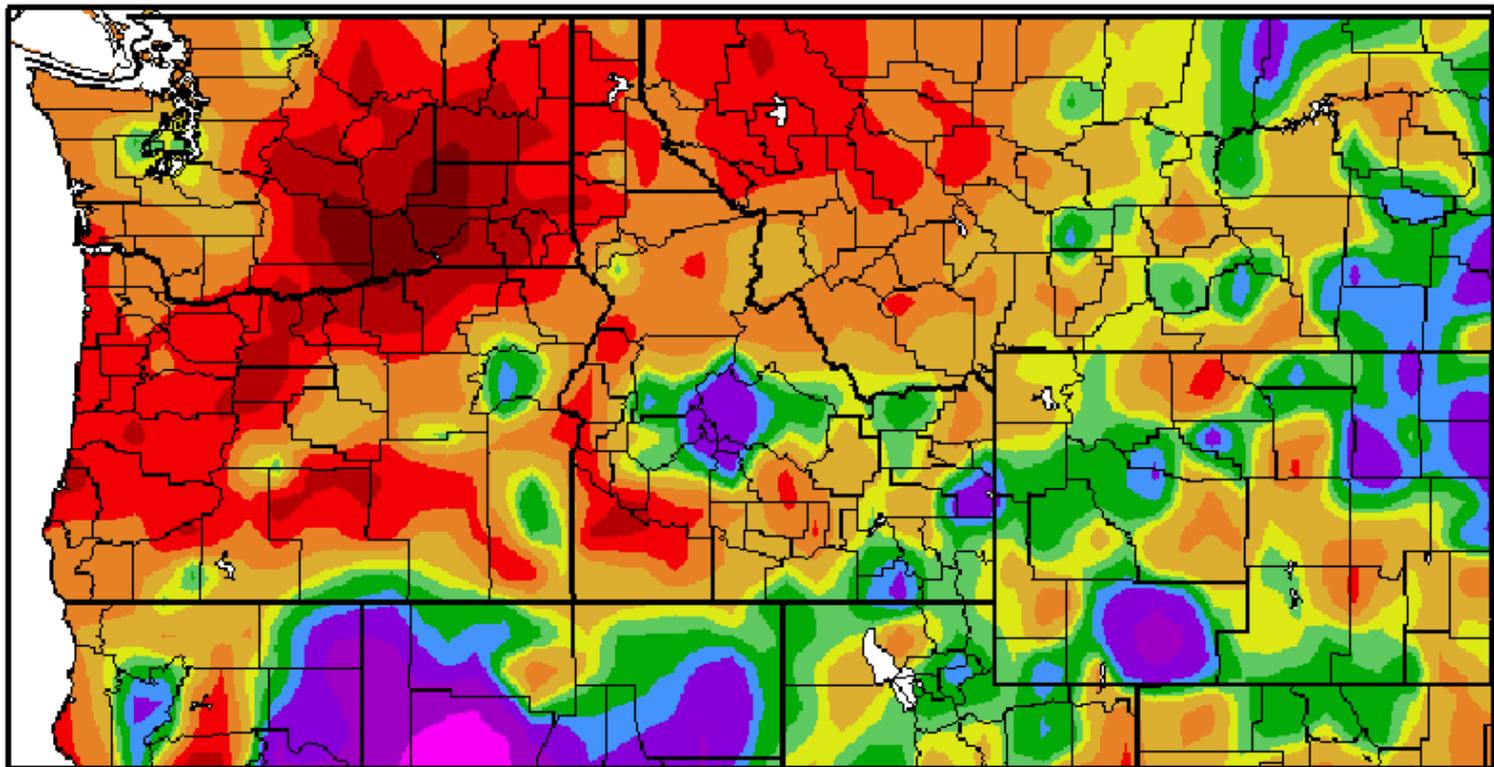
Generated 9/11/2015 at HPRCC using provisional data.

Regional Climate Centers



Percent of Normal Precipitation (%)

6/1/2015 - 8/31/2015



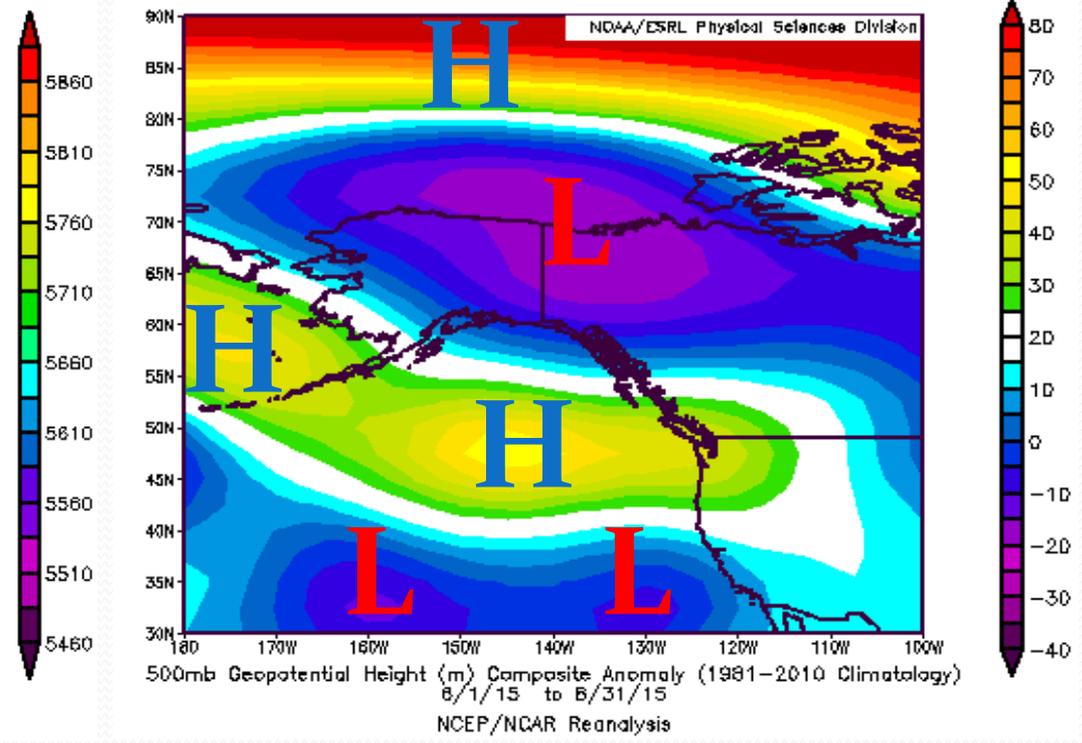
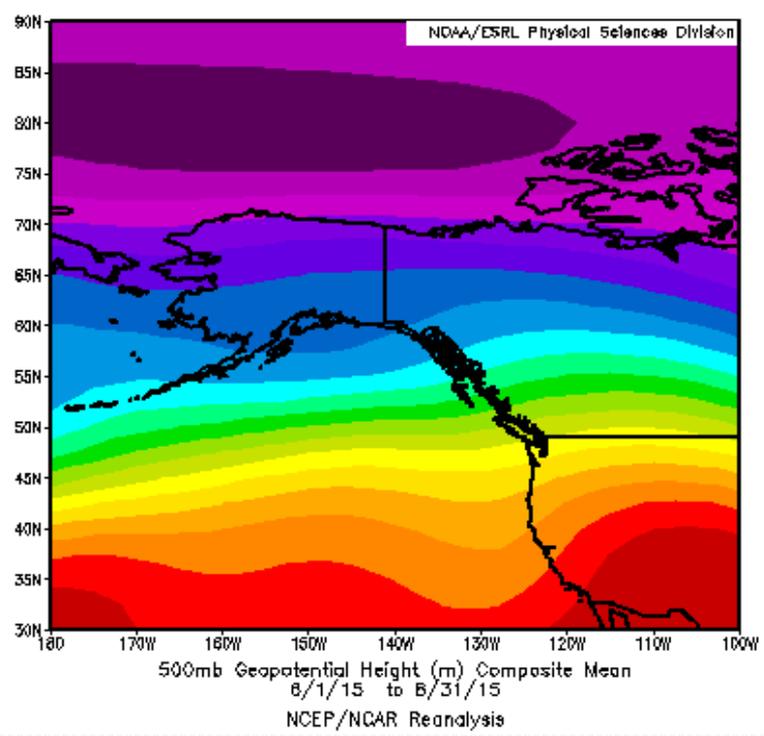
Generated 9/11/2015 at HPRCC using provisional data.

Regional Climate Centers



Summer 2015

Synoptic Weather Pattern



The mean synoptic pattern for the summer of 2015 was characterized by an anomalous ridge of high pressure near the Aleutian Islands & western Gulf of Alaska extending into the Pacific Northwest. There was also a strong ridge over the Arctic Ocean with an undercutting trough over Alaska and the Northwest Canada. There was also a weaker trough off the Southern California Coast extending back into the Southwest US.



Warmest June – August Average Max T

City	Rank	Jun – Aug 2015 Avg Max T	Current or Previous Jun – Aug Avg Max T Record
Walla Walla, WA	#1	91.1	91.0 in 1967
Meacham, OR	#1	80.5	78.7 in 1961
The Dalles, OR	#1	90.9	90.5 in 1967
Ellensburg, WA	#1	89.7	87.0 in 2013
Hermiston, OR	#1	92.2	90.3 in 2014
Yakima, WA	#1	92.7	89.6 in 1961
La Grande, OR	#1	86.8	86.7 in 2003



Warmest June – August Average Min T

City	Rank	Jun – Aug 2015 Avg Min T	Current or Previous Jun – Aug Avg Min T Record
Walla Walla, WA	#1	64.6	62.0 in 1977
The Dalles, OR	#1	63.0	61.9 in 1967
Ellensburg, WA	#1	58.1	57.2 in 1958
Hermiston, OR	#1	58.7	57.1 in 2014
Yakima, WA	#1	57.7	56.9 in 2014
Arlington, OR	#1	63.9	62.8 in 2014
Bickleton, WA	#1	56.5	55.8 in 1958
Bend, OR	#1	50.4	48.8 in 2014
Cle Elum, WA	#1	53.7	53.6 in 1998



Warmest June – August Average T

City	Rank	Jun – Aug 2015 Avg T	Current or Previous Jun – Aug Avg T Record
Walla Walla, WA	#1	77.9	76.2 in 1961
The Dalles, OR	#1	76.9	76.2 in 1967
Ellensburg, WA	#1	73.9	71.8 in 2013
Hermiston, OR	#1	75.4	73.7 in 2014
Yakima, WA	#1	75.2	73.1 in 2014
Bend, OR	#1	66.9	66.5 in 1922
Dayville, OR	#1	74.4	72.0 in 2003
Goldendale, WA	#1	70.0	69.5 in 2004
Heppner, OR	#1	71.8	70.7 in 1961



Top 10 Driest June – Augusts On Record

City	Rank	Jun – Aug 2015 Precipitation	Lowest Jun – Aug Precipitation
Madras, OR	#1(T)	0.00 Inches	0.00 Inches in 2010*
Prineville, OR	#1(T)	0.00 Inches	0.00 Inches in 1994*
Prosser, WA	#1(T)	0.00 Inches	0.00 Inches in 2012*
Richland, WA	#1(T)	0.00 Inches	0.00 Inches in 2006*
Pelton Dam, OR	#1(T)	0.00 Inches	0.00 Inches in 2012*
Heppner, OR	#1(T)	0.00 Inches	0.00 Inches in 2012*
Pasco, WA	#4(T)	0.03 Inches	0.01 Inches in 2006*
Hermiston, OR	#5(T)	0.01 Inches	Trace in 2011*
John Day, OR	#10	0.05 Inches	0.00 Inches in 1960*



Top 3 Number of 100+ Degree Days in 2015

City	Rank	Number of 100+ Degree Days 2015	Previous or Current Record Number & Year
Yakima, WA	#1	24 Days	17 Days in 1971
Walla Walla, WA	#1 (T)	17 Days	17 Days in 1985
Ellensburg, WA	#1	18 Days	10 Days in 2014
Hermiston, OR	#1	23 Days	17 Days in 2014
Pasco, WA	#1	23 Days	18 Days in 2014
Bickleton, WA	#1	6 Days	3 Days in 1928
Moro, OR	#1 (T)	8 Days	8 Days in 1998
Moxee City, WA	#1 (T)	10 Days	10 Days in 1971
Prosser, WA	#1	19 Days	16 Days in 1998
Satus Pass, WA	#1	6 Days	5 Days in 2003



Top 3 Number of 100+ Degree Days in 2015 (Cont'd)

City	Rank	Number of 100+ Degree Days 2015	Previous or Current Record Number & Year
Long Creek, OR	#1 (T)	4 Days	4 Days in 2002
Whitman Mission	#2	17 Days	18 Days in 1967
Meacham, OR	#2(T)	1 Day	2 Days in 1960
Antelope, OR	#2	9 Days	10 Days in 2009
La Grande, OR	#2	6 Days	8 Days in 2003
The Dalles, OR	#3(T)	17 Days	21 Days in 1996
Sisters, OR	#3	6 Days	7 Days in 2003



Top 10 Highest Temperatures on Record (Any Month)

City	Rank	June 2015 Max T	Highest Temperature Ever On Record
Hermiston, OR	#1	111 on 6/27	110 on 8/4/1998
Ellensburg, WA	#1	108 on 6/27	107 on 6/28/2015
Bickleton, WA	#1	108 on 6/27	102 on 8/4/1962
Satus Pass, WA	#1(T)	103 on 6/28	103 on 7/23/2006
Yakima, WA	#3	108 on 6/27 & 28	110 on 8/10/1971
Walla Walla, WA	#3(T)	113 on 6/28	114 on 7/10/1975
Dayton, WA	#3(T)	109 on 6/29	114 on 8/5/1961
Meacham	#4	101 on 6/28	105 on 8/4/1961
Goldendale, WA	#7	106 on 6/28	110 on 7/27/1998



All-Time June Record High Temperatures

City	Rank	June 2015 Max T	Previous June Max T Record
Hermiston, OR	#1	111 on 6/27	107 on 6/28/2015
Walla Walla, WA	#1	113 on 6/28	107 on 6/23/1992
Meacham, OR	#1	101 on 6/28	93 on 6/16/1961
The Dalles, OR	#1	108 on 6/26	108 on 6/22/1992
Ellensburg, WA	#1	108 on 6/27	107 on 6/28/2015
Pendleton, OR	#1	109 on 6/27 & 28	108 on 6/17/1961
Yakima, WA	#1	108 on 6/27 & 6/28	105 on 6/23/1992
Antelope, OR	#1	104 on 6/27	103 on 6/16/1961
Bickleton, WA	#1	108 on 6/28	102 on 6/29/2015



New Record Warm Average Temperatures for the Month of June

City	Rank	June 2015 Avg T	June Avg T Record
Walla Walla, WA	#1	76.6	73.0 in 1992
The Dalles, OR	#1	76.1	72.6 in 1977
Yakima, WA	#1	74.9	70.1 in 1948
Ellensburg, WA	#1	73.0	67.6 in 1958
Kennewick, WA	#1	77.5	75.0 in 1961
Hermiston, OR	#1	74.7	68.7 in 2009
Cle Elum, WA	#1	68.1	65.4 in 1958
La Grande, OR	#1	69.3	67.4 in 1992
Moro, OR	#1	69.5	67.1 in 1992



New Record Warm Average Temperatures for the Month of June (Cont'd)

City	Rank	June 2015 Avg T	June Avg T Record
Pendleton, OR	#1	72.8	71.6 in 1961
Redmond, OR	#1	65.8	63.9 in 1986
Antelope, OR	#1	67.6	67.2 in 1974
Arlington, OR	#1	76.7	76.3 in 1986
Bickleton, WA	#1	67.2	66.9 in 1992
Bend, OR	#1	65.8	65.1 in 1918
Condon, OR	#1	68.0	65.0 in 1926
Goldendale, WA	#1	68.5	66.5 in 1918
Heppner, OR	#1	70.6	68.4 in 1992



Top 3 Record Warm Average Temperatures for the Month of July

City	Rank	July 2015 Avg T	July Avg T Record
The Dalles, OR	#2	78.7	81.6 in 1985
Ellensburg, WA	#2	75.9	76.2 in 2014
Moxee City, WA	#2	74.8	75.7 in 2014
Condon, OR	#3	71.3	73.1 in 2014
Yakima, WA	#3	77.1	77.8 in 2014
Walla Walla, WA	#3(T)	79.9	82.3 in 1985



Top 3 August Record Daily High Temperatures

City	Rank	Aug 2015 Max T	Current or Previous Aug Max T Record
Ellensburg, WA	#1(T)	106 on 8/1	106 on 8/17/2008
Bickleton, WA	#1(T)	102 on 8/2 & 8/14	102 on 8/4/1961
Satus Pass, WA	#1(T)	102 on 8/1	102 on 8/4/1998
Condon, OR	#3(T)	102 on 8/1	103 on 8/8/1972*
Monument, OR	#3(T)	110 on 8/3	115 on 8/1/2009
Long Creek, OR	#3(T)	101 on 8/1	108 on 8/4/1961



New Record Warm Average Temperatures for the Month of August

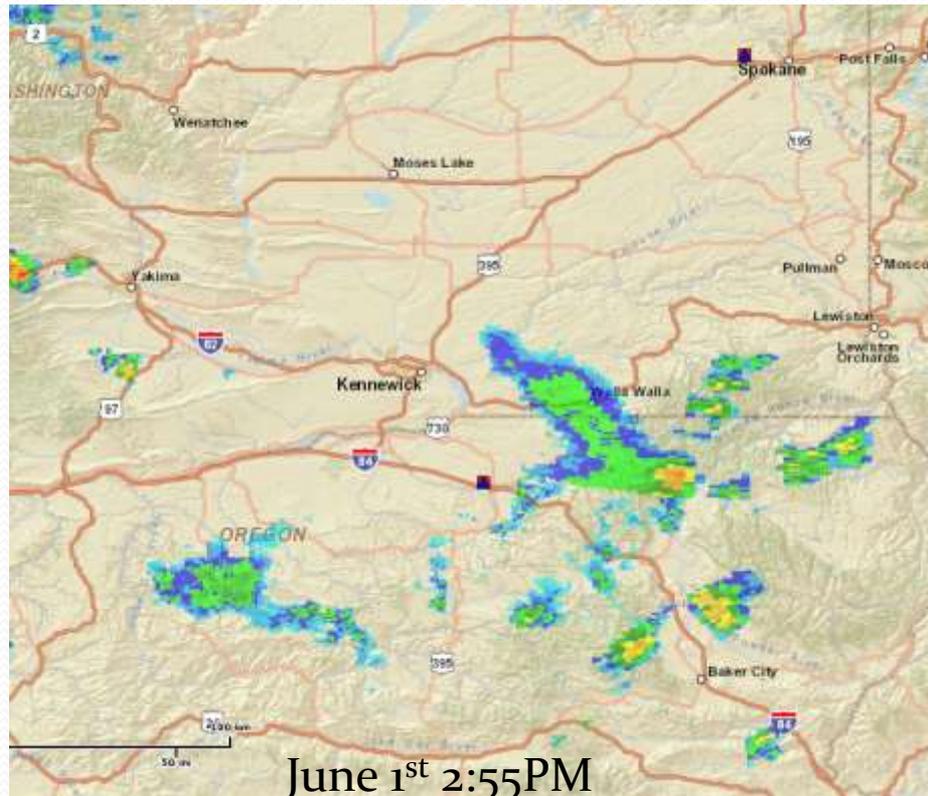
City	Rank	Aug 2015 Avg T	Aug Avg T Record
Satus Pass, WA	#1(T)	68.2	68.2 in 2004
Yakima, WA	#3	73.6	74.2 in 1977
Prosser, WA	#4	75.0	76.3 in 2004
Ellensburg, WA	#5	72.8	73.9 in 2004
Long Creek, OR	#5	67.5	68.1 in 2001
Hermiston, OR	#6	74.0	75.3 in 2014
Bend, OR	#6	67.3	67.7 in 1986
Prineville, OR	#7	68.6	71.6 in 1901
Walla Walla, WA	#8	77.1	80.1 in 1967
Sisters, OR	#10	65.3	67.4 in 1977
Moro, OR	#10	71.0	73.2 in 1967



June

Significant Weather

June 1st and June 28th Severe Weather Events



June 1st Storm Reports

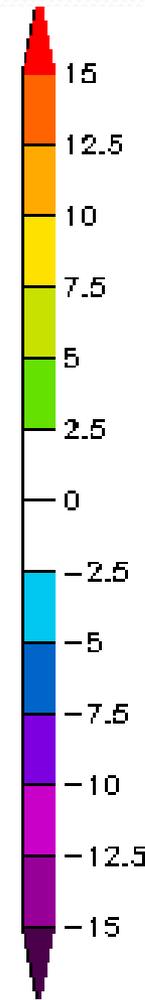
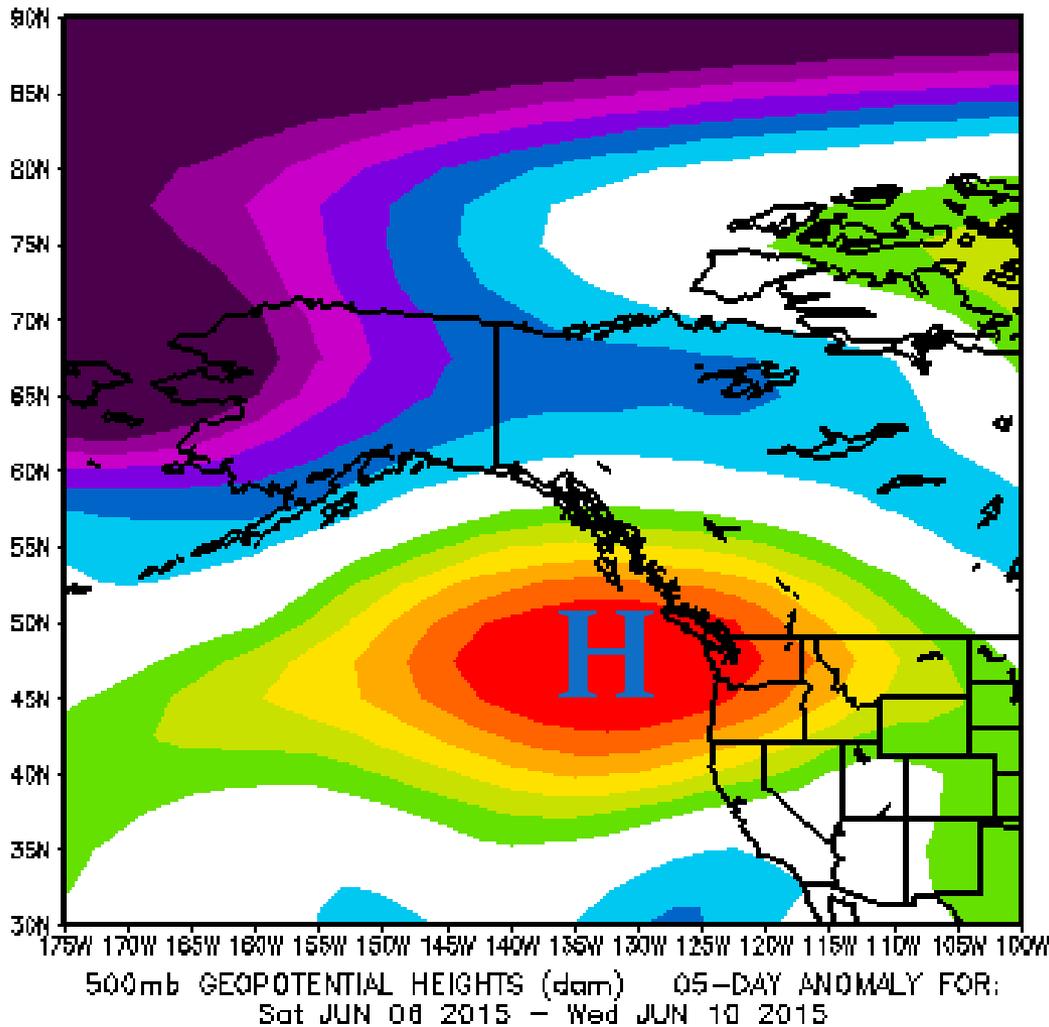
1.50 inch hail SE Meacham, OR
1.00 inch hail 9W La Grande, OR
1.00 inch hail 3N Elgin, OR

June 28th Storm Reports

69.9 MPH wind Near Dayville, OR
65.0 MPH wind Milton-Freewater, OR
61.0 MPH wind at Juniper Dunes, WA

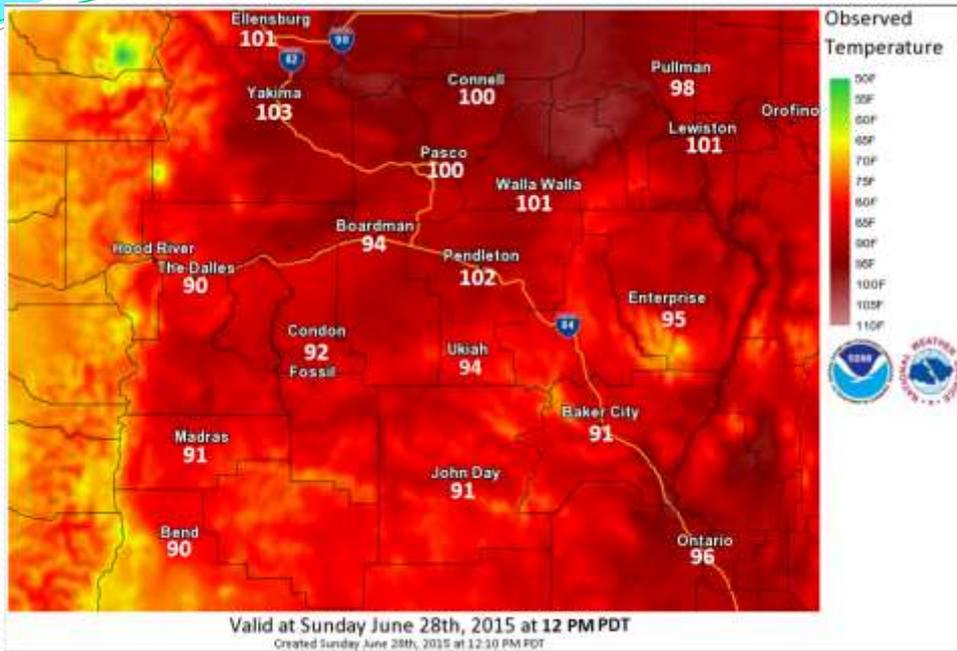


June 7-9th Early Heatwave

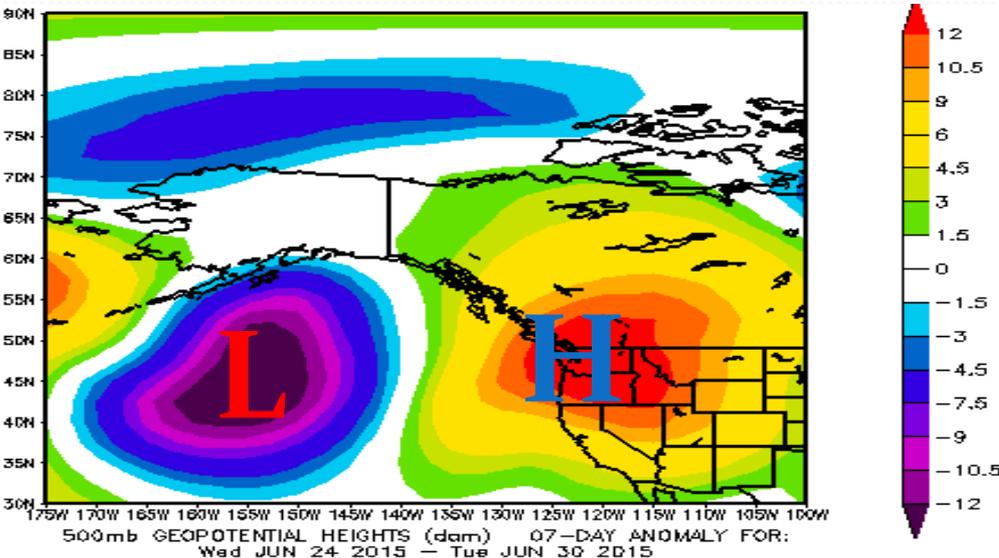


This was the first in a series of June Heat Waves. Several locations topped 100 degrees for the first time this year. Yakima reached 105 degrees, which briefly tied for the hottest June temperature recorded...until later in the month when this record was again topped. The image to the right shows the large, expansive upper level ridge centered over the Pacific Northwest which was responsible for this hot weather.

June 25th – 30th Extreme Heat



This was a very impressive June Heat wave. It was a similar setup as the hot weather experienced earlier in the month as an upper level ridge again developed over the Pacific NW. The top image shows noon temperatures on June 28th, with many locations already breaking 100 degrees! This extreme heat event occurred across the region from June 25th through the end of the month. During this period multiple daily, month and even all-time records were set for both minimum and maximum temperatures. Through the combination of these two heat events and the general mild temperatures throughout the month many locations saw their warmest June on record.

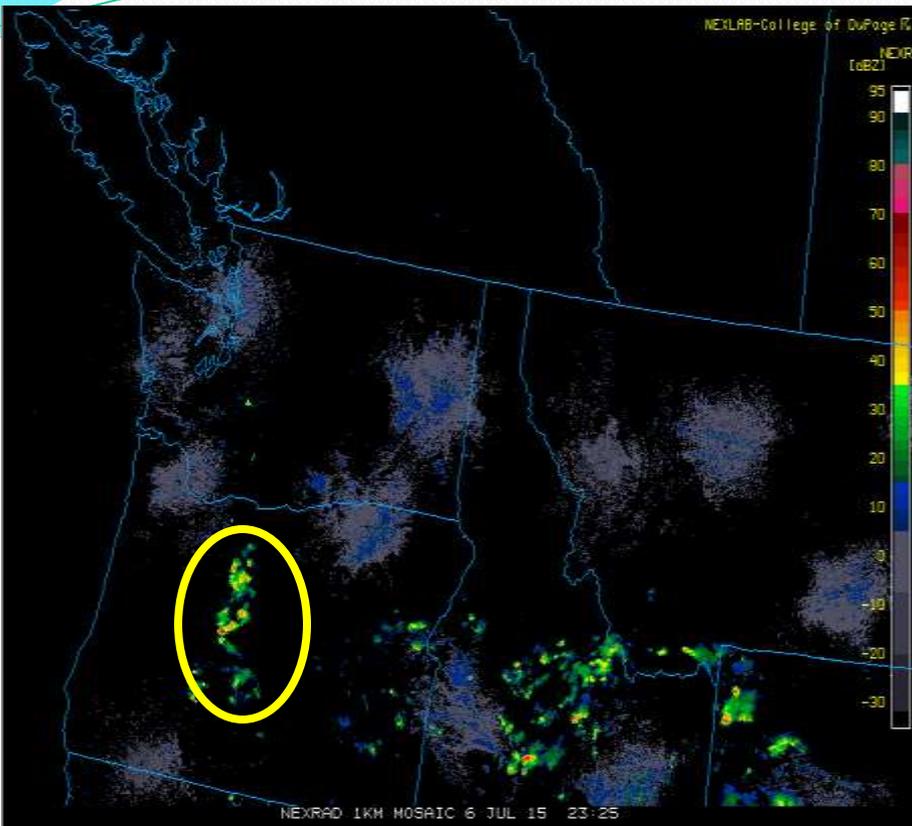




July

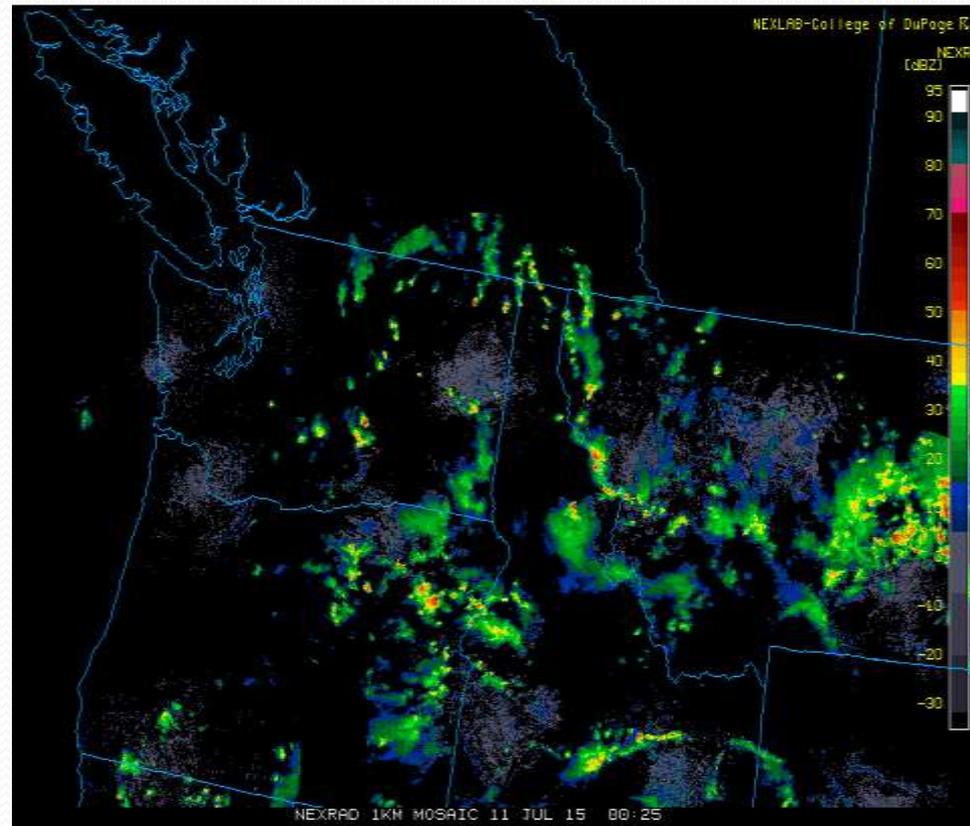
Significant Weather

July 5-6th & 10-14th Thunderstorms



(Above) A weak weather system initiated scattered t'storms over Central Oregon during the afternoon hours of July 6th. 1 day rainfall below:

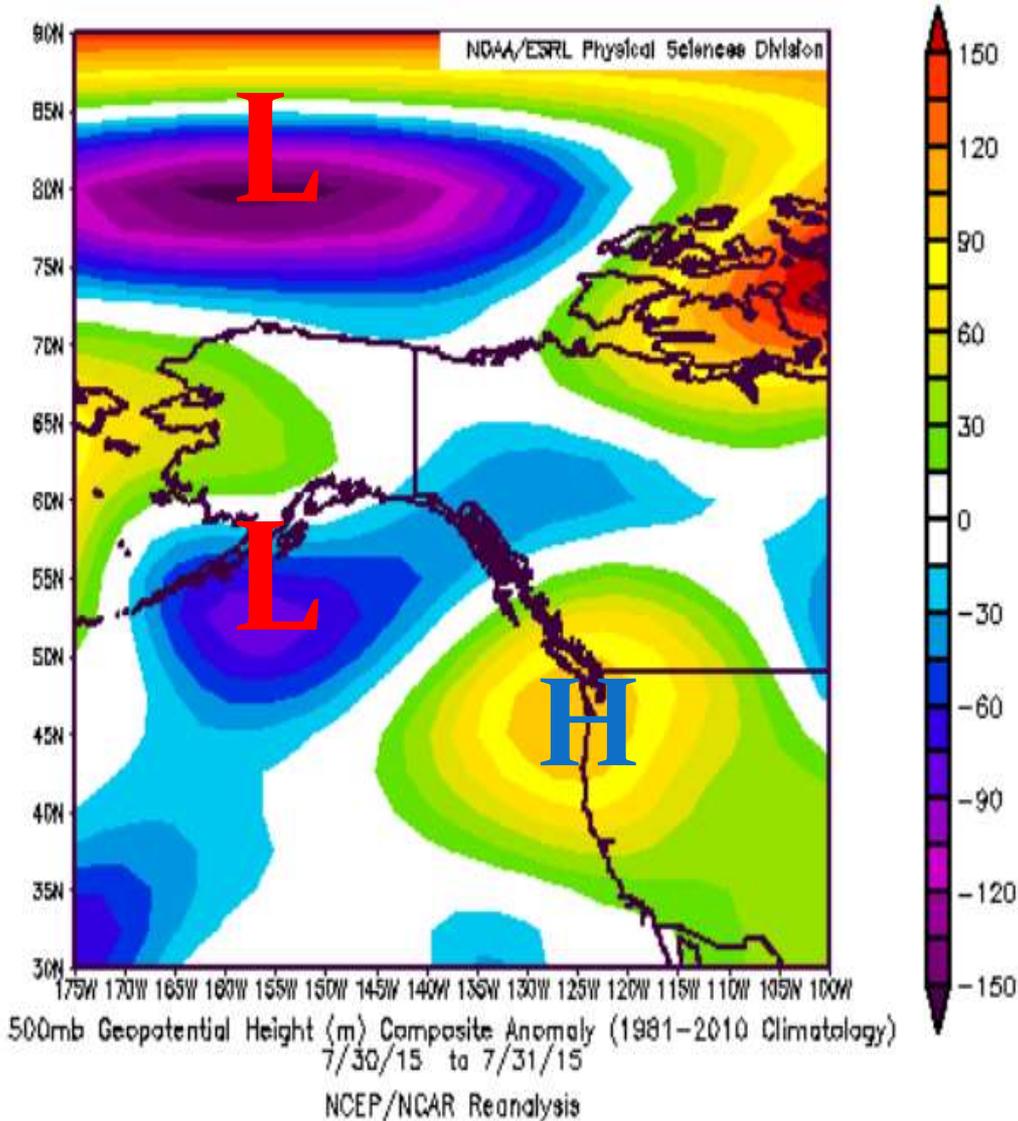
2SW Redmond, OR...	1.15"
Tumalo, OR.....	0.92"
10S Maupin, OR.....	0.35"
Redmond, OR.....	0.20"
Bend, OR.....	0.20"
3E Sisters, OR.....	0.10"



(Above) A stronger weather system with ample mid-level moisture and instability helped to develop scattered t'storms over much of the area during the afternoon/evening hours on July 10th. 5 day rainfall totals below:

6E Paulina, OR...	1.34"	3NE Prineville, OR...	1.39"
Redmond, OR.....	0.23"	Meacham, OR.....	1.21"
7NE Bend, OR.....	0.21"	Pendleton, OR.....	Trace
2W Bend, OR.....	0.18"	Joseph, OR.....	0.48"
Yakima, WA.....	0.06"	5S Mt. Vernon, OR.....	0.80"
Walla Walla, WA...	Trace		

July 30-31st Warm Up



During the last several days of the month a strong upper level high pressure ridge again developed over the Pacific Northwest (see map, left). With this ridge of high pressure building overhead temperatures quickly warmed to well above average levels. High temperatures reached into the upper 90s and lower 100s in the basins and valleys. This upper level ridge and hot weather continued into the first three days of August. Several record high temperatures were reported during this time across the region.



August Significant Weather

August 14-15th Winds/Blowing Dust & Fire Weather

Location	Peak Wind Gust (MPH)	Minimum Visibility	Minimum Humidity
Ellensburg	49 MPH	10.00 Miles	38%
Yakima	43 MPH	1.50 Miles	31%
Tri-Cities	48 MPH	2.00 Miles	24%
Pendleton	45 MPH	2.00 Miles	31%
The Dalles	38 MPH	10.00 Miles	29%
Redmond	33 MPH	10.00 Miles	34%
La Grande	40 MPH	1.75 Miles	11%
Bend	31 MPH	10.00 Miles	17%
John Day	45 MPH	7.00 Miles	8%



A push of cooler marine air moved into the area during the morning hours on August 14th. This helped to dramatically increase westerly winds across most of the area as well. This also created widespread blowing dust over much of the Basin, locally reducing visibility to 1 mile or less at times. Although this did create hazardous travel conditions the potential for blowing dust was well forecasted several days in advance. Fires, such as the Canyon Creek Complex, made significant advances and unfortunately destroyed many homes along with other infrastructure.

August 20-21st Winds/Blowing Dust & Fire Weather

Location	Peak Wind Gust (MPH)	Minimum Visibility	Minimum Humidity
Ellensburg	46 MPH	10.00 Miles	19%
Yakima	31 MPH	10.00 Miles	21%
Tri-Cities	29 MPH	10.00 Miles	17%
Pendleton	36 MPH	3.00 Miles	4%
The Dalles	41 MPH	10.00 Miles	17%
Redmond	25 MPH	10.00 Miles	11%
La Grande	26 MPH	10.00 Miles	14%
Bend	25 MPH	10.00 Miles	11%
John Day	29 MPH	0.50 Miles (Smoke)	8%



Although not as severe as the August 14-15th event winds again increased behind a cold front helping to kick-up dust and spread wildfires. Relative humidity levels were rather low during this event which acted to exacerbate the fire weather issues further.

August 29-31st Windy, Blowing Dust, Fire Weather, Rain Showers & Cooler Weather

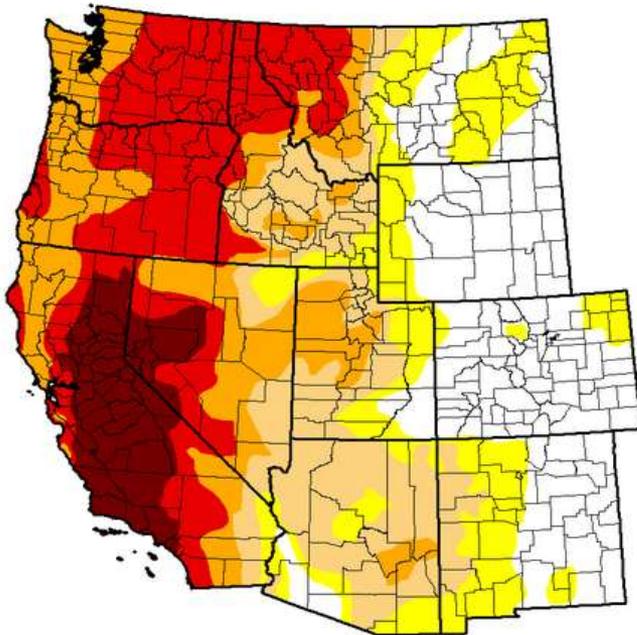
Location	Peak Wind Gust (MPH)	Minimum Visibility	Minimum Humidity	Rainfall (Inches)	Coolest Max T	Coolest Min T
Ellensburg	39 MPH	10.00 Miles	30%	0.05"	72°(8/30)	52° (8/31)
Yakima	44 MPH	0.125 Miles	31%	0.01"	78°(8/30)	49° (8/31)
Tri-Cities	37 MPH	2.00 Miles	22%	Trace	78°(8/30)	59° (8/31)
Pendleton	45 MPH	2.00 Miles	27%	0.01"	73°(8/30)	48°(8/30)
The Dalles	29 MPH	10.00 Miles	30%	0.03"	76°(8/30)	54° (8/31)
Redmond	32 MPH	8.00 Miles	25%	0.01"	70°(8/30)	35° (8/31)
La Grande	36 MPH	5.00 Miles	22%	0.10"	68°(8/30)	43°(8/30)
Bend	36 MPH	7.00 Miles	25%	Trace	66°(8/30)	37° (8/31)
John Day	45 MPH	7.00 Miles	16%	Trace	70°(8/30)	46° (8/31)

Ongoing Drought Conditions

U.S. Drought Monitor West

September 15, 2015
(Released Thursday September 17, 2015)
Valid 8 a.m. EDT

Statistics type: Traditional Percent Area Export table:   



Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2015-09-15	24.68	75.32	59.66	42.69	26.73	7.62
Last Week 2015-09-08	24.68	75.32	59.67	42.69	26.73	7.62
3 Months Ago 2015-06-16	27.93	72.07	56.17	34.48	17.13	7.26
Start of Calendar Year 2014-12-30	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year 2014-09-30	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago 2014-09-16	29.74	70.26	57.24	38.69	19.88	8.90

Estimated Population in Drought Areas: **58,709,382**

[View More Statistics](#)

Intensity:

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

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

Author(s):

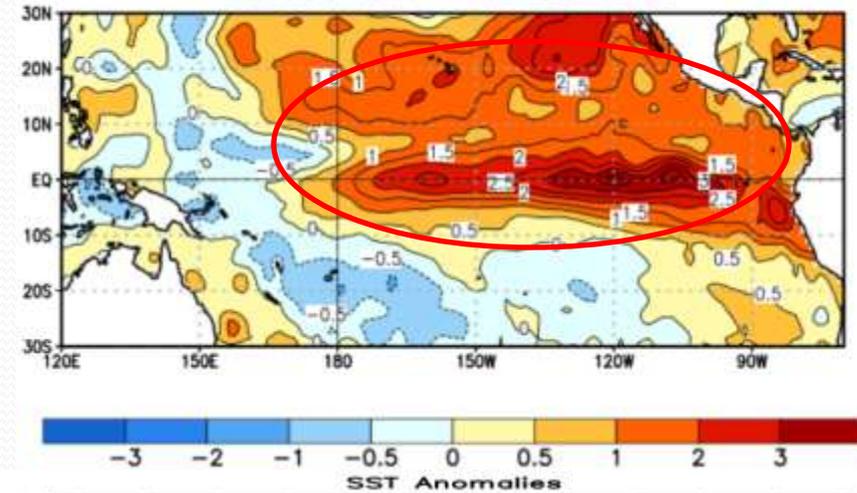
Chris Fenimore, NOAA/NESDIS/NCEI

Download:   

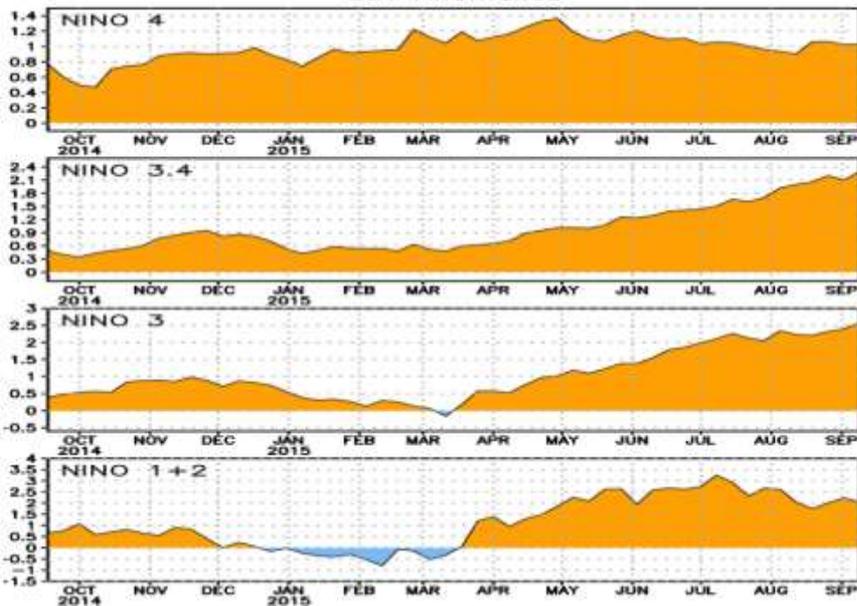
Extreme drought (D₃) continues over much of Northeastern Oregon and Southeastern Washington, which was exacerbated by another abnormally dry month. Parts of Deschutes & Crook Counties continue with D₂ (severe drought) status.

El Niño Advisory Continues

Average SST Anomalies
16 AUG 2015 – 12 SEP 2015



❖ An El Niño Advisory has been issued by the Climate Prediction Center, with the warmest temperatures noted off the South American coast along the Equator. ****El Niño conditions are present****



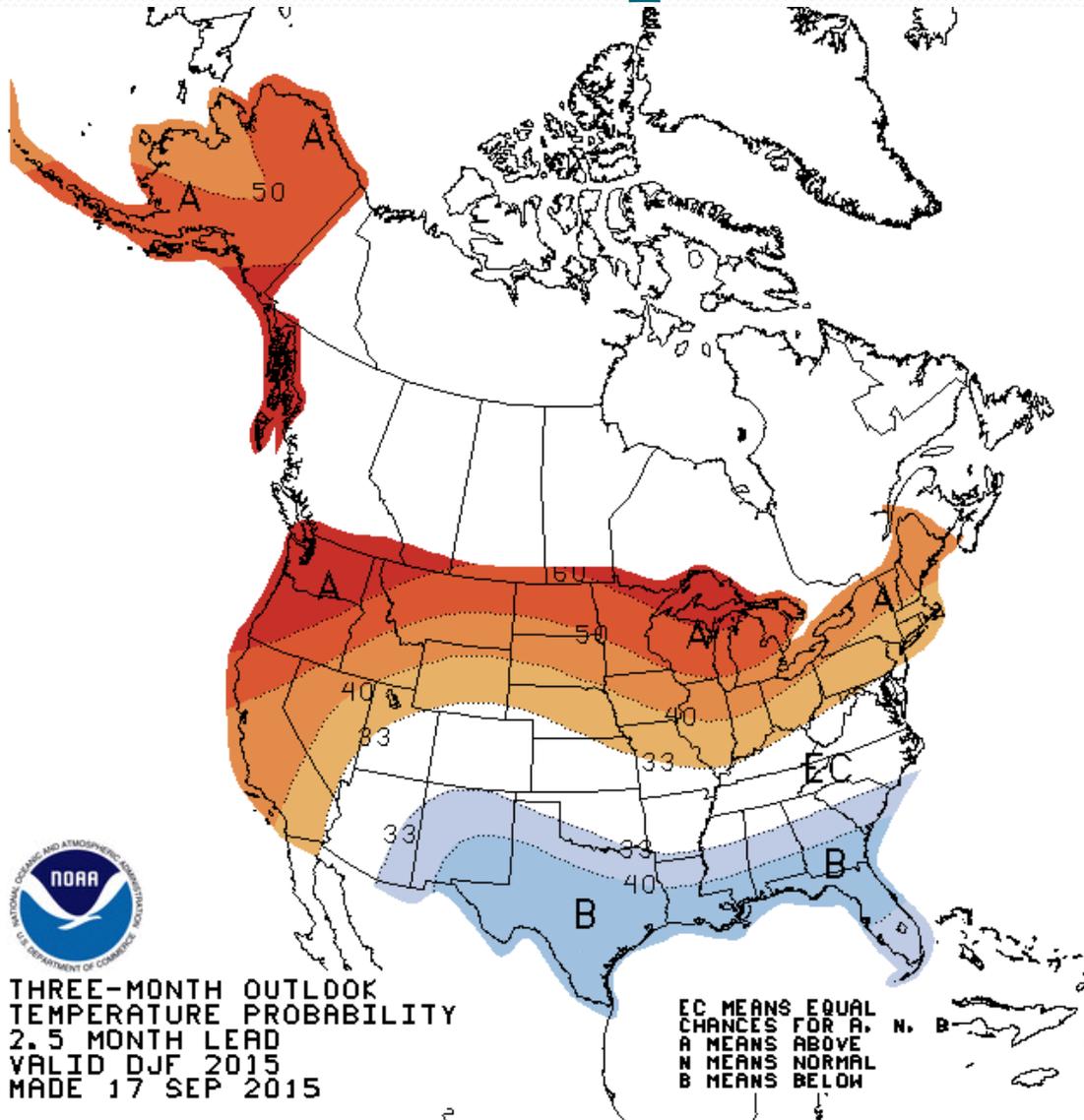
❖ The Climate Prediction Center has stated that there is approximately a 95% chance that El Niño conditions will continue through the Northern Hemisphere winter before gradually weakening during Spring 2016.



Three Month Outlook

December – February

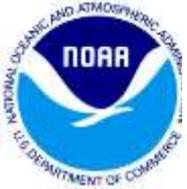
Dec - Feb Temperature Outlook



This graphic is issued by the Climate Prediction Center or CPC and is the Temperature Outlook for the months of December, January & February. The cool colors indicate a greater chance of below normal temperatures and the warm colors represent a greater chance of above normal temperatures. The time period for the normals runs from 1981-2010. Most of the Inland Pacific Northwest has a 50-60 percent chance for above average temperatures during this three-month period.

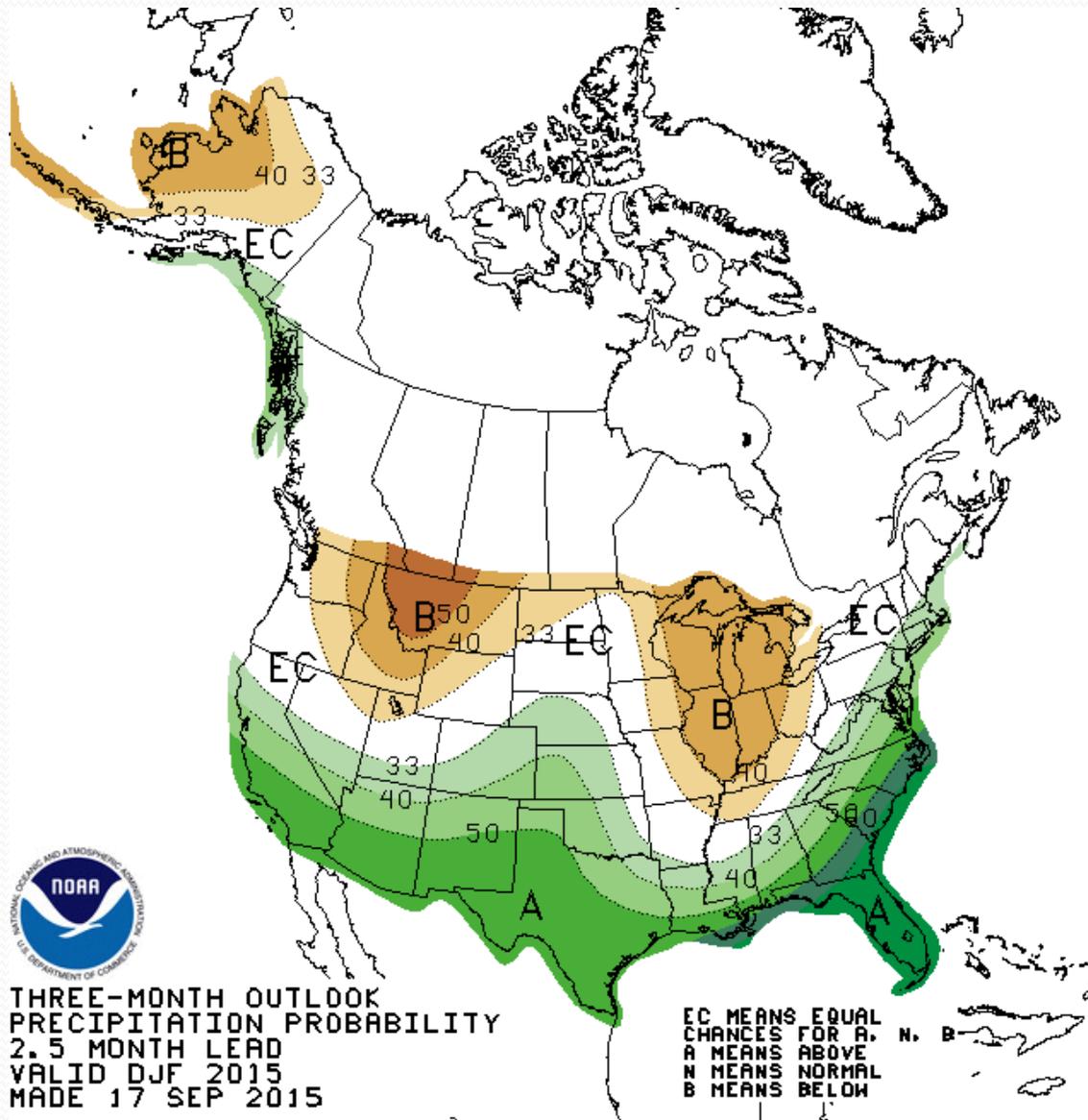


THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
2.5 MONTH LEAD
VALID DJF 2015
MADE 17 SEP 2015



Dec - Feb Precipitation Outlook

This graphic is CPC's Precipitation Outlook for the months of December, January and February. The green colors represent a greater chance of above normal precipitation, and the brown colors represent a greater chance of below normal precipitation. Much of the Pacific NW has a 33-40 percent chance of seeing below normal precipitation amounts...with equal chances for above, below or near normal precipitation amounts along and west of the Cascades. Please remember that these are probabilities of averages, and that the day-to-day weather will still vary during the period.



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
2.5 MONTH LEAD
VALID DJF 2015
MADE 17 SEP 2015





Thank You!