OKLAHOMA
MONTHLY SUMMARY
SEPTEMBER 1997

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MONTHLY SUMMARY FOR SEPTEMBER

Despite heavy rains in the northwestern two-thirds of Oklahoma late in the month, the September statewide-averaged precipitation (3.19 inches) fell short of normal by 0.75 inch. Stubborn dry conditions persisted over southeastern Oklahoma where typical September precipitation patterns failed to materialize. Despite continuing deficits in south central and southeastern Oklahoma, the state's year-to-date total precipitation of 30.14 inches is 3.05 inches greater than normal, 27th greatest since 1892.

September temperatures averaged 74.3 degrees across the state, 1.3 degrees above normal and the 41st warmest September out of 106 years. The year, with a year-to-date average temperature of 62.8 degrees, ranks as the 26th warmest on record, 0.8 degree warmer than normal.

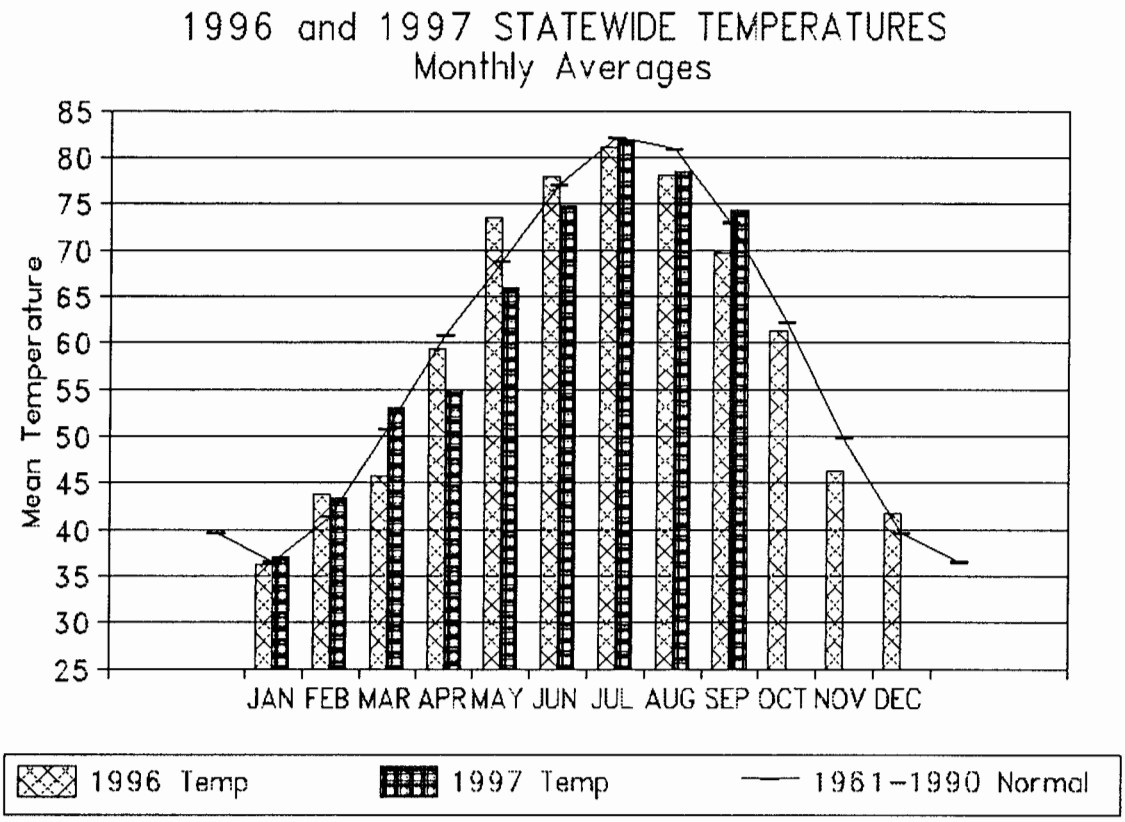
Typical late summer weather during the first week of the month was interrupted by a weak cold front that moved through the state on the 3rd and 4th producing widely scattered thunderstorms and lowering daytime temperatures by 10 to 15 degrees. A somewhat stronger frontal system on the 8th and 9th produced thunderstorms in the north and west. A pair of small tornadoes were reported near Fairfax and Shidler in Osage County on the 8th. Large hail was reported in Roger Mills, Beckham, Greer, Woods, and Logan counties. Purcell (McClain) recorded 2.05 inches of rain and minor flooding was reported around Elk City (Beckham) and Hobart (Kiowa).

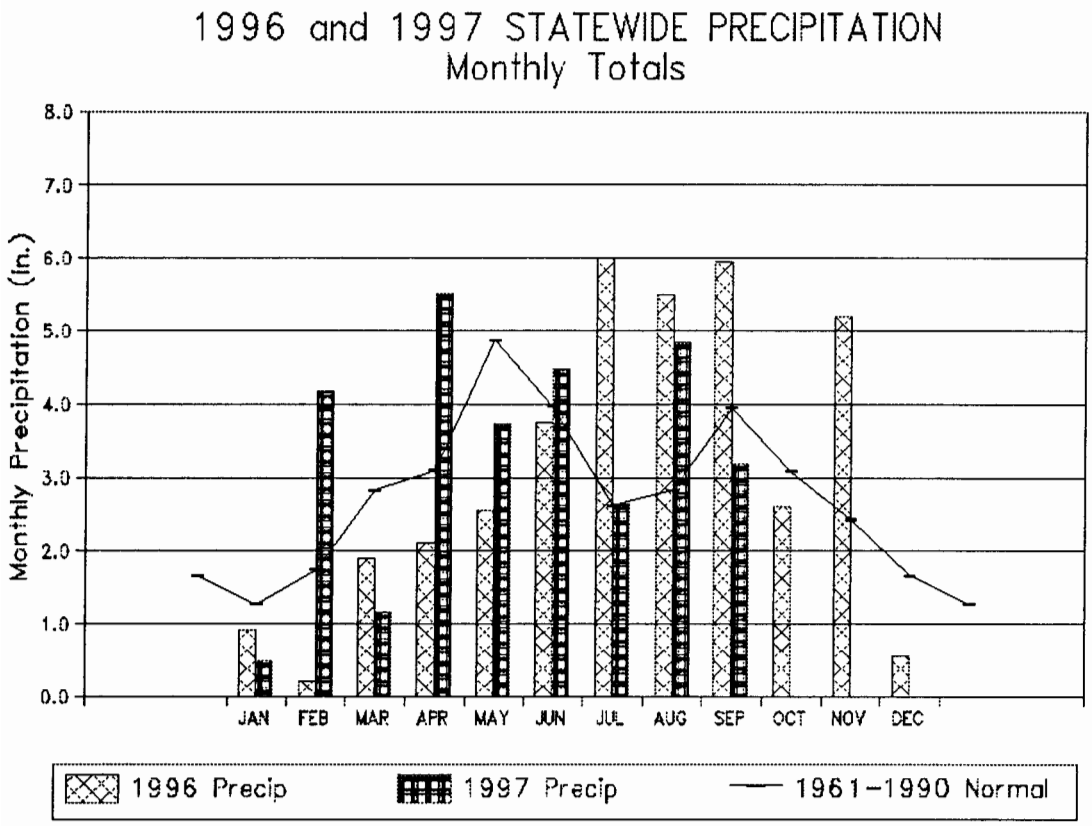
Thunderstorms on the 12th, 13th, and 14th produced heavy rains and strong winds across much of northern and western Oklahoma and the needed rainfall penetrated into the southeast on the 15th. The Fairview Mesonet station recorded a peak wind of 88 miles per hour on the 13th. Clinton (Custer) reported 3.13 inches of rain and Hanna (McIntosh) noted 2.09 inches on the 14th. Carnasaw Tower (McCurtain) with 1.82 inches, Cloudy Mesonet (Pushmataha) with 1.79 inches and Spiro (LeFlore) with 1.78 inches, all on the 15th, were the southeastern Oklahoma reporting locations with the largest precipitation amounts. The 15th through the 19th were dominated by summer's last really hot weather. Temperatures at Buffalo Mesonet (Harper) and Gate (Beaver) reached 107 and 106 degrees, respectively, on the afternoon of the 18th.

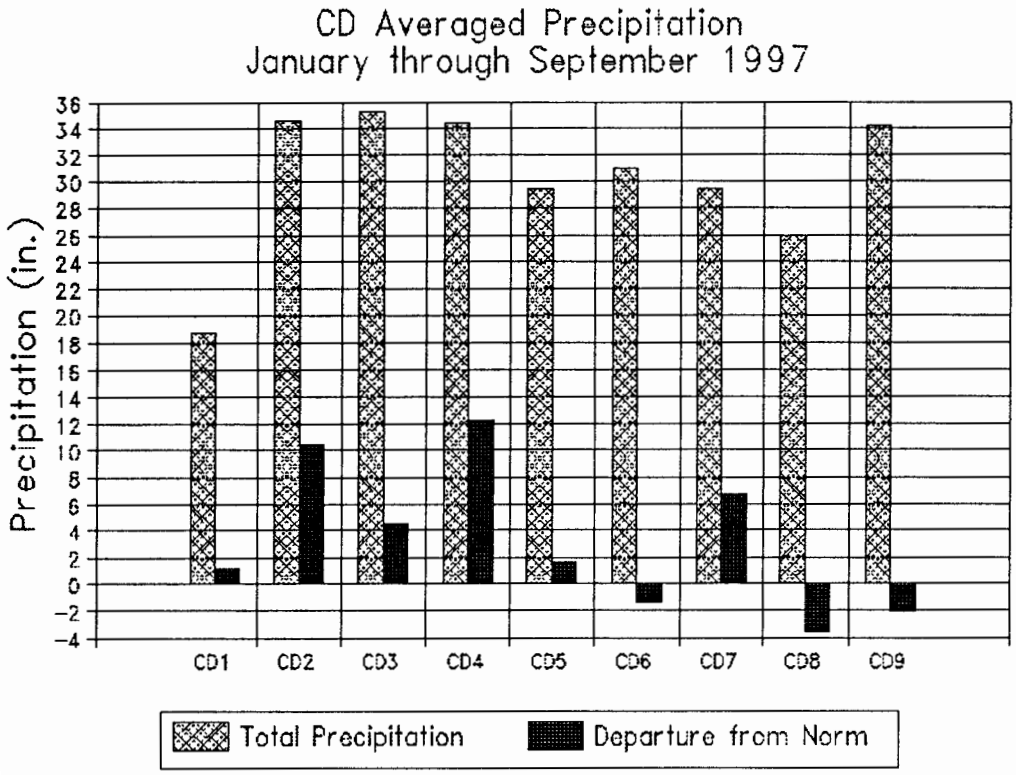
Summer ended abruptly with the passage through the state of a strong cold front on the 19th and 20th. A significant precipitation-producing system moved across the state on the 22nd and 23rd, depositing large quantities of precipitation, including 8.70 inches at Cherokee (Alfalfa), 8.25 inches at Headrick (Jackson), 7.69 inches at the Woodward County Mesonet site northwest of Seiling (Dewey), an even 7 inches at Hammon (Roger Mills), 6.90 inches at Cedardale (Woodward), 6.75 inches at Tipton Mesonet (Tillman), 6.40 inches at Retrop (Washita), 6.21 inches at Snider (Kiowa), and 6.20 inches at Billings (Noble). Localized flooding was reported in Cherokee, Tipton, and Hobart. Additional flooding occurred along the Salt Fork of the Arkansas near Medford (Grant) and Tonkawa (Kay) and the Chikaskia River near Blackwell (Kay). Mild, dry weather followed during the first week of autumn, gradually warming toward the end of the month.

Howard L. Johnson

Note: In the August 1997 summary article, I erroneously placed Elk City in Custer County. As we all know, Elk City is in Beckham County and, so far as I know, has been since statehood. I apologize for the error. -HLJ-

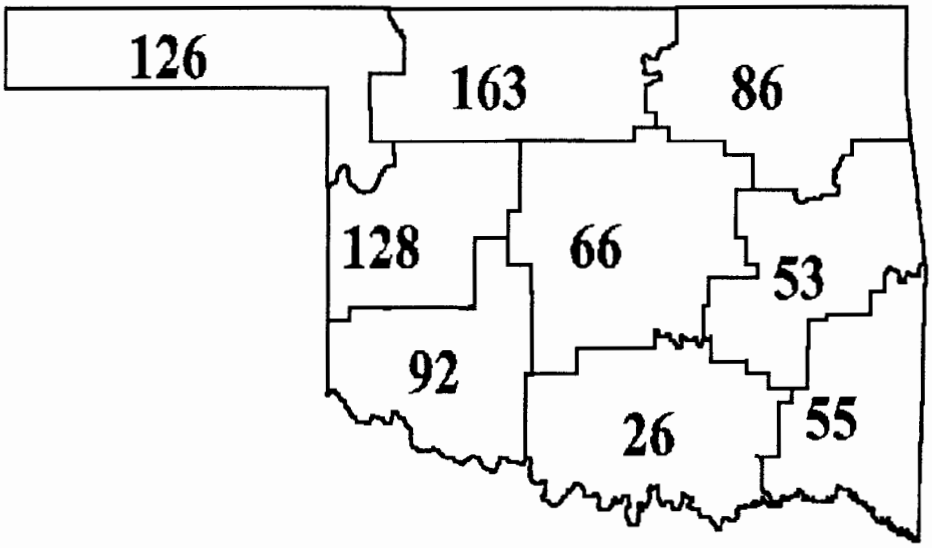

1996 and 1997 STATEWIDE TEMPERATURES
Monthly Averages
Mean Temperature
85
80
75
70
65
60
55
50
45
40
35
30
25
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1996 Temp
1997 Temp
1961-1990 Normal


1996 and 1997 STATEWIDE PRECIPITATION
Monthly Totals
Monthly Precipitation (in.)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1996 Precip
1997 Precip
1961-1990 Normal



CD PERCENT OF NORMAL PRECIPITATION

SEPTEMBER 1997



EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION
SEPTEMBER, 1997

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	106	19	GATE	43	20	BOISE CITY	2.25	23	ARNETT	4.67	ARNETT
				43	25	TURPIN	2.25	23	FARGO		
2	102	19	PONCA CITY	43	29	FREEDOM	6.53	23	CEDARDALE	10.09	CHEROKEE
				43	30	FREEDOM					
3	98	19	RALSTON	36	24	CLEVELAND 2	4.77	23	BURBANK	7.62	CHELSEA
4	101	2	OKEENE	46	29	TALOGA	6.56	23	HAMMON	7.54	HAMMON
5	101	17	CHICKASHA	46	26	NORMAN NWS	3.72	23	CHANDLER	4.80	CHANDLER
	101	2	EL RENO	46	29	NORMAN NWS					
	101	19	HENNESSEY								
6	98	1	HANNA	41	29	MCCURTAIN	2.20	24	SCRAPER	3.99	HASKELL
7	104	17	CHATTANOOGA	47	29	ALTUS DAM	8.25	23	HEADRICK	9.38	HEADRICK
	104	18	CHATTANOOGA	47	30	ALTUS DAM					
				47	29	ANADARKO					
8	103	17	MARLOW	46	26	CHICKASAW	1.65	4	GRADY	2.58	KETCHUM RAN
	103	17	WAURIKA								
9	100	1	IDABEL	41	12	PAGE	1.85	24	VALLIANT	4.86	CARNASAW

TABLE OF 1996/1997 COMPARISONS

	SEPTEMBER Temperature (°F)		SEPTEMBER Precipitation (in.)	
Station	**1996**	**1997**	**1996**	**1997**
Arnett	67.2	71.1	4.52	4.67
Mutual	69.2	72.4	2.70	4.81
Tulsa	70.5	73.9	4.94	3.06
Elk City	71.3	73.2	5.63	4.10
Oklahoma City	70.9	75.3	6.05	1.37
McAlester	72.2	74.3	5.44	0.30
Altus Irr Station	73.0	75.8	6.23	6.13
Ardmore	74.1	****	4.01	****
Idabel	72.1	75.9	6.29	2.48

EXTREMES

VARIABLE	STATION	DIVISION	OBSERVATION	DATE
Minimum temperature (°F)	Cleveland	3	36	24
Maximum temperature (°F)	Gate	1	106	19
Maximum 24-hour precipitation	Headrick	7	8.25"	23

SEPTEMBER 1997 SUMMARY FOR PANHANDLE DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ARNETT	332	1	71.1	30	1.1	97	19	48	26	45	20	226	51	4.670	30	2.14	2.25	23
BEAVER	593	1	71.6	30	1.9	103	19	44	26	37	6	234	62	2.520	30	0.70	1.03	20
BOISE CITY	908	1	71.4	30	3.6	98	18	43	20	18	-14	209	93	1.563	30	-0.27	0.86	5
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	4.214	30	1.94	2.25	23
GAGE	3407	1	73.2	28	*****	101	18	45	29	23	******	253	******	3.182	28	*****	2.05	22
GATE	3489	1	72.6	30	1.4	106	19	48	25	32	15	260	57	2.922	30	0.83	1.14	23
GOODWELL	3628	1	72.1	30	4	103	19	44	25	36	-3	248	116	1.110	30	-0.57	0.48	21
KENTON	4766	1	70.4	28	*****	97	18	44	25	34	******	185	******	1.550	30	-0.30	0.51	7
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	3.360	30	1.34	1.68	23
RANGE	7412	1	*****	0	*****	****	0	****	0	******	******	******	******	1.935	30	*****	0.64	20
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	1.040	30	-0.66	0.65	20
TURPIN	9017	1	70.8	27	*****	101	19	43	25	41	******	198	******	1.110	27	*****	0.42	23

SEPTEMBER 1997 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
VANCE AFB	302	2	*****	0	*****	****	0	****	0	******	******	******	******	3.942	29	*****	1.55	23
BILLINGS	755	2	73.6	30	1.2	99	20	52	30	11	-9	268	26	7.332	30	2.79	3.90	23
BLACKWELL 2E	818	2	73.0	30	0.2	98	19	50	30	12	-6	251	0	5.642	30	1.56	4.35	23
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	6.272	30	*****	4.74	23
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	8.515	30	*****	6.53	23
CHEROKEE	1724	2	75.7	30	1.8	100	18	51	20	6	-6	325	50	10.090	30	7.03	5.06	23
ENID	2912	2	76.6	30	3.2	99	19	54	29	1	-13	349	84	4.040	30	0.56	2.81	23
FT SUPPLY	3304	2	71.7	29	1.3	100	19	48	26	39	17	234	50	3.872	30	1.56	2.04	23
FREEDOM	3358	2	71.2	30	-1.5	100	19	43	30	36	22	221	-25	5.650	30	3.06	2.47	23
GREAT SALT P	3740	2	73.7	30	1.6	100	19	52	21	15	-2	277	47	5.890	30	2.56	4.00	23
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	4.880	30	*****	3.47	23
JEFFERSON	4573	2	74.9	30	1.6	101	2	48	29	0	-11	299	39	5.710	30	2.02	4.35	22
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	5.380	30	*****	4.80	23
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	4.963	30	*****	4.21	22
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	3.460	30	*****	2.10	23
MUTUAL	6139	2	72.4	30	1.2	101	19	49	26	35	16	256	51	4.810	30	2.16	3.21	23
NEWKIRK	6278	2	72.7	30	0	97	20	52	20	14	0	244	-1	3.921	30	-0.35	2.73	23
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	5.440	30	2.38	4.50	23
PERRY	7012	2	75.5	28	*****	101	3	54	30	5	******	299	******	3.170	28	*****	1.77	23
PONCA CITY	7201	2	76.3	26	*****	102	19	54	26	1	******	294	******	4.082	29	*****	2.21	23
WAYNOKA	9404	2	72.9	28	*****	101	2	48	29	11	******	232	******	4.030	28	*****	2.40	22

SEPTEMBER 1997 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	72.7	30	-0.1	94	19	47	29	4	-20	234	-24	3.342	30	-2.27	2.73	23
BARTLESVILLE	548	3	74.0	30	1.2	97	2	49	11	4	-13	274	24	4.213	30	-0.36	1.65	24
BIXBY	782	3	73.4	28	*****	94	3	48	30	6	******	241	******	5.720	29	*****	1.90	23
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	5.222	30	0.56	4.77	23
CHELSEA	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	7.620	30	*****	1.24	26
CLAREMORE	1828	3	71.7	30	-0.3	92	20	47	30	2	-23	202	-32	3.930	30	-0.52	1.84	24
CLEVELAND 2	1902	3	71.5	29	*****	93	19	36	24	23	******	212	******	3.511	29	*****	2.48	23
FORAKER	3250	3	*****	0	*****	****	0	****	0	******	******	******	******	4.390	30	-0.45	2.00	23
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	2.843	30	-2.19	1.31	24
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	3.662	30	-1.46	2.08	23
KANSAS	4672	3	71.1	30	-0.5	91	1	50	26	10	-11	193	-27	3.812	30	-1.63	1.65	23
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	3.850	30	*****	1.40	24
MANNFORD	5522	3	73.7	30	1.1	96	19	50	29	4	-21	265	12	4.380	30	-0.18	1.72	1
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.760	30	-0.93	2.51	23
MIAMI	5855	3	69.9	30	-1.1	90	2	49	11	10	-21	157	-55	4.211	30	-0.86	1.56	24
PAWHUSKA	6935	3	73.8	30	1.5	95	16	51	29	4	-18	267	27	3.821	30	-1.11	2.31	23
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	4.121	30	-0.92	2.84	23
PRYOR	7309	3	71.3	28	*****	93	20	49	30	8	******	184	******	4.322	28	*****	2.40	24
RALSTON	7390	3	73.1	30	0.3	98	19	39	24	14	-6	256	3	4.551	30	-0.12	3.07	23
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	******	******	******	******	4.920	30	0.07	2.12	23
SPAVINAW	8380	3	74.0	30	0.3	93	2	54	29	3	-9	274	1	4.553	30	-0.23	1.78	14
TULSA	8992	3	73.9	30	0.6	96	16	53	29	4	-17	270	1	3.065	30	-1.63	2.25	23
UPPER SPAV	9101	3	72.6	28	*****	95	2	48	29	5	******	219	******	4.450	30	*****	1.87	24
VINITA	9203	3	71.7	23	*****	91	16	47	11	5	******	158	******	4.180	26	*****	1.34	24
WAGONER	9247	3	73.9	30	0.5	93	16	52	11	3	-12	269	3	2.790	30	-1.77	1.28	24
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	4.201	30	*****	1.52	23
WYNONA	9792	3	*****	0	*****	****	0	****	0	******	******	******	******	4.516	30	*****	2.33	23

SEPTEMBER 1997 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
CANTON DAM	1445	4	73.5	27	*****	98	19	52	29	10	******	241	******	4.180	28	*****	3.12	23
CLINTON	1909	4	75.8	30	1.9	97	18	49	29	7	-7	331	51	5.932	30	2.20	3.13	14
COLONY	2039	4	*****	0	*****	****	0	****	0	******	******	******	******	2.602	30	*****	1.35	9
CORDELL	2125	4	*****	0	*****	****	0	****	0	******	******	******	******	3.072	30	-0.54	2.65	23
ELK CITY	2849	4	73.2	30	1	98	19	51	26	12	-1	257	28	4.101	30	0.82	3.24	23
ERICK	2944	4	73.7	30	1.3	100	19	49	26	16	3	276	41	3.410	30	0.19	2.73	23
GEARY	3497	4	74.9	30	2.3	97	2	55	29	4	-13	302	55	2.650	30	-1.15	2.00	23
HAMMON	3871	4	72.1	30	0.8	98	19	47	30	26	2	240	27	7.540	30	4.45	6.56	23
MACKIE	5463	4	*****	0	*****	****	0	****	0	******	******	******	******	4.200	30	*****	3.30	23
MORAVIA	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	2.842	30	-0.57	2.36	23
OKEENE	6629	4	75.3	30	1.6	101	2	54	26	7	-6	316	42	5.171	30	1.48	2.65	23
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	6.400	30	*****	6.40	23
REYDON	7579	4	72.3	30	1.5	98	20	48	26	29	11	249	57	2.440	30	-0.59	1.67	23
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	3.991	30	0.95	3.08	23
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	3.821	30	*****	2.35	23
TALOGA	8708	4	74.5	30	2.4	100	18	46	29	11	-4	297	70	5.210	30	2.24	3.95	23
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	4.670	30	*****	2.04	23
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	4.321	30	1.68	2.40	22
WATONGA	9364	4	75.2	30	2.5	98	9	52	29	7	-10	314	67	5.102	30	1.73	2.82	23
WEATHERFORD	9422	4	75.0	30	2.9	100	2	54	25	9	-10	308	77	3.110	30	-0.63	1.65	22

SEPTEMBER 1997 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	*****	0	*****	****	0	****	0	******	******	******	******	1.790	30	*****	1.48	23
BLANCHARD	830	5	76.8	29	2.8	98	4	52	28	6	-6	348	67	4.201	30	0.04	1.90	23
BRISTOW	1144	5	74.8	30	1.8	97	20	47	29	3	-17	297	38	3.842	30	-0.80	2.12	23
CHANDLER	1684	5	74.8	28	*****	98	2	50	26	5	******	280	******	4.801	28	*****	3.72	23
CHICKASHA	1750	5	77.4	30	3.8	101	17	49	29	0	-12	371	101	1.940	30	-1.86	1.65	23
COX CITY	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	1.960	30	*****	1.83	23
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	1.570	30	*****	1.14	23
CUSHING	2318	5	74.2	30	1.7	97	20	53	27	12	-3	288	48	3.740	30	-0.37	2.60	23
EDMOND	2788	5	*****	0	*****	****	0	****	0	******	******	******	******	2.690	28	*****	2.30	22
EL RENO	2818	5	*****	0	*****	****	0	****	0	******	******	******	******	1.881	30	-2.25	1.48	23
GUTHRIE	3821	5	74.8	27	*****	100	19	48	29	8	******	272	******	1.853	29	*****	1.85	23
HENNESSEY	4055	5	76.1	30	2.9	101	19	52	29	3	-10	336	78	2.441	30	-1.62	1.46	23
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	1.270	30	-3.17	0.67	22
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	3.700	30	-0.13	1.66	23
MEEKER	5779	5	74.8	30	1.6	98	2	49	29	4	-10	298	38	4.760	30	0.47	3.30	22
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	2.820	30	*****	1.23	23
NORMAN NWS	6386	5	73.9	30	-0.1	100	2	46	29	6	-5	273	-8	3.531	30	-0.56	2.41	23
OILTON	6616	5	*****	0	*****	****	0	****	0	******	******	******	******	2.255	30	*****	1.80	22
OKEMAH	6638	5	78.2	30	4.9	100	2	56	29	0	-15	395	131	1.571	30	-2.69	0.60	23
OKLAHOMA CTY	6661	5	75.3	30	2.3	98	18	50	29	2	-13	311	56	1.375	30	-2.46	0.93	23
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	3.670	30	-0.73	2.68	23
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	3.370	30	*****	1.44	13
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	3.063	30	-1.42	2.08	23
PURCELL	7327	5	74.4	30	0.2	99	18	47	30	13	-1	295	6	4.750	30	0.39	2.05	9
SEMINOLE	8042	5	74.1	30	-0.7	98	3	48	29	9	0	282	-22	2.150	30	-2.24	0.93	22
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	3.380	30	-0.84	2.05	23
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	3.250	30	*****	2.86	23
STILLWATER	8501	5	74.3	30	2.2	98	3	49	30	9	-9	286	56	4.411	30	0.12	2.79	23
STROUD	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	3.203	30	*****	2.54	23
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	2.100	30	*****	2.06	24
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	******	******	******	******	2.600	30	*****	1.64	23
UNION CITY	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	1.390	30	-2.84	1.17	23
WELTY	9479	5	*****	0	*****	****	0	****	0	******	******	******	******	2.511	30	*****	1.30	23
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	2.200	30	-2.12	1.01	14

SEPTEMBER 1997 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	6	*****	0	*****	****	0	****	0	******	******	******	******	1.022	30	*****	0.51	24
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	3.260	30	*****	2.09	24
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	0.900	30	-3.54	0.60	12
CHECOTAH	1711	6	*****	0	*****	****	0	****	0	******	******	******	******	1.910	30	-2.97	0.96	24
CLAYTON	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	2.200	30	*****	1.62	15
DEWAR	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	2.162	30	-2.38	0.53	15
DUSTIN	2690	6	*****	0	*****	****	0	****	0	******	******	******	******	0.930	30	*****	0.35	23
EUFAULA	2993	6	76.0	30	1.3	96	19	56	29	0	-10	329	28	2.711	30	-1.86	1.64	13
HANNA	3884	6	74.4	30	0.8	98	1	46	29	7	-6	288	18	3.242	30	-1.34	2.09	14
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	3.990	30	-0.40	1.70	14
HOLDENVILLE	4235	6	*****	0	*****	****	0	****	0	******	******	******	******	1.250	30	-2.82	0.72	24
LAKE EUFAULA	4975	6	72.1	19	*****	93	1	55	29	4	******	139	******	0.914	20	*****	0.40	24
LYONS	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	3.201	30	-1.62	1.39	14
MARBLE CITY	5546	6	*****	0	*****	****	0	****	0	******	******	******	******	2.540	30	*****	1.30	14
MCALESTER	5664	6	74.3	24	*****	97	19	47	29	1	******	224	******	0.307	26	*****	0.21	3
MCCURTAIN	5693	6	72.1	30	-1.9	95	19	41	29	5	-10	218	-67	3.183	30	-1.58	1.28	8
MUSKOGEE	6130	6	74.4	30	0.9	94	20	49	30	2	-13	285	15	2.361	30	-2.15	1.00	13
OKMULGEE	6670	6	72.3	30	0.4	96	17	44	29	15	-6	235	7	2.771	30	-1.14	0.93	24
OKTAHA	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	3.420	30	*****	1.33	14
QUINTON	7372	6	*****	0	*****	****	0	****	0	******	******	******	******	1.861	30	-2.72	0.73	13
SALLISAW	7862	6	73.1	30	-0.7	94	3	48	29	8	-3	251	-24	2.030	30	-2.48	0.71	24
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	1.190	30	*****	0.77	24
SCRAPER	7993	6	*****	0	*****	****	0	****	0	******	******	******	******	3.700	30	*****	2.20	24
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	2.290	30	*****	0.83	14
STILWELL	8506	6	70.7	30	-1	93	2	48	26	2	-18	172	-50	3.780	30	-0.94	1.20	24
WEBBERS FALL	9445	6	74.0	28	*****	96	20	49	12	2	******	253	******	1.990	28	*****	1.25	14
WESTVILLE	9523	6	*****	0	*****	****	0	****	0	******	******	******	******	2.510	30	*****	1.55	24
WETUMKA	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	2.062	30	-2.52	0.55	24

SEPTEMBER 1997 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS	179	7	75.8	30	0.7	102	17	52	29	0	-6	324	15	6.130	30	2.69	5.26	23
ALTUS DAM	184	7	75.2	30	1.2	102	18	47	30	14	6	319	41	4.450	30	1.02	3.54	23
ANADARKO	224	7	75.1	28	*****	98	19	47	29	9	******	291	******	2.300	30	-1.41	1.75	23
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	3.610	30	-0.14	2.40	23
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	******	******	******	******	7.032	28	*****	3.52	22
CARNEGIE	1504	7	78.8	19	*****	100	2	56	29	0	******	263	******	2.250	29	*****	0.72	20
CHATTANOOGA	1706	7	78.7	30	3.4	104	18	53	29	0	-7	411	95	1.300	30	-2.37	1.09	23
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	1.133	30	*****	0.91	23
FREDERICK	3353	7	78.1	24	*****	102	18	56	29	2	******	315	******	3.551	25	*****	2.70	23
HEADRICK	3998	7	*****	0	*****	****	0	****	0	******	******	******	******	9.380	30	*****	8.25	23
HOBART	4204	7	75.7	24	*****	101	17	52	29	0	******	257	******	0.003	24	*****	0.00	21
HOLLIS	4249	7	76.3	30	1.8	102	18	52	29	1	-6	341	50	3.590	30	0.46	2.94	23
LAWTON	5063	7	76.8	30	2.8	102	18	51	28	1	-7	354	76	2.360	30	-1.30	1.85	23
LOOKEBA	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	2.793	30	-1.56	2.20	23
MANGUM	5509	7	76.5	30	1.8	100	18	53	29	0	-6	345	48	3.100	30	-0.28	2.48	23
RANDLETT	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	1.151	30	*****	1.00	23
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	1.940	30	-1.39	1.80	23
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	6.440	30	2.87	6.10	23
VINSON	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	3.000	30	-0.20	2.53	23
WALTERS	9278	7	77.7	30	2.2	103	18	53	28	0	-9	382	58	1.750	30	-2.50	1.75	23
WICHITA MT	9629	7	76.1	29	3.7	99	19	49	29	8	-5	329	94	4.751	29	*****	4.00	23
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	2.370	30	*****	2.05	23

SEPTEMBER 1997 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	75.3	30	1.5	97	17	48	28	2	-6	310	38	1.372	30	-3.09	0.63	4
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	1.790	30	*****	0.70	14
ATOKA DAM	394	8	77.6	20	*****	101	2	53	11	1	******	252	******	0.282	21	*****	0.16	8
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	0.750	30	*****	0.50	14
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	******	******	******	******	0.730	30	*****	0.25	24
CHICKASAW	1745	8	75.0	29	1.4	99	18	46	26	10	-5	301	29	1.140	29	*****	0.80	23
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	1.120	30	-3.36	0.74	23
DAISY	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	1.023	30	-4.54	0.28	9
DUNCAN	2660	8	76.7	30	2.5	100	20	51	21	1	-8	351	66	0.841	30	-3.57	0.50	23
DURANT	2678	8	77.1	28	*****	98	18	53	27	2	******	341	******	0.250	28	*****	0.09	15
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	2.220	30	*****	1.65	4
HEALDTON	4001	8	76.5	29	1.8	101	18	51	26	5	-3	340	41	1.201	29	*****	1.02	23
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	1.060	30	*****	0.93	23
KETCHUM RAN	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	2.580	30	*****	1.04	14
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	0.312	30	-4.47	0.24	23
LEHIGH	5108	8	*****	0	*****	****	0	****	0	******	******	******	******	1.253	30	*****	0.70	14
LINDSAY	5216	8	75.3	30	1.7	100	17	50	29	6	-8	315	43	1.920	30	-2.39	1.64	22
LOCO	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	0.734	30	*****	0.70	23
MADILL	5468	8	77.4	28	*****	100	17	48	25	5	******	352	******	0.710	30	-4.11	0.19	30
MARLOW	5581	8	77.3	30	3.6	103	17	48	29	1	-10	369	98	1.420	30	-2.91	0.80	23
MARIETTA	5563	8	78.3	30	2.9	100	17	50	26	4	-4	404	84	0.951	30	-3.24	0.50	22
MCGEE CREEK	5713	8	77.3	30	*****	100	1	53	11	2	******	369	******	0.900	30	*****	0.55	15
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	1.450	30	-2.55	0.67	22
WAURIKA	9395	8	79.1	30	3.4	103	17	52	26	0	0	424	98	0.631	30	-3.28	0.48	23
WAURIKA DAM	9399	8	78.7	25	*****	102	18	54	28	0	******	343	******	1.440	25	*****	0.62	23

SEPTEMBER 1997 SUMMARY FOR SOUTHEAST DIVISION (CD9)

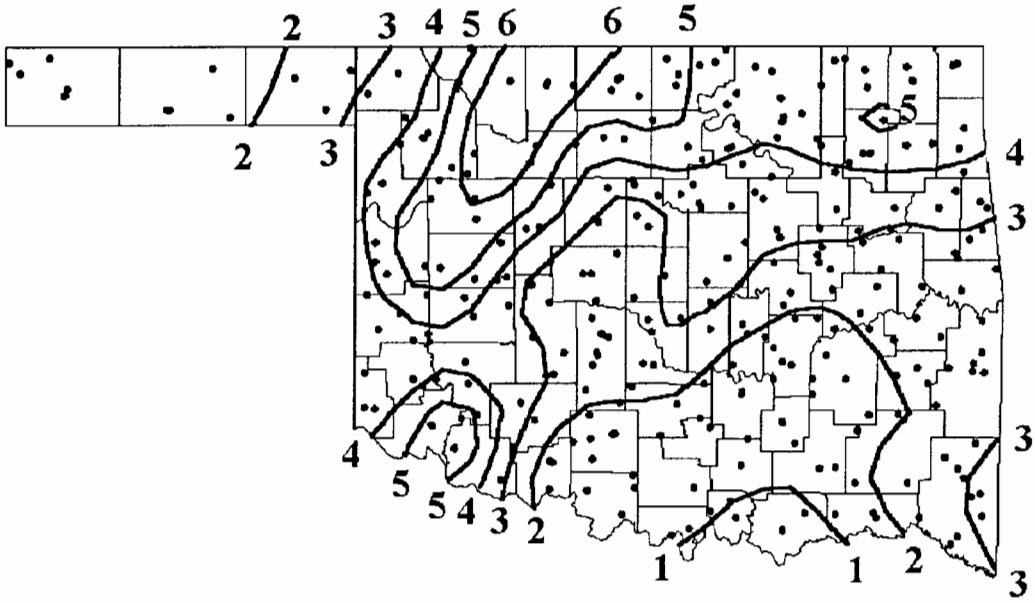
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	76.7	30	2.6	98	17	51	27	0	-10	351	68	******	0	*****	*****	0
BATTIEST	567	9	70.6	30	*****	94	3	47	12	7	******	174	******	2.450	30	*****	0.95	24
BEAR MT	584	9	76.7	26	*****	99	3	51	8	2	******	305	******	4.260	26	*****	1.12	15
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	2.550	30	*****	0.81	14
BOSWELL	980	9	75.9	30	1.4	98	19	52	11	1	-8	329	35	1.200	30	-3.27	0.67	15
BROKEN BOW	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	1.970	29	*****	1.12	24
BROKEN BOW D	1168	9	74.5	30	0.8	99	2	50	7	1	-8	287	18	2.901	30	-1.81	1.54	23
CARNASAW	1499	9	*****	0	*****	****	0	****	0	******	******	******	******	4.860	30	0.27	1.82	15
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	2.160	30	-2.63	1.16	23
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	2.930	30	-1.75	0.87	15
HEAVENER	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	1.730	30	-2.84	0.49	13
HUGO	4384	9	76.4	30	1.2	98	17	53	26	2	-4	345	33	0.810	30	-3.72	0.50	22
IDABEL	4451	9	75.9	30	2	100	1	49	5	2	-6	331	56	2.481	30	-1.71	1.25	24
PAGE	6842	9	72.4	28	*****	92	20	41	12	18	******	227	******	2.550	28	*****	0.58	1
POTEAU	7254	9	73.3	30	*****	97	2	47	28	2	******	250	******	3.010	30	*****	0.72	13
SMITHVILLE	8285	9	71.0	29	-0.8	96	1	46	30	2	-19	176	-49	2.751	30	-1.82	0.90	15
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	3.780	30	-0.26	1.78	15
TUSKAHOMA	9023	9	75.2	30	1	98	14	47	30	0	-13	305	16	1.540	30	-3.64	0.44	16
VALLIANT	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	3.120	30	-1.85	1.85	24
WILBURTON	9634	9	74.6	30	1.7	96	20	45	29	0	-15	288	36	2.200	30	-2.69	0.70	3
WISTER	9724	9	73.2	30	*****	97	4	45	30	2	******	248	******	3.410	30	*****	1.35	14

SEPTEMBER 1997 CLIMATE DIVISION SUMMARY

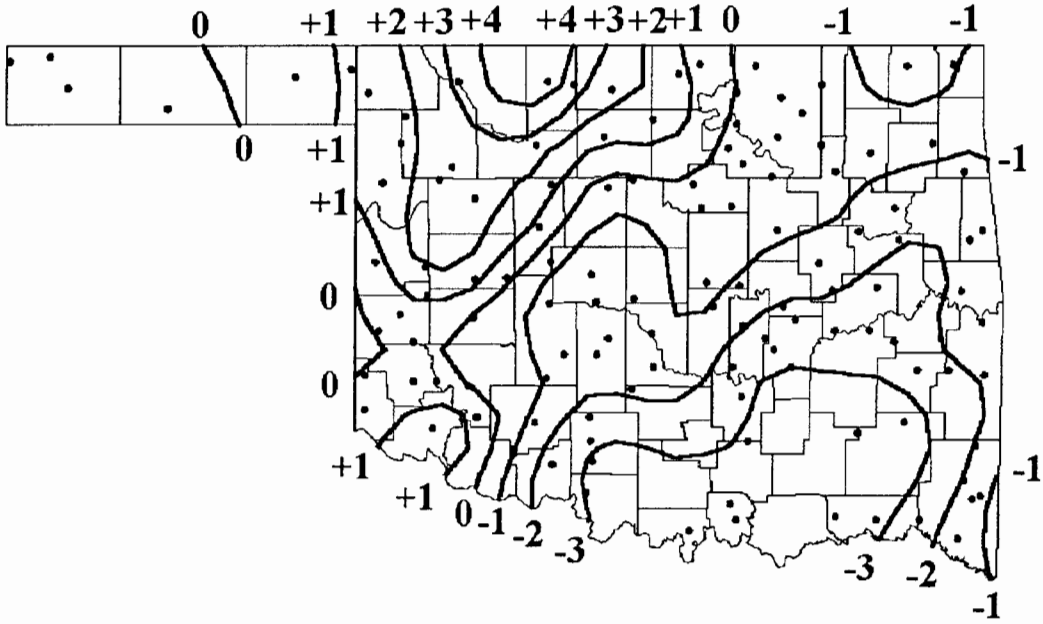
CD	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAYS	DEV FROM NORM	COOL DEG DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	71.7	5	2.4	106	19	43	25	33.3	3.2	235.2	76.1	2.49	10	0.51	2.25	23
2	73.5	10	1	102	19	43	30	16.6	0.6	272.3	29.1	5.64	17	2.19	6.53	23
3	72.8	12	0.4	98	19	36	24	6.8	-14.6	239.2	-1.9	4.18	23	-0.68	4.77	23
4	74.2	10	1.7	101	2	46	29	12.5	-2.6	288.8	49.6	4.24	19	0.92	6.56	23
5	75.3	12	1.9	101	19	46	29	5.3	-8.4	314.8	48.9	2.8	31	-1.43	3.72	23
6	73.3	7	-0.1	98	1	41	29	5.4	-9.1	253.7	-11.3	2.42	25	-2.13	2.2	24
7	76.6	8	2.4	104	18	47	29	2.9	-5.7	350.5	63.6	3.34	17	-0.31	8.25	23
8	76.7	9	2.4	103	17	46	26	3.3	-5.9	353.3	62	1.19	20	-3.39	1.65	4
9	74.3	11	0.4	100	1	41	12	1.6	-9.3	280	3.5	2.58	17	-2.09	1.85	24

MESONET MONTHLY SUMMARY FOR SEPTEMBER 1997

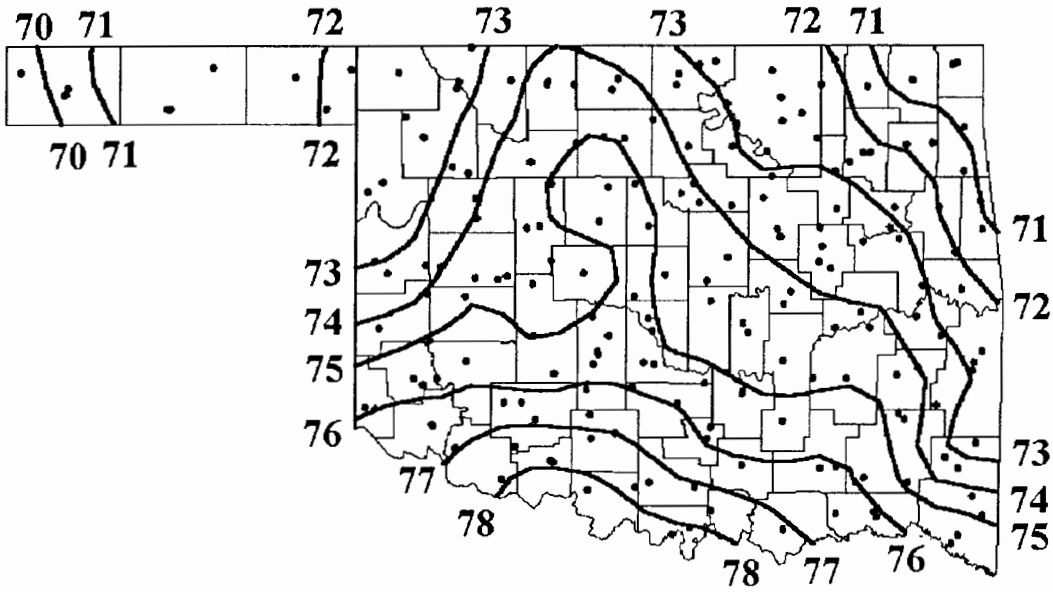
NAME	MEAN TEMP	MAX TEMP	DAY	MIN TEMP	DAY	HDD	CDD	TOT PPT	MAX 24-HR	DAY	NAME	MEAN TEMP	MAX TEMP	DAY	MIN TEMP	DAY	HDD	CDD	TOT PPT	MAX 24-HR	DAY
PANHANDLE																					
Arnett	73.1	100	18	46	29	19	262	4.27	2.48	22	Goodwell	71.1	102	18	45	20	41	224	.98	.31	20
Beaver	71.7	104	18	45	25	40	239	2.24	.82	22	Hooker	71.2	103	18	42	25	41	228	.80	.29	20
Boise City	69.3	98	18	43	20	47	175	.91	.31	5	Kenton	69.1	96	15	44	20	44	167	2.84	1.53	22
Buffalo	72.3	107	18	48	29	22	219	2.69	1.41	22	Slapout	72.1	104	18	47	25	33	245	2.20	.93	22
NORTH CENTRAL																					
Alva	73.9	103	18	51	20	14	282	6.97	3.53	22	May Ranch	72.6	99	18	50	20	22	250	4.13	2.07	22
Blackwell	74.1	99	19	52	29	2	274	4.66	2.86	23	Medford	74.3	100	18	51	29	2	280	3.85	1.58	22
Breckenridge	74.8	102	2	52	29	2	296	3.95	1.70	23	Newkirk	72.6	96	19	53	10	5	232	4.27	2.81	23
Cherokee	74.7	102	2	52	20	7	296	7.87	2.97	22	Red Rock	73.9	100	19	52	11	5	273	4.36	3.69	23
Fairview	74.8	100	2	53	21	6	301	6.77	2.55	22	Seiling	73.9	101	2	51	20	15	282	8.76	7.41	22
Freedom	72.9	101	18	49	25	23	260	5.87	2.68	22	Woodward	72.9	99	18	50	20	23	261	3.32	1.93	22
Lahoma	74.4	100	2	52	29	4	287	4.29	1.83	23											
NORTHEAST																					
Bixby	72.9	95	2	48	29	3	240	3.61	1.95	23	Nowata	70.7	93	16	46	11	8	179	4.70	2.36	23
Burbank	72.8	98	19	49	29	4	236	5.30	4.40	23	Pawnee	73.0	96	2	50	11	5	246	3.97	3.57	23
Catoosa	73.1	94	2	53	10	4	248	4.08	2.72	23	Pryor	71.2	92	2	49	11	7	191	4.68	2.53	23
Claremore	72.1	93	2	49	29	4	216	3.61	2.19	23	Skiatook	72.6	93	2	53	11	6	233	4.19	3.07	23
Copan	72.2	95	16	49	11	5	220	4.31	2.10	23	Tullahassee	73.4	96	2	51	11	2	256	2.63	1.14	23
Foraker	72.2	94	2	50	11	6	221	2.96	2.46	23	Vinita	70.4	92	2	46	11	11	174	4.10	2.00	23
Jay	70.4	91	2	47	11	12	174	5.02	2.14	23	Wynona	72.6	95	16	50	11	5	232	3.83	3.47	23
Miami	70.4	92	2	47	11	10	172	4.70	2.33	23											
WEST CENTRAL																					
Bessie	75.2	99	2	52	25	4	309	2.88	2.43	22	Putnam	73.7	99	2	51	29	12	273	5.77	3.81	22
Butler	74.5	100	18	48	29	5	289	6.58	4.44	22	Retrop	75.2	99	18	52	25	1	306	5.26	5.11	22
Camargo	73.4	100	18	47	29	12	265	5.63	4.90	22	Watonga	74.1	98	2	52	21	12	286	3.90	1.43	22
Cheyenne	73.9	98	18	49	25	10	277	5.48	4.62	22	Weatherford	74.7	99	2	53	20	9	299	3.98	1.79	22
Erick	73.9	99	18	47	29	6	272	1.28	.45	23											
CENTRAL																					
Acme	75.8	100	16	49	29	2	327	2.63	1.68	23	Minco	75.0	99	2	54	26	4	304	1.57	.71	23
Bowlegs	73.9	96	2	47	11	3	269	1.98	1.29	23	Ninnekah	76.0	101	17	49	29	2	333	2.07	1.52	23
Bristow	73.0	97	2	45	29	3	242	3.41	1.87	23	Norman	75.4	99	2	51	11	1	312	2.97	1.70	23
Chandler	73.9	97	2	50	11	5	271	3.32	2.51	23	Oilton	72.3	95	2	47	11	9	228	2.33	1.98	23
Chickasha	75.7	100	2	48	29	2	322	1.99	1.38	23	Okemah	74.1	98	2	46	29	4	276	2.03	1.16	23
El Reno	73.3	97	2	48	11	8	259	1.56	.86	22	Perkins	74.2	99	16	51	29	4	281	3.28	2.16	23
Guthrie	75.6	100	2	51	26	2	321	1.69	.98	23	Shawnee	74.9	98	2	51	29	4	302	2.78	2.14	23
Kingfisher	75.7	101	2	51	11	1	323	2.18	1.28	22	Spencer	74.9	98	2	52	28	5	302	3.51	1.93	23
Marena	74.0	98	2	52	29	4	274	3.83	2.42	23	Stillwater	73.4	97	2	48	29	7	259	4.53	2.86	23
Marshall	75.3	101	19	51	29	2	311	2.81	1.12	22	Washington	75.4	99	2	52	11	2	315	3.28	1.56	23
EAST CENTRAL																					
Calvin	74.2	97	2	46	11	2	278	2.14	.90	13	Preston	73.5	94	2	55	11	4	259	2.74	1.40	23
Cookson	71.5	93	2	45	29	7	202	3.20	1.05	23	Sallisaw	71.7	94	19	42	29	4	179	2.01	.67	23
Eufaula	74.2	96	19	52	11	2	279	1.56	.78	23	Stigler	73.0	94	2	44	29	1	240	2.33	.71	8
Haskell	72.4	95	2	47	29	3	225	2.39	1.01	23	Stuart	74.5	96	16	49	11	2	287	.31	.20	23
Hectorville	73.7	96	2	51	29	3	263	2.85	1.76	23	Tahlequah	71.4	93	1	45	29	9	200	3.25	1.71	23
McAlester	74.7	96	2	46	29	2	291	.67	.30	3	Webbers Falls	73.4	95	2	47	29	0	252	2.45	.82	13
Okmulgee	72.4	96	2	44	29	4	227	3.62	1.04	23	Westville	70.7	92	2	47	26	9	179	2.85	1.15	23
SOUTHWEST																					
Altus	76.0	101	17	53	29	0	329	6.26	4.91	22	Hollis	76.2	101	2	52	25	0	334	2.91	2.40	22
Apache	74.8	98	17	54	21	4	299	[illegible]	1.29	23	Mangum	74.9	100	18	51	29	0	296	4.38	3.25	22
Fort Cobb	74.4	99	2	51	29	2	285	[illegible]	2.22	22	Medicine Park	76.4	101	17	55	21	3	344	4.04	1.97	22
Grandfield	77.8	105	17	47	12	0	384	2.76	2.37	23	Tipton	77.1	102	17	54	29	0	362	7.40	6.62	22
Hinton	74.5	99	2	53	21	5	289	1.86	1.03	22	Walters	78.2	104	17	52	26	0	394	1.80	1.52	23
Hobart	76.4	101	17	53	29	0	342	4.07	3.84	22											
SOUTH CENTRAL																					
Ada	75.4	99	17	47	29	3	314	1.21	.54	3	Lane	76.2	97	1	50	11	0	335	1.15	.73	3
Ardmore	77.6	100	17	52	26	1	377	2.00	1.08	23	Madill	78.3	100	17	48	26	2	400	1.32	.85	14
Burneyville	78.1	101	17	47	26	3	395	.78	.47	14	Pauls Valley	77.0	101	17	51	11	2	362	1.08	.93	23
Byars	75.5	97	2	52	11	3	319	1.32	.77	23	Ringling	78.1	102	2	51	26	1	394	2.32	1.36	15
Centrahoma	75.2	98	16	46	11	3	307	.53	.31	23	Sulphur	75.3	99	17	46	26	4	313	.73	.50	23
Durant	77.4	102	30	52	26	0	371	.70	.50	15	Tishomingo	75.8	97	1	48	11	2	326	1.61	.58	14
Ketchum Ranch	77.6	102	17	51	26	0	379	1.09	.75	23	Waurika	78.6	102	8	51	26	0	407	.68	.36	23
SOUTHEAST																					
Antlers	75.4	99	17	45	11	0	311	1.74	1.00	3	Idabel	76.1	96	2	50	26	0	333	1.98	1.42	23
Broken Bow	75.3	97	2	49	26	0	310	3.28	2.11	23	Mt Herman	74.3	95	2	49	5	0	279	1.79	.59	23
Clayton	75.4	98	2	48	11	0	312	1.12	.47	3	Talihina	74.4	98	2	44	29	1	283	1.84	.47	13
Cloudy	74.4	94	2	50	6	0	283	4.45	1.79	15	Wilburton	74.1	96	2	47	29	1	274	2.48	.93	3
Hugo	76.8	97	2	53	26	0	355	.92	.79	23	Wister	73.3	95	1	45	29	0	250	2.95	.98	3



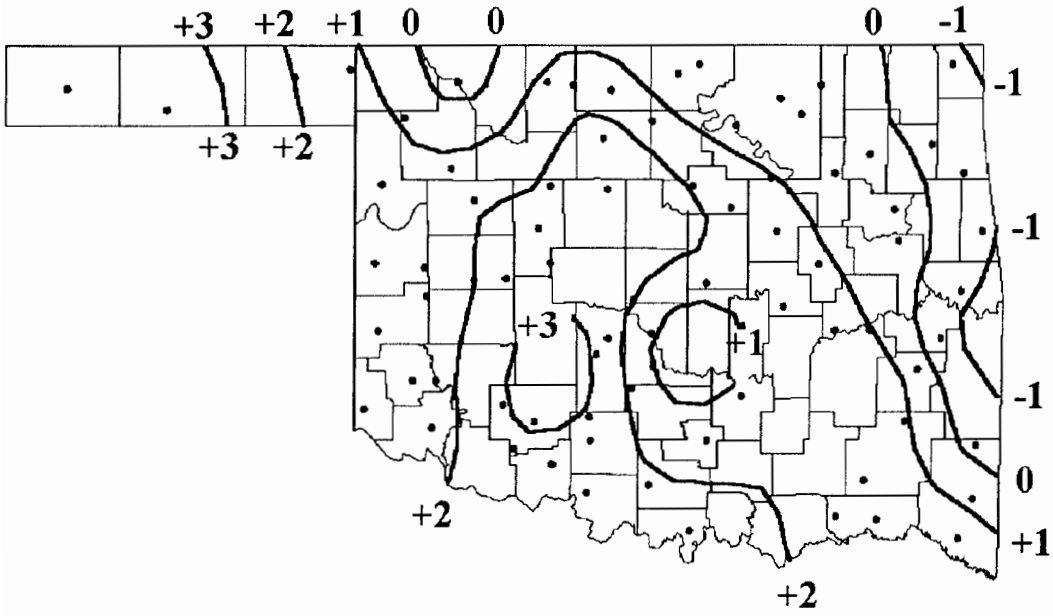
SEPTEMBER 1997 TOTAL PRECIPITATION
(INCHES)



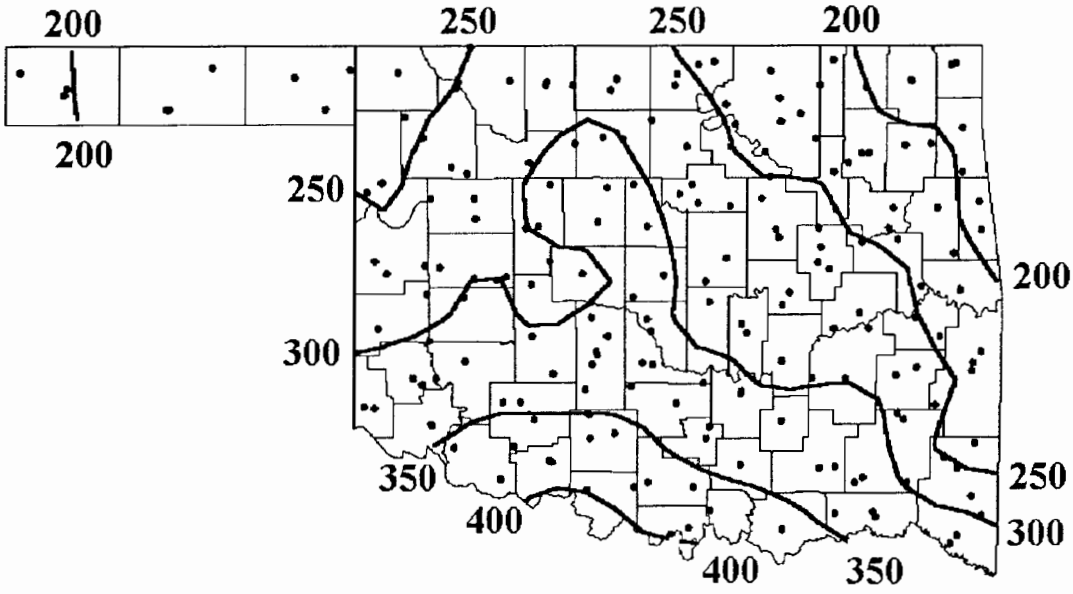
SEPTEMBER 1997 DEPARTURE FROM NORMAL PRECIPITATION
(INCHES)



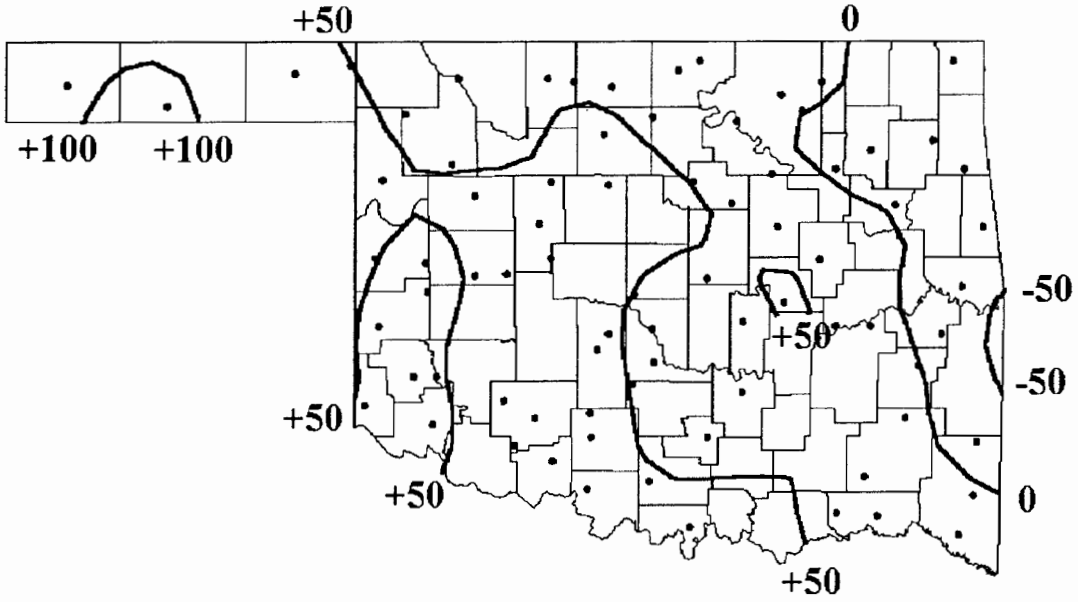
SEPTEMBER 1997 AVERAGE MONTHLY TEMPERATURE (°F)



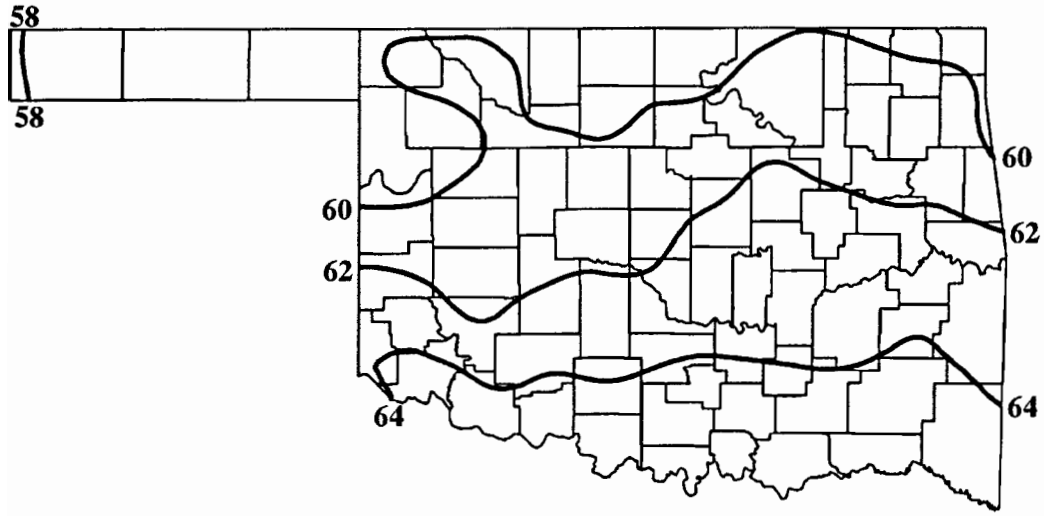
SEPTEMBER 1997 DEPARTURE FROM NORMAL TEMPERATURE (°F)



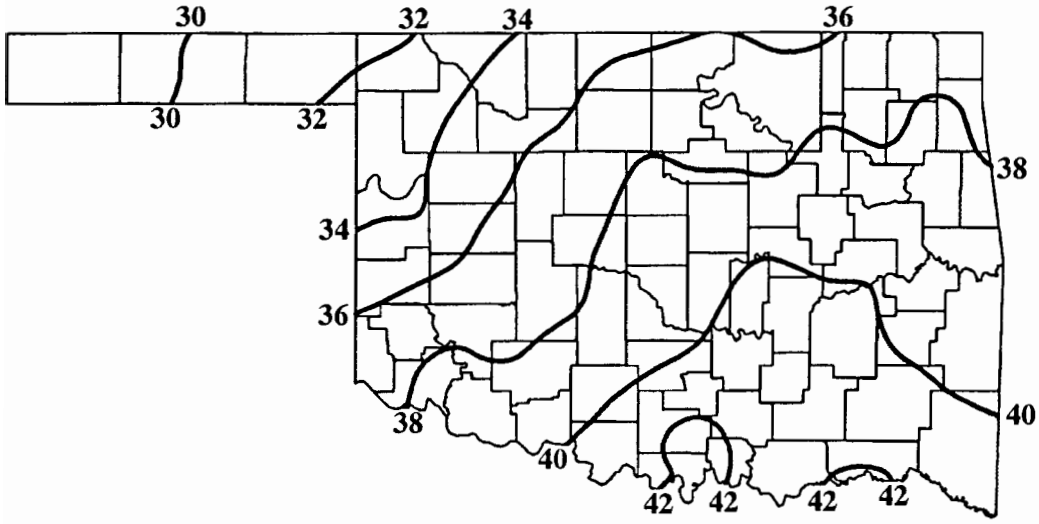
SEPTEMBER 1997 ACCUMULATED COOLING DEGREE DAYS (°F)



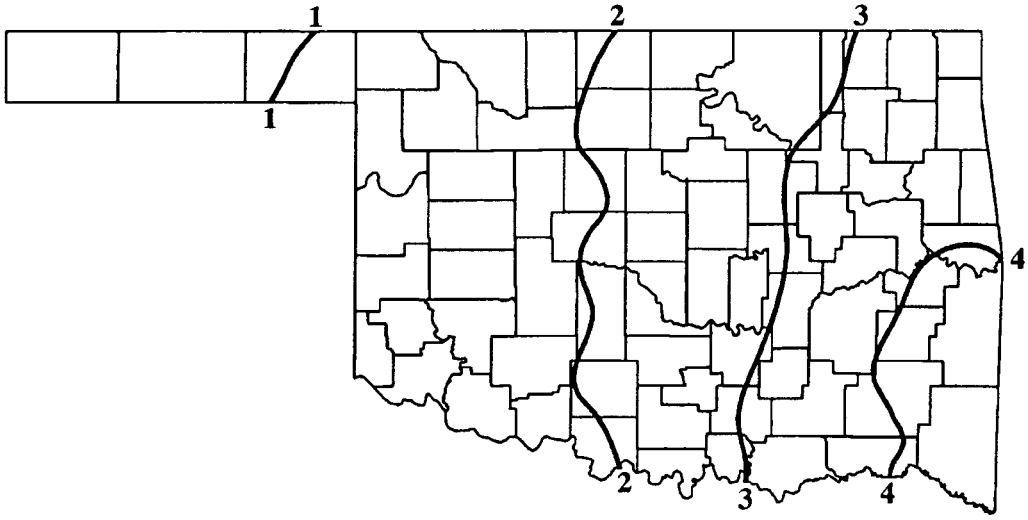
SEPTEMBER 1997 DEPARTURE FROM NORMAL COOLING DEGREE DAYS (°F)



NOVEMBER NORMAL DAILY MAXIMUM TEMPERATURE (°F)



NOVEMBER NORMAL DAILY MINIMUM TEMPERATURE (°F)



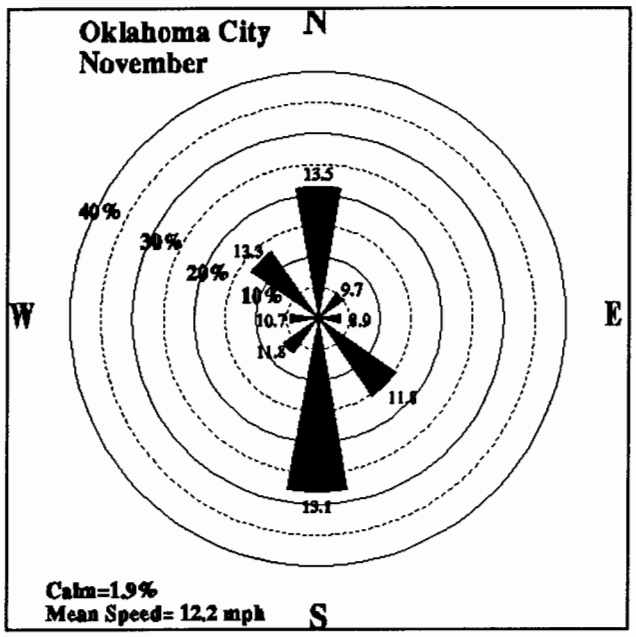
NOVEMBER NORMAL MONTHLY PRECIPITATION (inches)

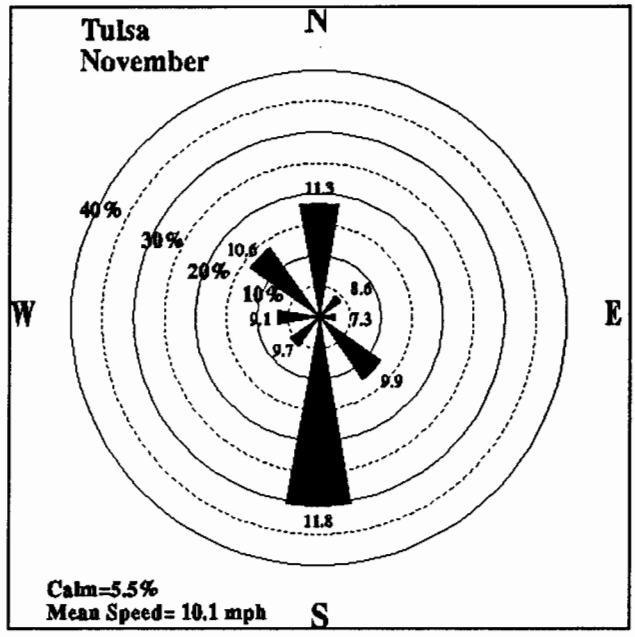
OUTLOOK FOR NOVEMBER 1997 THROUGH JANUARY 1998

BASED ON SEASONAL OUTLOOKS PROVIDED BY THE CLIMATE PREDICTION CENTER

TEMPERATURE: Near Normal Statewide

PRECIPITATION: Greater Than Normal Statewide





November Wind Roses for Oklahoma City and Tulsa. The frequency (percent) of winds from each direction is represented by length of its bar. The numbers at the ends of the bars indicate the average wind speed from that direction in miles per hour.

NOVEMBER 1997 SUNRISE AND SUNSET

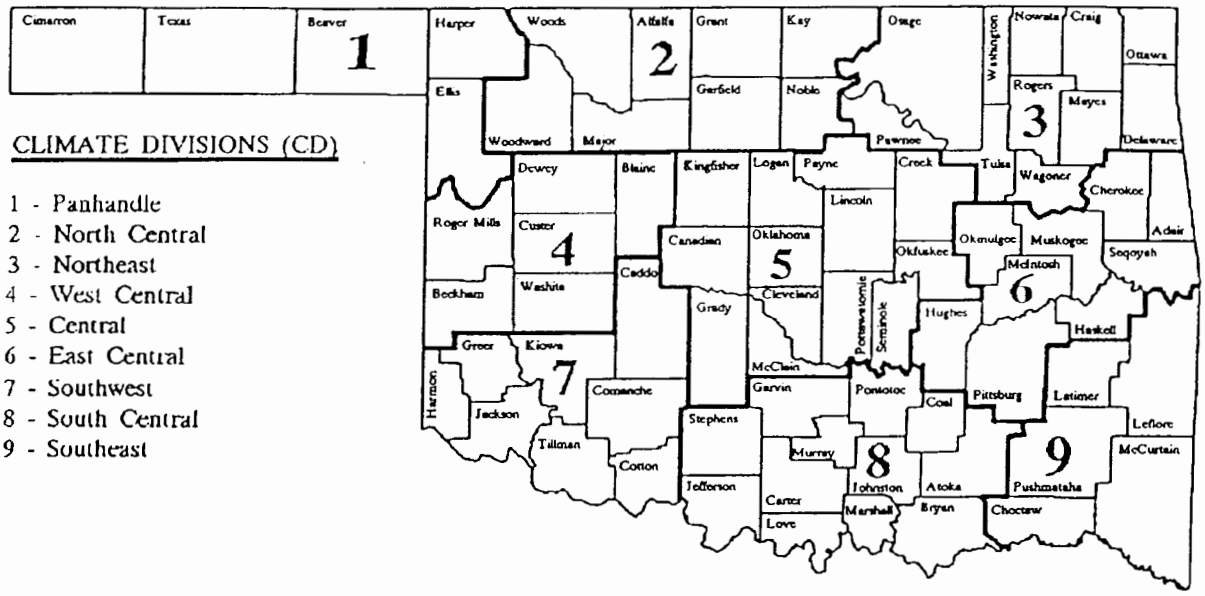
OKLAHOMA CITY

DATE	SUNRISE	SUNSET	DAYLIGHT
9711 1	6:51AM	5:38PM CST	10 hrs 47 mins
9711 2	6:52AM	5:37PM CST	10 hrs 45 mins
9711 3	6:52AM	5:36PM CST	10 hrs 43 mins
9711 4	6:53AM	5:35PM CST	10 hrs 41 mins
9711 5	6:54AM	5:34PM CST	10 hrs 39 mins
9711 6	6:55AM	5:33PM CST	10 hrs 38 mins
9711 7	6:56AM	5:32PM CST	10 hrs 36 mins
9711 8	6:57AM	5:31PM CST	10 hrs 34 mins
9711 9	6:58AM	5:31PM CST	10 hrs 32 mins
971110	6:59AM	5:30PM CST	10 hrs 31 mins
971111	7: 0AM	5:29PM CST	10 hrs 29 mins
971112	7: 1AM	5:29PM CST	10 hrs 27 mins
971113	7: 2AM	5:28PM CST	10 hrs 26 mins
971114	7: 3AM	5:27PM CST	10 hrs 24 mins
971115	7: 4AM	5:27PM CST	10 hrs 22 mins
971116	7: 5AM	5:26PM CST	10 hrs 21 mins
971117	7: 6AM	5:25PM CST	10 hrs 19 mins
971118	7: 7AM	5:25PM CST	10 hrs 18 mins
971119	7: 8AM	5:24PM CST	10 hrs 16 mins
971120	7: 9AM	5:24PM CST	10 hrs 15 mins
971121	7:10AM	5:24PM CST	10 hrs 13 mins
971122	7:11AM	5:23PM CST	10 hrs 12 mins
971123	7:12AM	5:23PM CST	10 hrs 11 mins
971124	7:13AM	5:22PM CST	10 hrs 9 mins
971125	7:14AM	5:22PM CST	10 hrs 8 mins
971126	7:15AM	5:22PM CST	10 hrs 7 mins
971127	7:16AM	5:22PM CST	10 hrs 6 mins
971128	7:17AM	5:21PM CST	10 hrs 5 mins
971129	7:18AM	5:21PM CST	10 hrs 4 mins
971130	7:18AM	5:21PM CST	10 hrs 2 mins

TULSA

DATE	SUNRISE	SUNSET	DAYLIGHT
9711 1	6:45AM	5:30PM CST	10 hrs 45 mins
9711 2	6:46AM	5:29PM CST	10 hrs 43 mins
9711 3	6:47AM	5:28PM CST	10 hrs 41 mins
9711 4	6:48AM	5:27PM CST	10 hrs 39 mins
9711 5	6:49AM	5:26PM CST	10 hrs 37 mins
9711 6	6:50AM	5:25PM CST	10 hrs 35 mins
9711 7	6:51AM	5:24PM CST	10 hrs 33 mins
9711 8	6:52AM	5:23PM CST	10 hrs 31 mins
9711 9	6:53AM	5:23PM CST	10 hrs 30 mins
971110	6:54AM	5:22PM CST	10 hrs 28 mins
971111	6:55AM	5:21PM CST	10 hrs 26 mins
971112	6:56AM	5:20PM CST	10 hrs 24 mins
971113	6:57AM	5:20PM CST	10 hrs 23 mins
971114	6:58AM	5:19PM CST	10 hrs 21 mins
971115	6:59AM	5:18PM CST	10 hrs 19 mins
971116	7: 0AM	5:18PM CST	10 hrs 18 mins
971117	7: 1AM	5:17PM CST	10 hrs 16 mins
971118	7: 2AM	5:17PM CST	10 hrs 15 mins
971119	7: 3AM	5:16PM CST	10 hrs 13 mins
971120	7: 4AM	5:16PM CST	10 hrs 12 mins
971121	7: 5AM	5:15PM CST	10 hrs 10 mins
971122	7: 6AM	5:15PM CST	10 hrs 9 mins
971123	7: 7AM	5:14PM CST	10 hrs 7 mins
971124	7: 8AM	5:14PM CST	10 hrs 6 mins
971125	7: 9AM	5:14PM CST	10 hrs 5 mins
971126	7:10AM	5:13PM CST	10 hrs 3 mins
971127	7:11AM	5:13PM CST	10 hrs 2 mins
971128	7:12AM	5:13PM CST	10 hrs 1 mins
971129	7:13AM	5:12PM CST	10 hrs 0 mins
971130	7:13AM	5:12PM CST	9 hrs 59 mins

OKLAHOMA



EXPLANATION OF TABLES

Two kinds of tables appear in this summary. The first is a set of tables containing all reporting stations grouped by climate division. The figure above shows the locations of the climate divisions. Each table contains the following information for each station:

Station Name:

Station Identification Number: These are usually assigned by the National Climatic Data Center.

Climate Division: See the figure above.

Number of Temperature Observations: These are the actual number of temperature reports recorded at the station during the current month. Missing observations may result in artificially high or low mean monthly temperatures.

Deviation from Normal: The deviation of the observed mean monthly temperature from the monthly station normal. A positive value indicates the month was warmer than normal. A negative value indicates the month was cooler than normal. Normal monthly temperatures may be calculated by subtracting the deviation from the observed temperature.

Maximum Daily Maximum: The maximum daily maximum temperature observed during the current month and year and the day which it occurred.

Minimum Daily Minimum: The minimum daily minimum temperature observed during the current month and year and the day which it occurred.

Heating Degree Days: HDD are calculated each day of the month for which there is a temperature report and the average temperature for the day is less than 65 degrees. Daily values are summed to arrive at a monthly total. They are a qualitative measure of how much heat was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. For February 1984 HDD would be calculated as:

$$\sum_{i=1}^{29} 65-((TMAX_i+TMIN_i)/2)$$

Deviation from Normal Heating Degree Days: A positive value indicates higher than normal heating requirements for the month as a whole. A negative value indicates lower than normal heating requirements for the month as a whole. Normal HDD may be calculated by subtracting the deviation from observed HDD.

Cooling Degree Days: CDD are calculated each day of the month for which there is a temperature report and the average temperature for the day exceeds 65 degrees. Daily values are summed to give a monthly total. They are a proxy measure of how much cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. For June, CDD would be calculated as:

$$\sum_{i=1}^{30} ((TMAX_i+TMIN_i)/2)-65$$

Deviation from Normal Cooling Degree Days: A positive value indicates higher that normal cooling requirements for the month as a whole. A negative value indicates lower than normal cooling requirements for the month as a whole. Normal cooling degree days may be found by subtracting the deviation from the observed cooling degree days.

Total Precipitation: Often incorrectly referred to as mean precipitation, this value is the sum of all precipitation reported during the month at a station. If snow occurred, it is to be melted and its water equivalent recorded.

Number of Precipitation Observations: The number of days a rain or no-rain observation was reported. Missing observations frequently result in artificially low total precipitation values.

Deviation from Normal Precipitation: A positive value indicates more rain than normal was received. A negative value indicates less than was expected rainfall was received. Normal rainfall may be calculated by subtracting the deviation from monthly total.

Maximum 24-Hour Report and Day: The maximum amount of precipitation recorded during the station's 24-hour observation period for the current month and year and the day on which it was recorded.

The second set of tables contain similar information but are the average or extreme over all the stations reporting in each climate division.

OKLAHOMA CITY CLIMATE CALENDAR

NOVEMBER

The data on this calendar are for Oklahoma City. Normal values are calculated for the period 1961 - 1990. Extremes are found for the period of record (1891 - present).

Day	Normal	Actual	Highest Max	Lowest Max	Lowest Min	Highest Min	Greatest ppt
1	max 67.4		83-1916	34-1951	25-1991	65-1936	1.05-1961
	min 45.3						
	ppt .05						
	hdd 9						
	cdd 1						
2	max 63.4		89-1924	28-1991	19-1991	66-1936	1.51-1974
	min 42.6						
	ppt .09						
	hdd 12						
	cdd 0						
3	max 62.1		84-1909	36-1991	11-1991	61-1959	1.51-1964
	min 40.8						
	ppt .10						
	hdd 14						
	cdd 0						
4	max 63.2		83-1921	40-1990	23-1936	58-1916	2.17-1986
	min 41.1						
	ppt .10						
	hdd 13						
	cdd 0						
5	max 62.0		87-1891	34-1951	23-1951	64-1924	1.09-1946
	min 41.3						
	ppt .05						
	hdd 13						
	cdd 0						
6	max 63.4		85-1980	39-1959	20-1959	63-1945	2.14-1895
	min 41.4						
	ppt .04						
	hdd 13						
	cdd 0						
7	max 63.4		86-1980	41-1953	23-1993	62-1916	1.71-1920
	min 41.3						
	ppt .02						
	hdd 13						
	cdd 0						
8	max 63.7		87-1980	39-1936	19-1991	66-1966	1.42-1895
	min 41.4						
	ppt .08						
	hdd 13						
	cdd 0						
9	max 62.7		82-1988	37-1950	25-1955	61-1939	1.15-1977
	min 39.8						
	ppt .02						
	hdd 14						
	cdd 0						
10	max 62.7		81-1980	33-1950	20-1950	60-1982	1.17-1937
	min 38.6						
	ppt .02						
	hdd 15						
	cdd 0						
11	max 63.7		83-1911	33-1935	17-1911	61-1922	1.10-1988
	min 39.4						
	ppt .03						
	hdd 14						
	cdd 0						
12	max 63.9		79-1910	29-1940	14-1911	62-1902	1.18-1922
	min 39.7						
	ppt .06						
	hdd 13						
	cdd 0						
13	max 64.4		80-1967	28-1986	12-1940	61-1989	3.22-1909
	min 40.3						
	ppt .06						
	hdd 13						
	cdd 0						
14	max 62.1		79-1973	29-1940	14-1916	65-1897	1.56-1924
	min 41.3						
	ppt .05						
	hdd 14						
	cdd 0						
15	max 61.8		84-1903	32-1952	15-1940	61-1971	2.43-1890
	min 40.2						
	ppt .11						
	hdd 14						
	cdd 0						
16	max 58.5		82-1941	31-1937	14-1992	64-1958	3.94-1931
	min 38.9						
	ppt .03						
	hdd 17						
	cdd 0						
17	max 59.0		80-1896	30-1903	9-1894	61-1896	1.70-1984
	min 36.6						
	ppt .08						
	hdd 17						
	cdd 0						
18	max 58.4		80-1930	35-1903	18-1909	64-1934	2.14-1899
	min 38.1						
	ppt .06						
	hdd 17						
	cdd 0						
19	max 59.7		82-1898	31-1937	18-1937	69-1913	4.45-1899
	min 37.1						
	ppt .11						
	hdd 17						
	cdd 0						
20	max 59.0		78-1969	25-1906	19-1967	60-1990	1.74-1979
	min 35.5						
	ppt .05						
	hdd 18						
	cdd 0						
21	max 58.8		80-1927	29-1926	14-1898	69-1902	1.48-1915
	min 35.7						
	ppt .02						
	hdd 18						
	cdd 0						
22	max 59.1		78-1962	27-1898	15-1898	60-1966	1.54-1951
	min 35.8						
	ppt .04						
	hdd 18						
	cdd 0						
23	max 57.6		79-1973	29-1895	19-1950	60-1966	1.62-1951
	min 34.6						
	ppt .03						
	hdd 19						
	cdd 0						
24	max 56.2		84-1965	32-1918	15-1950	60-1966	1.14-1979
	min 35.1						
	ppt .08						
	hdd 19						
	cdd 0						
25	max 60.5		84-1965	28-1993	15-1993	62-1966	2.01-1940
	min 37.7						
	ppt .07						
	hdd 16						
	cdd 0						
26	max 57.9		81-1910	31-1992	13-1993	62-1990	1.80-1962
	min 36.0						
	ppt .13						
	hdd 18						
	cdd 0						
27	max 51.8		82-1905	26-1896	16-1976	63-1927	1.30-1906
	min 32.0						
	ppt .06						
	hdd 23						
	cdd 0						
28	max 49.5		81-1949	25-1911	14-1896	58-1927	1.44-1906
	min 29.9						
	ppt .01						
	hdd 25						
	cdd 0						
29	max 53.0		80-1927	28-1897	11-1911	64-1933	0.67-1996
	min 30.0						
	ppt .01						
	hdd 24						
	cdd 0						
30	max 54.5		74-1946	32-1896	15-1976	60-1933	.72-1909
	min 31.9						
	ppt .02						
	hdd 22						
	cdd 0						

NOVEMBER AVERAGES

TEMPERATURE	:	**49.0°F**
PRECIPITATION	:	**1.68"**
HEATING DEGREE DAYS	:	**485**
COOLING DEGREE DAYS	:	**1**

TULSA CLIMATE CALENDAR

NOVEMBER

The data on this calendar are for Tulsa. Normal values are calculated for the period 1948 - 1992; Temperature extremes are for the period 1905 - 1996; precipitation extremes are for the period 1948 - 1996.

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
69.0 max	____	65.0 max	____	63.0 max	____	64.0 max	____	62.0 max	____	62.0 max	____	63.0 max	____
46.0 min	____	44.0 min	____	41.0 min	____	42.0 min	____	41.0 min	____	41.0 min	____	41.0 min	____
.09 ppt	____	.17 ppt	____	.17 ppt	____	.08 ppt	____	.02 ppt	____	.06 ppt	____	.03 ppt	____
8 hdd	____	11 hdd	____	13 hdd	____	12 hdd	____	13 hdd	____	14 hdd	____	13 hdd	____
1 cdd	____	0 cdd	____	1 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____
Highest Max	85-1916	Highest Max	89-1909	Highest Max	88-1909	Highest Max	86-1914	Highest Max	87-1914	Highest Max	87-1945	Highest Max	85-1980
Lowest Max	37-1951	Lowest Max	27-1991	Lowest Max	36-1991	Lowest Max	39-1951	Lowest Max	34-1951	Lowest Max	39-1959	Lowest Max	41-1991
Lowest Min	25-1991	Lowest Min	20-1966	Lowest Min	16-1991	Lowest Min	21-1991	Lowest Min	25-1976	Lowest Min	20-1959	Lowest Min	22-1991
Highest Min	64-1987	Highest Min	65-1983	Highest Min	67-1983	Highest Min	60-1987	Highest Min	60-1965	Highest Min	60-1965	Highest Min	60-1966
Greatest ppt	1.27-1964	Greatest ppt	2.82-1974	Greatest ppt	3.20-1974	Greatest ppt	1.25-1986	Greatest ppt	.32-1957	Greatest ppt	3.49-1996	Greatest ppt	.63-1957

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
64.0 max	____	63.0 max	____	63.0 max	____	62.0 max	____	63.0 max	____	65.0 max	____	62.0 max	____
43.0 min	____	40.0 min	____	39.0 min	____	39.0 min	____	40.0 min	____	39.0 min	____	41.0 min	____
.09 ppt	____	.04 ppt	____	.06 ppt	____	.08 ppt	____	.09 ppt	____	.07 ppt	____	.06 ppt	____
12 hdd	____	13 hdd	____	14 hdd	____	14 hdd	____	13 hdd	____	13 hdd	____	14 hdd	____
0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____
Highest Max	84-1980	Highest Max	82-1934	Highest Max	83-1949	Highest Max	85-1989	Highest Max	80-1989	Highest Max	84-1910	Highest Max	79-1989
Lowest Max	41-1991	Lowest Max	42-1950	Lowest Max	37-1950	Lowest Max	31-1986	Lowest Max	34-1986	Lowest Max	30-1986	Lowest Max	33-1959
Lowest Min	16-1991	Lowest Min	23-1955	Lowest Min	21-1950	Lowest Min	17-1950	Lowest Min	15-1911	Lowest Min	12-1940	Lowest Min	13-1916
Highest Min	67-1966	Highest Min	58-1984	Highest Min	62-1949	Highest Min	60-1949	Highest Min	62-1951	Highest Min	62-1969	Highest Min	62-1958
Greatest ppt	1.45-1977	Greatest ppt	.55-1974	Greatest ppt	.63-1986	Greatest ppt	1.57-1992	Greatest ppt	2.64-1972	Greatest ppt	1.80-1986	Greatest ppt	1.08-1976

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
63.0 max	____	61.0 max	____	60.0 max	____	58.0 max	____	60.0 max	____	58.0 max	____	58.0 max	____
42.0 min	____	40.0 min	____	39.0 min	____	39.0 min	____	38.0 min	____	35.0 min	____	35.0 min	____
.25 ppt	____	.06 ppt	____	.14 ppt	____	.09 ppt	____	.17 ppt	____	.20 ppt	____	.03 ppt	____
13 hdd	____	15 hdd	____	16 hdd	____	16 hdd	____	16 hdd	____	18 hdd	____	18 hdd	____
0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____
Highest Max	82-1960	Highest Max	83-1963	Highest Max	80-1969	Highest Max	82-1939	Highest Max	81-1908	Highest Max	81-1969	Highest Max	79-1927
Lowest Max	38-1976	Lowest Max	37-1955	Lowest Max	32-1959	Lowest Max	37-1972	Lowest Max	35-1972	Lowest Max	38-1972	Lowest Max	34-1964
Lowest Min	11-1940	Lowest Min	14-1992	Lowest Min	11-1959	Lowest Min	19-1951	Lowest Min	14-1937	Lowest Min	16-1987	Lowest Min	18-1964
Highest Min	63-1964	Highest Min	65-1958	Highest Min	55-1975	Highest Min	60-1965	Highest Min	61-1979	Highest Min	62-1979	Highest Min	59-1966
Greatest ppt	2.60-1964	Greatest ppt	1.85-1996	Greatest ppt	1.24-1952	Greatest ppt	1.26-1964	Greatest ppt	1.65-1963	Greatest ppt	4.59-1979	Greatest ppt	.70-1961

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
59.0 max	____	58.0 max	____	58.0 max	____	60.0 max	____	57.0 max	____	52.0 max	____	50.0 max	____
37.0 min	____	35.0 min	____	35.0 min	____	37.0 min	____	36.0 min	____	33.0 min	____	31.0 min	____
.07 ppt	____	.02 ppt	____	.16 ppt	____	.07 ppt	____	.11 ppt	____	.08 ppt	____	.03 ppt	____
17 hdd	____	18 hdd	____	20 hdd	____	16 hdd	____	18 hdd	____	23 hdd	____	25 hdd	____
0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____	0 cdd	____
Highest Max	79-1966	Highest Max	78-1974	Highest Max	80-1965	Highest Max	84-1965	Highest Max	83-1965	Highest Max	77-1927	Highest Max	81-1949
Lowest Max	38-1971	Lowest Max	33-1970	Lowest Max	36-1950	Lowest Max	31-1993	Lowest Max	30-1975	Lowest Max	35-1985	Lowest Max	28-1976
Lowest Min	16-1929	Lowest Min	17-1970	Lowest Min	14-1950	Lowest Min	17-1950	Lowest Min	14-1993	Lowest Min	16-1938	Lowest Min	13-1976
Highest Min	62-1966	Highest Min	63-1956	Highest Min	61-1966	Highest Min	61-1966	Highest Min	65-1990	Highest Min	56-1960	Highest Min	60-1991
Greatest ppt	.90-1962	Greatest ppt	.95-1952	Greatest ppt	2.54-1979	Greatest ppt	1.03-1966	Greatest ppt	1.56-1962	Greatest ppt	1.15-1962	Greatest ppt	.59-1958

Normal 29	Actual	Normal 30	Actual
53.0 max	____	54.0 max	____
30.0 min	____	31.0 min	____
.05 ppt	____	.03 ppt	____
23 hdd	____	23 hdd	____
0 cdd	____	0 cdd	____
Highest Max	82-1927	Highest Max	76-1953
Lowest Max	36-1979	Lowest Max	33-1974
Lowest Min	10-1976	Lowest Min	15-1964
Highest Min	54-1975	Highest Min	55-1970
Greatest ppt	1.06-1975	Greatest ppt	.73-1981

NOVEMBER AVERAGES

TEMPERATURE	:	**49.3°F**
PRECIPITATION	:	**2.62"**
HEATING DEGREE DAYS	:	**472**
COOLING DEGREE DAYS	:	**2**

TULSA CLIMATE CALENDAR

NOVEMBER

The data on this calendar are for Tulsa. Normal values are calculated for the period 1948 - 1992; Temperature extremes are for the period 1905 - 1996; precipitation extremes are for the period 1948 - 1996.

Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual
1			**2**			**3**			**4**			**5**			**6**			**7**		
69.0	max		65.0	max		63.0	max		64.0	max		62.0	max		62.0	max		63.0	max	
46.0	min		44.0	min		41.0	min		42.0	min		41.0	min		41.0	min		41.0	min	
.09	ppt		.17	ppt		.17	ppt		.08	ppt		.02	ppt		.06	ppt		.03	ppt	
8	hdd		11	hdd		13	hdd		12	hdd		13	hdd		14	hdd		13	hdd	
1	cdd		0	cdd		1	cdd		0	cdd		0	cdd		0	cdd		0	cdd	
Highest Max		85-1916	Highest Max		89-1909	Highest Max		88-1909	Highest Max		86-1914	Highest Max		87-1914	Highest Max		87-1945	Highest Max		85-1980
Lowest Max		37-1951	Lowest Max		27-1991	Lowest Max		36-1991	Lowest Max		39-1951	Lowest Max		34-1951	Lowest Max		39-1959	Lowest Max		41-1991
Lowest Min		25-1991	Lowest Min		20-1986	Lowest Min		16-1991	Lowest Min		21-1991	Lowest Min		25-1976	Lowest Min		20-1959	Lowest Min		22-1991
Highest Min		64-1987	Highest Min		65-1982	Highest Min		67-1985	Highest Min		60-1987	Highest Min		60-1965	Highest Min		60-1965	Highest Min		60-1966
Greatest ppt		1.27-1984	Greatest ppt		2.82-1974	Greatest ppt		3.20-1974	Greatest ppt		1.26-1986	Greatest ppt		.32-1967	Greatest ppt		3.49-1996	Greatest ppt		.69-1957

Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual
8			**9**			**10**			**11**			**12**			**13**			**14**		
64.0	max		63.0	max		63.0	max		62.0	max		63.0	max		65.0	max		62.0	max	
43.0	min		40.0	min		39.0	min		39.0	min		40.0	min		39.0	min		41.0	min	
.09	ppt		.04	ppt		.06	ppt		.03	ppt		.09	ppt		.07	ppt		.06	ppt	
12	hdd		13	hdd		14	hdd		14	hdd		13	hdd		13	hdd		14	hdd	
0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd	
Highest Max		84-1980	Highest Max		82-1934	Highest Max		83-1949	Highest Max		85-1989	Highest Max		80-1989	Highest Max		84-1910	Highest Max		79-1989
Lowest Max		41-1991	Lowest Max		42-1950	Lowest Max		37-1950	Lowest Max		31-1986	Lowest Max		34-1986	Lowest Max		30-1986	Lowest Max		33-1959
Lowest Min		16-1991	Lowest Min		28-1955	Lowest Min		21-1950	Lowest Min		17-1950	Lowest Min		15-1911	Lowest Min		12-1940	Lowest Min		13-1916
Highest Min		67-1966	Highest Min		58-1984	Highest Min		62-1949	Highest Min		60-1949	Highest Min		62-1951	Highest Min		62-1969	Highest Min		62-1958
Greatest ppt		1.45-1977	Greatest ppt		.55-1974	Greatest ppt		.53-1986	Greatest ppt		1.57-1992	Greatest ppt		2.64-1972	Greatest ppt		1.80-1986	Greatest ppt		1.08-1978

Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual
15			**16**			**17**			**18**			**19**			**20**			**21**		
63.0	max		61.0	max		60.0	max		58.0	max		60.0	max		58.0	max		58.0	max	
42.0	min		40.0	min		39.0	min		39.0	min		38.0	min		35.0	min		35.0	min	
.25	ppt		.06	ppt		.14	ppt		.09	ppt		.17	ppt		.20	ppt		.03	ppt	
13	hdd		15	hdd		16	hdd		16	hdd		16	hdd		18	hdd		18	hdd	
0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd	
Highest Max		82-1960	Highest Max		83-1963	Highest Max		80-1969	Highest Max		82-1930	Highest Max		81-1906	Highest Max		81-1969	Highest Max		79-1927
Lowest Max		38-1976	Lowest Max		37-1955	Lowest Max		32-1959	Lowest Max		37-1972	Lowest Max		35-1972	Lowest Max		38-1972	Lowest Max		34-1964
Lowest Min		11-1940	Lowest Min		14-1952	Lowest Min		11-1959	Lowest Min		19-1951	Lowest Min		14-1937	Lowest Min		16-1957	Lowest Min		18-1964
Highest Min		63-1964	Highest Min		65-1958	Highest Min		55-1975	Highest Min		60-1965	Highest Min		61-1979	Highest Min		62-1979	Highest Min		59-1966
Greatest ppt		2.60-1964	Greatest ppt		1.85-1996	Greatest ppt		1.24-1952	Greatest ppt		1.26-1964	Greatest ppt		1.55-1963	Greatest ppt		4.59-1979	Greatest ppt		.70-1961

Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual	Normal		Actual
22			**23**			**24**			**25**			**26**			**27**			**28**		
59.0	max		58.0	max		56.0	max		60.0	max		57.0	max		52.0	max		50.0	max	
37.0	min		35.0	min		35.0	min		37.0	min		36.0	min		33.0	min		31.0	min	
.07	ppt		.02	ppt		.16	ppt		.07	ppt		.11	ppt		.08	ppt		.03	ppt	
17	hdd		18	hdd		20	hdd		16	hdd		18	hdd		23	hdd		25	hdd	
0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd		0	cdd	
Highest Max		79-1966	Highest Max		78-1974	Highest Max		80-1965	Highest Max		84-1965	Highest Max		83-1965	Highest Max		77-1927	Highest Max		81-1949
Lowest Max		38-1971	Lowest Max		33-1970	Lowest Max		36-1950	Lowest Max		31-1993	Lowest Max		30-1975	Lowest Max		35-1985	Lowest Max		28-1976
Lowest Min		16-1929	Lowest Min		17-1970	Lowest Min		14-1950	Lowest Min		17-1950	Lowest Min		14-1993	Lowest Min		16-1936	Lowest Min		13-1976
Highest Min		62-1966	Highest Min		63-1966	Highest Min		61-1966	Highest Min		61-1966	Highest Min		65-1990	Highest Min		56-1960	Highest Min		60-1991
Greatest ppt		.90-1962	Greatest ppt		.35-1952	Greatest ppt		2.54-1979	Greatest ppt		1.09-1966	Greatest ppt		1.56-1962	Greatest ppt		1.15-1962	Greatest ppt		.59-1968

Normal		Actual	Normal		Actual
29			**30**		
53.0	max		54.0	max	
30.0	min		31.0	min	
.05	ppt		.03	ppt	
23	hdd		23	hdd	
0	cdd		0	cdd	
Highest Max		82-1927	Highest Max		75-1953
Lowest Max		36-1979	Lowest Max		33-1974
Lowest Min		10-1976	Lowest Min		15-1964
Highest Min		54-1975	Highest Min		65-1970
Greatest ppt		1.06-1976	Greatest ppt		.73-1981

NOVEMBER AVERAGES

TEMPERATURE	:	**49.3°F**
PRECIPITATION	:	**2.62"**
HEATING DEGREE DAYS	:	**472**
COOLING DEGREE DAYS	:	**2**