OKLAHOMA MONTHLY CLIMATE SUMMARY
OCTOBER 2004

Oklahoma Climatological Survey

Overview

Oklahoma benefited from a strong southerly flow of humid air from the Gulf of Mexico to help the month finish as the 30th warmest and 17th wettest October on record. This continued a recent pattern of unusual weather, beginning with the driest May on record, followed by an abnormally cool, wet summer and an extremely dry September. As is often the case in October, when the storms appeared, they produced prodigious amounts of rainfall. The result was numerous instances of urban and small stream flooding. That was the extent of the significant severe weather in most cases, although hail was an unwelcome visitor with a few of the storms. Tornado reports were absent for the fourth consecutive month, and by October's end, Oklahoma's tornadoless streak stood at 144 days. The 54 twisters for the year thus far is equal to the average number experienced annually, however.

Precipitation

The most striking aspect of October's precipitation, the statewide-average of which was nearly two inches above normal, was a corridor from south central through east central Oklahoma that had surpluses of five to ten inches. It was that bountiful excess which allowed those sections of the state to experience their 8th and 11th wettest Octobers on record, respectively. Although all regionally-averaged precipitation totals finished above normal, a few localized sections of the state remained excessively dry. The western Panhandle failed to receive an inch of rain for the month, although the Oklahoma Mesonet site at Kenton came tantalizingly close. Kenton's close-by neighbor, Boise City, barely registered any moisture with less than a quarter of an inch total. Far southwestern Oklahoma was also dry with less then two inches of rainfall for the month. For the fall season thus far, the moisture surplus during October was not enough to overcome the deficits of September. The statewide-averaged precipitation for September-October is still nearly three-quarters of an inch below normal. The year-to-date total is in significantly better shape at nearly two inches above normal, the 26th wettest such period on record. The lone exception remains the southeastern corner of the state, which is still dealing with a deficit of over three inches.

Temperature

At two degrees above normal, the statewide-averaged temperature reflected the tropical nature of the air mass over Oklahoma during parts of October. The southeast was relatively balmy at five degrees above normal, the 9th warmest October on record for that area. The Panhandle, which found itself languishing behind many of the cold fronts which visited the state during the month, barely managed to finish near normal. The state experienced its first freezing temperature since May 14th on October 2nd, with Buffalo reaching a low of 32 degrees. The Oklahoma Mesonet recorded 11 low temperatures at or below freezing during October, the coldest of which, 25 degrees, occurred at Boise City on the 30th. The season-to-date and year-to-date statewide-averaged temperatures still remain on the warm side, finishing as the 29th and 38th warmest such periods on record, respectively.

October 2004 Statewide Extremes

Description	Extreme	Station	Date
High Temperature	94ºF	Hollis	October 21st
Low Temperature	25ºF	Boise City	October 30th
High Precipitation	14.13 in.	Eufaula	
Low Precipitation	0.22 in.	Boise City	

October Daily Highlights

October 1-7: Strong thunderstorms ushered in the month, pushed ahead of a cold front that had entered the state from the northwest. While the activity did not reach severe limits, they did bring the southern half of the state beneficial rainfall. Highs on the month's first day reached the 70s and 80s, but the cold front brought cooler and drier air to the region the following day. Northern Oklahoma dipped into the 30s on the 2nd, with Buffalo reaching the freezing mark. The weather was mild for the next couple of days, a by-product of the surface high pressure which swept in behind the front. Highs in the 60s and 70s warmed slightly to 70s and 80s on the 3rd. Another cold front brought widespread showers and thunderstorms the morning of the 4th. Lows ahead of the front were 15-20 degrees warmer than the previous morning, falling generally into the

60s overnight. The storms of the morning quickly overspread the entire state during that afternoon. The Oklahoma Mesonet site at Ketchum Ranch recorded nearly two inches of rainfall. Surface high pressure behind the front once again provided a cooler and drier afternoon on the 5th before another bout with showers and thunderstorms for the next two days. The showers moved in overnight on the 6th. Most were light, although the rainfall amounts in the northwest were a bit heftier than those in the rest of the state. Low temperatures remained in the 50s and 60s due to the thick cloud cover. The aerial coverage of the storms expanded during the afternoon and extended into the next day. Very heavy rainfall was recorded in several areas, especially in the southwest corner of the state. The Mesonet site at Hobart received nearly five inches of rainfall, and Apache recorded over four inches. Dime-sized hail was reported by observers in Altus with storms there, but the main severe threat elsewhere was due to localized flooding. Heavy rain in the northeast caused flooding in Caddo, Creek, Kiowa, and Tulsa counties.

October 8-11: Dense fog overnight on the 8th hampered travelers in lieu of a cold front approaching from the northwest. The front pushed through the area during the day, generating isolated showers and storms. High temperatures rose into the low-mid 80s in advance of the front. An upper level storm over the Texas Panhandle produced widespread light rain in central and south central sections of the state. Winds were from the northeast, and highs were in the 60s and 70s. Heavier rainfall fell on the 10th. While most areas received between one-quarter and three-quarters of an inch, areas of central and southern Oklahoma received more substantial amounts. The Oklahoma Mesonet sites at Antlers and Centrahoma recorded over four inches, and Shawnee and Guthrie recorded just under four inches. The rain continued overnight into the 11th. Most of the rainfall of the 10th and 11th was due to moisture provided by the remnants of Tropical Storm Matthew which moved over western Arkansas from the Gulf of Mexico and Louisiana. As the activity died down late on the 11th, much of the state was left with one to three inches of rainfall.

October 12-14: Skies slowly cleared from the west to east on the 12th as the upper level low which brought the unsettled weather of the previous couple days moved to the east. Northwesterly winds provided cooler temperatures, with lows in the 40s and 50s, and highs from the mid-60s to mid-70s. Another cold front moved in overnight on the 13th. Northerly winds from 15-25 mph combined with low temperatures in the 40s and 50s to produce a dreary pair of days. Rain showers behind the front dropped light rain in eastern sections on the 14th, and lows plummeted in the northwest into the 30s.

October 15-21: This week-long period remained dry for the most part, and was marked by several frontal passages, both cold and warm. The period began on the cool side. Lows were in the 30s and 40s, and highs were in the 60s behind yet another cold front. An intense low pressure system moving east across southern Kansas kicked winds up from the south on the 18th, drawing up warm, moist air from the Gulf of Mexico. Lows only reached the low-70s in southern Oklahoma, while temperatures plunged into the 40s in the drier air of the Panhandle. High temperatures reflected the same moisture differences, with mid-60s in north central Oklahoma and upper-80s in the south. The period ended on the warm side, with Oklahoma City tying a record high on the 21st at 90 degrees.

October 22-24: More record warmth for Oklahoma City on the morning of the 22nd. The low temperature on the 22nd at Oklahoma City was 65 degrees, which ties the record for warmest minimum temperature for that date, previously set in 1941. A strong upper-level storm brought storms to the state once again. Many areas in the northeast received well over an inch of rain. Winds kicked up in western Oklahoma to over 30 mph, with gusts to 40 mph. Cooler and drier air appeared on the 23rd behind a cold front. An approaching storm system kicked winds up again from the south, raising temperatures and humidity. Temperatures in the 80s were widespread.

October 25-31: The month's final week was marked by unsettled weather. A cold front pushed into the state overnight on the 25th. Low temperatures behind the front fell into the 30s and 40s, but remained in the 60s ahead of the front. The front stalled across the state in the afternoon, generating showers and thunderstorms. The rainfall intensified during the next couple of days. Widespread rains of more than an inch occurred on the 26th and 27th. The Mesonet site at Eufaula reported over four inches on the 27th, and Stigler had nearly three inches. Mostly cloudy skies and unseasonably warm high and low temperatures were the big story for the next couple of days, setting the stage for another stormy day on the 31st. Eufaula had another significant rainfall with nearly four inches, while more general amounts of over two inches occurred in the south and east. Flooding was reported in Cherokee, McIntosh, and Muskogee counties.

October 2004 Statewide Statistics

Temperature

	Average	Depart.	Rank (1892-2004)
Month (October)	63.3ºF	2.0ºF	30th Warmest
Season-to-Date (Sep-Oct)	68.4ºF	1.6ºF	29th Warmest
Year-to-Date (Jan-Oct)	63.1ºF	0.3ºF	38th Warmest

Precipitation

	Total	Depart.	Rank (1892-2004)
Month (October)	5.24 in.	1.86 in.	17th Wettest
Season-to-Date (Sep-Oct)	6.47 in.	-0.72 in.	49th Wettest
Year-to-Date (Jan-Oct)	33.71 in.	1.86 in.	26th Wettest

Depart. = Departure from 30-year normal

October 2004 Severe Weather

Significant Tornadoes (F2 or greater)

No significant tornadoes were reported in the state.

Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Date

No severe hail was reported in the state

Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Date

No severe wind gusts were reported in the state

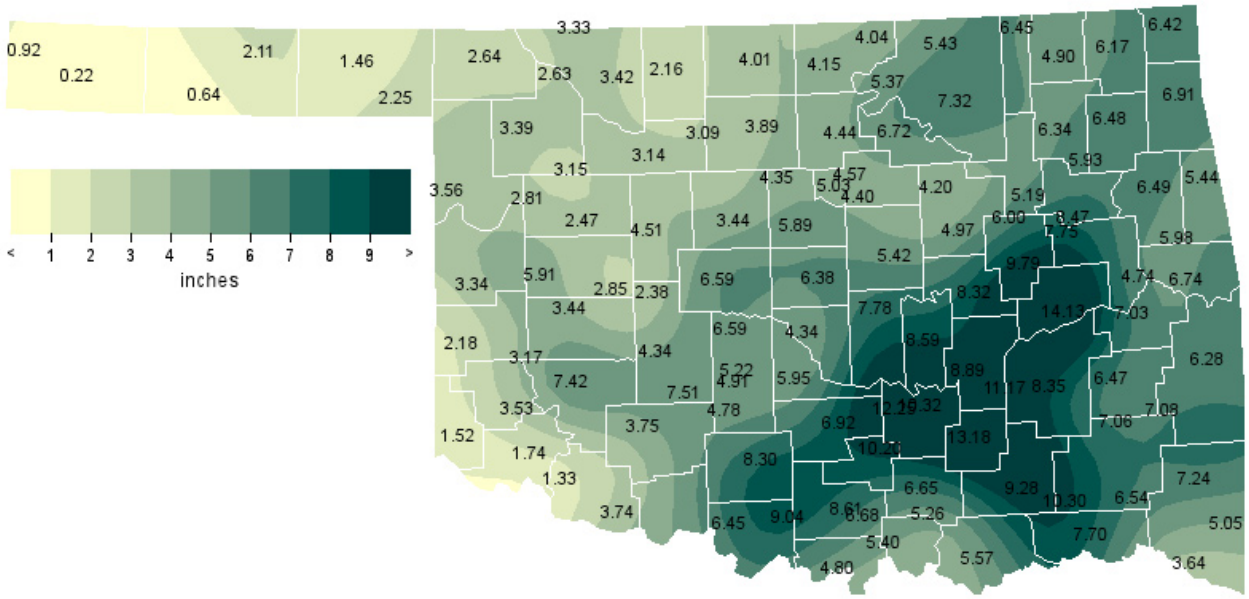
Flooding

Location	County	Date
2 W Cyril	Caddo	10/07/04
Anadarko	Caddo	10/07/04
Lone Wolf	Kiowa	10/07/04
Tulsa	Tulsa	10/07/04
Sapulpa	Creek	10/07/04
Muskogee	Muskogee	10/31/04
Checotah	McIntosh	10/31/04
Fort Gibson	Muskogee	10/31/04
8 E Wagoner	Cherokee	10/31/04

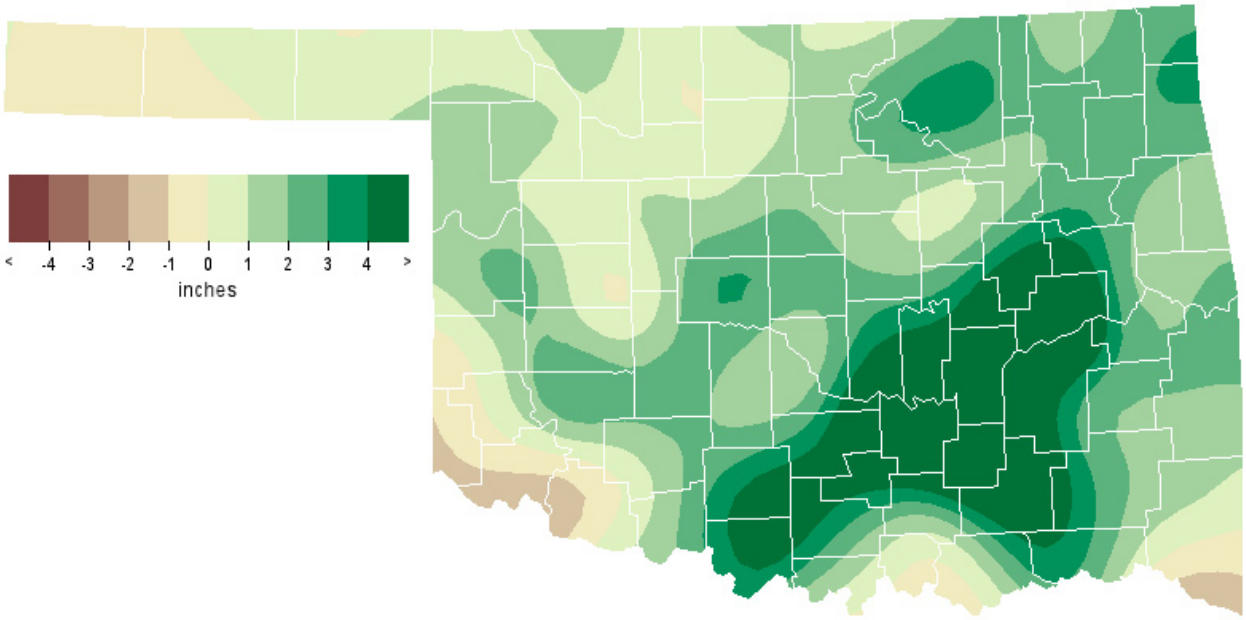
Record Event Reports

Description	Day	Location	Record	Previous Record	Year
Daily Maximum Rainfall	7	Tulsa	3.22 inches	2.07 inches	1928
Daily Maximum Rainfall	10	McAlester	2.49 inches	0.77 inches	1961
Daily Maximum Rainfall	10	Oklahoma City	2.19 inches	0.94 inches	1985
Warmest Maximum Temperature (tied)	21	Oklahoma City	90	90	1978
Warmest Minimum Temperature (tied)	22	Oklahoma City	65	65	1941
Warmest Maximum Temperature (tied)	28	McAlester	82	82	2000
Warmest Minimum Temperature	28	Oklahoma City	69	65	1961

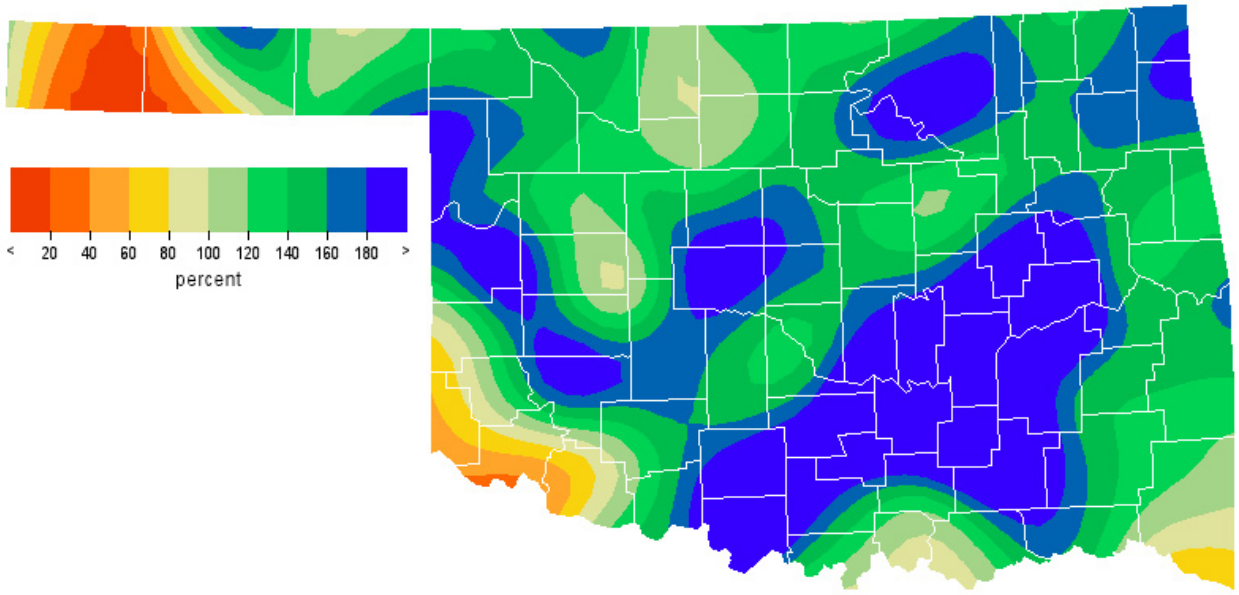
October 2004 Observed Precipitation



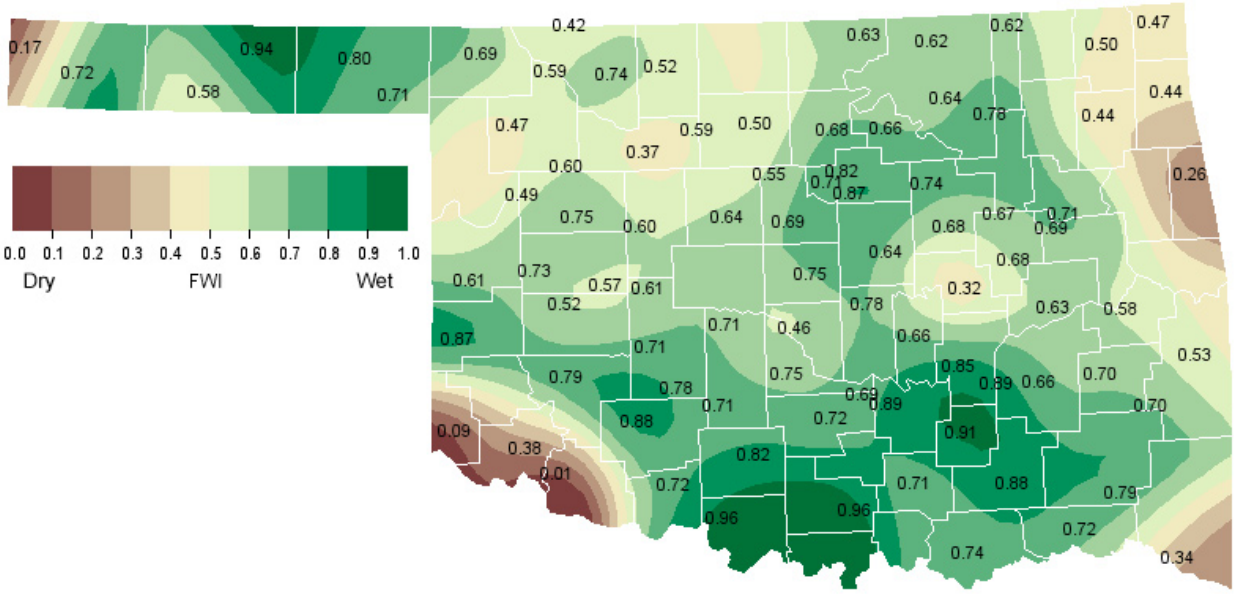
October 2004 Departure from Normal Precipitation



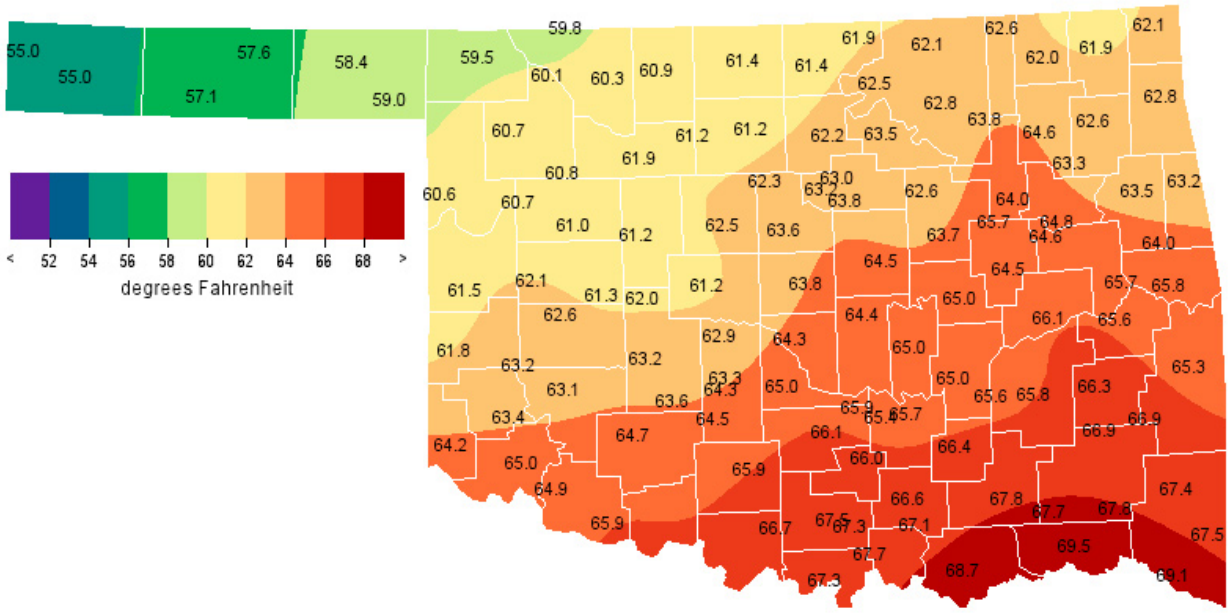
October 2004 Percent of Normal Precipitation



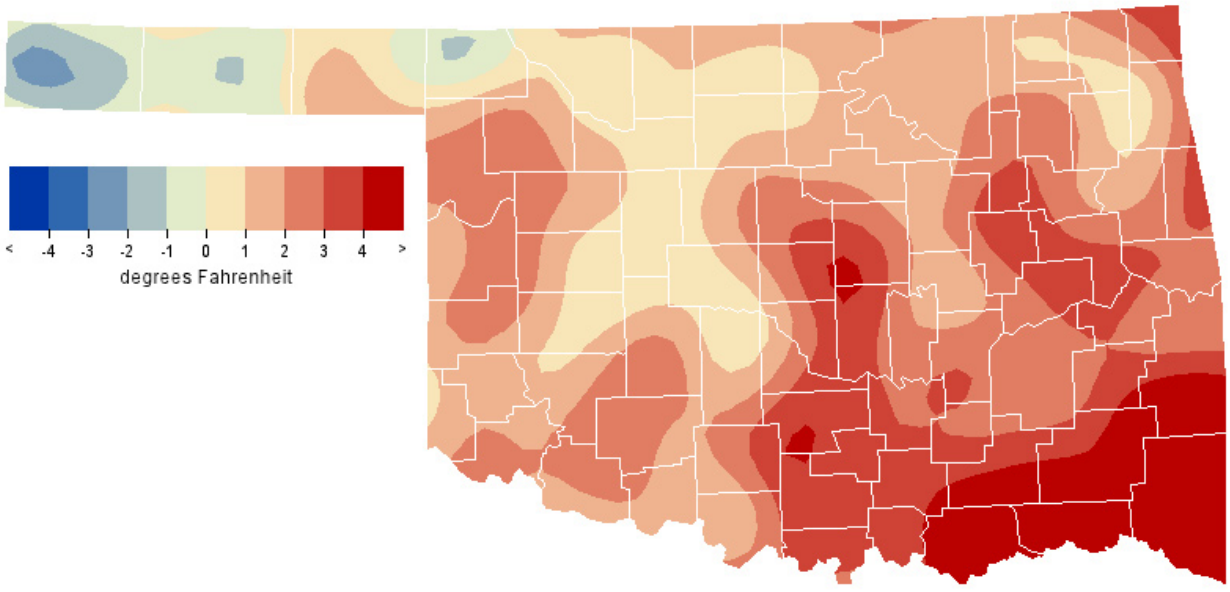
October 2004 Average Soil Moisture at 25cm



October 2004 Average Temperature



October 2004 Departure from Normal Temperature



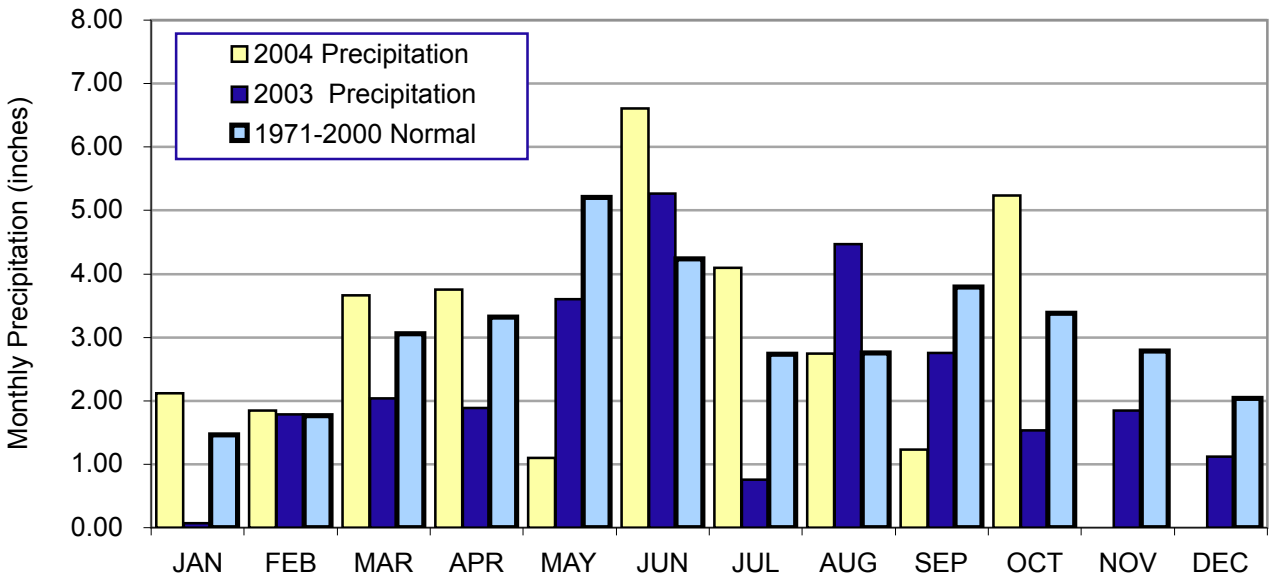
Mesonet Monthly Summary for October 2004

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	60.6	90	21	35	14	160	24	3.56	1.40	6
Beaver	58.5	86	21	32	30	215	13	1.46	.76	11
Boise City	55.1	81	21	25	30	308	0	.22	.14	13
Buffalo	59.4	90	21	32	2	199	26	2.64	.83	6
Goodwell	57.1	82	17	28	30	247	3	.64	.25	11
Hooker	57.6	85	17	31	30	235	6	2.11	1.00	4
Kenton	55.1	82	21	26	30	307	0	.92	.42	5
Slapout	59.0	88	21	34	14	199	14	2.25	.91	6
NORTH CENTRAL										
Blackwell	61.4	86	21	34	2	146	35	4.15	1.21	10
Breckenridge	61.2	86	21	39	2	146	28	3.89	1.69	10
Cherokee	60.9	87	21	37	14	156	29	2.16	.94	11
Fairview	61.9	90	21	37	14	135	39	3.14	.94	10
Freedom	60.1	89	21	33	14	174	21	2.63	.91	11
Lahoma	61.2	86	21	39	14	146	29	3.09	.83	10
May Ranch	59.7	89	21	34	14	182	19	3.33	1.05	11
Medford	61.4	85	21	38	14	144	33	4.01	1.21	10
Newkirk	61.9	84	21	36	2	138	42	4.04	1.09	11
Red Rock	62.3	89	21	38	2	130	46	4.44	1.78	10
Seiling	60.8	90	21	36	14	159	28	3.15	.76	10
Woodward	*****	***	***	***	***	****	****	*****	*****	***
Alva	60.3	90	21	34	14	166	20	3.42	1.16	11
NORTHEAST										
Bixby	63.8	86	18	39	15	****	****	4.87	1.09	11
Burbank	62.4	89	21	37	2	129	49	5.37	1.47	10
Copan	62.6	84	8	39	3	126	51	6.45	1.16	11
Foraker	62.1	88	21	36	2	134	44	5.43	1.51	11
Jay	62.9	86	18	37	14	123	56	6.91	2.10	31
Miami	62.1	83	18	37	16	138	49	6.42	1.53	26
Nowata	61.9	83	8	35	15	140	43	4.90	1.35	11
Pawnee	63.4	90	21	38	3	112	63	6.72	1.53	10
Pryor	62.6	84	18	36	15	123	48	6.48	1.15	29
Skiatook	63.9	85	21	42	14	100	65	*****	*****	***
Vinita	61.9	83	6	37	3	138	42	6.17	1.73	26
Wynona	62.8	90	21	39	3	122	55	7.32	1.96	11
Porter	64.9	88	18	40	15	82	79	8.47	2.22	31
Inola	63.7	87	18	37	14	****	****	5.93	1.49	31
Claremore	64.6	85	4	42	3	85	72	6.34	2.25	7
WEST CENTRAL										
Bessie	62.6	87	21	38	14	120	45	3.44	1.70	10
Butler	62.1	88	21	34	14	130	39	5.91	2.01	26
Camargo	60.6	88	21	34	14	163	27	2.81	.92	10
Cheyenne	61.5	85	21	36	14	141	33	3.34	.95	10
Erick	61.8	87	21	35	14	136	35	2.18	.66	5
Putnam	61.1	88	21	36	14	152	31	2.47	.82	10
Retrop	63.1	88	21	37	14	108	50	3.17	2.00	7
Watonga	61.3	85	21	37	14	143	27	4.51	1.53	10
Weatherford	61.3	82	8	36	14	142	26	2.85	1.30	10
CENTRAL										
Bowlegs	65.0	88	21	40	3	86	86	8.59	3.15	10
Bristow	63.6	88	21	36	3	114	71	4.97	1.54	27
Chandler	64.5	90	21	39	3	93	77	5.42	2.75	10
Chickasha	63.3	85	21	41	30	100	48	5.22	2.12	10
El Reno	61.2	89	21	37	3	****	****	6.59	2.12	10
Guthrie	63.6	89	21	41	14	100	58	5.89	3.77	10
Kingfisher	62.5	89	21	40	30	126	47	3.44	1.92	10
Marena	63.2	90	21	40	14	108	52	5.03	2.15	10
Minco	63.0	86	21	40	14	109	46	6.59	2.04	7
Oilton	62.7	89	21	35	3	133	61	4.20	1.40	10
Okemah	64.9	87	21	40	14	85	83	8.32	2.72	31
Perkins	63.7	90	21	40	3	102	63	4.40	1.85	10
Shawnee	64.3	88	21	41	3	95	74	7.78	3.83	10
Spencer	63.7	89	21	38	16	****	****	6.34	3.53	10
Stillwater	62.9	90	21	37	3	120	57	4.57	1.51	10
Washington	65.0	87	21	41	14	73	74	5.95	2.22	10
Ninnekah	64.2	87	21	41	14	85	61	4.91	1.92	10
Acme	64.5	88	21	40	14	84	69	4.78	1.72	10
Norman	64.3	87	21	42	3	93	72	4.34	2.16	10
Marshall	62.2	88	21	40	14	130	44	4.35	2.57	10
EAST CENTRAL										
Calvin	65.1	86	21	41	15	78	80	8.89	2.90	10
Cookson	63.9	88	18	35	14	107	72	5.98	1.74	31
Eufaula	66.1	88	18	42	14	62	96	14.13	4.03	27
Haskell	64.6	88	18	38	15	90	79	7.75	2.41	31
McAlester	65.8	88	18	41	15	69	93	8.35	2.89	10
Okmulgee	64.4	87	18	39	15	95	77	9.79	2.54	31
Sallisaw	65.8	90	18	36	15	67	93	6.74	1.61	31
Stigler	65.6	89	18	36	15	72	91	7.03	2.95	27
Stuart	65.7	88	18	42	14	66	86	11.17	3.28	10
Tahlequah	63.5	86	18	35	14	107	61	6.49	2.29	31
Webbers Falls	65.6	91	18	36	15	72	91	4.74	1.90	31
Westville	63.1	86	18	35	15	109	52	5.44	1.32	31
Hectorville	65.6	88	21	42	14	75	93	6.00	1.64	10
SOUTHWEST										
Altus	65.0	93	21	37	14	72	72	1.74	1.02	7
Fort Cobb	63.2	86	21	40	14	103	47	4.34	1.15	10
Hinton	62.0	86	21	37	14	128	36	2.38	1.10	10
Hobart	63.1	88	21	39	14	103	45	7.42	4.83	7
Hollis	64.1	94	21	38	30	****	****	.78	.34	10
Mangum	63.4	92	21	37	14	101	50	3.53	2.29	7
Medicine Park	64.7	87	21	42	14	72	61	3.75	.74	7
Tipton	65.0	93	21	39	14	68	68	1.33	.38	10
Walters	*****	***	***	***	***	****	****	*****	*****	***
Apache	63.6	85	21	40	14	****	****	7.49	4.25	7
Grandfield	65.9	93	21	42	14	53	79	3.74	1.13	6
SOUTH CENTRAL										
Ada	65.7	88	21	43	14	74	94	10.32	3.37	10
Burneyville	67.3	89	18	42	24	40	112	4.80	1.18	10
Byars	65.9	87	21	43	14	66	94	*****	*****	***
Centrahoma	66.5	89	18	40	15	57	102	13.18	4.34	10
Durant	68.8	90	19	46	15	22	138	5.57	1.32	10
Ketchum Ranch	65.9	89	21	43	14	59	87	8.30	2.29	31
Lane	67.8	88	18	44	15	31	118	9.28	2.98	10
Madill	67.7	89	18	44	14	38	121	5.40	1.07	1
Pauls Valley	66.1	88	21	43	3	64	97	6.92	2.59	10
Ringling	66.8	89	21	43	14	47	103	9.04	2.18	31
Sulphur	65.9	87	21	41	15	67	96	10.20	2.95	10
Tishomingo	66.6	88	18	41	15	54	103	6.65	1.65	10
Waurika	*****	***	***	***	***	****	****	6.45	1.68	31
Vanoss	65.4	89	21	41	3	79	93	12.25	3.24	10
Bee	67.1	89	18	43	24	44	107	5.26	1.21	10
Newport	67.5	88	21	44	14	41	117	8.61	2.35	10
Ardmore	67.3	87	18	46	14	40	110	6.68	2.06	10
SOUTHEAST										
Antlers	67.7	90	18	39	15	39	121	10.30	4.52	10
Clayton	66.9	89	18	36	15	55	113	7.06	2.29	7
Cloudy	67.8	88	18	39	15	41	127	6.54	1.19	7
Hugo	69.5	90	18	47	15	23	163	7.70	2.13	10
Idabel	69.1	89	19	40	15	40	165	3.64	.99	7
Mt Herman	67.4	87	19	37	15	51	126	7.24	1.44	27
Talihina	67.0	89	18	34	15	54	116	7.08	1.86	7
Wilburton	66.3	89	18	36	15	63	105	6.47	1.66	10
Wister	65.3	89	18	34	15	80	88	6.28	1.58	7
Broken Bow	67.6	90	19	35	15	50	131	5.05	1.13	7

October 2004 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Oct-03
Panhandle	1.72	0.21	36th Wettest	6.41 (2000)	0.03 (1952)	0.44
North Central	3.45	0.79	24th Wettest	9.65 (1998)	0.00 (1952)	1.82
Northeast	6.29	2.66	15th Wettest	17.33 (1941)	0.05 (1917)	3.05
West Central	3.41	0.85	25th Wettest	9.41 (1986)	0.00 (1910)	1.46
Central	5.59	1.93	16th Wettest	13.51 (1941)	0.00 (1917)	2.37
East Central	7.88	3.61	11th Wettest	14.75 (1941)	0.19 (1904)	2.33
Southwest	3.73	0.75	28th Wettest	11.44 (1983)	0.00 (1952)	0.61
South Central	8.06	3.81	8th Wettest	14.61 (1981)	0.00 (1917)	0.69
Southeast	6.74	1.78	16th Wettest	12.62 (1984)	0.10 (1921)	1.71
Statewide	5.24	1.86	17th Wettest	11.32 (1941)	0.14 (1952)	1.65

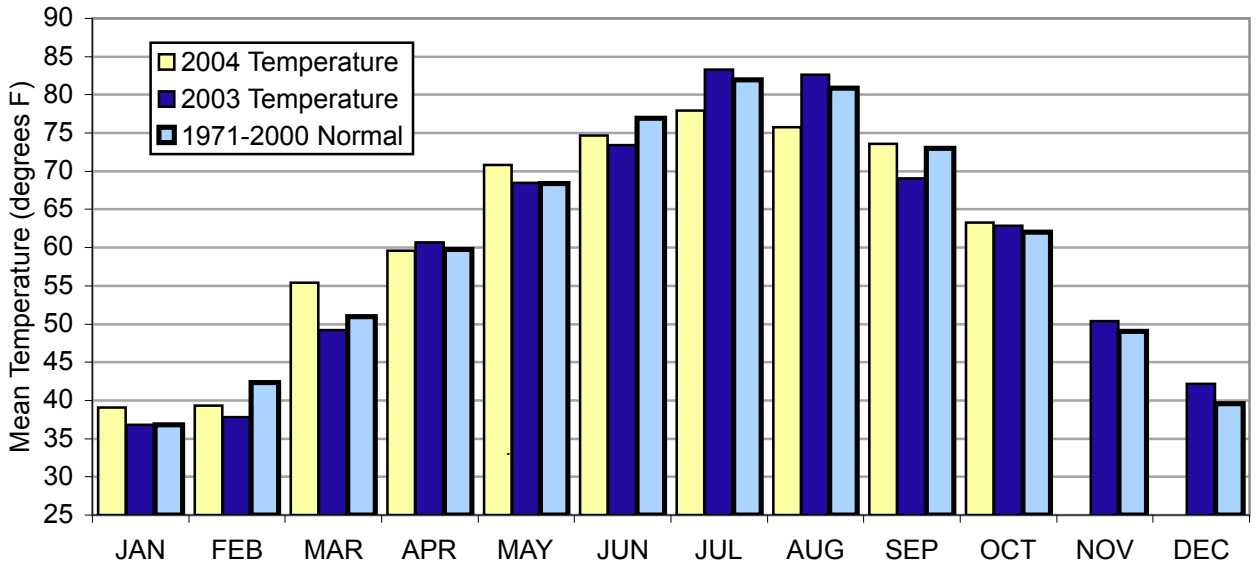
2003 and 2004 Statewide Precipitation Monthly Totals vs. Normal



October 2004 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Oct-03 (F)
Panhandle	57.8	0.0	50th Coolest	66.4 (1963)	50.9 (1925)	60.4
North Central	61.1	0.7	52nd Warmest	69.6 (1963)	52.1 (1925)	60.5
Northeast	63.0	2.3	29th Warmest	70.0 (1963)	52.9 (1925)	61.2
West Central	61.7	1.2	38th Warmest	69.0 (1963)	53.8 (1925)	62.1
Central	63.6	1.7	29th Warmest	70.3 (1963)	54.5 (1925)	62.8
East Central	65.0	2.9	26th Warmest	71.2 (1963)	55.5 (1925)	63.5
Southwest	64.0	1.5	34th Warmest	70.5 (1963)	55.4 (1925)	64.5
South Central	66.8	3.3	16th Warmest	71.5 (1963)	56.4 (1976)	64.8
Southeast	67.4	5.0	9th Warmest	70.6 (1963)	55.7 (1976)	64.2
Statewide	63.3	2.0	30th Warmest	69.9 (1963)	54.4 (1925)	62.6

2003 and 2004 Statewide Temperature Monthly Averages vs. Normal



Mesonet Extremes for October 2004

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	90	21st	Buffalo	25	30th	Boise City	3.56	Arnett	1.4	6th	Arnett
North Central	91	21st	Woodward	33	14th	Freedom	4.44	Red Rock	1.78	10th	Red Rock
Northeast	90	21st	Pawnee	35	15th	Nowata	8.47	Porter	2.25	7th	Claremore
West Central	88	21st	Retrop	34	14th	Butler	5.91	Butler	2.01	26th	Butler
Central	90	21st	Chandler	35	3rd	Oilton	8.59	Bowlegs	3.83	10th	Shawnee
East Central	91	18th	Webbers Falls	35	14th	Cookson	14.13	Eufaula	4.03	27th	Eufaula
Southwest	94	21st	Hollis	37	14th	Hinton	7.51	Apache	4.83	7th	Hobart
South Central	90	19th	Durant	40	15th	Centrahoma	13.18	Centrahoma	4.34	10th	Centrahoma
Southeast	90	18th	Antlers	34	15th	Talihina	10.30	Antlers	4.52	10th	Antlers
Statewide	94	21st	Hollis	25	30th	Boise City	14.13	Eufaula	4.83	7th	Hobart

November Climatological Outlook

Oklahoma's weather descends rather rapidly during November from the pleasantry of autumn into the chill of early winter. The state's normal temperature (averaged statewide) during the month, 49.0 degrees Fahrenheit, is the 4th lowest of any of the year's 12 months. Based on monthly averages across the state, November is 13 degrees cooler than October, easily Oklahoma's largest temperature difference between consecutive months. The increasingly frequent intrusions of cooler (and sometimes frigid) air, frequently accompanied by some dreary, dismal weather, are usually separated by interludes of gorgeous autumn days. The pleasant interludes provide farmers with an opportunity to complete the harvest of peanuts, cotton, and sorghum, or to finish drilling the new wheat crop. The statewide-averaged November normal precipitation is 2.78 inches, making November the 6th wettest of the months in Oklahoma. Snow, sleet, and ice are frequent late-November visitors to the state, too often creating travel hazards during the long Thanksgiving weekend.

Temperature
Mean: 49.0 degrees
Warmest November: 1989, 56.2 degrees
Coolest November: 1929, 42.6 degrees
Warmest location: Waurika, 53.4 degrees
Coolest location: Turpin, 42.8 degrees
Hottest recorded: 95 degrees, Waukomis, November 1, 1914
Coalgate, November 1, 1937
Coldest recorded: -15 degrees, Kenton, November 28, 1976

Statewide-averaged monthly temperature extremes for the Novembers since 1892 have varied between 56.0 degrees in 1999 and 41.3 degrees in 1929. The range of normal daily average temperatures across the state, as published by the National Climatic Data Center, is from 53.4 degrees at Waurika to 42.8 degrees at Turpin. Normal daily maximum temperatures fall between Waurika's 65.3 degrees and Newkirk's 56.6 degrees. Normal daily minimum temperatures range from 42.9 degrees at Okemah to 28.4 degrees at three panhandle reporting stations (Turpin, Boise City, and Beaver). Hot weather is rare, but not absent, during the month. Coalgate set a state record for November's highest temperature when the thermometer registered 95 degrees on November 1, 1937. November's coldest day, according to the Oklahoma record book, occurred on November 28, 1976 when a temperature of 15 degrees below zero (-15) was reported at Kenton.

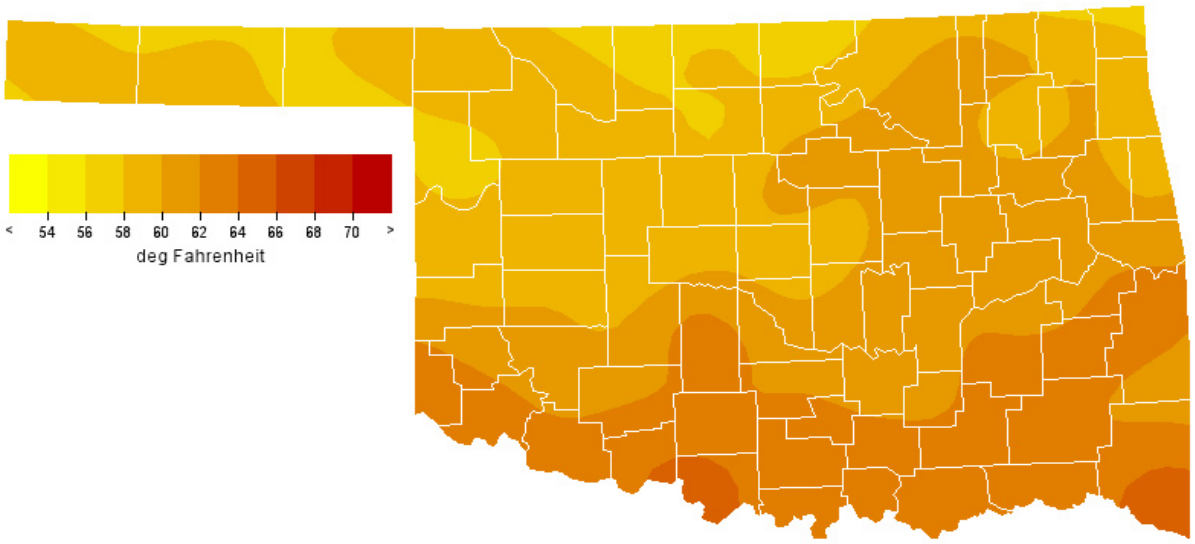
Precipitation
Mean: 2.78 inches
Wettest year: 1909, 5.72 inches
Driest year: 1910, 0.12 inches
Wettest location: Carnasaw Fire Tower, 5.64 inches
Driest location: Goodwell and Regnier, 0.61 inches
Most recorded: 17.01 inches, Idabel, 2000

November precipitation is highly variable from year-to-year. The state's driest recorded November, a statewide averaged precipitation of 0.12 inches was attained three times in 1910, 1949, and 1989. The record high precipitation for November is 5.72 inches in 1909. During much of the state's history, November was thought of as a much drier month than it is today. During the period from 1931 through 1960, the statewide-averaged precipitation during November across Oklahoma was only 1.87 inches, nearly a full inch less than the currently established monthly normal (compiled from 1971 through 2000). Annual precipitation across Oklahoma compiled from the earlier was a full 3.25 inches less than the value currently in use. Increased precipitation during November has contributed more to the recent increases in annual precipitation than any other month. At individual locations within Oklahoma, November normal precipitation ranges 5.64 inches at the Carnasaw Fire Tower in McCurtain County to 0.61 inch at the panhandle's Goodwell and Regnier. Stilwell averages 9.6 days with measurable precipitation (at least 0.01 inch), whereas Leedey averages a mere 2.4 such days. Ponca City holds the record for most precipitation in one day at a recognized reporting site during November: 11.11 inches on November 20, 1979. Idabel recorded 17.01 inches of precipitation during November 2000 to establish the record for total precipitation during the month at a regular reporting station.

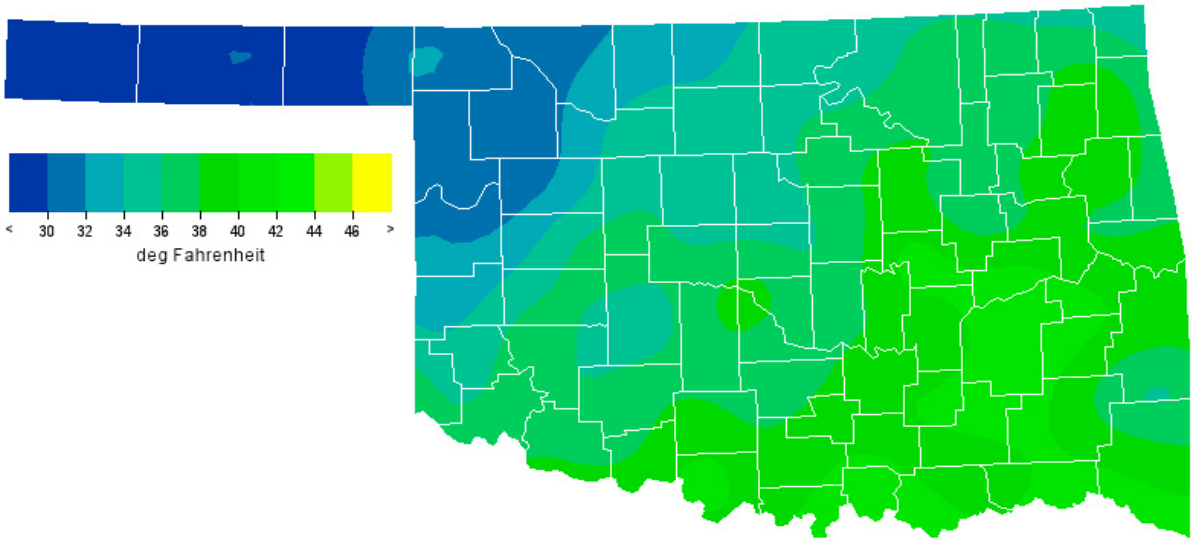
Severe and dangerous weather takes on a myriad of forms during November. There were 76 November tornadoes reported in the state from 1950 through 2003. Twelve of those were recorded on November 17, 1958 to establish the state record for most November tornadoes, both during a month and on a day. A tornado that struck Camel Creek School and the town of Bethany on November 19, 1930 killed 23 people. On November 4, 1922, a tornado between Shamrock and Drumright resulted in 11 deaths. The most recent November tornado fatalities occurred on November 19, 1973 when five people were killed in Blanchard. There were no tornadoes reported within the state during 32 of those 54 Novembers.

Tornadoes
Average November Tornadoes: 1
Most: 2 (1958)

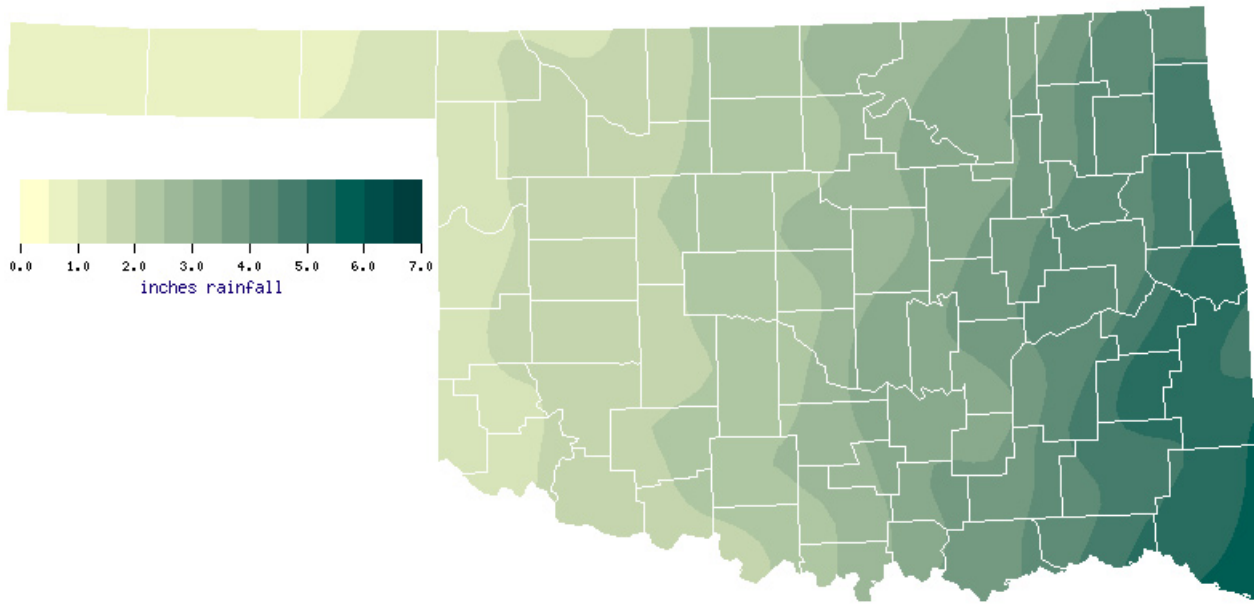
November Normal Monthly Maximum Temperature (1971-2000)



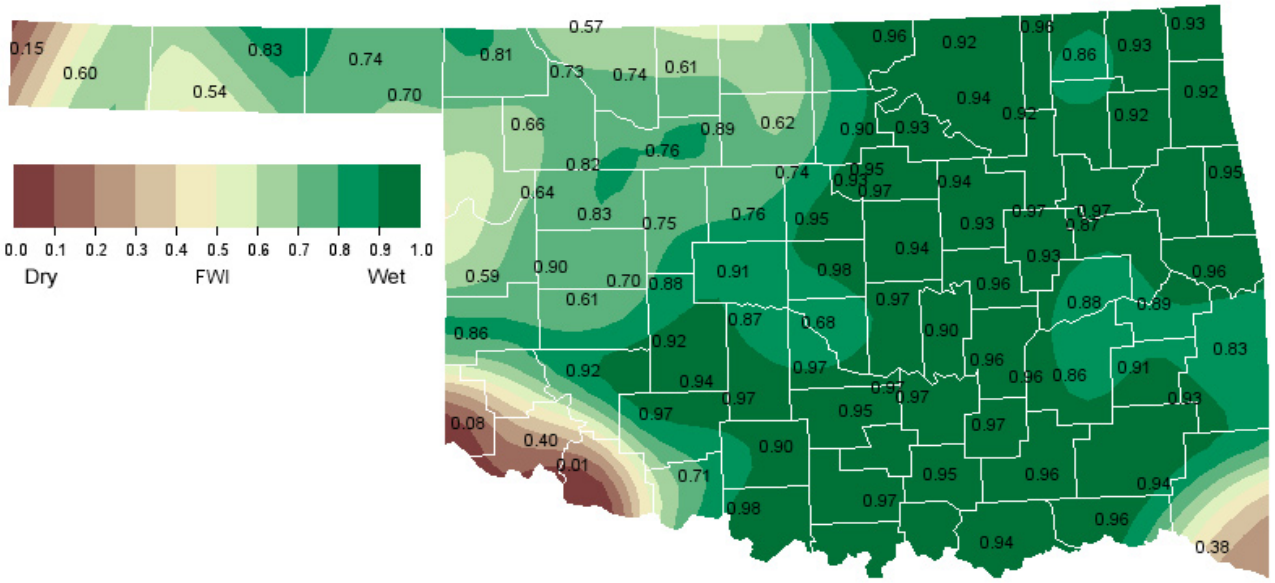
November Normal Monthly Minimum Temperature (1971-2000)



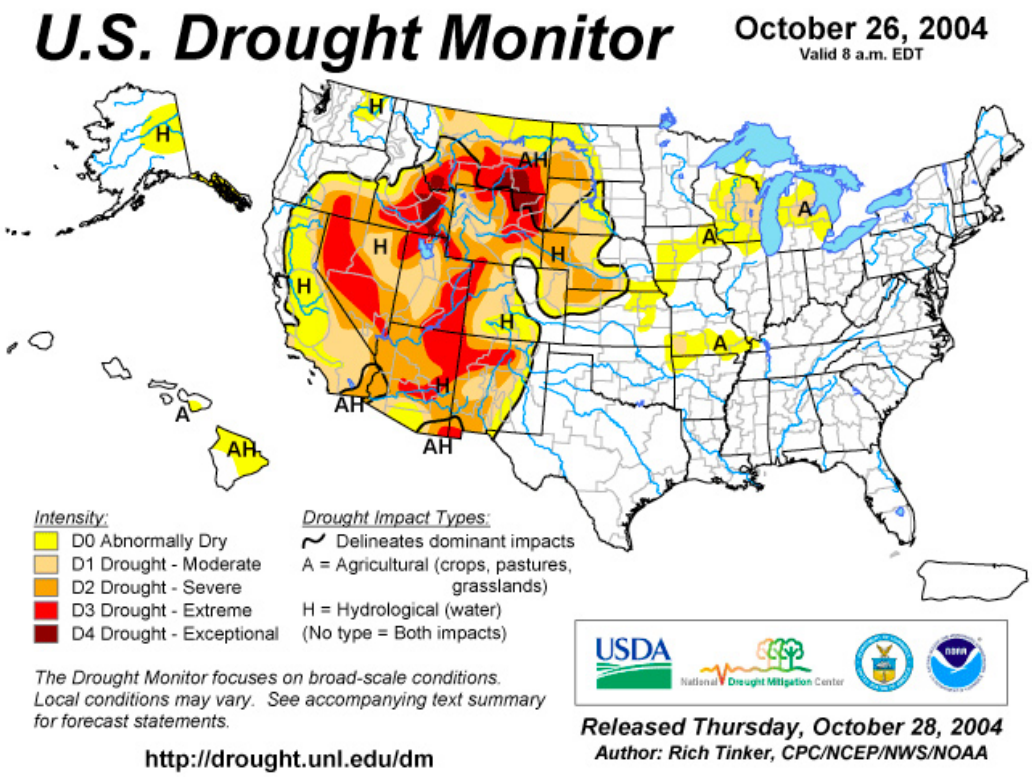
November Normal Precipitation (1971-2000)

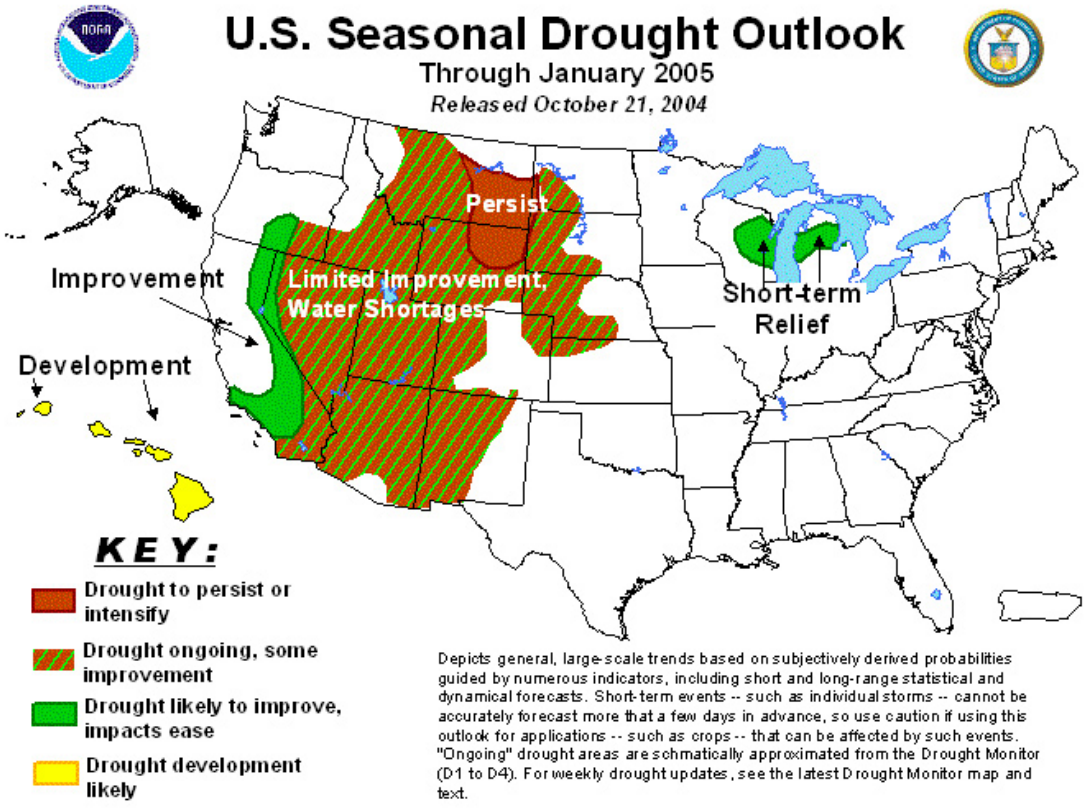


November 1, 2004 Soil Moisture Conditions at 25cm

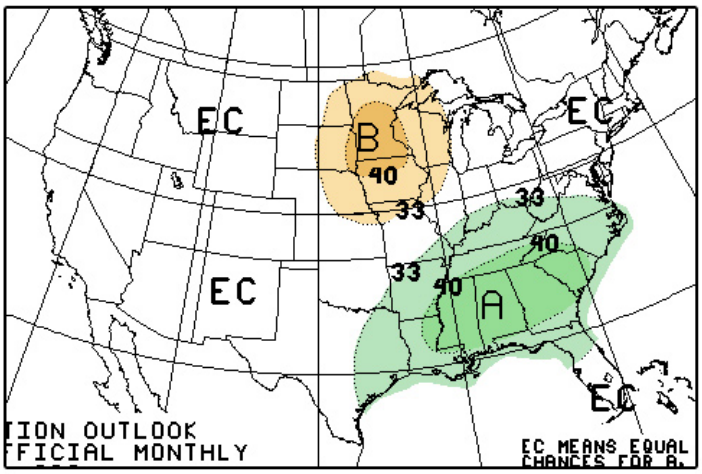


November 2004 Drought Indices





November 2004 U.S. Precipitation Forecast



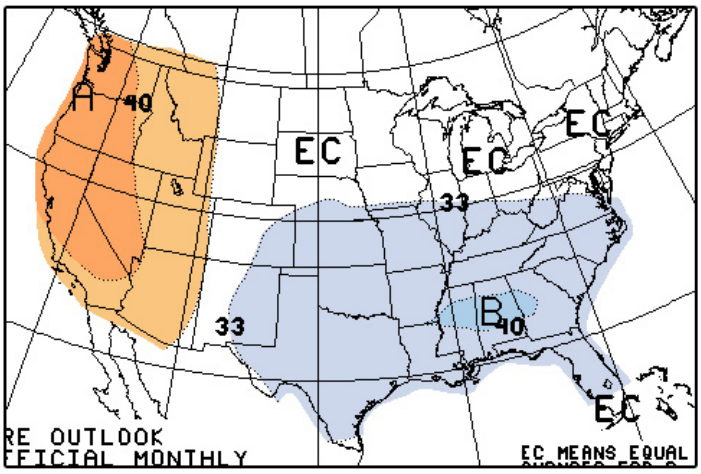
Percent Likelihood
of Above or Below
Average Precipitation*

5% - 10%
0% - 5%
A = Above

0% - 5%
5% - 10%
B = Below

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

November 2004 U.S. Temperature Forecast



Percent Likelihood
of Above and Below
Average Temperatures*

10% - 20%
5% - 10%
0% - 5%
A = Above

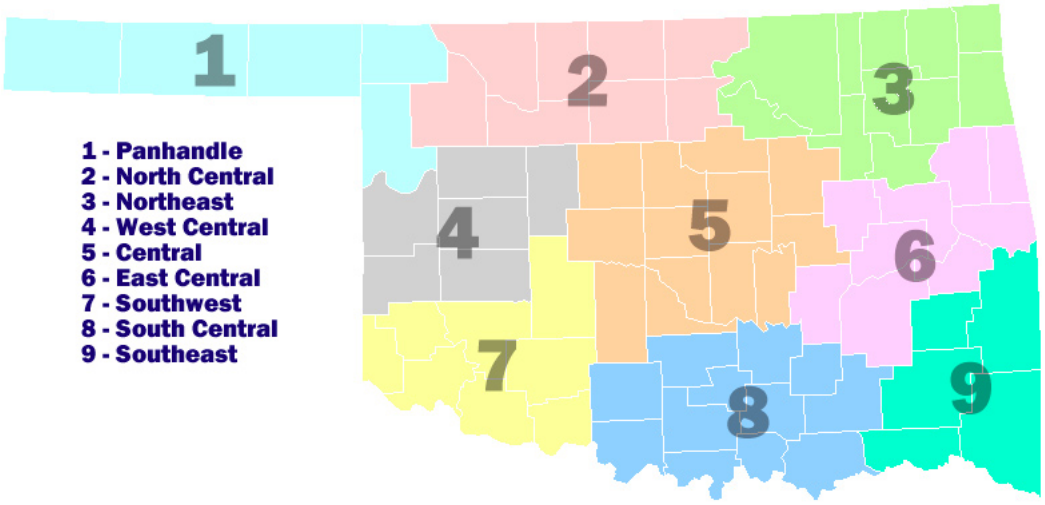
0% - 5%
5% - 10%
B = Below

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

November Climate Normals

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1.0	58.8	30.2	44.6	1.0
2.0	58.1	33.4	45.8	2.1
3.0	60.0	37.5	48.8	3.6
4.0	59.0	34.3	46.7	1.7
5.0	60.3	37.2	48.8	2.7
6.0	60.9	39.0	50.0	4.2
7.0	61.7	36.3	49.0	1.7
8.0	62.7	39.2	51.0	3.1
9.0	63.0	39.0	51.0	5.0
Statewide	60.5	36.4	48.5	2.9

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

Climate Calendars and other local weather and climate information
Oklahoma Climatological Survey: http://climate.ocs.ou.edu or
http://www.ocs.ou.edu/
E-mail (ocs@ou.edu) or telephone (405/325-2541)

Oklahoma Climatological Survey

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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