

**OKLAHOMA
MONTHLY SUMMARY
REVISED
NOVEMBER 1999**

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MONTHLY SUMMARY FOR NOVEMBER 1999

According to preliminary data from the National Weather service, November had a statewide-averaged temperature of 56.2 degrees placing it 6.4 degrees above normal. November 1999 supplanted 1909 (55.7 degrees) as the warmest November of the 108 recorded in Oklahoma. The warm weather was also notable for limited rainfall throughout the state. The statewide-averaged precipitation of 0.81 inch was 1.61 inches less than normal, ranking this as the 26th driest November since 1892.

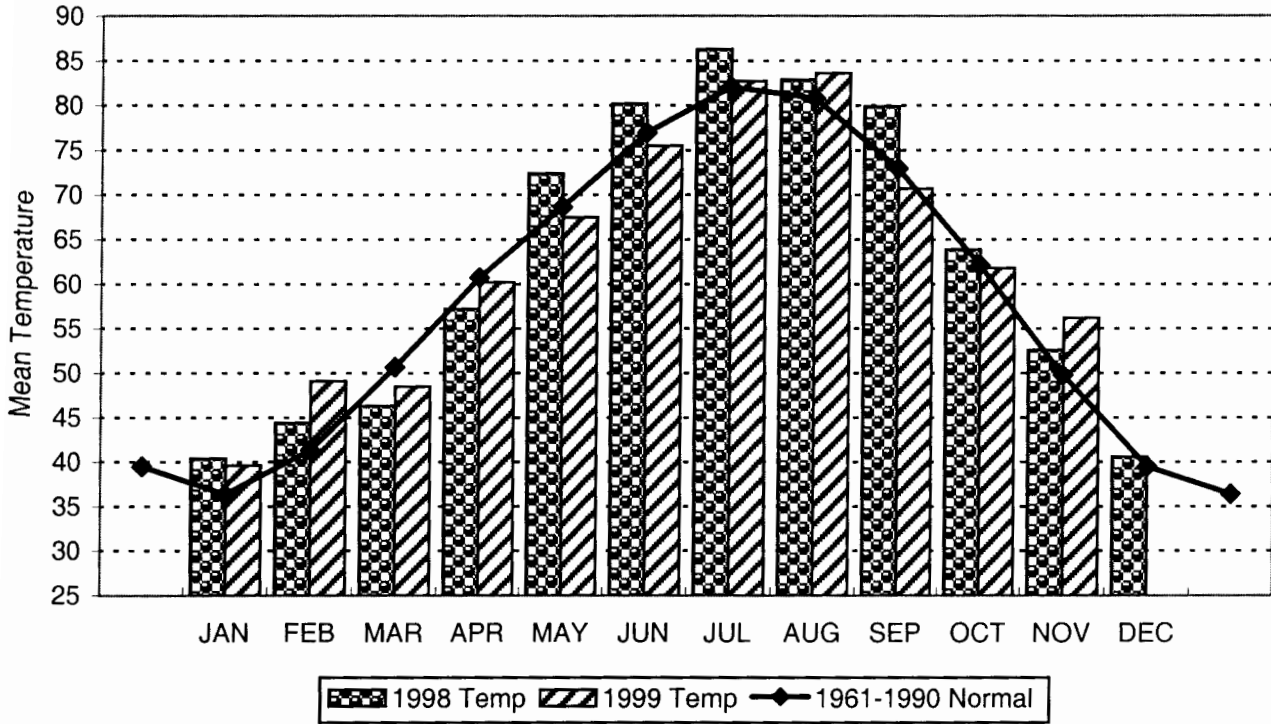
The warm, dry November completed Oklahoma's 35th warmest and 36th driest autumn. September-through-November temperatures averaged 62.9 degrees (1.3 degrees greater than normal), while statewide precipitation averaged 6.70 inches (2.73 inches less than normal) during the autumn months. The first eleven months of 1999 are the 26th warmest and 37th wettest January-through-November periods, statewide, on record. The year-to-date statewide temperature of 63.3 degrees is 1.1 degrees higher than normal. Year-to-date precipitation, statewide, is 34.65 inches, 2.07 inches greater than normal despite the very dry late summer and autumn weather.

The state really noticed only a single break from the warm, dry weather, as November reports from the Oklahoma Mesonet show only two days (the 22nd and 23rd) with over a half inch of rain reported anywhere in the state. Several National Weather Service observing sites reported over an inch of rain on the first as of 7AM, but most of that rain actually fell on October 31st, but was not reported until the gauges were read the following morning. Daily rainfall reports of two inches or more were received on the 22nd from Okmulgee (Okmulgee County) and Mesonet sites near Pryor (Mayes), Wilburton (Latimer), and Hugo (Choctaw). Claremore (Rogers) reported 2.95 inches on the 23rd accompanied by 2.90 inches reported from Okeene (Blaine), 2.77 inches at the Mesonet site east of Broken Bow (McCurtain), and 2.61 inches at Idabel (McCurtain).

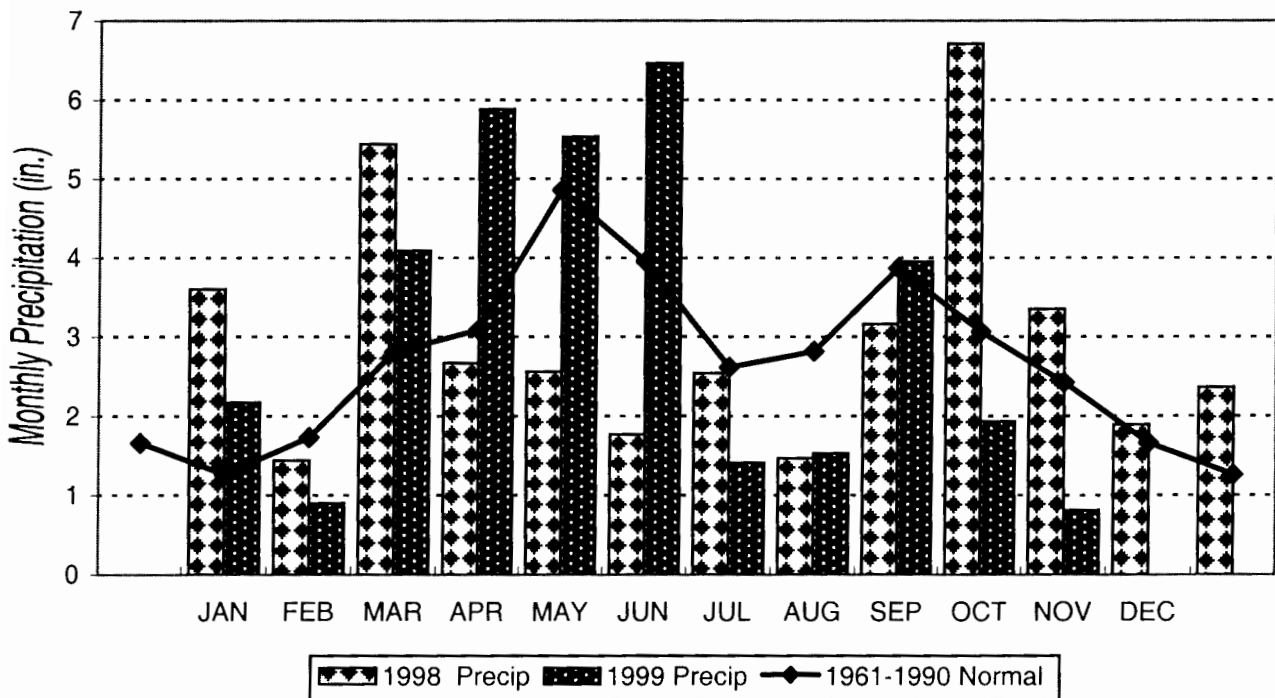
The rain-producing system of the 22nd and 23rd produced all of the state's severe weather during the month. Strong winds and hail were reported over much of eastern Oklahoma on the evening of the 22nd. One-and-three-quarter-inch hail was reported in Okfuskee and Choctaw counties. Observers in Tulsa and Wagoner counties reported wind speeds as great as 75 miles per hour. Spotters in Tulsa, Rogers, and Choctaw counties reported small tornadoes on that evening.

Howard L. Johnson

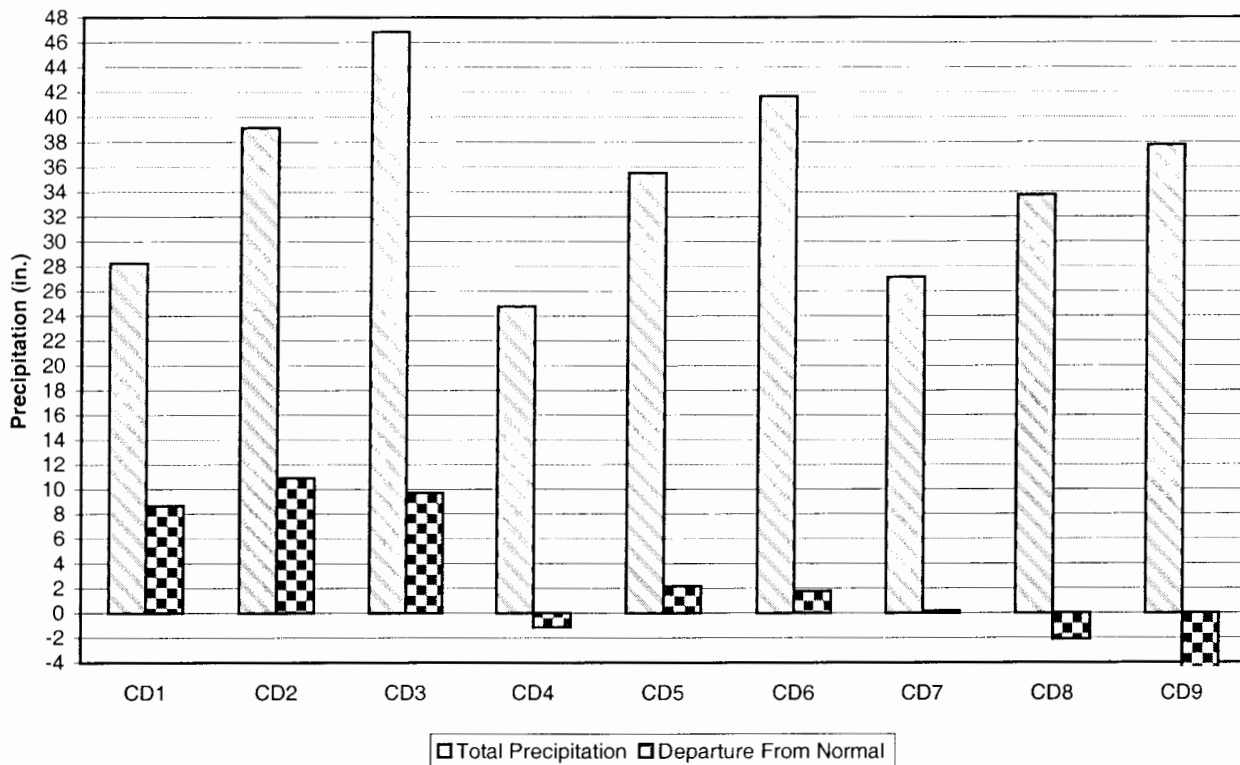
1998 and 1999 STATEWIDE TEMPERATURES Monthly Averages



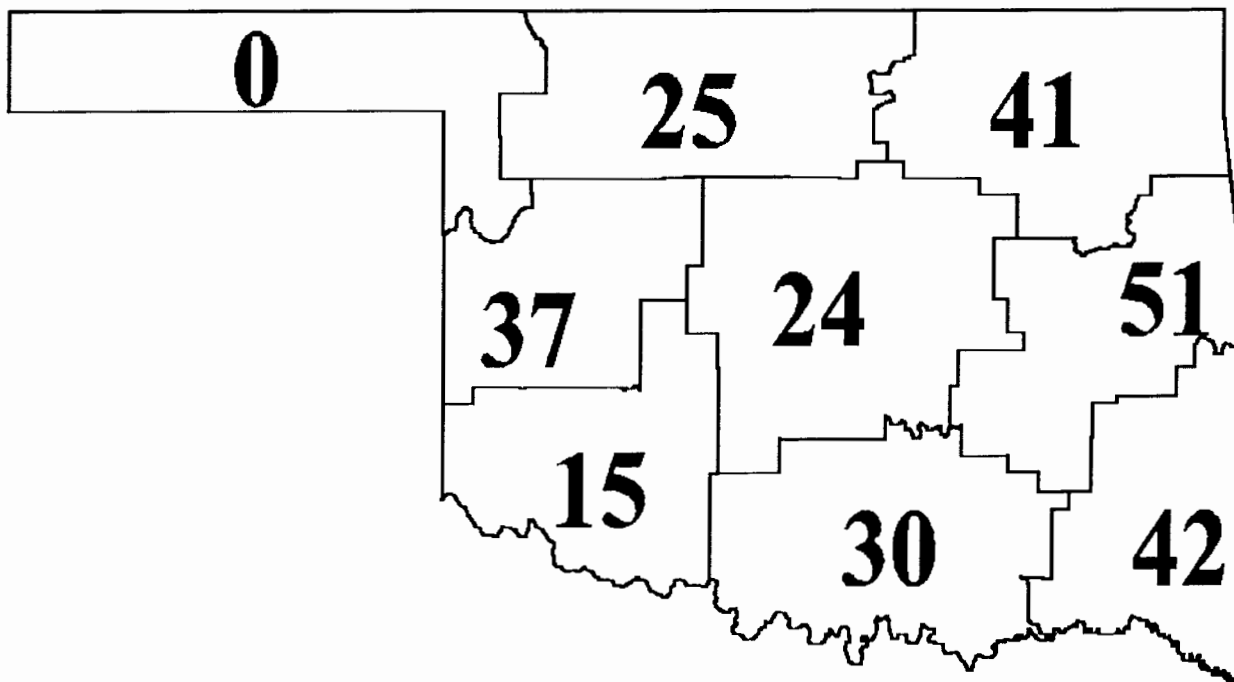
1998 and 1999 STATEWIDE PRECIPITATION Monthly Totals



CD Averaged Precipitation
January through November 1999



CD PERCENT OF NORMAL PRECIPITATION
December 1999



**EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION
NOVEMBER, 1999**

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	89	12	BUFFALO	15	24	GAGE	.03	24	REGNIER	.03	REGNIER
2	86	13	FREEDOM	15 15	23 24	FT SUPPLY FT SUPPLY	1.52	23	GREAT SALT P	1.54	GREAT SALT P
3	87	30	CLEVELAND	19	25	RALSTON	2.95	23	CLAREMORE	3.09	CLAREMORE
4	83	15	TALOGA	18	25	HAMMON	2.90	23	OKEENE	2.90	OKEENE
5	89	13	BRISTOW	21 21	26 27	GUTHRIE GUTHRIE	1.75	23	WEWOKA	2.65	WELTY
6	87	14	STILWELL	25	3	HANNA	2.36	23	CLAYTON	2.69	MARBLE CITY
7	87	16	FREDERICK	21 21	25 26	ANADARKO ANADARKO	.78	23	ALTUS DAM	.78	ALTUS DAM
8	87 87	15 14	CENTRAHOMA TISHOMINGO	23	4	CENTRAHOMA	2.39	23	MCGEE CREEK	3.18	ATOKA DAM
9	86 86	13 1	IDABEL WISTER	20	25	POTEAU	2.61	23	IDABEL	2.80	IDABEL

TABLE OF 1998/1999 COMPARISONS

**NOVEMBER
Temperature (°F)**

**NOVEMBER
Precipitation (in.)**

Station	1998	1999	1998	1999
Arnett	48.7	53.0	3.38	0.00
Enid	50.6	56.3	4.86	0.29
Tulsa	53.4	57.6	1.72	1.32
Elk City	50.9	55.2	2.89	0.04
Oklahoma City	53.2	56.8	3.09	0.06
McAlester	54.8	58.9	3.04	0.76
Altus Irr Station	52.3	56.2	2.30	0.11
Ardmore	55.1	60.6	1.16	0.12
Idabel	54.1	60.0	3.75	2.80

EXTREMES

VARIABLE	STATION	DIVISON	OBSERVATION	DATE
Minimum temperature (°F)	Gage	1	15	24
	Ft. Supply	2	15	23
	Ft. Supply	2	15	24
Maximum temperature (°F)	Buffalo	1	89	12
	Bristow	5	89	13
Maximum 24-hour Precipitation	Claremore	3	2.95"	23

NOVEMBER 1999 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	53.0	30	7.3	82	19	24	26	359	-221	0	0	0.000	30	-1	0	30
BEAVER	593	1	50.2	30	6.0	85	10	18	24	444	-180	0	0	0.000	30	-1	0	30
BOISE CITY	908	1	50.3	30	5.6	82	14	18	25	440	-170	0	0	0.001	30	-1	0	24
BUFFALO	1243	1	54.0	30	6.9	89	12	19	25	335	-202	6	6	0.000	30	-2	0	30
FARGO	3070	1	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.001	30	-1	0	1
GAGE	3407	1	51.9	28*	****	84	13	15	24	371	*****	4	*****	0.002	28	*****	0	23
GATE	3489	1	53.5	28*	****	86	12	25	25	325	*****	4	*****	0.001	30	-1	0	23
GOODWELL	3628	1	51.3	30	7.5	85	10	21	26	413	-224	0	0	0.000	30	-1	0	30
GUYMON	3835	1	52.0	29*	****	84	10	24	24	377	*****	0	*****	0.000	29	*****	0	30
HOOKER	4298	1	51.9	29	7.3	85	9	20	25	384	-228	4	4	0.000	29	*****	0	30
KENTON	4766	1	49.3	28*	****	84	13	18	26	439	*****	0	*****	0.002	29	*****	0	24
LAVERNE	5045	1	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.001	30	-1	0	23
RANGE	7412	1	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	*****	0	30
REGNIER	7534	1	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.030	30	-1	0	24
TURPIN	9017	1	50.2	22*	****	84	9	22	26	326	*****	0	*****	0.000	23	*****	0	30

NOVEMBER 1999 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
ALVA	193	2	54.2	30*	****	85	14	22	26	328	*****	3	*****	0.060	30	*****	0	23
VANCE AFB	302	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.140	30	*****	0	23
BILLINGS	755	2	54.7	29	7.3	81	14	22	29	304	-224	5	5	0.500	30	-2	0	23
BLACKWELL 2E	818	2	54.8	30	7.2	81	14	27	26	306	-216	0	0	0.451	30	-2	0	23
BRAMAN	1075	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.130	30	*****	1	23
CEDARDALE	1620	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.031	30	*****	0	23
CHEROKEE	1724	2	51.2	28*	****	84	14	25	26	387	*****	0	*****	0.850	29	*****	1	23
ENID	2912	2	56.3	30	7.7	80	15	25	25	267	-225	6	6	0.290	30	-2	0	22
FT SUPPLY	3304	2	51.3	30	5.8	84	13	15	24	411	-175	0	0	0.001	30	-1	0	22
FREEDOM	3358	2	51.1	29	4.1	86	13	17	25	405	-136	2	2	0.020	30	-1	0	22
GREAT SALT P	3740	2	54.8	30	8.0	84	14	26	25	309	-237	3	3	1.540	30	0	2	23
HARDY	3909	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.501	30	*****	0	23
HELENA	4019	2	53.7	30	7.7	82	14	25	25	339	-232	1	1	1.360	30	0	1	23
JEFFERSON	4573	2	55.1	30	7.1	84	13	24	25	300	-210	3	3	0.930	30	-1	1	22
LAMONT	5013	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.330	30	*****	0	23
MEDFORD	5768	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.041	30	*****	1	21
MORRISON	6065	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.100	30	*****	0	23
MUTUAL	6139	2	53.3	30	7.0	84	14	21	25	353	-212	0	0	0.000	30	-1	0	30
NEWKIRK	6278	2	54.6	30	6.6	80	14	26	26	315	-195	4	4	0.300	30	-2	0	23
ORIENTA	6751	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.060	30	-1	1	23
PERRY	7012	2	57.6	30	8.0	84	13	27	25	245	-218	22	22	0.150	30	-2	0	23
PONCA CITY	7201	2	56.6	29	9.3	82	13	27	25	264	-267	22	22	0.451	29	*****	0	23
RED ROCK	7505	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.200	30	-2	0	23
WAYNOKA	9404	2	56.5	27*	****	85	14	23	25	231	*****	1	*****	0.000	27	*****	0	28
WOODWARD	9760	2	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.001	30	-1	0	23

NOVEMBER 1999 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP										FROM NORM	MAX 24-HR	
BARNSDALL	535	3	56.9	30	7.8	86	24	23	25	254	-223	10	10	0.321	30	-3	0	1
BARTLESVILLE	548	3	56.1	30	6.9	85	13	24	25	276	-199	8	8	0.580	30	-2	1	23
BIXBY	782	3	56.3	30	7.9	84	14	29	3	263	-236	3	3	2.631	30	-1	2	22
BURBANK	1256	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.100	30	-2	0	22
CHELSEA	1717	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	2.830	30	*****	2	23
CLAREMORE	1828	3	58.6	9*	****	80	7	27	3	63	*****	6	*****	3.090	30	0	3	23
CLEVELAND 2	1902	3	58.9	27*	****	87	30	31	30	173	*****	8	*****	0.111	27	*****	0	1
FORAKER	3250	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.220	30	-2	0	23
HOLLOW	4258	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	-4	0	30
HOMINY	4289	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.121	30	-3	0	23
KANSAS	4672	3	57.2	28*	****	80	13	30	3	224	*****	7	*****	2.771	29	*****	2	1
LENAPAH	5118	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.630	30	*****	1	23
MANNFORD	5522	3	58.7	30	8.8	84	13	24	25	211	-243	23	23	0.440	30	-2	0	1
MARAMEC	5540	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.120	30	-3	0	1
NOWATA	6485	3	58.3	30	9.0	85	12	27	25	218	-253	19	19	1.940	30	-1	2	23
PAWHUSKA	6935	3	56.6	30	8.0	83	14	24	25	265	-228	14	14	0.710	30	-2	1	23
PAWNEE	6940	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.440	30	-2	0	1
PRYOR	7309	3	57.4	28*	****	83	14	27	3	219	*****	5	*****	2.860	30	-1	2	23
RALSTON	7390	3	54.1	29	5.0	83	13	19	25	319	-158	3	3	0.330	30	-2	0	23
SKIATOOK	8258	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.970	30	-1	2	23
SPAVINAW	8380	3	60.3	30	9.0	82	14	31	24	172	-243	31	31	1.840	30	-2	1	23
TULSA	8992	3	57.6	30	7.7	83	13	28	25	244	-210	22	22	1.321	30	-2	1	22
UPPER SPAV	9101	3	56.6	27*	****	82	13	26	3	231	*****	5	*****	1.781	28	*****	1	23
VINITA	9203	3	57.6	30	9.1	81	13	29	25	239	-257	18	18	2.610	30	-1	2	23
WAGONER	9247	3	58.8	30	7.8	83	13	29	3	210	-216	24	24	1.840	30	-2	2	22
WANN	9298	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.020	30	*****	1	23
WYNONA	9792	3	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.140	30	*****	0	1

NOVEMBER 1999 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP										FROM NORM	MAX 24-HR	
CANTON DAM	1445	4	54.0	30	7.0	81	14	23	25	334	-207	2	2	1.940	30	0	2	23
CLINTON	1909	4	53.8	30	4.3	81	13	24	25	335	-130	0	0	1.381	30	0	1	23
COLONY	2039	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.370	30	*****	0	23
CORDELL	2125	4	54.8	30	5.6	80	14	26	26	306	-169	0	0	1.270	30	0	1	23
ELK CITY	2849	4	55.2	29	6.6	82	13	28	25	283	-209	0	0	0.040	29	*****	0	23
ERICK	2944	4	54.7	30	5.8	82	19	22	24	310	-173	0	0	0.000	30	-1	0	30
GEARY	3497	4	55.2	30	6.7	79	13	26	23	296	-199	2	2	0.000	30	-2	0	30
HAMMON	3871	4	52.0	30	5.5	82	13	18	25	392	-167	0	0	0.000	30	-2	0	30
LEEDEY	5090	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	-2	0	30
MACKIE	5463	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	*****	0	30
MORAVIA	6035	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.050	30	-1	0	23
OKEENE	6629	4	56.0	30	6.7	82	12	26	25	277	-194	6	6	2.900	30	1	3	23
RETROP	7565	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.080	30	*****	0	23
REYDON	7579	4	55.1	30	7.5	82	13	23	25	302	-221	4	4	0.000	30	-1	0	30
SAYRE	7952	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	-1	0	30
SWEETWATER	8652	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	*****	0	30
TALOGA	8708	4	52.9	30	5.5	83	15	19	25	363	-166	0	0	0.050	30	-2	0	23
THOMAS	8815	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.260	30	*****	1	23
VICI	9172	4	*****	0*	****	****	0	****	0	*****	*****	*****	*****	2.100	30	1	1	8
WATONGA	9364	4	56.1	30	7.7	81	13	25	25	278	-221	10	10	1.610	30	0	2	22
WEATHERFORD	9422	4	54.6	28*	****	80	11	27	25	292	*****	1	*****	0.730	28	*****	1	22

NOVEMBER 1999 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			MIN TEMP	DAY	HEAT			DEV			TOT PPT	NUM OBS	DEV		
					FROM NORM	MAX TEMP	DAY			DEG DAY	FROM NORM	DEG DAY	FROM NORM	FROM NORM	MAX 24-HR			DAY		
AMBER	200	5	****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.080	30	****	0	1	1	
ARCADIA	288	5	****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.030	30	****	0	1	1	
BLANCHARD	830	5	59.3	30	8.0	82	13	28	25	192	-222	20	20	0.400	30	-2	0	1	1	
BRISTOW	1144	5	58.6	30	8.1	89	13	26	25	217	-223	25	20	1.520	30	-1	1	1	1	
CHANDLER	1684	5	57.5	30	6.6	84	14	25	26	241	-183	17	17	0.120	30	-2	0	1	1	
CHICKASHA EXP	1750	5	57.5	30	6.7	84	13	23	25	227	-200	2	2	0.520	30	-1	0	1	1	
COX CITY	2196	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.650	30	****	1	1	1	
CRESCENT	2242	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.250	30	****	0	23	23	
CUSHING	2318	5	58.3	30	9.0	82	14	30	25	225	-247	23	23	0.150	30	-2	0	1	1	
EDMOND	2788	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.000	30	****	0	30	30	
EL RENO	2818	5	55.9	30	7.0	81	14	26	26	278	-205	6	6	0.100	30	-2	0	23	23	
GUTHRIE	3821	5	58.5	27 *	****	83	13	21	27	193	*****	16	*****	1.480	28	****	1	1	1	
HENNESSEY	4055	5	55.0	26 *	****	80	13	25	25	262	*****	2	*****	0.200	28	****	0	23	23	
INGALLS	4489	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.850	30	****	1	1	1	
KINGFISHER	4861	5	56.3	30	6.7	85	13	23	25	276	-186	16	16	0.490	30	-1	0	23	23	
KONAWA	4915	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.670	30	-2	1	23	23	
MARSHALL	5589	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.260	30	-2	0	23	23	
MEEKER	5779	5	55.0	29	4.6	87	17	25	26	295	-144	5	5	0.360	29	****	0	1	1	
MULHALL	6110	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.280	30	****	0	1	1	
NORMAN NWS	6386	5	56.8	30	5.7	81	13	25	25	253	-165	7	7	0.021	30	-2	0	22	22	
OKEMAH	6638	5	60.0	30	8.8	84	13	31	3	176	-239	27	27	2.090	30	-1	1	23	23	
OKLAHOMA CTY	6659	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.170	30	****	0	1	1	
OKLAHOMA CTY	6661	5	56.8	30	7.2	81	13	26	25	256	-207	8	8	0.060	30	-2	0	22	22	
PERKINS	7003	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.240	30	-2	0	1	1	
PIEDMONT	7068	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.090	30	****	0	23	23	
PRAGUE	7264	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.950	30	-2	1	23	23	
SEMINOLE	8042	5	56.8	13 *	****	79	7	29	3	108	*****	1	*****	0.960	15	****	1	22	22	
SHAWNEE	8110	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.850	30	-2	1	23	23	
STELLA	8479	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.371	30	****	0	1	1	
STILLWATER	8501	5	56.0	30	7.5	84	13	26	26	279	-216	8	8	0.300	30	-2	0	1	1	
STROUD	8563	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.430	30	****	0	23	23	
TECUMSEH	8751	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.500	30	****	1	23	23	
TROUSDALE	8960	5	57.1	30 *	****	82	14	28	25	243	*****	6	*****	0.870	30	****	1	1	1	
UNION CITY	9086	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.080	30	-2	0	1	1	
WELTY	9479	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.650	30	****	2	1	1	
WEWOKA	9575	5	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.100	30	-1	2	23	23	

NOVEMBER 1999 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			MIN TEMP	DAY	HEAT			DEV			TOT PPT	NUM OBS	DEV		
					FROM NORM	MAX TEMP	DAY			DEG DAY	FROM NORM	DEG DAY	FROM NORM	FROM NORM	MAX 24-HR			DAY		
ASHLAND	364	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.830	30	****	1	23	23	
BEGGS	631	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.880	30	****	1	23	23	
CALVIN	1391	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	0.670	30	-2	1	19	19	
CHECOTAH	1711	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.090	30	-2	1	23	23	
CLAYTON	1858	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.400	30	****	2	23	23	
DEWAR	2485	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.850	30	-1	1	23	23	
DUSTIN	2690	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.861	30	****	1	23	23	
EUFAULA	2993	6	60.7	30	8.0	82	13	37	30	163	-212	35	30	1.980	30	-1	1	1	1	
HANNA	3884	6	57.8	30	6.1	83	13	25	3	226	-173	10	10	1.960	30	-2	1	1	1	
HASKELL	3956	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.050	30	-1	1	23	23	
LAKE EUFAULA	4975	6	58.4	29 *	****	81	15	34	3	207	*****	15	*****	1.630	30	****	1	2	2	
LYONS	5437	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.400	30	-1	1	23	23	
MARBLE CITY	5546	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.690	30	****	2	23	23	
MCALESTER	5664	6	58.9	30	7.1	83	14	26	3	211	-193	27	20	0.762	30	-3	1	22	22	
MCCURTAIN	5693	6	59.7	30	7.0	84	13	28	3	197	-179	39	33	1.880	30	-2	2	23	23	
MUSKOGEE	6130	6	57.6	29	6.7	84	13	28	3	224	-203	10	10	0.860	30	-3	1	22	22	
OKMULGEE	6670	6	56.8	30	7.3	84	13	27	30	254	-212	7	7	2.280	30	-1	2	22	22	
OKTAHA	6678	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.240	30	****	1	23	23	
SALLISAW	7862	6	58.3	30	6.7	82	14	33	3	211	-192	9	9	2.030	30	-2	1	23	23	
SCIPIO	7979	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.080	30	****	1	23	23	
SHORT	8170	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.530	30	****	1	1	1	
STILWELL	8506	6	57.5	30	7.5	87	14	26	3	230	-221	6	6	2.300	30	-1	1	23	23	
TAHLEQUAH	8677	6	57.5	30	7.3	81	13	28	3	231	-218	6	1	2.120	30	-1	1	23	23	
WEBBERS FALL	9445	6	57.4	30	7.2	84	14	29	4	236	-209	8	8	1.780	30	-2	1	23	23	
WETUMKA	9571	6	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.751	30	-1	1	23	23	

NOVEMBER 1999 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MAX TEMP	MIN DAY	HEAT		DEV		COOL		DEV		TOT PPT	NUM OBS	DEV	
					FROM NORM	MAX TEMP				DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM	MAX 24-HR	DAY				
ALTUS	179	7	56.2	30	4.1	83	18	24	25	266	-122	1	1	0.110	30	-1	0	1	30		
ALTUS DAM	184	7	57.1	30	7.5	82	14	25	25	244	-219	6	6	0.780	30	-1	1	23	30		
ANADARKO	224	7	54.0	30	4.1	81	14	21	26	332	-122	1	1	0.130	30	-2	0	23	30		
APACHE	260	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	-2	0	30	30		
ALTUS AFB	447	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.010	30	****	0	1	30		
CARNEGIE	1504	7	56.3	30	6.2	82	11	26	25	263	-184	2	2	0.081	30	-2	0	22	30		
CHATTANOOGA	1706	7	55.5	27*	****	83	19	26	26	258	*****	0	*****	0.000	27	****	0	30	30		
DUNCAN 11 W	2668	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.580	30	****	1	1	30		
FREDERICK	3353	7	57.3	28*	****	87	16	31	30	221	*****	4	*****	0.000	30	-2	0	30	30		
HEADRICK	3998	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.020	30	****	0	23	30		
HOBART	4204	7	56.3	28*	****	80	18	28	25	248	*****	3	*****	0.291	29	****	0	23	30		
HOLLIS	4249	7	56.2	29	5.6	84	18	23	25	255	-178	0	0	0.000	29	****	0	30	30		
LAWTON	5063	7	56.8	30	6.3	82	14	30	27	248	-184	4	4	0.080	30	-2	0	1	30		
LOOKEBA	5329	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.200	30	-2	0	22	30		
MANGUM	5509	7	55.4	29	4.6	83	19	25	26	280	-147	1	1	0.000	30	-1	0	30	30		
RANDLETT	7403	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.490	30	****	0	1	30		
ROOSEVELT	7727	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.060	30	-1	0	23	30		
SEDAN	8016	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.310	30	****	0	19	30		
SNYDER	8299	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.221	30	-1	0	1	30		
VINSON	9212	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.080	30	-1	0	23	30		
WALTERS	9278	7	56.0	30	3.6	80	15	28	25	270	-114	1	1	0.630	30	-1	1	1	30		
WICHITA MT	9629	7	56.1	25*	****	83	10	23	26	224	*****	2	*****	0.251	26	****	0	1	30		
WILLOW	9668	7	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.500	30	****	1	23	30		

NOVEMBER 1999 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MAX TEMP	MIN DAY	HEAT		DEV		COOL		DEV		TOT PPT	NUM OBS	DEV	
					FROM NORM	MAX TEMP				DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM	MAX 24-HR	DAY				
ADA	17	8	58.7	30	6.6	82	14	30	25	209	-185	19	13	0.860	30	-2	1	23	30		
ARDMORE	292	8	60.6	29	6.1	85	15	34	2	159	-164	30	23	0.120	29	****	0	23	30		
ALLEN	147	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.750	30	****	1	23	30		
ATOKA DAM	394	8	59.0	19*	****	84	15	27	3	123	*****	9	*****	3.181	19	****	2	23	30		
BOKCHITO	917	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	2.000	30	****	2	23	30		
CANEY	1437	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.610	30	****	1	23	30		
CENTRAHOMA	1648	8	59.2	28*	****	87	15	23	4	178	*****	16	*****	0.750	28	****	1	23	30		
CHICKASAW	1745	8	57.6	30	7.0	83	15	26	3	227	-206	6	6	0.590	30	-2	0	23	30		
COLEMAN	2011	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.630	30	****	2	23	30		
COMANCHE	2054	8	58.9	30*	****	81	14	33	24	190	*****	8	*****	0.000	30	-2	0	30	30		
DAISY	2354	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.760	30	-2	2	23	30		
DUNCAN	2660	8	57.7	28*	****	80	15	29	25	208	*****	3	*****	0.120	28	****	0	1	30		
ELMORE CITY	2872	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.120	30	****	0	23	30		
GRADY	3688	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	****	0	30	30		
HEALDTON	4001	8	57.5	30	5.2	84	15	28	4	230	-156	6	6	0.560	30	-2	1	23	30		
HENNEPIN	4052	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.050	30	****	1	1	30		
KETCHUM RAN	4780	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.220	30	****	0	1	30		
KINGSTON	4865	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.800	30	-2	1	22	30		
LEHIGH	5108	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	1.651	30	****	1	23	30		
LINDSAY	5216	8	55.5	30	4.3	80	14	25	25	285	-126	2	2	0.000	30	-2	0	30	30		
LOCO	5247	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.590	30	****	1	1	30		
MADILL	5468	8	59.3	29	5.5	85	15	29	3	187	-156	20	14	1.000	29	****	1	23	30		
MARIETTA	5563	8	58.0	30	4.4	84	15	25	4	218	-131	8	1	0.750	30	-2	0	23	30		
MARLOW	5581	8	58.4	30	6.9	82	10	24	25	211	-194	13	13	0.470	30	-2	0	1	30		
MCGEE CREEK	5713	8	58.6	30*	****	85	15	28	3	207	*****	14	*****	2.390	30	****	2	23	30		
PAULS VALLEY	6926	8	56.0	30	3.9	83	13	28	25	275	-118	3	3	1.440	30	-1	1	1	30		
PONTOTOC	7214	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.860	30	-2	1	22	30		
TISHOMINGO	8884	8	57.9	27*	****	87	14	25	3	212	*****	21	*****	0.810	30	-2	1	18	30		
TUSSY	9032	8	*****	0*	****	****	0	****	0	*****	*****	*****	*****	0.000	30	****	0	30	30		
WAURIKA	9395	8	59.3	30	6.2	83	14	29	25	182	-181	10	4	0.000	30	-2	0	30	30		

NOVEMBER 1999 SUMMARY FOR SOUTHEAST DIVISION (CD9)

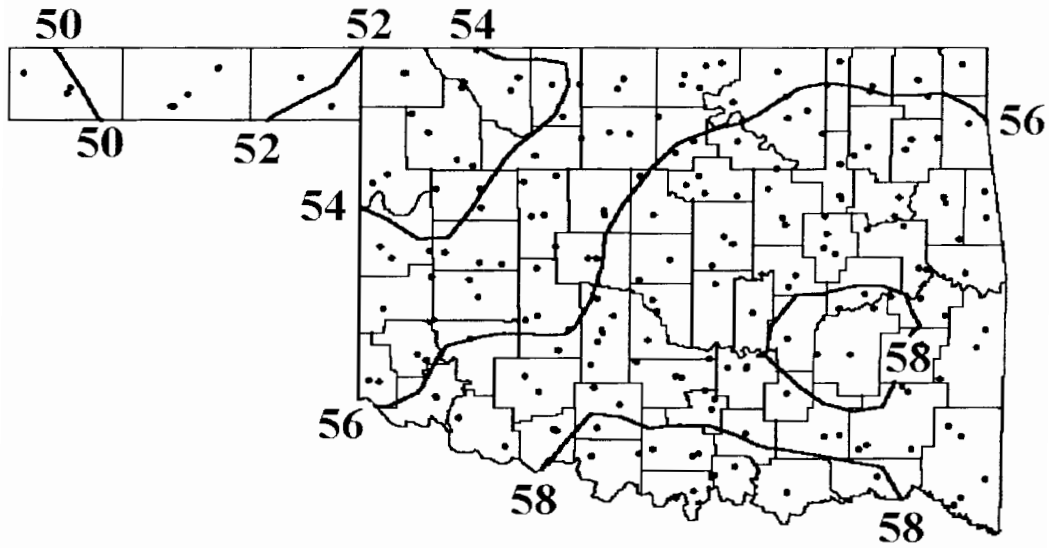
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	57.7	30	4.7	84	14	25	4	225	-142	5	-1	1.600	30	-2	1	22
BATTIEST	567	9	57.7	29 *	****	85	15	31	4	215	*****	2	*****	1.200	30	*****	1	23
BENGAL	670	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.780	30	*****	2	23
BROKEN BOW	1162	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.060	30	-2	2	23
CARNASAW	1499	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.871	30	-3	2	23
CARTER TWR	1544	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.140	30	-3	1	23
FANSHAWE	3065	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.650	30	-3	1	23
HEAVENER	4008	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.850	30	-2	2	23
IDABEL	4451	9	60.0	30	7.5	86	13	28	4	171	-209	21	16	2.801	30	-1	3	23
PAGE	6842	9	57.8	25 *	****	83	15	25	3	190	*****	9	*****	1.930	25	*****	2	23
POTEAU	7254	9	57.0	30 *	****	84	14	20	25	246	*****	7	*****	1.441	30	*****	1	22
SPIRO	8416	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	2.040	30	-2	1	23
TUSKAHOMA	9023	9	59.1	30	6.2	85	14	23	3	204	-166	26	20	2.050	30	-2	2	23
VALLIANT	9118	9	*****	0 *	****	****	0	****	0	*****	*****	*****	*****	1.370	30	-3	1	23
WILBURTON	9634	9	57.0	30	5.7	84	14	24	3	245	-170	6	6	1.460	30	-3	1	22
WISTER	9724	9	56.8	30 *	****	86	1	24	3	250	*****	2	*****	1.410	30	*****	1	23

NOVEMBER 1999 CLIMATE DIVISION SUMMARY

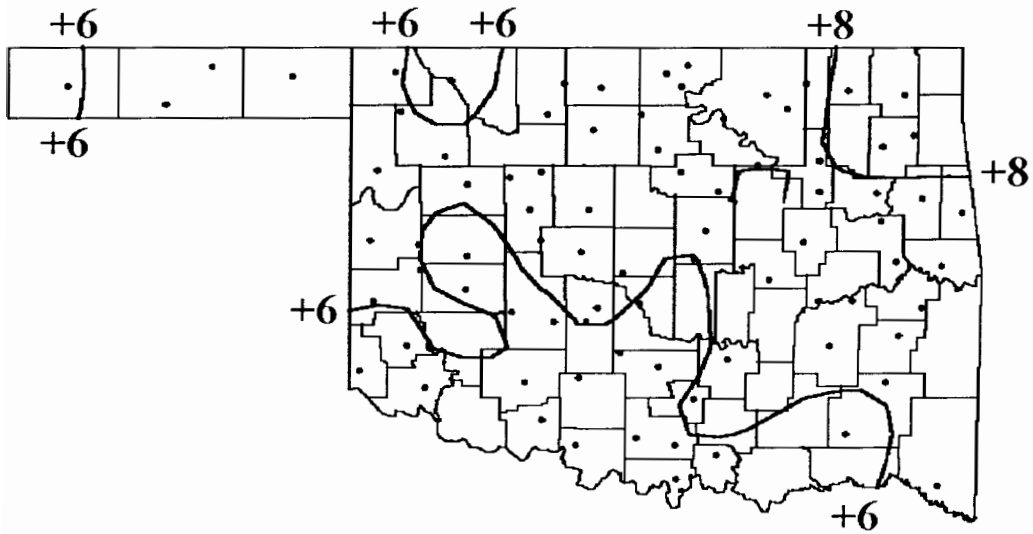
CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
1	51.8	7	6.7	89	12	15	24	393	-205	1	1	0.000	10	-1	0	24
2	54.5	13	7.0	86	13	15	24	319	-208	5	5	0.460	22	-1	2	23
3	57.4	11	8.1	87	30	19	25	243	-229	16	16	1.210	24	-2	3	23
4	54.5	11	6.3	83	15	18	25	316	-187	2	2	0.680	19	-1	3	23
5	57.3	13	7.0	89	13	21	27	243	-198	13	13	0.570	32	-2	2	23
6	58.2	11	7.1	87	14	25	3	217	-202	15	13	1.800	25	-2	2	23
7	56.0	8	5.3	87	16	21	26	269	-161	2	2	0.230	19	-1	1	23
8	58.2	12	5.7	87	14	23	4	215	-166	11	8	0.800	25	-2	2	23
9	57.9	7	5.5	86	1	20	25	222	-161	10	6	1.780	15	-2	3	23

MESONET MONTHLY SUMMARY FOR NOVEMBER 1999

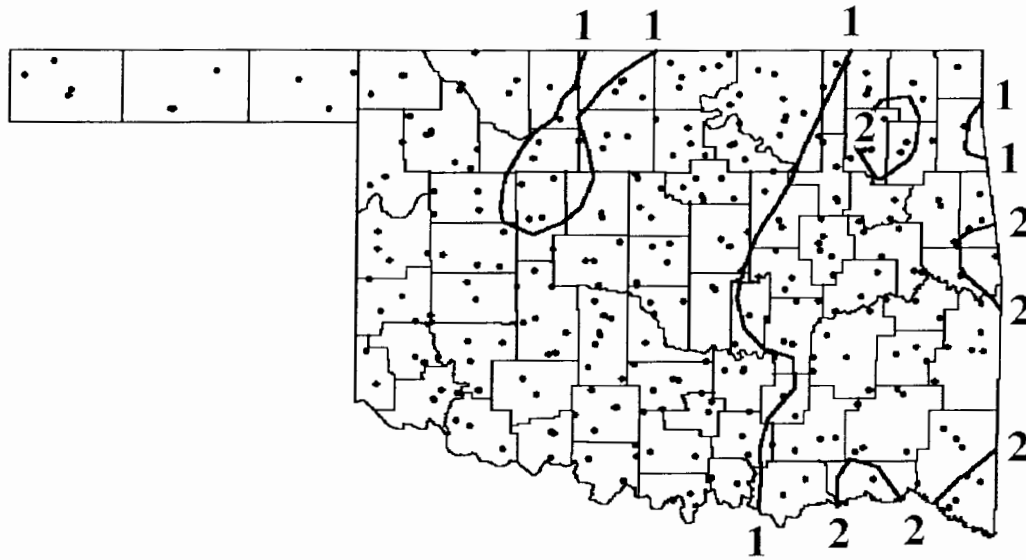
NAME	MEAN MAX				MIN		TOT MAX					NAME	MEAN MAX				MIN		TOT MAX				
	TEMP	TEMP	DAY	DAY	TEMP	DAY	HDD	COO	PPT	24-HR	DAY		TEMP	TEMP	DAY	TEMP	DAY	HDD	COO	PPT	24-HR	DAY	
Arnett	54.0	83	13	24	24	331	2	0.00	0.00	1	Goodwell	51.1	83	9	21	24	418	0	0.00	0.00	1		
Beaver	51.5	86	9	19	24	408	2	0.00	0.00	1	Hooker	50.9	84	9	15	25	423	0	0.00	0.00	1		
Boise City	48.8	82	13	18	25	436	0	0.04	0.04	24	Kenton	49.0	82	13	18	25	479	0	0.04	0.04	24		
Buffalo	52.1	85	11	19	25	389	3	0.00	0.00	1	Slapout	53.0	84	9	20	25	362	4	0.00	0.00	1		
NORTH CENTRAL																							
Alva	53.5	85	13	22	24	347	2	0.15	0.12	22	May Ranch	54.7	83	13	27	24	315	7	0.08	0.06	9		
Blackwell	54.6	80	11	26	25	315	3	0.46	0.45	22	Medford	53.8	81	13	26	25	303	0	1.01	1.00	22		
Breckenridge	54.2	80	13	25	25	295	4	0.42	0.42	22	Newkirk	55.3	81	13	27	24	301	10	0.38	0.37	22		
Cherokee	52.6	84	13	25	25	373	2	0.96	0.96	22	Red Rock	55.9	82	13	23	25	288	15	0.04	0.02	22		
Fairview	54.8	83	13	26	25	315	9	1.70	1.70	22	Seiling	53.5	83	12	22	25	350	4	0.02	0.02	22		
Freedom	53.6	84	13	20	24	346	4	0.03	0.02	9	Woodward	54.9	83	13	23	24	312	9	0.00	0.00	1		
Lahoma	53.8	80	13	25	25	335	0	1.33	1.33	22													
NORTHEAST																							
Bixby	56.8	84	13	29	3	232	10	1.70	1.67	22	Miami	55.2	81	13	28	3	303	8	1.53	1.44	22		
Burbank	55.2	83	13	23	25	304	8	0.09	0.09	22	Nowata	54.5	83	12	25	25	325	9	1.82	1.81	22		
Catoosa	57.6	83	12	29	25	219	18	2.08	1.90	22	Pawnee	57.3	83	12	24	25	255	24	0.17	0.17	22		
Claremore	56.7	84	12	28	25	238	13	1.60	1.52	22	Pryor	55.7	83	13	28	3	257	6	2.84	2.71	22		
Copan	55.4	84	12	24	25	302	14	*****	*****	***	Skiatook	57.8	82	12	33	25	237	20	0.97	0.97	22		
Foraker	55.5	83	12	27	25	294	10	0.15	0.15	22	Vinita	54.7	82	13	27	3	315	5	1.93	1.91	22		
Jay	55.5	81	13	27	25	229	11	*****	*****	***	Wynona	56.6	83	12	25	25	240	12	0.03	0.03	22		
WEST CENTRAL																							
Bessie	56.1	82	12	27	25	274	8	0.92	0.92	22	Putnam	55.0	81	12	26	25	300	1	0.14	0.14	22		
Butler	54.4	83	12	20	24	322	3	0.03	0.03	22	Retrop	56.0	82	12	27	24	263	3	0.27	0.27	22		
Camargo	52.8	83	12	19	25	367	2	0.00	0.00	1	Watonga	55.5	79	13	29	25	262	4	1.97	1.97	22		
Cheyenne	56.2	81	12	27	24	244	7	0.00	0.00	1	Weatherford	54.7	77	11	30	24	308	0	1.11	1.11	22		
Erick	53.5	83	12	19	24	347	1	0.01	0.01	22													
CENTRAL																							
Acme	57.2	82	10	22	25	225	14	0.03	0.03	22	Minco	55.9	81	13	28	24	277	4	0.03	0.03	22		
Bowlegs	57.2	82	10	26	3	220	10	0.80	0.79	22	Ninnekah	56.7	82	13	23	25	258	9	0.03	0.03	22		
Bristow	56.0	83	12	25	3	279	8	1.50	1.48	22	Norman	56.4	81	10	27	25	235	4	0.00	0.00	1		
Chandler	57.8	82	12	27	25	236	19	0.07	0.06	22	Oilton	56.3	82	12	22	25	256	20	0.08	0.07	22		
Chickasha	55.7	82	10	22	25	285	5	0.04	0.03	22	Okenah	57.3	82	13	28	3	242	12	1.58	1.57	22		
El Reno	54.4	81	13	21	25	292	7	0.06	0.06	22	Perkins	57.2	82	13	26	25	250	16	0.10	0.10	22		
Guthrie	57.2	81	11	25	25	229	19	0.04	0.03	22	Shawnee	57.0	80	12	29	25	250	9	0.24	0.24	22		
Kingfisher	54.5	81	12	23	25	320	5	0.41	0.40	22	Spencer	57.9	81	13	25	25	211	26	0.02	0.02	22		
Marena	57.1	82	11	27	25	226	13	0.03	0.02	22	Stillwater	55.7	82	12	23	25	258	7	0.00	0.00	1		
Marshall	55.5	82	13	23	25	294	9	0.19	0.17	22	Washington	57.4	82	13	30	25	239	11	0.00	0.00	1		
EAST CENTRAL																							
Calvin	57.6	83	10	25	3	234	12	0.74	0.64	22	Preston	59.8	84	13	33	3	195	37	1.74	1.73	22		
Cookson	57.2	81	11	27	3	252	16	1.70	1.27	22	Sallisaw	56.8	83	13	27	3	250	5	1.10	0.54	22		
Eufaula	58.9	83	13	33	3	209	26	1.46	1.18	22	Stigler	57.0	83	13	26	3	249	7	1.61	1.18	22		
Haskell	56.5	83	12	28	3	263	7	1.45	1.44	22	Stuart	58.9	83	12	29	3	208	25	0.94	0.87	22		
Hectorville	58.6	82	12	32	3	219	27	1.91	1.89	22	Tahlequah	56.3	81	11	27	3	266	7	*****	*****	***		
McAlester	58.1	83	13	26	3	229	21	0.93	0.93	22	Webbers Falls	57.3	84	13	28	3	240	10	1.74	1.29	22		
Okmulgee	56.9	84	13	27	3	228	9	1.40	1.39	22	Westville	56.9	80	13	30	3	253	10	1.45	0.50	23		
SOUTHWEST																							
Altus	56.5	82	13	23	25	259	4	0.00	0.00	1	Hollis	55.3	84	18	21	25	289	0	0.00	0.00	1		
Apache	55.9	80	10	28	25	247	1	0.05	0.05	22	Mangum	54.3	82	13	20	25	323	1	0.01	0.01	22		
Fort Cobb	55.9	80	10	26	25	275	2	0.02	0.02	22	Medicine Park	57.7	80	13	34	25	210	13	0.00	0.00	1		
Grandfield	57.6	84	14	27	24	234	13	0.01	0.01	1	Tipton	56.8	83	18	24	25	255	8	0.00	0.00	1		
Hinton	55.2	79	11	26	24	266	3	0.27	0.27	22	Walters	57.4	83	14	27	25	235	7	0.00	0.00	1		
Hobart	55.4	80	13	27	25	259	0	0.28	0.28	22													
SOUTH CENTRAL																							
Ada	58.3	84	14	27	3	224	23	0.97	0.96	22	Madill	59.0	86	14	24	3	204	23	0.41	0.41	22		
Ardmore	59.2	86	14	31	3	196	22	0.28	0.28	22	Pauls Valley	58.1	82	13	29	25	222	14	0.20	0.20	22		
Burneyville	59.0	85	14	27	3	204	25	0.33	0.33	22	Ringling	58.5	85	14	30	25	208	13	0.04	0.04	22		
Byars	59.0	82	14	33	24	180	25	0.91	0.77	22	Sulphur	57.4	83	14	25	3	234	5	0.40	0.39	22		
Centrahama	57.7	87	14	23	3	226	13	0.53	0.53	22	Tishomingo	56.7	86	14	22	3	227	3	0.63	0.63	22		
Durant	59.3	85	14	30	3	196	26	0.97	0.95	22	Vanoss	58.3	83	14	28	25	225	25	0.41	0.39	22		
Ketchum Ranch	58.2	83	14	30	25	219	14	0.00	0.00	1	Waurika	58.9	85	14	29	25	201	19	0.00	0.00	1		
Lane	57.4	85	14	25	3	235	7	1.43	1.40	22													
SOUTHEAST																							
Antlers	56.4	85	14	20	3	266	8	2.29	1.93	22	Idabel	57.0	84	11	25	3	247	8	1.78	1.65	23		
Broken Bow	55.8	85	14	24	3	280	4	2.90	2.77	23	Mt Herman	55.8	83	14	26	3	277	2	0.87	0.51	23		
Clayton	58.0	85	14	24	3	218	16	1.28	0.75	23	Talihina	56.8	86	14	23	3	230	9	1.58	0.84	23		
Cloudy	56.8	84	14	24	3	254	6	1.51	0.81	22	Wilburton	57.4	84	11	23	3	241	13	2.44	2.18	22		
Hugo	59.0	84	14	28	3	203	24	2.68	2.01	22	Wister	54.6	85	14	22	3	316	4	1.32	0.94	23		



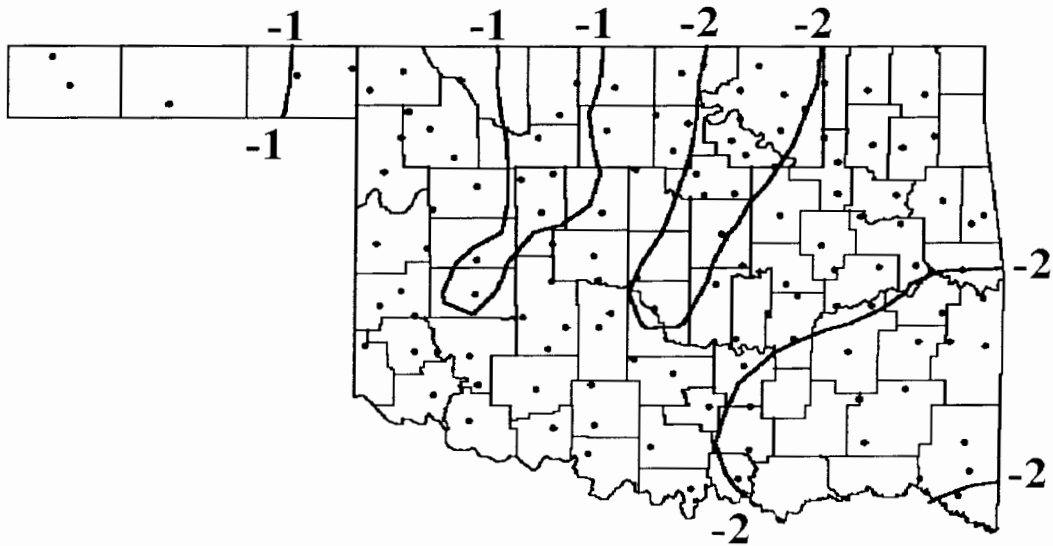
DECEMBER 1999 AVERAGE MONTHLY TEMPERATURE (F)



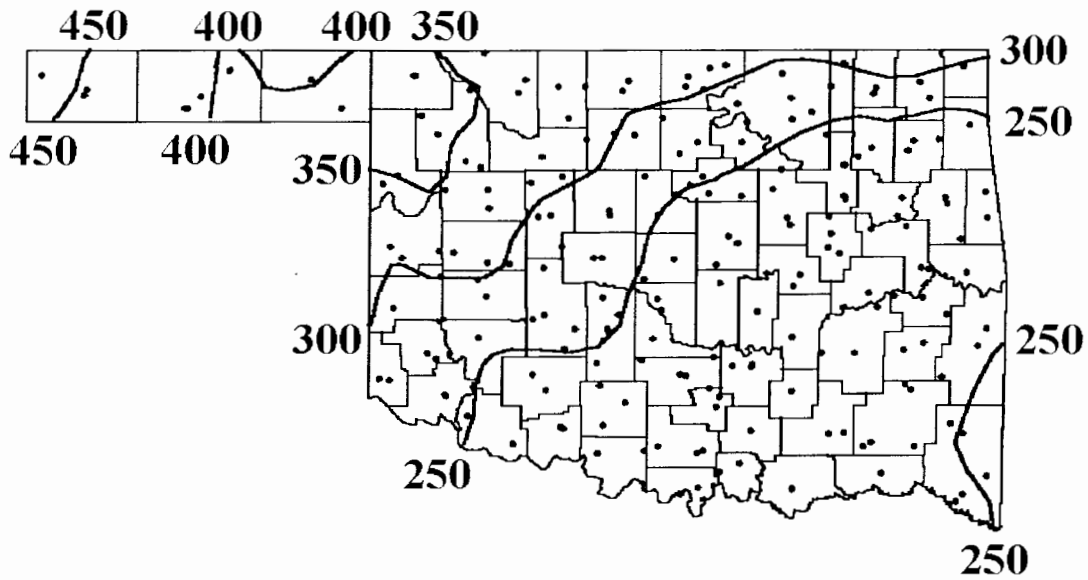
DECEMBER 1999 DEPARTURE FROM NORMAL TEMPERATURE (F)



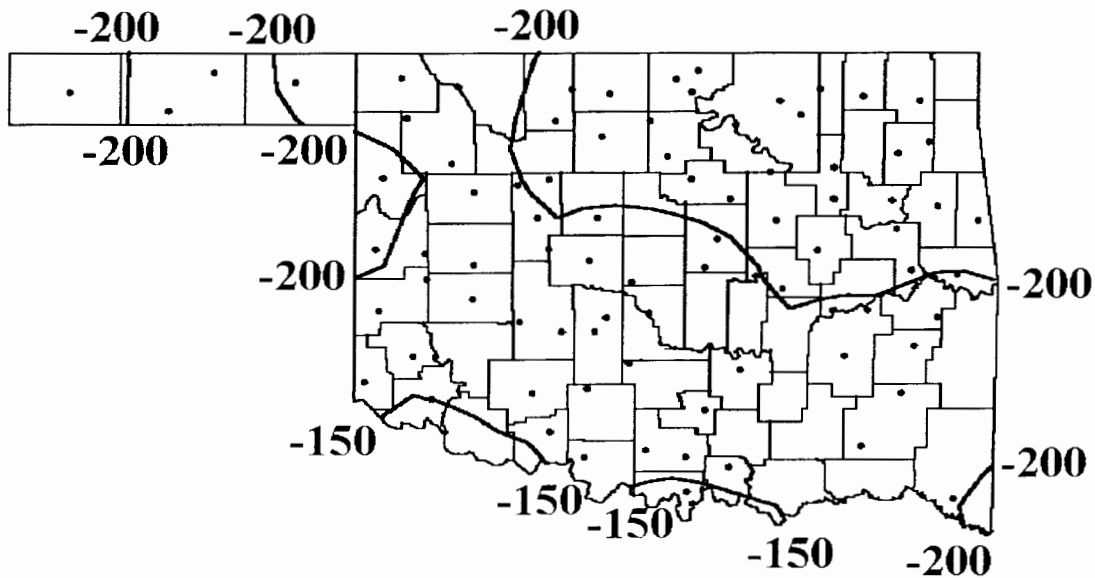
DECEMBER 1999 TOTAL PRECIPITATION (INCHES)



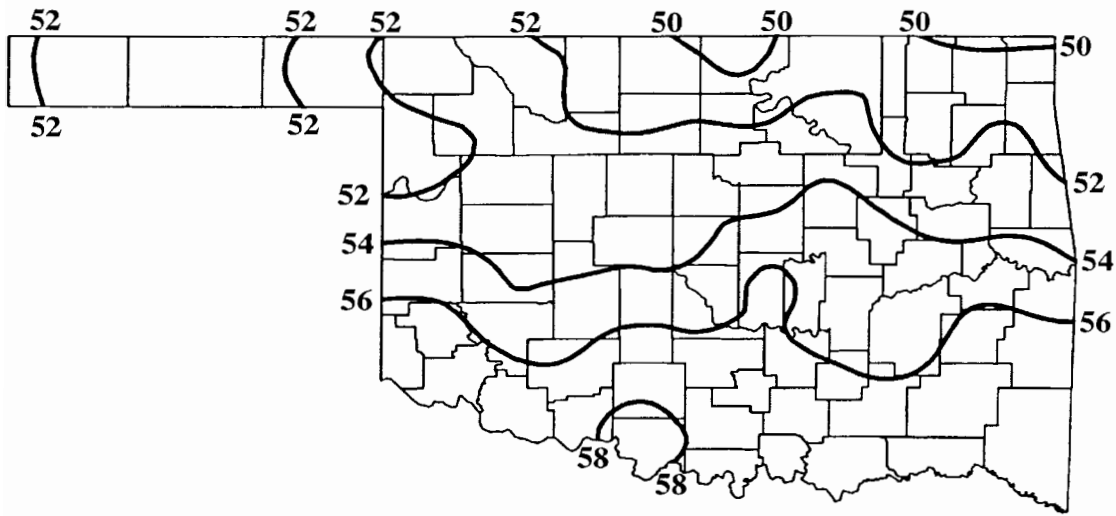
DECEMBER 1999 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



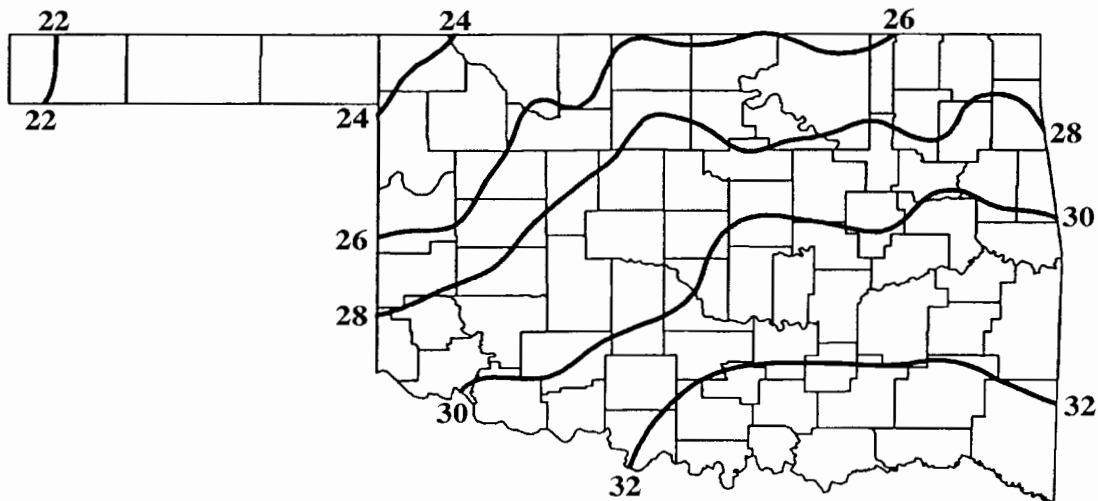
DECEMBER 1999 ACCUMULATED HEATING DEGREE DAYS (F)



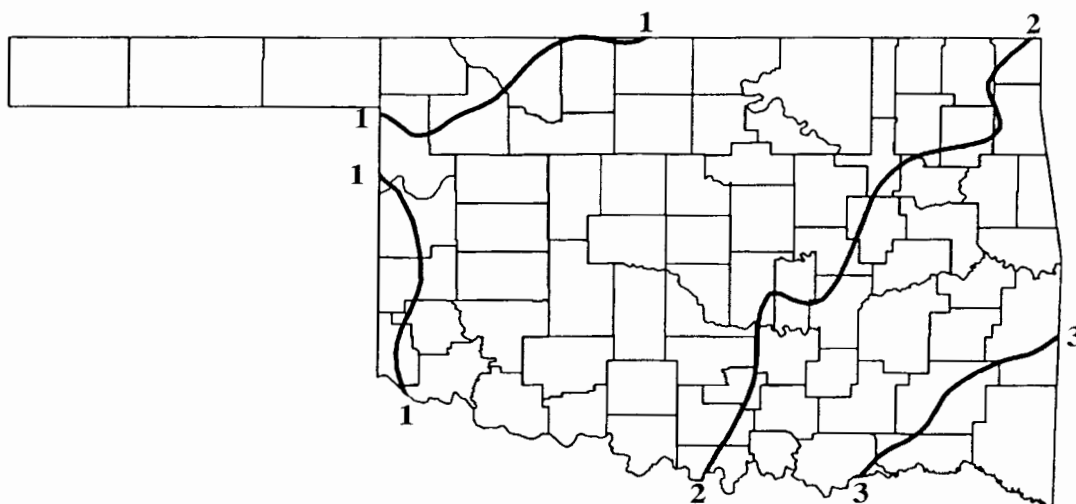
DECEMBER 1999 DEPARTURE FROM NORMAL HEATING DEGREE DAYS (F)



FEBRUARY NORMAL DAILY MAXIMUM TEMPERATURE (°F)



FEBRUARY NORMAL DAILY MINIMUM TEMPERATURES (°F)

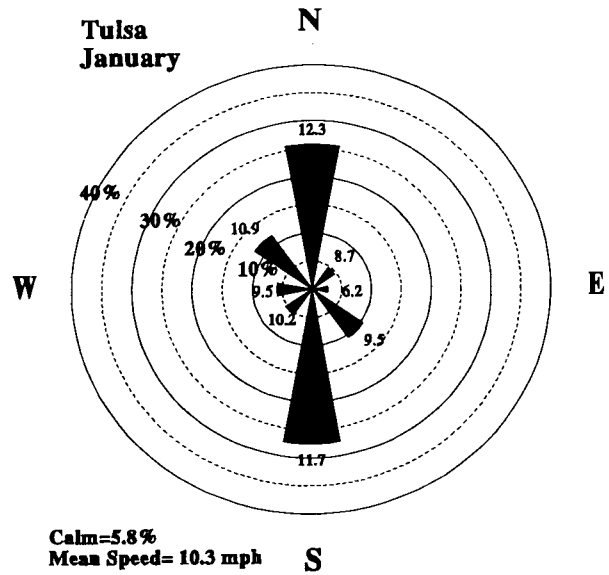
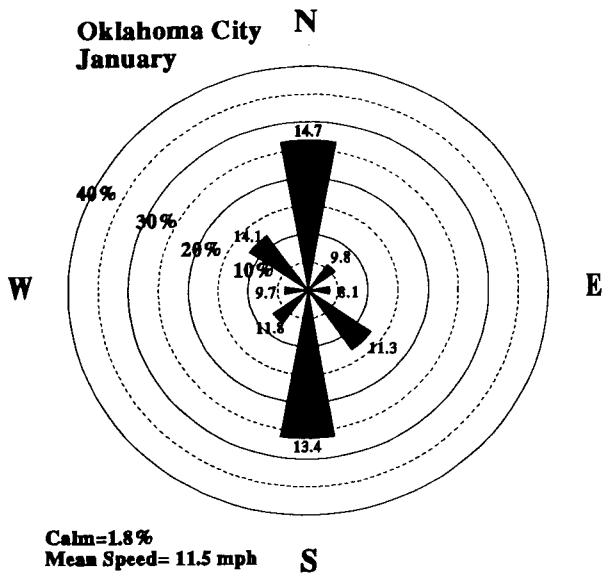


FEBRUARY NORMAL MONTHLY PRECIPITATION (INCHES)

OUTLOOK FOR JANUARY 2000 THROUGH MARCH 2000
BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

TEMPERATURE: ABOVE NORMAL TEMPERATURE STATEWIDE

PRECIPITATION: NEAR NORMAL PRECIPITATION STATEWIDE



January 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.

JANUARY SUNRISE/SUNSET TIMES FOR 2000

ALL TIMES ARE CENTRAL STANDARD TIME

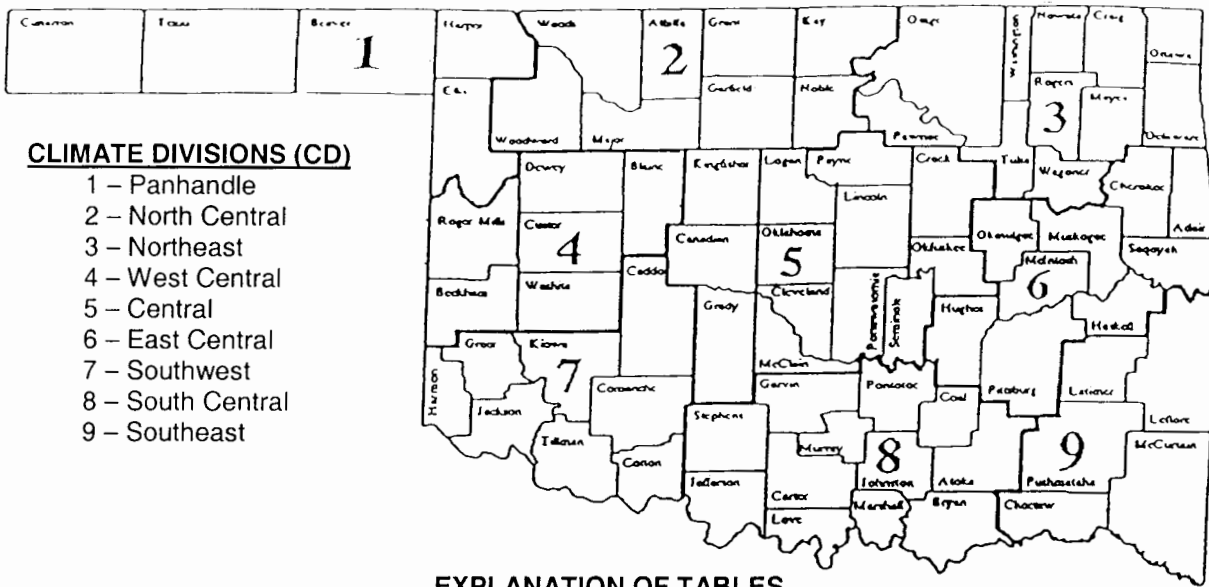
OKLAHOMA CITY

TULSA

<u>DATE</u>	<u>SUNRISE</u>	<u>SUNSET</u>
1/1/00	739	1728
1/2/00	740	1729
1/3/00	740	1729
1/4/00	740	1730
1/5/00	740	1731
1/6/00	740	1732
1/7/00	740	1733
1/8/00	740	1734
1/9/00	740	1735
1/10/00	740	1735
1/11/00	740	1736
1/12/00	740	1737
1/13/00	739	1738
1/14/00	739	1739
1/15/00	739	1740
1/16/00	739	1741
1/17/00	738	1742
1/18/00	738	1743
1/19/00	738	1744
1/20/00	737	1745
1/21/00	737	1746
1/22/00	736	1747
1/23/00	736	1748
1/24/00	735	1749
1/25/00	735	1750
1/26/00	734	1751
1/27/00	734	1752
1/28/00	733	1753
1/29/00	732	1754
1/30/00	732	1755
1/31/00	731	1756

<u>DATE</u>	<u>SUNRISE</u>	<u>SUNSET</u>
1/1/00	735	1720
1/2/00	735	1721
1/3/00	735	1721
1/4/00	735	1722
1/5/00	735	1723
1/6/00	735	1724
1/7/00	735	1725
1/8/00	735	1726
1/9/00	735	1727
1/10/00	735	1727
1/11/00	735	1728
1/12/00	735	1729
1/13/00	735	1730
1/14/00	734	1731
1/15/00	734	1732
1/16/00	734	1733
1/17/00	734	1734
1/18/00	733	1735
1/19/00	733	1736
1/20/00	732	1737
1/21/00	732	1738
1/22/00	731	1739
1/23/00	731	1740
1/24/00	730	1741
1/25/00	730	1743
1/26/00	729	1744
1/27/00	729	1745
1/28/00	728	1746
1/29/00	727	1747
1/30/00	727	1748
1/31/00	726	1749

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 2000 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 than 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 a 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 the 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
 DATA COURTESY OF NATIONAL WEATHER SERVICE NORMAN

MONTH January

The data on this calendar is for Tulsa.
 Normal values are calculated for the period 1961-1990.
 Temperature extremes are for the period 181905-1999.
 Precipitation extremes are for the period 1888-1999.

Day	Avg. Temp	High	Record High	Year	Lowest Max	Year	1999	Avg. Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	35	45	73	1910	13	1974		25	59	1910	0	1928		0.05	0.70	1925	
2	35	45	76	1997	10	1911		25	56	1997	2	1911		0.05	0.90	1951	
3	35	45	75	1997	14	1959		25	58	1997	-2	1919		0.05	1.12	1971	
4	35	45	70	1956	12	1959		25	63	1955	-8	1947		0.05	1.96	1932	
5	35	45	73	1984	16	1940		25	55	1916	-7	1947		0.05	1.28	1929	
6	35	45	69	1907	15	1913		25	53	1907	0	1912		0.05	0.93	1910	
7	35	45	77	1965	15	1968		25	64	1907	-5	1912		0.05	1.05	1935	
8	35	45	71	1923	17	1970		25	51	1939	-5	1988		0.05	1.92	1907	
9	35	45	69	1909	10	1977		25	46	1939	0	1977		0.05	0.94	1930	
10	35	45	75	1911	13	1962		25	48	1916	-5	1977		0.05	1.70	1922	
11	35	45	80	1911	-2	1918		24	52	1911	-6	1977		0.05	1.95	1905	
12	35	45	73	1960	3	1912		24	57	1960	-13	1918		0.05	2.10	1916	
13	35	45	75	1907	11	1916		24	51	1959	-12	1916		0.05	1.50	1927	
14	35	45	75	1952	13	1979		24	51	1953	-4	1916		0.05	0.65	1937	
15	35	45	69	1914	18	1972		24	53	1980	0	1905		0.05	0.76	1949	
16	35	45	78	1938	14	1930		24	55	1935	1	1930		0.04	1.90	1932	
17	35	45	73	1952	10	1930		24	55	1973	-3	1930		0.05	0.50	1926	
18	35	45	72	1951	12	1940		25	53	1923	-14	1930		0.05	0.88	1968	
19	35	45	75	1951	14	1970		25	48	1954	-5	1943		0.05	1.50	1980	
20	35	45	77	1986	15	1984		25	51	1923	-3	1985		0.05	1.63	1904	
21	35	45	75	1957	15	1935		25	57	1957	-1	1918		0.05	2.20	1916	
22	35	45	78	1909	16	1962		25	57	1909	-16	1930		0.05	0.84	1999	
23	35	46	78	1909	12	1963		25	54	1967	-8	1906		0.05	1.42	1953	
24	35	46	79	1950	15	1940		25	51	1919	-4	1906		0.05	0.67	1938	
25	35	46	74	1952	18	1940		25	55	1944	2	1940		0.05	1.89	1989	
26	36	46	71	1911	20	1957		25	55	1944	7	1963		0.05	0.62	1967	
27	36	46	74	1914	21	1948		25	55	1999	1	1963		0.05	1.01	1916	
28	36	46	82	1909	21	1972		26	59	1968	3	1948		0.05	0.69	1989	
29	36	47	76	1947	14	1966		26	50	1988	-2	1949		0.05	1.43	1939	
30	36	47	74	1931	15	1949		26	58	1988	-6	1949		0.05	1.73	1975	
31	36	47	76	1989	7	1918		26	48	1923	-5	1979		0.05	2.13	1983	
MONTH	35.2	45.4	82	1909	-2	1918		24.9	64	1907	-16	1930		1.54	2.20	1916	

*The most tornadoes reported in January for Oklahoma is 0.2.

OKLAHOMA CITY CLIMATE CALENDAR
 DATA COURTESY OF NATIONAL WEATHER SERVICE NORMAN

MONTH January

The data on this calendar is for Oklahoma City.
 Normal values are calculated for the period 1961-1990.
 Temperature extremes are for the period 1891-1999.
 Precipitation extremes are for the period 1891-1999.

Day	Avg. Temp	High	Record High	Year	Lowest Max	Year	1999	Avg.	Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	36	47	74	1910	2	1928		25	51	1966	13	1979		0.04	0.63	1892		
2	36	47	78	1997	-2	1911		25	56	1950	13	1911		0.04	1.01	1951		
3	36	47	78	1997	-9	1911		25	56	1997	10	1919		0.04	1.03	1908		
4	36	47	72	1927	-7	1947		25	60	1955	11	1959		0.04	2.02	1998		
5	36	46	71	1927	-2	1959		25	48	1946	18	1924		0.04	1.00	1962		
6	36	46	68	1921	-2	1912		25	52	1907	14	1909		0.04	1.02	1934		
7	36	46	73	1965	-3	1912		25	61	1907	15	1913		0.04	0.93	1944		
8	36	46	71	1923	-4	1988		25	49	1949	11	1937		0.03	1.45	1939		
9	35	46	70	1902	-2	1977		25	49	1900	9	1977		0.03	0.62	1993		
10	35	46	75	1990	-3	1977		25	45	1898	13	1962		0.03	0.66	1905		
11	35	46	77	1911	-7	1918		25	50	1898	2	1918		0.03	1.10	1916		
12	35	46	73	1935	-7	1912		25	51	1960	6	1912		0.03	0.78	1927		
13	35	46	74	1996	-4	1916		25	51	1952	11	1905		0.03	0.79	1992		
14	35	46	75	1928	-1	1905		25	50	1928	12	1905		0.03	0.46	1898		
15	35	46	77	1914	-2	1905		25	53	1969	14	1930		0.03	0.65	1949		
16	35	46	76	1894	0	1930		25	57	1990	11	1930		0.03	0.70	1990		
17	36	46	73	1894	-9	1930		25	52	1894	8	1930		0.03	1.16	1926		
18	36	46	74	1951	-9	1930		25	48	1895	8	1892		0.03	1.07	1968		
19	36	47	75	1914	-11	1892		25	54	1904	12	1962		0.04	2.76	1894		
20	36	47	80	1986	1	1985		25	53	1921	18	1984		0.04	1.29	1904		
21	36	47	71	1967	-3	1930		25	56	1921	12	1954		0.04	1.40	1932		
22	36	47	79	1967	-8	1930		25	50	1921	16	1962		0.04	0.39	1920		
23	36	47	75	1909	-1	1963		25	51	1967	13	1963		0.04	1.16	1921		
24	36	47	81	1950	-8	1894		25	51	1944	8	1894		0.04	0.37	1949		
25	36	47	77	1952	-3	1894		25	58	1944	15	1905		0.04	1.26	1949		
26	36	47	72	1953	0	1902		26	54	1911	12	1897		0.04	1.25	1916		
27	37	48	72	1914	3	1963		26	56	1914	17	1961		0.04	0.62	1985		
28	37	48	78	1893	5	1948		26	60	1968	21	1948		0.04	0.44	1989		
29	37	48	76	1911	-1	1895		26	51	1982	13	1966		0.04	1.84	1982		
30	37	48	74	1917	-1	1895		26	55	1988	16	1949		0.04	1.34	1982		
31	37	48	83	1911	-1	1979		26	52	1911	6	1918		0.04	1.98	1923		
MONTH	35.9	46.7	83	1911	-11	1892		25.2	61	1907	2	1918		1.13	2.76	1894		

*The most tornadoes reported in January for Oklahoma was (4) in 1957 and 1967