OKLAHOMA MONTHLY CLIMATE SUMMARY
MAY 2007

OKLAHOMA CLIMATOLOGICAL SURVEY

May was dominated by turbulent weather generated by several powerful upper-level storm systems. Severe thunderstorms and their by-products – including tornadoes, large hail and widespread flash- and river-flooding – were common throughout the month. The heavy rainfall certainly eradicated any remnants of the droughty conditions of the previous two years. The month ranked as the 24th wettest since 1895, well over an inch above normal. The statewide average temperature was above normal as well, and the month finished as the 41st warmest May on record. The most tempestuous weather occurred between May 4-9 as a large upper-level storm sat over the Desert Southwest for nearly a week, ejecting smaller impulses over the state. Those impulses helped to generate at least 15 tornadoes during this period, including an EF3 twister that struck the town of Sweetwater on May 5. Despite the tornadoes, flooding was the dominant severe threat during May. Thirty-five flash flood warnings were issued by the NWS during the month, the majority of which occurred between May 7-9. Extreme events during the month included a report of softball size hail from Harper County on the 23rd and 6.81 inches of rainfall recorded by the Lane Mesonet site on the 7th.

Precipitation

Heavy rains placed the month at well over an inch above normal. Central Oklahoma fared best, or worst, depending on the perspective, with an area average of 9.41 inches. At nearly four inches above normal, central Oklahoma's May precipitation ranked as the 8th wettest on record for that area. The only areas of the state below normal were the southeast, east central, and Panhandle. All three areas had deficits of less than an inch, however. The state's wettest location was Lane, which had 12.45 inches of precipitation. The spring season finished as the 20th wettest since 1895, nearly two inches above normal. North central, west central and central Oklahoma all finished within the top six wettest springs on record for those areas. The southeast and east central regions did not fare quite so well, each having deficits of over three inches; nearly four inches for the east central region. The year-to-date statistics were similar with a statewide average surplus of over an inch and deficits in the east between two and three inches.

May 2007 Statewide Extremes

Description	Extreme	Station	Date
High Temperature	93ºF	Altus	May 4th
Low Temperature	36ºF	Kenton	May 9th
High Precipitation	12.45 in.	Lane	
Low Precipitation	0.33 in.	Boise City	

Temperature

Statewide average temperatures were one degree above normal during May. Abundant cloud cover and precipitation still allowed for a few hot days and helped keep nighttime temperatures on the warm side. The only appreciable areas with below normal temperatures were the western Panhandle and the extreme southwest. The spring season was nearly two degrees above normal to finish as the 20th warmest on record. Northeastern Oklahoma was well over two degrees above normal to rank as the 7th warmest on record for that area. The year thus far is just a bit above normal, the 42nd warmest January-May period on record.

May Daily Highlights

May 1-3: The month's beginning was soggy as an upper-level low pressure system kicked off a round of showers and storms. Locally heavy rainfall and minor flooding were the result with more than two inches falling across central Oklahoma. A cold front associated with the upper-level storm set off another round of storms the next day. The storms were small but packed a lot of moisture. Over two inches fell once again locally in the northeast. High temperatures these two days depended on the location of precipitation and the front. Rain-free areas rose into the 80s while areas behind the front or receiving rainfall remained in the 60s and 70s. The front stalled on the third and acted as a focus for more storms just as another upper-level storm moved east along the Red River. Large hail and heavy rains were the main severe threats.

May 4-11: The next eight days were marked by persistent severe weather – including tornadoes – and heavy rainfall. A large upper-level storm parked itself over the Desert Southwest area and stalled, sending out several impulses that triggered active weather in Oklahoma. The main storm system finally began to move out on the 10th, finally clearing the state on the 11th. Before its departure, however, it dumped from 4-8 inches of rainfall over a large swath of central and southwestern Oklahoma. That rainfall was in addition to the heavy rains of the first few days of the month. Thirty-two instances of flash-flooding were noted within Oklahoma between May 7-9. Preliminary reports indicate 14 tornadoes touched down between May 4-8, the most powerful of which was an EF3 twister that struck the town of Sweetwater, with significant damage to that town's school. Several more tornadoes were reported, but full investigations had not been completed by the production date of this document. Extreme hail was reported with the storms out west on the 4th, reaching the size of baseballs in Woodward County. The Oklahoma Mesonet site at Lane recorded 6.81 inches of rainfall on the 7th. High temperatures throughout this period were mainly in the 70s and 80s with lows in the 50s and 60s.

May 12-14: High pressure at the surface held sway over the state's weather following the passage of the upper-level storm which created the storminess of the previous week. Clear skies and light winds were the norm as morning lows in the 50s and 60s gave way to highs in the 80s. Very little rain fell during this period.

May 15-21: A cold front triggered a few showers and storms on the 15th, although amounts were generally less than a half of an inch. The cold front left gusty northerly winds in its wake and lows in the 40s and 50s. Sporadic convection over the next several days would leave a hit-and-miss rainfall pattern across the state. Temperatures during this time were seasonable with lows in the 50s and 60s and highs mainly in the 70s and 80s.

May 22-25: An upper-level disturbance triggered more storms on the 22nd. The heaviest rainfall that day was in the southeast where the Idabel Mesonet site recorded more than an inch. The most turbulent weather occurred on the 23rd. Storms that built on a cold front dropped hail the size of softballs in Harper County. The small town of Slapout in Beaver County reported over two inches of rainfall. The cold front slid east once again on the 24th and ignited more storms. Highs winds and large hail accompanied heavy rainfall. Between 1-2 inches of rain fell over a large part of the state. The cold front stalled along the Red River on the 25th, but little rain fell on this day. High temperatures dropped from the 70s and 80s during the previous few days to the 60s and 70s on the 25th.

May 26-31: The month's coup de grâce was similar to its beginning as more heavy rain occurred. An upper-level storm moved north from Texas overnight on the 26th triggering showers and thunderstorms. One-to-two inches fell across the south central sections of the state. A trough in that area brought even heavier rain the following day. The Oklahoma Mesonet site at Madill recorded nearly four inches of rainfall on the 27th. Flash flooding was a common occurrence in the southern third of the state with the heavy rainfalls falling on saturated ground. Between 4-6 inches of rain fell in the extreme south central section of the state during this six-day period. The month ended with a line of severe storms across the Oklahoma Panhandle dropping baseball-sized hail near Guymon.

May 2007 Statewide Statistics

Temperature

	Average	Depart.	Rank (1892-2007)
Month (May)	68.9ºF	1.0ºF	41st Warmest
Season-to-date (Mar-May)	60.7ºF	1.7ºF	20th Warmest
Year-to-Date (Jan-May)	51.5ºF	0.4ºF	42nd Warmest

Precipitation

	Total	Depart.	Rank (1892-2007)
Month (May)	6.65 in.	1.44 in.	24th Wettest
Season-to-Date (Mar-May)	13.40 in.	1.72 in.	20th Wettest
Year-to-Date (Jan-May)	16.36 in.	1.47 in.	25th Wettest

Depart. = Departure from 30-year normal

May 2007 Severe Weather

Significant Tornadoes (EF2 or greater)

EF-rating	Location	County	Date
3	2.5 S Sweetwater - Sweetwater - 6 N Sweetwater	Beckham-Roger Mills	5

Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Day
3.00	8 W Sharon	Woodward	4
3.00	5 N Sharon	Woodward	4
2.75	6 S Woodward	Woodward	4
2.50	8 S Fargo	Ellis	4
2.50	13 WSW Sharon	Woodward	4
4.25	6 W Buffalo	Harper	23
2.75	7 NW Guymon	Texas	31

Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
70	Tinker Air Force Base	Oklahoma	7
70	Apache	Caddo	8
70	Piedmont	Canadian	9

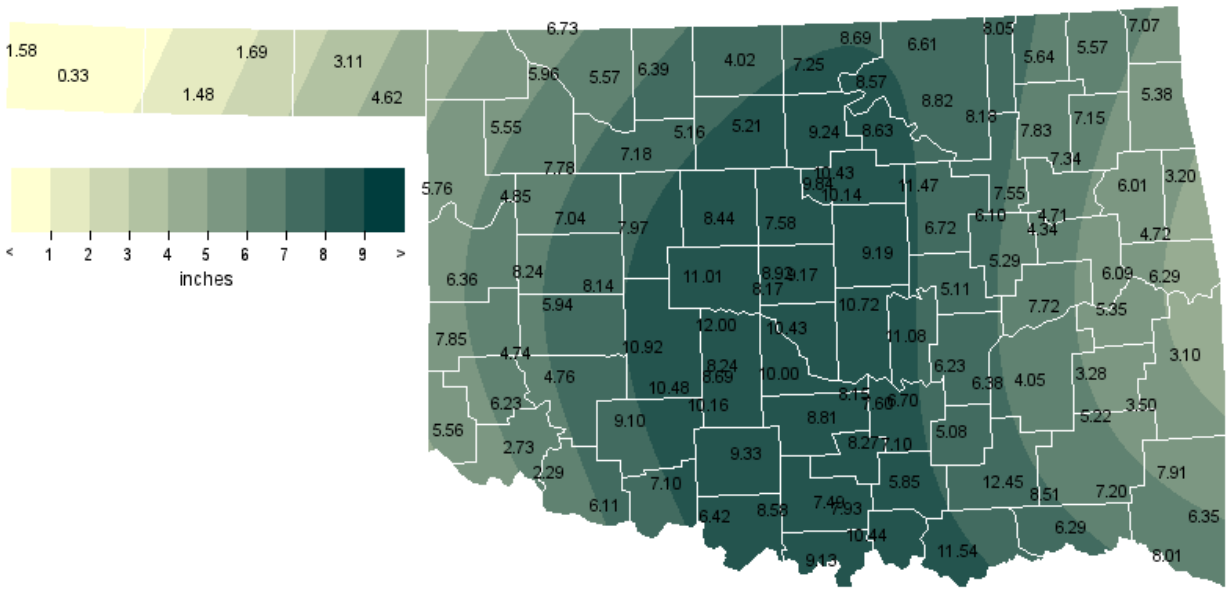
Flooding

Location	County	Day
Tulsa	Tulsa	7
Lexington	Cleveland	7
Broken Arrow	Tulsa	7
Blanco	Pittsburg	7
Bennington	Bryan	7
Atoka	Atoka	7
6 S Oklahoma City	Cleveland	7
5 S Wilburton	Latimer	7
5 E Norman	Cleveland	7
2 N Harrah	Oklahoma	7
13 E Tulsa	Wagoner	7
Yukon	Canadian	8
Oklahoma City	Oklahoma	8
Moore	Cleveland	8
Minco	Grady	8
Apache	Caddo	8
9 WSW Oklahoma City	Oklahoma	8
9 SW Oklahoma City	Cleveland	8
7 SW Shawnee	Pottawatomie	8
5 SW Yukon	Canadian	8
5 SW Oklahoma City	Oklahoma	8
5 SE Okarche	Canadian	8
5 S Bethany	Oklahoma	8
5 NE Oklahoma City	Oklahoma	8
5 N Oklahoma City	Oklahoma	8
4 N Mustang	Canadian	8
4 N Bethany	Oklahoma	8
2 W The Village	Oklahoma	8
2 E The Village	Oklahoma	8
11 SW Oklahoma City	Cleveland	8
1 SW Mustang	Canadian	8
6 E Kingfisher	Kingfisher	9
Duncan	Stephens	26
Turner Falls	Murray	27
Lone Grove	Carter	27
Lawton	Comanche	27
2 SE Caney	Atoka	27
2 N Durant	Bryan	27

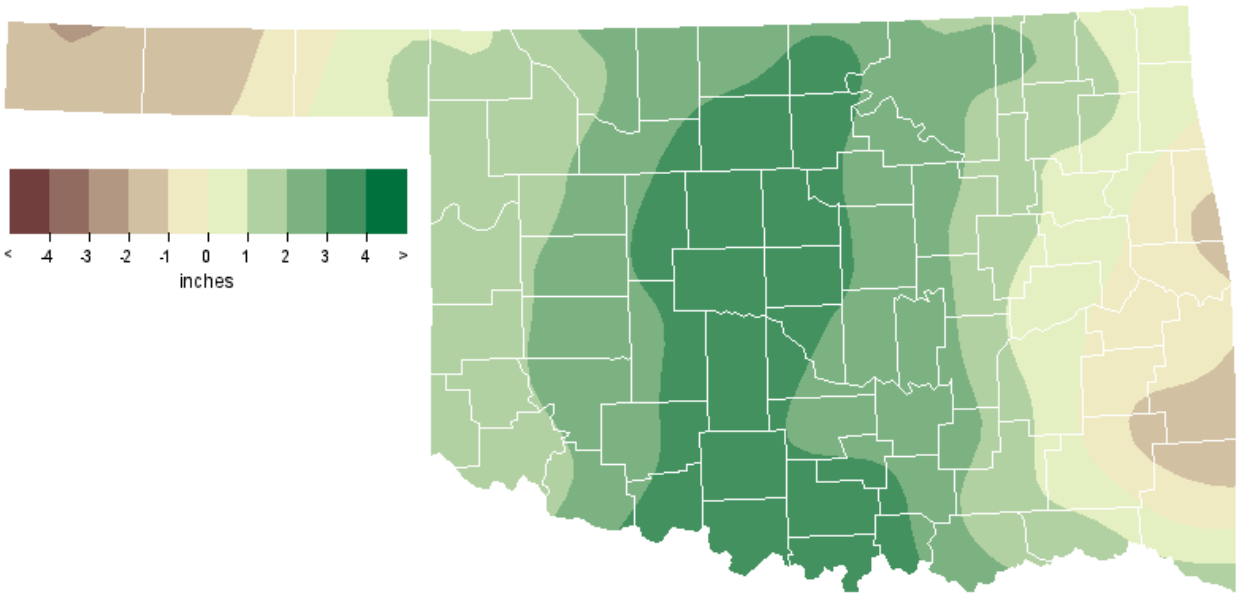
Record Event Reports

Description	Day	Location	Record	Previous Record	Year
Daily Maximum Rainfall	7	McAlester	1.71 inches	1.70 inches	1995
Daily Maximum Rainfall	7	Oklahoma City	2.33 inches	2.27 inches	1892

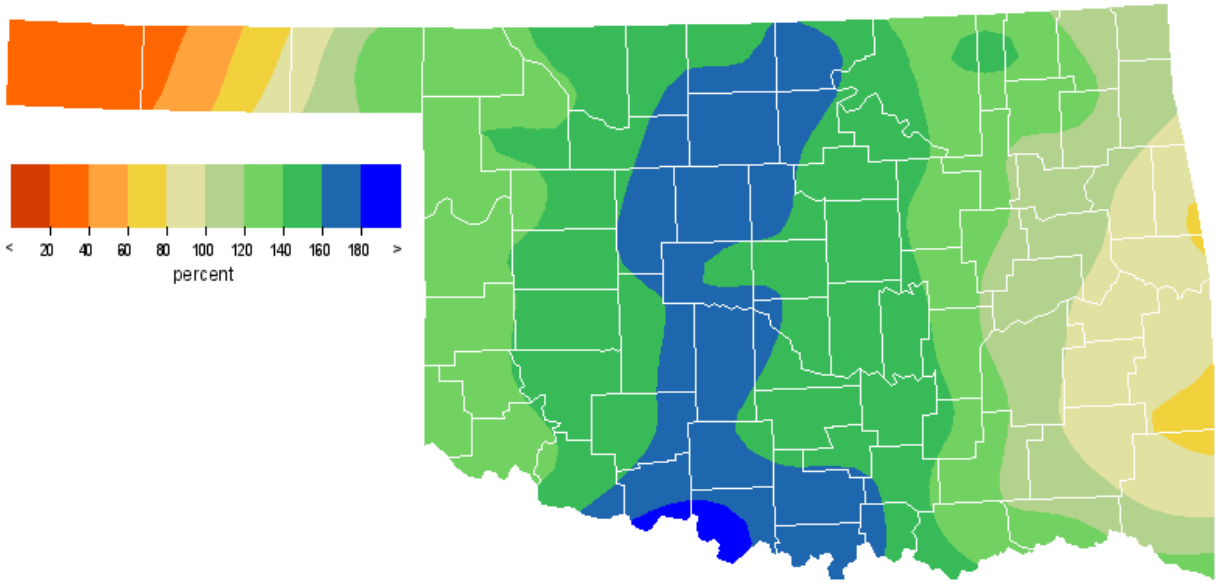
May 2007 Observed Precipitation



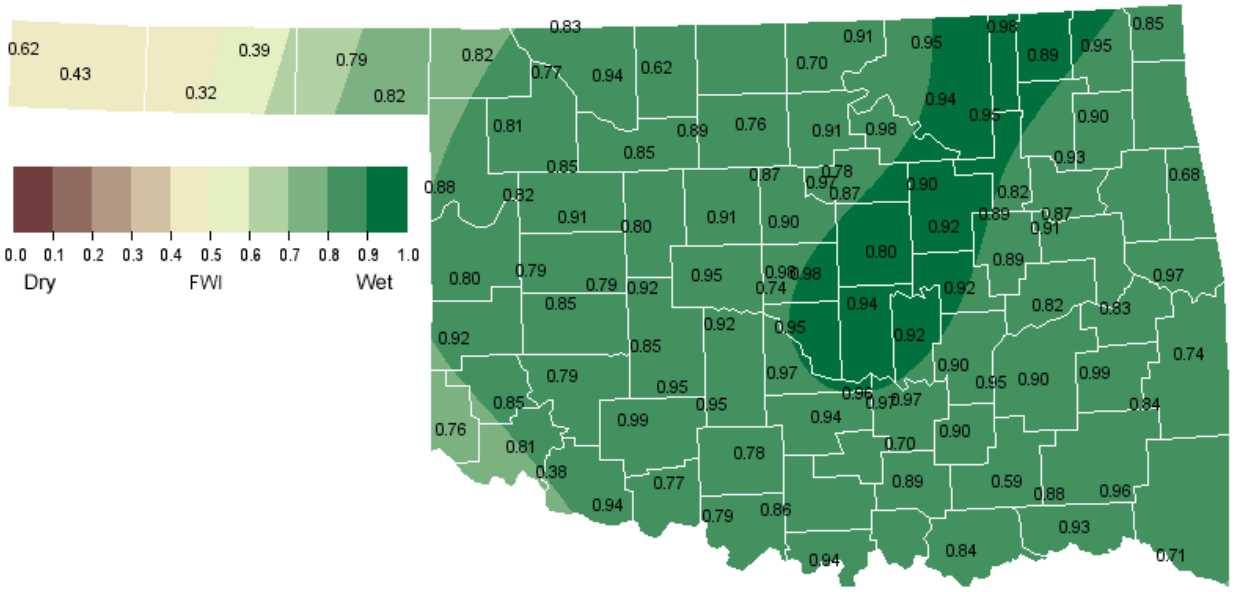
May 2007 Departure from Normal Precipitation



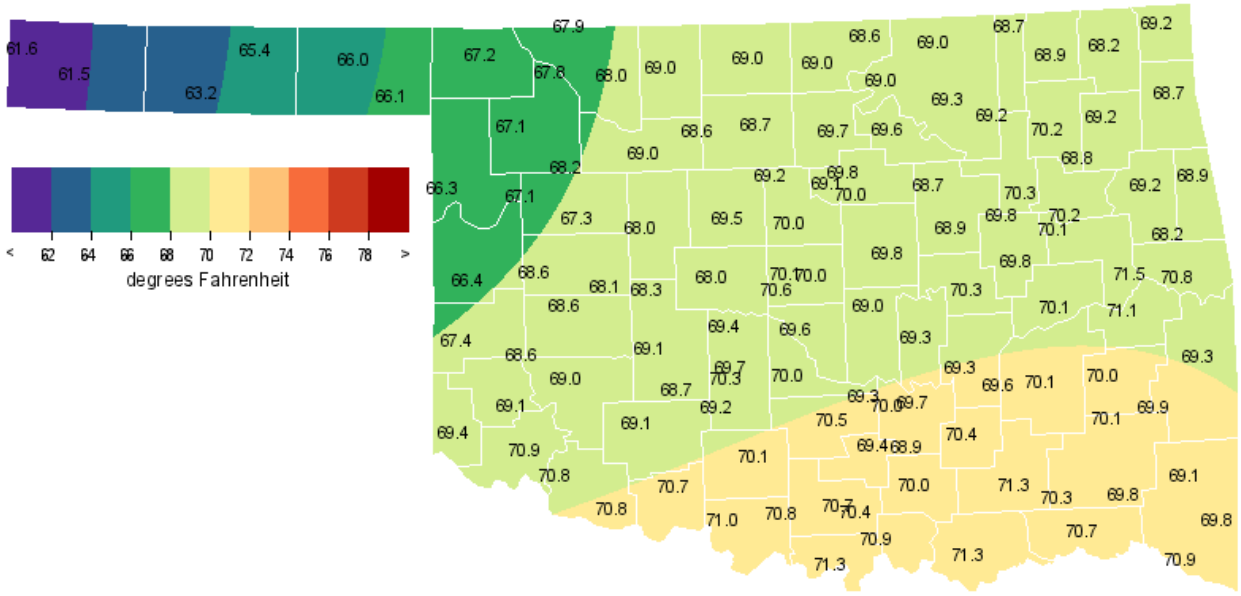
May 2007 Percent of Normal Precipitation



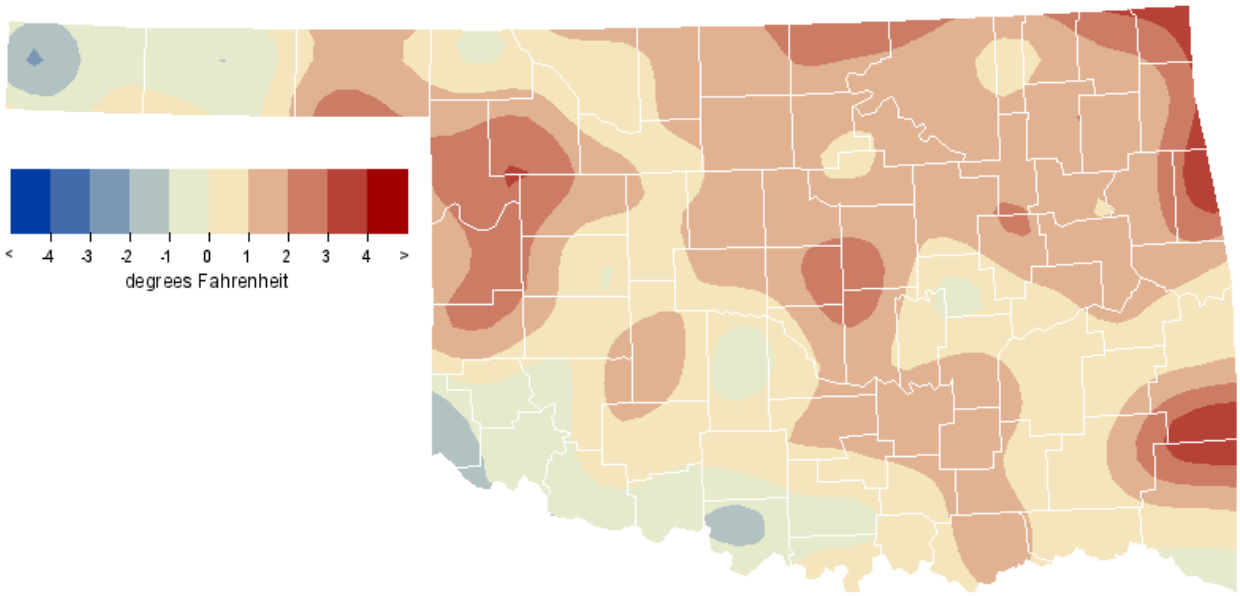
May 2007 Average Soil Moisture at 25cm



May 2007 Average Temperature



May 2007 Departure from Normal Temperature



Mesonet Monthly Summary for May 2007

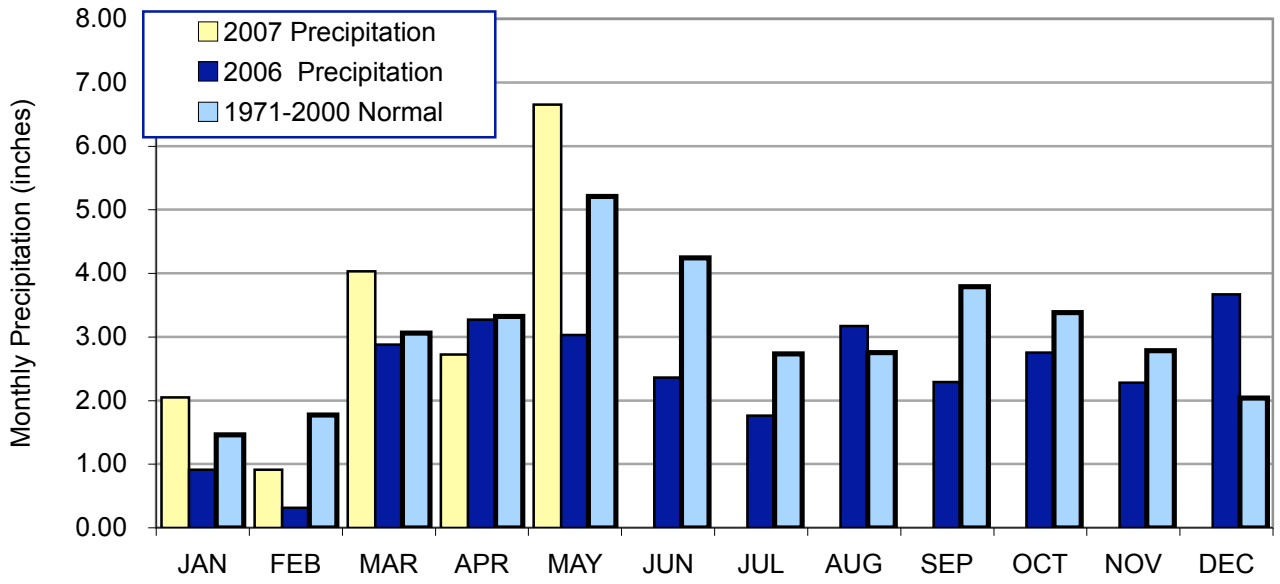
NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	66.2	88	4	45	16	39	77	5.76	1.30	6
Beaver	66.0	89	4	42	16	45	76	3.11	1.28	31
Boise City	61.5	85	14	38	6	132	23	.33	.18	25
Buffalo	67.2	91	4	43	16	39	106	*****	.52	31
NORTH CENTRAL										
Alva	68.0	85	14	44	16	20	113	5.57	1.69	6
Blackwell	69.0	87	12	46	16	14	138	7.25	2.36	8
Breckinridge	68.7	85	13	47	16	16	130	5.21	1.26	8
Cherokee	69.0	86	4	44	16	14	137	6.39	2.55	6
Fairview	68.9	85	14	47	17	13	134	7.18	1.95	6
Freedom	67.8	87	4	44	16	23	111	5.96	2.42	6
Lahoma	68.6	85	4	46	16	16	126	5.16	1.15	24
NORTHEAST										
Bixby	70.3	87	14	47	18	11	174	7.55	4.86	7
Burbank	69.0	88	12	48	18	14	138	8.57	1.97	7
Claremore	70.1	89	12	47	18	10	170	7.83	2.94	7
Copan	68.6	87	12	48	16	16	128	8.05	2.52	6
Foraker	69.0	88	12	47	16	16	139	6.61	2.16	7
Inola	68.8	85	12	45	18	17	135	7.34	3.48	7
Jay	68.7	88	13	42	18	22	138	5.38	1.69	7
Miami	69.2	90	13	45	18	21	150	7.07	1.90	2
WEST CENTRAL										
Bessie	68.6	87	4	46	16	11	124	5.94	1.99	8
Butler	68.6	87	4	46	16	14	126	8.24	3.51	6
Camargo	67.0	85	4	44	16	30	93	4.85	1.60	6
Cheyenne	66.4	84	4	46	16	36	81	6.36	2.22	6
Erick	67.5	86	4	47	16	26	102	7.85	4.26	6
CENTRAL										
Acme	69.2	85	4	50	16	9	139	10.16	3.18	8
Bowlegs	69.3	86	13	49	18	10	143	11.08	2.17	7
Bristow	68.9	86	12	43	18	****	****	6.72	1.85	7
Chandler	69.8	85	12	50	16	7	156	9.19	2.43	1
Chickasha	69.7	86	13	49	18	7	154	8.24	2.93	7
El Reno	68.0	86	4	44	16	20	113	11.01	3.97	8
Guthrie	70.1	86	13	48	16	6	164	7.58	1.67	7
Kingfisher	69.5	87	4	45	16	13	152	8.44	2.08	7
Marena	69.1	86	14	48	16	11	138	9.84	2.35	7
Minco	69.5	86	4	48	16	10	148	12.00	3.68	8
Marshall	69.1	86	13	46	16	15	143	*****	*****	***
Ninnekah	70.3	87	4	50	16	5	168	8.69	3.35	7
EAST CENTRAL										
Calvin	69.2	86	13	47	17	11	143	6.23	2.24	7
Cookson	68.2	86	12	43	18	23	123	4.72	2.15	7
Eufaula	70.3	86	12	48	18	****	****	7.72	2.84	7
Haskell	70.1	87	6	46	18	13	170	4.34	2.20	7
Hectorville	69.8	85	12	48	18	10	158	6.10	2.54	7
McAlester	70.2	87	13	48	17	8	169	4.05	1.75	7
Okmulgee	69.8	86	14	44	18	14	162	5.29	2.03	7
SOUTHWEST										
Altus	70.9	93	4	50	16	7	189	2.73	1.04	8
Apache	68.7	84	4	49	16	9	124	10.48	3.99	8
Fort Cobb	69.0	85	4	52	16	6	131	10.92	5.86	8
Grandfield	70.8	92	4	51	16	6	185	6.11	1.90	8
Hinton	68.4	85	22	46	16	14	119	*****	*****	***
Hobart	68.9	87	4	47	16	12	132	4.76	1.63	8
SOUTH CENTRAL										
Ada	69.7	86	14	48	17	10	156	6.70	1.27	28
Ardmore	70.4	87	14	52	16	3	171	7.93	2.41	27
Burneyville	71.3	89	14	48	18	5	199	9.13	2.76	30
Byars	69.3	84	14	49	16	7	142	8.15	1.52	24
Centrahoma	70.4	86	13	47	18	8	176	5.08	1.61	27
Durant	71.3	86	14	53	17	2	197	11.54	3.28	30
Fittstown	68.8	84	14	51	17	8	126	7.10	1.94	1
Ketchum Ranch	70.1	86	14	50	16	6	164	9.33	2.06	26
Lane	71.3	87	14	49	17	4	199	12.45	6.81	7
SOUTHEAST										
Antlers	70.3	88	14	45	17	10	175	8.51	1.57	27
Broken Bow	69.8	89	14	46	19	12	160	6.35	1.82	1
Clayton	70.1	88	13	45	18	12	171	5.22	1.77	7
Cloudy	69.8	86	13	50	20	4	153	7.20	1.26	29
Hugo	70.7	87	14	52	17	0	177	6.29	1.45	24

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	63.2	87	22	43	16	90	35	1.48	.51	23
Hooker	65.4	90	22	46	9	48	60	1.69	.65	31
Kenton	61.7	86	14	36	9	128	25	1.58	.76	17
Slapout	66.1	91	4	44	16	44	78	4.62	2.25	23
May Ranch	67.8	88	4	47	16	24	111	6.73	3.36	6
Medford	69.0	86	14	47	16	14	139	4.02	.87	6
Newkirk	68.6	87	12	46	16	16	127	8.69	1.99	8
Red Rock	69.6	87	13	47	16	12	155	9.24	2.24	7
Seiling	68.1	86	14	47	16	20	117	7.78	3.22	6
Woodward	67.1	87	4	44	16	31	97	5.55	1.97	6
Nowata	68.9	88	12	45	18	22	141	5.64	1.54	7
Pawnee	69.6	88	13	49	16	9	151	8.63	2.25	27
Porter	70.2	87	12	46	18	11	172	4.71	2.18	7
Pryor	69.2	88	13	43	18	18	148	7.15	2.60	7
Skiatook	69.2	87	13	49	16	11	140	8.18	1.36	7
Vinita	68.2	87	13	44	18	26	126	5.57	1.53	7
Wynona	69.2	88	13	47	18	13	144	8.82	2.51	7
Putnam	67.3	84	4	46	16	28	100	7.04	2.81	6
Retrop	68.6	87	4	47	16	12	123	4.74	1.71	8
Watonga	67.9	84	4	45	16	22	113	7.97	1.82	6
Weatherford	68.2	85	4	46	16	15	113	8.14	2.24	8
Norman	69.7	85	13	50	18	8	153	10.43	2.42	7
Oilton	68.6	86	13	44	18	18	131	11.47	2.14	2
Oklahoma City	69.9	86	13	49	17	9	159	9.95	2.50	7
Oklahoma City	70.0	85	13	49	16	6	162	8.92	2.30	7
Oklahoma City	70.5	86	13	52	17	****	****	8.17	2.14	7
Okemah	70.3	86	13	47	19	12	177	5.11	2.03	7
Perkins	70.1	86	12	49	17	7	165	10.14	2.01	1
Shawnee	69.0	84	14	48	16	12	136	10.72	2.22	1
Spencer	70.0	86	13	49	16	12	165	9.17	2.79	7
Stillwater	69.8	88	14	47	16	10	159	10.43	2.32	7
Washington	70.1	85	13	50	16	7	165	10.00	2.87	7
Sallisaw	70.8	88	6	48	19	10	188	6.29	1.52	7
Stigler	71.4	90	12	48	18	****	****	5.34	1.30	7
Stuart	69.6	86	13	50	17	8	151	6.38	2.38	7
Tahlequah	69.2	88	13	45	18	17	148	6.01	3.54	7
Webbers Falls	71.5	91	12	48	18	5	207	6.09	1.39	7
Westville	68.8	88	13	43	18	19	138	3.20	1.33	7
Hollis	69.4	90	4	49	16	10	147	5.56	2.23	6
Mangum	69.0	88	4	49	16	9	133	6.23	3.96	8
Medicine Park	69.1	86	4	52	16	6	133	9.10	4.74	8
Tipton	70.8	90	4	50	16	6	186	2.29	1.30	8
Walters	70.6	88	4	50	16	8	183	7.10	1.45	30
Madill	71.0	86	14	53	16	3	188	10.44	3.96	27
Newport	70.7	86	14	52	16	3	180	7.49	1.90	27
Pauls Valley	70.4	85	13	51	16	5	174	8.81	2.06	24
Ringling	70.8	86	13	50	16	4	184	8.58	1.67	8
Sulphur	69.4	84	14	50	16	6	143	8.27	1.69	10
Tishomingo	70.0	86	14	51	16	6	162	5.85	1.06	24
Vanoss	69.9	87	14	49	17	7	160	7.60	1.72	27
Waurika	71.1	88	4	51	16	3	191	6.42	1.74	30
Idabel	70.8	88	14	50	17	4	185	8.01	1.37	22
Mt Herman	69.0	85	13	48	19	13	137	7.91	1.66	10
Talihina	69.8	87	13	45	19	15	165	3.50	1.05	24
Wilburton	69.9	87	14	48	18	11	162	3.28	1.29	7
Wister	69.2	88	14	41	19	21	152	3.10	.65	9

May 2007 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	May-06
Panhandle	2.65	-0.72	52nd Driest	6.37 (1951)	0.00 (1927)	1.58
North Central	6.52	1.80	21st Wettest	11.70 (1957)	0.25 (1924)	2.32
Northeast	7.14	1.66	24th Wettest	19.10 (1943)	1.38 (1917)	3.19
West Central	6.79	1.89	20th Wettest	12.40 (1982)	0.00 (1924)	3.85
Central	9.41	3.78	8th Wettest	12.53 (1902)	0.96 (1988)	2.71
East Central	5.52	-0.37	57th Driest	14.72 (1943)	1.25 (1941)	4.00
Southwest	6.53	1.56	27th Wettest	11.96 (1902)	0.38 (1984)	2.96
South Central	8.29	2.69	18th Wettest	12.66 (1982)	0.46 (1988)	3.09
Southeast	5.94	-0.42	55th Wettest	14.36 (1990)	1.24 (1963)	4.23
Statewide	6.65	1.44	24th Wettest	10.68 (1957)	1.30 (1988)	3.03

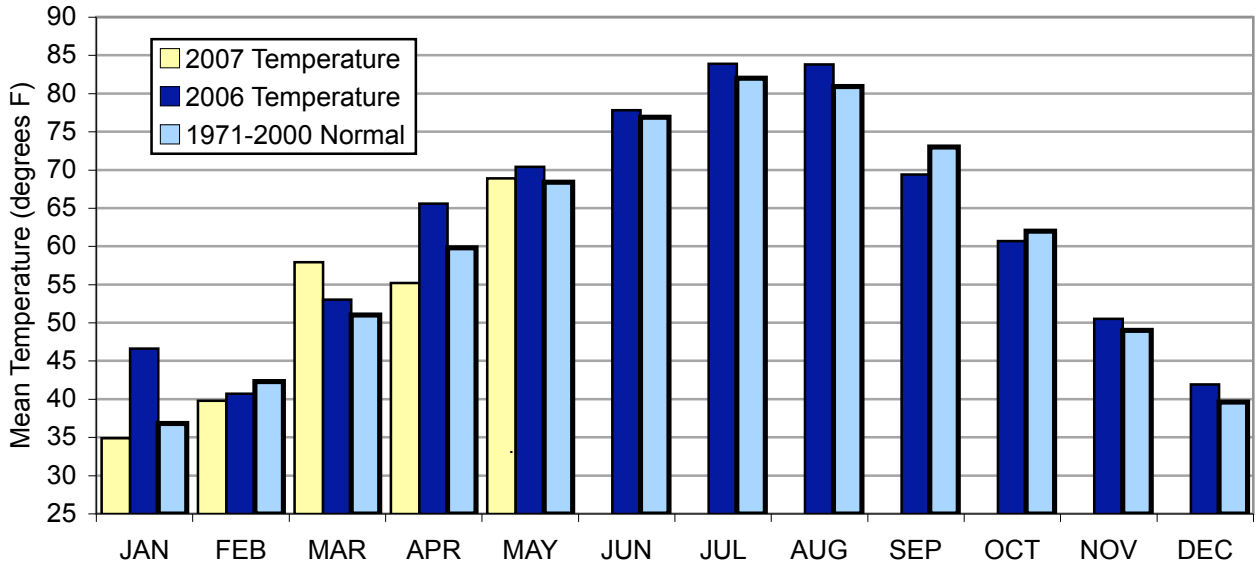
2006 and 2007 Statewide Precipitation Monthly Totals vs. Normal



May 2007 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	May-06 (F)
Panhandle	64.7	0.3	53rd Warmest	72.0 (1896)	56.8 (1917)	68.1
North Central	68.5	1.4	40th Warmest	75.2 (1896)	60.7 (1907)	69.8
Northeast	69.2	2.0	27th Warmest	74.1 (1962)	61.2 (1907)	69.0
West Central	67.8	0.6	52nd Warmest	75.6 (1896)	60.9 (1907)	71.0
Central	69.6	1.1	37th Warmest	75.5 (1896)	62.0 (1907)	70.9
East Central	69.9	1.6	33rd Warmest	74.8 (1896)	62.2 (1907)	70.1
Southwest	69.6	0.0	56th Warmest	77.8 (1896)	62.8 (1907)	72.6
South Central	70.4	0.7	44th Warmest	76.0 (1896)	63.6 (1907)	72.0
Southeast	70.0	1.2	41st Warmest	75.3 (1896)	62.8 (1907)	70.4
Statewide	68.9	1.0	41st Warmest	75.0 (1896)	61.5 (1907)	70.4

2006 and 2007 Statewide Temperature Monthly Averages vs. Normal



Mesonet Extremes for May 2007

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	91	4th	Buffalo	36	9th	Kenton	5.76	Arnett	2.25	23rd	Slapout
North Central	88	4th	May Ranch	44	16th	Freedom	9.24	Red Rock	3.36	6th	May Ranch
Northeast	90	13th	Miami	42	18th	Jay	8.82	Wynona	4.86	7th	Bixby
West Central	87	4th	Bessie	44	16th	Camargo	8.24	Butler	4.26	6th	Erick
Central	88	14th	Stillwater	43	18th	Bristow	12.00	Minco	3.97	8th	El Reno
East Central	91	12th	Webbers Falls	43	18th	Westville	7.72	Eufaula	3.54	7th	Tahlequah
Southwest	93	4th	Altus	46	16th	Hinton	10.92	Fort Cobb	5.86	8th	Fort Cobb
South Central	89	14th	Burneyville	47	18th	Centrahoma	12.45	Lane	6.81	7th	Lane
Southeast	89	14th	Broken Bow	41	19th	Wister	8.51	Antlers	1.82	1st	Broken Bow
Statewide	93	4th	Altus	36	9th	Kenton	12.45	Lane	6.81	7th	Lane

June Climatological Outlook

June marks a transition from spring into summer, and is considered the first of the "climatological summer" months. About the middle of the month, weather patterns change from mild and wet to dry and hot. The transition is especially apparent across Western Oklahoma, where the wheat harvest replaces vegetation with exposed soil. Sunlight heats the bare ground more quickly, pushing temperatures higher. Buffalo and Mangum each average more than five days with temperatures at or above 100 degrees.

Precipitation

Mean: 4.24 inches
Wettest June: 1908, 8.73 inches
Driest June: 1933, 0.46 inches
Wettest location: Durant, 5.49 inches
Driest location: Kenton, 2.18 inches
Most recorded: 18.87 inches, Meeker, 1932

Rainfall across the state generally decreases from its springtime peak, but the Panhandle has its wettest months ahead of it. While most of the state follows the patterns of the Great Plains, weather patterns in far western Oklahoma are more controlled by the Rocky Mountains to the west, which typically develop late afternoon thunderstorms. Even with its peak rainfall occurring in June, most Panhandle locations are still drier than the rest of the state. Rainfall totals over an inch are rare, even in their rainy season. The Panhandle is also notable for dust storms during the dry years, especially during the 1930s and 1950s. In 1937, Goodwell reported 11 days with visibility less than one mile due to dust storms, and a dust storm near Hooker in 1957 led to a 12-car pile-up. A "black blizzard" was reported at Kenton in 1939, when rain washed thick dust from the air.

Flooding is a major hazard during June. Flooding can occur from localized heavy rainfall, or from persistent rains in a river basin. As much as twenty inches may have fallen near Hydro within a 14-hour period one June 22, 1948, although official reports showed 11.25 inches. Resulting flash floods killed 11 people who found themselves trapped along Route 66. Basin flooding in 1923 was described as "unusually disastrous" on the North Canadian, Arkansas, Cimarron, and Neosho rivers from June 7-11. The Washita River flooded Pauls Valley in 1941, contributing to an extensive development effort to control the river through a series of small dams upstream. In 1957, waters first topped the spillway at Lake Texoma, and the Red River remained in flood stage downstream of the dam for the entire month. Waurika, Guthrie, and areas north and east of the Arkansas River have frequently dealt with flooding in past Junes.

Temperature

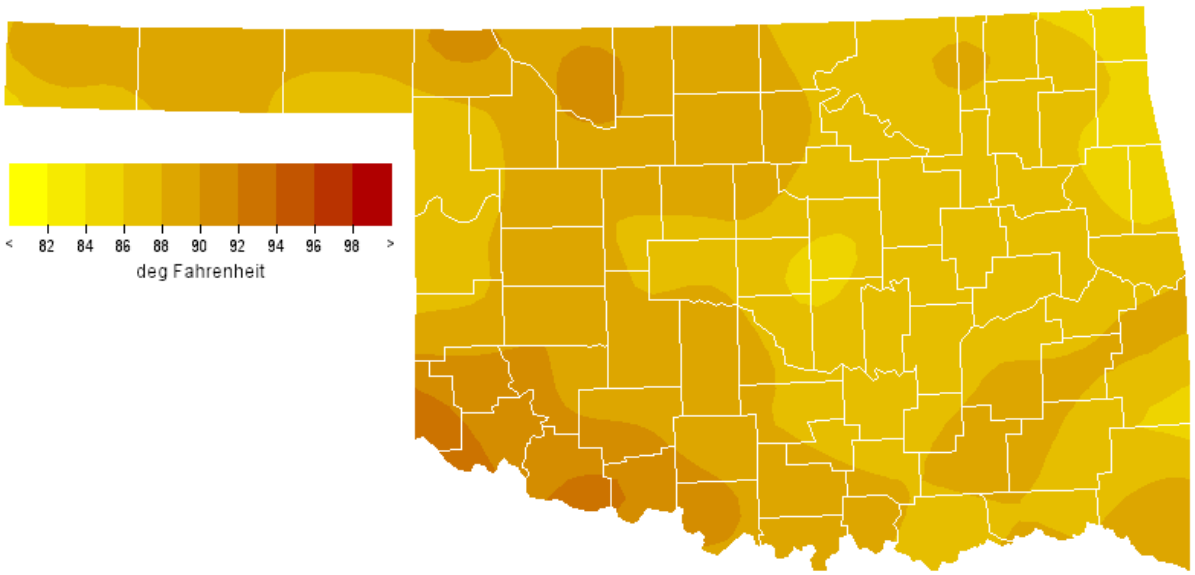
Mean: 76.9 degrees
Warmest June: 1953, 85.1 degrees
Coldest June: 1903, 70.3 degrees
Hottest location: Waurika, 80.3 degrees
Coolest location: Boise City, 72.6 degrees
Hottest recorded: 120 degrees, Tipton, June 27, 1994
Coldest recorded: 34 degrees, Kenton, June 13, 1919

Springtime severe weather patterns are common in early June. The state averages nine tornadoes per year, with as many as 28 occurring in 1995 and as few as none in 1987. Especially violent tornadoes include one on June 1, 1917 that killed 14 people in Coalgate, one that left 35 dead in southwest Oklahoma City on June 12, 1942, and a June 8, 1974 tornado that killed 14 in Drumright. Hail also plagues the state. Farmers have lost wheat crops to hailstorms just before the fields were ready for harvest. One hailstorm cut a 25-mile by 10-mile swath west of Gage on June 14, 1938. In 1993, hailstorms from Tyrone to Grove caused more than $70 million in damage to the wheat crop alone. Hail up to six inches in diameter was reported in Enid from the storm, and extensive property damage occurred in Blackwell. A nearly-stationary storm dropped hailstones on Woodward for one hour in 1957, causing extensive damage to property. Straight-line winds from thunderstorms have been recorded as high as 110 miles per hour, leaving many customers without power.

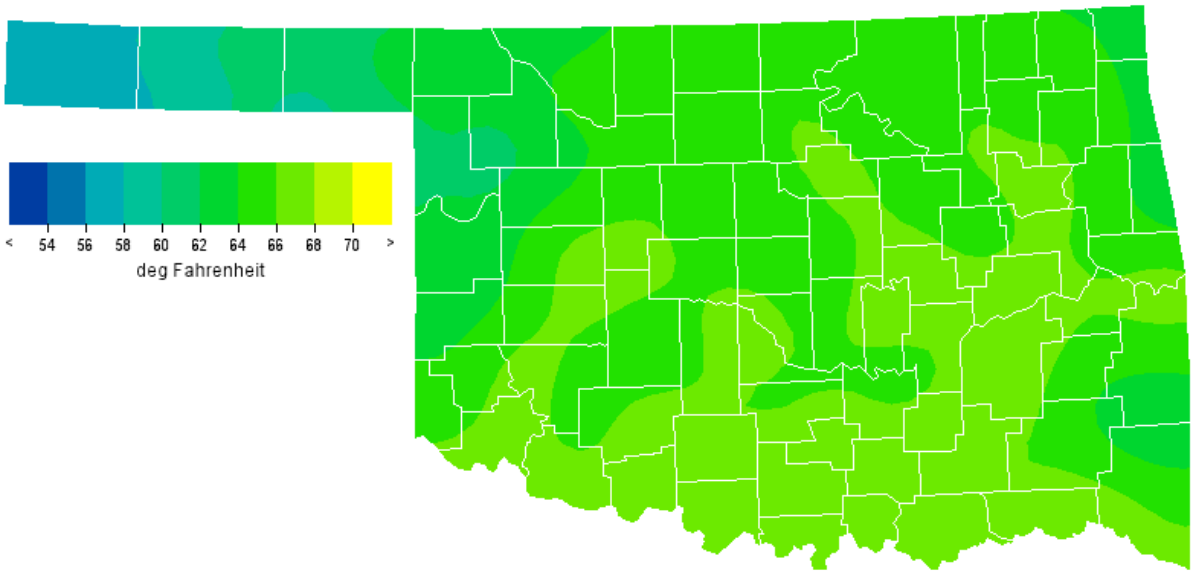
Tornadoes

Average June Tornadoes: 8.4
Most: 28 (1995)

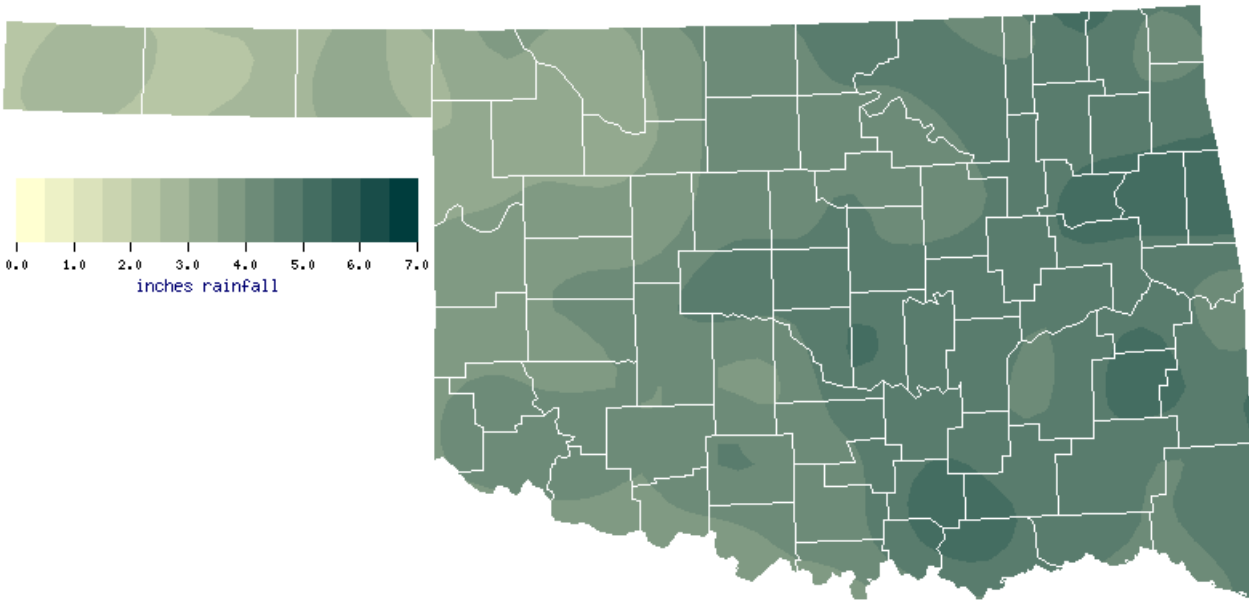
June Normal Daily Maximum Temperature (1971-2000)



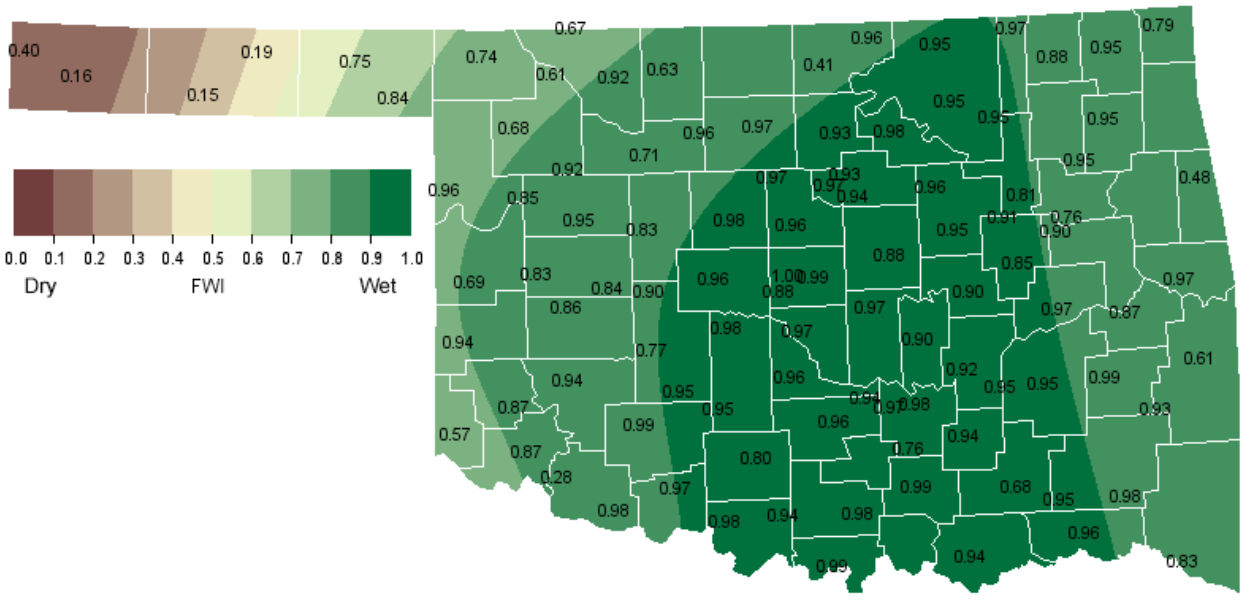
June Normal Daily Minimum Temperature (1971-2000)



June Normal Precipitation (1971-2000)



June 1, 2007 Soil Moisture Conditions at 25cm



U.S. Drought Monitor

Oklahoma

May 29, 2007
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.9	3.1	0.0	0.0	0.0	0.0
Last Week (05/22/2007 map)	100.0	0.0	0.0	0.0	0.0	0.0
3 Months Ago (03/06/2007 map)	50.6	49.4	25.6	10.9	0.0	0.0
Start of Calendar Year (01/02/2007 map)	31.3	68.7	39.8	24.5	18.2	0.0
Start of Water Year (10/03/2006 map)	2.7	97.3	92.7	46.2	16.6	0.0
One Year Ago (05/30/2006 map)	0.0	100.0	87.3	42.1	17.8	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

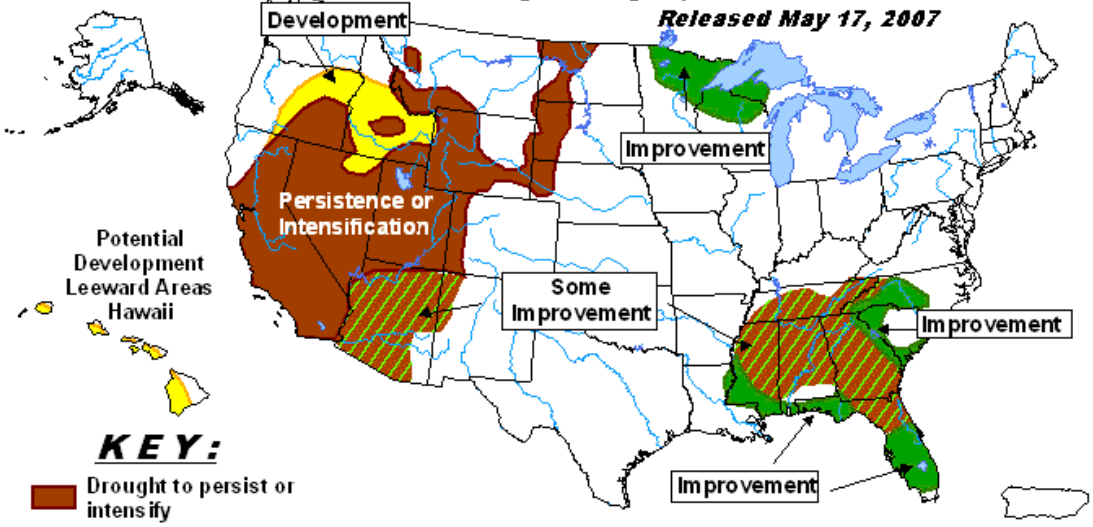
Released Thursday, May 31, 2007
Author: Ned Guttman, NOAA/NESDIS/NCDC

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid May 17 - August, 2007

Released May 17, 2007

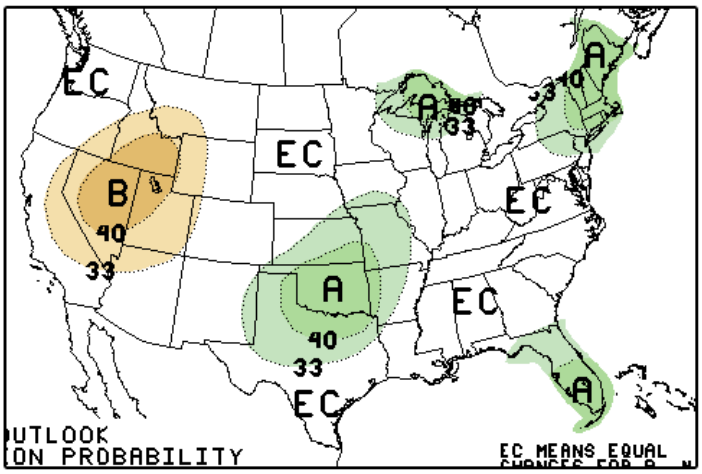


KEY:

- 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 that 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.

June 2007 U.S. Precipitation Forecast



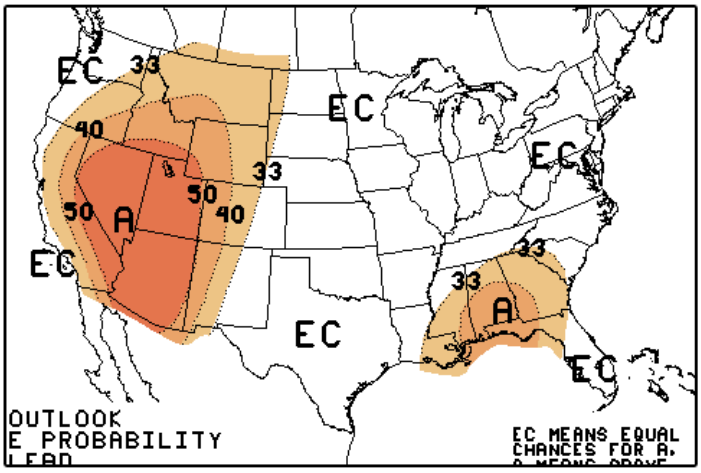
Percent Likelihood of Above or Below Average Precipitation*

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

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

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

June 2007 U.S. Temperature Forecast



Percent Likelihood of Above and Below Average Temperatures*

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

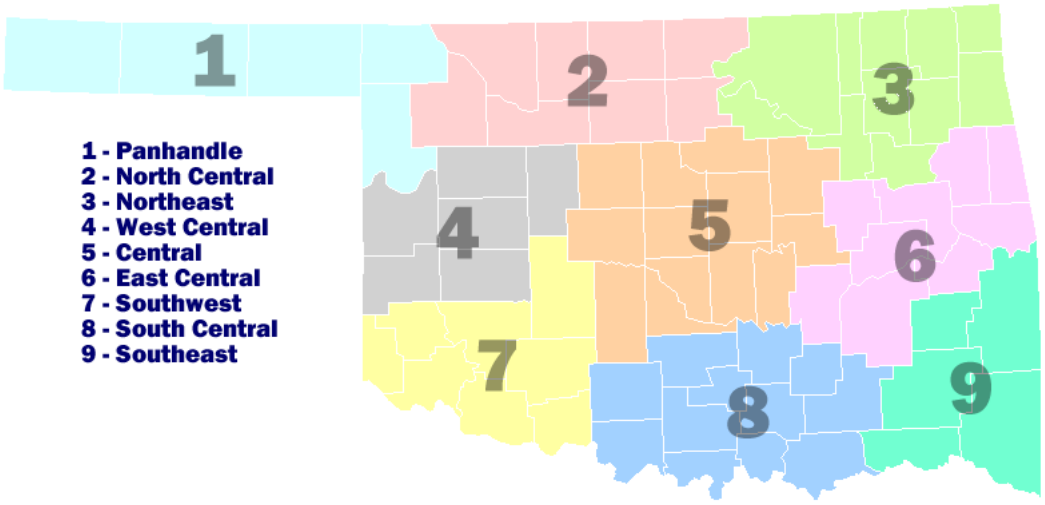
0% - 5%
5% - 10%
B = Below

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

June Climate Normals

Climate Division	Max. Temperature	Min. Temperature	Avg. Temperature	Precipitation
1	88.9	60.6	74.8	2.90
2	88.9	64.5	76.7	3.92
3	86.8	65.3	76.1	4.59
4	88.6	64.7	76.6	3.78
5	87.7	66.0	76.8	4.45
6	86.8	65.9	76.3	4.70
7	90.5	65.9	78.3	4.01
8	88.5	66.9	77.7	4.56
9	87.9	65.2	76.6	4.63
Statewide	88.2	65.1	76.7	4.26

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

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