Oklahoma Monthly Climate Summary

OCTOBER 2009

OKLAHOMA CLIMATOLOGICAL SURVEY

November came a bit early this year disguised as October. The month finished nearly 7 degrees below normal to rank as the second coolest October on record. Lots of moisture went along with that cool weather and the statewide average precipitation finished with a surplus of more than 3 inches, enough to rank as the fifth wettest on record. The rainfall amounts became extreme in eastern Oklahoma, exemplified by the 50 reports of flash flooding in that area. The southeastern region had a surplus of over 7 inches that helped it to its second-wettest October on record. Meanwhile, the Panhandle, west central and east central sections of the state experienced their coolest Octobers on record. Severe weather was confined mostly to flooding, but there was a tornado touchdown in Okfuskee County. The twister struck near Weleetka and damaged some roofs but was rated an EF0 on the Enhanced Fujita Scale.

PRECIPITATION

Other than a small area in far southwestern Oklahoma, the entire state was above normal to some degree. Rankings ranged from the 26th wettest October in the southwest to the second wettest in the southeast. Most of the state experienced a top-10 wettest October, however. The Mesonet site at Broken Bow led the way with over 15 inches of rainfall, more than 10 inches above normal. Hollis had the lowest total at 1.93 inches. The September-October statewide average was more than 11 inches, more than 4 inches above normal and the sixth wettest such period on record. Southeastern Oklahoma's average over that same period was its wettest on record with a surplus of more than 11 inches.

October 2009 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	92°F	Beaver	19
Low Temperature	23°F	Kenton	30
High Precipitation	15.42 in.	Broken Bow	--
Low Precipitation	1.93 in.	Hollis	--

TEMPERATURE

The entire state was substantially below normal during October, which is a continuation of cool weather enjoyed since July. The September-October period was more than 4 degrees below normal and the coolest on record. The coldest reading in the state was 23 degrees, recorded on the 30th at Kenton. The warm prize goes to Beaver for a 92 degrees recorded on the 19th.

OCTOBER DAILY HIGHLIGHTS

OCTOBER 1-4: A cold front on the first ended a round of showers and storms and brought cooler, drier air to the region. Strong storms that formed along the front moved off by the afternoon. Temperatures had risen into the 80s and 90s south of the front. Surface high pressure moved in following the front and the second turned into a very nice, seasonable day across the state. Low temperatures for the next several days were below normal, from the 30s to the 50s. Oklahoma City broke a record for lowest minimum temperature on the second. More rain developed on the fourth thanks to a weak upper-level disturbance. Rain totals were light, however. Southeastern received the most rainfall during this period, between 1-2 inches in most places.

October 2009 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2009)
Month (October)	54.5°F	-6.8°F	2nd Coolest
Season-to-Date (Sep-Oct)	62.1°F	-4.7°F	1st Coolest
Year-to-Date (Jan-Oct)	62.2°F	-0.7°F	36th Coolest

Precipitation

	Average	Depart.	Rank (1895-2009)
Month (October)	6.89 in.	3.51 in.	5th Wettest
Season-to-Date (Sep-Oct)	11.31 in.	4.12 in.	6th Wettest
Year-to-Date (Jan-Oct)	35.82 in.	3.97 in.	19th Wettest

Depart. = departure from 30-year normal

OCTOBER 5-7: Widespread drizzle and mist moved across the state overnight on the fifth. Gulf moisture was riding up and over a stalled frontal boundary in Texas, producing the dreary conditions in Oklahoma. Strong to severe storms developed in south central and east central portions of the state in the afternoon. A cold front on the sixth generated more showers and storms in the morning, which then moved through the state. By that afternoon, temperatures had fallen into the 50s due to the cooler, drier air behind the front. A few light showers overnight on the seventh moved through southern Oklahoma. A few thunderstorms popped up in the east as high temperatures ranged from the 50s in the southwest to 70s in the north.

OCTOBER 8-9: A powerful upper-level storm system moved across the state trailing a surface cold front. The system produced extreme rainfall over the eastern half of the state, especially in the northeast. Through the two days, the rains totaled more than 6 inches in the northeast to no rainfall in the western Panhandle. Amounts of 2-4 inches were widespread in the eastern two-thirds of Oklahoma. Oklahoma City broke its record for rainfall on the eighth with more than 2 inches. Forty-seven instances of flooding were reported in eastern Oklahoma over this two-day period. Following the cold front on the ninth, temperatures were as much as 25 degrees below normal. Oklahoma City and Tulsa broke records for coldest maximum temperatures.

OCTOBER 10-15: A strong cold front on the 10th cooled things down to more than 25 degrees below normal. Highs were mainly in the 40s and 50s. Following the front's passage, moist air began sliding over the front and causing a slew of dreary, drizzly days. Light showers were scattered about the state each day, with a few heavier storms popping up from time to time. Oklahoma City set yet another coolest maximum temperature record on the 11th. Heavy storms dumped more than 3 inches of rain at Broken Bow on the 13th and more than an inch at that same location on the 15th. Skies eventually began to clear on the 15th from west to east and high temperatures rose into the 70s with that sunshine in the west.

OCTOBER 16-20: Surface high pressure that moved in after the front made for drier and cooler conditions and the 16th. The days gradually warmed as the winds increased through the 20th. Highs eventually rose into the 70s and 80s by the 20th while the winds gusted to 40 mph due to a strengthening low pressure system in New Mexico. Very little rain fell during this five-day period.

OCTOBER 21-22: Another cold front brought another bout with rain and cool temperatures. Good rains fell with the storms generated by the cold front and upper-level storm system. More than 3 inches fell in south central Oklahoma, while the rest of the state generally saw an inch or so. The 22nd was cool after the front's passage with highs in the 40s and 50s. Northerly winds gusting to 40 mph made if feel much cooler.

OCTOBER 23-26: A dome of high pressure at the surface kept things cool with lows in the 30s and 40s and winds gusting to over 20 mph. Warmer air moved in on the 24th and brought high temperatures into the 70s for the most part, although southerly winds gusting to 30 mph kept it feeling somewhat cool. There was widespread frost in northern Oklahoma that morning in low-lying areas with low temperatures in the 30s, which is about 10 degrees below normal for late October. Two fronts moved through the state on the 25th, first a weak cool front then a much stronger front later that day. Storms developed along those fronts and dropped heavy rains in the southeast. The rain continued overnight into the 26th. Totals for this event were 1-3 inches in the southeast while the rest of the state remained dry.

OCTOBER 27-31: A few showers in the southeast on the 27th gave way to another front late on the 28th. That generated more strong to severe storms early on the 29th as a line marched from northwest to southeast until it exited the state. The month ended with a nice fall day on Halloween, which saw sunny skies and highs in the 70s.

OCTOBER 2009 SEVERE WEATHER

Wind Gusts (70 mph or greater)

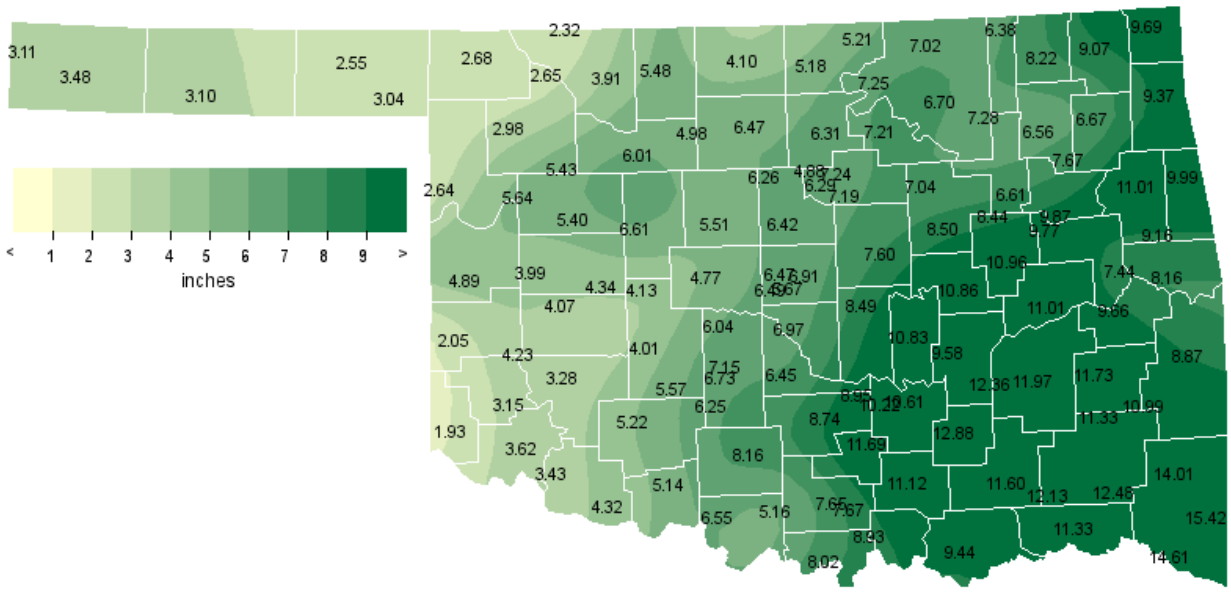
Speed (m.p.h)	Location	County	Day
70	3 SSW Caney	Atoka	1
70	5 SSE Haskell	Muskogee	1
71	4 NW Stillwater	Payne	29

Flooding

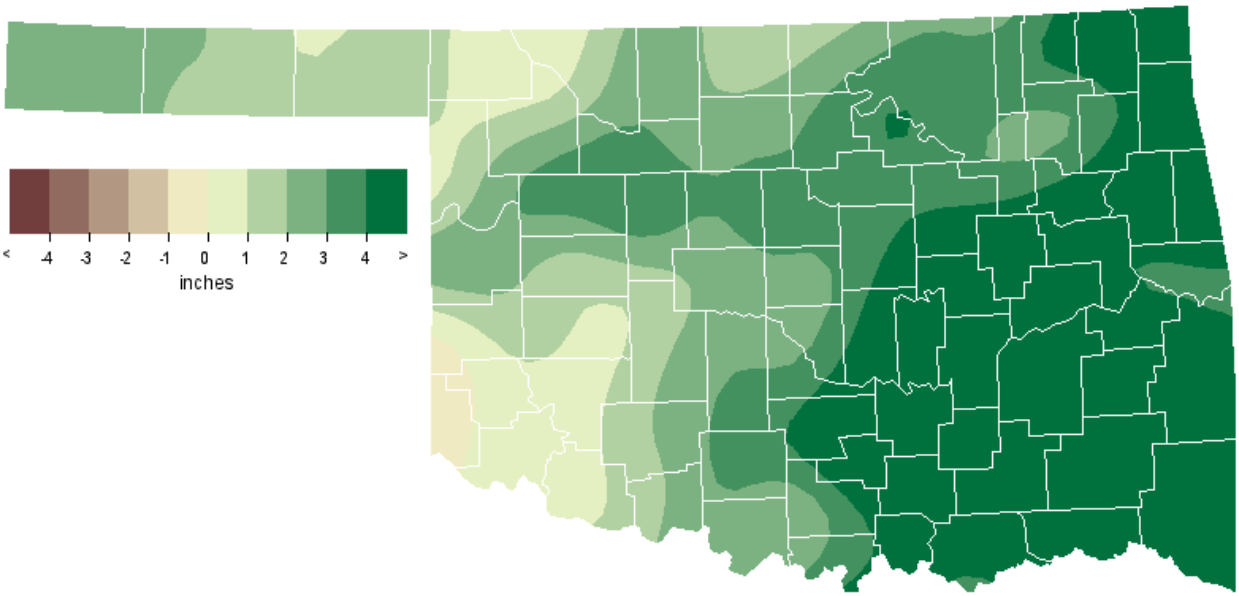
Location	County	Day
Miami	Ottawa	8
12 SW Ralston	Pawnee	8
Welch	Craig	8
Miami	Ottawa	8
Bartlesville	Washington	8
Ochelata	Washington	8
2 WNW Barnsdall	Osage	8
Tulsa	Tulsa	8
1 N Jenks	Tulsa	8
Centrailia	Craig	8
3 NW Pharoah	Okfuskee	8
5 W Porter	Wagoner	8
Coweta	Wagoner	8
2 E Hectorville	Okmulgee	8
Okmulgee	Okmulgee	8
Dewar	Okmulgee	8
Morris	Okmulgee	8
Muskogee	Muskogee	8
Tahlequah	Cherokee	8
Morris	Okmulgee	8
3 N Fairland	Ottawa	8
3 S Muskogee	Muskogee	8
4 W Arpelar	Pittsburg	8
McAlester	Pittsburg	8
Alderson	Pittsburg	8

Location	County	Day
1 S Oaks	Cherokee	8
Eufaula	McIntosh	8
Rentiesville	McIntosh	8
Nowata	Nowata	8
McAlester	Pittsburg	9
Stilwell	Adair	9
10 N Proctor	Adair	9
Proctor	Adair	9
Tahlequah	Cherokee	9
3 W Proctor	Cherokee	9
5 E Nowata	Nowata	9
5 W McAlester	Pittsburg	9
2 N Okay	Wagoner	9
Haskell	Muskogee	9
Boswell	Choctaw	9
Bunch	Adair	9
8 N Lenapah	Nowata	9
10 E Lanapah	Nowata	9
Wilburton	Latimer	9
Lequire	Haskell	9
Bokoshe	LeFlore	9
Red Oak	Latimer	9
Sperry	Tulsa	29
Pawnee	Pawnee	29
2 S Weleetka	Okfuskee	29

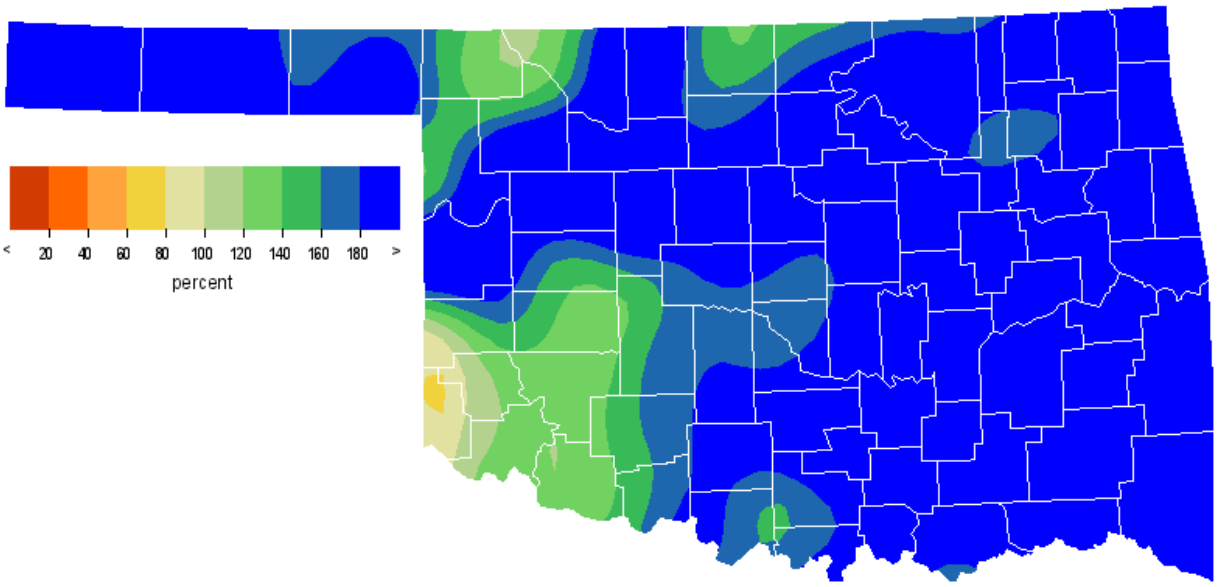
OCTOBER 2009 OBSERVED PRECIPITATION



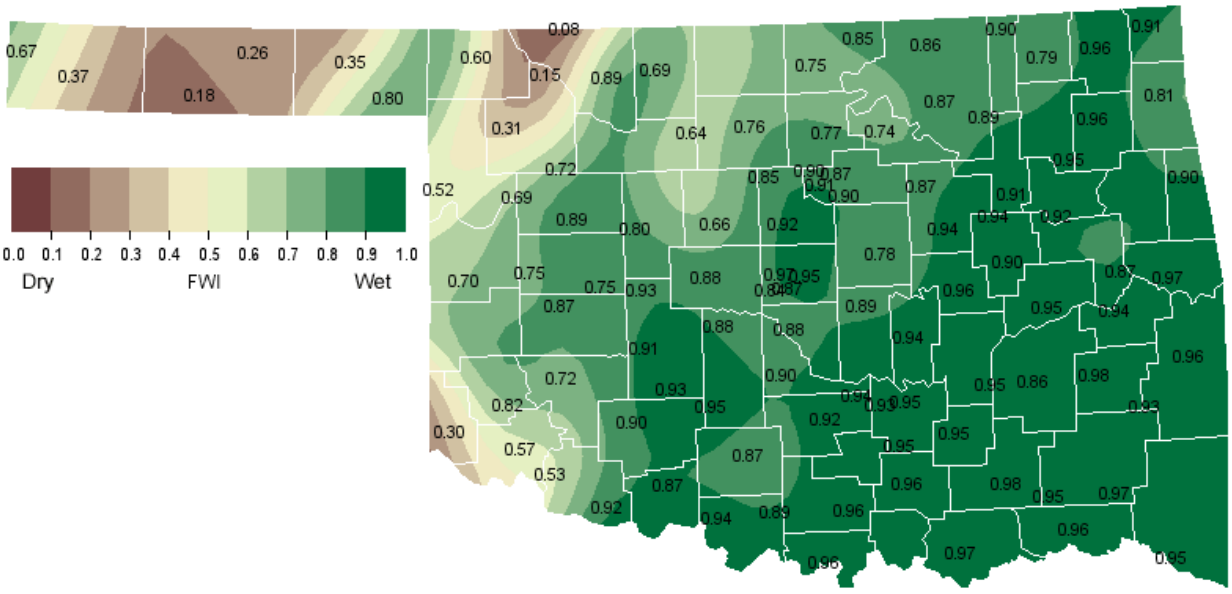
OCTOBER 2009 DEPARTURE FROM NORMAL PRECIPITATION



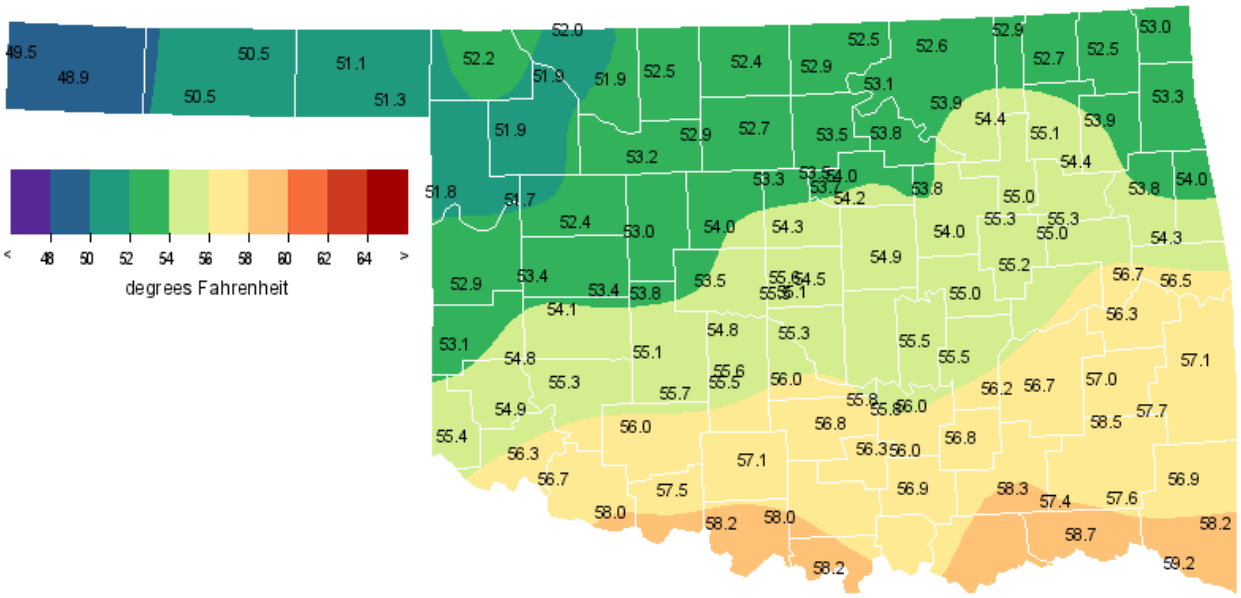
OCTOBER 2009 PERCENT OF NORMAL PRECIPITATION



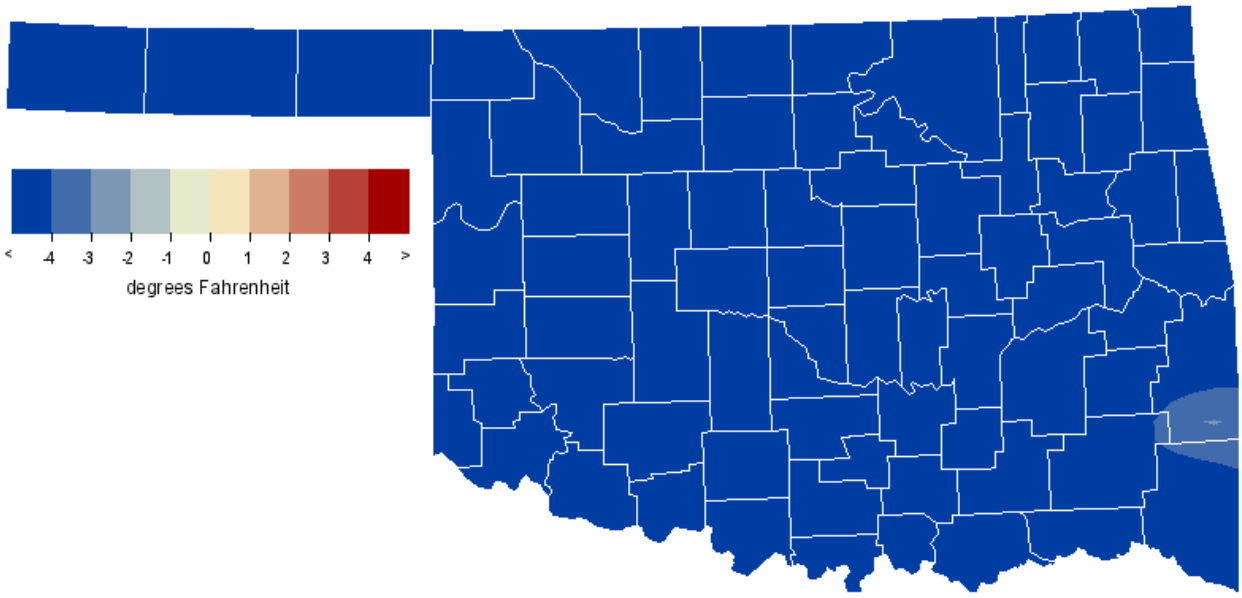
OCTOBER 2009 AVERAGE SOIL MOISTURE AT 25CM



OCTOBER 2009 AVERAGE TEMPERATURE



OCTOBER 2009 DEPARTURE FROM NORMAL TEMPERATURE

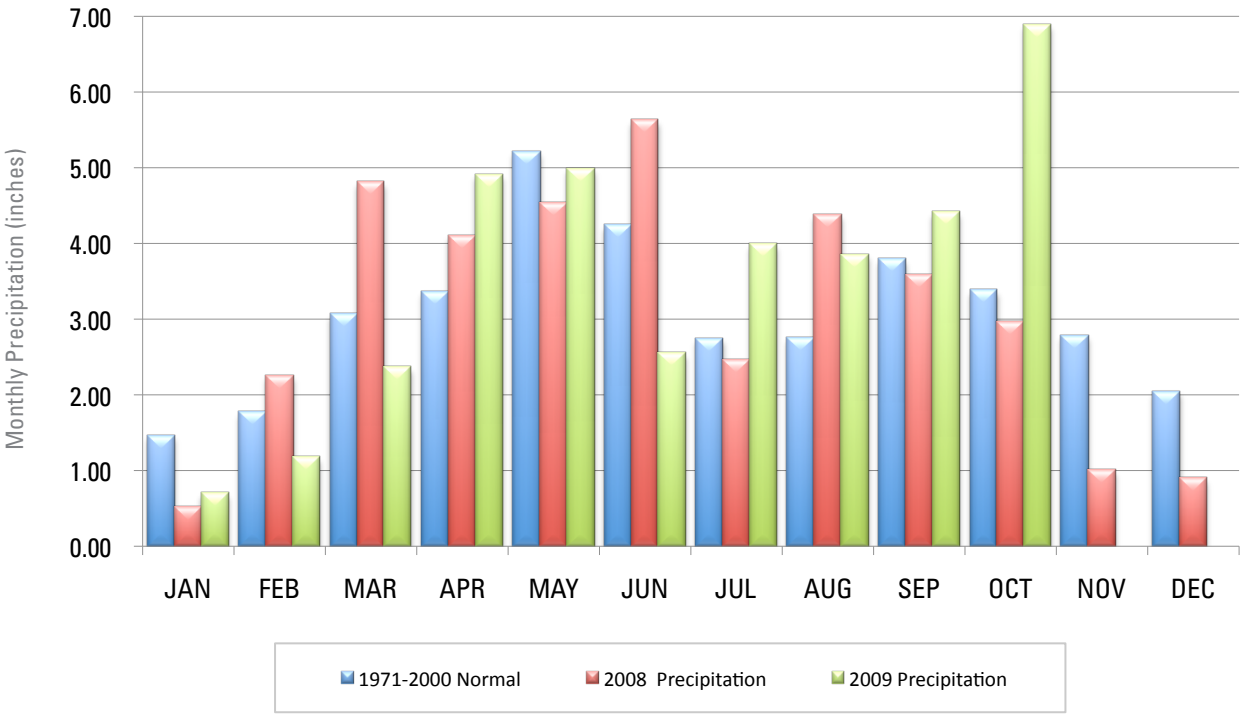


MESONET MONTHLY SUMMARY FOR OCTOBER 2009

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	51.7	85	19	29	27	416	5	2.64	.79	21
Beaver	51.2	92	19	28	10	442	13	2.55	.52	28
Boise City	48.9	87	19	24	30	502	3	3.48	1.08	21
Buffalo	52.2	85	19	30	10	409	13	2.68	.78	8
NORTH CENTRAL										
Alva	51.9	79	20	31	27	413	7	3.91	1.20	8
Blackwell	52.8	79	20	31	27	382	5	5.18	1.96	8
Breckinridge	52.7	78	20	31	27	387	5	6.47	3.75	8
Cherokee	52.5	77	20	33	27	393	4	5.48	2.40	8
Fairview	53.2	78	20	34	11	372	7	6.01	2.45	8
Freedom	51.9	80	19	31	10	413	7	2.65	.68	21
Lahoma	52.8	78	20	34	27	382	5	4.98	2.34	8
NORTHEAST										
Bixby	69.8	90	27	44	29	25	170	9.72	2.46	21
Bixby	55.0	82	1	32	18	317	8	6.61	2.62	8
Burbank	53.1	80	20	31	18	375	5	7.25	4.31	8
Claremore	55.1	83	1	33	18	312	5	6.56	3.09	8
Copan	52.8	82	1	34	18	382	4	6.38	3.91	8
Foraker	52.6	80	20	32	18	390	4	7.02	4.01	8
Inola	54.4	84	1	31	18	335	6	7.67	3.37	8
Jay	53.4	82	1	32	17	364	4	9.37	4.24	8
Miami	53.0	80	1	31	18	374	2	9.69	5.75	8
WEST CENTRAL										
Bessie	54.1	79	19	32	27	344	5	4.07	1.58	29
Butler	53.4	81	19	29	27	366	7	3.99	1.45	21
Camargo	51.8	81	19	28	27	413	3	5.64	2.04	8
Cheyenne	52.9	80	19	31	11	379	4	4.89	2.06	8
Erick	53.1	83	19	29	27	374	6	2.05	.90	21
CENTRAL										
Acme	21.5	81	8	***	1	291	5	6.25	2.31	8
Bowlegs	55.5	87	1	33	18	305	9	10.83	3.84	8
Bristow	54.1	84	1	30	18	343	4	8.50	2.84	8
Lake Carl Blac	53.5	80	20	32	27	364	7	4.88	2.47	8
Chandler	54.9	82	1	35	18	320	6	7.60	2.56	8
Chickasha	55.5	84	1	33	27	302	9	7.15	2.68	8
El Reno	53.5	78	1	30	27	360	4	4.77	1.75	8
Guthrie	54.4	79	1	35	27	337	8	6.42	1.99	29
Kingfisher	54.0	78	20	32	27	348	6	5.51	2.11	8
Marena	53.7	79	20	34	18	356	6	6.29	2.71	8
Minco	54.8	81	1	36	27	320	5	6.04	2.61	8
Marshall	53.3	79	20	32	27	369	7	6.26	3.36	8
EAST CENTRAL										
Cookson	54.3	82	1	32	18	340	7	9.16	3.11	8
Eufaula	*****	***	***	***	***	****	****	11.01	3.23	8
Haskell	55.0	84	1	31	18	315	5	9.77	4.14	8
Hectorville	55.3	84	1	35	18	308	8	8.44	3.15	8
Holdenville	55.5	85	1	36	24	300	7	9.58	2.93	8
McAlester	56.7	85	8	34	18	271	13	11.97	2.79	8
Okmulgee	55.1	83	1	31	18	314	9	10.96	4.55	8
SOUTHWEST										
Altus	56.3	82	19	34	27	277	9	3.62	1.43	29
Apache	55.7	81	8	35	27	296	7	5.57	2.19	8
Fort Cobb	55.1	80	1	32	27	312	6	4.01	1.81	8
Grandfield	58.0	87	1	36	27	228	10	4.32	1.66	21
Hinton	53.7	76	20	33	27	352	2	4.13	1.69	8
Hobart	55.3	81	19	32	27	308	8	3.28	1.50	29
SOUTH CENTRAL										
Ada	56.0	87	1	34	24	292	11	10.61	3.28	8
Ardmore	57.9	89	1	38	18	****	****	7.67	2.32	21
Burneyville	58.2	89	1	35	31	229	20	8.02	1.87	21
Byars	55.8	86	1	37	10	292	8	8.95	2.75	8
Centrahoma	56.8	86	1	33	18	267	12	12.88	2.54	21
Durant	*****	***	***	***	***	****	****	9.44	1.92	9
Fittstown	56.0	87	1	35	18	291	12	*****	*****	***
Ketchum Ranch	57.1	88	1	36	27	255	11	8.16	2.48	8
Lane	58.2	86	1	35	24	227	16	11.60	1.66	9
SOUTHEAST										
Antlers	57.4	87	8	31	24	250	13	12.13	1.79	25
Broken Bow	58.1	87	8	34	24	231	17	15.42	3.26	13
Clayton	58.4	87	8	34	18	227	24	11.33	2.04	9
Cloudy	57.6	87	8	33	24	243	15	12.48	2.79	6
Hugo	58.8	87	8	37	24	210	16	11.33	2.75	9

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	50.6	91	19	27	10	463	16	3.10	.56	21
Hooker	50.4	91	19	28	11	460	7	*****	*****	***
Kenton	49.4	86	18	23	30	488	4	3.11	1.46	21
Slapout	51.3	89	19	28	10	434	10	3.04	.71	28
May Ranch	51.9	80	19	30	11	413	7	2.32	.48	21
Medford	52.4	78	20	32	27	397	5	4.10	1.38	29
Newkirk	52.5	79	20	34	18	390	4	5.21	2.59	8
Red Rock	53.5	80	20	34	18	363	6	6.31	3.64	8
Seiling	51.7	80	19	31	27	****	****	5.43	2.21	8
Woodward	51.9	81	19	30	10	412	7	2.98	.93	8
Nowata	67.6	88	27	38	29	46	125	4.97	1.59	21
Nowata	52.7	82	1	28	18	385	3	8.22	5.42	8
Pawnee	53.8	81	1	33	18	350	5	7.21	2.97	8
Porter	55.3	84	1	33	18	306	5	9.87	4.53	8
Pryor	53.9	84	1	29	18	349	4	6.67	3.43	8
Skiatook	54.3	82	1	36	10	337	6	7.28	4.09	8
Vinita	52.5	83	1	29	18	389	2	9.07	5.94	8
Wynona	53.9	80	1	33	18	351	6	6.70	3.56	8
Putnam	52.4	78	19	32	11	395	3	5.40	2.39	8
Retrop	54.8	81	19	33	30	323	8	4.23	2.16	29
Watonga	53.0	76	20	34	11	376	3	6.61	2.66	8
Weatherford	53.4	76	1	34	11	361	3	4.34	1.40	8
Ninnekah	55.5	83	8	33	27	303	8	6.73	2.39	8
Norman	55.3	83	1	36	24	309	7	6.97	2.55	8
Oilton	53.8	82	1	31	18	353	5	7.04	2.44	8
OKC East	55.1	82	1	36	27	310	4	5.67	2.31	8
OKC North	55.5	81	1	38	27	301	8	6.47	2.60	8
OKC West	55.6	81	1	37	24	301	8	6.49	2.52	8
Okemah	55.0	84	1	33	18	318	7	10.86	4.17	8
Perkins	54.2	81	1	35	24	339	4	7.19	3.25	8
Shawnee	*****	***	***	***	***	****	****	8.49	2.56	8
Spencer	54.5	80	1	35	10	330	5	6.91	2.64	8
Stillwater	54.0	80	1	34	24	348	6	7.24	3.45	8
Washington	56.0	86	1	36	18	287	9	6.45	2.08	8
Sallisaw	56.5	87	8	34	24	277	14	8.16	2.03	8
Stigler	56.3	87	8	32	18	281	11	9.66	3.13	8
Stuart	56.2	84	1	34	18	284	11	12.36	3.98	8
Tahlequah	53.8	82	1	32	18	349	2	11.01	4.24	8
Webbers Falls	56.6	86	8	35	18	273	13	7.44	2.50	8
Westville	54.0	80	1	33	18	343	3	9.99	4.28	8
Hollis	55.4	85	19	32	27	307	9	1.93	1.09	21
Mangum	54.9	84	19	27	27	323	9	3.15	1.30	29
Medicine Park	56.0	81	1	37	27	286	7	5.22	1.67	21
Tipton	56.7	82	1	32	27	265	8	3.43	1.67	21
Walters	57.4	87	1	33	27	243	9	5.14	1.75	8
Madill	58.1	88	1	36	31	****	****	8.93	3.15	21
Newport	57.8	89	1	39	18	****	****	7.65	1.99	21
Pauls Valley	56.8	88	1	37	31	267	14	8.73	2.90	8
Ringling	58.0	91	1	36	31	231	14	5.16	1.39	21
Sulphur	56.3	86	1	34	24	282	11	11.69	2.52	6
Tishomingo	56.9	86	1	35	24	264	11	11.12	2.97	21
Vanoss	55.8	87	1	34	18	297	11	10.22	2.69	29
Waurika	58.2	90	1	36	27	224	13	6.55	1.79	21
Idabel	59.3	88	8	36	24	197	20	14.61	3.00	9
Mt Herman	57.0	84	8	33	24	258	9	14.01	2.56	22
Talihina	57.7	85	8	33	24	244	18	10.99	2.23	9
Wilburton	56.9	86	8	33	24	265	15	11.73	1.80	6
Wister	57.1	86	8	34	24	261	17	8.87	1.98	9

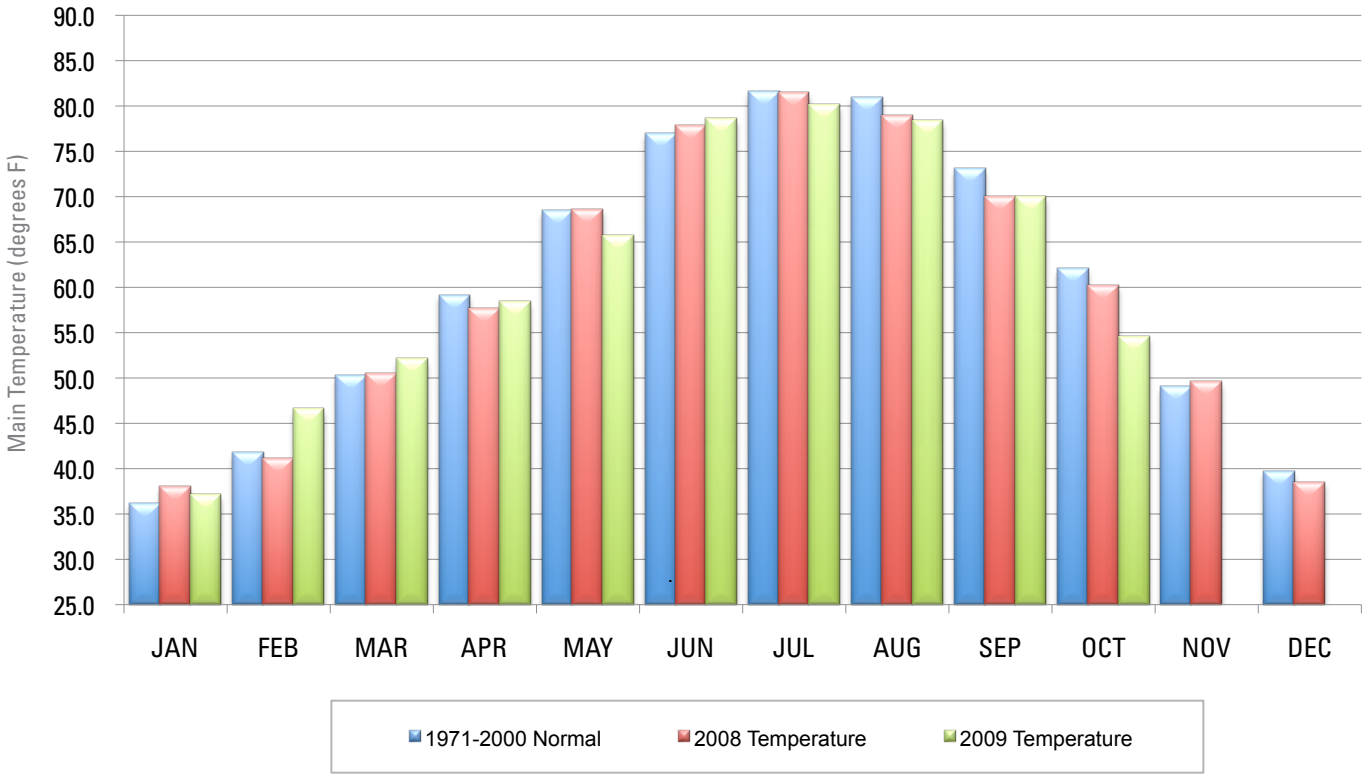
2008 AND 2009 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



October 2009 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Oct-08
Panhandle	2.94	1.43	14th Wettest	6.41 (2000)	0.03 (1952)	4.60
North Central	4.69	2.03	9th Wettest	9.65 (1998)	0.00 (1952)	4.27
Northeast	7.70	4.07	7th Wettest	17.33 (1941)	0.05 (1917)	2.65
West Central	4.58	2.02	15th Wettest	9.41 (1986)	0.00 (1910)	4.71
Central	6.96	3.30	9th Wettest	13.51 (1941)	0.00 (1917)	1.89
East Central	9.96	5.69	7th Wettest	14.75 (1941)	0.19 (1904)	1.25
Southwest	3.98	1.00	26th Wettest	11.44 (1983)	0.00 (1952)	3.31
South Central	9.21	4.96	5th Wettest	14.61 (1981)	0.00 (1917)	1.43
Southeast	12.29	7.33	2nd Wettest	12.62 (1984)	0.10 (1921)	2.42
Statewide	6.89	3.51	5th Wettest	11.32 (1941)	0.14 (1952)	2.88

2008 AND 2009 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



October 2009 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Oct-08 (F)
Panhandle	50.7	-7.1	1st Coolest	66.4 (1963)	50.9 (1925)	56.8
North Central	52.5	-7.9	2nd Coolest	69.6 (1963)	52.1 (1925)	58.3
Northeast	53.7	-7.0	2nd Coolest	70.0 (1963)	52.9 (1925)	59.4
West Central	53.2	-7.3	1st Coolest	69.0 (1963)	53.8 (1925)	59.2
Central	54.6	-7.3	2nd Coolest	70.3 (1963)	54.5 (1925)	60.4
East Central	55.5	-6.6	1st Coolest	71.2 (1963)	55.5 (1925)	61.2
Southwest	55.9	-6.6	3rd Coolest	70.5 (1963)	55.4 (1925)	62.0
South Central	56.9	-6.6	2nd Coolest	71.5 (1963)	56.4 (1976)	62.3
Southeast	57.8	-4.6	4th Coolest	70.6 (1963)	55.7 (1976)	58.9
Statewide	54.5	-6.8	2nd Coolest	69.9 (1963)	54.4 (1925)	59.8

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Coldest Minimum Temperature	2	Oklahoma City	41 degrees	41 degrees	1975
Coldest Minimum Temperature	3	Bartlesville	35 degrees	35 degrees	2004
Maximum Rainfall	8	Oklahoma City	2.39 inches	1.26 inches	2002
Coldest Maximum Temperature	9	Oklahoma City	51 degrees	52 degrees	1909
Coldest Maximum Temperature	9	Tulsa	53 degrees	54 degrees	1963
Coldest Maximum Temperature	11	Oklahoma City	50 degrees	51 degrees	1987
Coldest Minimum Temperature	18	McAlester	35 degrees	35 degrees	1955
Maximum Rainfall	29	Oklahoma City	1.67 inches	1.61 inches	1941

MESONET EXTREMES FOR OCTOBER 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	92	19th	Beaver	23	30th	Kenton	3.48	Boise City	1.46	21st	Kenton
North Central	81	19th	Woodward	30	10th	Woodward	6.47	Breckinridge	3.75	8th	Breckinridge
Northeast	84	1st	Inola	28	18th	Nowata	9.87	Porter	5.94	8th	Vinita
West Central	83	19th	Erick	28	27th	Camargo	6.61	Watonga	2.66	8th	Watonga
Central	87	1st	Bowlegs	30	18th	Bristow	10.86	Okemah	4.17	8th	Okemah
East Central	87	8th	Stigler	31	18th	Okmulgee	12.36	Stuart	4.55	8th	Okmulgee
Southwest	87	1st	Grandfield	27	27th	Mangum	5.57	Apache	2.19	8th	Apache
South Central	91	1st	Ringling	33	18th	Centrahoma	12.88	Centrahoma	3.28	8th	Ada
Southeast	88	8th	Idabel	31	24th	Antlers	15.42	Broken Bow	3.26	13th	Broken Bow
Statewide	92	19th	Beaver	23	30th	Kenton	15.42	Broken Bow	5.94	8th	Vinita

NOVEMBER 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.

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.

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

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

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

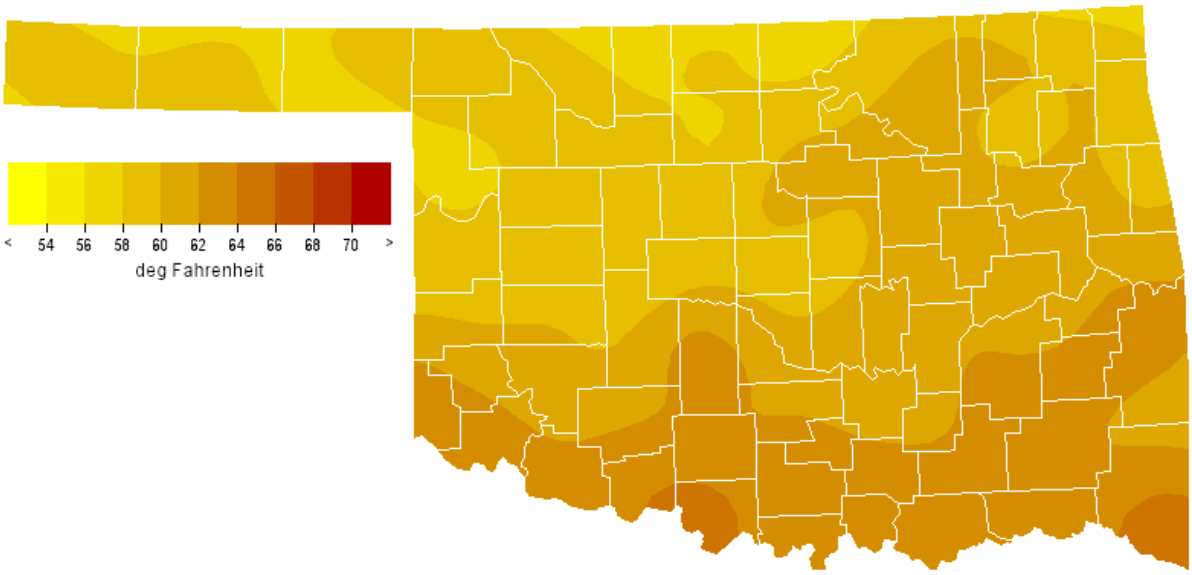
Tornadoes

Average November Tornadoes	1
Most	12 (1958)

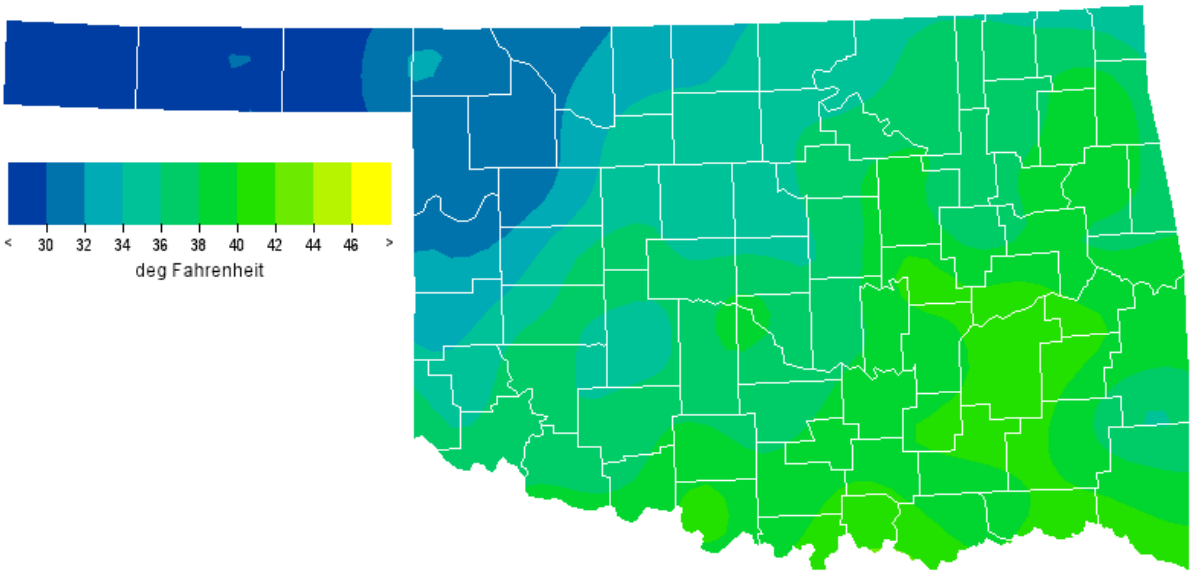
than any other month. At individual locations within Oklahoma, November normal precipitation ranges 5.64 inches at the Carnasaw Fire Tower in McCurtain County to 0.61 inch at the panhandle's Goodwell and Regnier. Stilwell averages 9.6 days with measurable precipitation (at least 0.01 inch), whereas Leedey 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.

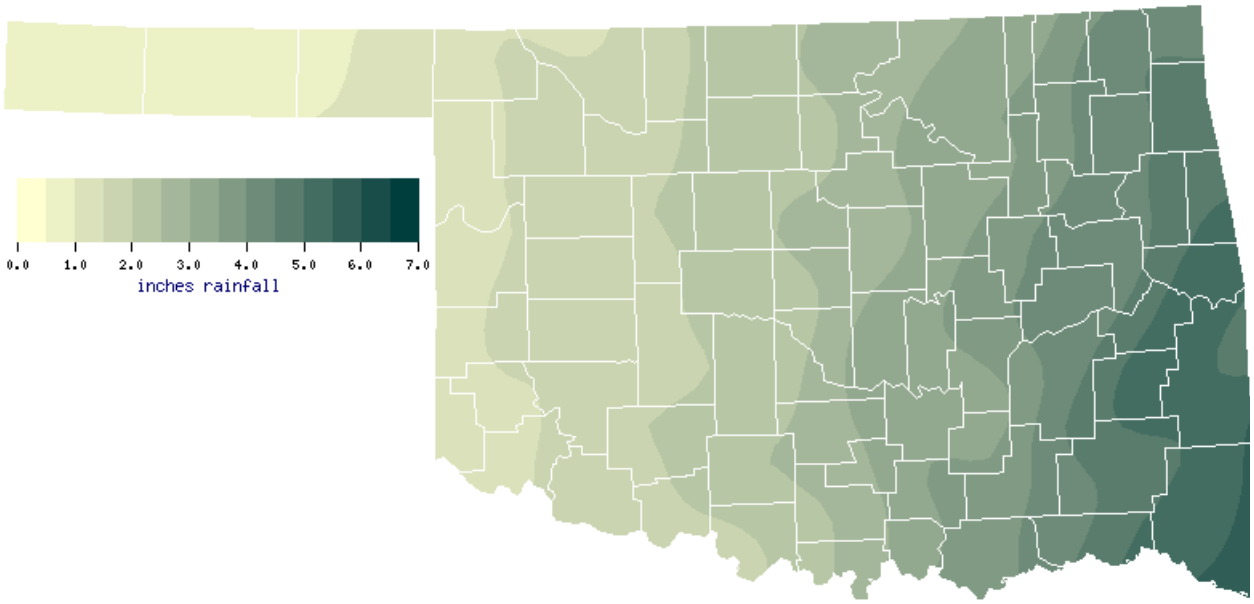
NOVEMBER NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



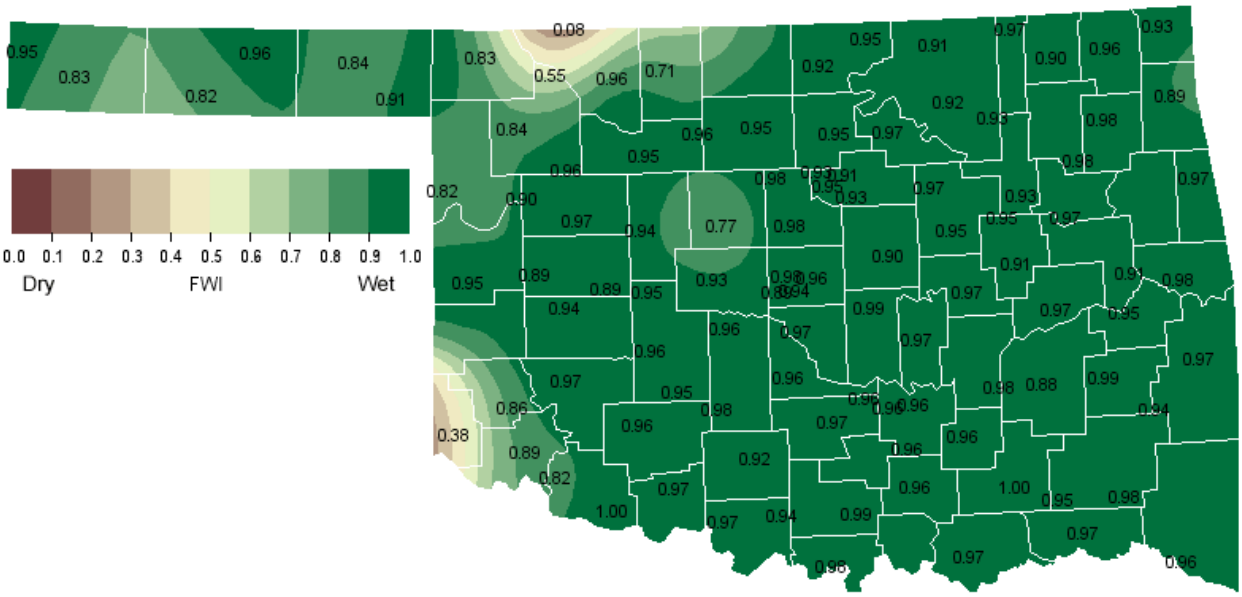
NOVEMBER NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



NOVEMBER NORMAL PRECIPITATION (1971-2000)



NOVEMBER 1, 2009 SOIL MOISTURE CONDITIONS AT 25CM



NOVEM BER 2009 DROUGHT INDICES

U.S. Drought Monitor

Oklahoma

October 27, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.0	0.0	0.0	0.0	0.0	0.0
Last Week (10/20/2009 map)	99.8	0.3	0.0	0.0	0.0	0.0
3 Months Ago (08/04/2009 map)	69.4	30.6	15.4	5.5	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 (10/06/2009 map)	98.0	2.0	0.0	0.0	0.0	0.0
One Year Ago (10/28/2008 map)	75.9	24.1	4.6	0.0	0.0	0.0

Intensity:

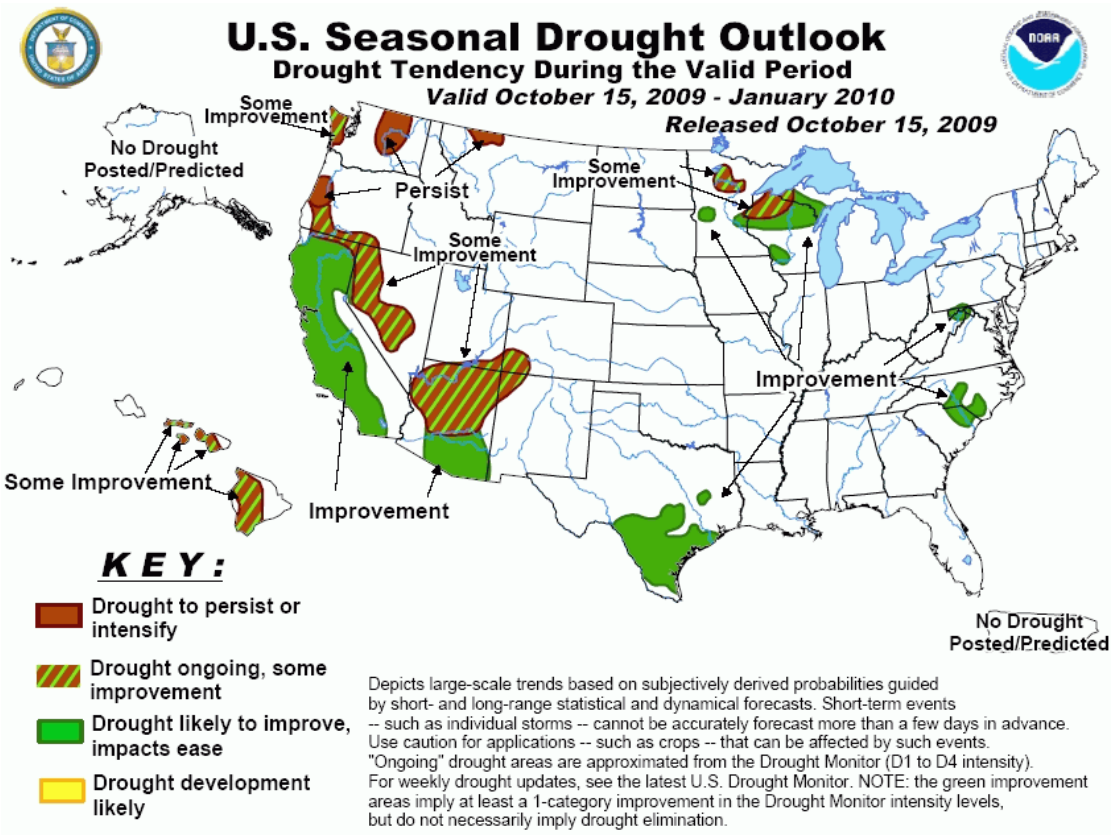
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

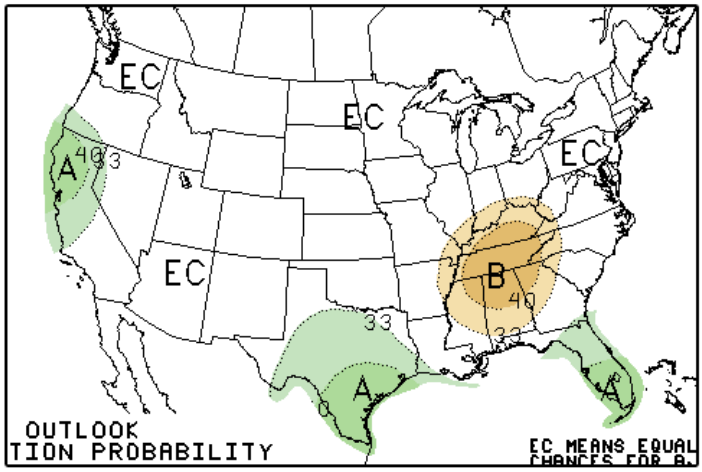
http://drought.unl.edu/dm

USDA National Drought Mitigation Center

Released Thursday, October 29, 2009
Author: M. Rosencrans, CPC/NOAA



NOVEMBER 2009 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

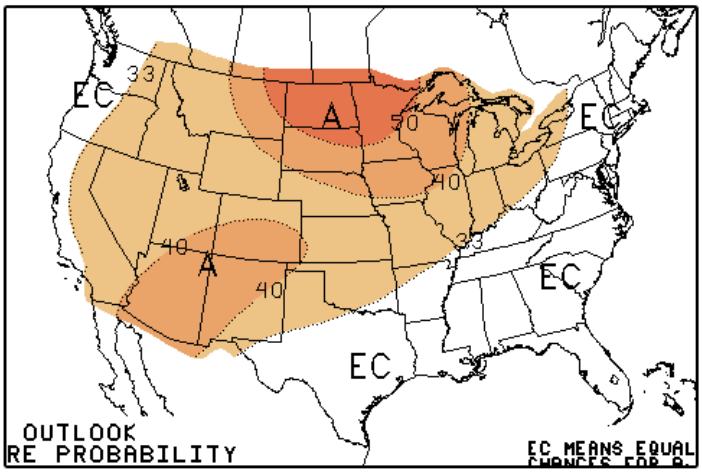
A = Above

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

B = Below

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

NOVEMBER 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%

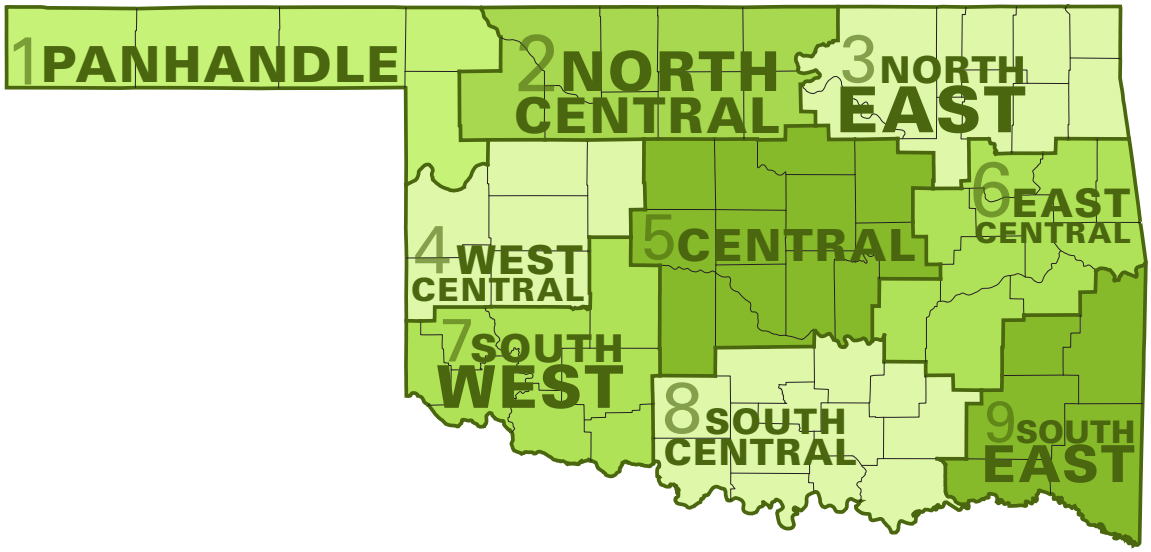
B = Below

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

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.mesonet.org or http://climate.ok.gov/

OKLAHOMA CLIMATOLOGICAL SURVEY

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