

A photograph of a sunset over a field. The sun is a bright yellow circle on the left side of the frame, partially obscured by a soft, glowing aura. The sky transitions from a pale yellow at the top to a deep orange and red near the horizon. The foreground is a dark, flat field with some low-lying vegetation. The overall mood is serene and warm.

# **Summer 2017 Weather & Climate Review**

**National Weather Service  
Pendleton, Oregon**

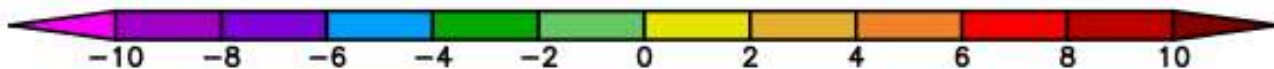
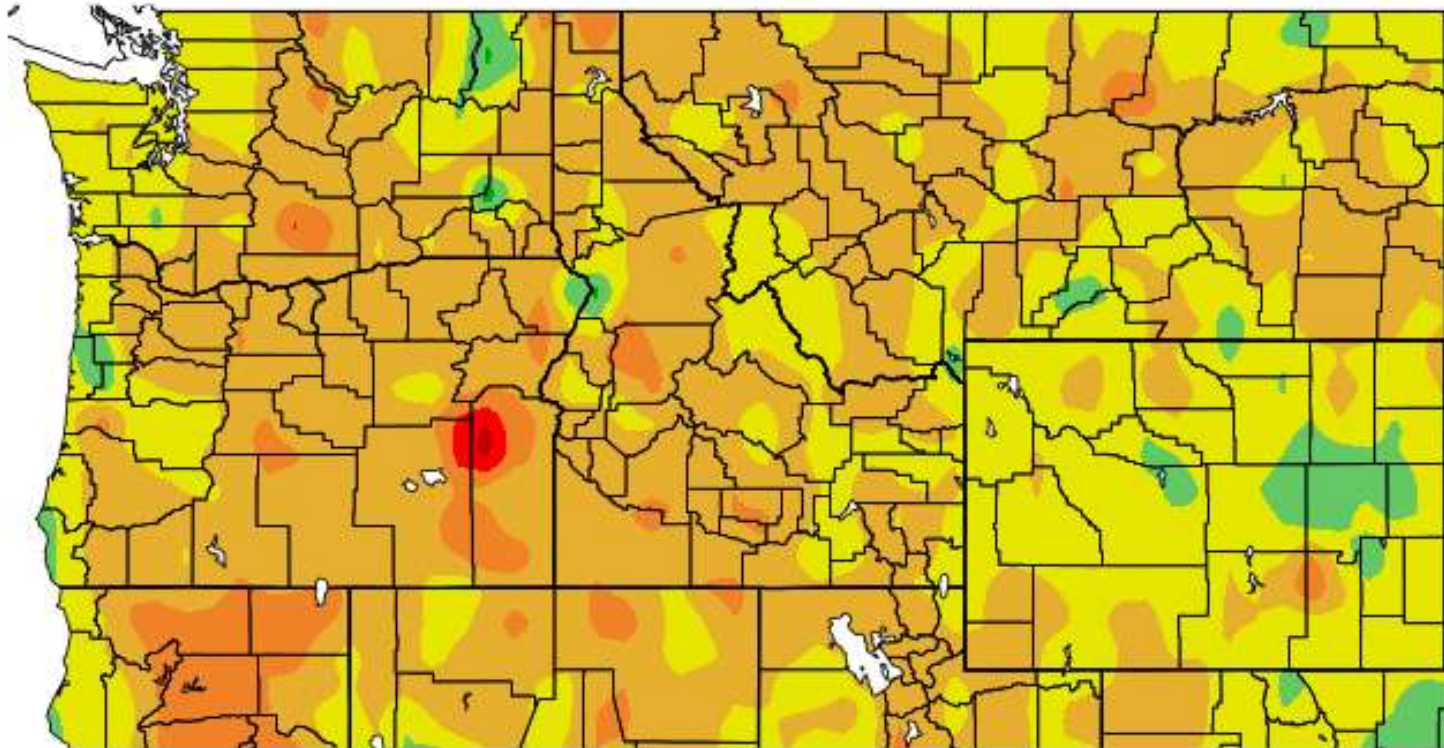
# Summary of Summer (JJA) Temperatures & Precipitation

Location	Avg Max T	Max T Dep.	Avg Min T	Min T Dep.	Avg T	Avg T Dep.	Precip	Precip Dep.
Ellensburg, WA	87.3	+3.5	55.1	+0.9	71.2	+2.2	0.33"	-0.43"
Yakima, WA	91.3	+5.4	56.2	+3.9	73.8	+4.7	0.41"	-0.57"
Tri-Cities, WA	91.5	+3.3	55.3	-1.3	73.4	+1.0	0.55"	-0.49"
Walla Walla, WA	89.7	+3.5	62.4	+3.0	76.1	+3.3	1.40"	-0.80"
Hermiston, OR	91.3	+3.0	56.9	+1.7	74.1	+2.4	0.35"	-0.56"
Pendleton, OR	88.1	+3.3	55.9	+0.9	72.0	+2.1	2.22"	+0.53"
The Dalles, OR	88.9	+3.3	60.3	+1.6	74.6	+2.5	0.43"	-0.45"
Redmond, OR	87.3	+4.6	45.9	+1.2	66.6	+2.9	0.65"	-0.92"
John Day, OR	84.9	+0.3	47.7	+0.2	66.3	+0.3	2.17"	-0.17"
La Grande, OR	87.0	+4.6	52.9	+0.9	70.0	+2.8	1.61"	-1.25"
Meacham, OR	79.3	+3.6	42.0	+2.0	60.7	+2.8	3.07"	-0.33"

\*Departures based on the last 30 years of data (1988-2017) where available. Data is unofficial\*

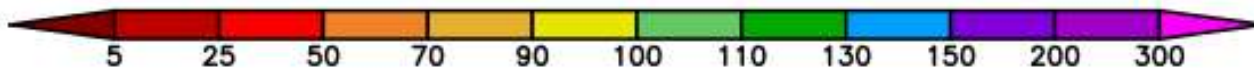
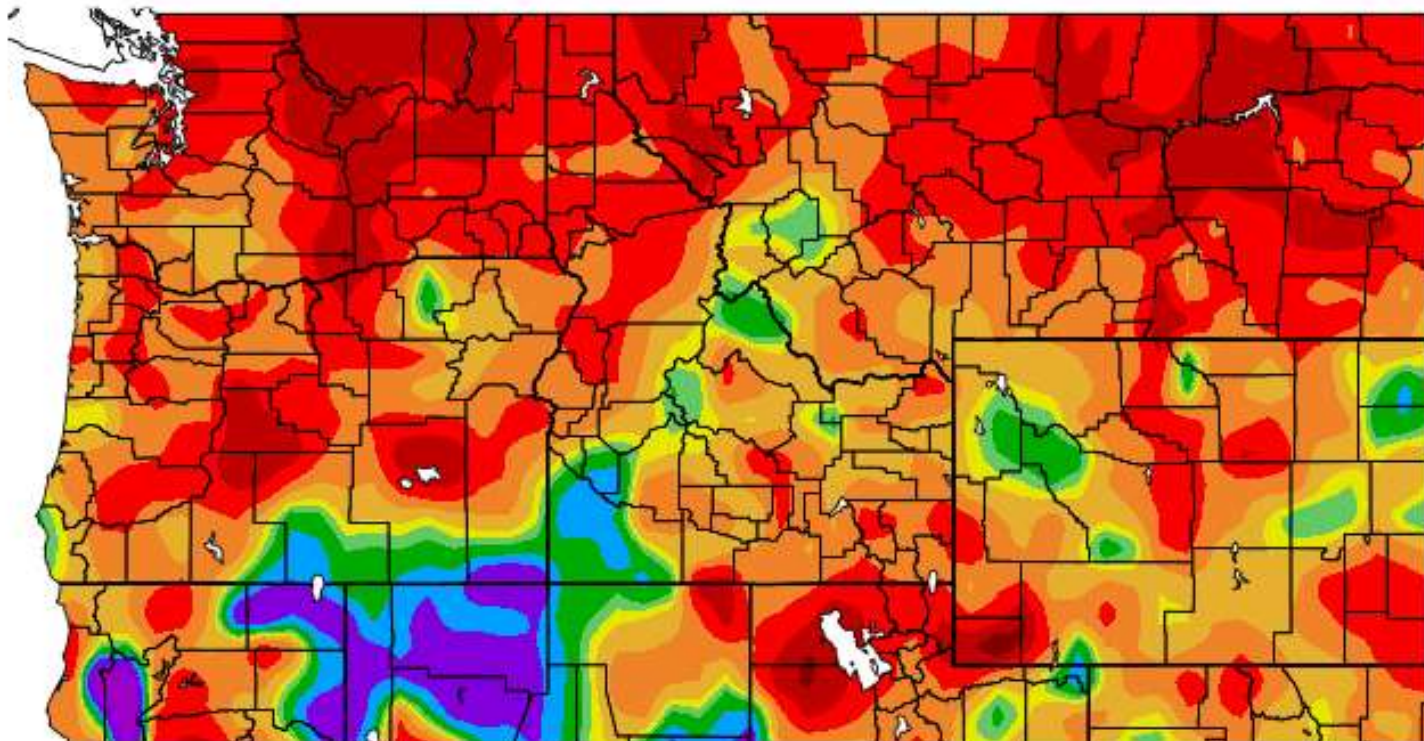
# Summer Temperatures

Departure from Normal Temperature (F)  
6/1/2017 - 8/31/2017



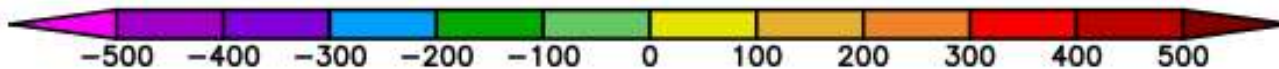
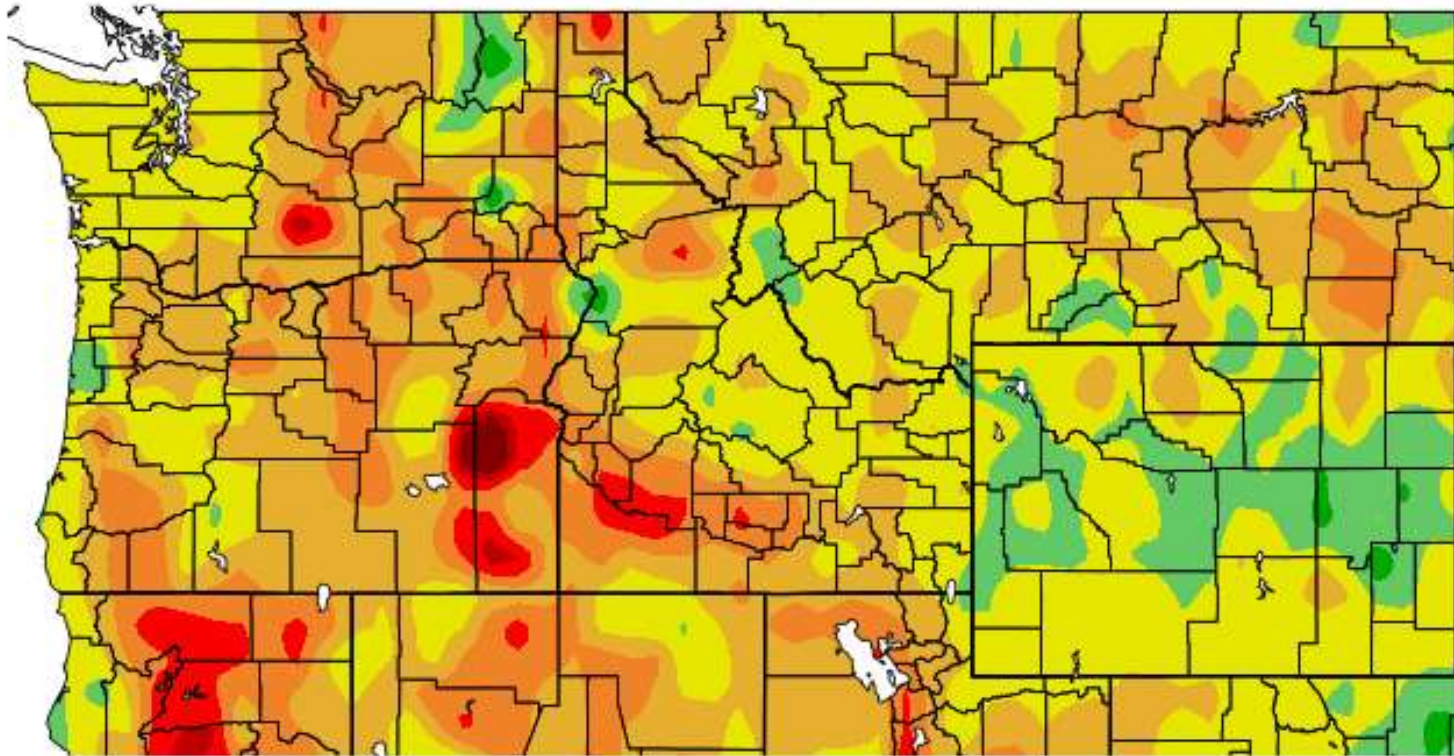
# Summer Precipitation

Percent of Normal Precipitation (%)  
6/1/2017 – 8/31/2017



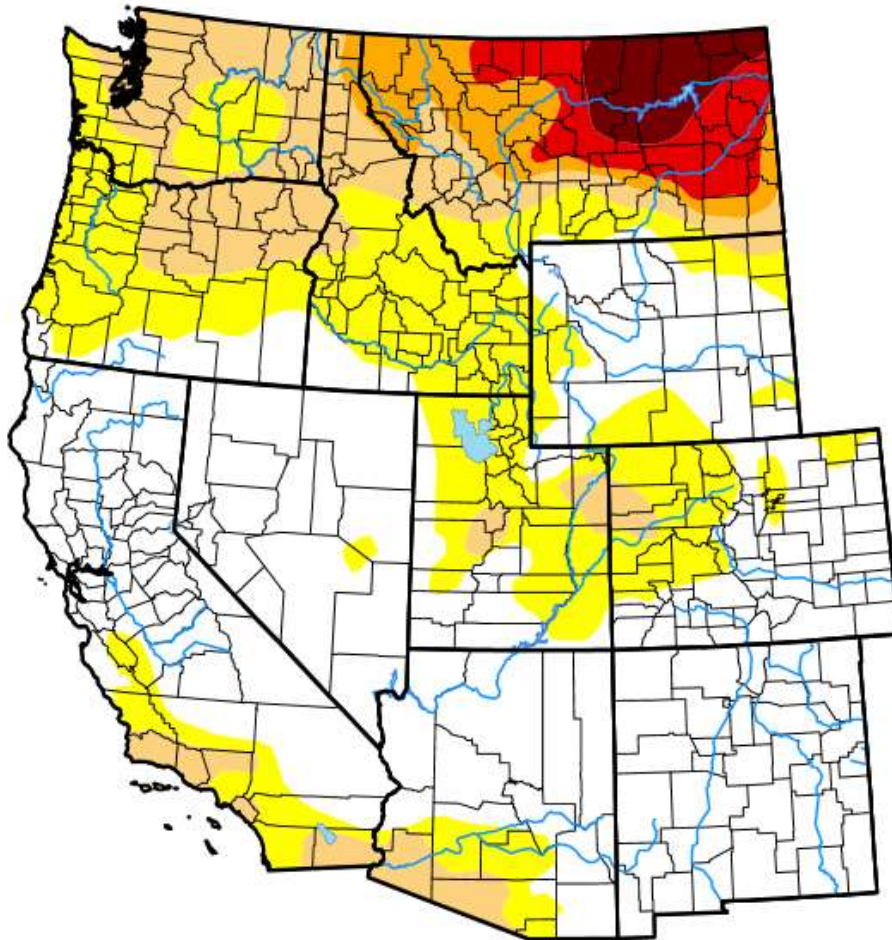
# Cooling Degree Days

Departure from Normal CDD (base 65)  
6/1/2017 - 8/31/2017



# Drought Conditions

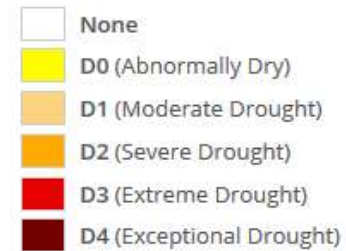
West



Map released: Thurs. September 21, 2017

Data valid: September 19, 2017 at 8 a.m. EDT

## Intensity:



## Author(s):

[Brad Rippey](#), U.S. Department of Agriculture

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

## Map Download

No Text:



Legend Only:



# Select Summer Records



*Hermiston, OR Butte Park  
July 2017 Michael Murphy*

# Top 5 Warmest Summer's On Record

Location	Rank	Summer 2017 Avg T (Jun – Aug)	Previous or Current Summer Avg T Record
Long Creek, OR	#1	66.5°	66.4° in 2015
Hermiston, OR	#2	74.1°	75.4° in 2015
Yakima, WA	#2	73.8°	75.2° in 2015
Walla Walla, WA	#3	76.1°	77.9° in 2015
Bend, OR	#3	66.2°	66.9° in 2015
La Grande, OR	#3	70.0°	70.4° in 2003
Prineville, OR	#3	67.0°	68.8° in 2015
Sisters, OR	#3	64.2°	65.5° in 2015
The Dalles, OR	#4	74.6°	76.9° in 2015
Redmond, OR	#4	66.7°	67.9° in 1967
Pelton Dam, OR	#4	72.9°	73.5° in 2015
Kennewick, WA	#5	75.9°	78.4° in 2015



# Consecutive Days Without Measurable Precipitation

- Easton, WA: #2 54 days, ending 8/12/2017
  - \*Current record stands at: 64 days, ending 8/27/1951
- Redmond, OR: #10 61 days, ending 8/10/2017
  - \*Current record stands at: 99 days, ending 9/07/1949

# Top 10 Wettest Water Years (Through 9/24/2017)

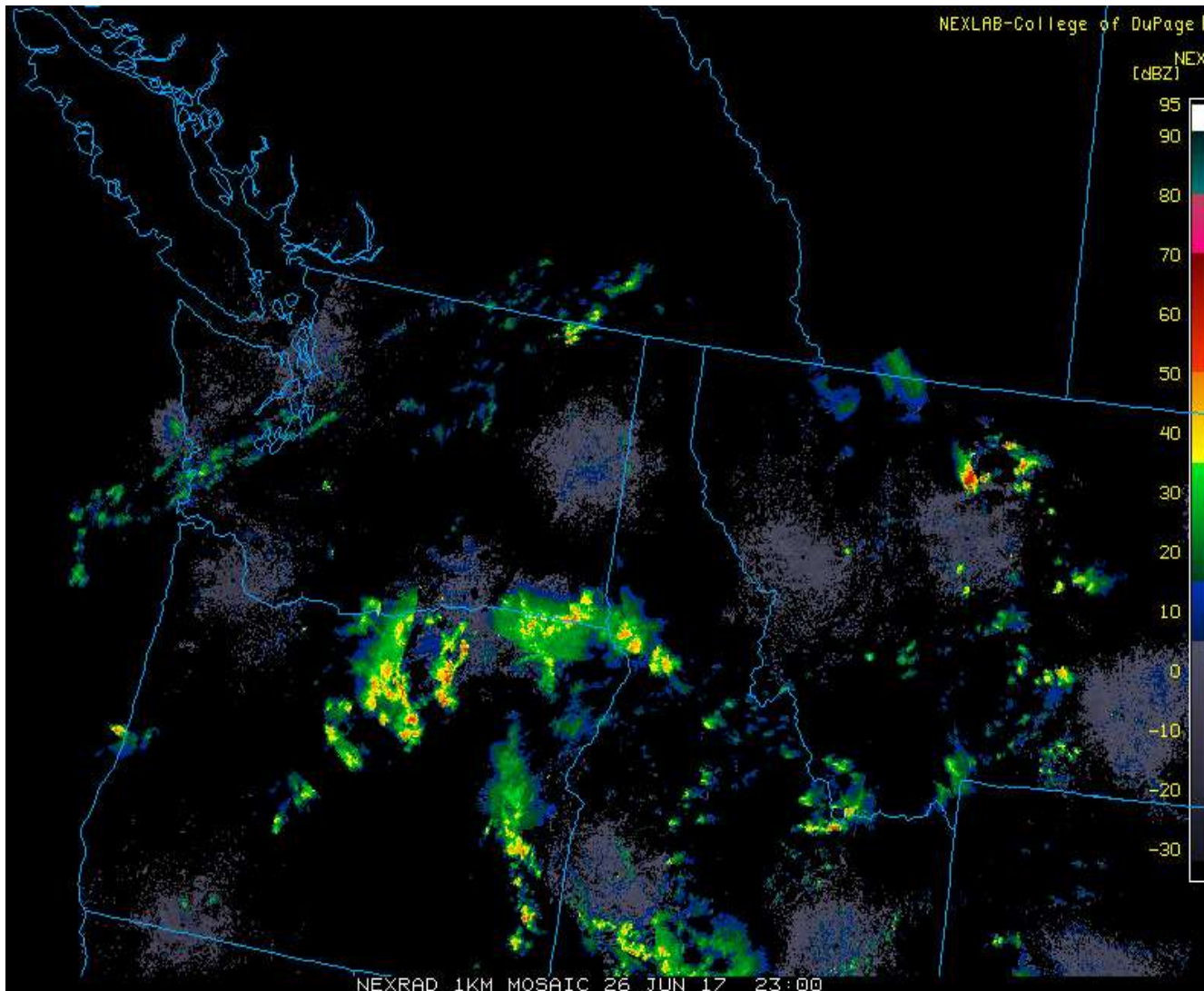
Location	Rank	2016-17 Water Year Precipitation	Record Wettest Water Year
Pendleton Airport	#2	17.80 Inches	18.45 Inches in 1977-78
Yakima, WA	#7	11.87 Inches	14.25 Inches in 1955-56
Kennewick, WA	#9	11.00 Inches	15.50 Inches in 1947-48
Pendleton (City)	#8	17.64 Inches	20.68 Inches in 1994-95
Pendleton Exp Sta.	#3	22.27 Inches	23.11 Inches in 1982-83
Richland, WA	#7	9.60 Inches	10.73 Inches in 1947-48

# Significant Summer Weather



*Crater Lake, June 2017*  
*Michael Murphy*

# Heavy Rain, T'Storms & Flash-Flooding: June 26<sup>th</sup>

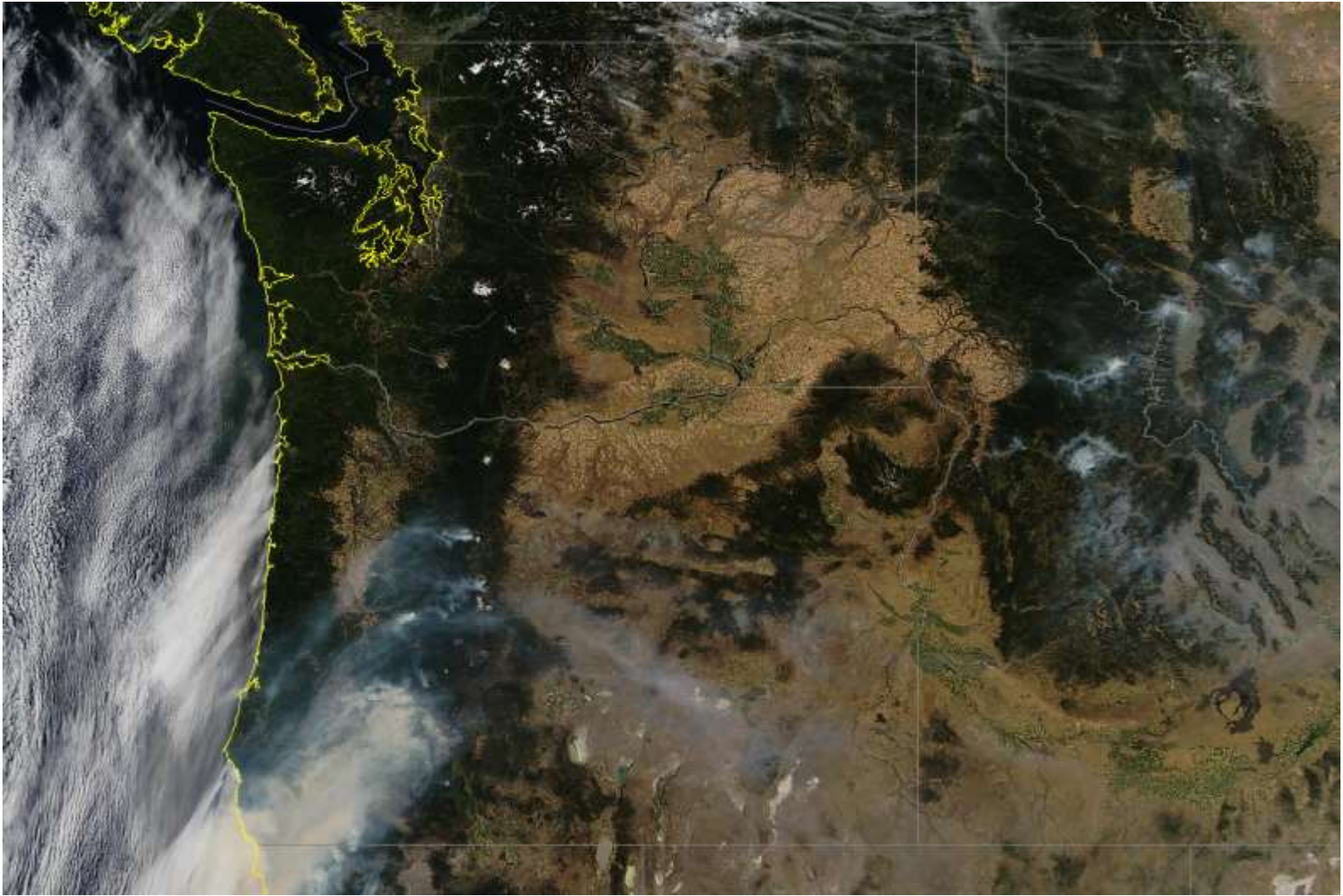


Strong to severe thunderstorms produced damaging wind gusts, hail and localized flash flooding across the region. Nearly 1 inch of rain fell, with gusts to 64 mph at the Pendleton Airport. See additional local storm reports on the next slide.

# Local Storm Reports 6/26/2017

Report Time	County	Location	Event Type	Mag.	Source	Remark
6/26/17 13:24	GRANT	3 WSW JOHN DAY	HAIL	0.50	TRAINED SPOTTER	
6/26/17 13:24	GRANT	3 WSW JOHN DAY	HEAVY RAIN	0.55	TRAINED SPOTTER	
6/26/17 13:30	GRANT	JOHN DAY	TSTM WND DMG	0.00	NEWSPAPER	MULTIPLE POWER OUTAGES DUE TO THUNDERSTORMS BETWEEN JOHN DAY AND LONG CREEK. REPORTED VIA SOCIAL MEDIA.
6/26/17 14:00	GRANT	SSW JOHN DAY	HAIL	0.75	TRAINED SPOTTER	MOSTLY DIME SIZED WITH A FEW LARGER STONES
6/26/17 14:00	GRANT	SSW JOHN DAY	HEAVY RAIN	1.00	TRAINED SPOTTER	ESTIMATED 1 INCH OF RAINFALL, 2-3 INCHES OF STANDING WATER OUTSIDE THE FEDERAL BUILDING
6/26/17 14:23	WASCO	7 N WARM SPRINGS	HAIL	1.75	PUBLIC	TRAINED SPOTTER RELAYED REPORT FROM THE PUBLIC OF GOLF BALL SIZED HAIL
6/26/17 15:30	WHEELER	2 ENE CLARNO	HAIL	1.00	PARK/FOREST SRVC	HANCOCK FIELD STATION REPORTED VERY HEAVY RAIN, HAIL ABOUT THE SIZE OF CHERRY TOMATOES OR QUARTERS, AND SOME FLOODING
6/26/17 15:35	WHEELER	2 ENE CLARNO	HAIL	1.00	PARK/FOREST SRVC	HANCOCK FIELD STATION REPORTED VERY HEAVY RAIN, HAIL ABOUT THE SIZE OF CHERRY TOMATOES OR QUARTERS, AND SOME FLOODING
6/26/17 16:30	WALLA WALLA	WALLA WALLA	TSTM WND DMG	0.00	AMATEUR RADIO	POWERLINES DOWN
6/26/17 16:36	CROOK	7 SSE PRINEVILLE	HAIL	0.50	TRAINED SPOTTER	LASTED 10 MINUTES SOME LARGER STONES RELAYED VIA AMATEUR RADIO
6/26/17 16:51	UMATILLA	PENDLETON	TSTM WND GST	64.00	ASOS	GUST TO 64 MPH AT PENDLETON AIRPORT
6/26/17 17:30	UMATILLA	PENDLETON	HEAVY RAIN	0.94	OFFICIAL NWS OBS	THUNDERSTORM PRODUCED VERY HEAVY RAIN AT THE PENDLETON AIRPORT...WITH 0.94 INCH ACCUMULATED IN 45 MINUTES...AND 0.88 INCH
6/26/17 17:40	BENTON	5 WNW RICHLAND	TSTM WND DMG	0.00	PUBLIC	PICTURES OF TREES SNAPPED OFF AT THE BASE AND UPROOTED VIA TWITTER
6/26/17 17:45	WALLA WALLA	WALLA WALLA	TSTM WND DMG	0.00	AMATEUR RADIO	POWER OUTAGE IN EASTERN WALLA WALLA ON SCHOOL AVENUE.
6/26/17 17:45	BENTON	5 NNW RICHLAND	TSTM WND GST	64.00	MESONET	
6/26/17 17:46	BENTON	WEST RICHLAND	TSTM WND GST	62.00	MESONET	
6/26/17 17:52	BENTON	3 SSW RICHLAND	HAIL	0.25	TRAINED SPOTTER	
6/26/17 17:55	BENTON	KENNEWICK	FLASH FLOOD	0.00	AMATEUR RADIO	INTERSECTION OF CANAL DRIVE AND VOLLAND STREET FLOODED.
6/26/17 18:05	BENTON	RICHLAND	NON-TSTM WND DMG	0.00	AMATEUR RADIO	TREE BLOWN DOWN ON THE NORTHBOUND LANE OF HIGHWAY 240 JUST OUTSIDE OF RICHLAND AIRPORT.
6/26/17 18:13	BENTON	4 NW WEST RICHLAND	TSTM WND GST	68.00	MESONET	
6/26/17 18:20	BENTON	5 WNW KENNEWICK	FLASH FLOOD	0.00	TRAINED SPOTTER	SPOTTER REPORTED FLASH FLOODING OCCURRING ON GAGE BLVD ABOUT HALF MILE EAST OF LESLIE RD IN RICHLAND. TRAFFIC BEING
6/26/17 18:30	BENTON	RICHLAND	NON-TSTM WND DMG	0.00	AMATEUR RADIO	POWER POLES AND TREES BLOWN DOWN ACROSS GEORGE WASHINGTON WAY.
6/26/17 18:46	BENTON	WEST RICHLAND	NON-TSTM WND DMG	0.00	AMATEUR RADIO	POWER OUTAGE AND TREES DOWN ON PRIVATE PROPERTY.
6/26/17 18:50	UMATILLA	PENDLETON	FLASH FLOOD	0.00	NWS EMPLOYEE	NWS EMPLOYEE OBSERVED DEBRIS ON AIRPORT HILL ROAD AS THE RESULT OF FLASH FLOODING EARLIER IN THE AFTERNOON.
6/26/17 18:55	BENTON	KENNEWICK	FLASH FLOOD	0.00	AMATEUR RADIO	CANAL DRIVE IS FLOODED WHERE IT GOES UNDERNEATH THE RAILROAD TRACKS NEAR THE INTERSECTION OF CANAL DRIVE AND VOLLAND
6/26/17 19:00	FRANKLIN	WSW KAHLOTUS	TSTM WND GST	67.00	MESONET	GUST TO 67 MPH BETWEEN 645 AND 7 PM
6/26/17 19:00	BENTON	KENNEWICK	HEAVY RAIN	1.05	MESONET	KENNEWICK VISTA FIELD 1.05 INCHES RAIN IN ONE HOUR.
6/26/17 19:00	UMATILLA	PENDLETON	HEAVY RAIN	1.37	ASOS	PENDLETON AIRPORT AUTOMATED SYSTEM RECORDED 1.37 INCHES RAIN IN ONE HOUR.
6/26/17 19:00	UMATILLA	PENDLETON	HEAVY RAIN	1.37	ASOS	PENDLETON AIRPORT AUTOMATED SYSTEM RECORDED A TOTAL OF 1.10 INCH OF RAIN IN TWO HOUR. CORRECTED PREVIOUS AMOUNT OF 1.37
6/26/17 19:00	UMATILLA	PENDLETON	HEAVY RAIN	1.54	CO-OP OBSERVER	NWS OFFICE AT PENDLETON AIRPORT RECEIVED 1.54 INCHES RAIN IN ONE HOUR
6/26/17 19:15	BENTON	RICHLAND	FLASH FLOOD	0.00	EMERGENCY MNGR	COLUMBIA PARK TRAIL CLOSED FROM HILLWOOD TO ROCKWOOD DUE TO SIGNIFICANT FLOODING
6/26/17 19:20	UMATILLA	PENDLETON	FLASH FLOOD	0.00	NWS EMPLOYEE	NWS EMPLOYEE OBSERVED DEBRIS ON AIRPORT HILL ROAD AS THE RESULT OF FLASH FLOODING EARLIER IN THE AFTERNOON.

# 2017 Solar Eclipse



MODIS high-resolution polar orbiting satellite image from the midday hours on Monday, August 21<sup>st</sup>. This shows clear skies over just about all of eastern Oregon and Washington during the eclipse. There are some areas of wild fire smoke noted in west-central Oregon.

# 2017 Eclipse Photos



Image Credit: Michael Murphy



Photo taken by Michael Murphy



Photo Taken By Roger Cloutier



Photo Taken By Roger Cloutier

# Numerous Air Quality Alerts Due to Smoke & Haze from Area Wildfires

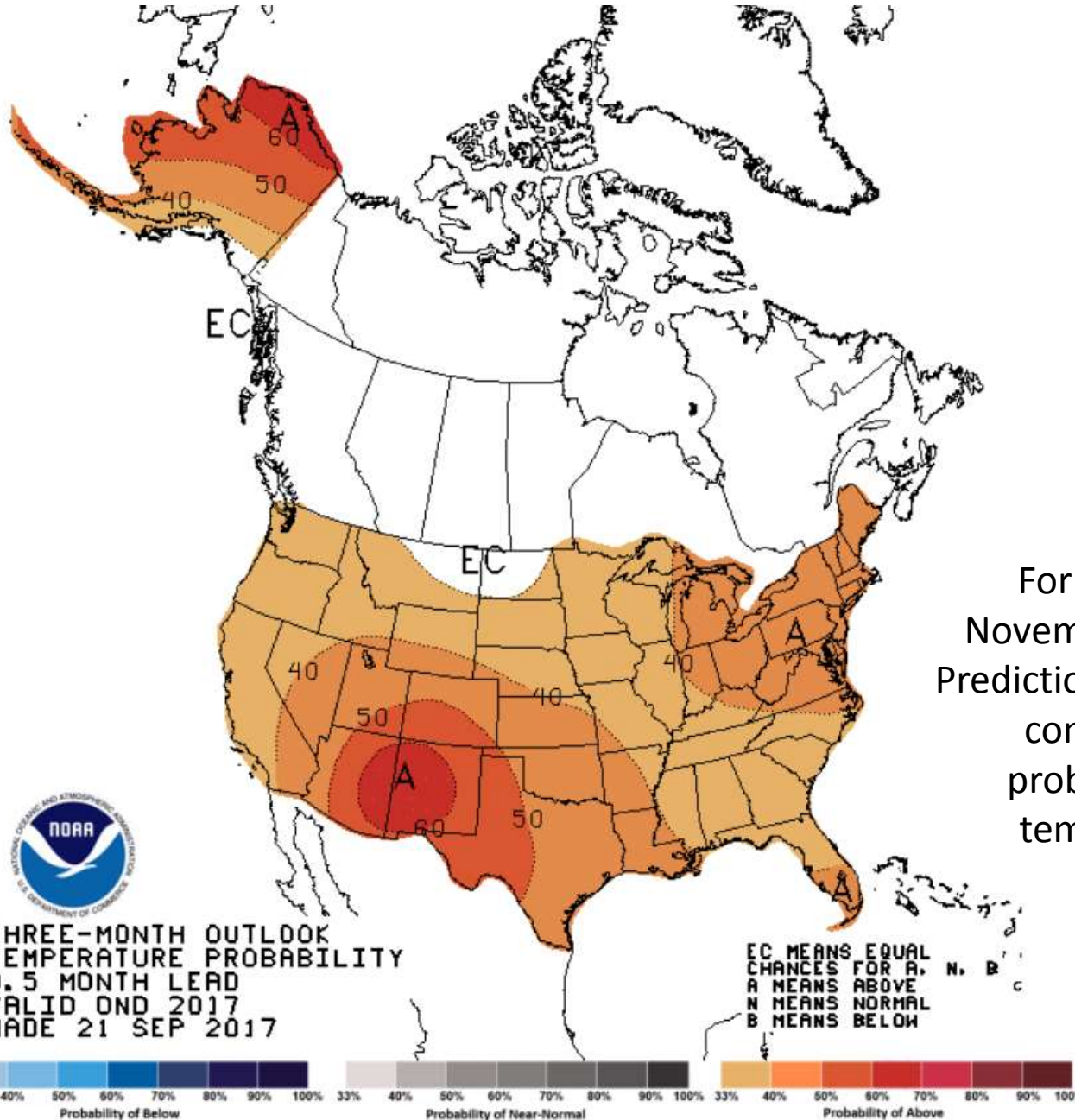


August and early September featured seemingly unending smoke and haze from both local and regional wildfires. This caused periods of unhealthy and evening very unhealthy air quality.

*Left: Interstate 84 near Pendleton, OR with thick smoke/haze nearly blocking out the afternoon sun*



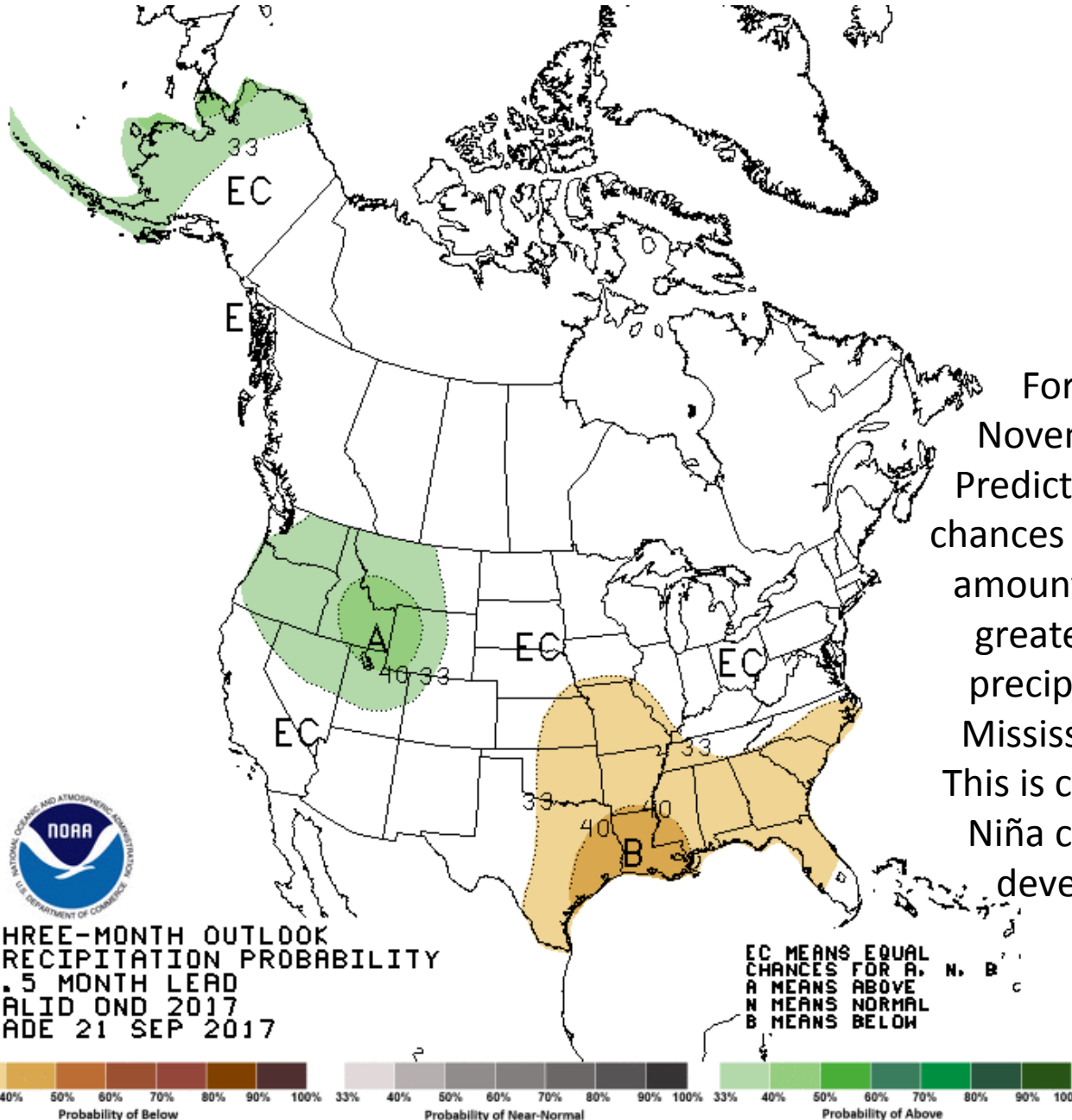
# Three Month Temperature Outlook



For the months of October—November—December the Climate Prediction Center has nearly the entire continental US under higher probabilities of above average temperatures for the period.

  
**THREE-MONTH OUTLOOK**  
**TEMPERATURE PROBABILITY**  
0.5 MONTH LEAD  
VALID OND 2017  
MADE 21 SEP 2017

# Three Month Precipitation Outlook



For the months of October—November–December the Climate Prediction Center is indicating higher chances for above average precipitation amounts in the Northwest. There are greater chances for below average precipitation amounts in the Lower Mississippi Valley and Southeast US. This is consistent with the expected La Niña conditions that are forecast to develop in the late fall & winter.



THREE-MONTH OUTLOOK  
PRECIPITATION PROBABILITY  
0.5 MONTH LEAD  
VALID OND 2017  
MADE 21 SEP 2017

# ENSO Update: CPC Issues [La Niña Watch](#) (September 14<sup>th</sup> 2017)

**Synopsis:** There is an increasing chance (~55-60%) of La Niña during the Northern Hemisphere fall and winter 2017-18.

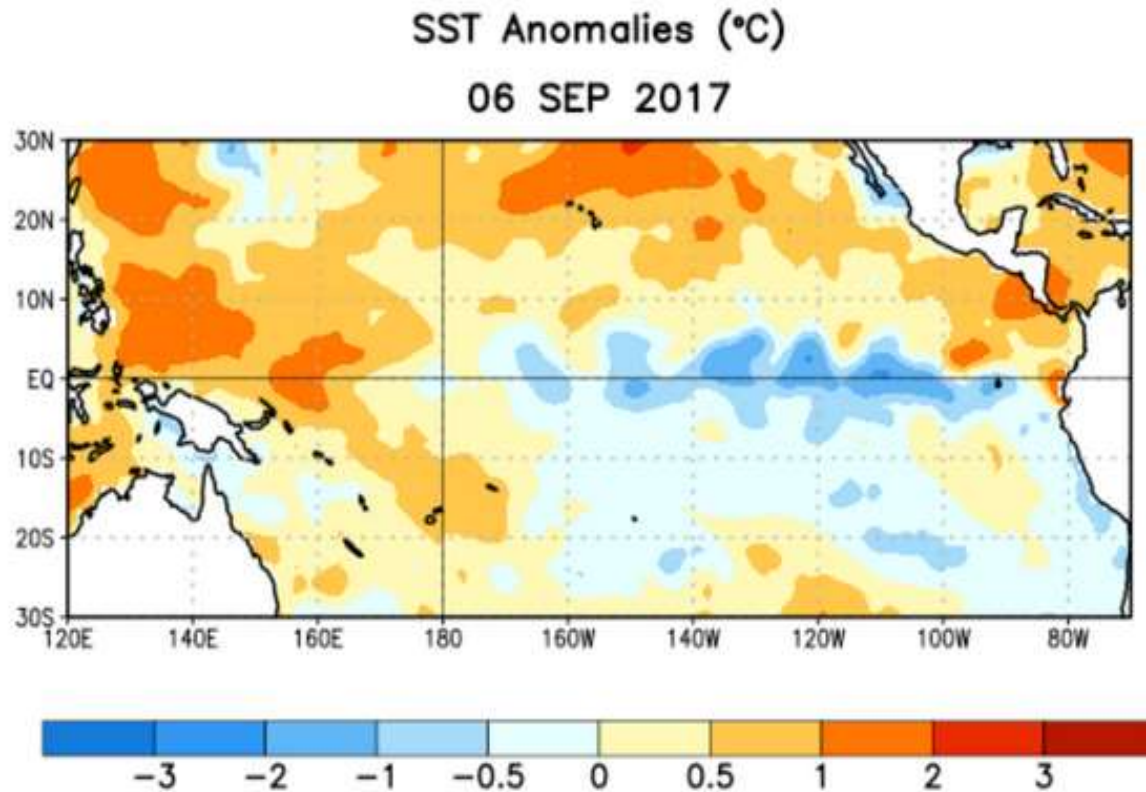


Figure 1. Average sea surface temperature (SST) anomalies (°C) for the week centered on 6 September 2017. Anomalies are computed with respect to the 1981-2010 base period weekly means.



*Yaquina Head Lighthouse  
June 2017, Michael Murphy*