Oklahoma Monthly Climate Summary

SEPTEMBER 2011

OKLAHOMA CLIMATOLOGICAL SURVEY

While little relief from drought was found in September, the reprieve from the intense summer heat was nearly instantaneous. After three summer-like days to begin the month, fall weather kicked into high gear and temperatures plummeted. The hottest summer in Oklahoma history soon gave way to the 32nd coolest September since records began in 1895. The statewide average temperature for the month was 71 degrees according to data from the Oklahoma Mesonet, 1.4 degrees below normal. Unfortunately, similarly good news did not arrive for most of drought-stricken Oklahoma. The statewide average precipitation total finished at 1.66 inches for a deficit of 2.15 inches, the 20th driest September on record. The northeastern quarter of the state did see some relief, however, with drought-reducing rainfall totals of 3-4 inches. The rest of the state languished in dusty dry soils with totals of less than 1.5 inches in most areas. The Oklahoma Mesonet site at Oilton led the state with 4.47 inches while the south central town of Durant failed to record a quarter of an inch of moisture.

September 2011 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	109°F	Walters	13
Low Temperature	39°F	Bristow, Boise City	7, 27
High Precipitation	4.47 in.	Oilton	--
Low Precipitation	0.24 in.	Durant	--

PRECIPITATION

The end of September also brings the end of the water year (October 1-September 30). That period also encompasses the current drought, whose genesis occurred around this time last year with the arrival of La Nina in the equatorial pacific waters. This water year finished as the second driest on record for Oklahoma with a statewide average precipitation total of 20.26 inches, 16.43 inches below normal. The driest such period on record was 18.69 inches from the 1955-1956 water year. For the Panhandle, west central, central and southwestern parts of the state, it was easily the driest water year on record. Southwest Oklahoma's water year average of 12.68 inches was more than 18 inches below normal and nearly 5 inches drier than the previous record low total of 17.45 inches, again from the 1955-56 water year.

TEMPERATURE

A cool September contributed to the fourth warmest January-September period since records began in 1895 at 65.5 degrees, 2.5 degrees above normal. For southwestern Oklahoma, it was the warmest such period on record at 68.2 degrees, 3.7 degrees above normal. The warmest temperature of the month, 109 degrees, came at Walters on the 13th. The coolest reading of 39 degrees was recorded at two locations, Bristow on the seventh and Boise City on the 30th.

SEPTEMBER DAILY HIGHLIGHTS

SEPTEMBER 1-3: The month's first three days were scorchers with highs in the 100s and lows in the 70s. A cold front late on the third kicked off a few storms in the state. Rainfall totals were less than a half of an inch.

September 2011 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2011)
Month (September)	71.0°F	-1.4°F	32nd Coolest
Year-to-Date (Jan-Sep)	65.5°F	2.5°F	4th Warmest

Precipitation

	Average	Depart.	Rank (1895-2011)
Month (September)	1.66 in.	-2.15 in.	20th Driest
Year-to-Date (Jan-Sep)	15.95 in.	-12.52 in.	2nd Driest

Depart. = departure from 30-year normal

SEPTEMBER 4-11: This eight-day period started unusually cool for early September following the arrival of a strong cold front. Lows reached as low as the 40s through the eighth and highs were mostly in the 70s and 80s. A stark contrast to the brutal temperatures of the month's first three days. Temperatures finally reached normal levels once again the final three days. Lows were mostly in the 50s and highs rose into the 80s and 90s. Very little rain fell during this period.

SEPTEMBER 12-13: A return to summer heat, these two days saw temperatures soar back into triple-digit territory. Walters reached 109 degrees on the 13th, the highest recorded temperature for the month. A cold front on the 13th began to cool things down in the evening.

SEPTEMBER 14-18: A large weather disturbance across the Central Plains brought stormy weather to Oklahoma, and a much-needed rainy pattern. There were just a few storms the 14th and 15th before heavier rains fell the 16th-18th. The storms on the 17th came with some severe weather. Mostly large hail and high winds, although a tornado was reported 10 miles west of Medford as well. Rainfall amounts totaled more than 3 inches in Grandfield, Oilton and Stigler through the period. Highs struggled to rise into the 50s in some areas on the 15th. A cold front entered the state on the later on the 18th.

SEPTEMBER 19-22: A cool front dropped high temperatures into the 80s on the 19th and set the stage for a bit of rain the next few days. The real action hit on the 21st and 22nd with an upper-level storm system approaching from the west. Northeastern Oklahoma saw more than 2 inches of rain in some places with the storms. Highs only rose into the 60s and 70s on the 22nd.

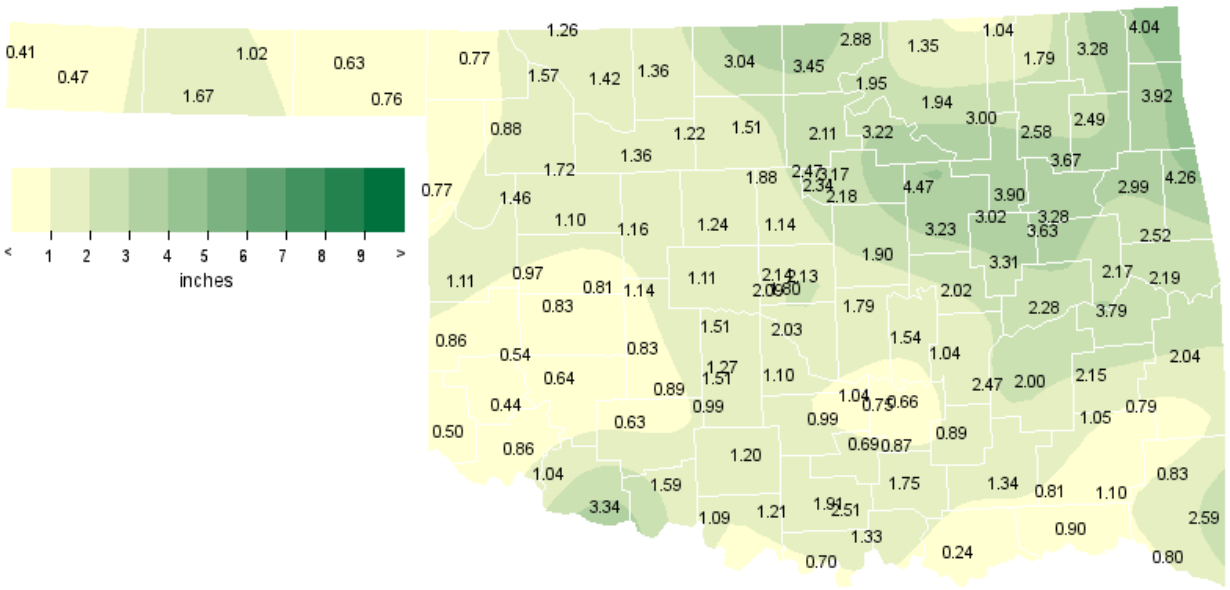
SEPTEMBER 23-30: An extremely dry and pleasant end to the month, the final eight days of September were mostly clear and seasonable. It was warmer than normal on the 28th and 29th but other than that, mostly pleasant weather prevailed.

SEPTEMBER 2011 SEVERE WEATHER

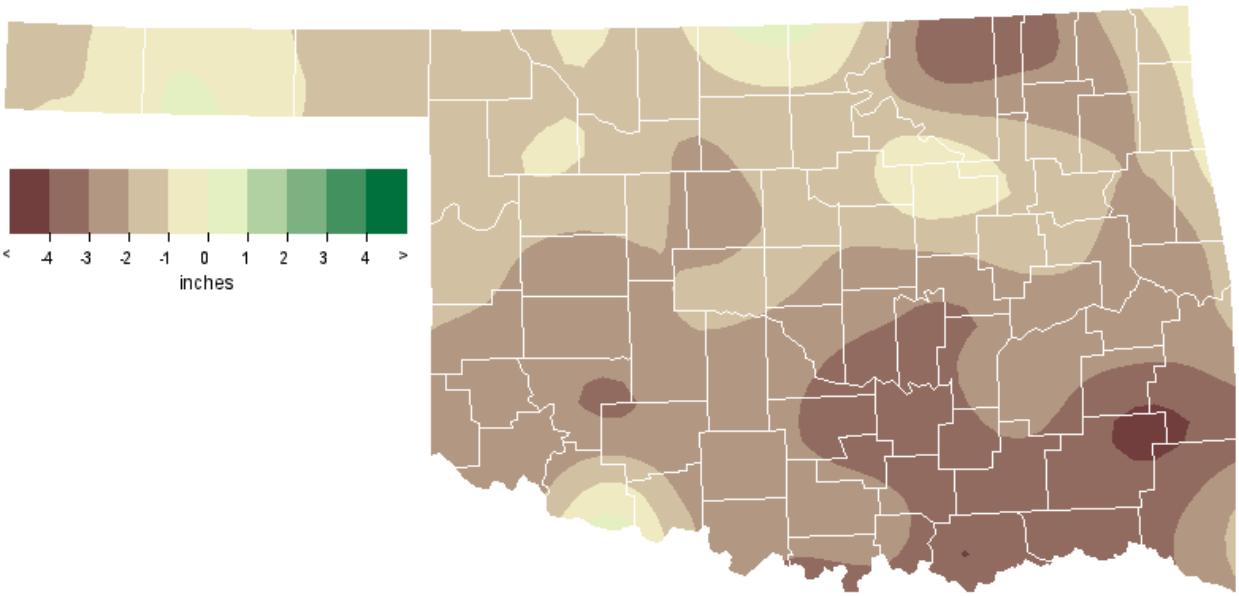
Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Day
2.00	Grandfield	Tillman	17
2.00	Fairview	Major	17

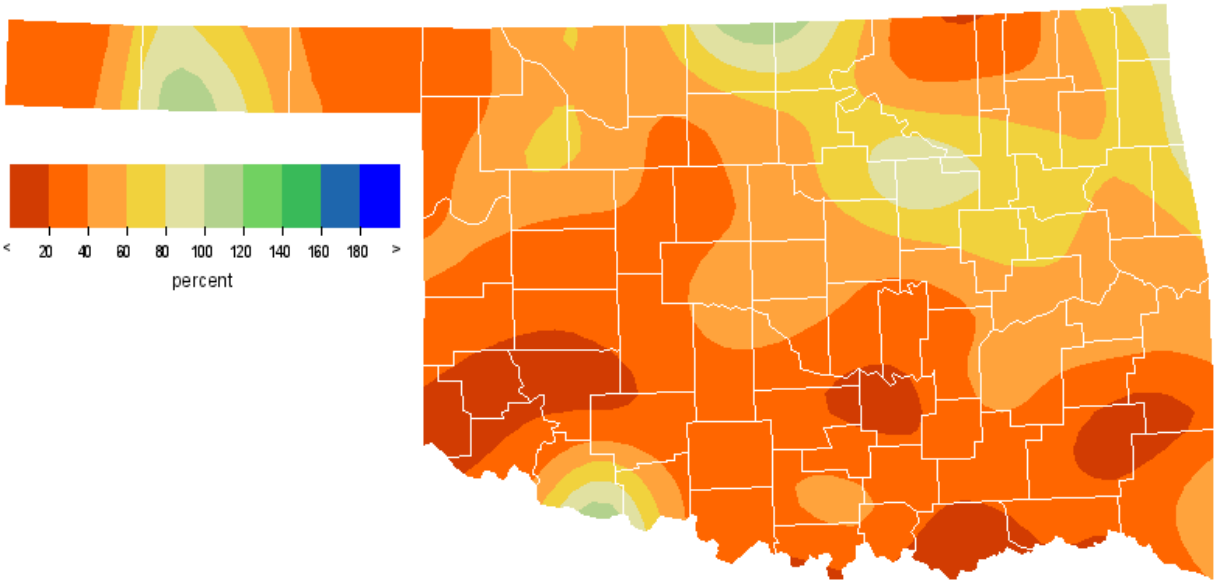
SEPTEMBER 2011 OBSERVED PRECIPITATION



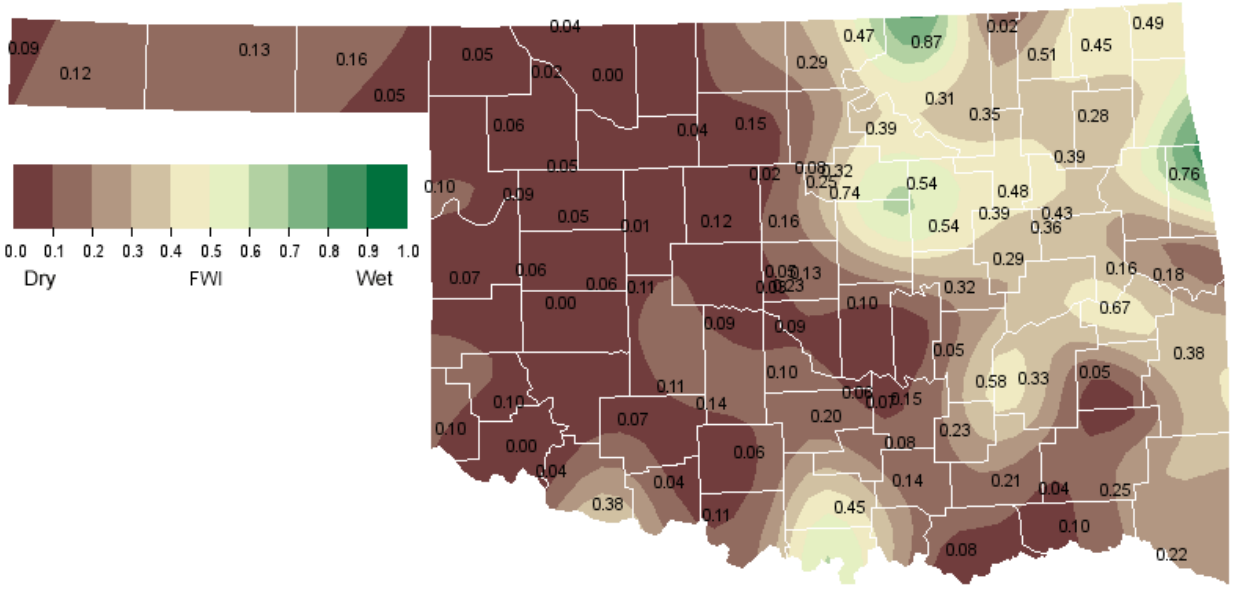
SEPTEMBER 2011 DEPARTURE FROM NORMAL PRECIPITATION



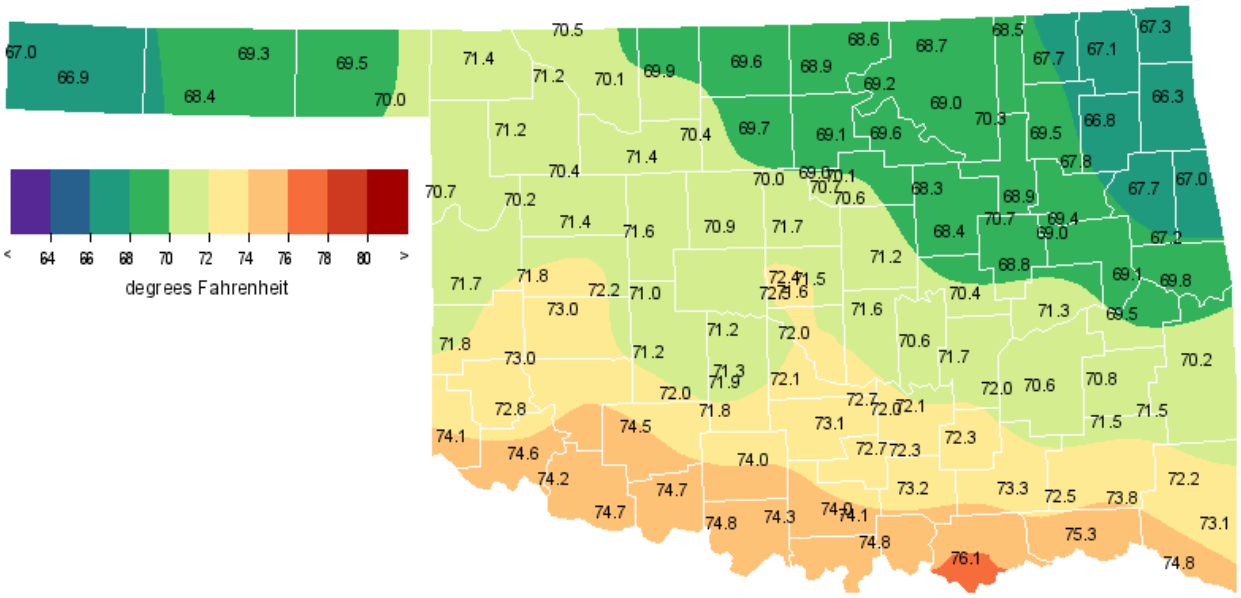
SEPTEMBER 2011 PERCENT OF NORMAL PRECIPITATION



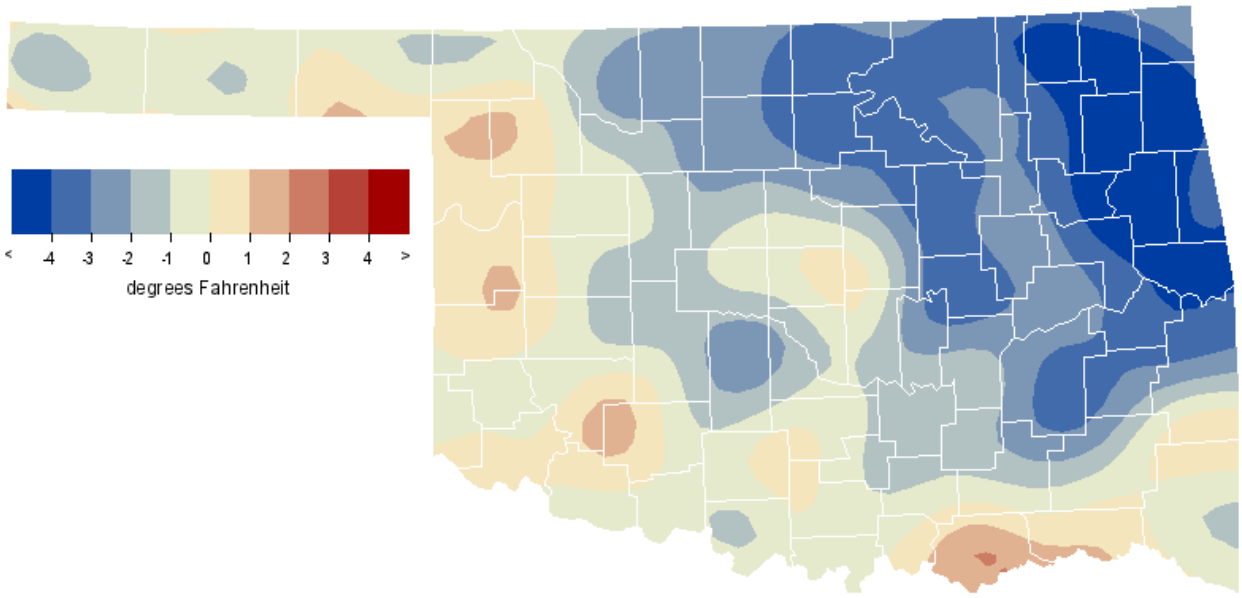
SEPTEMBER 2011 AVERAGE SOIL MOISTURE AT 25CM



SEPTEMBER 2011 AVERAGE TEMPERATURE



SEPTEMBER 2011 DEPARTURE FROM NORMAL TEMPERATURE

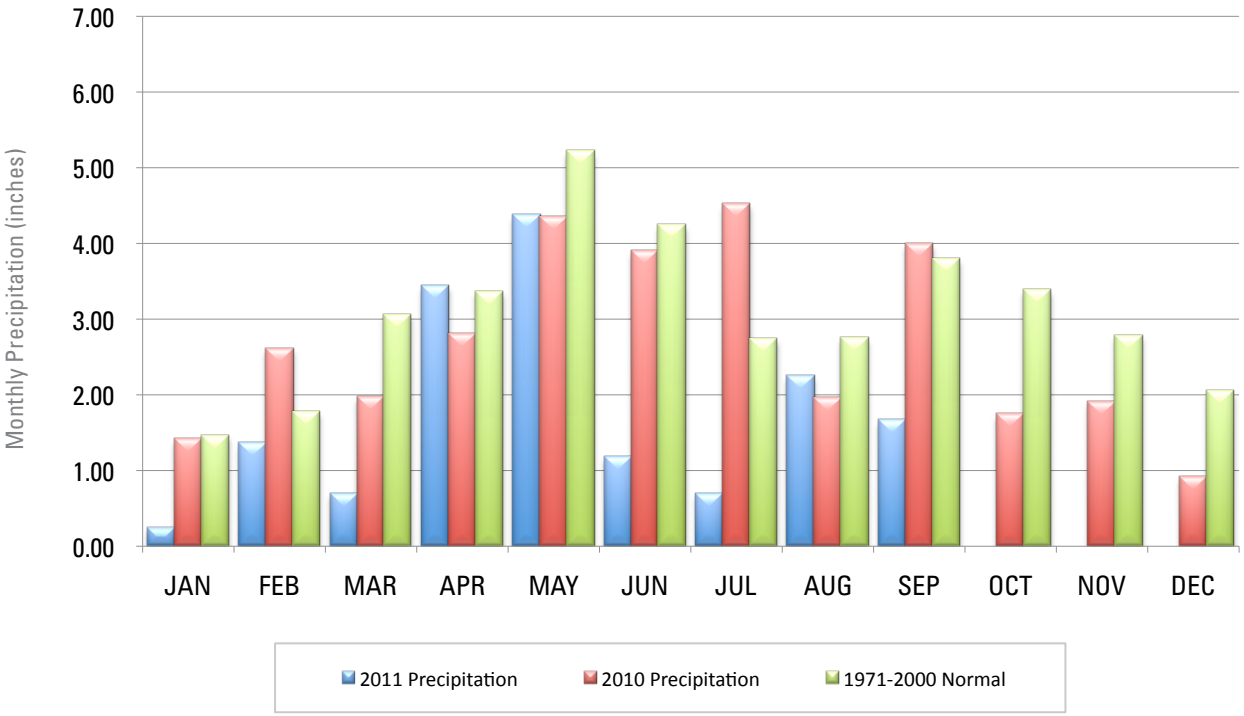


MESONET MONTHLY SUMMARY FOR SEPTEMBER 2011

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	70.7	101	12	47	30	23	193	.77	.71	22
Beaver	69.5	105	1	43	30	33	168	.63	.18	14
Boise City	66.8	99	1	39	30	46	101	.47	.15	22
Buffalo	71.4	107	1	43	30	22	212	.77	.36	22
NORTH CENTRAL										
Alva	70.2	105	1	42	6	29	184	1.42	.48	22
Blackwell	68.9	103	1	44	30	36	153	3.45	1.84	17
Breckinridge	69.7	103	1	40	30	35	177	1.51	.51	17
Cherokee	69.9	105	1	43	6	30	176	1.36	.40	14
Fairview	71.3	104	1	48	30	24	214	1.36	.57	22
Freedom	71.2	106	1	46	30	22	207	1.57	.69	17
Lahoma	70.5	105	1	47	30	27	191	1.22	.50	22
NORTHEAST										
Bixby	68.9	101	13	46	26	36	154	3.90	1.91	22
Burbank	69.2	105	1	44	26	33	158	1.95	1.02	17
Claremore	69.5	101	1	45	26	35	168	2.58	1.53	22
Copan	68.5	103	1	41	26	41	147	1.04	.34	17
Foraker	68.7	104	1	43	26	39	151	1.35	.66	17
Inola	67.7	99	13	44	26	47	129	3.67	2.30	22
Jay	66.3	98	1	42	7	76	116	3.92	1.55	22
Miami	67.3	101	1	41	26	62	130	4.04	2.37	17
WEST CENTRAL										
Bessie	73.1	102	1	50	30	14	255	.83	.49	22
Butler	71.8	103	12	44	6	16	221	.97	.51	22
Camargo	70.2	103	12	42	6	22	180	1.46	.88	22
Cheyenne	71.6	100	12	49	15	20	220	1.11	.36	22
Erick	71.8	102	12	45	6	14	217	.86	.41	15
CENTRAL										
Acme	71.7	105	13	41	23	32	232	.99	.73	16
Bowlegs	70.6	107	13	43	23	32	200	1.54	.67	16
Bristow	68.3	105	13	39	7	55	154	3.23	1.59	17
Lake Carl Blac	69.0	104	1	41	6	42	163	2.47	1.25	22
Chandler	71.2	104	13	48	23	25	210	1.90	1.17	22
Chickasha	71.3	103	1	42	23	23	212	1.27	.68	22
El Reno	34.3	102	1	***	21	38	177	1.11	.70	22
Guthrie	71.6	103	1	49	9	22	221	1.14	.54	22
Kingfisher	71.0	105	1	44	6	24	205	1.24	.55	22
Marena	70.7	104	1	46	6	29	201	2.34	1.58	22
Minco	71.3	101	13	48	23	23	211	1.51	.71	22
Marshall	70.0	104	1	45	6	29	178	1.88	1.07	22
EAST CENTRAL										
Cookson	67.2	98	13	43	6	61	127	2.52	1.59	22
Eufaula	71.3	104	13	48	6	20	210	2.28	1.28	17
Haskell	69.0	102	13	45	7	39	160	3.63	1.36	22
Hectorville	70.7	102	13	48	26	26	196	3.02	1.54	22
Holdenville	71.7	108	13	45	23	26	227	1.04	.40	22
McAlester	70.6	105	13	45	9	24	192	2.00	.91	16
Okmulgee	68.8	105	13	43	30	43	158	3.31	1.42	17
SOUTHWEST										
Altus	74.6	107	13	47	6	8	296	.86	.37	17
Apache	72.0	104	13	47	23	19	229	.89	.29	22
Fort Cobb	71.2	101	13	47	23	16	203	.83	.50	22
Grandfield	74.7	108	13	48	6	11	302	3.34	1.75	16
Hinton	71.0	101	1	48	6	21	201	1.14	.63	22
Hobart	73.5	105	13	46	23	****	****	.64	.33	15
SOUTH CENTRAL										
Ada	72.0	108	13	44	6	26	237	.66	.43	16
Ardmore	74.1	108	13	49	23	8	280	2.51	1.56	16
Burneyville	73.7	107	13	43	6	****	****	.70	.35	16
Byars	72.7	105	13	47	23	22	254	1.04	.64	16
Centrahoma	72.4	108	13	44	23	17	238	.89	.57	16
Durant	76.2	107	13	51	23	0	337	.24	.12	15
Fittstown	72.3	107	13	44	23	21	241	.87	.49	16
Ketchum Ranch	74.0	107	13	45	23	15	284	1.20	1.01	16
Lane	73.3	106	13	46	7	4	253	1.34	1.02	16
SOUTHEAST										
Antlers	72.5	105	13	44	7	6	229	.81	.43	18
Antlers	*****	***	***	***	***	****	****	*****	*****	***
Broken Bow	73.1	106	13	44	7	5	247	2.59	1.75	18
Clayton	71.5	105	13	45	7	10	205	1.05	.35	16
Cloudy	73.7	104	13	48	7	6	269	1.10	.58	22
Hugo	75.3	106	13	51	7	2	311	.90	.42	22

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	68.5	102	1	41	30	33	137	1.67	.75	13
Hooker	69.3	104	1	41	30	32	159	1.02	.53	13
Kenton	67.0	100	1	41	30	48	109	.41	.21	21
Slapout	70.0	104	1	44	30	30	180	.76	.42	22
May Ranch	70.4	105	1	46	16	30	192	1.26	.50	14
Medford	69.6	105	1	44	30	31	169	3.04	1.66	17
Newkirk	68.6	103	1	44	30	39	147	2.88	1.86	17
Red Rock	69.1	105	1	43	30	39	162	2.11	.92	17
Seiling	70.4	103	1	42	6	24	185	1.72	.88	22
Woodward	71.1	104	1	47	30	26	210	.88	.46	22
Nowata	67.7	101	1	40	26	48	129	1.79	.67	22
Pawnee	69.6	104	1	45	30	33	171	3.22	1.71	17
Porter	69.4	101	1	45	26	37	170	3.28	1.45	22
Pryor	66.8	98	13	40	26	59	112	2.49	1.24	22
Skiatook	70.2	102	1	47	26	31	186	3.00	1.33	22
Vinita	67.2	101	13	41	26	57	122	3.28	1.70	17
Wynona	69.0	103	1	44	26	36	156	1.94	.66	22
Putnam	71.4	102	1	48	9	21	214	1.10	.56	22
Retrop	73.1	102	13	50	16	12	255	.54	.34	15
Watonga	71.6	102	1	49	30	23	221	1.16	.72	22
Weatherford	72.2	101	12	50	15	19	235	.81	.56	22
Ninnekah	71.9	103	13	43	23	25	232	1.51	.46	16
Norman	72.0	104	13	46	23	23	233	2.03	.88	16
Oilton	68.2	103	1	40	6	57	154	4.47	2.29	17
OKC East	71.6	102	1	48	23	24	221	1.80	.98	22
OKC North	72.4	103	1	51	22	20	243	2.14	.95	22
OKC West	72.5	101	1	49	23	19	243	2.09	.97	22
Okemah	70.5	107	13	44	23	34	198	2.02	1.15	22
Perkins	70.6	104	1	47	26	29	198	2.18	1.03	22
Shawnee	71.6	106	13	48	7	25	224	1.79	.92	22
Spencer	71.4	102	1	48	6	24	218	2.13	1.02	22
Stillwater	70.1	104	1	45	30	31	185	3.17	1.73	22
Washington	72.1	105	13	47	23	22	233	1.10	.63	16
Sallisaw	69.8	100	13	46	7	24	167	2.19	1.01	18
Stigler	69.5	103	13	45	7	29	164	3.79	2.38	18
Stuart	72.0	107	13	47	23	21	231	2.47	1.39	18
Tahlequah	67.7	99	1	43	26	53	135	2.99	1.74	22
Webbers Falls	69.1	100	1	45	26	30	153	2.17	.92	22
Westville	67.0	95	1	45	23	57	117	4.26	2.18	18
Hollis	74.1	104	12	47	6	9	281	.50	.25	15
Mangum	72.8	106	13	43	6	13	247	.44	.28	15
Medicine Park	74.5	106	13	50	23	14	297	.63	.26	16
Tipton	74.2	107	13	47	23	9	284	1.04	.44	17
Walters	74.6	109	13	45	23	12	301	1.59	1.20	16
Madill	74.9	107	13	46	23	4	300	1.33	.67	16
Newport	74.0	107	13	47	23	11	281	1.91	.86	16
Pauls Valley	73.1	108	13	44	23	18	260	.99	.80	16
Ringling	74.4	107	13	44	23	10	291	1.21	.50	17
Sulphur	72.5	107	13	43	23	21	247	.69	.35	16
Tishomingo	73.3	107	13	47	23	9	258	1.75	.92	16
Vanoss	71.9	107	13	44	23	27	236	.75	.53	16
Waurika	74.8	107	13	44	23	9	303	1.09	.57	17
Idabel	74.8	107	13	48	7	0	294	.80	.59	22
Mt Herman	72.2	102	13	47	23	10	226	.83	.29	22
Talihina	71.5	103	13	43	9	12	207	.79	.42	16
Wilburton	70.7	106	13	44	7	21	192	2.15	1.16	18
Wister	70.2	103	13	42	7	23	178	2.04	1.35	18

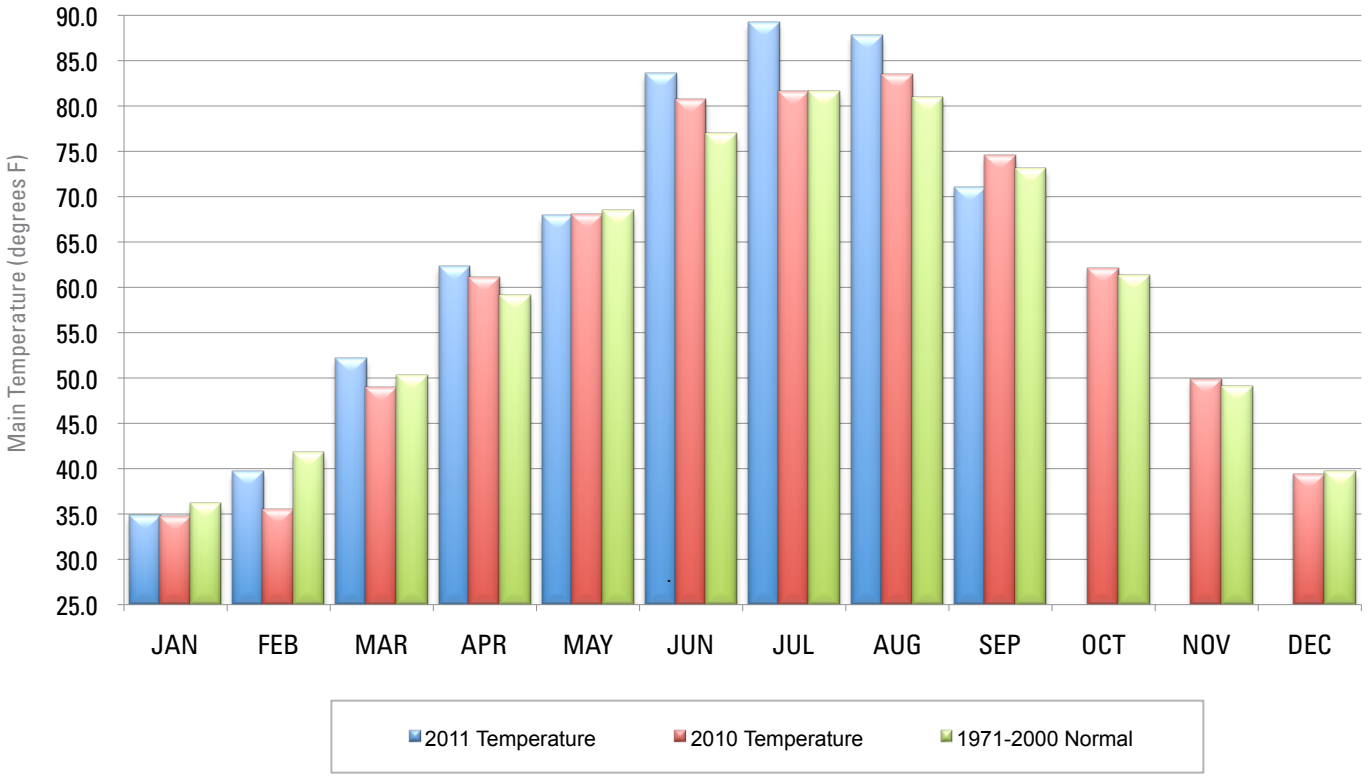
2010 AND 2011 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



September 2011 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Sep-10
Panhandle	0.81	-1.07	20th Driest	4.57 (1985)	0.05 (1956)	1.35
North Central	1.83	-1.30	36th Driest	7.08 (1945)	0.04 (2000)	1.98
Northeast	2.76	-2.02	42nd Driest	12.42 (1986)	0.13 (1948)	5.70
West Central	0.98	-2.05	16th Driest	8.64 (1986)	0.02 (2000)	2.11
Central	1.96	-2.15	26th Driest	10.68 (1945)	0.19 (1956)	4.01
East Central	2.74	-2.22	42nd Driest	10.40 (1970)	0.23 (1948)	6.86
Southwest	1.08	-2.31	22nd Driest	8.68 (1936)	0.00 (1898)	3.03
South Central	1.13	-3.21	13th Driest	9.98 (1936)	0.00 (1909)	6.21
Southeast	1.31	-3.26	13th Driest	11.75 (1974)	0.29 (1948)	5.26
Statewide	1.66	-2.15	20th Driest	7.86 (1945)	0.27 (1956)	4.08

2010 AND 2011 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



September 2011 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Sep-10 (F)
Panhandle	84.0	6.2	1st Warmest	83.1 (1983)	71.3 (1915)	81.0
North Central	86.9	6.2	3rd Warmest	88.9 (1936)	72.3 (1915)	82.5
Northeast	85.1	5.3	7th Warmest	88.4 (1936)	71.7 (1915)	83.9
West Central	88.2	8.0	1st Warmest	87.4 (1936)	72.9 (1915)	83.2
Central	88.6	7.6	1st Warmest	88.3 (1936)	73.1 (1915)	84.1
East Central	86.9	6.5	3rd Warmest	88.0 (1936)	73.0 (1915)	85.4
Southwest	91.0	9.2	1st Warmest	88.1 (1952)	75.4 (1915)	85.0
South Central	90.6	8.8	1st Warmest	87.6 (1934)	75.5 (1915)	85.5
Southeast	88.0	7.7	1st Warmest	87.3 (1943)	74.5 (1915)	84.8
Statewide	87.7	7.3	1st Warmest	87.2 (1936)	73.2 (1915)	83.9

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Lowest Minimum Temperature	6	Tulsa	48	52	1974
Lowest Minimum Temperature	6	McAlester	47	48	1974
Lowest Minimum Temperature	7	Tulsa	49	50	1918
Lowest Minimum Temperature	8	McAlester	48	51	1956
Lowest Minimum Temperature	9	Tulsa	51	51	1943
Lowest Minimum Temperature	9	McAlester	46	52	2004
Highest Maximum Temperature	13	Oklahoma City	102	102	1965
Highest Maximum Temperature	13	McAlester	105	101	1965

MESONET EXTREMES FOR SEPTEMBER 2011

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	107	1st	Buffalo	39	30th	Boise City	1.67	Goodwell	0.75	13th	Goodwell
North Central	106	1st	Freedom	40	30th	Breckinridge	3.45	Blackwell	1.86	17th	Newkirk
Northeast	105	1st	Burbank	40	26th	Nowata	4.04	Miami	2.37	17th	Miami
West Central	103	12th	Camargo	42	6th	Camargo	1.46	Camargo	0.88	22nd	Camargo
Central	107	13th	Bowlegs	39	7th	Bristow	4.47	Oilton	2.29	17th	Oilton
East Central	108	13th	Holdenville	43	6th	Cookson	4.26	Westville	2.38	18th	Stigler
Southwest	109	13th	Walters	43	6th	Mangum	3.34	Grandfield	1.75	16th	Grandfield
South Central	108	13th	Centrahoma	43	23rd	Sulphur	2.51	Ardmore	1.56	16th	Ardmore
Southeast	107	13th	Idabel	42	7th	Wister	2.59	Broken Bow	1.75	18th	Broken Bow
Statewide	109	13th	Walters	39	7th	Bristow	4.47	Oilton	2.38	18th	Stigler

OCTOBER OUTLOOK

October typically brings Oklahoma some of its most pleasant weather. Days are usually pleasantly warm and nights typically are refreshingly cool. On the occasions that the weather does turn nasty, however, the result too often is flood, as October seems to be a favored time for extreme precipitation events. The year's tenth month is Oklahoma's 6th warmest and 4th wettest, according to the most recently compiled statewide normals. From 1971 through 2000, the period from which current normals of temperature and precipitation were calculated, Oklahoma's October average temperature was 62.0 degrees Fahrenheit and the average reporting station received a monthly precipitation of 3.38 inches.

Temperature

Mean	62.0 degrees
Warmest October	1963, 69.9 degrees
Coolest October	1925 and 2009, 54.4 degrees
Warmest location	Waurika, 66.3 degrees
Coolest location	Turpin, 56.6 degrees
Hottest recorded	110 degrees, Waukomis, October 2, 1898
Coldest recorded	6 degrees, Kenton, October 30, 1993

October is given to wide extremes of precipitation. The larger monthly figures are usually impacted by one or two very large events. Remnants of tropical storms or hurricanes, usually from the Gulf of Mexico, but occasionally originating in the Pacific Ocean, occasionally bring widespread heavy rains to the state during October. At other times, mid-latitude storm systems have stalled over the state and, taking advantage of moisture borne from the Gulf by the prevailing southerly winds, produced prodigious amounts of rain. In many other years, October is virtually without rain. Monthly precipitation totals include a statewide-averaged high of 11.32 inches in 1941, the largest total ever recorded for Oklahoma (any month), and a low of 0.14 inch, attained in 1952. The remnants of Hurricane Norma provided enough rain over a three-day period in October 1981 to give Madill the greatest monthly precipitation total (25.80 inches) ever recorded at a recognized reporting station in Oklahoma (all months). A thoroughly extra-tropical thunderstorm system inundated Enid with 15.68 inches of rain in about 12 hours (12 inches in just 3 hours) on October 11, 1973. That total, reported the following morning, is the state's greatest 24-hour precipitation in any month, as measured at an official reporting station.

The normal precipitation pattern across Oklahoma in October returns to its familiar configuration with eastern stations receiving substantially more rainfall than those in the west. Normal monthly precipitation across the state during October ranges from 6.22 inches at Smithville to 0.99 inches at Kenton. Snowfall is not common during October, but Regnier, Kenton, and Boise City each average receiving about one inch of snow during the month. Those averages were inflated by a freak snowstorm on October 25 and 26, 1997 that dropped 15 inches of snow on Kenton. As many as 15,000 head of cattle across the panhandle died during that snowstorm.

Precipitation

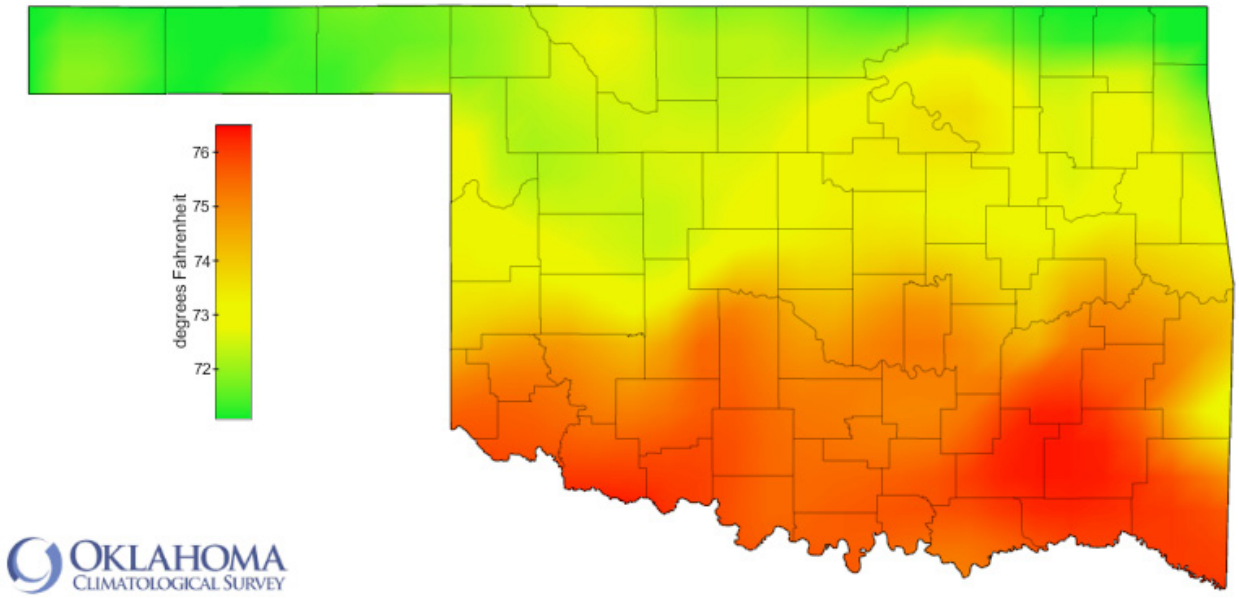
Mean	3.38 inches
Wettest year	1941, 11.32 inches
Driest year	1917, 0.21 inches
Wettest location	Smithville, 6.22 inches
Driest location	Kenton, 0.99 inches
Most recorded	25.80 inches, Madill, 1981

Tornadoes

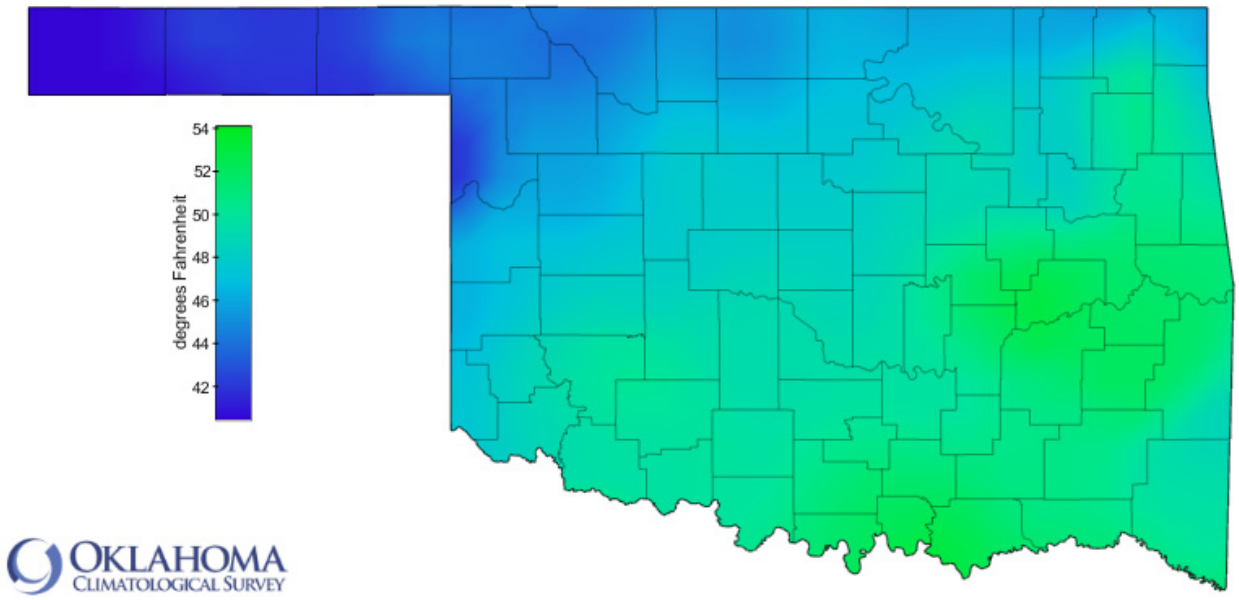
Average October Tornadoes	2
Most	27 (1998)

Severe thunderstorms, apart from the floods, historically have been little more than footnotes in October for most of the state's history. However, recent occurrences have altered that notion somewhat. Reasonably comprehensive and well-documented tornado records in the state date from 1950. During those 54 years, 123 October tornadoes have been identified in Oklahoma, an average of 2.3 per year. There were no October tornadoes reported during 23 of those years. However, 25 tornadoes were reported in the state on October 4, 1998 and 19 more were reported on October 9, 2001. Those two days account for over one-third of the tornadoes reported (and confirmed) within the state in October during that 54-year period. The state's monthly total of 27 tornadoes during October 1998 represents the most tornadoes ever reported within any state during an October.

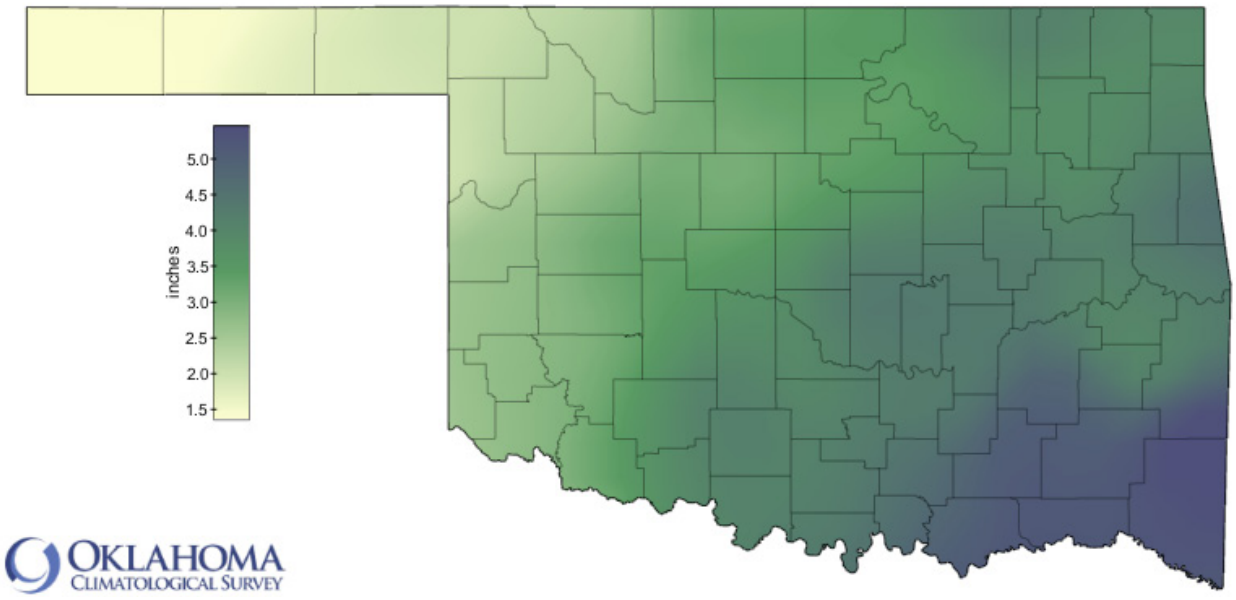
OCTOBER NORMAL DAILY MAXIMUM TEMPERATURE (1981-2010)



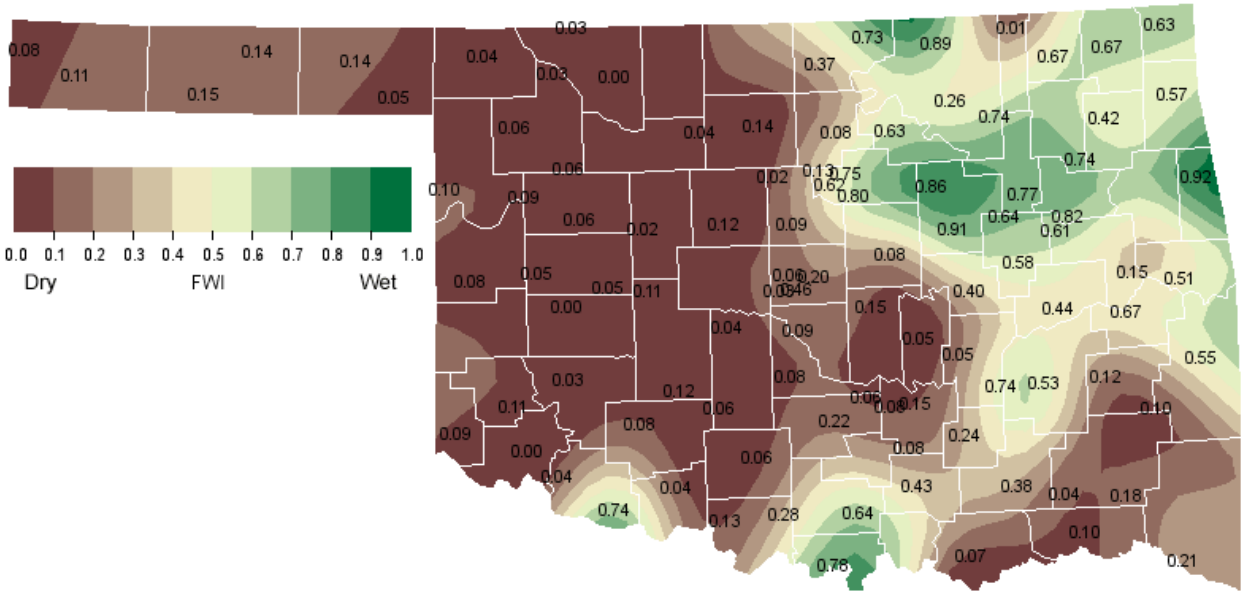
OCTOBER NORMAL DAILY MINIMUM TEMPERATURE (1981-2010)



OCTOBER NORMAL PRECIPITATION (1981-2010)



OCTOBER 1, 2011 SOIL MOISTURE CONDITIONS AT 25CM



OCTOBER 2011 DROUGHT INDICES

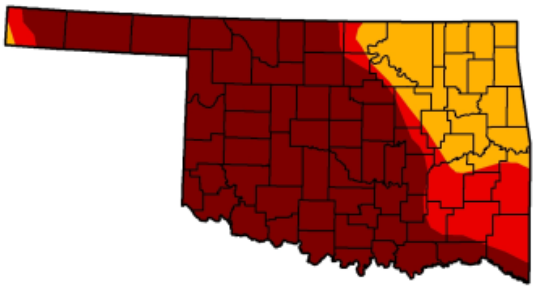
U.S. Drought Monitor

September 27, 2011
Valid 7 a.m. EST

Oklahoma

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	78.97	66.42
Last Week (09/20/2011 map)	0.00	100.00	100.00	100.00	90.00	66.42
3 Months Ago (06/28/2011 map)	0.13	99.87	75.59	55.96	41.22	32.55
Start of Calendar Year (12/28/2010 map)	13.82	86.18	47.90	1.50	0.00	0.00
Start of Water Year (09/28/2010 map)	66.28	33.72	4.21	0.00	0.00	0.00
One Year Ago (09/21/2010 map)	58.82	41.18	4.21	0.00	0.00	0.00



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

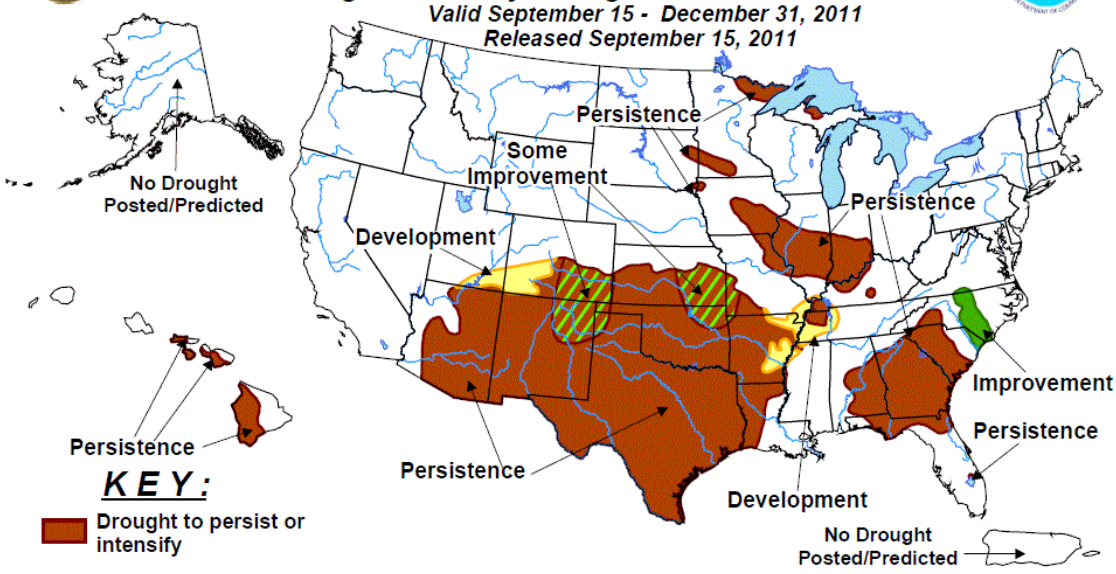
USDA National Drought Mitigation Center

Released Thursday, September 29, 2011
Michael Brewer, National Climatic Data Center, NOAA

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid September 15 - December 31, 2011
Released September 15, 2011

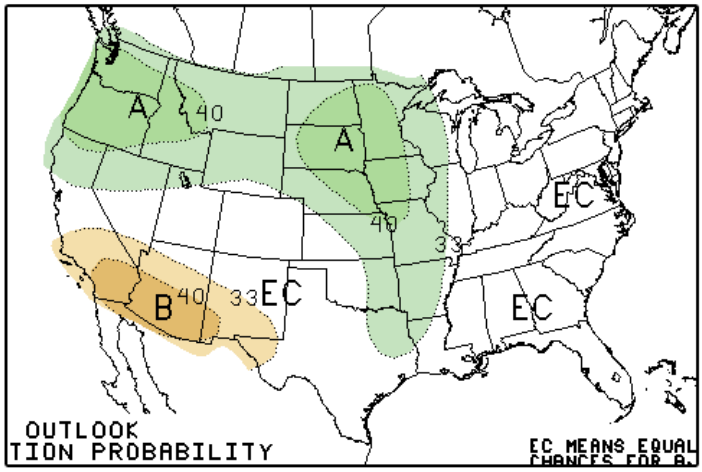


KEY:

- 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,

OCTOBER 2011 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

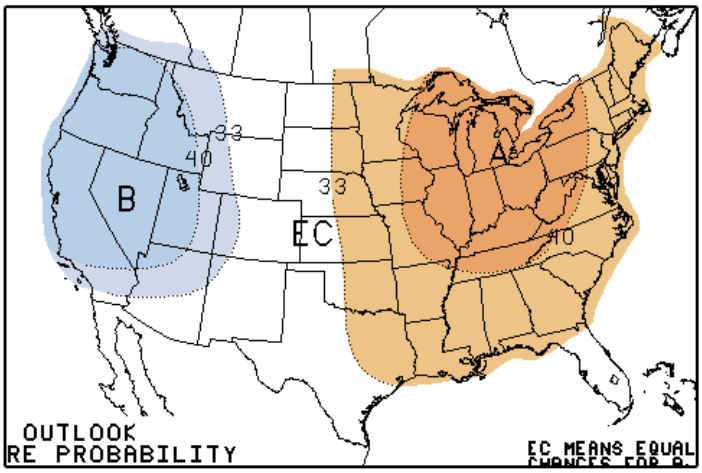
A = Above

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

B = Below

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

OCTOBER 2011 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

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

A = Above

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

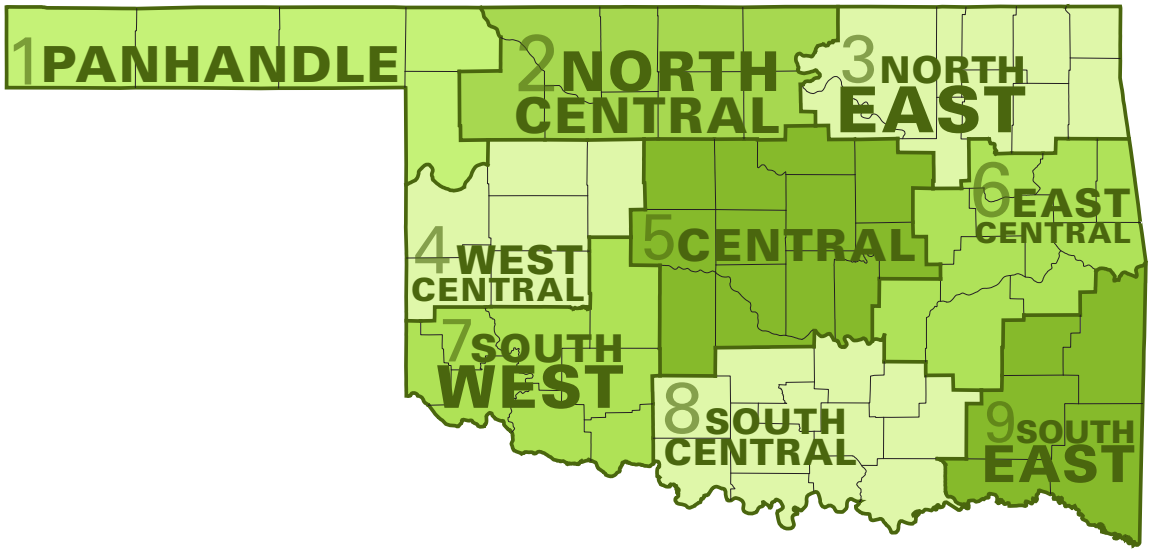
B = Below

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

OCTOBER CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	73.70	42.90	58.30	1.49
2	73.50	46.50	60.00	2.66
3	73.80	48.70	61.30	3.62
4	73.70	47.20	60.50	2.47
5	74.40	49.30	61.80	3.64
6	74.50	50.00	62.30	4.19
7	75.80	48.90	62.30	2.99
8	76.10	50.80	63.50	4.17
9	76.10	49.50	62.80	4.98
Statewide	74.60	48.30	61.50	3.48

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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