

OKLAHOMA MONTHLY SUMMARY REVISED JANUARY 1999

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MONTHLY SUMMARY FOR JANUARY 1999

January was warmer than normal with greater than average precipitation. The statewide-averaged temperature of 39.6 degrees, 3.2 degrees greater than normal, is the 37th highest January temperature in Oklahoma since record-keeping began in 1892. The mild January was the 9th consecutive month, dating back to May 1998, that the statewide temperature has been greater than normal. Precipitation was noted primarily very early and very late in the month, but the totals were nonetheless sufficient to provide the state with greater-than-average precipitation for the 4th consecutive month. The statewide-averaged monthly total was 2.17 inches, 0.91 inch greater than normal, ranking this January as the 20th wettest of the 108 on record.

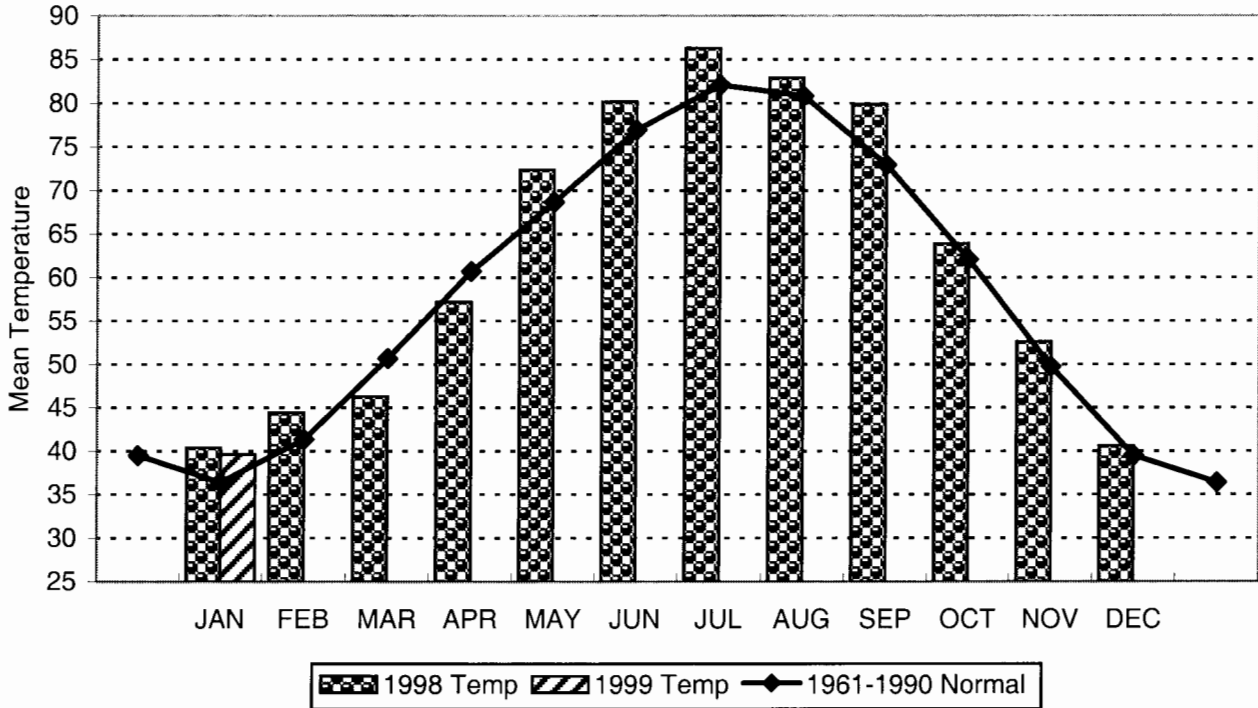
Several stations in McCurtain County reported over an inch of rainfall that fell on the 1st, including the Broken Bow Mesonet site (1.56 inches), Idabel (1.42 inches), Carnasaw Tower (1.28 inches), Carter Tower (1.20 inches), and Smithville (1.00 inch). Heavy thunderstorms brought large hail to parts of LeFlore, Latimer, Pushmataha, Choctaw, and Haskell counties on the 21st, including 1.75-inch-diameter hail reported at Wister (LeFlore County). Only Poteau (LeFlore) reported as much as an inch of rain. Dustin (Hughes) reported 1.55 inches of precipitation on the 23rd (some of it coming from the 2 inches of snow that fell), accompanied by 1.40 inches at Meeker (Lincoln) and 1.37 inches at Dewar (Okmulgee). Tulsa recorded a total of 3 inches of snow over the 22nd and 23rd.

A significant storm moved through state from the 28th through the 30th with most of the precipitation, in the form of rain and snow, occurring across northern Oklahoma. Four-or-more-inch snowfalls were reported in the western Panhandle, including 13 inches at Boise City (Cimarron), 12 inches at Regnier (Cimarron), and 10 inches at Hooker (Texas). Local flooding was reported in Kay County where Newkirk reported a total of 4.17 inches of precipitation over three days. Ponca City (Kay) received 3.47 inches of precipitation on the 31st, its greatest one-day precipitation total in January, at least since 1948. Newkirk's 3.15-inch report on the 31st was the greatest January daily precipitation total in that station's available record, dating back to 1900.

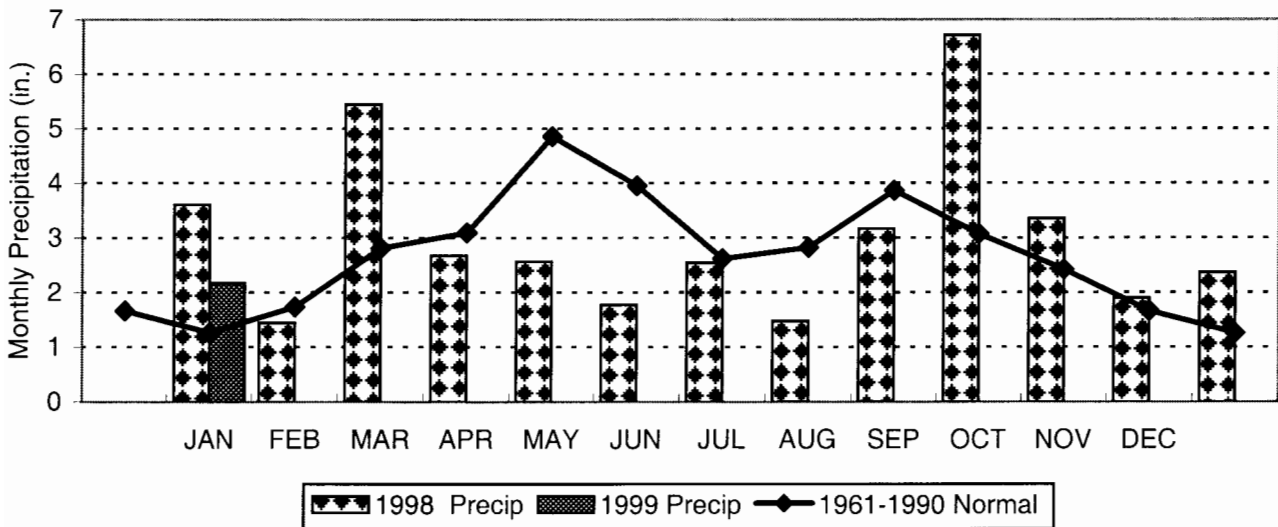
The month's lowest temperatures were recorded early in the month. Single-digit daily minimum temperatures were observed at many locations from the 2nd through the 9th. Fort Supply Dam (Woodward) recorded a minimum temperature of one degree below zero on the morning of the 3rd. Daily maximum temperatures climbed into the low 80s at a few locations in the southwest on the 20th and again on the 24th. Elk City (Beckham) reported a daily maximum of 82 degrees for the reporting period that included the afternoon of the 24th.

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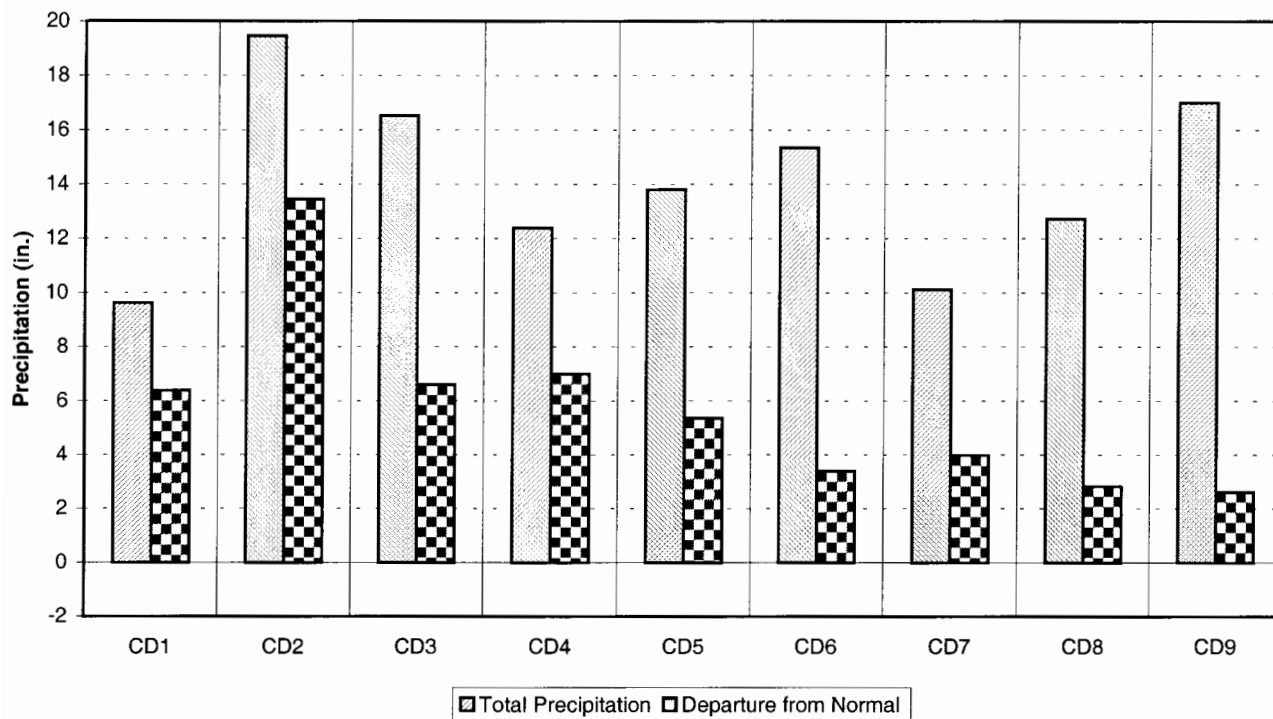
1998 and 1999 STATEWIDE TEMPERATURES Monthly Averages



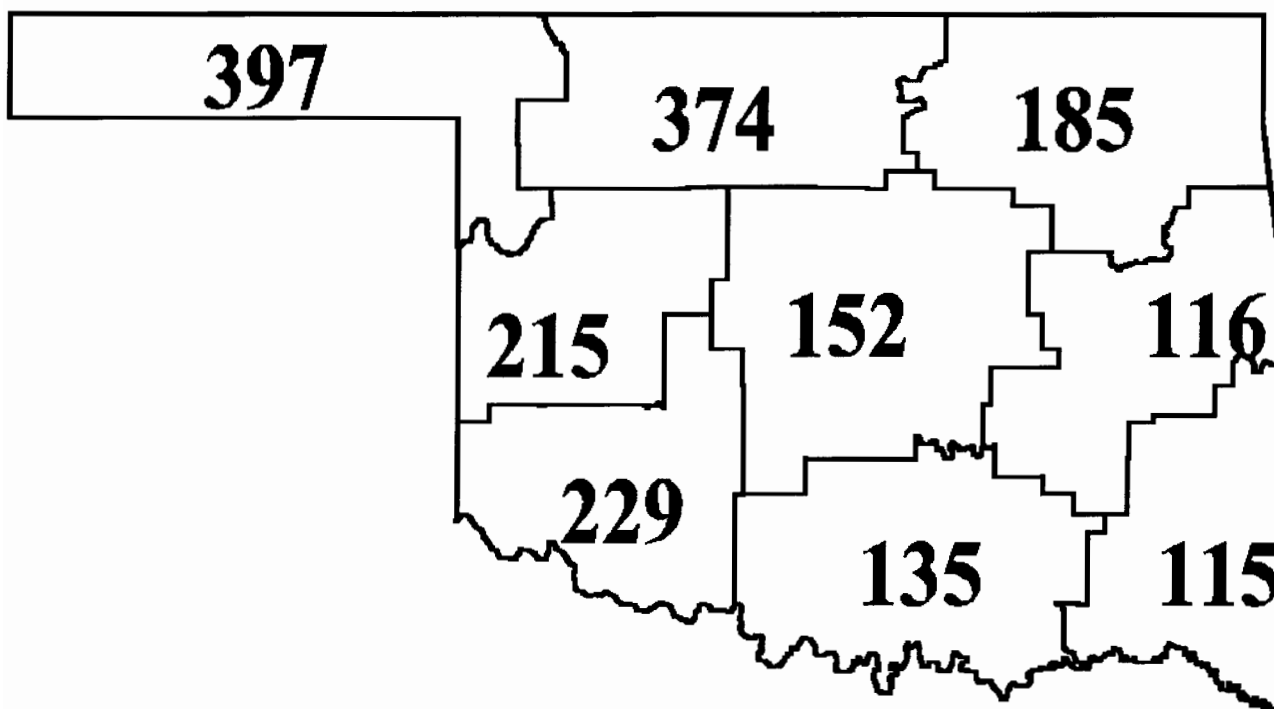
1998 and 1999 STATEWIDE PRECIPITATION Monthly Totals



CD Averaged Precipitation October 1998 through January 1999



CD PERCENT OF NORMAL PRECIPITATION January 1999



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

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	76	15	KENTON	3	4	GAGE	1.50	28	RANGE	2.72	GATE
2	74	21	WAYNOKA	-1	3	FT SUPPLY	3.47	31	PONCA CITY	4.84	PONCA CITY
3	76	21	UPPER SPAV	5	4	BARNSDALL	2.92	30	BURBANK	3.82	BURBANK
				5	4	KANSAS					
				5	4	MANNFORD					
				5	4	NOWATA					
				5	4	SPAVINAW					
4	82	25	ELK CITY	7	3	TALOGA	2.20	30	REYDON	2.56	WATONGA
5	75	25	PURCELL	5	4	GUTHRIE	2.15	30	COX CITY	2.95	COX CITY
6	74	21	MCCURTAIN	3	4	TAHLEQUAH	1.55	23	DUSTIN	3.25	DUSTIN
7	81	20	ALTUS	6	4	WICHITA MT	2.50	30	RANDLETT	2.99	RANDLETT
8	79	20	MARIETTA	6	4	CHICKASAW	2.42	30	MARLOW	3.21	MARLOW
9	75	22	IDABEL	3	4	PAGE	1.67	29	CARNASAW	4.48	CARNASAW
				3	5	PAGE					

TABLE OF 1998/1999 COMPARISONS

**JANUARY
Temperature (°F)**

**JANUARY
Precipitation (in.)**

Station	1998	1999	1998	1999
Arnett	36.3	36.1	1.14	1.83
Enid	37.1	34.7	0.89	3.25
Tulsa	39.9	39.0	3.48	3.02
Elk City	39.2	38.0	1.90	1.42
Oklahoma City	40.7	40.5	4.10	1.82
McAlester	43.2	43.2	3.95	0.96
Altus Irr Station	41.3	40.5	1.07	1.84
Ardmore	44.2	42.9	6.13	1.99
Idabel	46.6	43.3	8.55	3.65

EXTREMES

VARIABLE	STATION	DIVISON	OBSERVATION	DATE
Minimum temperature (°F)	Ft. Supply	2	-1	3
Maximum temperature (°F)	Elk City	4	82	25
Maximum 24-hour Precipitation	Ponca City	2	3.47"	31

JANUARY 1999 SUMMARY FOR PANHANDLE DIVISION (CD1)

NAME	ID	CD	MEAN		DEV		MIN	DAY	HEAT	DEV	COOL	DEV	TOT	NUM	DEV		DAY	
			TEMP	OBS	FROM	MAX									FROM	MAX		FROM
ARNETT	332	1	36.1	31	3.6	71	21	8	10	896	-112	0	0	1.832	31	1.37	0.95	29
BEAVER	593	1	34.8	31	3.2	74	16	5	4	938	-98	0	0	1.600	31	1.20	0.80	30
BOISE CITY	908	1	39.3	31	5.1	74	24	9	4	798	-157	0	0	1.304	31	1.00	0.60	28
BUFFALO	1243	1	40.0	30	5.4	74	15	6	4	751	-191	0	0	0.900	30	****	0.40	30
FARGO	3070	1	****	0	****	****	0	****	0	****	****	****	****	2.052	31	1.58	1.08	29
GAGE	3407	1	36.7	30	2.4	71	20	3	4	850	-102	0	0	1.555	30	****	0.99	30
GATE	3489	1	35.5	31	3.1	75	16	7	3	913	-98	0	0	2.725	31	2.17	1.47	29
GOODWELL	3628	1	38.4	29	****	75	17	7	4	773	****	0	****	0.600	29	****	0.60	28
GUYMON	3835	1	36.9	30	****	74	16	6	4	842	****	0	****	0.001	31	****	0.00	22
HOOKER	4298	1	38.3	31	5.4	72	11	8	3	827	-168	0	0	1.803	31	1.41	0.86	29
KENTON	4766	1	39.0	30	6.6	76	15	10	9	780	-232	0	0	0.791	31	0.51	0.39	30
LAVERNE	5045	1	****	0	****	****	0	****	0	****	****	****	****	2.212	31	1.68	1.04	30
RANGE	7412	1	****	0	****	****	0	****	0	****	****	****	****	1.902	31	****	1.50	28
REGNIER	7534	1	****	0	****	****	0	****	0	****	****	****	****	0.873	31	0.57	0.41	30
TURPIN	9017	1	35.2	30	****	74	16	7	9	894	****	0	****	0.950	30	****	0.50	30

JANUARY 1999 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	MEAN		DEV		MIN	DAY	HEAT	DEV	COOL	DEV	TOT	NUM	DEV		DAY	
			TEMP	OBS	FROM	MAX									FROM	MAX		FROM
ALVA	193	2	34.9	31	****	67	12	7	4	934	****	0	****	2.510	31	****	1.28	30
VANCE AFB	302	2	****	0	****	****	0	****	0	****	****	****	****	2.303	28	****	1.60	30
BILLINGS	755	2	35.6	31	2.8	66	27	7	3	912	-87	0	0	3.922	31	2.92	1.55	31
BLACKWELL 2E	818	2	35.0	31	2.1	66	27	7	4	930	-65	0	0	3.622	31	2.68	2.46	31
BRAMAN	1075	2	****	0	****	****	0	****	0	****	****	****	****	3.421	31	****	3.30	31
CEDARDALE	1620	2	****	0	****	****	0	****	0	****	****	****	****	1.593	31	****	0.80	30
CHEROKEE	1724	2	34.3	30	-0.2	64	28	7	4	920	-27	0	0	2.691	30	****	1.10	30
ENID	2912	2	34.7	30	-0.4	66	27	7	5	909	-18	0	0	3.250	30	****	2.00	30
FT SUPPLY	3304	2	35.7	31	3.5	73	14	-1	3	908	-110	0	0	2.044	31	1.59	1.06	29
FREEDOM	3358	2	34.7	30	0.7	70	19	6	2	910	-52	0	0	2.171	30	****	1.13	28
GREAT SALT P	3740	2	35.0	31	3	66	12	7	4	930	-93	0	0	2.746	31	2.06	1.43	30
HARDY	3909	2	****	0	****	****	0	****	0	****	****	****	****	2.763	31	****	1.92	31
HELENA	4019	2	34.9	31	3.1	67	21	7	4	934	-95	0	0	2.492	31	1.72	1.71	30
JEFFERSON	4573	2	37.5	31	3.4	65	26	7	4	851	-107	0	0	2.502	31	1.65	1.25	30
LAMONT	5013	2	****	0	****	****	0	****	0	****	****	****	****	2.720	31	****	2.16	31
MEDFORD	5768	2	****	0	****	****	0	****	0	****	****	****	****	3.523	31	****	1.84	30
MORRISON	6065	2	****	0	****	****	0	****	0	****	****	****	****	1.830	31	****	1.05	31
MUTUAL	6139	2	36.0	31	3.5	73	21	1	4	900	-108	0	0	1.871	31	1.27	0.97	30
NEWKIRK	6278	2	33.8	31	0.6	66	27	5	4	968	-18	0	0	4.374	31	3.50	3.15	31
ORIENTA	6751	2	****	0	****	****	0	****	0	****	****	****	****	1.540	31	0.83	1.30	30
PERRY	7012	2	38.3	30	2.5	68	27	8	4	803	-106	0	0	2.933	31	1.99	1.20	30
PONCA CITY	7201	2	38.3	31	5.9	68	26	10	3	827	-185	0	0	4.836	31	3.81	3.47	31
RED ROCK	7505	2	****	0	****	****	0	****	0	****	****	****	****	3.905	31	3.01	2.03	30
WAYNOKA	9404	2	35.3	25	****	74	21	7	5	744	****	0	****	0.132	25	****	0.10	21
WOODWARD	9760	2	****	0	****	****	0	****	0	****	****	****	****	2.266	31	1.73	1.08	29

JANUARY 1999 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	DEV							HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY							FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	37.8	31	3.2	70	21	5	4	844	-98	0	0	3.402	31	2.01	1.73	31
BARTLESVILLE	548	3	37.8	31	3.1	69	21	6	4	842	-97	0	0	2.726	31	1.46	1.05	31
BIXBY	782	3	38.3	29	****	71	22	8	4	775	****	0	****	1.470	29	****	1.47	31
BURBANK	1256	3	****	0	****	****	0	****	0	****	****	****	****	3.822	31	2.68	2.92	30
CHELSEA	1717	3	****	0	****	****	0	****	0	****	****	****	****	2.870	31	****	0.73	31
CLAREMORE	1828	3	36.7	31	3.6	71	22	7	5	877	-113	0	0	2.810	31	1.21	1.10	31
CLEVELAND 2	1902	3	38.0	31	****	67	21	7	9	838	****	0	****	0.373	31	****	0.37	1
FORAKER	3250	3	****	0	****	****	0	****	0	****	****	****	****	2.151	31	1.13	1.54	31
HOLLOW	4258	3	****	0	****	****	0	****	0	****	****	****	****	2.014	31	0.53	0.52	31
HOMINY	4289	3	****	0	****	****	0	****	0	****	****	****	****	2.362	31	1.11	1.08	31
KANSAS	4672	3	40.4	28	****	71	20	5	4	688	****	0	****	1.673	31	-0.49	0.60	31
LENAPAH	5118	3	****	0	****	****	0	****	0	****	****	****	****	2.390	31	****	0.86	31
MANNFORD	5522	3	40.1	31	4.6	71	21	5	4	771	-145	0	0	2.401	31	1.08	1.22	31
MARAMEC	5540	3	****	0	****	****	0	****	0	****	****	****	****	3.150	31	1.88	1.49	31
NOWATA	6485	3	39.5	31	5	72	21	5	4	790	-156	0	0	2.940	31	1.35	0.89	31
PAWHUSKA	6935	3	38.3	31	4.2	70	20	6	4	829	-130	0	0	3.430	31	2.15	1.88	31
PAWNEE	6940	3	****	0	****	****	0	****	0	****	****	****	****	3.212	31	1.99	1.52	31
PRYOR	7309	3	37.2	31	4.2	71	21	7	4	861	-132	0	0	2.677	31	0.93	0.93	31
RALSTON	7390	3	38.5	30	3.8	68	26	8	4	795	-145	0	0	2.672	31	1.52	1.75	30
SKIATOOK	8258	3	****	0	****	****	0	****	0	****	****	****	****	2.810	31	1.44	1.35	31
SPAVINAW	8380	3	41.7	31	5.2	71	20	5	4	723	-162	0	0	2.302	31	0.60	0.73	31
TULSA	8992	3	39.0	31	3.8	71	21	9	4	806	-118	0	0	3.015	31	1.48	1.46	30
UPPER SPAV	9101	3	41.5	29	****	76	21	9	4	685	****	3	****	2.453	29	****	1.21	31
VINITA	9203	3	37.8	28	****	66	27	5	4	763	****	0	****	2.802	28	****	0.85	2
WAGONER	9247	3	41.9	31	5.1	71	20	8	4	716	-159	0	0	2.200	31	0.24	1.42	31
WANN	9298	3	****	0	****	****	0	****	0	****	****	****	****	2.184	31	****	0.79	31
WYNONA	9792	3	****	0	****	****	0	****	0	****	****	****	****	3.396	31	****	2.12	31

JANUARY 1999 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	DEV							HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY							FROM NORM	MAX 24-HR	DAY
CANTON DAM	1445	4	36.4	31	3.2	68	21	8	4	887	-99	0	0	1.842	31	1.22	1.38	30
CLINTON	1909	4	39.0	31	2.4	70	19	10	4	807	-74	0	0	1.670	31	0.73	1.03	30
COLONY	2039	4	****	0	****	****	0	****	0	****	****	****	****	1.931	31	****	1.38	30
CORDELL	2125	4	38.2	31	1.6	71	20	12	4	831	-49	0	0	1.422	31	0.51	0.58	30
ELK CITY	2849	4	38.0	31	1.8	82	25	12	10	836	-58	0	0	1.402	31	0.71	0.54	29
ERICK	2944	4	38.9	31	2.3	78	25	11	10	810	-71	0	0	1.723	31	1.19	0.73	29
GEARY	3497	4	44.1	31	8.5	69	24	22	2	648	-263	0	0	1.810	31	1.05	1.74	30
HAMMON	3871	4	37.0	31	3.5	76	21	8	4	868	-109	0	0	2.400	31	1.72	1.26	29
LEEDEY	5090	4	****	0	****	****	0	****	0	****	****	****	****	0.630	31	0.14	0.63	21
MACKIE	5463	4	****	0	****	****	0	****	0	****	****	****	****	1.520	31	****	0.94	29
MORAVIA	6035	4	****	0	****	****	0	****	0	****	****	****	****	0.642	31	-0.07	0.50	21
OKEENE	6629	4	39.6	31	3.4	68	26	9	3	789	-105	0	0	1.921	31	1.15	1.09	29
RETROP	7565	4	****	0	****	****	0	****	0	****	****	****	****	0.820	31	****	0.48	30
REYDON	7579	4	37.7	25	****	78	25	8	9	684	****	0	****	2.200	26	****	2.20	30
SAYRE	7952	4	****	0	****	****	0	****	0	****	****	****	****	1.260	31	0.79	0.63	29
SWEETWATER	8652	4	****	0	****	****	0	****	0	****	****	****	****	1.062	31	****	0.70	29
TALOGA	8708	4	33.9	31	-0.9	70	20	7	3	965	29	0	0	1.461	31	0.76	0.84	30
THOMAS	8815	4	****	0	****	****	0	****	0	****	****	****	****	2.090	31	****	1.30	30
VICI	9172	4	****	0	****	****	0	****	0	****	****	****	****	1.990	31	1.26	1.06	29
WATONGA	9364	4	39.8	30	4.4	68	19	9	3	757	-162	0	0	2.562	31	1.61	1.79	30
WEATHERFORD	9422	4	38.3	31	4	69	19	12	3	827	-126	0	0	2.041	31	1.22	1.40	29

JANUARY 1999 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	*****	*****	*****	*****	2.070	31	****	1.72	30
ARCADIA	288	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.003	31	****	0.80	30
BLANCHARD	830	5	42.9	31	4.6	72	24	11	4	685	-143	0	0	1.932	31	0.82	1.75	30
BRISTOW	1144	5	41.9	31	5.1	71	22	10	4	716	-158	0	0	2.520	31	1.14	1.14	30
CHANDLER	1684	5	39.8	28	****	72	21	7	4	705	*****	0	*****	0.991	29	****	0.89	30
CHICKASHA EXP	1750	5	42.5	31	5.2	74	24	8	4	697	-163	0	0	2.002	31	0.97	1.60	30
COX CITY	2196	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.950	31	****	2.15	30
CRESCENT	2242	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.500	31	****	1.26	30
CUSHING	2318	5	38.4	31	4.2	70	22	9	4	824	-131	0	0	1.990	31	0.86	1.64	30
EDMOND	2788	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.191	31	****	1.00	29
EL RENO	2818	5	38.5	31	2.8	69	27	12	4	821	-87	0	0	1.870	31	0.87	1.60	30
GUTHRIE	3821	5	38.8	31	2.5	71	27	5	4	813	-78	0	0	0.503	31	-0.65	0.50	23
HENNESSEY	4055	5	37.8	31	2.7	66	26	8	3	843	-85	0	0	1.730	31	0.87	1.38	30
INGALLS	4489	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.110	31	****	1.29	30
KINGFISHER	4861	5	37.3	31	1.3	70	27	9	3	858	-41	0	0	1.911	31	0.91	1.45	30
KONAWA	4915	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.550	31	0.04	0.88	30
MARSHALL	5589	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.120	31	0.24	0.91	30
MEEKER	5779	5	37.3	31	0.6	71	25	7	4	860	-18	0	0	2.731	31	1.69	1.40	23
MULHALL	6110	5	****	0	****	****	0	****	0	*****	*****	*****	*****	0.950	31	****	0.77	30
OKEMAH	6638	5	44.1	31	6.6	69	26	14	3	647	-206	0	0	2.571	31	1.12	1.55	30
OKLAHOMA CTY	6659	5	****	0	****	****	0	****	0	*****	*****	*****	*****	0.133	31	****	0.10	31
OKLAHOMA CTY	6661	5	40.5	31	4.6	71	26	11	4	761	-142	0	0	1.816	31	0.69	1.50	29
PERKINS	7003	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.590	31	0.42	1.12	30
PIEDMONT	7068	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.090	31	****	1.35	30
PRAGUE	7264	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.650	31	0.22	0.92	30
PURCELL	7327	5	39.9	31	2.5	75	25	6	4	780	-77	0	0	2.250	31	0.91	1.00	30
SEMINOLE	8042	5	39.1	31	0.3	69	26	10	3	802	-11	0	0	1.682	31	0.20	1.00	29
SHAWNEE	8110	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.682	31	0.31	1.17	30
STELLA	8479	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.162	31	****	1.38	30
STILLWATER	8501	5	40.3	27	****	69	27	13	10	668	*****	0	*****	1.584	31	0.43	0.94	31
STROUD	8563	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.011	31	****	1.24	30
TECUMSEH	8751	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.390	31	****	1.08	29
TROUSDALE	8960	5	39.9	31	****	73	21	7	4	778	*****	0	*****	1.720	31	****	1.24	30
UNION CITY	9086	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.074	31	0.71	1.83	30
WELTY	9479	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.761	31	****	1.16	30
WEWOKA	9575	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.671	31	0.22	0.96	30

JANUARY 1999 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	*****	*****	*****	*****	2.302	31	****	1.23	30
BEGGS	631	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.160	31	****	0.95	30
CALVIN	1391	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.410	31	0.81	1.39	30
CHECOTAH	1711	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.520	31	-0.11	0.69	31
CLAYTON	1858	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.790	31	****	0.57	30
DEWAR	2485	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.783	31	1.20	1.37	23
DUSTIN	2690	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.250	31	****	1.55	23
EUFAULA	2993	6	42.7	29	****	71	19	14	3	648	*****	0	*****	1.920	30	****	0.60	30
HANNA	3884	6	42.2	31	4.2	72	19	8	4	708	-130	0	0	1.802	31	0.07	0.61	23
HASKELL	3956	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.390	31	-0.47	0.87	23
HOLDENVILLE	4235	6	40.6	31	2.3	71	20	12	4	756	-72	0	0	1.810	31	0.40	0.80	29
LAKE EUFAULA	4975	6	39.6	31	****	70	22	11	4	786	*****	0	*****	2.121	31	****	0.66	31
LYONS	5437	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.061	31	0.27	0.99	31
MARBLE CITY	5546	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.690	31	****	0.70	31
MCALESTER	5664	6	43.2	31	5.6	72	21	8	4	675	-174	0	0	0.963	31	-1.03	0.25	29
MCCURTAIN	5693	6	43.9	31	4.6	74	21	10	4	656	-141	3	3	2.131	31	-0.03	0.61	30
MUSKOGEE	6130	6	41.3	31	4	72	21	10	4	735	-124	0	0	2.032	31	0.23	1.21	30
OKMULGEE	6670	6	40.2	31	5.4	71	27	9	5	769	-168	0	0	2.732	31	1.10	1.20	30
OKTAHA	6678	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.130	31	****	1.19	31
SALLISAW	7862	6	41.1	31	3.2	71	22	10	4	741	-100	0	0	1.241	31	-0.76	1.04	30
SCIPIO	7979	6	****	0	****	****	0	****	0	*****	*****	*****	*****	1.800	31	****	0.60	23
SHORT	8170	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.580	31	****	0.73	2
STILWELL	8506	6	38.6	31	2.2	70	21	5	4	818	-69	0	0	2.271	31	0.19	0.81	30
TAHLEQUAH	8677	6	41.6	31	5.3	71	21	3	4	726	-165	0	0	2.313	31	0.30	1.00	31
WEBBERS FALL	9445	6	39.8	31	4.5	73	22	9	4	782	-140	0	0	2.350	31	0.54	1.07	31
WESTVILLE	9523	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.480	31	****	0.86	31
WETUMKA	9571	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.935	31	1.44	1.54	30

JANUARY 1999 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN		DEV		MIN	DAY	HEAT		DEV		COOL		DEV		TOT	NUM	DEV	
			TEMP	NUM	FROM	MAX			DEG	FROM	DEG	FROM	DEG	FROM	DEG	FROM			MAX	DAY
ALTUS	179	7	40.5	30	1	81	20	11	4	734	-57	0	0	1.840	31	1.00	0.86	29		
ALTUS DAM	184	7	40.5	31	4.1	78	21	14	4	758	-129	0	0	2.050	31	1.28	1.26	30		
ANADARKO	224	7	36.9	30	0.5	71	25	7	4	842	-45	0	0	1.840	30	*****	1.55	30		
APACHE	260	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.860	31	1.76	2.40	30		
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.283	28	*****	0.49	30		
CARNEGIE	1504	7	39.3	29	*****	71	24	10	3	747	*****	0	*****	1.710	29	*****	1.25	29		
CHATTANOOGA	1706	7	40.2	31	1.5	77	21	11	4	770	-45	0	0	2.661	31	1.70	1.83	30		
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.312	31	*****	2.04	30		
FREDERICK	3353	7	44.0	26	*****	78	20	16	9	547	*****	0	*****	2.630	26	*****	1.62	29		
HEADRICK	3998	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.510	31	*****	1.51	30		
HOBART	4204	7	39.6	30	2.6	73	19	11	4	762	-106	0	0	1.612	30	*****	1.28	30		
HOLLIS	4249	7	42.1	31	3.6	80	24	12	9	711	-112	0	0	1.610	31	1.02	0.95	30		
LAWTON	5063	7	40.6	31	3.8	73	27	13	4	756	-119	0	0	2.331	31	1.27	1.51	30		
LOOKEBA	5329	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.912	31	0.93	1.70	30		
MANGUM	5509	7	39.6	31	1.4	79	21	10	4	789	-43	0	0	0.910	31	0.16	0.81	30		
RANDLETT	7403	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.992	31	*****	2.50	30		
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.040	31	1.18	0.80	30		
SEDAN	8016	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.940	31	*****	1.23	30		
SNYDER	8299	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.391	31	1.49	1.67	30		
VINSON	9212	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.730	31	1.25	0.85	30		
WALTERS	9278	7	38.2	24	*****	70	20	11	4	643	*****	0	*****	2.500	24	*****	2.25	30		
WICHITA MT	9629	7	40.3	31	4.7	72	21	6	4	766	-146	0	0	2.360	31	1.18	1.54	30		
WILLOW	9668	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.340	31	*****	0.80	29		

JANUARY 1999 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

NAME	ID	CD	MEAN		DEV		MIN	DAY	HEAT		DEV		COOL		DEV		TOT	NUM	DEV	
			TEMP	NUM	FROM	MAX			DEG	FROM	DEG	FROM	DEG	FROM	DEG	FROM			MAX	DAY
ADA	17	8	41.6	31	2.6	72	21	10	5	726	-81	0	0	2.371	31	0.91	0.87	30		
ALLEN	147	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.390	31	*****	1.40	30		
ARDMORE	292	8	42.9	30	1.2	76	25	16	4	664	-58	0	0	1.993	30	*****	0.85	29		
ATOKA DAM	394	8	45.3	19	*****	75	22	12	4	374	*****	0	*****	0.640	19	*****	0.28	4		
BOKCHITO	917	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.700	31	*****	1.70	30		
CANEY	1437	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.810	31	*****	0.85	30		
CENTRAHOMA	1648	8	41.4	31	*****	74	20	11	5	731	*****	0	*****	2.000	31	*****	1.10	30		
CHICKASAW	1745	8	40.9	29	*****	74	21	6	4	698	*****	0	*****	1.860	29	*****	0.66	29		
COMANCHE	2054	8	43.4	31	*****	72	26	14	4	671	*****	0	*****	2.611	31	1.38	1.00	30		
DAISY	2354	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.031	31	-0.29	1.09	30		
DUNCAN	2660	8	40.6	31	3.1	73	27	12	4	757	-97	0	0	2.481	31	1.29	2.00	30		
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.420	31	*****	0.64	30		
GRADY	3688	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.840	31	*****	1.13	30		
HEALDTON	4001	8	41.7	30	2.3	75	22	11	4	701	-94	0	0	1.440	30	*****	0.79	31		
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.600	31	*****	0.85	30		
KETCHUM RAN	4780	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.100	31	*****	1.00	29		
KINGSTON	4865	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.030	31	1.08	1.78	30		
LEHIGH	5108	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.605	31	*****	1.20	30		
LINDSAY	5216	8	39.5	31	1.3	73	24	9	4	792	-40	0	0	2.250	31	0.98	1.62	29		
LOCO	5247	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.311	31	*****	0.67	30		
MADILL	5468	8	43.0	31	2.6	77	20	12	4	681	-83	0	0	2.000	31	0.15	1.04	30		
MARIETTA	5563	8	42.9	31	2.2	79	20	10	5	686	-67	0	0	2.370	31	0.93	1.16	30		
MARLOW	5581	8	43.7	31	5.3	74	21	7	4	661	-165	0	0	3.211	31	2.14	2.42	30		
MCGEE CREEK	5713	8	43.6	31	*****	74	20	9	4	663	*****	0	*****	1.361	31	*****	0.72	30		
PAULS VALLEY	6926	8	38.5	29	*****	74	21	8	5	768	*****	0	*****	1.610	30	*****	0.90	30		
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.480	31	0.94	1.12	29		
TISHOMINGO	8884	8	46.8	27	*****	78	19	11	4	493	*****	0	*****	1.890	28	*****	0.88	29		
TUSSY	9032	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.190	31	*****	0.63	30		
WAURIKA	9395	8	43.8	31	3.3	76	24	12	4	657	-104	0	0	2.654	31	1.55	2.17	29		

JANUARY 1999 SUMMARY FOR SOUTHEAST DIVISION (CD9)

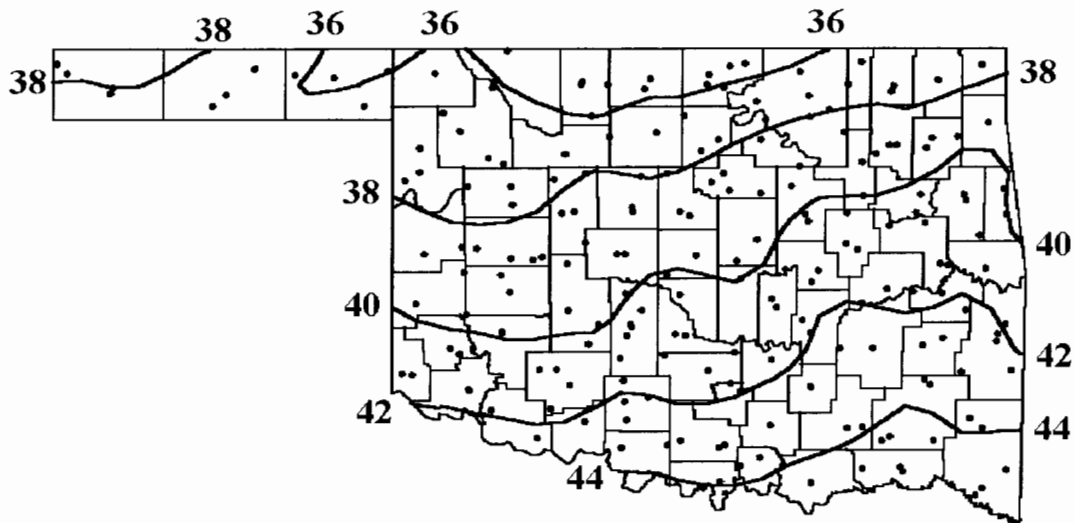
NAME	ID	CD	DEV				HEAT				COOL				DEV			
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN TEMP	DAY	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	TOT PPT	NUM OBS	FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	45.0	31	4.8	73	21	11	4	620	-150	0	0	1.660	31	-0.38	0.90	29
BATTIEST	567	9	41.6	31	*****	70	22	6	4	725	*****	0	*****	3.081	31	*****	1.20	30
BENGAL	670	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.640	31	*****	0.83	30
BOSWELL	980	9	43.9	31	3.5	74	22	13	4	655	-108	0	0	1.710	31	-0.33	0.76	30
BROKEN BOW	1162	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.520	31	-0.04	1.20	2
CARNASAW	1499	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.482	31	1.66	1.67	29
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.520	30	*****	1.20	2
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.860	31	1.68	0.91	30
HUGO	4384	9	44.4	28	*****	73	28	13	4	579	*****	1	*****	2.670	31	0.51	1.30	30
IDABEL	4451	9	43.3	31	3.4	75	22	10	5	673	-106	0	0	3.650	31	0.93	1.42	2
PAGE	6842	9	41.7	31	*****	71	23	3	5	722	*****	0	*****	2.590	31	*****	0.98	30
POTEAU	7254	9	41.6	30	*****	73	26	12	3	701	*****	0	*****	2.012	31	*****	1.09	21
SMITHVILLE	8285	9	40.2	25	*****	69	27	8	4	620	*****	0	*****	3.503	25	*****	1.30	30
SPIRO	8416	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.250	31	0.17	0.64	2
TUSKAHOMA	9023	9	45.1	31	4.8	74	19	8	4	617	-150	0	0	3.101	31	1.08	1.17	30
VALLIANT	9118	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.340	31	1.03	1.00	30
WILBURTON	9634	9	42.9	31	4.5	72	21	10	4	684	-141	0	0	1.910	31	-0.33	0.65	30
WISTER	9724	9	41.2	31	*****	73	22	11	5	737	*****	0	*****	2.100	31	*****	0.66	30

JANUARY 1999 CLIMATE DIVISION SUMMARY

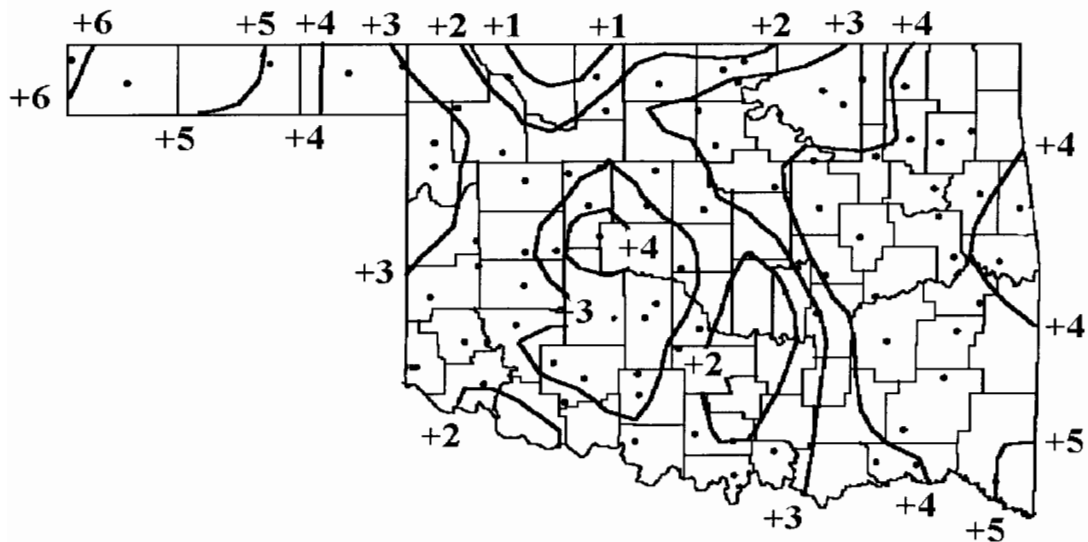
CD	DEV				HEAT				COOL				DEV			
	MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN TEMP	DAY	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	TOT PPT	NUM OBS	FROM NORM	MAX 24-HR	DAY
1	37.2	10	4.2	76	15	3	4	849	-144	0	0	1.550	11	1.15	1.50	28
2	35.6	14	2.1	74	21	-1	3	902	-72	0	0	2.870	20	2.09	3.47	31
3	38.9	12	4.2	76	21	5	4	807	-131	0	0	2.620	24	1.16	2.92	30
4	38.5	11	3	82	25	7	3	820	-96	0	0	1.610	20	0.91	2.20	30
5	39.9	14	3.3	75	25	5	4	777	-103	0	0	1.810	35	0.60	2.15	30
6	41.1	11	3.8	74	21	3	4	741	-119	0	0	2.080	26	0.29	1.55	23
7	40.0	9	2.4	81	20	6	4	765	-83	0	0	2.110	17	1.19	2.50	30
8	42.3	12	3.2	79	20	6	4	699	-102	0	0	2.080	23	0.55	2.42	30
9	42.9	9	3	75	22	3	5	681	-95	0	0	2.720	16	0.36	1.67	29

MESONET MONTHLY SUMMARY FOR JANUARY 1999

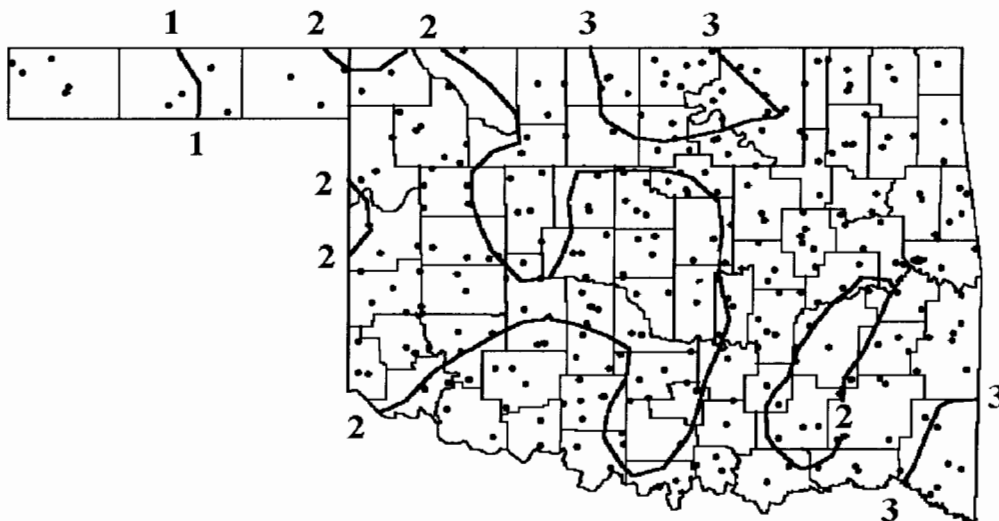
NAME	MEAN TEMP	MAX TEMP	MIN DAY	MIN TEMP	DAY	HDD	CDD	TOT PPT	MAX 24-HR	DAY	NAME	MEAN TEMP	MAX TEMP	MIN DAY	MIN TEMP	DAY	HDD	CDD	TOT PPT	MAX 24-HR	DAY
PANHANDLE																					
Arnett	38.0	73	20	8	3	836	0	.83	.42	29	Goodwell	36.5	73	15	7	4	882	0	.73	.69	31
Beaver	36.5	75	15	6	4	885	0	.75	.47	31	Hooker	36.0	74	15	8	9	898	0	.76	.70	31
Boise City	37.0	75	11	9	4	867	0	.50	.46	31	Kenton	37.1	77	15	9	4	864	0	.46	.35	30
Buffalo	36.7	74	15	7	3	877	0	1.58	.62	29	Slapout	36.7	75	15	4	3	878	0	.72	.36	31
NORTH CENTRAL																					
Blackwell	36.0	67	26	7	3	898	0	3.53	2.45	30	May Ranch	36.1	70	11	5	3	896	0	2.09	.94	29
Breckenridge	36.7	66	26	8	3	876	0	4.40	3.14	29	Medford	35.6	65	26	8	3	911	0	3.11	1.97	30
Cherokee	35.9	65	6	8	3	902	0	2.22	1.23	29	Newkirk	35.0	64	26	5	4	931	0	3.97	2.90	30
Fairview	37.8	69	11	9	3	842	0	2.08	1.33	29	Red Rock	37.4	68	20	7	4	856	0	4.18	2.21	30
Freedom	36.5	71	20	7	3	884	0	1.98	1.07	29	Seiling	37.4	73	20	8	4	857	0	2.24	1.61	29
Lahona	36.3	66	20	8	3	889	0	1.81	1.14	29	Woodward	37.9	71	11	7	3	839	0	2.09	1.25	29
NORTHEAST																					
Bixby	40.0	71	21	9	4	775	0	2.65	1.43	30	Nowata	36.8	70	21	6	4	874	0	.27	.27	1
Burbank	36.7	68	26	5	4	878	0	3.88	2.57	30	Pawnee	38.3	69	20	8	3	827	0	2.85	1.71	30
Catoosa	39.2	70	21	8	4	799	0	2.60	1.17	30	Pryor	38.8	71	20	7	4	813	0	2.61	.89	30
Claremore	39.0	72	21	4	4	806	0	2.71	1.26	30	Skiatook	38.2	70	21	7	4	829	0	3.04	1.66	30
Copan	36.7	70	21	6	4	878	0	2.31	1.05	30	Tulahassee	41.3	71	21	9	4	734	0	2.82	1.51	30
Foraker	35.8	68	21	3	4	906	0	2.49	1.75	30	Vinita	36.7	70	21	5	4	876	0	1.95	.74	30
Jay	39.3	72	20	7	4	797	0	1.76	.65	1	Wynona	37.8	70	21	8	4	842	0	3.64	2.35	30
Miami	37.5	71	21	6	4	851	0	2.44	.81	30											
WEST CENTRAL																					
Bessie	39.8	72	19	12	9	780	0	1.32	.63	29	Putnam	37.9	69	20	8	9	839	0	1.99	1.31	29
Butler	39.4	74	24	9	4	794	0	1.69	1.22	29	Retrop	40.6	77	24	11	9	756	0	.90	.66	29
Canargo	37.4	76	20	6	4	857	0	2.10	1.80	29	Watonga	38.3	67	19	9	3	828	0	2.57	2.03	29
Cheyenne	39.9	78	24	10	9	777	0	1.60	1.12	29	Weatherford	38.5	69	19	10	3	822	0	2.10	1.33	29
Erick	39.7	78	24	10	4	785	0	1.31	.89	29											
CENTRAL																					
Acme	41.4	72	26	8	4	732	0	2.37	2.13	29	Minco	39.5	69	20	10	3	791	0	1.93	1.52	29
Bowlegs	41.6	71	24	9	4	724	0	1.79	.72	29	Ninnekah	40.9	72	24	8	4	747	0	1.87	1.52	29
Bristow	39.9	70	21	9	4	779	0	2.46	1.27	30	Norman	40.6	70	20	10	3	757	0	1.45	1.15	29
Chandler	40.2	70	20	9	4	769	0	1.79	.72	30	Oilton	38.7	70	21	7	3	816	0	2.31	1.50	30
Chickasha	39.8	72	20	8	4	782	0	1.89	1.52	29	Okemah	41.0	69	21	10	4	743	0	2.24	1.07	30
El Reno	38.0	68	21	7	4	838	0	2.14	1.67	29	Perkins	39.4	69	20	10	3	794	0	1.43	.85	30
Guthrie	39.2	69	20	9	3	800	0	1.13	.47	29	Shawnee	40.8	70	24	10	3	751	0	2.08	1.07	29
Kingfisher	38.2	68	26	10	3	830	0	1.91	1.14	29	Spencer	40.3	70	26	9	3	765	0	1.21	.57	29
Marena	38.6	70	26	8	3	818	0	1.38	.87	30	Stillwater	38.6	70	20	8	3	817	0	1.64	1.03	30
Marshall	37.7	69	26	9	3	845	0	1.41	.72	29	Washington	41.5	72	20	11	4	729	0	1.27	1.01	29
EAST CENTRAL																					
Calvin	41.8	71	19	12	4	720	0	2.36	.68	22	Preston	****	***	***	***	***	****	0	2.47	1.24	30
Cookson	41.3	70	19	5	4	735	0	1.68	.61	30	Sallisaw	41.7	72	21	10	4	721	0	1.94	.96	30
Eufaula	42.1	70	19	11	4	709	0	1.58	.52	30	Stigler	41.8	71	19	12	4	720	0	1.86	.86	30
Haskell	39.8	70	21	9	4	781	0	2.62	1.37	30	Stuart	42.7	72	19	12	4	690	0	2.11	.75	29
Hectorville	40.9	71	20	10	4	748	0	3.18	1.39	30	Tahlequah	40.3	71	21	6	4	765	0	2.47	.91	30
McAlester	43.0	72	19	8	4	680	0	1.78	.49	29	Webbers Falls	42.1	73	21	12	4	710	0	2.36	1.14	30
Okmulgee	40.7	71	21	9	4	754	0	2.50	.95	30	Westville	40.6	71	20	6	4	757	0	2.98	1.16	30
SOUTHWEST																					
Altus	41.8	80	20	13	3	718	0	2.00	1.57	29	Hollis	41.5	80	24	12	9	728	0	1.75	1.46	29
Apache	40.2	70	26	11	4	769	0	2.11	1.88	29	Mangum	40.2	79	20	9	4	767	0	1.75	1.47	29
Fort Cobb	40.2	71	20	11	4	770	0	1.78	1.60	29	Medicine Park	42.0	72	20	13	3	712	0	1.91	1.75	29
Grandfield	42.5	78	20	12	4	696	0	3.15	2.59	29	Tipton	42.6	79	20	11	4	693	0	2.41	2.17	29
Hinton	38.6	69	19	10	3	819	0	2.59	1.83	29	Walters	42.5	75	20	10	4	698	0	2.84	2.49	29
Hobart	39.5	72	19	11	4	791	0	1.78	1.35	29											
SOUTH CENTRAL																					
Ada	42.0	73	21	10	4	712	0	2.22	.65	29	Lane	44.0	73	21	13	4	650	0	1.82	.97	29
Ardmore	44.1	75	20	12	4	648	0	2.18	.90	29	Madill	44.2	77	19	10	4	643	0	1.71	1.00	29
Burneyville	44.7	78	20	10	4	629	0	2.03	1.28	29	Pauls Valley	42.4	74	20	10	4	700	0	1.95	.91	29
Byars	41.8	72	20	12	3	718	0	1.88	.96	29	Ringling	43.8	75	21	11	4	656	0	1.41	.74	29
Centrahoma	42.1	75	19	8	4	710	0	2.09	1.16	29	Sulphur	42.2	73	20	7	4	706	0	1.79	.84	29
Durant	45.4	74	21	16	4	609	0	2.31	1.37	29	Tishomingo	42.9	74	19	9	4	685	0	2.48	.99	29
Ketchum Ranch	42.2	73	20	10	4	707	0	1.66	1.43	29	Waurika	44.0	76	20	12	4	652	0	2.80	2.08	29
SOUTHEAST																					
Antlers	43.9	75	21	6	4	654	0	1.77	.81	29	Idabel	45.8	76	21	14	4	596	0	3.04	1.06	29
Broken Bow	45.5	75	19	11	4	606	0	4.11	1.56	1	Mt Herman	44.1	70	21	7	4	647	0	3.36	1.21	29
Clayton	43.5	72	19	11	4	667	0	2.48	.72	30	Talihina	43.9	72	21	10	4	655	0	2.78	.71	29
Cloudy	44.4	72	26	11	4	638	0	2.46	1.09	29	Wilburton	43.1	72	19	10	4	677	0	2.16	.80	30
Hugo	45.8	73	21	14	4	596	1	2.10	.99	29	Wister	42.1	73	21	9	4	710	0	1.94	.59	30



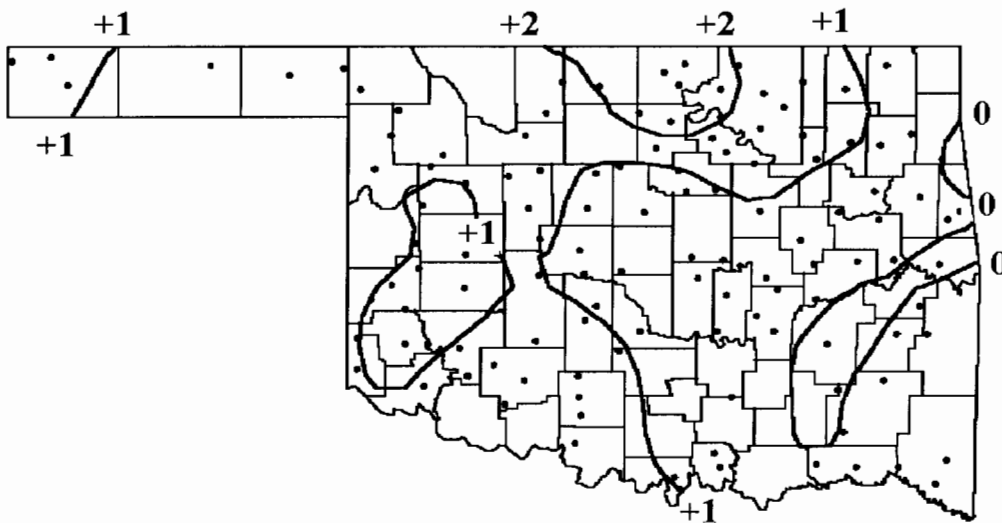
JANUARY 1999 AVERAGE MONTHLY TEMPERATURE (F)



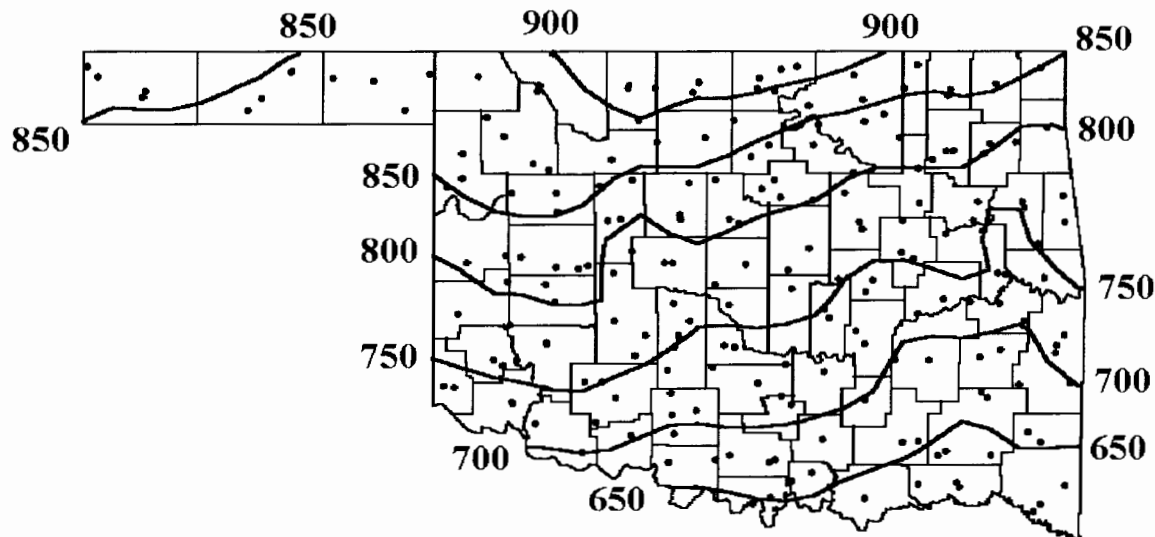
JANUARY 1999 DEPARTURE FROM NORMAL TEMPERATURE (F)



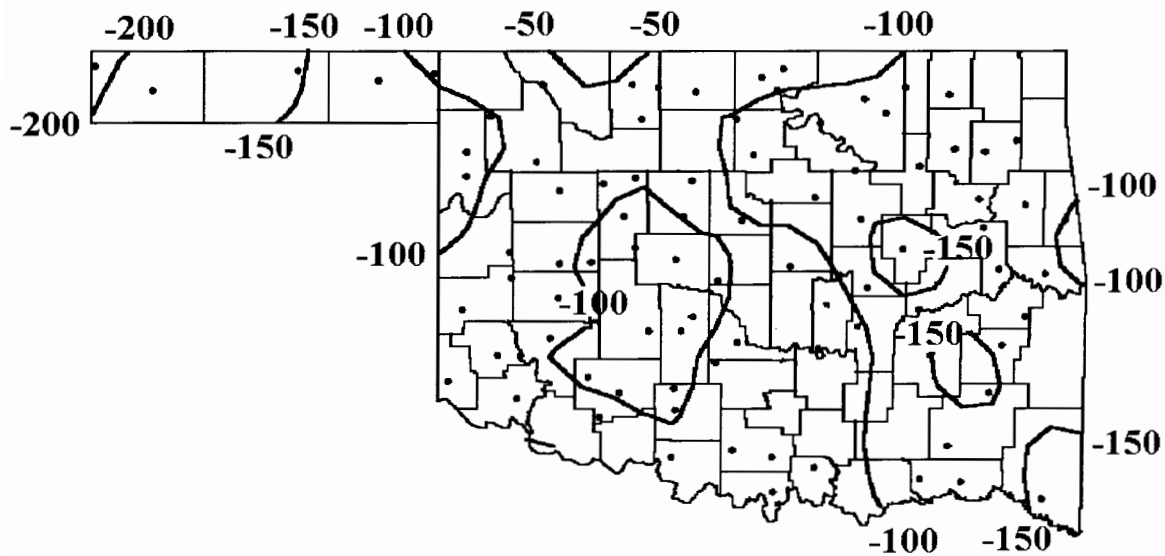
JANUARY 1999 TOTAL PRECIPITATION (INCHES)



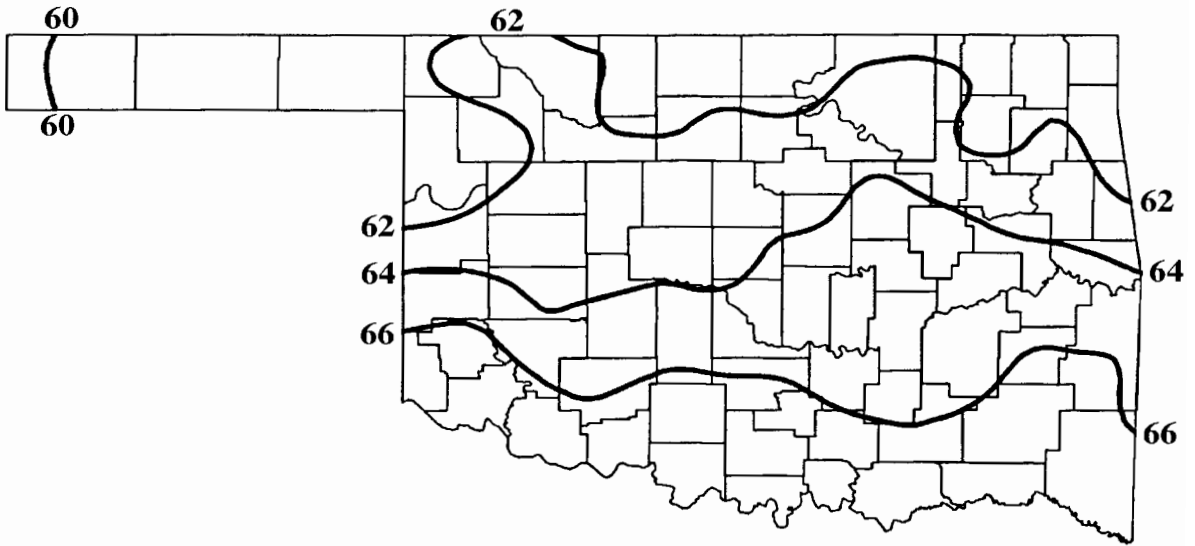
JANUARY 1999 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



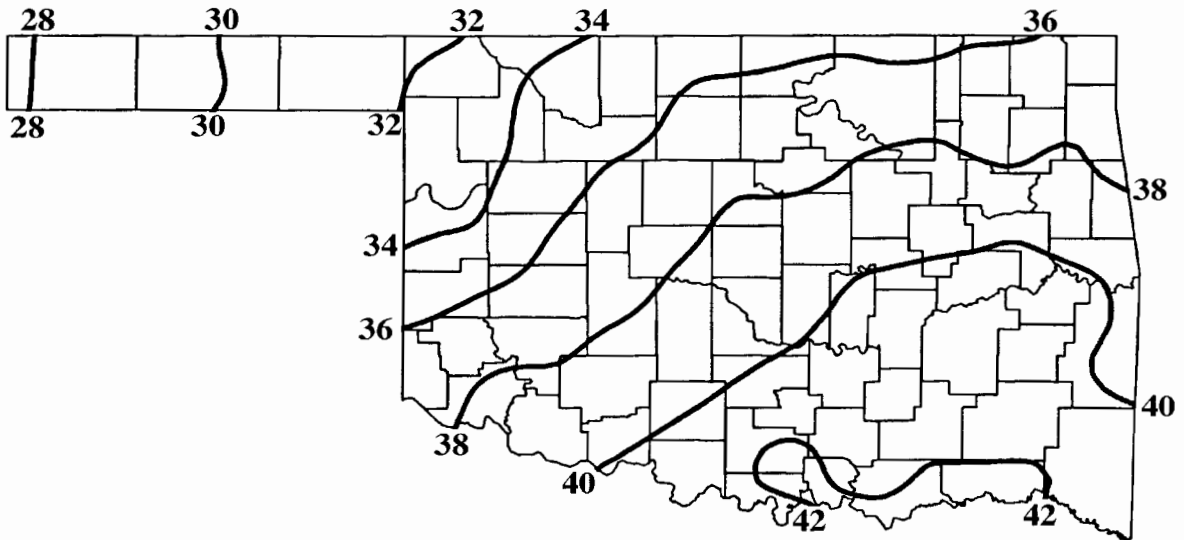
JANUARY 1999 ACCUMULATED HEATING DEGREE DAYS (F)



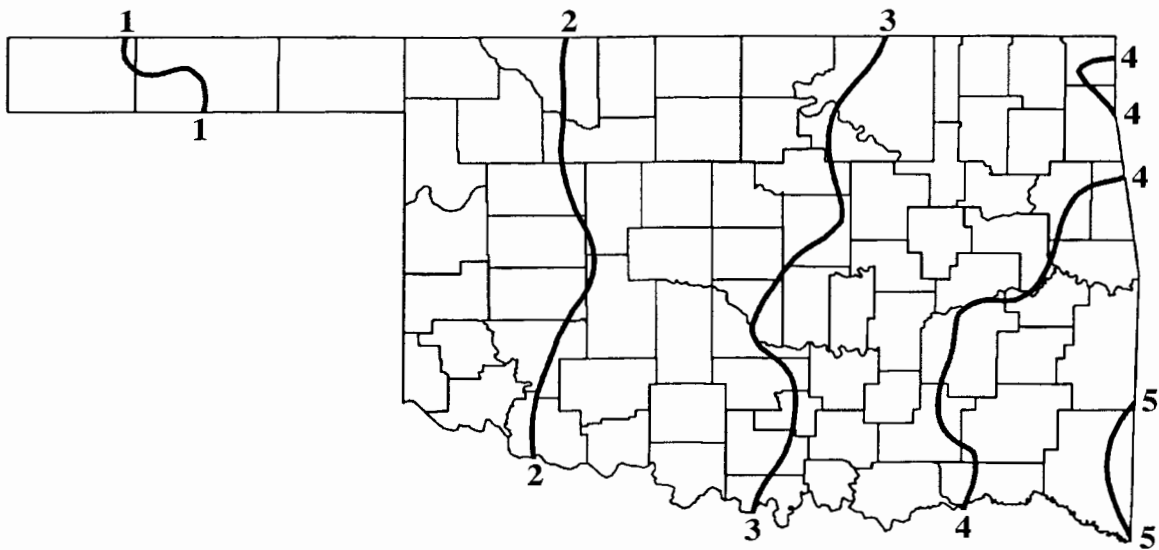
JANUARY 1999 DEPARTURE FROM NORMAL HEATING DEGREE DAYS (F)



MARCH NORMAL DAILY MAXIMUM TEMPERATURE (F)



MARCH NORMAL DAILY MINIMUM TEMPERATURE (F)



MARCH NORMAL MONTHLY PRECIPITATION (INCHES)

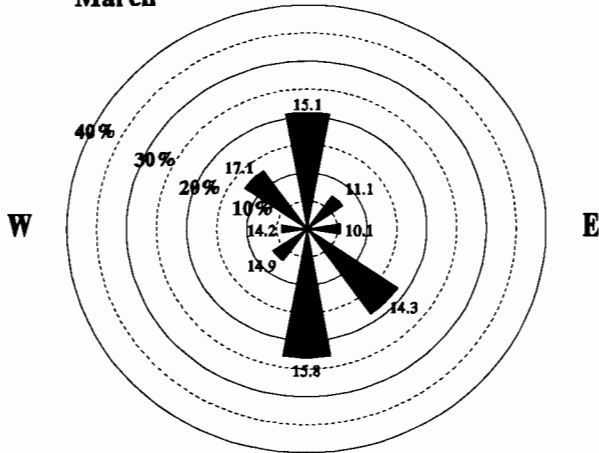
OUTLOOK FOR MARCH 1999 THROUGH MAY 1999

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

TEMPERATURE: ABOVE NORMAL TEMPERATURE STATEWIDE

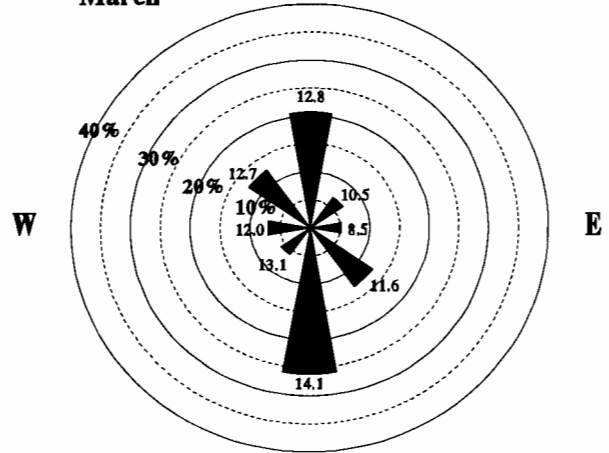
PRECIPITATION: BELOW NORMAL PRECIPITATION STATEWIDE

Oklahoma City
March



Calm=1.2%
Mean Speed= 14.6 mph

Tulsa
March



Calm=3.3%
Mean Speed= 12.1 mph

March 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.

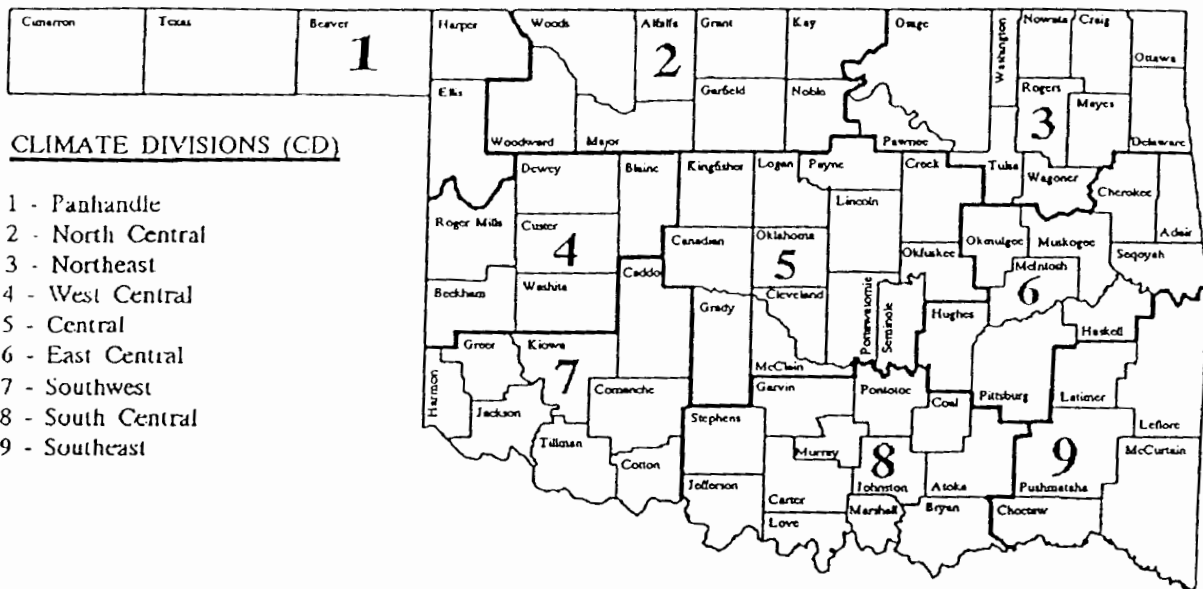
MARCH SUNRISE/SUNSET TIMES FOR 1999

OKLAHOMA CITY

DATE	SUNRISE	SUNSET	DAYLIGHT
3/1/99	7:02AM	6:25PM CST	11 hrs 23 mins
3/2/99	7:00AM	6:26PM CST	11 hrs 25 mins
3/3/99	6:59AM	6:26 PM CST	11 hrs 27 mins
3/4/99	6:58AM	6:27PM CST	11 hrs 29 mins
3/5/99	6:57AM	6:28PM CST	11 hrs 32 mins
3/6/99	6:55AM	6:29PM CST	11 hrs 34 mins
3/7/99	6:54AM	6:30PM CST	11 hrs 36 mins
3/8/99	6:53AM	6:31PM CST	11 hrs 38 mins
3/9/99	6:51AM	6:32PM CST	11 hrs 41 mins
3/10/99	6:50AM	6:33PM CST	11 hrs 43 mins
3/11/99	6:48AM	6:33PM CST	11 hrs 45 mins
3/12/99	6:47AM	6:34PM CST	11 hrs 47 mins
3/13/99	6:46AM	6:35PM CST	11 hrs 49 mins
3/14/99	6:44AM	6:36PM CST	11 hrs 52 mins
3/15/99	6:43AM	6:37PM CST	11 hrs 54 mins
3/16/99	6:41AM	6:38PM CST	11 hrs 56 mins
3/17/99	6:40AM	6:38PM CST	11 hrs 58 mins
3/18/99	6:39AM	6:39PM CST	12 hrs 01 mins
3/19/99	6:37AM	6:40PM CST	12 hrs 03 mins
3/20/99	6:36AM	6:41PM CST	12 hrs 05 mins
3/21/99	6:34AM	6:42PM CST	12 hrs 07 mins
3/22/99	6:33AM	6:43PM CST	12 hrs 10 mins
3/23/99	6:31AM	6:43PM CST	12 hrs 12 mins
3/24/99	6:30AM	6:44PM CST	12 hrs 14 mins
3/25/99	6:29AM	6:45PM CST	12 hrs 16 mins
3/26/99	6:27AM	6:46PM CST	12 hrs 19 mins
3/27/99	6:26AM	6:47PM CST	12 hrs 21 mins
3/28/99	6:24AM	6:47PM CST	12 hrs 23 mins
3/29/99	6:23AM	6:48PM CST	12 hrs 25 mins
3/30/99	6:21AM	6:49PM CST	12 hrs 28 mins
3/31/99	6:20AM	6:50PM CST	12 hrs 30 mins

TULSA

DATE	SUNRISE	SUNSET	DAYLIGHT
3/1/99	6:56AM	6:17 PM CST	11 hrs 22mins
3/2/99	6:54AM	6:18PM CST	11 hrs 24min
3/3/99	6:53AM	6:19PM CST	11 hrs 26 mins
3/4/99	6:52AM	6:20PM CST	11 hrs 28 mins
3/5/99	6:50AM	6:21PM CST	11 hrs 31 mins
3/6/99	6:49AM	6:22PM CST	11 hrs 33 mins
3/7/99	6:48AM	6:23PM CST	11 hrs 35 mins
3/8/99	6:46AM	6:24PM CST	11 hrs 38 mins
3/9/99	6:45AM	6:25PM CST	11 hrs 40 mins
3/10/99	6:43AM	6:25PM CST	11 hrs 42 mins
3/11/99	6:42AM	6:26PM CST	11 hrs 44 mins
3/12/99	6:41AM	6:27PM CST	11 hrs 47 mins
3/13/99	6:39AM	6:28PM CST	11 hrs 49 mins
3/14/99	6:38AM	6:29PM CST	11 hrs 51 mins
3/15/99	6:36AM	6:30PM CST	11 hrs 54 mins
3/16/99	6:35AM	6:31PM CST	11 hrs 56 mins
3/17/99	6:33AM	6:32PM CST	11 hrs 58 mins
3/18/99	6:32AM	6:32PM CST	12 hrs 01 mins
3/19/99	6:30AM	6:33PM CST	12 hrs 03 mins
3/20/99	6:29AM	6:34PM CST	12 hrs 05 mins
3/21/99	6:28AM	6:35PM CST	12 hrs 07 mins
3/22/99	6:26AM	6:36PM CST	12 hrs 10 mins
3/23/99	6:25AM	6:37PM CST	12 hrs 12 mins
3/24/99	6:23AM	6:38PM CST	12 hrs 14 mins
3/25/99	6:22AM	6:38PM CST	12 hrs 17 mins
3/26/99	6:20AM	6:39PM CST	12 hrs 19 mins
3/27/99	6:19AM	6:40PM CST	12 hrs 21 mins
3/28/99	6:17AM	6:41PM CST	12 hrs 24 mins
3/29/99	6:16AM	6:42PM CST	12 hrs 26 mins
3/30/99	6:14AM	6:43PM CST	12 hrs 28 mins
3/31/99	6:13AM	6:43PM CST	12 hrs 31 mins



CLIMATE DIVISIONS (CD)

- 1 - Panhandle
- 2 - North Central
- 3 - Northeast
- 4 - West Central
- 5 - Central
- 6 - East Central
- 7 - Southwest
- 8 - South Central
- 9 - Southeast

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 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 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
 DATA COURTESY OF NATIONAL WEATHER SERVICE NORMAN

MARCH

The data on this calendar is for Oklahoma City.
 Normal values are calculated for the period 1961-1990.
 Temperature extremes are for the period 1891-1997.
 Precipitation extremes are for the period 1891-1997.

Day	Avg. Temp	Avg. High	Record High	Year	Lowest Max	Year	1999	Avg. Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	46.0	58.6	85	1976	20	1980		33.5	56	1940	4	1913		0.10	1.71	1948	
2	47.1	58.5	88	1904	23	1943		35.6	62	1976	6	1922		0.11	2.04	1988	
3	45.8	57.2	84	1955	18	1960		34.5	59	1992	3	1960		0.12	1.46	1985	
4	43.3	54.8	84	1938	18	1960		31.8	60	1938	8	1960		0.04	0.67	1933	
5	44.0	55.1	91	1991	24	1920		33.0	59	1921	10	1960		0.03	2.13	1894	
6	46.3	58.5	83	1974	21	1943		34.0	58	1911	8	1943		0.06	1.45	1973	
7	46.1	57.5	83	1925	22	1932		34.7	61	1974	7	1920		0.05	1.33	1905	
8	46.1	57.2	84	1911	26	1932		35.0	60	1897	9	1967		0.11	1.82	1994	
9	48.5	60.3	89	1911	29	1932		36.8	61	1986	11	1932		0.05	0.88	1913	
10	49.9	61.6	89	1955	26	1932		38.1	61	1990	4	1948		0.14	1.48	1974	
11	49.0	59.6	93	1967	16	1948		38.4	61	1911	1	1948		0.13	2.16	1902	
12	48.2	59.3	90	1967	27	1950		37.1	59	1972	4	1948		0.04	1.30	1898	
13	48.3	59.8	90	1967	34	1924		36.7	66	1918	14	1950		0.02	1.39	1922	
14	49.6	62.5	84	1996	26	1895		36.7	56	1955	13	1895		0.07	1.04	1990	
15	48.5	59.4	84	1943	28	1892		37.7	58	1919	13	1895		0.02	2.34	1944	
16	49.4	60.7	84	1908	28	1892		38.0	56	1945	18	1895		0.07	1.25	1987	
17	51.0	63.6	91	1908	24	1892		38.4	59	1992	11	1892		0.07	0.85	1905	
18	50.8	62.3	89	1907	30	1965		39.3	62	1898	9	1923		0.05	0.48	1968	
19	50.3	61.6	97	1907	26	1965		38.9	63	1921	10	1923		0.07	1.73	1903	
20	50.1	61.9	92	1907	33	1913		38.4	64	1935	12	1965		0.19	2.18	1985	
21	48.5	60.3	95	1916	29	1955		36.7	64	1907	16	1913		0.04	1.23	1921	
22	51.1	64.4	89	1995	33	1913		37.8	63	1907	13	1955		0.08	1.37	1979	
23	51.0	63.3	88	1929	36	1974		38.7	64	1907	20	1898		0.19	2.35	1984	
24	50.5	61.4	91	1929	30	1990		39.6	64	1904	23	1965		0.05	1.82	1920	
25	50.3	61.0	88	1976	33	1964		39.5	64	1907	18	1955		0.10	1.65	1922	
26	51.8	63.1	85	1972	33	1937		40.4	67	1907	13	1955		0.06	2.02	1938	
27	53.3	65.2	90	1895	32	1899		41.3	68	1907	13	1913		0.10	2.09	1912	
28	54.8	66.2	88	1928	36	1931		43.5	62	1985	16	1931		0.13	2.84	1988	
29	52.7	63.3	87	1895	34	1987		42.2	65	1963	19	1894		0.05	0.99	1897	
30	52.5	63.3	88	1904	28	1926		41.7	65	1895	22	1987		0.13	1.82	1963	
31	55.9	68.0	94	1940	40	1901		43.8	62	1967	20	1926		0.05	1.29	1988	
MONTH	49.4	60.9	97	1907	16	1948		37.8	68	1907	1	1948		2.54	2.84	1988	

*The most tornadoes reported in March for Oklahoma was 17 in 1991.

TULSA CLIMATE CALENDAR
 DATA COURTESY OF NATIONAL WEATHER SERVICE TULSA

MARCH

The data on this calendar is for Tulsa.
 Normal values are calculated for the period 1961-1990.
 Temperature extremes are for the period 1905-1998.
 Precipitation extremes are for the period 1888-1998.

Day	Avg. Temp	Avg. High	Record High	Year	Lowest Max	Year	1999	Avg. Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	45	56	81	1967	26	1980		34	61	1932	9	1962		0.09	1.63	1973	
2	45	56	84	1976	21	1943		34	59	1970	7	1943		0.10	2.06	1988	
3	46	57	82	1955	25	1960		34	64	1960	3	1943		0.10	1.45	1953	
4	46	57	83	1938	18	1960		35	57	1992	6	1960		0.10	1.53	1915	
5	46	58	88	1991	20	1960		35	60	1956	5	1960		0.10	1.16	1933	
6	47	58	87	1974	24	1943		35	64	1916	13	1943		0.10	1.57	1973	
7	47	58	83	1925	31	1996		36	66	1974	6	1920		0.10	2.72	1998	
8	48	59	87	1925	24	1932		36	63	1974	5	1967		0.11	1.67	1994	
9	48	59	88	1911	28	1932		37	61	1925	8	1996		0.11	1.95	1922	
10	48	60	91	1955	29	1948		37	60	1955	4	1948		0.11	1.91	1974	
11	49	60	94	1967	17	1948		37	62	1967	-1	1948		0.11	1.97	1935	
12	49	61	91	1967	29	1950		38	63	1967	-3	1948		0.11	1.85	1902	
13	49	61	92	1967	33	1975		38	64	1938	12	1948		0.11	1.40	1937	
14	50	61	85	1977	30	1906		38	58	1944	13	1975		0.11	1.56	1945	
15	50	62	84	1921	30	1906		39	64	1905	21	1970		0.11	2.64	1944	
16	51	62	86	1908	31	1906		39	58	1982	22	1962		0.12	1.34	1998	
17	51	63	88	1916	34	1970		39	59	1992	20	1906		0.12	1.45	1977	
18	51	63	99	1907	30	1965		40	63	1933	12	1923		0.12	1.29	1905	
19	52	63	96	1907	32	1965		40	65	1921	8	1923		0.12	1.15	1968	
20	52	64	92	1907	39	1983		41	68	1921	11	1965		0.12	1.70	1909	
21	53	64	98	1916	32	1912		41	66	1907	18	1974		0.12	3.25	1921	
22	53	65	94	1995	40	1952		41	67	1995	15	1955		0.12	1.25	1926	
23	53	65	91	1907	33	1974		42	61	1994	21	1968		0.12	2.50	1969	
24	54	65	91	1929	30	1965		42	62	1910	19	1966		0.12	2.00	1913	
25	54	66	88	1910	28	1965		42	66	1935	18	1955		0.12	3.18	1920	
26	54	66	87	1918	34	1955		43	70	1991	14	1955		0.12	2.48	1922	
27	55	66	88	1956	36	1913		43	69	1907	13	1913		0.12	1.86	1975	
28	55	67	90	1963	37	1931		43	69	1985	17	1931		0.12	2.55	1912	
29	56	67	90	1967	34	1987		44	67	1963	24	1944		0.12	2.15	1918	
30	56	68	86	1981	35	1926		44	66	1967	21	1964		0.11	1.78	1973	
31	56	68	96	1974	35	1926		45	66	1967	24	1926		0.11	1.21	1957	
MONTH	49.9	60.3	99	1907	17	1948		39.5	70	1991	-3	1948		3.13	2.72	1998	

*The average number of tornadoes reported in March for Oklahoma is 3.6.