Oklahoma Monthly Climate Summary

JULY 2009

OKLAHOMA CLIMATOLOGICAL SURVEY

July's weather was a bit bizarre, even by Oklahoma's standard. A series of cold fronts rescued the state from the blast furnace of summer and even brought welcome rainfall. Cold fronts are not that unusual in Oklahoma, of course, but they generally do not occur on a regular basis during summer, especially July. Despite a period of 12 out of the first 16 days with widespread triple digits, the statewide average temperature finished as the 34th coolest since 1895. Not only were triple-digits present, five of those days saw a good number of readings above 110 degrees, including 115 degrees at Buffalo and Freedom. Those marks tied (Buffalo) and broke (Freedom) those two towns' all-time record highs for any day of any month. The temperatures during the month ranged from 115 degrees at Buffalo and Freedom to 51 degrees at Jay. In addition to the record high temperatures, several record daily low temperatures were also tied or broken. Widespread lows in the 50s were reported on several days. The statewide average precipitation total was the 27th wettest on record. Severe weather for the month was widespread at times with high winds being the most-reported culprit – no tornado touchdowns were reported, however.

July 2009 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	115°F	Buffalo, Freedom	9 10
Low Temperature	51°F	Jay	18
High Precipitation	10.28 in.	Broken Bow	--
Low Precipitation	0.61 in.	Buffalo	--

PRECIPITATION

The statewide average rainfall was more than an inch above normal at nearly 4 inches. Only the northwest corner of the body of the state, which was particularly dry, and a section in eastern Oklahoma were significantly below normal. Buffalo had a paltry 0.61 inches of rainfall which did little to alleviate their drought conditions. Broken Bow's 10.28 inches, on the other hand, gave them a surplus of about nearly 6 inches for the month. The first two months of the season were still a tad below normal and the 54th driest on record, while the January-July period was about the same, ranked as the 57th wettest since 1895.

TEMPERATURE

The eastern half of the state pushed the statewide average to more than a degree below normal, especially the northeastern quarter at more than four degrees below normal in some areas. That region's average temperature for the month was the 12th coolest on record. The northwest was the warmest section of the state at about a half of a degree below normal. Summer's first two months were just a tad above normal and the 49th warmest since 1895. For the January-July period, the temperature amounted to the 35th warmest on record.

July 2009 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2009)
Month (July)	80.1°F	-1.5°F	34th Coolest
Season-to-Date (Jun-Jul)	79.4°F	0.3°F	49th Warmest
Year-to-Date (Jan-Jul)	59.9°F	0.7°F	35th Warmest

Precipitation

	Average	Depart.	Rank (1895-2009)
Month (July)	3.98 in.	1.24 in.	27th Wettest
Season-to-Date (Jun-Jul)	6.53 in.	-0.47 in.	54th Driest
Year-to-Date (Jan-Jul)	20.66 in.	-1.23 in.	57th Wettest

Depart. = departure from 30-year normal

JULY DAILY HIGHLIGHTS

JULY 1-4: A blistering beginning to the month saw upper-90s and 100s for the first four days before a cold front moved through the state on the third and fourth, bringing a good bit of rain and cooler temperatures. The rains began in the northeast and continued through the holiday. The storms became severe on the fourth and produced winds of 70-80 mph at times. High temperatures in the northeastern corner of the state were in the 80s for the most part throughout this period.

JULY 5-7: Showers and storms continued into the fifth and sixth in far southern Oklahoma and the Panhandle and were severe at times. Temperatures were very pleasant, a wonderful respite from typical July weather. Highs were mostly in the 80s with even a few 70s scattered here and there. Temperatures began heating up in the northwest by the seventh, again approaching triple-digits.

JULY 8-16: The heat was on during this period, especially in the northwest where Buffalo tied and Freedom bested their all-time record highs for any day with readings of 115 degrees on the ninth and tenth, respectively. Many readings of greater than 110 degrees occurred from the ninth through the 14th. The upper-level ridge of high pressure that produced the intense heat finally began to move off on the 15th which allowed a slow-moving cold front to enter the state from the northwest. The front set off a round of showers and storms and dropped highs back into the 80s and low-90s in the north. Severe storms occurred on the 15th and 16th with heavy rains, strong winds and large hail. Winds of up to 75 mph were reported with the storms near Braman with other similar speeds scattered about in northern Oklahoma. Three-inch hail was also reported with a large supercell that moved through eastern Oklahoma County.

JULY 17-21: The cold front of the previous couple of days meant cooler weather for a couple of days. Highs were in the 80s and 90s from the 17th-19th and lows were in the 50s and 60s. Four low temperature records were set in eastern Oklahoma on the 18th. Another front pushed through the state on the 20th and 21st. The front generated more showers and storms on the 20th and 21st with more severe weather. Wind gusts of up to 85 mph were reported at Altus Air Force Base. An 80-mph gust was reported near Pawhuska.

JULY 22-24: Quiet and pleasant weather again after the previous day's cold front passage. Unseasonably cool temperatures were in store with highs in the 80s on the 22nd and 23rd to go along with lows in the 50s and 60s. The 24th meant another warm-up with highs in the 90s and 100s.

JULY 25-31: Another cold front pushed into the state on the 25th and set off another round of showers and storms. The rain lasted until month's end, but each part of the state saw at least some rain and some sun. The rain amounts were heaviest in central and southeastern Oklahoma. Central Oklahoma saw up to 4.5 inches of rain while the southeast had totals well over 6 inches. Far northern Oklahoma was largely left out of this round of rain. Temperatures were once again pleasant with most readings into the 80s to go along a few 70s and 90s. Low temperatures dropped into the 50s in some parts of the state.

JULY 2009 SEVERE WEATHER

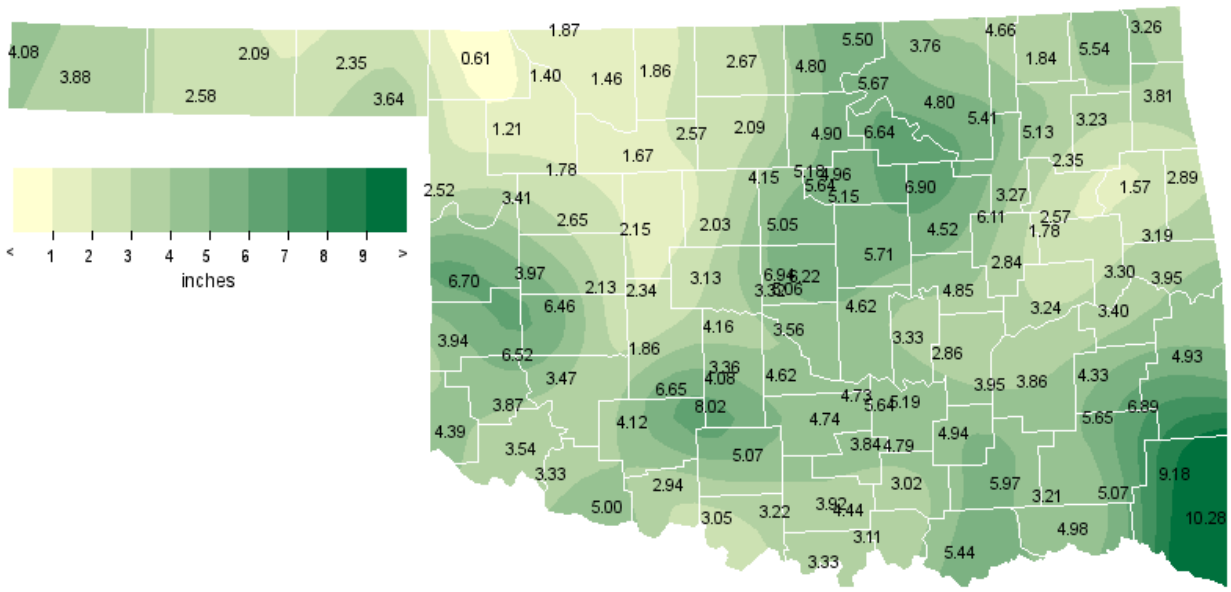
Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Day
2.00	4 SSE Del City	Oklahoma	16
3.00	2 E Del City	Oklahoma	16
2.75	4 SSE Jet	Alfalfa	20
2.00	3 E Blanchard	McClain	28

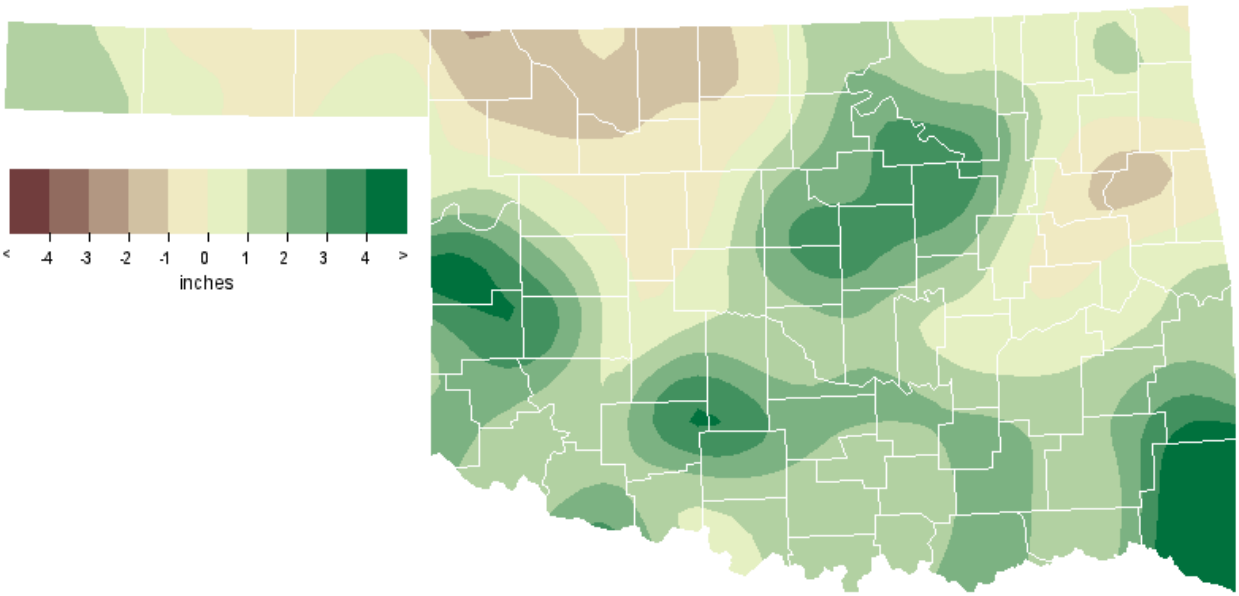
Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
80	9 E Cordell	Washita	4
70	Tuttle	Grady	4
76	Goodwell	Texas	6
80	Tushka	Atoka	8
73	8 E Newkirk	Kay	15
75	Braman	Kay	15
72	Tinker AFB	Oklahoma	16
70	9 E Rocky	Washita	16
73	2 WNW Bessie	Washita	16
74	7 SSW Fort Cobb	Caddo	16
72	3 W Medicine Park	Comanche	16
71	7 SSW Alva	Woods	20
78	Braman	Kay	21
74	5 E Cordell	Washita	21
70	Altus AFB	Jackson	21
85	Altus AFB	Jackson	21
70	Pawhuska	Osage	21
80	9 NE Pawhuska	Osage	21
72	Ponca City	Kay	28
70	3 E Stillwater	Payne	28
70	8 E Stillwater	Payne	28
75	Cushing	Payne	28
70	11 W Burbank	Osage	28

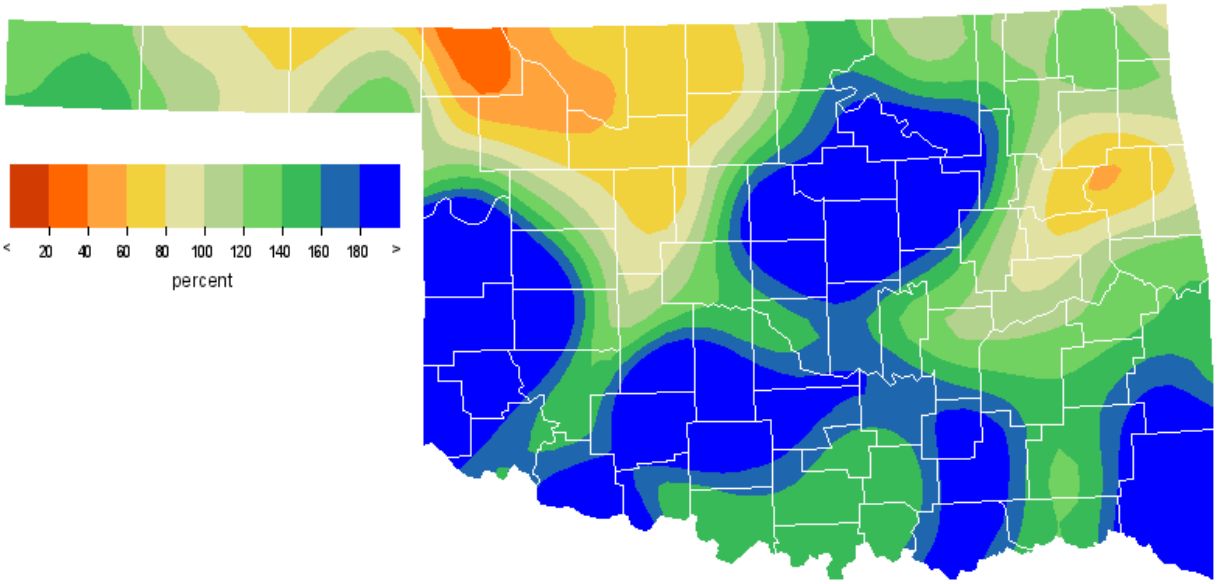
JULY 2009 OBSERVED PRECIPITATION



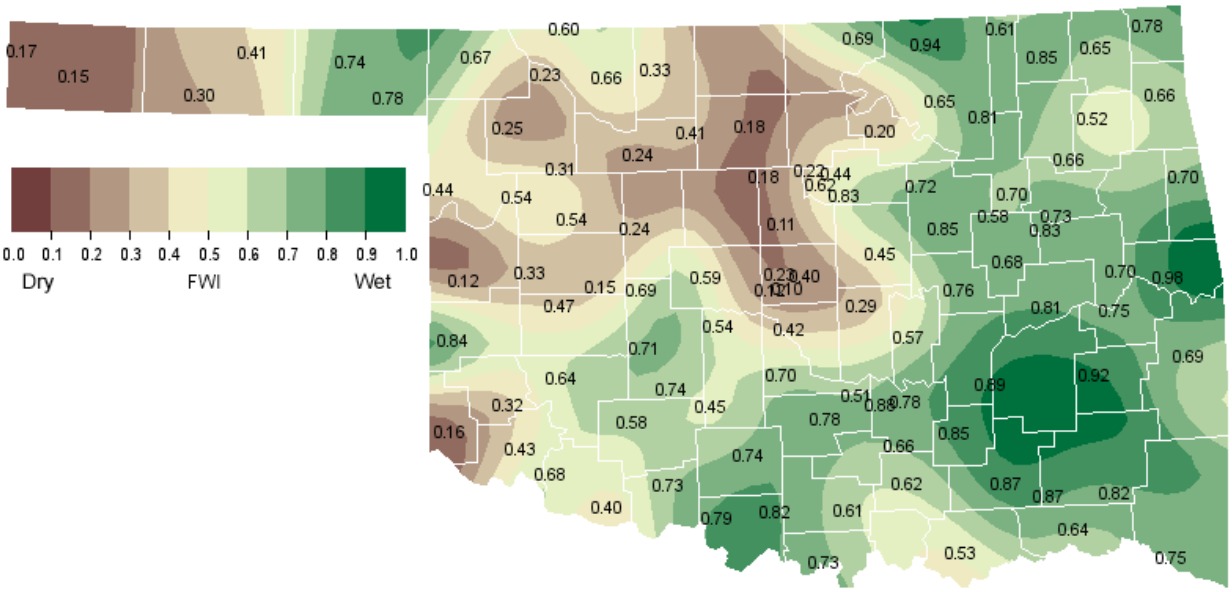
JULY 2009 DEPARTURE FROM NORMAL PRECIPITATION



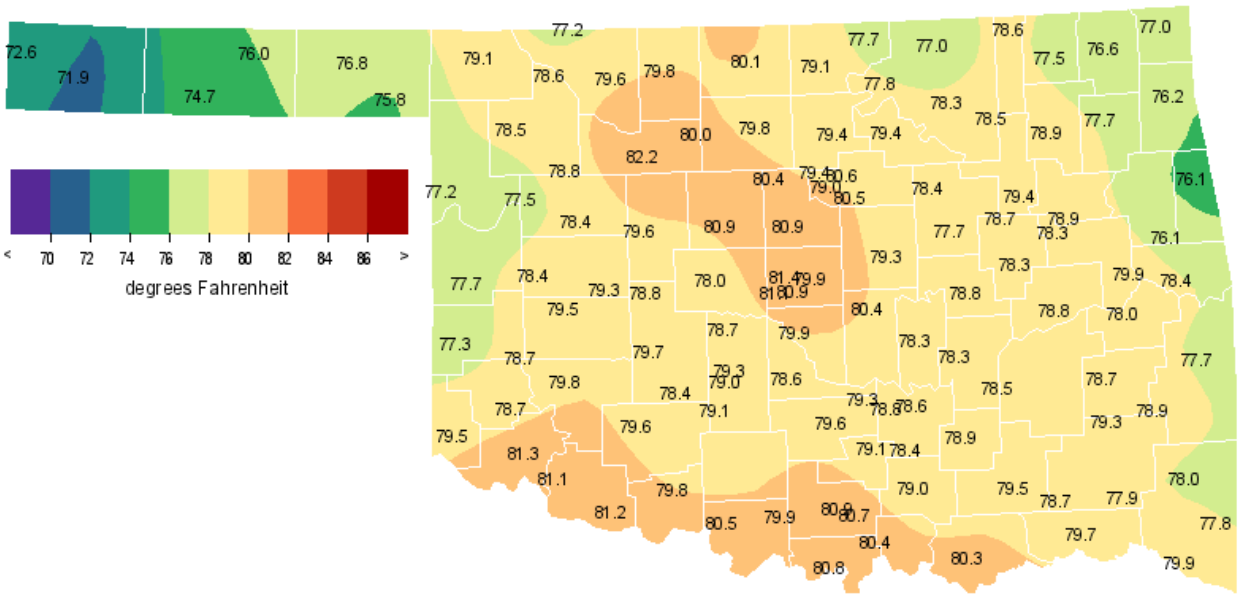
JULY 2009 PERCENT OF NORMAL PRECIPITATION



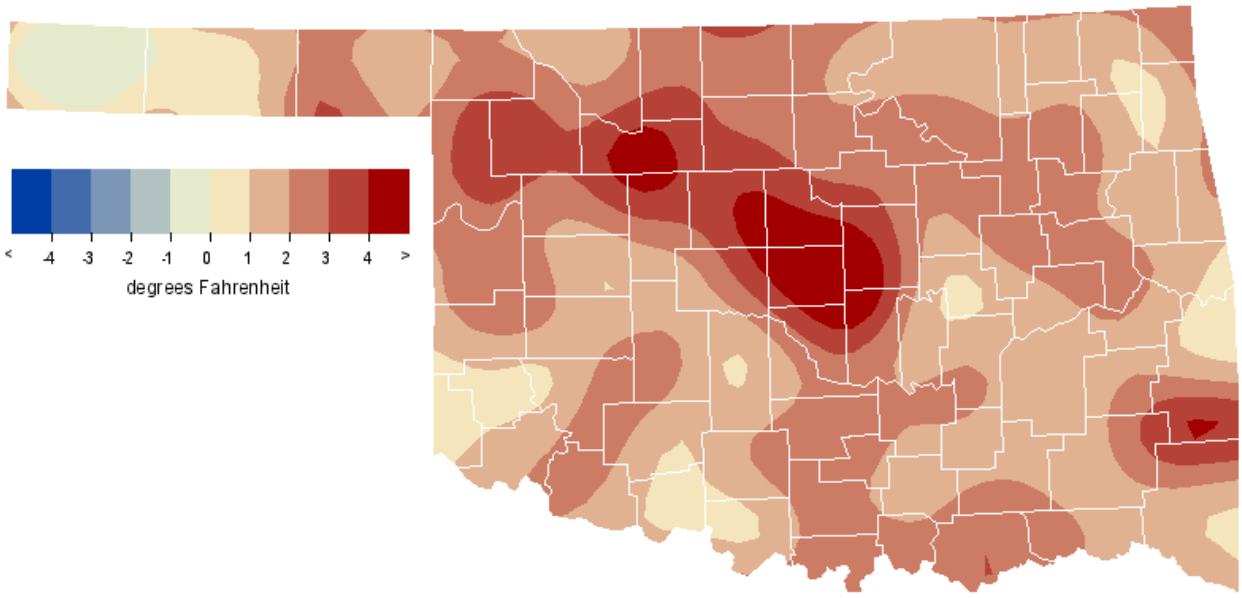
JULY 2009 AVERAGE SOIL MOISTURE AT 25CM



JULY 2009 AVERAGE TEMPERATURE



JULY 2009 DEPARTURE FROM NORMAL TEMPERATURE

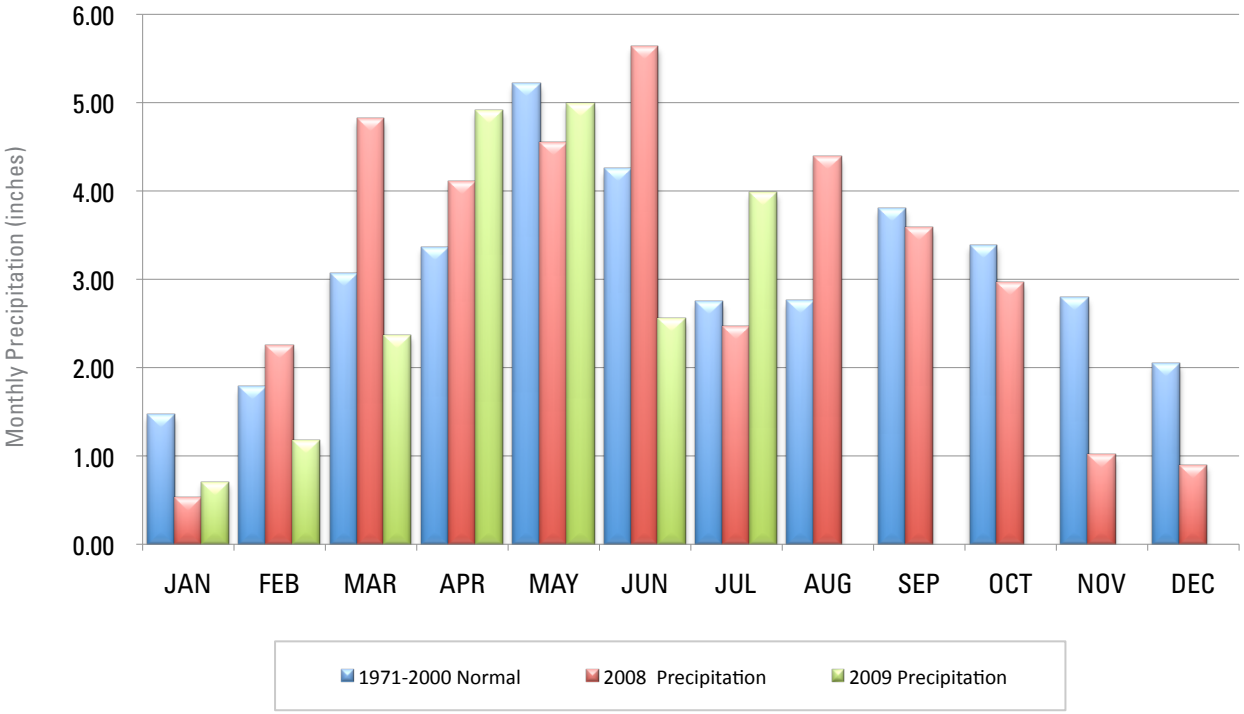


MESONET MONTHLY SUMMARY FOR JULY 2009

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	80.5	109	10	57	23	0	479	2.52	1.03	30
Beaver	80.4	111	9	56	18	0	477	2.35	.82	29
Boise City	76.0	103	9	56	31	0	340	3.88	.70	14
Buffalo	82.4	115	9	57	19	0	540	.61	.13	30
NORTH CENTRAL										
Alva	81.7	113	10	59	6	0	518	1.46	.61	20
Blackwell	78.1	104	10	60	31	0	407	4.80	1.46	15
Breckinridge	80.3	110	10	58	31	0	475	2.09	.53	8
Cherokee	81.1	111	10	59	31	0	499	1.86	1.08	8
Fairview	*****	***	***	***	***	****	****	1.67	.47	30
Freedom	81.9	114	10	57	18	0	523	1.40	.38	29
Lahoma	81.1	112	10	60	31	0	498	2.57	.87	20
NORTHEAST										
Bixby	79.0	101	12	59	23	0	435	3.27	1.30	30
Burbank	76.7	100	14	57	31	0	362	5.67	1.55	9
Claremore	78.8	98	12	58	31	0	429	5.13	2.71	4
Copan	77.9	101	14	56	31	0	400	4.66	3.02	21
Foraker	76.2	97	14	57	31	0	346	3.76	1.63	21
Inola	79.0	102	11	56	18	****	****	2.35	1.09	21
Jay	76.0	97	12	51	18	0	341	3.81	1.19	21
Miami	76.2	97	10	52	18	0	348	3.26	1.57	21
WEST CENTRAL										
Bessie	81.4	108	10	62	22	0	508	6.46	2.51	29
Butler	80.4	107	10	58	31	0	476	3.97	1.04	29
Camargo	80.6	109	10	56	23	0	483	3.41	2.26	30
Cheyenne	79.5	104	10	60	31	0	450	6.70	2.38	29
Erick	80.7	109	10	57	23	0	486	3.94	2.36	27
CENTRAL										
Acme	80.9	102	25	58	23	0	494	8.02	2.72	30
Bowlegs	79.8	102	15	58	23	0	459	3.33	.96	16
Bristow	77.7	97	15	55	23	0	393	4.52	1.42	30
Lake Carl Blac	79.6	108	11	57	23	0	454	5.18	1.66	29
Chandler	79.9	103	12	60	23	0	463	5.71	2.47	30
Chickasha	81.7	105	12	57	23	****	****	3.36	1.07	4
El Reno	79.7	105	11	56	23	0	456	3.13	1.90	30
Guthrie	81.8	108	11	58	23	0	521	5.05	1.57	28
Kingfisher	82.9	112	10	57	23	0	554	2.03	.77	30
Marena	80.2	108	11	59	31	0	471	5.64	2.05	30
Minco	80.8	102	13	62	22	0	490	4.16	1.45	4
Marshall	81.4	110	11	57	23	0	508	4.15	1.22	29
EAST CENTRAL										
Cookson	77.7	101	13	53	18	0	394	3.19	2.27	30
Eufaula	79.8	100	15	59	23	0	459	3.24	1.01	4
Haskell	79.1	101	13	57	18	0	437	1.78	.90	21
Hectorville	79.2	99	12	59	18	0	441	6.11	2.54	30
Holdenville	79.8	101	25	61	18	0	458	2.86	.99	4
McAlester	79.6	99	13	58	23	0	451	3.86	1.52	27
Okmulgee	78.6	99	15	56	23	0	423	2.84	.80	8
SOUTHWEST										
Altus	82.7	105	10	64	1	0	550	3.54	2.21	29
Apache	80.5	102	14	61	6	0	482	6.65	1.84	29
Fort Cobb	81.5	107	10	60	23	0	512	1.86	.70	30
Grandfield	84.0	109	9	65	6	0	588	5.00	.97	29
Hinton	81.4	107	11	59	6	0	508	2.34	.69	29
Hobart	82.3	109	10	62	22	0	537	3.47	1.08	29
SOUTH CENTRAL										
Ada	80.3	100	15	60	18	0	476	5.19	2.42	21
Ardmore	82.5	104	13	65	22	0	543	4.44	2.02	29
Burneyville	82.5	103	13	64	6	0	541	3.33	.97	27
Byars	80.0	100	3	60	23	****	****	4.59	1.64	4
Centrahoma	79.6	100	25	58	23	0	453	4.94	1.43	27
Durant	81.9	101	25	65	23	0	523	5.44	1.68	26
Fittstown	80.1	102	13	60	24	0	468	4.79	1.59	27
Ketchum Ranch	81.2	102	25	60	23	0	504	5.07	1.93	4
Lane	80.4	101	25	60	23	0	477	5.97	3.22	27
SOUTHEAST										
Antlers	79.4	100	13	56	23	0	447	3.21	1.58	27
Broken Bow	78.9	100	16	60	24	0	432	10.28	3.28	27
Clayton	81.2	104	13	57	23	0	504	5.65	2.59	27
Cloudy	79.4	100	16	60	24	0	447	5.07	1.74	27
Hugo	81.0	99	16	63	23	0	497	4.98	1.96	27

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	78.7	107	9	56	17	0	424	2.58	1.08	27
Hooker	79.4	110	9	58	23	0	447	2.09	.39	28
Kenton	76.6	102	9	54	17	1	362	4.08	.82	28
Slapout	79.8	110	9	58	31	0	457	3.64	2.24	30
May Ranch	79.7	109	10	58	22	0	457	1.87	.69	4
Medford	80.3	113	10	59	22	0	475	2.67	.88	4
Newkirk	76.7	98	14	59	22	0	362	5.50	1.51	4
Red Rock	79.0	106	12	58	31	0	432	4.90	1.18	28
Seiling	81.2	111	10	57	6	0	504	1.78	.58	27
Woodward	81.2	111	10	59	19	0	501	1.21	.40	15
Nowata	77.2	99	10	53	31	0	379	1.84	1.02	21
Pawnee	77.8	103	11	59	31	0	398	6.64	1.51	21
Porter	79.4	101	13	59	23	0	447	2.57	1.08	30
Pryor	77.9	99	12	53	18	0	399	3.23	1.46	21
Skiatook	77.9	97	12	58	31	0	399	5.41	2.20	4
Vinita	76.5	99	12	55	18	0	356	5.54	2.53	30
Wynona	77.6	98	11	58	31	0	390	4.80	1.36	4
Putnam	80.6	109	10	57	22	0	484	2.65	1.43	30
Retrop	80.6	105	10	62	22	0	482	6.52	2.52	4
Watonga	81.4	109	10	59	6	0	509	2.15	.92	30
Weatherford	81.5	108	10	61	6	0	512	2.13	.55	20
Ninnekah	81.2	103	25	58	23	0	501	4.08	1.49	4
Norman	81.5	103	13	60	23	0	513	3.56	1.13	30
Oilton	77.6	100	12	57	31	0	391	6.90	1.69	21
OKC EAST	81.9	105	12	60	23	0	525	5.06	1.48	29
OKC NORTH	82.4	104	12	63	23	0	538	6.94	2.46	30
OKC WEST	82.8	104	12	63	23	0	552	3.32	.83	28
Okemah	79.4	101	15	57	23	0	445	4.85	1.19	4
Perkins	81.1	111	11	60	23	0	499	5.15	1.35	30
Shawnee	81.7	104	12	61	23	0	516	4.62	1.10	4
Spencer	79.9	103	13	58	23	****	****	6.22	1.29	28
Stillwater	81.0	109	11	60	23	0	496	4.96	1.78	16
Washington	80.6	103	13	59	23	0	482	4.62	1.09	30
Sallisaw	79.4	100	15	57	18	0	447	3.95	1.62	21
Stigler	79.2	100	13	56	18	0	440	3.40	1.24	30
Stuart	80.3	102	25	60	18	0	474	3.95	2.36	27
Tahlequah	78.3	100	13	54	18	****	****	1.57	.80	21
Webbers Falls	80.2	102	10	59	23	0	471	3.30	1.19	21
Westville	77.7	100	15	53	18	0	393	2.89	1.41	21
Hollis	81.2	105	10	60	23	0	503	4.39	1.83	4
Mangum	80.9	108	10	56	23	0	494	3.87	1.61	29
Medicine Park	82.7	106	9	63	23	0	548	4.12	1.16	30
Tipton	83.8	109	9	64	1	0	583	3.33	1.05	27
Walters	83.1	105	15	63	6	0	560	2.94	.72	5
Madill	82.6	103	13	63	23	0	545	3.11	.79	5
Newport	82.6	103	25	64	6	0	546	3.92	1.15	4
Pauls Valley	81.1	101	25	61	23	0	498	4.74	1.37	4
Ringling	82.3	103	13	64	6	0	538	3.22	1.19	4
Sulphur	80.5	101	25	60	23	0	481	3.84	1.35	4
Tishomingo	80.9	103	13	60	24	0	493	3.02	1.19	27
Vanoss	79.7	100	25	59	23	0	457	5.64	1.40	4
Waurika	82.9	105	14	63	6	0	554	3.05	.78	16
Idabel	81.4	102	13	62	24	****	****	5.38	2.05	29
Mt Herman	78.9	100	15	60	23	0	431	9.18	3.68	27
Talihina	80.7	105	15	57	18	0	487	6.89	2.71	30
Wilburton	79.4	100	25	57	23	0	447	4.33	1.74	4
Wister	79.4	104	13	56	2	0	446	4.93	2.30	30

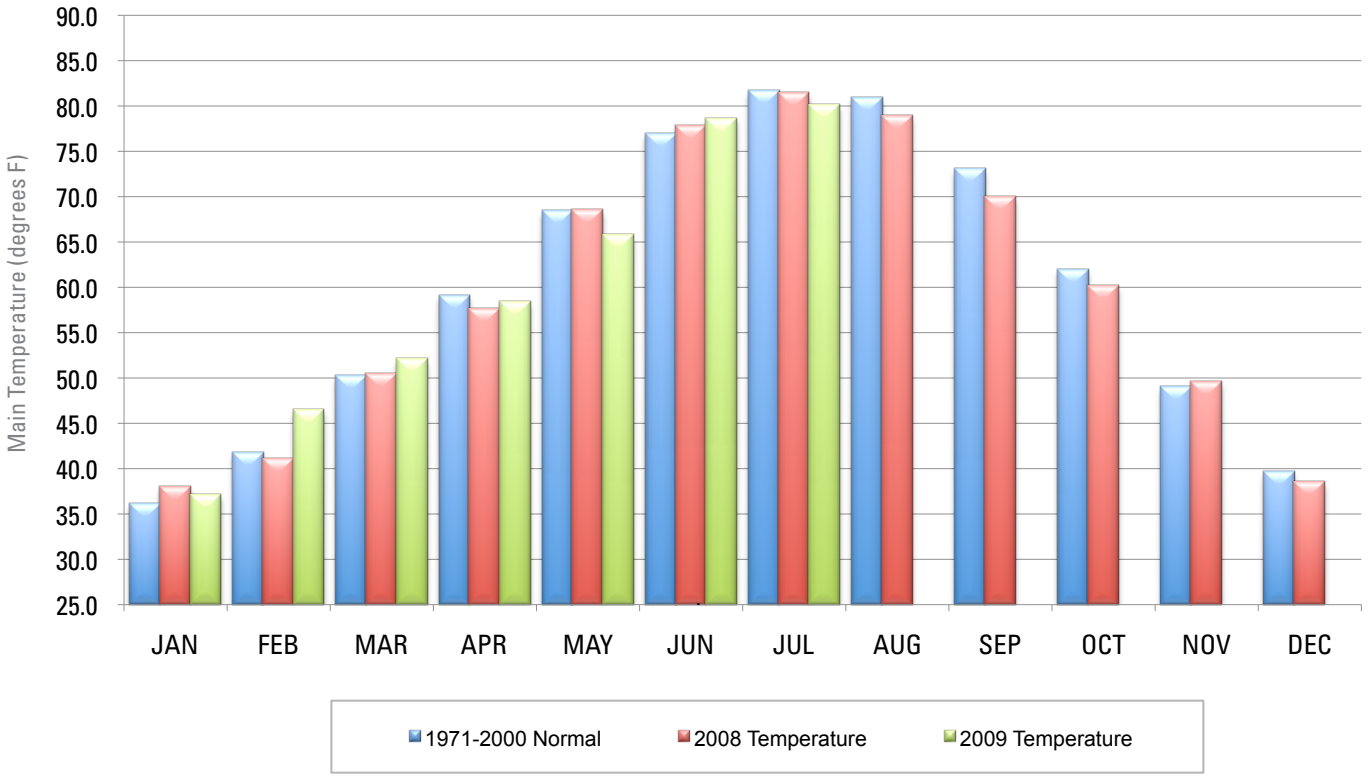
2008 AND 2009 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



July 2009 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jul-08
Panhandle	2.72	0.20	57th Wettest	9.79 (1950)	0.37 (1935)	4.25
North Central	2.60	-0.38	50th Driest	9.06 (1950)	0.13 (1983)	3.53
Northeast	4.13	0.97	40th Wettest	9.31 (1959)	0.00 (1914)	5.18
West Central	4.21	2.08	16th Wettest	7.21 (1950)	0.05 (1936)	1.99
Central	4.77	2.20	20th Wettest	10.17 (1950)	0.16 (1980)	2.14
East Central	3.30	0.32	48th Wettest	10.15 (1950)	0.17 (1930)	1.16
Southwest	3.77	1.59	21st Wettest	6.30 (1975)	0.03 (1980)	1.82
South Central	4.38	1.84	21st Wettest	8.45 (1950)	0.08 (1998)	1.18
Southeast	6.06	2.48	18th Wettest	13.02 (1950)	0.00 (1930)	0.61
Statewide	3.98	1.24	27th Wettest	9.26 (1950)	0.41 (1980)	2.51

2008 AND 2009 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



July 2009 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jul-08 (F)
Panhandle	79.2	-0.4	49th Warmest	85.4 (1980)	73.2 (1906)	79.1
North Central	80.2	-2.0	29th Coolest	89.6 (1954)	75.8 (1950)	81.3
Northeast	77.5	-3.4	12th Coolest	89.2 (1954)	75.0 (1906)	80.5
West Central	80.7	-1.0	48th Coolest	88.1 (1954)	75.8 (1906)	81.6
Central	80.7	-1.3	45th Coolest	88.6 (1954)	75.8 (1906)	82.0
East Central	79.2	-2.1	28th Coolest	88.7 (1954)	75.9 (1906)	83.5
Southwest	82.2	-1.0	45th Coolest	89.1 (1980)	77.9 (1906)	83.3
South Central	81.3	-1.4	37th Coolest	89.1 (1998)	77.2 (1906)	82.9
Southeast	79.8	-1.1	34th Coolest	87.5 (1954)	76.4 (2004)	80.4
Statewide	80.1	-1.5	34th Coolest	88.1 (1954)	75.9 (1906)	81.6

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
All Time Record High	9	Buffalo	115	115	1936
All Time Record High	10	Freedom	115	114	1953
Low Temperature	18	McAlester	60	62	2004
Low Temperature	18	Muskogee	59	64	2004
Low Temperature	18	Bartlesville	55	60	2004
Low Temperature (tied)	18	Tulsa	63	63	2004

MESONET EXTREMES FOR JULY 2009

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	115	9th	Buffalo	54	17th	Kenton	4.08	Kenton	2.24	30th	Slapout
North Central	114	10th	Freedom	57	18th	Freedom	5.50	Newkirk	1.51	4th	Newkirk
Northeast	103	11th	Pawnee	51	18th	Jay	6.64	Pawnee	3.02	21st	Copan
West Central	109	10th	Camargo	56	23rd	Camargo	6.70	Cheyenne	2.52	4th	Retrop
Central	112	10th	Kingfisher	55	23rd	Bristow	8.02	Acme	2.72	30th	Acme
East Central	102	25th	Stuart	53	18th	Cookson	6.11	Hectorville	2.54	30th	Hectorville
Southwest	109	9th	Tipton	56	23rd	Mangum	6.65	Apache	2.21	29th	Altus
South Central	105	14th	Waurika	58	23rd	Centrahoma	5.97	Lane	3.22	27th	Lane
Southeast	105	15th	Talihina	56	2nd	Wister	10.28	Broken Bow	3.68	27th	Mt Herman
Statewide	115	9th	Buffalo	51	18th	Jay	10.28	Broken Bow	3.68	27th	Mt Herman

AUGUST OUTLOOK

According to published daily normal temperatures, the hottest period of the long Oklahoma summer extends from mid-July through mid-August. The gradually shortening days and the occasional arrival of cooler weather from the North frequently bring the state modest relief from the heat by late August. Overall, August, the third and final month of the climatological summer, is Oklahoma's second hottest, fifth driest, and least windy month. Tornado frequency is at its lowest of the March-through-October warm season. Lightning deaths are more frequent in August than during any other month.

Temperature

Mean	80.9 degrees
Hottest August	1936, 87.9 degrees
Coolest August	1915, 73.9 degrees
Hottest location	Waurika, 84.1 degrees
Coolest location	Boise City, 75.3 degrees
Hottest recorded	120 degrees, Poteau, August 10, 1936
	Altus, August 12, 1936
Coldest recorded	41 degrees, Goodwell, August 15, 1915

The normal statewide monthly temperature is 80.9 degrees Fahrenheit. Oklahoma's hottest August, according to National Weather Service records that date from 1892, occurred in 1936 when the state's average monthly temperature was a scorching 87.2 degrees. This is the second highest statewide-averaged monthly temperature (all months) recorded in Oklahoma during the 111 years with comprehensive records. The state's record daily maximum temperature of 120 degrees was equaled at Altus and Poteau on August 12 and 10, 1936, respectively. Relatively cool weather prevailed during August 1915, when the state recorded its lowest August statewide-average monthly temperature, 73.2 degrees. The lowest daily minimum temperature of 39 degrees was recorded at Dacoma on August 26, 1910.

Isolated or widely scattered thunderstorms provide most of the state's August precipitation. As a result, little systematic variation can be seen in the statewide precipitation pattern. At 3.76 inches, Pawnee has the greatest normal precipitation for the month. Meeker, near the center of the state, has the lowest normal monthly accumulation, 1.93 inches. Statewide-averaged monthly precipitation during August has ranged from 6.54 inches in 1906 to a dismal 0.14 inch during the droughty summer of 2000. The greatest August precipitation recorded by any reporting station was 15.15 inches at Holdenville in 1906. A 10.34-inch deluge at Carter Tower in northern McCurtain County on August 28, 1947 is the greatest daily precipitation recorded at a regular observing station during August. Precipitation is observed (.01 inch or more) on an average of as many as 7.8 days at Stilwell and as few as 3.5 days at Bixby. Daily rainfall events of two inches or greater are no more than an every-other-year occurrence everywhere in the state.

Severe weather appears in the state during August, but its effects are more notable anecdotally than they are apparent in statistics. The exception is that August has presented the state with more lightning deaths (21) than any other month since such record-keeping began in 1959. Only July among the months accounts for more total casualties (deaths and injuries) from lightning strikes. The average number of tornado for the month of August is 1.4. Of the 80 August tornadoes reported in the state between 1950 and 2003, no fatalities and only three injuries (1 in 1959 and 2 in 1982) resulted. Oklahoma's August tornado totals include a high of 13 in 1979. No tornadoes were observed during 22 of the 54 years with comprehensive statistics.

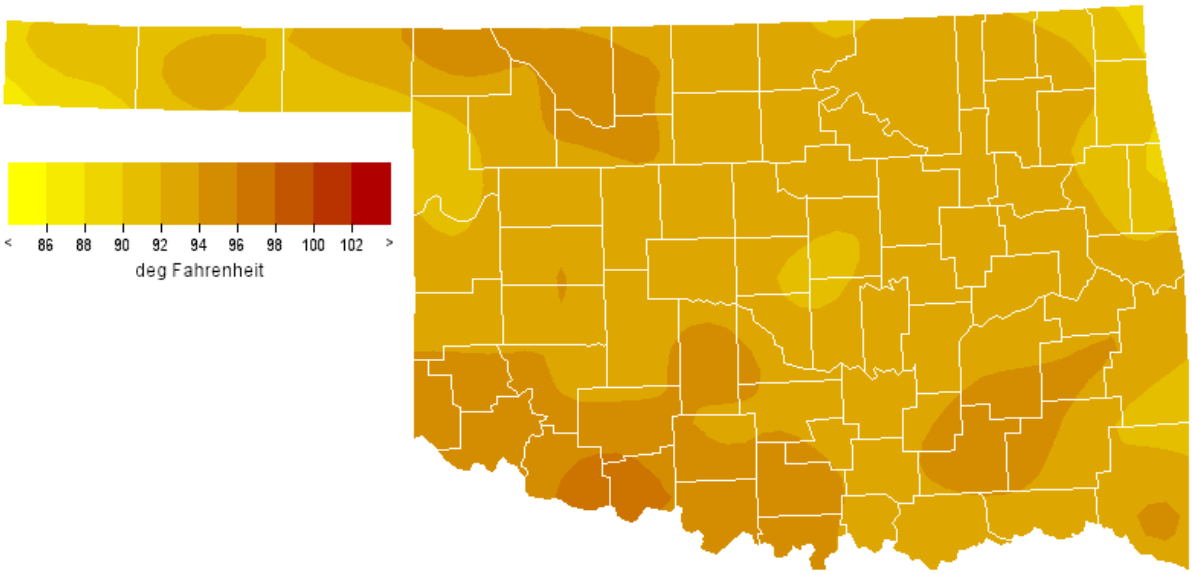
Precipitation

Mean	2.84 inches
Wettest year	1906, 6.54 inches
Driest year	2000, 0.18 inches
Wettest location	Pawnee, 3.76 inches
Driest location	Meeker, 1.93 inches
Most recorded	15.15 inches, Holdenville, 1906

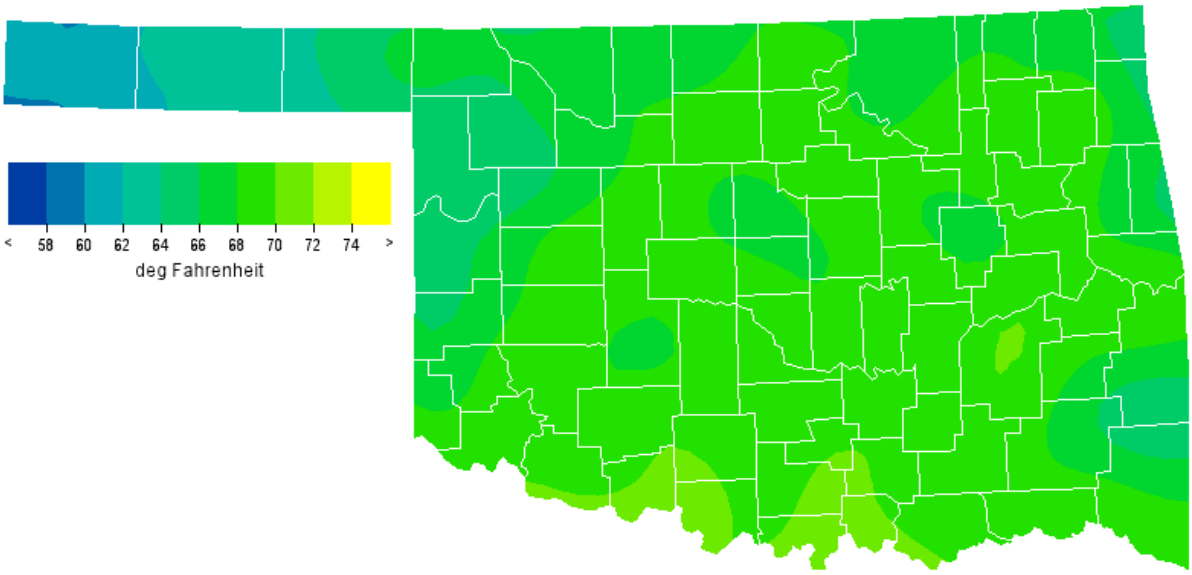
Tornadoes

Average August Tornadoes	2
Most	13 (1979)

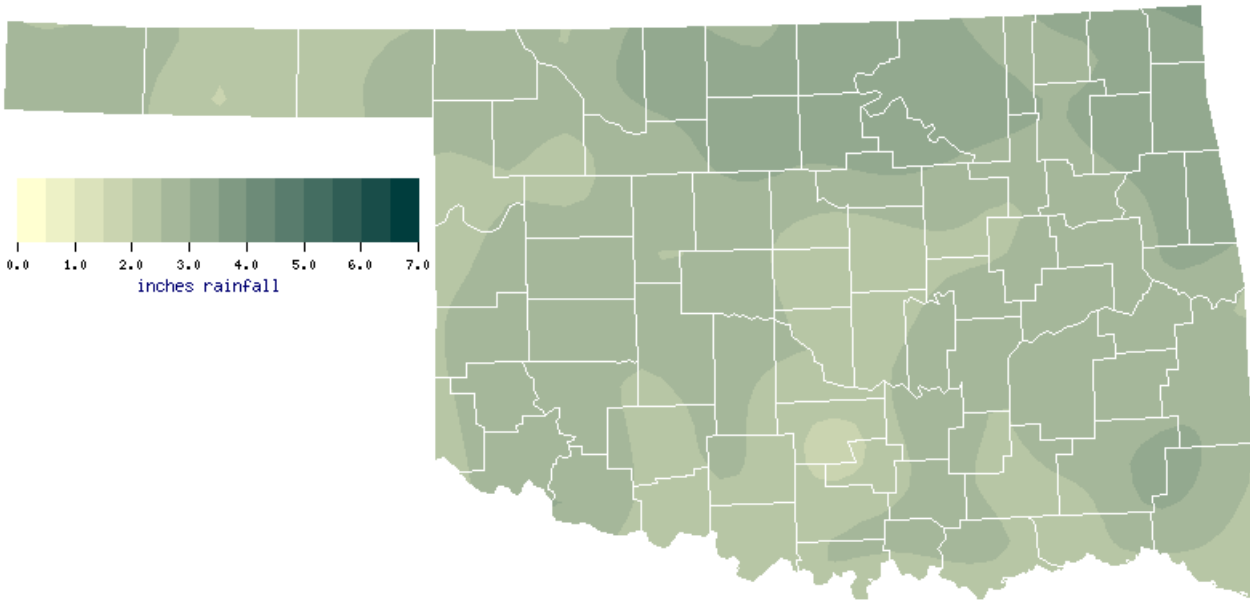
AUGUST NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



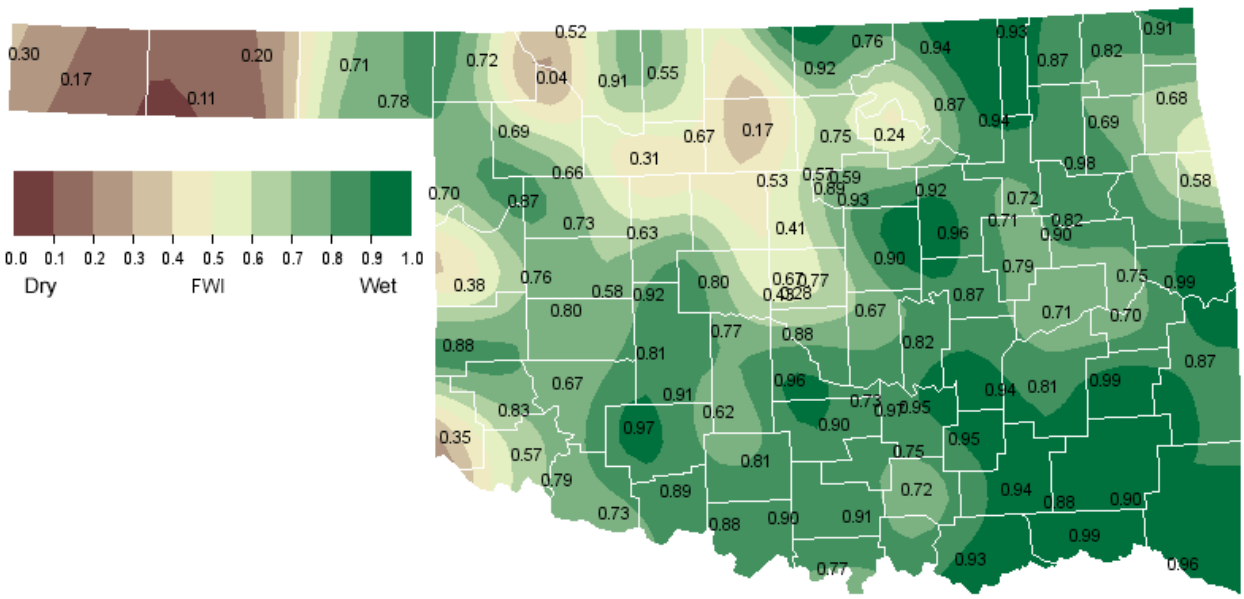
AUGUST NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



AUGUST NORMAL PRECIPITATION (1971-2000)



AUGUST 1, 2009 SOIL MOISTURE CONDITIONS AT 25CM



AUGUST 2009 DROUGHT INDICES

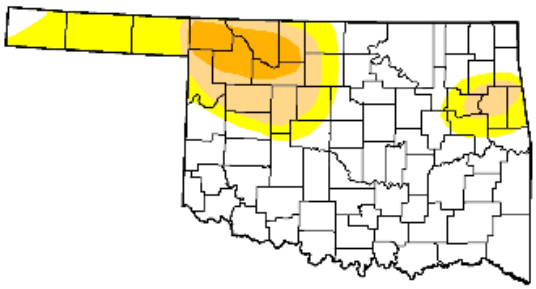
U.S. Drought Monitor

Oklahoma

August 4, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	69.4	30.6	15.4	5.5	0.0	0.0
Last Week (07/28/2009 map)	57.3	42.7	26.8	9.7	0.0	0.0
3 Months Ago (05/12/2009 map)	90.7	9.3	2.0	1.1	0.0	0.0
Start of Calendar Year (01/06/2009 map)	41.6	58.4	12.0	3.4	0.0	0.0
Start of Water Year (10/07/2008 map)	84.4	15.6	5.0	3.5	0.0	0.0
One Year Ago (08/05/2008 map)	73.5	26.5	13.0	5.6	3.9	2.4



Intensity:

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

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

http://drought.unl.edu/dm

USDA · National Drought Mitigation Center

Released Thursday, August 6, 2009

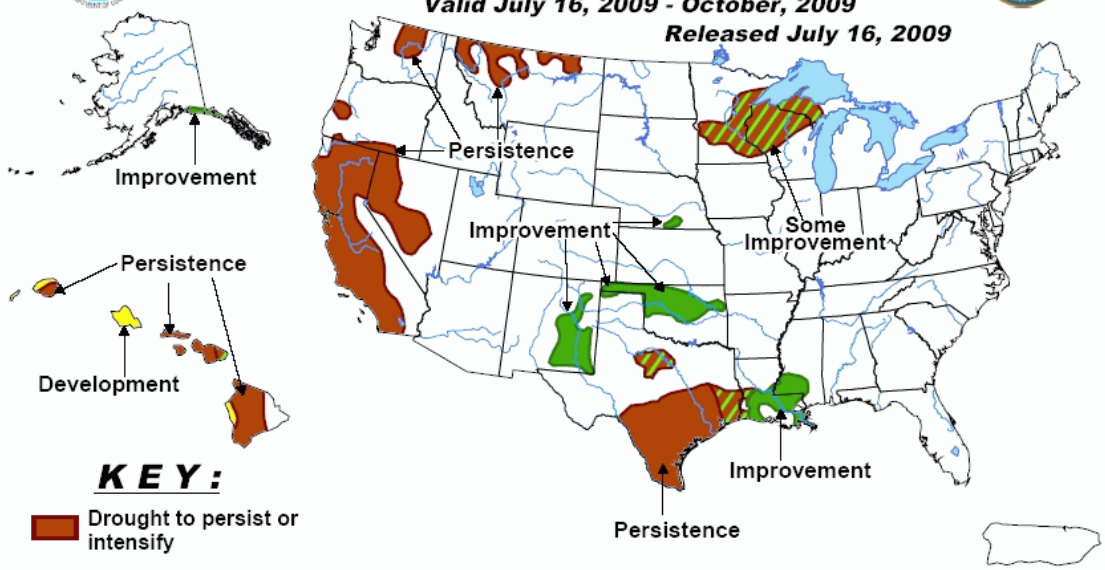
Author: Mark Svoboda, National Drought Mitigation Center

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid July 16, 2009 - October, 2009

Released July 16, 2009

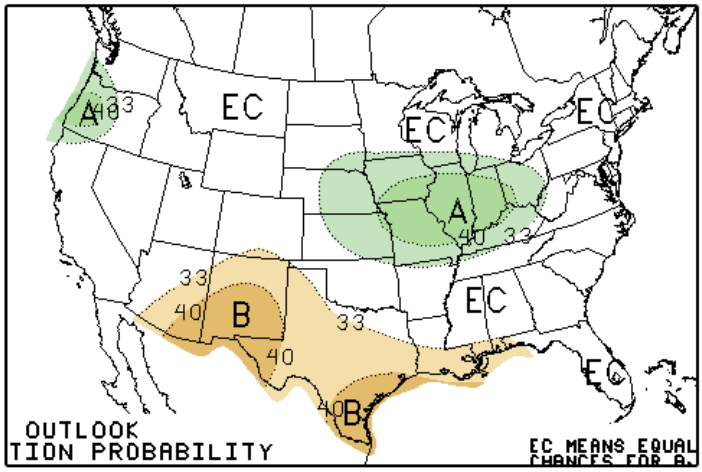


KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

AUGUST 2009 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

- 5% - 10%
- 0% - 5%

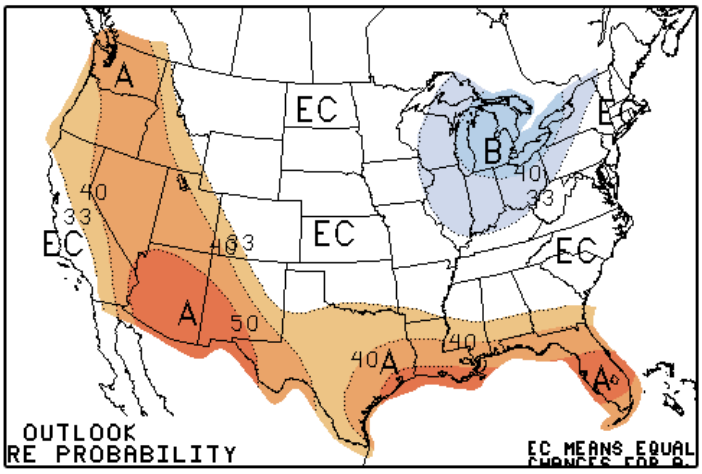
A = Above

- 0% - 5%
- 5% - 10%

B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

AUGUST 2009 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

- 10% - 20%
- 5% - 10%
- 0% - 5%

A = Above

- 0% - 5%
- 5% - 10%

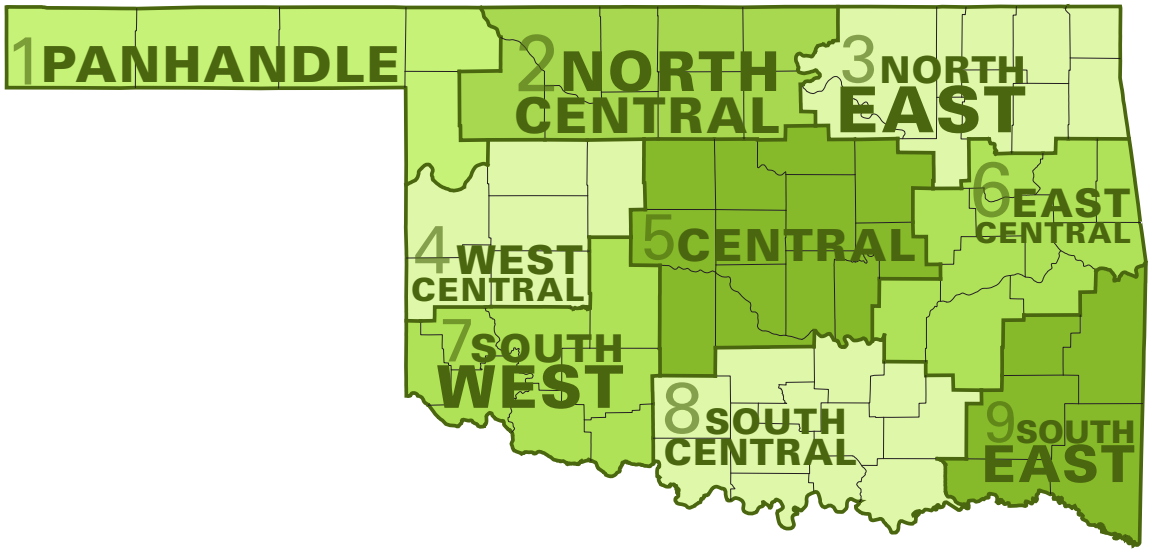
B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

AUGUST CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	92.3	64.1	78.2	2.48
2	93.4	67.6	80.6	3.01
3	92.6	68.1	80.4	3.13
4	93	67.7	80.4	2.63
5	93.2	68.8	81	2.61
6	92.6	68.5	80.6	2.77
7	94.7	68.8	81.8	2.6
8	94.1	69.5	81.8	2.49
9	93.5	67.7	80.6	2.72
Statewide	93.3	68	80.7	2.73

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

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION
Oklahoma Climatological Survey:
http://climate.mesonet.org or http://climate.ok.gov/

OKLAHOMA CLIMATOLOGICAL SURVEY

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