

# OKLAHOMA MONTHLY CLIMATE SUMMARY

## August 2008



August was a wet month for most of the state as record-setting precipitation fell over parts of central and southern Oklahoma. Oklahoma City in particular set several precipitation records, including their All-time August rainfall total and all-time August daily rainfall total. Statewide, the wet weather propelled the month to the 18th wettest August on record. The rain and associated cloud cover helped the month finish as the 27th coolest August on record as well. The only area not enjoying the abundant moisture was north central Oklahoma which suffered its 25th driest August on record. Oklahoma City's official total of nearly 10 inches for the month breaks the old record for August rainfall set in 1906. Severe weather was sporadically reported. Large hail and high winds did occur, but flooding was the most frequent severe weather type. The year's high temperature of 110 degrees was reported at Freedom on the fourth. The highest rainfall total was recorded at Waurika, which came in with nearly 12 inches.

### Precipitation

The statewide average precipitation total for August was more than four inches, a surplus of well over an inch. All the regions of the state had precipitation surpluses save for north central Oklahoma, which had a deficit of over an inch. The summer season ended as the 23rd wettest statewide with a surplus of nearly three inches. The northeast in particular had a very wet summer, the third wettest on record, in fact, over eight inches above normal. The northeast's January-August period was even wetter with a surplus of over 16 inches, the wettest such period on record. The state as a whole experienced its 15th wettest January-August on record. Only the Panhandle was drastically dry over that period with a four-inch departure, the 20th driest such period on record.

### Temperature

August was cooler than normal, of course, as most rainy summer months are, to the tune of about a degree and a half. The summer managed to finish just a tad below normal, the 51st coolest on record. The January-August period was similar to the summer season at just a bit above normal to rank as the 47th warmest such period on record.

### August 2008 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	110°F	Freedom	4
Low Temperature	55°F	Kenton	16
High Precipitation	11.75 in.	Waurika	
Low Precipitation	0.66 in.	Newkirk	

### August Daily Highlights

**August 1-6:** The first six days of August were scorching hot with very little rainfall and plenty of sunny skies. High pressure dominated the region and kept the temperatures well into triple-digits across Oklahoma. The state's highest temperature of the summer – and year – occurred at Freedom on the fourth with a reading of 110 degrees. Cloudiness from tropical storm Edouard allowed for a relatively minor cool down on the sixth. High temperatures on that day remained in the 90s for the most part, a welcome respite from the 100s of the previous five days.

**August 7-11:** A stormy five day period brought heavy rains to eastern Oklahoma where more than seven inches fell in localized areas. Heavy rains were accompanied by large hail and strong winds in some instances. Most of the storms formed along a frontal boundary which had slipped into the state from the north. That boundary separated high temperatures in the 70s in the north and 90s in the south. Flash flooding was reported with the storms in central Oklahoma on the 11th.

**August 12-13:** Temperatures remained below normal in areas that had received plentiful rainfall the previous few days, and struggled to reach 80 degrees in the northeast. Highs reached the upper 90s in other areas, however. Low temperatures the next morning were 5-10 degrees below normal with some upper 50s reported. High temperatures returned to the 90s nearly statewide that afternoon.

**August 14-17:** Another rainy period, but the area receiving the most moisture was western Oklahoma this go around. The Oklahoma Mesonet site at Kenton recorded nearly four inches of rain during these four days. The storms began on the 14th with development noted along an outflow boundary from storms in southern Kansas. Southwestern Oklahoma garnered 1-2 inches as well. Temperatures were cool for mid-August, with 80s registered across the area for high temperatures.

**August 18-21:** Southern and central sections of Oklahoma received very heavy rains during these four days. Waurika recorded nearly 10 inches during this time, while other areas in the south had between five and seven inches. The rains began on the 18th. Walters and Waurika both registered more than six inches that day. Most of the rain was the result of an upper-level low pressure system spinning over the Texas and Oklahoma Panhandles. The rains continued into the 19th as the upper-level low shifted to the southwest. El Reno had nearly four inches, and Waurika once again received over three inches. Rain fell overnight on the 20th and the 21st. Temperatures began to warm up on the 20th and 21st as the rain lessened. Highs went from the 70s and 80s to the 80s and 90s by the end of the period.

**August 22-28:** Very little rain fell during these seven days. The most notable weather feature was the return of the summertime blues...and heat. The 90s and 100s resumed starting on the 22nd. A few storms popped up from time to time, but the most abundant natural resource during this period was sunshine. Drier and cooler air moved into the state from the north on the 25th but did not stick around long. That made for a wonderful autumn-like morning on the 26th with lows in the 50s and 60s. The heat once again returned by the 27th and 28th, however, with highs back into the upper 90s and 100s.

**August 29-31:** Heavy rains fell on the 29th as a cold front sagged into the state from the northwest. High winds and large hail accompanied the storms, which were slow-moving. Seiling had over three inches to lead the state. Those storms formed once again in the hot and humid air on the 30th. Central Oklahoma received a good soaking of about an inch, on average. The month's last day was very pleasant, with lows in the 60s and 70s and highs in the 80s.

<b>August 2008 Statewide Statistics</b>			
<b>Temperature</b>			
	<b>Average</b>	<b>Depart.</b>	<b>Rank (1895-2008)</b>
Month (August)	78.9°F	-1.5°F	27th Coolest
Season-to-Date (Jun-Aug)	79.4°F	-0.1°F	51st Coolest
Year-to-Date (Jan-Aug)	61.9°F	0.1°F	47th Warmest
<b>Precipitation</b>			
	<b>Total</b>	<b>Depart.</b>	<b>Rank (1895-2008)</b>
Month (August)	4.38 in.	1.61 in.	18th Wettest
Season-to-Date (Jun-Aug)	12.47 in.	2.70 in.	23rd Wettest
Year-to-Date (Jan-Aug)	28.70 in.	4.04 in.	15th Wettest
Depart. = Departure from 30-year normal			

## Record Event Reports

<b>Description</b>	<b>Day</b>	<b>Location</b>	<b>Record</b>	<b>Previous Record</b>	<b>Year</b>
Maximum Temperature (tied)	3	Oklahoma City	106 degrees	106 degrees	1930
Maximum Temperature	4	Oklahoma City	106 degrees	105 degrees	1918
Daily Rainfall	11	Oklahoma City	4.62 inches	2.86 inches	1892
All-Time August Daily Rainfall	11	Oklahoma City	4.62 inches	3.82 inches	2007
All-Time August Rainfall		Oklahoma City	9.51 inches	8.34 inches	1906
Coldest Maximum Temperature	19	Oklahoma City	70 degrees	72 degrees	1915
Maximum Temperature	3	McAlester	105 degrees	103 degrees	1956

## August 2008 Severe Weather

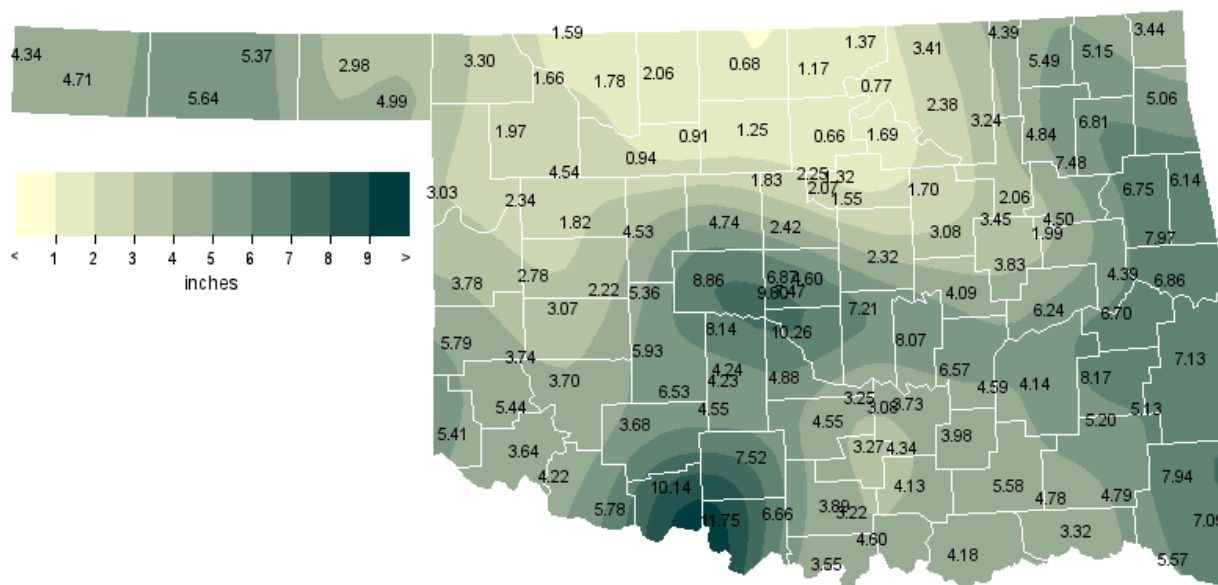
### Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
71	Alva Mesonet	Woods	5

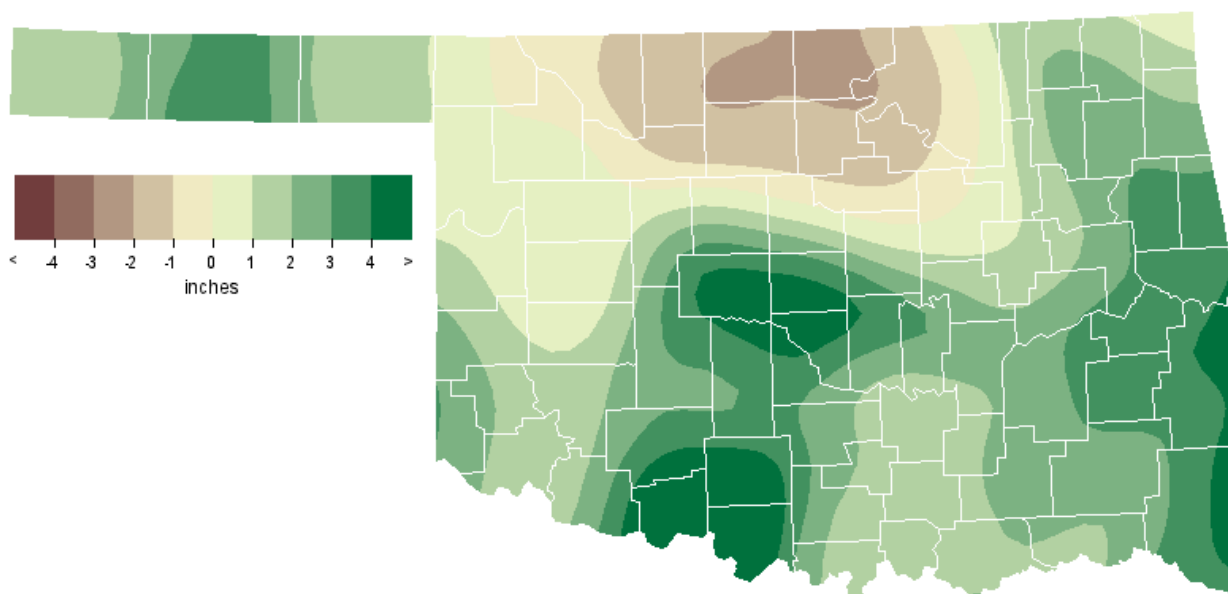
### Flooding

Location	County	Day
Shawnee	Pottawatomie	11
Norman	Cleveland	11
Oklahoma City	Oklahoma	11
Hanna	McIntosh	11
Crowder	Pittsburg	11
Eufaula	McIntosh	11
Vian	Sequoyah	12
2 NW Faxon	Comanche	18
5 S Elmwood	Beaver	18
6 E Elmwood	Beaver	18
5 E Waurika	Jefferson	19
5 S Waurika	Jefferson	19
Waurika	Jefferson	19
Oklahoma City	Oklahoma	19
El Reno	Canadian	19
5 ESE El Reno	Canadian	19

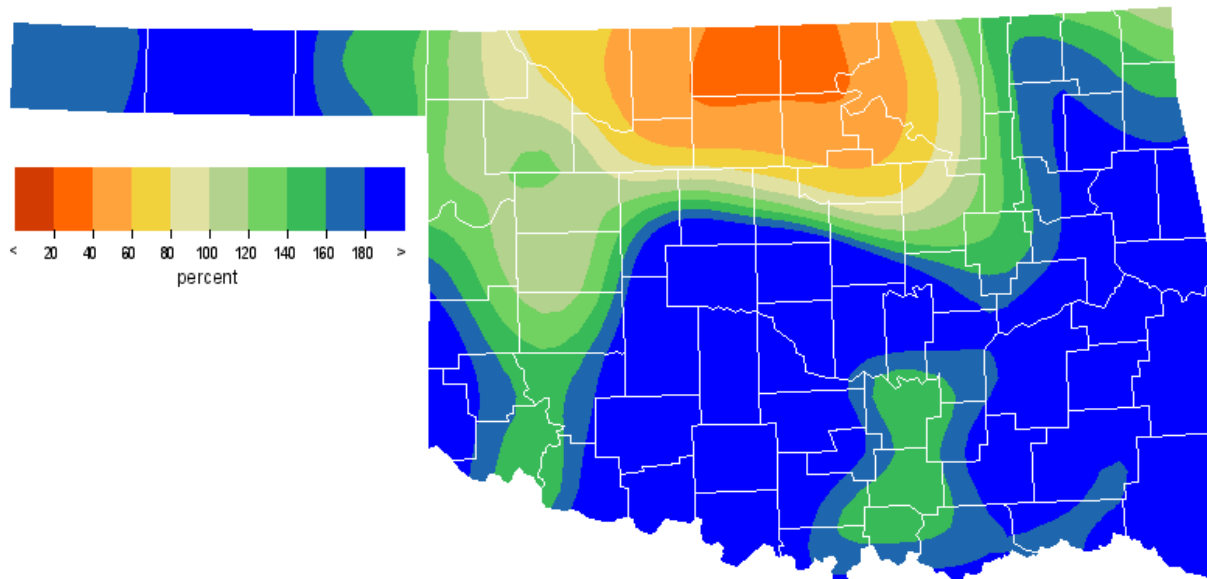
## August 2008 Observed Precipitation



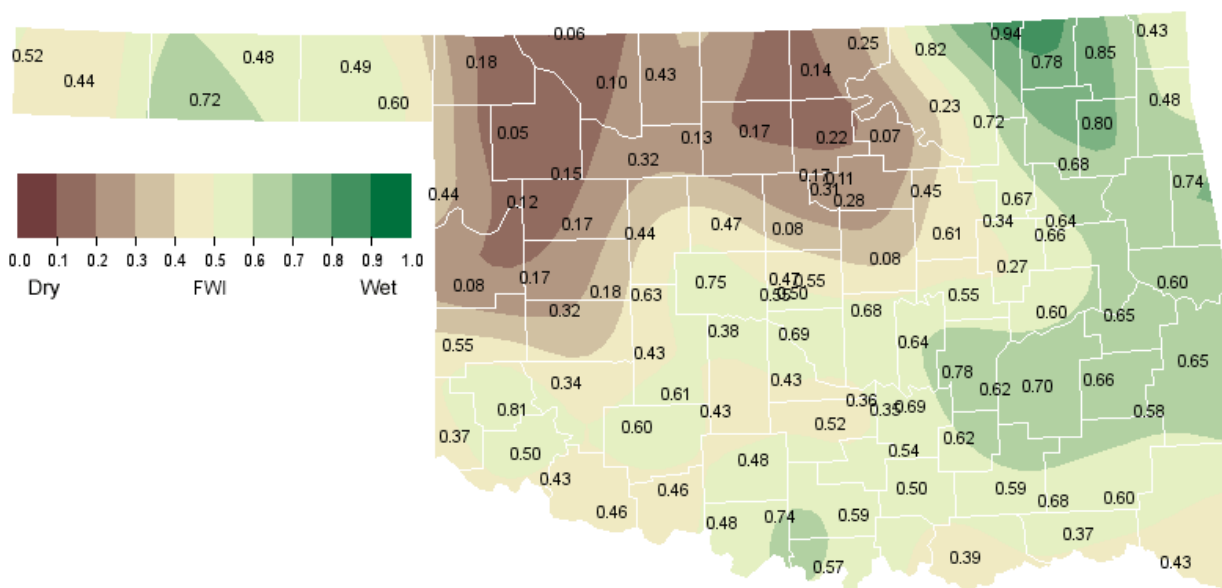
## August 2008 Departure from Normal Precipitation



## August 2008 Percent of Normal Precipitation



## August 2008 Average Soil Moisture at 25cm





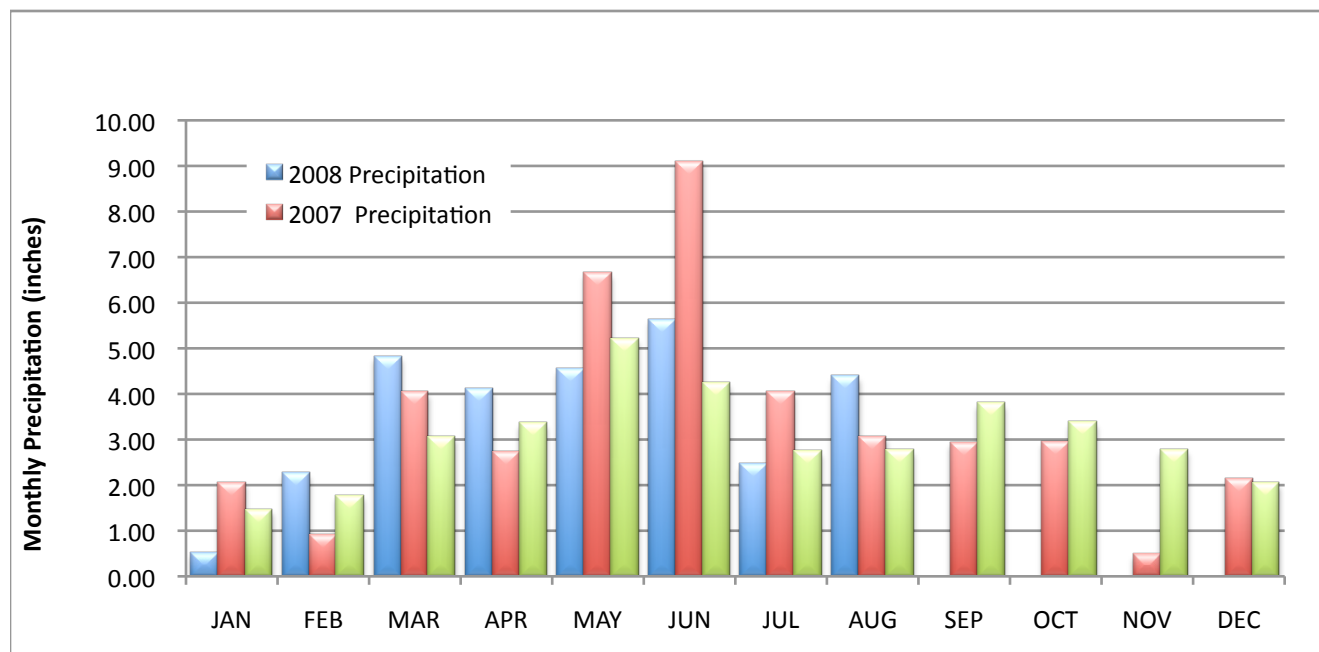
# Mesonet Monthly Summary for August 2008

NAME	MEAN HIGH			LOW			TOT HIGH			NAME	MEAN HIGH			LOW			TOT HIGH				
	TEMP	TEMP	DAY	TEMP	DAY	HDD	CDD	PPT	24-HR		DAY	TEMP	TEMP	DAY	TEMP	DAY	HDD	CDD	PPT	24-HR	DAY
<b>PANHANDLE</b>																					
Arnett	77.8	104	4	58	21	0	398	3.03	1.00	18	Goodwell	75.2	101	1	57	20	5	321	5.64	1.68	18
Beaver	77.7	105	4	59	30	****	****	2.98	1.64	18	Hooker	77.0	106	1	58	18	1	372	5.37	4.16	18
Boise City	73.2	99	1	56	15	11	265	4.71	1.41	18	Kenton	73.8	101	1	55	16	16	290	4.34	1.81	16
Buffalo	79.1	108	4	58	16	0	437	3.30	1.32	18	Slapout	77.0	104	4	59	21	3	374	4.99	3.38	18
<b>NORTH CENTRAL</b>																					
Alva	79.6	108	4	58	26	0	451	1.78	.98	5	May Ranch	78.8	107	4	59	26	****	****	1.59	.81	25
Blackwell	78.7	104	4	57	26	0	424	1.17	.35	20	Medford	79.4	106	4	60	26	0	448	.68	.51	14
Breckinridge	79.1	104	4	56	26	0	438	****	.70	14	Newkirk	77.8	101	4	60	26	0	396	1.37	.84	9
Cherokee	79.5	107	4	56	26	0	450	2.06	1.34	9	Red Rock	79.4	103	4	57	26	0	446	.66	.23	14
Fairview	81.1	108	4	57	26	0	500	.94	.32	19	Seiling	78.5	106	4	57	26	0	419	4.54	3.04	29
Freedom	79.5	110	4	58	26	0	448	1.66	.43	25	Woodward	78.5	106	4	60	21	0	419	1.97	.70	25
Lahoma	79.3	105	4	60	17	****	****	.91	.40	29											
<b>NORTHEAST</b>																					
Bixby	78.8	102	3	62	26	0	428	2.06	.65	10	Nowata	76.8	99	2	59	25	0	367	5.49	2.35	9
Burbank	78.1	101	4	58	26	0	407	.77	.20	29	Pawnee	79.2	103	4	59	26	0	441	1.69	.81	20
Claremore	78.7	102	3	61	25	0	424	4.84	1.88	10	Porter	78.8	102	3	63	14	0	429	4.50	1.55	10
Copan	77.1	99	3	60	25	0	375	4.39	2.39	9	Pryor	77.3	99	3	60	26	0	382	6.81	3.34	9
Foraker	76.3	98	4	58	26	0	351	3.41	1.60	9	Skiatook	78.2	100	3	62	25	0	410	3.24	1.35	10
Inola	77.0	98	3	61	14	0	371	7.48	2.99	10	Vinita	76.6	98	3	59	26	0	361	5.15	2.32	9
Jay	76.9	100	4	57	18	0	369	5.06	1.93	9	Wynona	78.3	102	4	60	25	0	412	2.38	.86	9
Miami	76.7	98	3	57	18	0	363	3.44	1.06	9											
<b>WEST CENTRAL</b>																					
Bessie	79.5	106	4	62	21	0	450	3.07	1.42	18	Putnam	78.4	104	4	60	26	0	415	1.82	.89	19
Butler	79.1	105	4	61	26	0	438	2.78	.87	18	Retrop	79.6	104	4	61	19	0	452	3.74	1.23	14
Camargo	78.4	106	5	60	26	0	414	2.34	.63	29	Watonga	78.6	105	4	62	26	0	423	4.53	2.27	11
Cheyenne	77.9	103	5	61	21	0	400	3.78	.99	14	Weatherford	79.4	104	4	63	17	0	445	2.22	.94	19
Erick	78.5	105	4	59	21	0	418	5.79	1.46	18											
<b>CENTRAL</b>																					
Acme	79.5	105	3	58	13	0	451	4.55	1.76	18	Ninnekah	80.1	106	3	61	13	0	468	4.23	1.54	19
Bowlegs	79.4	105	3	61	14	0	446	8.07	5.47	11	Norman	79.8	104	3	64	26	0	458	10.26	3.73	11
Bristow	77.5	101	3	58	26	0	387	3.08	2.02	11	Oilton	78.3	103	4	57	26	****	****	1.70	.70	20
Lake Carl Blac	78.7	102	4	57	26	0	425	2.25	.87	14	OKC East	79.7	104	4	62	26	0	457	7.47	2.54	19
Chandler	79.4	103	4	63	26	0	445	2.32	.88	11	OKC North	80.2	104	4	63	26	0	473	6.87	2.71	19
Chickasha	79.2	104	4	60	17	0	440	4.24	1.86	18	OKC West	81.3	103	4	66	26	0	507	9.80	2.55	11
El Reno	77.8	102	4	58	26	0	397	8.86	3.43	19	Okemah	78.8	104	3	62	14	0	428	4.09	1.89	11
Guthrie	79.9	105	4	61	26	0	461	2.42	1.18	19	Perkins	80.0	104	4	61	26	0	466	1.55	.53	9
Kingfisher	79.9	106	4	59	26	0	461	4.74	2.04	19	Shawnee	79.3	105	4	63	26	0	445	7.21	5.58	11
Marena	78.8	102	4	60	26	0	429	2.07	.52	9	Spencer	79.1	104	3	61	26	0	438	4.60	1.52	19
Minco	78.9	102	4	63	17	0	432	8.14	4.50	18	Stillwater	80.4	104	4	58	26	0	478	1.32	.50	14
Marshall	79.7	105	4	56	26	0	454	1.83	.54	29	Washington	78.7	105	4	62	26	0	426	4.88	2.27	19
<b>EAST CENTRAL</b>																					
Calvin	78.5	102	4	61	14	0	417	6.57	3.24	11	Sallisaw	79.4	105	3	62	14	0	447	6.86	2.25	10
Cookson	76.8	103	4	58	14	0	365	7.97	3.12	10	Stigler	78.6	103	3	61	14	0	422	6.70	2.11	11
Eufaula	79.7	105	4	63	14	0	457	6.24	3.81	11	Stuart	78.9	104	3	62	14	0	432	4.59	2.26	10
Haskell	78.7	102	3	62	14	0	424	1.99	.64	11	Tahlequah	78.1	103	3	61	14	0	406	6.75	2.54	10
Hectorville	79.2	103	3	64	26	0	440	3.45	1.67	11	Webbers Falls	79.9	104	3	63	14	0	461	4.39	1.88	11
McAlester	79.0	104	4	61	14	0	433	4.14	2.29	11	Westville	76.9	101	4	59	14	0	369	6.14	2.67	9
Okmulgee	78.6	103	3	61	14	0	423	3.83	1.48	11											
<b>SOUTHWEST</b>																					
Altus	80.2	103	5	65	21	0	472	3.64	1.05	18	Hollis	80.2	105	4	64	21	0	472	5.41	1.49	30
Apache	79.3	104	4	62	13	0	442	6.53	2.14	18	Mangum	79.3	105	4	61	21	0	443	5.44	3.47	18
Fort Cobb	78.5	102	3	62	26	0	418	5.93	2.88	19	Medicine Park	80.0	103	4	64	19	0	465	3.68	1.59	18
Grandfield	82.4	108	4	65	13	0	539	5.78	3.11	18	Tipton	81.6	105	4	64	13	0	514	4.22	1.77	18
Hinton	78.6	105	4	62	17	0	423	5.36	2.17	11	Walters	81.5	108	4	64	13	0	512	10.14	6.37	18
Hobart	80.3	105	4	64	26	0	475	3.70	.99	18											
<b>SOUTH CENTRAL</b>																					
Ada	79.4	105	3	61	14	0	445	3.73	1.27	10	Madill	81.4	105	3	65	14	0	507	4.60	2.20	11
Ardmore	80.5	105	3	63	16	****	****	3.22	.80	18	Newport	81.5	106	3	64	13	0	510	3.89	1.04	11
Burneyville	81.0	106	3	62	13	0	497	3.55	1.13	19	Pauls Valley	80.4	105	4	63	17	0	476	4.55	1.33	19
Byars	79.6	105	3	63	26	0	454	3.25	.92	18	Ringling	81.1	106	3	65	13	0	500	6.66	1.75	18
Centrahoma	****	***	***	***	***	****	****	3.98	.89	20	Sulphur	79.4	104	3	60	13	0	445	3.27	1.66	14
Durant	80.6	104	3	66	16	0	485	4.18	1.39	11	Tishomingo	79.4	104	3	64	14	0	447	4.13	1.30	14
Fittstown	78.4	103	3	63	17	0	415	4.34	1.69	14	Vanoss	79.0	104	3	59	14	0	434	3.08	1.00	7
Ketchum Ranch	82.0	108	4	64	13	0	528	7.52	3.53	18	Waurika	81.2	107	4	64	19	0	503	11.75	6.29	18
Lane	79.3	103	3	63	14	0	443	5.58	1.05	15											
<b>SOUTHEAST</b>																					
Antlers	79.2	104	3	61	14	0	439	4.78	2.21	11	Idabel	79.6	104	3	65	14	0	454	5.57	1.27	11
Broken Bow	78.7	105	3	63	14	0	424	7.09	2.69	11	Mt Herman	78.4	104	3	62	14	0	415	7.94	2.57	9
Clayton	80.2	107	3	61	14	0	472	5.20	1.90	11	Talihina	79.7	107	3	60	14	0	456	5.13	1.32	11
Cloudy	78.7	103	3	63	14	0	423	4.79	1.94	11	Wilburton	79.3	106	4	61	14	0	445	8.17	5.16	11
Hugo	79.5	102	3	64	16	0	449	3.													

## August 2008 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Aug-07
Panhandle	4.29	1.79	12th Wettest	5.68 (1977)	0.47 (1913)	1.59
North Central	1.58	-1.47	25th Driest	7.69 (1974)	0.09 (1913)	1.78
Northeast	4.05	0.87	39th Wettest	8.03 (1964)	0.02 (2000)	2.49
West Central	3.34	0.62	35th Wettest	7.25 (2005)	0.05 (1913)	3.84
Central	4.86	2.23	15th Wettest	7.21 (1906)	0.03 (2000)	4.94
East Central	5.36	2.49	16th Wettest	6.89 (1915)	0.00 (2000)	3.89
Southwest	5.44	2.75	10th Wettest	8.01 (1996)	0.00 (1913)	4.57
South Central	4.78	2.24	17th Wettest	8.46 (1915)	0.01 (2000)	2.75
Southeast	5.91	3.20	12th Wettest	8.73 (1915)	0.19 (1943)	1.51
Statewide	4.38	1.61	18th Wettest	6.54 (1906)	0.14 (2000)	3.07

## 2007 and 2008 Statewide Precipitation Monthly Totals vs. Normal

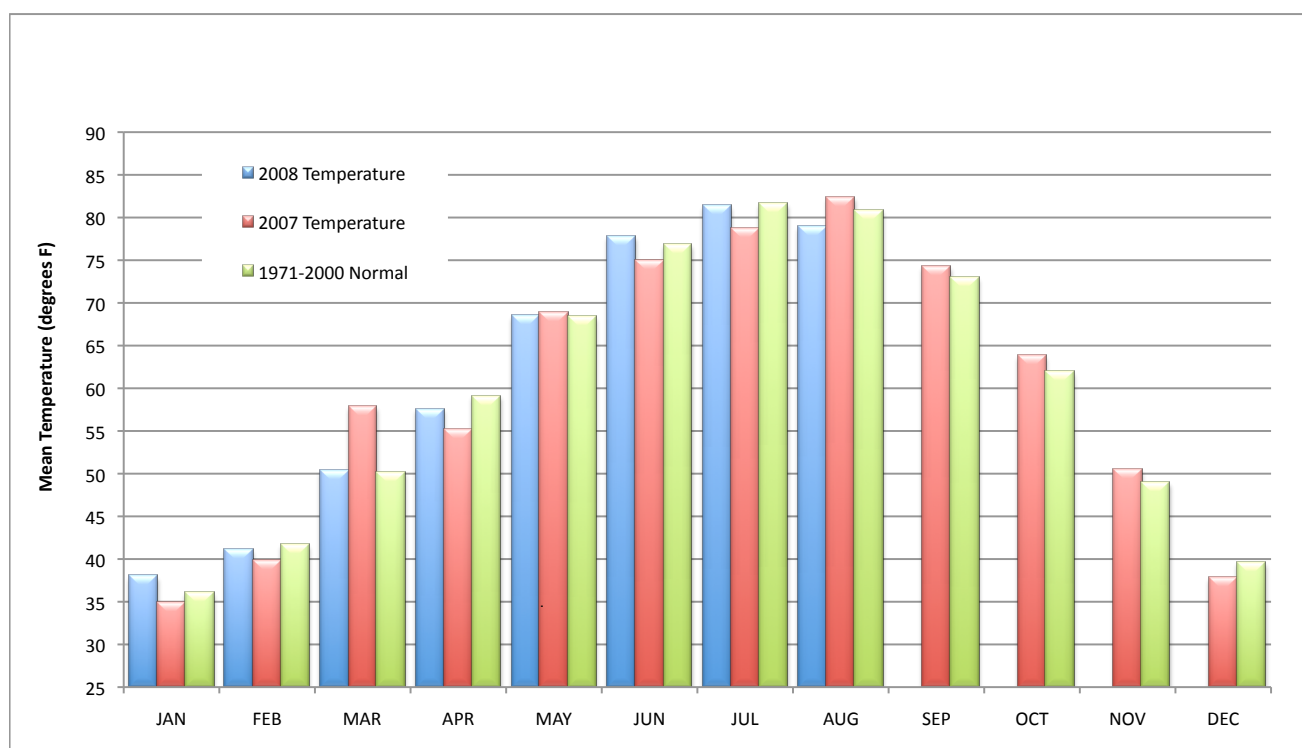




## August 2008 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Aug-07 (F)
Panhandle	76.4	-1.4	26th Coolest	83.1 (1983)	71.3 (1915)	80.9
North Central	79.2	-1.5	33rd Coolest	88.9 (1936)	72.3 (1915)	83.1
Northeast	77.7	-2.1	27th Coolest	88.4 (1936)	71.7 (1915)	82.6
West Central	78.8	-1.4	27th Coolest	87.4 (1936)	72.9 (1915)	81.6
Central	79.4	-1.6	32nd Coolest	88.3 (1936)	73.1 (1915)	82.7
East Central	78.6	-1.8	29th Coolest	88.0 (1936)	73.0 (1915)	82.7
Southwest	80.2	-1.6	25th Coolest	88.1 (1952)	75.4 (1915)	82.5
South Central	80.2	-1.6	32nd Coolest	87.6 (1934)	75.5 (1915)	82.7
Southeast	79.2	-1.1	37th Coolest	87.3 (1943)	74.5 (1915)	82.3
Statewide	78.9	-1.5	27th Coolest	87.2 (1936)	73.2 (1915)	82.4

## 2007 and 2008 Statewide Temperature Monthly Averages vs. Normal



## Mesonet Extremes for August 2008

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	108	4th	Buffalo	55	16th	Kenton	5.64	Goodwell	4.16	18th	Hooker
North Central	110	4th	Freedom	56	26th	Breckinridge	4.54	Seiling	3.04	29th	Seiling
Northeast	103	4th	Pawnee	57	18th	Jay	7.48	Inola	3.34	9th	Pryor
West Central	106	5th	Camargo	59	21st	Erick	5.79	Erick	2.27	11th	Watonga
Central	106	3rd	Ninnekah	56	26th	Marshall	10.26	Norman	5.58	11th	Shawnee
East Central	105	3rd	Sallisaw	58	14th	Cookson	7.97	Cookson	3.81	11th	Eufaula
Southwest	108	4th	Walters	61	21st	Mangum	10.14	Walters	6.37	18th	Walters
South Central	108	4th	Ketchum Ranch	59	14th	Vanoss	11.75	Waurika	6.29	18th	Waurika
Southeast	107	3rd	Wister	60	14th	Talihina	8.17	Wilburton	5.16	11th	Wilburton
Statewide	110	4th	Freedom	55	16th	Kenton	11.75	Waurika	6.37	18th	Walters

# September Climatological Outlook

Summer's heat fades as precipitation increases across most of Oklahoma during September. The statewide-averaged normal temperature for the month, 73.0 degrees, makes September the 4th warmest month of the year. As such, climatologists consider it to be the first month of the autumn transitional season. Monthly precipitation decreases in extreme northwestern portions of the state, even as the rest of the state enjoys a second rainy season. Normal monthly precipitation, averaged statewide, is 3.80 inches, an increase of more than one inch over either of the two previous months. An increasing frequency of fronts, bringing cooler air from the northern plains, leads to the lower temperatures, an effect that often isn't apparent before the middle of the month.

## Temperature

Mean: 73.0 degrees  
Hottest September: 1931, 79.8 degrees  
Coolest September: 1974, 64.7 degrees  
Hottest location: Waurika, 76.8 degrees  
Coolest location: Boise City, 68.0 degrees  
Hottest recorded: 115 degrees, Alva,  
September 3, 1939 and 1947  
Coldest recorded: 25 degrees, Boise City,  
September 30, 1985

Freezes are uncommon in September, but stations in the extreme northwest experience a freeze before the end of September in about 10 percent of years. The earliest reported freeze is September 15, in 1993 at Freedom (28 degrees), Gage (30 degrees), and Hammon (30 degrees), and in 1947 at Kenton (31 degrees). Hot weather is most evident in the southwest. Chattanooga averages 16 days in September with a high temperature of 90 degrees or more, including four days in which the temperature reaches 100 degrees or more. Conversely, Kansas and Stilwell each average only six September days with the high temperature in the 90s. Triple digit temperatures occur only about once every third year at Miami, Kenton, and Boise City.

Statewide-averaged precipitation has varied between 0.27 inch in 1956 and 7.86 inches in 1945. Wyandotte recorded 16.82 inches in September 1945 to hold the monthly state record. The record daily precipitation at a regular reporting

station is the 10.42 inches reported at Barnsdall on September 29, 1986. Snow is rare in September, But Boise City reported 4 inches for the month in 1984 and Kenton recorded 3 inches on September 17, 1971, the earliest snowfall in the state since at least 1910.

## Precipitation

Mean: 3.80 inches  
Wettest September: 1945, 7.86 inches  
Driest September: 1956, 0.27 inches  
Wettest location: Kansas, 5.56 inches  
Driest location: Regnier, 1.44 inches  
Most recorded: 16.82 inches, Wyandotte, 1945

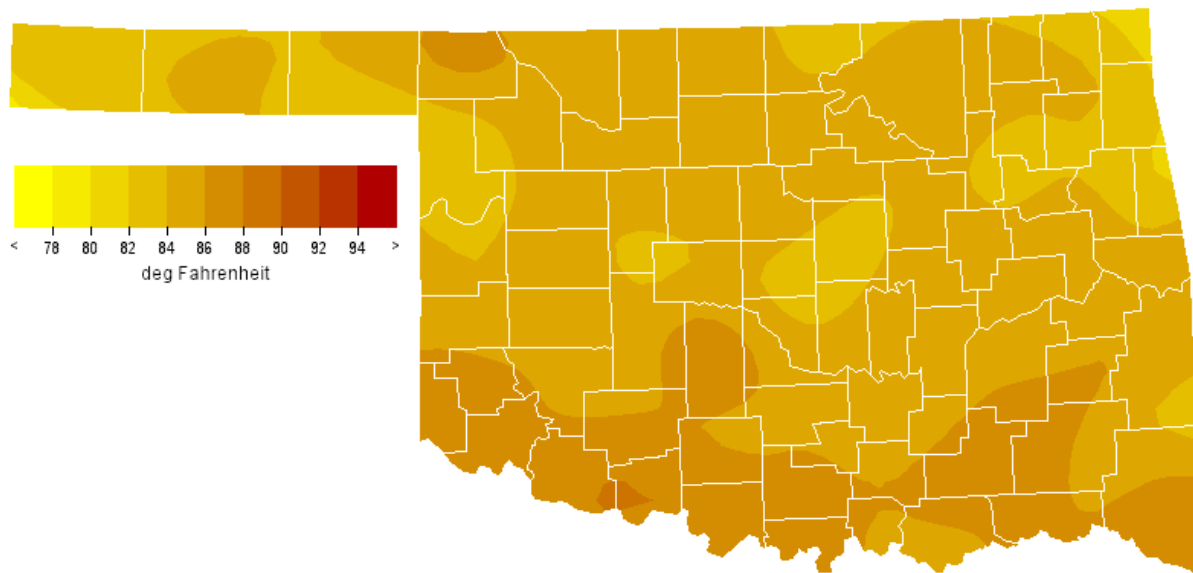
Tornadoes are slightly more frequent in September, averaging 2.1 each year, than they are during the previous two months. The most tornadoes reported in the state during September is 16 in 1992. No tornadoes were reported in the state during September in 18 of 52 years from 1950 through 2001 (the period of comprehensive records). Two people killed in Pottawattomie County on September 14, 1957 are the only tornado-related deaths recorded in September during that period.

## Tornadoes

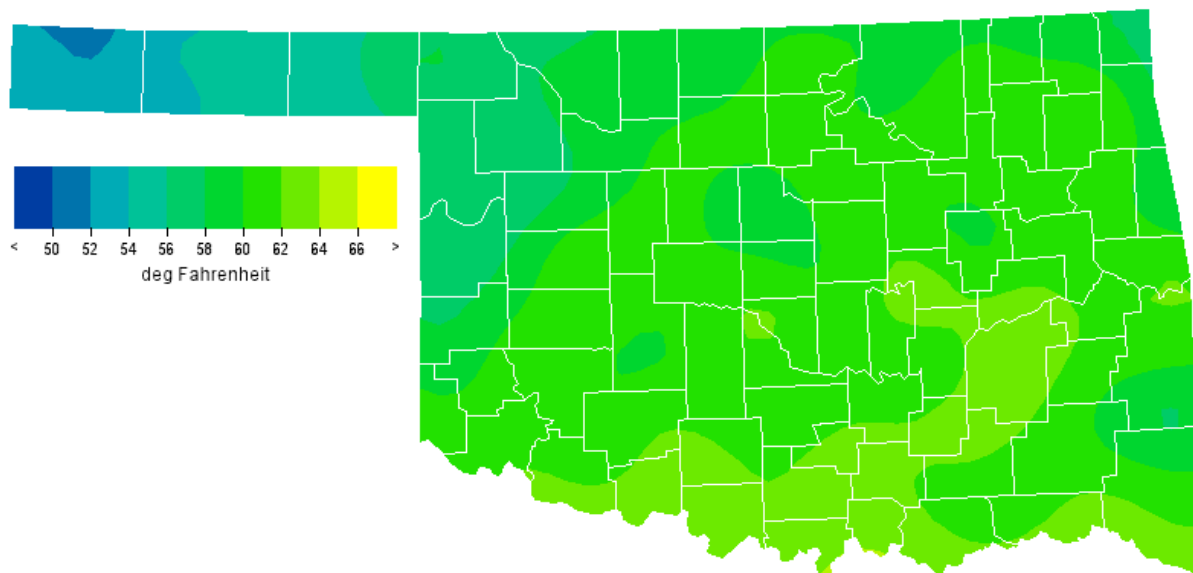
Average September Tornadoes: 2.1  
Most: 16 (1992) 16 (1992)

Floods present a more common weather hazard than tornadoes in September. Residual moisture from tropical disturbances, usually from the Gulf of Mexico but occasionally from the Pacific Ocean, interacts with slow moving frontal systems in the state from time-to-time during the autumn months. Widespread heavy downpours are the typical result, frequently leading to flooding on larger rivers and streams. On other occasions, a frontal system will stall within the state and successive thunderstorms will form along the frontal boundary and follow each other along a narrow path, thereby producing intense rain over a limited area and causing dangerous flash flooding.

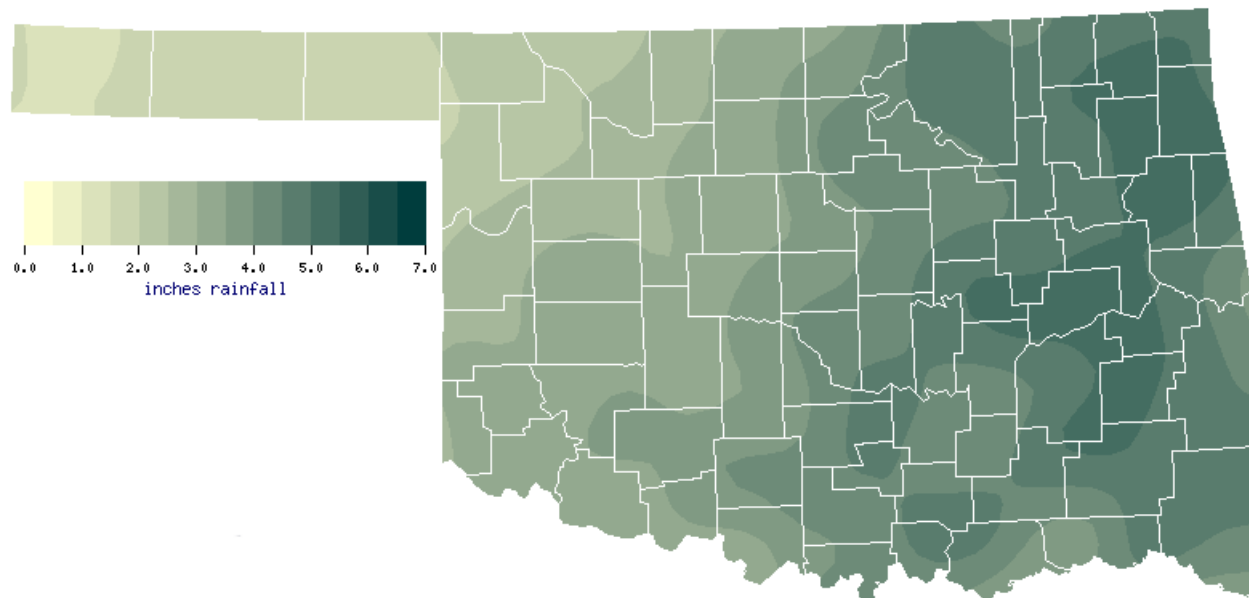
## September Normal Daily Maximum Temperature (1971-2000)



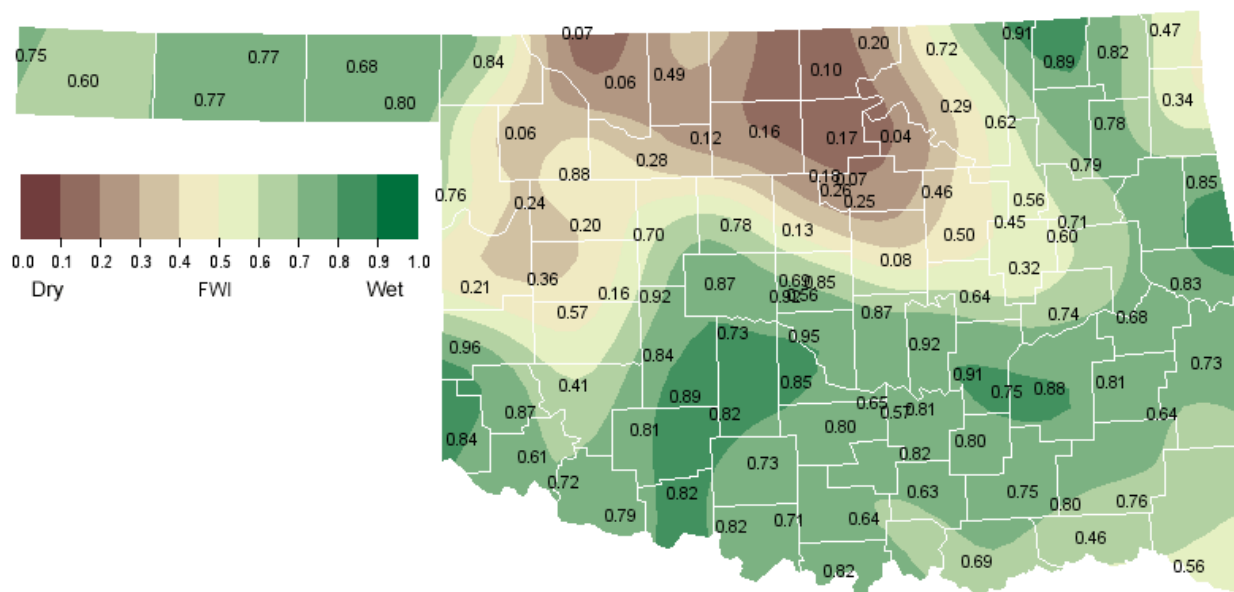
## September Normal Daily Minimum Temperature (1971-2000)



## September Normal Precipitation (1971-2000)



## September 1, 2008 Soil Moisture Conditions at 25cm



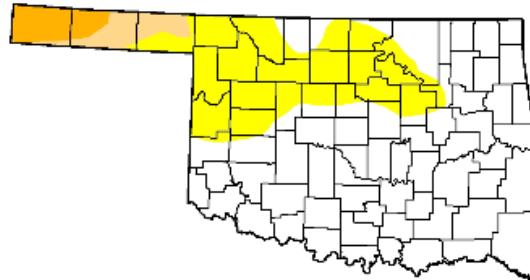
# U.S. Drought Monitor

## Oklahoma

August 26, 2008  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	67.5	32.5	6.8	3.5	0.0	0.0
Last Week (08/19/2008 map)	67.5	32.5	6.8	3.5	0.0	0.0
3 Months Ago (06/03/2008 map)	81.9	18.1	8.2	6.9	5.1	0.0
Start of Calendar Year (01/01/2008 map)	83.4	16.6	7.1	0.0	0.0	0.0
Start of Water Year (10/02/2007 map)	95.6	4.4	0.0	0.0	0.0	0.0
One Year Ago (08/28/2007 map)	87.0	13.0	0.0	0.0	0.0	0.0



**Intensity:**

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

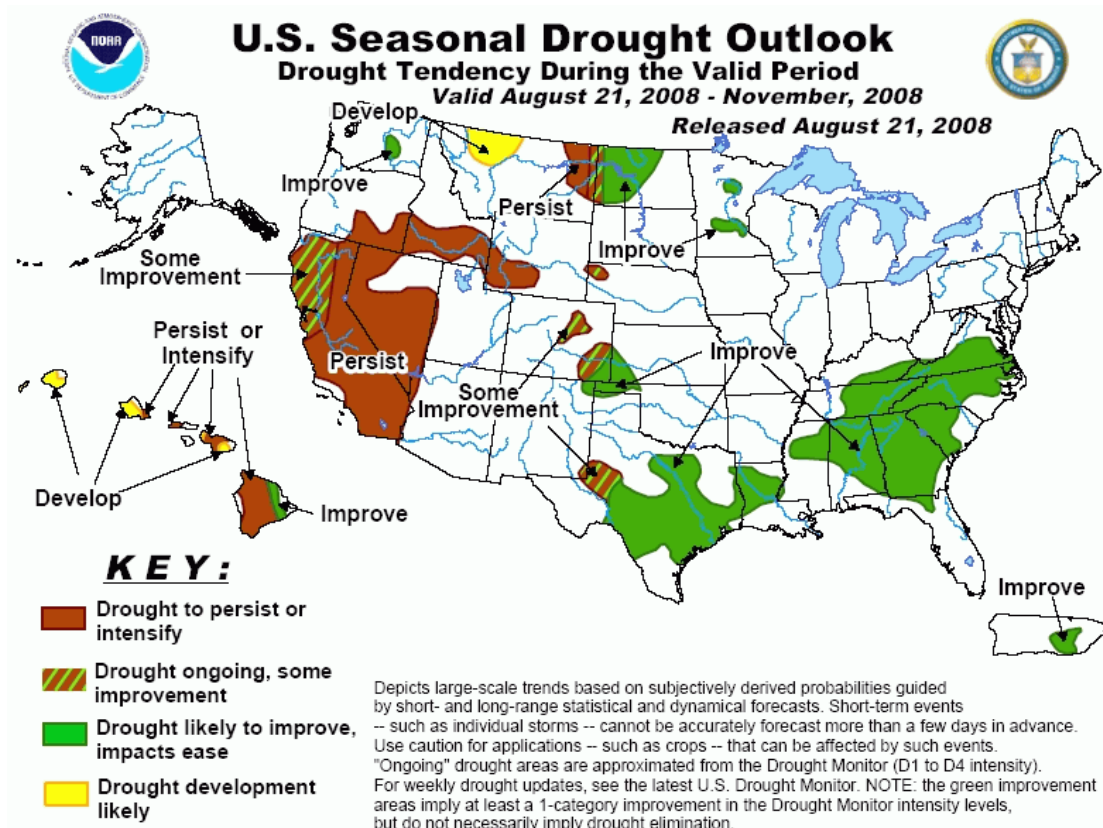
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>

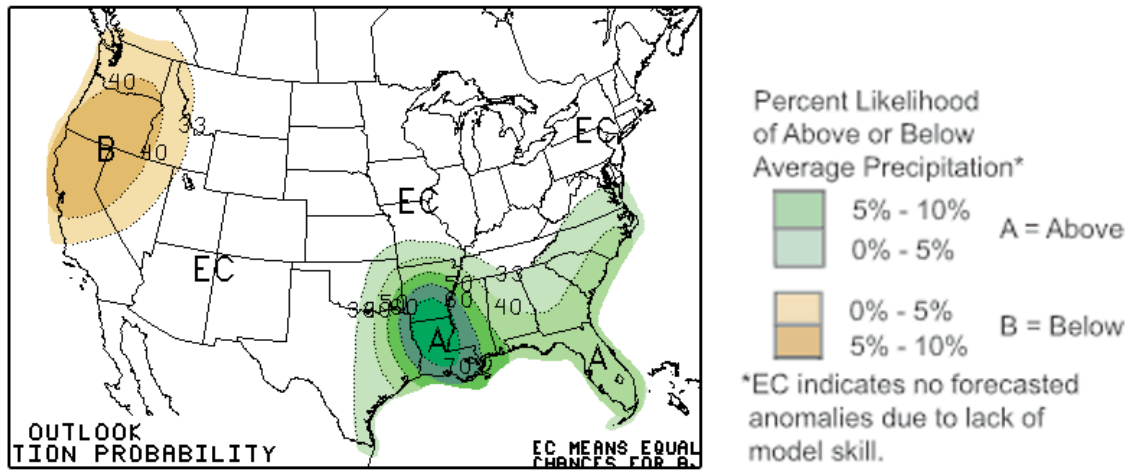


Released Thursday, August 28, 2008

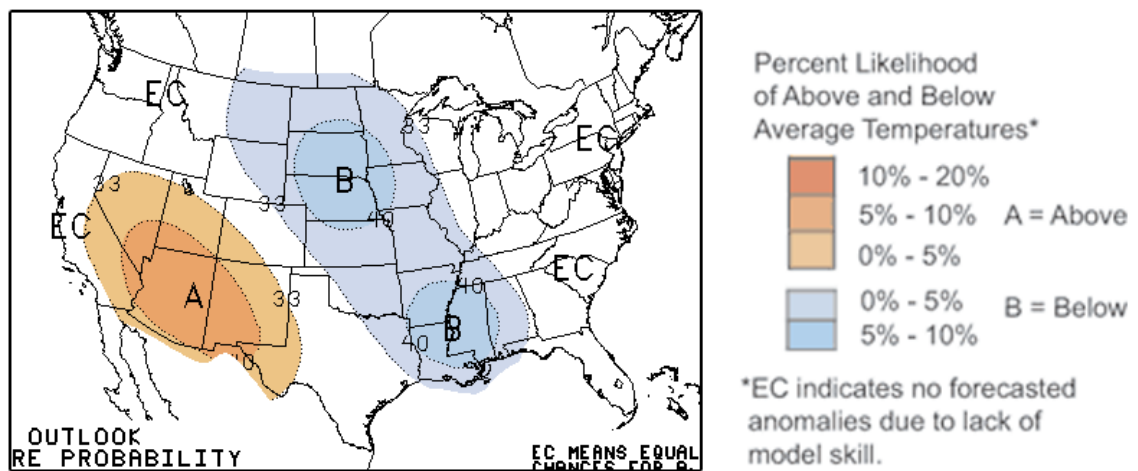
Author: J. Lawrimore/L. Love-Brotak, NOAA/NESDIS/NCDC



## September 2008 U.S. Precipitation Forecast



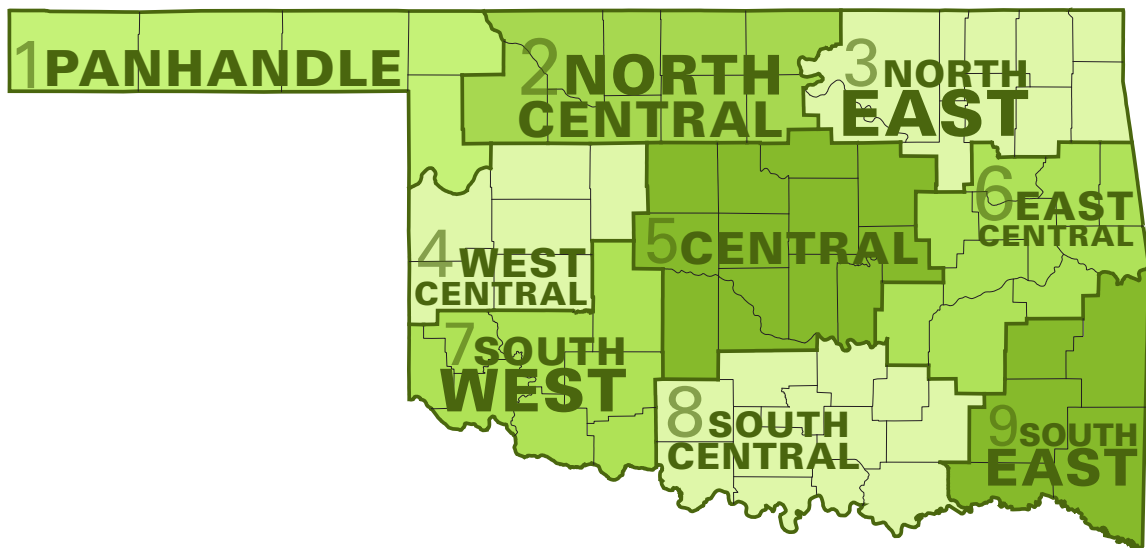
## September 2008 U.S. Temperature Forecast



## September Climate Normals

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	84.5	55.6	70.1	1.86
2	84.8	59.2	72	3.13
3	84.1	60.5	72.3	4.83
4	84.7	59.5	72.1	2.95
5	84.8	61.0	72.9	4.03
6	84.5	61.3	72.9	4.88
7	86.4	61.0	73.7	3.34
8	86.2	62.3	74.3	4.27
9	85.9	60.9	73.4	4.52
Statewide	85.1	60.3	72.7	3.9

## Oklahoma Climate Divisions





## Interpretation Information

**Mean Daily Temperature:** Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this may differ from the “true” daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

**Degree Days:** Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/CDD are qualitative measures of how much heating/cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value.

**Severe Weather Reports:** Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office.

**Soil Moisture:** The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

## Additional Resources

### Sunrise / Sunset tables

U.S. Naval Observatory: <http://aa.usno.navy.mil/data>

### Severe Storm Reports

Storm Prediction Center: <http://spc.noaa.gov/climo/>

National Climatic Data Center (more than about 4-5 months old):

<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms>

### Seasonal Outlooks

Climate Prediction Center:

[http://www.cpc.ncep.noaa.gov/products/OUTLOOKS\\_index.html](http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.html)

### Climate Calendars and other local weather and climate information

Oklahoma Climatological Survey: <http://climate.mesonet.org> or

<http://climate.ok.gov/>

E-mail ([ocs@ou.edu](mailto:ocs@ou.edu)) or telephone (405/325-2541)



Oklahoma Climatological Survey is the State  
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