

OKLAHOMA ANNUAL SUMMARY 1989

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SUMMARY OF THE YEAR

Temperature and precipitation reports from across the state reflected weather conditions that changed rapidly from one extreme to another. Near record conditions of wet, drought, heat and cold were all observed. The summer season of 1989 (June, July and August) was the third coolest and the sixth wettest in 98-years of Oklahoma weather records. Figures 1 and 2 contain graphical summaries of 1989 monthly conditions.

January temperatures averaged 4 to 7 degrees above normal and ranked as the tenth warmest January on record. It was the warmest January in the last 36 years. Dry soil conditions, clear skies and an air mass with low water content contributed to diurnal temperature ranges in excess of 45 degrees.

Record-breaking cold weather during the first week of the month contributed to the sixth coldest February on record. This month also ranked as the eleventh wettest February in Oklahoma since 1898. Record setting low temperatures between February 2 and 5 combined with 25mph winds to produce wind chills in excess of -20 to -40.

Seven weather-related deaths due to cold and snowy weather were reported in March. Pauls Valley reported 16" of snow. The roofs of some 150 northeastern Oklahoma poultry houses collapsed under the weight of accumulated snow, killing 3 million chickens (about 15% of the State's total). Damage was estimated at \$20 million. An unusual wintertime duststorm was reported across northwestern Oklahoma on March 12.

April 1989 was the driest April in 98-years of Oklahoma weather archives. A jet stream track located far to the north of the state prevented organized frontal systems from entering Oklahoma. Oklahoma City recorded its first April without a thunderstorm. The northerly jet track allowed warm air from the south and southwest to flow northward into Oklahoma. This warmer air produced a state averaged monthly mean temperature 2 degrees above normal.

Numerous May thunderstorms produced more than 10 days of precipitation at many stations. Six confirmed tornadoes were reported, 14 fewer than the 30-year May mean. A Wagoner County tornado damaged 35 houses in the Wagoner city area. Numerous hailstorms followed spring drought, a late freeze and heavy insect infestations of commercial cropland. On May 22 Ponca City reported hail accumulations of 6".

Oklahoma recorded its fourth wettest and third coolest June in history. More than 12 precipitation days and 24-hour rainfall accumulations in excess of 3 inches produced record June totals at several sites. Western and central Oklahoma CD's received more than twice their mean June precipitation. Several days of cloud cover and rain-cooled air produced low, record-breaking mean monthly temperatures at some stations. Scattered thunderstorms on June 9-14 produced a remarkable 9.19" of precipitation in 24-hours at Medford.

The state experienced its 13th coolest July since 1892 and its third consecutive month with below normal temperatures. Cloud cover and cool air contributed to much below normal daily maximum temperatures. Fewer than 50% of reporting stations recorded any days with 100 degree or warmer readings. July maximum temperatures typically range from 5 100-degree days in the northeast to more than 15 days in the southwest. Cloud cover and rain associated with the remnants of Hurricane Chantel kept temperatures several degrees below normal in eastern Oklahoma.

Nearly all stations recorded an unusual run of at least 10 consecutive August days with maximum temperatures below 90 degrees. Such conditions occur in Oklahoma only about once per decade.

On the first of September many stations recorded their first 100-degree readings of 1989. One of these stations, Oklahoma City, later recorded a record-breaking low temperature as unseasonably cool Arctic air dominated that last three weeks of the month. The cool spell produced the earliest

fall freeze (32 degrees) ever recorded at several sites. Statewide, the month ranked as the fourth coolest September on record. Widespread and active frontal thunderstorms during the first one-half of the month accounted for above normal precipitation across most of the state.

Oklahoma experienced its first warmer than average October since 1983. This is only the second such October in the last ten years. The last month during 1989 that state-averaged monthly temperatures registered above normal warmth was April.

Dry weather during November led to the depletion of soil moisture supplies, threatening crops and pasture and supporting numerous extensive wildfires (see "Oklahoma Wildfires"). The state suffered its third driest November on record. Many stations reported no precipitation during the entire month. Above normal temperatures and extremely dry weather statewide aggravated the moisture shortage.

December 1989 ranked as the third coldest and tenth driest December on record. Many stations set records for their lowest December temperatures during 2 days of sub-zero weather. All stations recorded below normal precipitation. Again, these conditions supported numerous extensive grassfires.

Figure 1. State-averaged Mean Monthly Temperature for 1989

(Record begins in 1892)

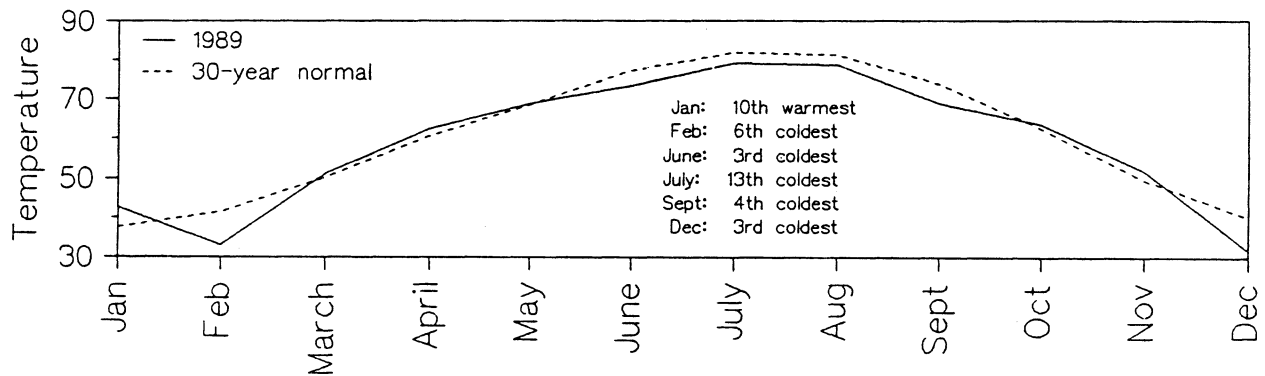
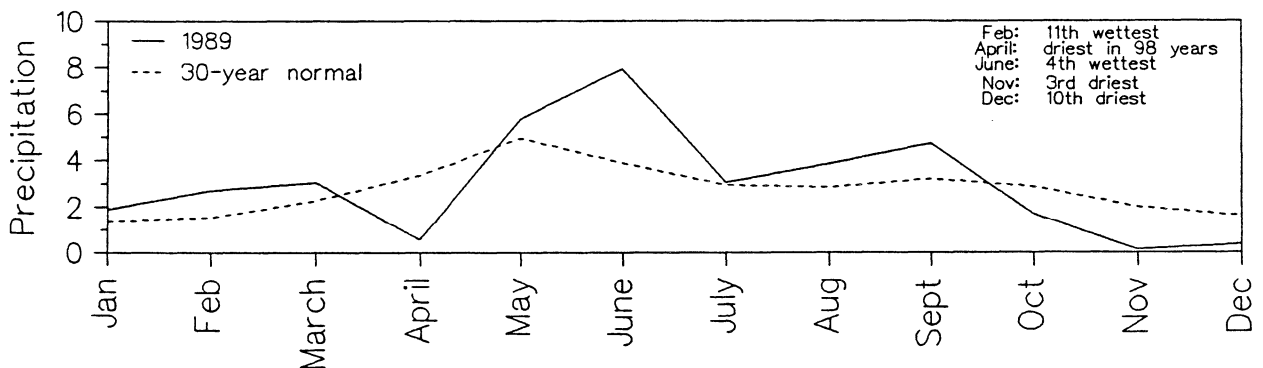


Figure 2. State-averaged Total Monthly Precipitation for 1989

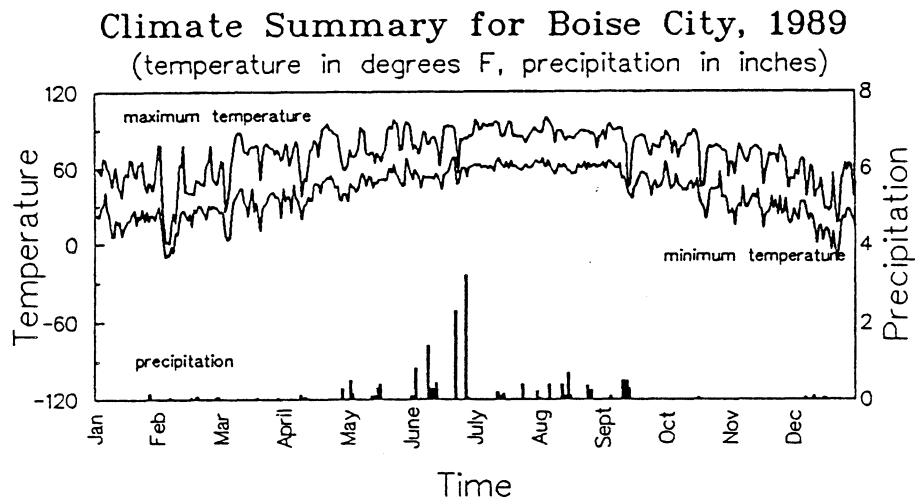
(Record begins in 1892)



DRY AND WET SPELLS OF 1989

According to a summary of national moisture conditions appearing in the University of Nebraska "Drought Network News", severe to extreme long-term drought persisted over one-fourth of the contiguous U.S. while severe to extreme long-term wetness continued over one-eighth of the nation during the last six months of 1989. The pattern remained generally constant throughout the period with the wet areas limited to the Southeast, Northeast and Ohio Valley. Drought occurred on a month-to-month basis nationwide. Average rainfall across the nation was above the median for August and September, but most areas shifted to a dry regime during October and November. Nationwide, summer 1989 was the fifth wettest summer on record, while autumn 1989 ranked as the twenty-sixth driest. Oklahoma recorded its third coolest and sixth wettest summer in 98 years of weather records. Autumn in Oklahoma ranked as the 39th coolest and the 34th driest on record. The Figures and discussion which follow depict daily temperature and precipitation conditions for selected locations across the state during 1989.

Northwestern Oklahoma (Boise City)



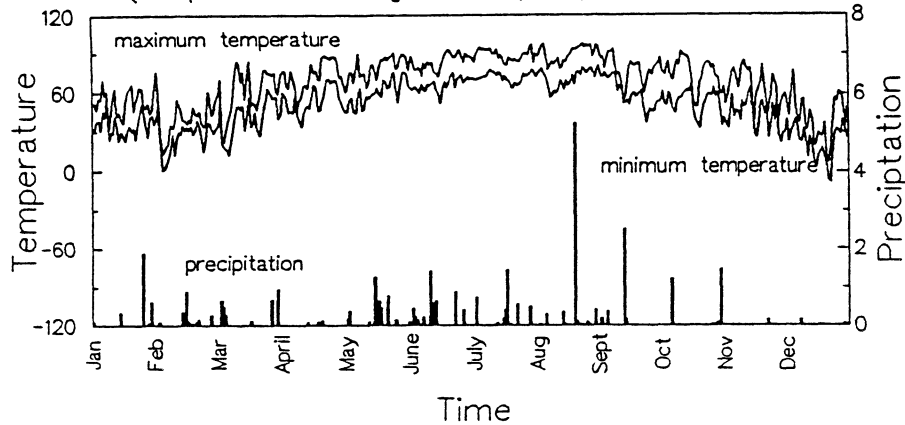
The western panhandle suffered dry conditions throughout the early spring. Thirteen 24-hour precipitation events in excess of .01" occurred from January through April. The long-term average moisture total during this time is 3.02", accumulating over an average of 16 rain days. The 1989 January through April precipitation total at Boise City was .98". Only three other years since 1948 have had smaller January through April precipitation totals: 1956, 1967 and 1972.

A second dry-spell occurred from October through December. Only five days with rainfall equal to or greater than .01" was reported during this time. This contrasts with a long-term average of 11 days. The three-month 1989 precipitation total was .30". The long-term average rainfall total for this same period is 1.86".

In spite of these seven dry months, an excessively wet June resulted in an above average annual precipitation total for 1989 of 17.14". The June 1989 rainfall in Boise City of 8.97" was 6.98" over the long-term average of 1.99", giving 1989 the wettest June of digitized record.

Northeastern Oklahoma (Tulsa)

Climate Summary for Tulsa, 1989 (temperature in degrees F, precipitation in inches)



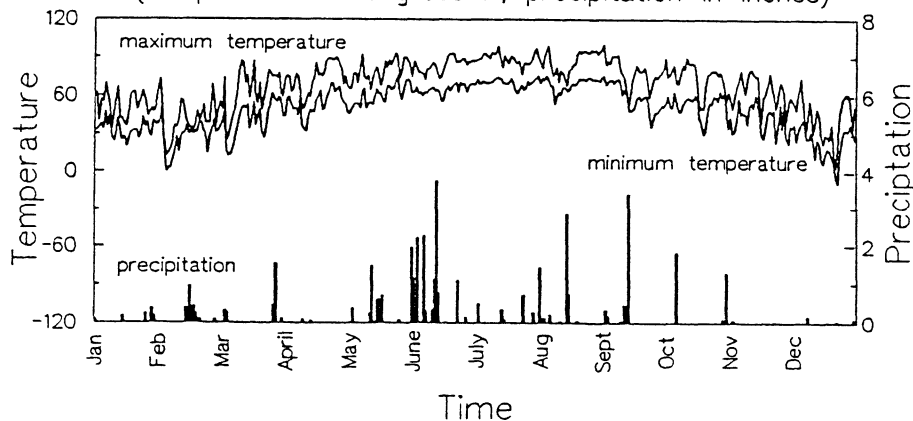
Unlike the northwest, northeastern Oklahoma reported above average precipitation from January through March. Excessively low April rainfall totaling only .34", was 3.81" below long-term average April conditions. This was the driest April in Tulsa since 1900. Measurable rainfall was reported on five days. On average there are nine days with 24-hour precipitation equal to or greater than 0.01" during April. Dry weather persisted through May.

Dry fall conditions began in the northeast during September. The four month September through December precipitation total of 7.8" was 5.71" below long-term expected values. In addition, there were only 17 days with measurable rainfall. On average there are nearly 27 days of rain from October through December in Tulsa. These extremely dry conditions followed on the heels of an extremely wet summer season and set the stage for large numbers of extensive grass and forest fires. The year ended with an annual precipitation total of 35.08", 3.69" below the long-term average for Tulsa of 38.77".

Although northeastern Oklahoma reported a wetter than average June, extreme conditions reported in Central portions of the state did not occur (see next section). The wettest month in Tulsa was August. The 6.69" reported was 3.68" above normal, the wettest August since 1942.

Central Oklahoma (Oklahoma City)

Climate Summary for Oklahoma City, 1989 (temperature in degrees F, precipitation in inches)



The first three months of 1989 registered above average precipitation totals in central Oklahoma, but April 1989 was excessively dry and only .17" of rainfall was reported. This was 2.74" below the long-term average level of 2.91". Oklahoma City normally reports eight April rain days. Only two days with measurable rainfall were reported during April of 1989. The only April in Oklahoma City drier than 1989 was that of 1936, in which only .03" of precipitation was reported. Dry conditions persisted into May.

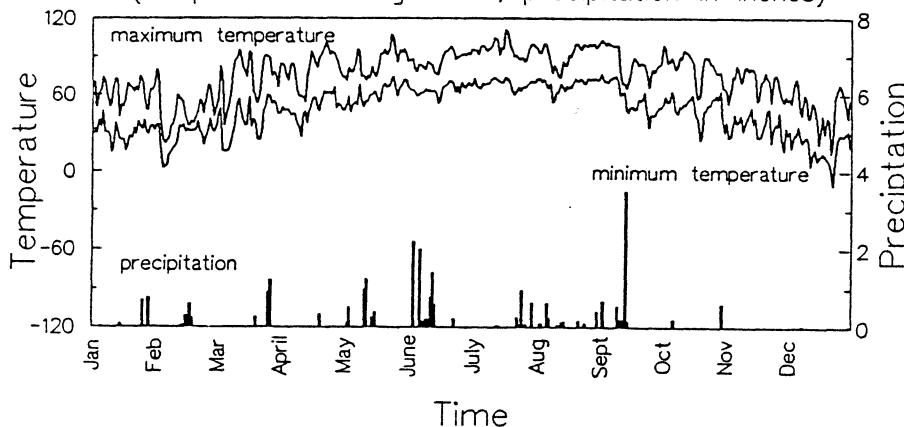
Marked dry conditions were reported in November and December as well. These two months totaled 2.31" below normal rainfall levels. November 1989 in Oklahoma City was the fourth driest November since 1905. Drier Novembers were reported in 1910 (Trace), 1936 (.03") and 1969 (.05"). On average there are 10 rain days in November and December. There were only seven days with measurable rainfall during 1989.

An excessively wet June resulted in an annual precipitation total of 41.17", 10.28" greater than the long-term average value of 30.89". Oklahoma City June rainfall totaled 15.20". This is 11.33" greater than long-term average and was the wettest June on record at Oklahoma City.

Southwestern Oklahoma (Altus Irrigation Research Station)

Climate Summary for Altus, 1989

(temperature in degrees F, precipitation in inches)

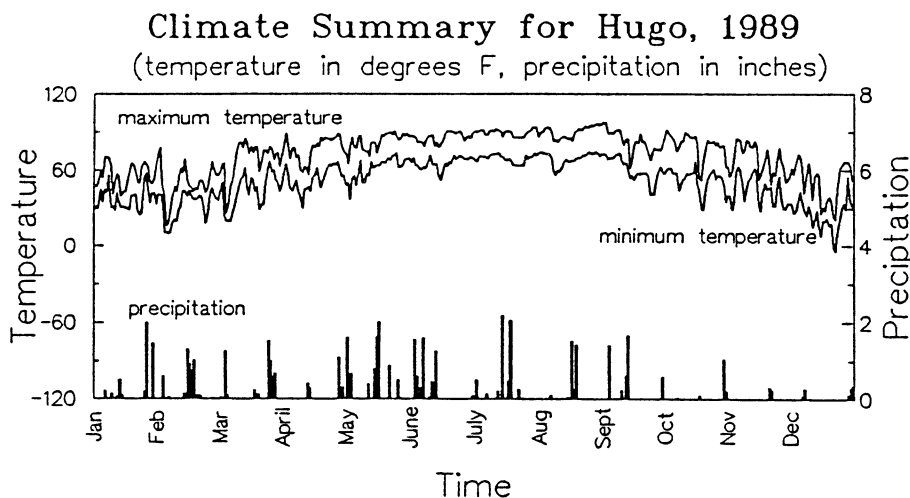


The 1989 rainfall pattern at Altus closely resembles that of Central Oklahoma, with above normal precipitation totals during January, February and March and drier than average conditions during April and May. The April through May precipitation total of 3.85" fell 2.83" short of the long-term average total of 6.68". This rain fell on two days in April and seven days in May. On the average there are five days with 24-hour accumulations equal to or greater than .01" in April and eight days in May. Drier April conditions at Altus have been reported only five times since 1948; .16" in 1960, 0.29" in 1961, 0.30" in 1964, 0.27" in 1969 and 0.0" in April 1987.

The fall and early winter dry-spell was far more dramatic in southwestern Oklahoma. As in the northwest, dry conditions began in October. No precipitation was reported on any November day. The last time Altus reported a rainless November was in 1965. Normal total precipitation for the three month period of October, November and December is 4.44". The October through December precipitation total for 1989 was .86". There were four days reporting 24-hour precipitation accumulations of .01" or more. On average there are 13 such days. Since 1948 there has been one year, 1950, with less precipitation from October through the end of December.

Although southwestern Oklahoma experienced several months with excessively wet conditions, only June and September precipitation totals were unusually large. The 7.66" of precipitation recorded during June 1989 ranks behind only 1985 with 8.31" as the wettest June since 1948. Although not as unusual as June, the 5.26" recorded for September 1989 ranked among the 10 wettest for the same period. The Altus precipitation total for the year (26.79") registered 2.74" above its long-term total of 24.05".

Southeastern Oklahoma (Hugo)



January through March of 1989 experienced moisture conditions well above the long-term average at Hugo. April registered only 2.03", 2.69" below the normal of 7.92". There were only four days during April with 24-hour totals of .01" or more. On average there are eight such days. April 1989 was the fifth driest April since 1948. The driest April on record at Hugo, .29", was recorded just two years ago, in 1987.

The end-of-year dry-spell began earlier in southeastern Oklahoma than in the rest of the state, lasting from August through December. These months normally average 34 days with 24-hour precipitation totals of .01" or more. There were 23 such days during August through December of 1989. The five month precipitation total for 1989 of 10.84" fell 8.03" short of the long-term average moisture total of 18.87". The driest period was October through December, which was 7.25" below normal rainfall levels. This is the driest fourth quarter recorded at Hugo in the digitized record.

The period May through July was excessively wet. This three month period accounted for 21.51" of precipitation. This is still less than a record 26.13" for the same three month period during 1968. May, June and July each ranked among the wettest since 1948. As a result, the 1989 annual precipitation total of 49.72" is 4.11" above the long-term average value of 45.61".

1989 Oklahoma Wildfires

(Source: Rob Doye, Oklahoma Department of Agriculture, Forestry Division)

Unusual weather patterns influenced Oklahoma wildfires in 1989. An early dry spell led to a record number of wildfires in April and fell two fires short of the record for May. Midsummer rains kept the summer fire season well below normal while producing unusually large amounts of grasses and other wildfire fuels. Another dry period started in September, setting the stage for the worst fall fire season in Oklahoma's history. The Oklahoma Forestry Division fought more fires in November than were ever fought in a one month period. Governor Bellmon banned all outdoor burning in 38 counties for a 25 day period in November and December which cut fire occurrences in half.

Wildfire Summary

	1978-1987 average	1988	1989
number of fires	1588	2261	2586
number of acres	36484	43864	59497
* cost	\$3.1 mill	\$3.7 mill	\$5.6 mill

* Cost per acre is estimated at a rate of \$85 per acre burned

STORM SUMMARY REPORT

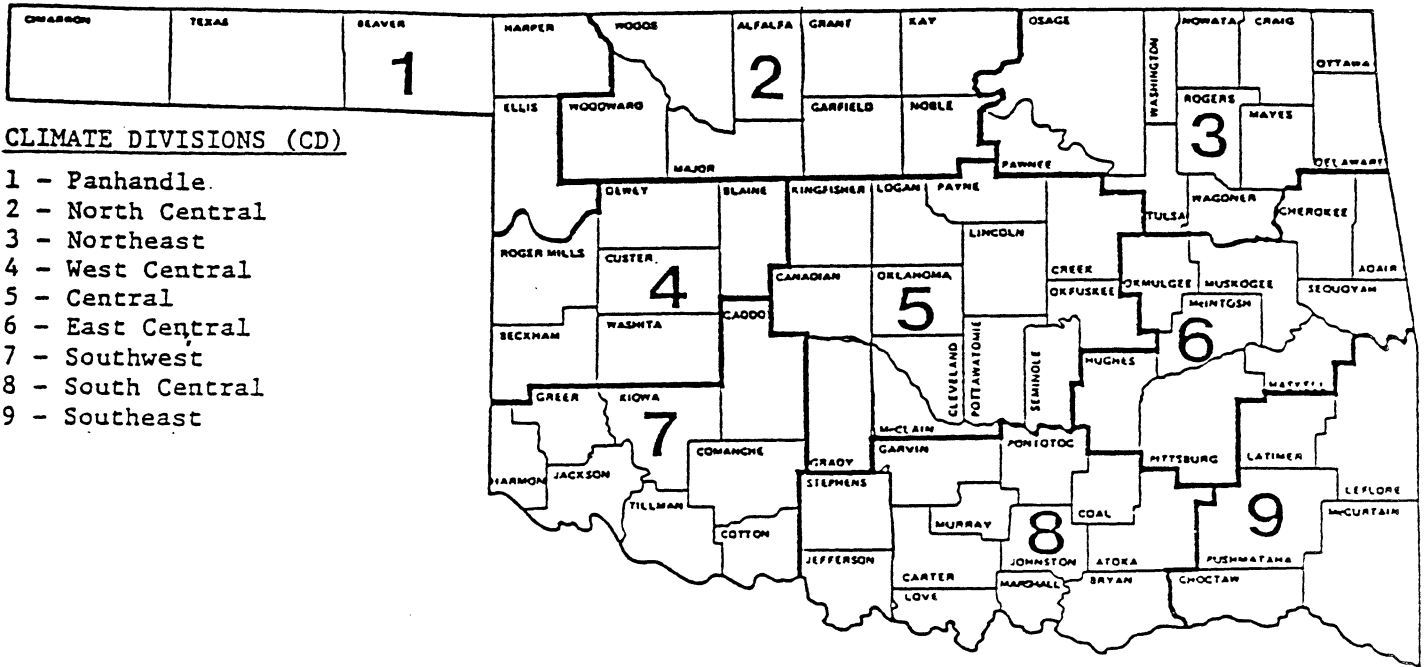
STATE OKLAHOMA MONTH _____ YEAR 1989

TYPE OF STORM	NUMBER	DAYS	DEATHS	INJURIES	DAMAGE*	
					PROPERTY	CROPS
TORNADOES	20	13	0	2	.10 - 1.00 Million Dollars	No Estimate
HAIL			0	0	.10 - 1.00 Million Dollars	No Estimate
THUNDERSTORM WINDS			1	9	.75 - 7.55 Million Dollars	No Estimate
HIGH WINDS			0	2	0	0
LIGHTNING			0	3	1.15 - 11.5 Million Dollars	No Estimate
FLASH FLOODS	26		1	0	5.15 - 51.5 Million Dollars	No Estimate
FLOODS	2		0	0	.05 - .50 Million Dollars	No Estimate
HEAVY SNOWSTORMS AND BLIZZARDS			0	0	5.00 - 50.00 Million Dollars	No Estimate
ICE STORMS #			0	0	0	0
HURRICANES & TROPICAL STORMS			0	0	0	0
ALL OTHERS	11	10	13		No Estimate	No Estimate

* Total damage for month, by categories.
Freezing drizzle and freezing rain, commonly known as glaze.

SUPERSEDES WS FORM F-2 WHICH SHOULD BE DESTROYED

O K L A H O M A



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

1989 STATION SUMMARY

The following tables contain summaries of the cooperative data received at the OCS during 1989. They represent a preliminary description of climate conditions across the State and have been initially quality controlled for accuracy. Even so, they may not always agree precisely with those final values published by the National Climatic Data Center. Asterisks indicate data are missing within the month or that 30-year "normals" were unavailable. A station is included in the table only if six or more months of complete data are available. Annual averages and totals are computed only if all twelve monthly values are present. Climate division averages and totals are based on complete monthly records.

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1	0332	ARNETT	0.35	-0.00	0.96	0.02	1.33	0.00	0.68	-1.1	4.38	0.2	8.47	5.1	1.23
1	0593	BEAVER	0.61	0.02	1.19	0.6	0.80	-0.3	1.33	0.00	0.16	1.1	0.00	0.45	0.0
1	0908	BOISE CITY 2 E	0.15	-0.2	0.23	-0.2	0.13	-0.6	0.00	-0.7	0.05	-0.6	0.00	0.25	-0.1
1	1243	BUFFALO	0.51	-0.0	0.70	-0.2	1.72	0.0	2.27	0.0	2.27	0.0	0.29	-0.4	6.36
1	3070	FARGO	0.28	-0.1	1.18	0.3	1.96	0.6	0.70	-1.0	0.36	-0.2	0.36	-0.2	4.26
1	3407	GAGE FAA APT	0.35	-0.1	2.03	1.2	1.34	0.1	0.34	-1.5	4.03	0.1	1.34	0.1	22.86
1	3489	GATE	0.38	*	1.10	*	0.85	*	0.25	*	0.85	*	0.00	0.48	*
1	3628	GOODWELL RES ST	0.72	0.4	0.58	0.2	0.25	-0.5	0.23	-0.8	4.83	1.9	5.23	2.9	18.29
1	4298	HOOKER	0.78	0.3	0.64	0.1	0.19	-1.0	0.36	-0.8	3.58	0.1	7.31	4.3	18.09
1	4766	KENTON	0.19	-0.1	0.22	-0.0	0.07	-0.6	0.88	-0.4	2.16	-0.3	5.43	3.6	*
1	5045	LAVERNE	0.12	-0.5	0.65	-0.2	2.30	0.7	0.20	-1.3	4.29	0.9	6.11	3.1	25.22
1	6740	OPTIMA LAKE	0.40	*	*	*	0.39	*	0.32	*	5.31	*	5.06	*	*
1	7412	RANGE	0.61	*	0.96	*	0.33	*	5.14	*	4.48	*	4.88	*	*
1	7534	REGNIER	0.26	-0.0	0.10	-0.6	0.01	-0.6	1.10	-0.0	1.52	-0.4	5.29	3.4	12.20
1	9017	TURPIN 4 SSE	0.64	*	0.86	*	0.64	*	0.23	*	4.66	*	12.51	*	27.44
2	0193	ALVA	0.77	*	0.80	-0.0	2.68	1.0	0.90	-1.5	4.90	0.8	6.71	2.9	29.81
2	0755	BILLINGS	1.43	0.5	1.05	-0.1	4.71	2.6	0.27	-2.6	4.89	0.2	8.35	4.2	34.89
2	0818	BLACKWELL 2E	0.97	*	0.39	*	2.48	*	0.54	*	4.21	*	10.75	*	35.05
2	1075	BRAMAN	1.25	*	2.93	*	0.43	*	3.79	*	2.40	*	3.90	*	*
2	1620	CEDARDALE	0.66	*	1.13	*	1.97	*	0.74	*	4.21	*	6.96	*	*
2	1724	CHEYKOE	1.17	0.4	0.87	-0.0	3.25	1.3	0.75	-1.8	4.94	1.0	12.45	8.4	40.12
2	2912	ENID	1.60	0.6	1.60	0.6	1.60	0.6	0.60	-2.1	4.80	-0.2	6.81	2.6	40.12
2	3358	FREEDOM	0.83	*	1.17	*	2.68	*	0.20	*	4.67	*	6.28	*	28.06
2	3740	GREAT SALT PLNS	0.92	0.3	3.64	1.8	0.83	-1.8	3.84	0.2	6.22	2.7	1.02	-2.1	31.22
2	3909	HARDY	1.24	*	2.72	*	0.13	*	7.05	*	6.74	*	5.33	*	39.36
2	4019	HELENA 1 SSE	0.95	0.2	0.80	-0.2	2.25	0.3	0.31	-2.2	4.56	0.2	5.56	1.6	31.71
2	4573	JEFFERSON	1.38	0.6	0.55	-0.4	3.27	1.3	0.60	-2.1	4.75	0.8	10.28	6.3	35.35
2	5013	LAMONT	1.22	*	0.61	*	2.65	*	0.67	*	6.44	*	8.05	*	40.12
2	5768	MEDFORD	1.40	*	0.57	*	3.12	*	1.48	*	4.47	*	13.37	*	39.36
2	6055	MORRISON	1.48	*	1.42	*	1.16	*	0.20	*	5.61	*	7.99	*	31.22
2	6139	MUTUAL	0.62	0.1	1.15	0.2	2.29	0.7	0.63	-1.8	4.59	0.2	7.06	3.8	25.60
2	6278	NEMKIRK	0.55	-0.3	0.44	-0.6	1.21	-0.7	0.35	-2.6	4.15	-0.5	10.55	5.9	28.96
2	6751	ORIENTA	1.28	*	0.75	*	2.09	*	0.11	*	4.30	*	6.25	*	28.96
2	7012	PERRY	1.35	0.4	1.65	0.3	3.24	0.8	0.17	-2.5	5.64	0.3	8.58	4.4	35.18
2	7201	PONCA CITY FAA	1.54	0.6	0.72	-0.5	3.24	1.1	0.46	-2.4	3.56	-0.9	9.32	5.1	36.09
2	7505	RED HOOK 1 NNE	1.11	0.2	1.07	-0.3	4.42	2.1	0.00	-2.7	3.46	-1.1	5.91	1.8	33.50
2	7556	RENFROW	1.29	0.5	0.57	-0.4	2.57	0.6	0.44	-2.1	3.45	-0.3	8.05	4.1	36.64
2	9404	WAYNOKA	0.80	0.2	0.82	-0.1	1.58	-0.0	0.82	-1.3	4.83	0.3	6.50	2.7	29.34
2	9760	WOODWARD	0.49	*	0.94	*	0.82	-0.0	1.21	*	4.22	*	6.50	*	23.38

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
4	1738	CHEYENNE	0.00	*	0.30	*	1.83	*	0.30	*	3.25	*	5.01	*	2.66	*	*	*	2.34	*	1.00	*	0.00	*	0.00	*	*	*
4	1909	CLINTON	1.62	0.9	1.44	0.4	3.20	1.5	0.39	-2.0	6.27	1.2	13.46	10.1	0.93	-1.5	3.62	0.8	4.25	1.2	2.74	0.0	0.00	-1.4	0.17	-0.7	38.09	10.51
4	2039	COLONY	1.66	*	1.44	*	1.98	*	0.00	*	5.37	*	10.81	*	1.03	*	2.90	*	4.82	*	2.48	*	0.00	*	0.06	*	32.55	*
4	2125	CORDELL	1.42	0.7	1.22	0.1	2.17	0.5	0.00	-2.1	4.54	-0.1	10.15	7.0	1.64	-0.8	4.49	1.8	3.98	1.1	1.53	-1.0	0.00	-1.3	0.06	-0.8	31.21	5.08
4	2849	ELK CITY 1 E	1.03	0.4	1.14	0.1	4.60	3.0	0.00	-2.2	6.26	1.3	10.42	7.1	1.02	-1.3	2.67	0.3	2.49	-0.0	1.71	-0.2	*	*	0.19	-0.5	*	*
4	2944	ERICK 4 E	0.57	0.0	0.81	-0.0	2.70	1.2	0.00	-2.2	6.22	1.8	10.23	7.2	1.14	-0.9	3.39	1.2	1.59	-1.2	1.07	-1.1	0.00	-0.9	0.18	-0.5	27.91	4.65
4	3871	HAMMON 1 NNE	1.00	0.4	0.83	-0.0	4.63	3.0	0.45	-1.7	6.59	2.0	9.61	6.6	1.05	-1.1	5.75	3.3	2.01	-0.7	0.74	-1.1	0.00	-1.3	0.35	-0.3	33.02	9.00
4	5090	LEEDEY	0.96	0.5	0.60	-0.3	4.28	2.9	0.00	-2.5	7.37	2.5	8.32	5.0	*	*	3.42	0.8	2.40	0.1	1.00	-0.7	0.00	-1.3	0.43	-0.2	*	*
4	5463	MACKIE 4 NNW	0.59	*	0.66	*	1.33	*	1.30	*	4.16	*	6.95	*	1.32	*	1.69	*	2.00	*	0.35	*	0.00	*	0.22	*	20.57	*
4	6035	MORAVIA 2 NNE	1.01	0.5	1.18	0.2	1.64	0.1	0.00	-2.0	4.32	-0.4	7.77	4.7	0.74	-1.5	5.49	3.4	3.30	0.5	0.57	-1.8	0.00	-1.0	0.10	-0.7	26.13	*
4	6629	OKEENE	1.42	0.8	1.02	0.0	2.33	0.5	0.40	-1.9	2.80	-2.1	6.77	2.8	4.39	2.0	5.96	3.3	6.39	3.4	1.45	-0.6	0.00	-1.6	0.64	-0.2	33.57	6.51
4	7565	RETROP	1.31	*	1.17	*	1.85	*	0.00	*	4.61	*	6.48	*	1.14	*	5.20	*	3.45	*	1.57	*	0.00	*	0.09	*	26.87	*
4	7579	REYDON	*	*	0.66	-0.1	1.25	-0.1	0.93	-1.3	4.74	0.4	7.66	4.3	1.47	*	1.65	-0.5	1.45	-0.8	0.85	-0.8	0.00	-0.9	0.10	*	*	*
4	7952	SAYRE	0.55	0.1	1.03	0.3	2.89	1.6	0.00	-2.0	6.06	1.6	9.32	6.1	2.83	0.7	3.87	1.8	2.59	0.1	1.55	-0.5	0.00	-1.0	0.10	-0.5	30.79	8.36
4	8652	SWEETWATER 2 E	0.75	*	1.17	*	1.97	*	0.88	*	5.52	*	4.65	*	1.02	*	2.80	*	1.70	*	1.40	*	0.00	*	*	*	*	*
4	8708	TALOGA	0.84	0.2	1.62	0.6	2.76	1.1	0.06	-2.3	5.95	0.8	6.88	3.6	0.45	-2.1	3.36	0.9	6.07	3.4	0.51	-1.3	0.00	-1.4	0.45	-0.1	28.96	3.36
4	8815	THOMAS	1.59	*	2.19	*	3.75	*	0.45	*	3.89	*	8.31	*	3.53	*	5.08	*	3.91	*	1.57	*	0.00	*	0.22	*	34.49	*
4	9172	VICI	0.73	*	1.09	*	3.03	*	0.59	*	5.72	*	5.49	*	1.80	*	6.11	*	3.76	*	0.64	*	0.00	*	0.66	*	29.63	*
4	9364	WATONGA	1.34	0.5	1.22	0.1	3.12	1.3	0.15	-2.2	3.38	-1.6	9.32	5.5	3.31	1.0	4.45	2.4	4.03	1.0	1.63	-0.5	0.00	-1.4	0.24	-0.7	32.21	5.56
4	9422	WEATHERFORD	1.53	0.8	1.29	0.3	1.84	0.2	0.27	-1.9	4.98	0.2	11.23	7.6	1.20	-1.2	2.83	0.1	4.68	1.4	2.30	-0.4	0.00	-1.3	0.23	-0.6	32.39	5.18

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
5	0200	AMBER	1.50	*	2.41	*	1.21	*	0.10	*	6.75	*	9.63	*	1.41	*	2.60	*	5.12	*	1.96	*	0.02	*	0.17	*	32.88	*
5	0288	ARCADIA	1.73	*	2.02	*	2.56	*	0.13	*	5.60	*	12.95	*	2.72	*	7.97	*	10.91	*	3.85	*	0.08	*	0.78	*	51.30	*
5	0325	TINKER AFB	1.48	*	*	*	2.97	*	0.38	*	2.74	*	14.56	*	2.03	*	4.28	*	6.76	*	4.34	*	0.08	*	0.26	*	*	*
5	0830	BLANCHARD 2 SSW	1.35	*	2.68	*	1.69	*	0.18	*	6.16	*	10.01	*	2.48	*	3.26	*	5.39	*	2.10	*	0.00	*	0.19	*	35.51	*
5	1144	BRISTOW	1.89	0.7	3.10	1.4	2.45	-0.7	0.47	-3.0	5.85	0.1	5.97	1.6	1.82	-1.7	3.29	0.6	4.04	0.0	3.49	0.9	0.06	-2.2	0.28	-1.3	32.73	-2.86
5	1684	CHANDLER	*	*	3.15	1.6	1.78	-0.5	0.25	-2.9	8.99	3.5	8.56	4.7	2.45	-0.8	4.94	2.6	5.75	1.9	3.33	*	0.00	-2.0	0.20	*	*	*
5	1750	CHICKASHA EX ST	1.55	0.6	2.55	1.3	2.01	0.0	0.27	-2.5	6.29	1.1	7.30	4.2	3.14	0.6	3.19	0.6	5.30	1.8	2.44	-0.2	0.06	-1.4	0.20	-0.8	34.30	5.34
5	2196	COX CITY 1 E	1.60	*	2.46	*	2.97	*	*	*	4.93	*	7.87	*	1.80	*	1.05	*	6.00	*	2.00	*	0.00	*	0.10	*	*	*
5	2242	CRESCENT	1.58	*	1.45	*	3.60	*	0.00	*	2.96	*	8.68	*	1.96	*	4.97	*	3.42	*	2.63	*	0.00	*	0.15	*	31.40	*
5	2318	CUSHING	1.12	0.0	1.78	0.4	3.39	0.9	0.17	-3.0	8.83	3.4	5.19	0.9	2.46	-1.2	4.11	1.4	6.26	2.3	1.25	-1.4	0.00	-2.0	0.10	-1.2	34.67	0.73
5	2818	EL RENO 1 N	1.18	0.3	1.98	0.8	2.73	0.8	0.13	-2.4	5.23	0.0	12.91	9.2	3.19	0.4	7.81	5.5	6.06	2.4	1.89	-0.9	0.00	-1.6	0.20	-0.8	43.31	13.93
5	3821	GUTHRIE	2.17	1.2	2.40	1.1	3.23	1.2	0.14	-2.4	3.68	-1.7	8.70	4.7	1.79	-1.0	7.29	4.9	4.48	0.5	3.41	0.7	0.17	-1.6	1.12	-0.0	38.58	7.56
5	4055	HENNESSEY 2 SE	1.20	0.4	1.28	0.1	3.97	2.1	0.09	-2.2	3.55	-1.7	8.76	4.8	2.44	-0.0	7.50	4.8	2.90	-0.4	2.73	0.6	0.06	-1.5	0.15	-0.8	34.65	6.00
5	4489	INGALLS	1.29	*	1.58	*	3.91	*	0.20	*	7.34	*	5.66	*	3.01	*	7.46	*	5.31	*	2.78	*	0.05	*	0.35	*	38.97	*
5	4861	KINGFISHER 2 SE	1.60	0.7	2.14	1.0	2.55	0.7	0.05	-2.3	3.25	-1.6	9.16	5.4	3.29	0.7	8.00	5.6	4.42	0.8	1.97	-0.4	0.03	-1.5	0.34	-0.7	36.80	8.30
5	4915	KONAWA	1.41	0.0	5.31	3.6	2.02	-0.8	0.57	-3.5	2.92	-3.1	7.07	3.3	3.08	0.5	8.12	5.6	7.03	2.9	1.53	-2.0	0.09	-2.0	0.47	-1.3	39.63	2.92
5	5589	MARSHALL	1.08	0.3	1.24	0.0	3.35	1.3	0.30	-2.0	3.77	-1.4	9.25	5.2	1.36	-1.2	2.92	0.1	3.25	-0.2	3.46	0.8	0.00	-1.6	0.28	-0.8	30.26	0.50
5	5779	MEEKER 4 W	1.67	0.6	2.31	0.8	1.35	-1.1	0.16	-3.4	4.10	-1.5	9.86	6.1	1.79	-1.2	5.22	2.6	6.35	2.4	4.21	1.4	0.04	-2.0	0.16	-1.2	37.22	3.69
5	6110	MULHALL	1.41	*	1.53	*	2.35	*	0.08	*	3.32	*	6.87	*	2.13	*	4.80	*	3.96	*	3.57	*	0.07	*	0.49	*	30.58	*
5	6386	NORMAN 3 S	1.44	0.3	3.03	1.7	1.81	-0.5	0.36	-2.9	5.02	-0.8	12.72	9.1	4.96	1.7	3.25	0.6	3.94	0.2	2.76	0.1	0.16	-1.8	0.32	-1.0	39.80	6.66
5	6616	OILTON 2 SE	2.32	*	1.83	*	3.59	*	0.04	*	*	*	6.67	*	1.02	*	5.12	*	*	*	2.26	*	0.18	*	*	*	*	*
5	6638	OKEMAH	1.99	0.6	3.59	2.1	2.74	0.0	0.45	-3.7	5.87	0.8	6.11	1.6	2.86	-0.5	2.17	-0.4	6.33	2.5	3.32	0.4	0.01	-2.4	0.47	-1.3	35.92	-0.20
5	6661	OKLAHOMA CTY WS	1.10	0.1	2.45	1.1	2.72	0.6	0.17	-2.7	3.79	-1.7	14.66	10.7	1.95	-1.0	5.55	3.1	4.51	1.1	3.28	0.5	0.09	-1.4	0.33	-0.8	40.63	9.74
5	7003	PERKINS	1.30	0.1	1.71	0.4	2.26	-0.1	0.21	-2.4	10.69	5.4	9.20	5.0	3.03	-0.5	3.42	0.8	4.97	0.7	3.39	0.2	0.00	-2.0	0.40	-0.9	40.58	6.84
5	7068	PIEDMONT	1.46	*	2.04	*	2.42	*	0.15	*	6.56	*	12.32	*	4.03	*	7.58	*	8.19	*	2.42	*	0.09	*	0.34	*	47.60	*
5	7264	PRAGUE	3.43	2.1	3.69	2.1	1.95	-0.5	0.60	-3.2	4.91	-0.3	7.09	3.3	2.33	-0.8	2.82	0.3	6.95	3.1	2.90	0.0	0.05	-2.1	0.27	-1.2	37.00	2.70
5	7327	PURCELL 5 SW	3.31	2.2	4.80	3.4	1.21	-1.1	0.65	-2.7	7.32	1.3	8.52	4.9	3.25	0.2	3.40	0.9	6.20	2.2	2.97	-0.2	0.30	-1.7	0.34	-1.1	42.28	8.43
5	8042	SEMINOLE	1.51	0.2	3.72	2.1	3.42	0.8	0.34	-3.7	4.04	-1.3	8.11	4.3	3.97	1.0	6.26	3.3	5.30	1.2	2.55	-0.3	0.00	-2.5	0.35	-1.4	39.57	3.90
5	8110	SHAWNEE	2.54	1.3	4.14	2.6	2.01	-0.5	0.68	-3.1	3.45	-2.5	9.69	5.7	3.50	0.8	3.08	0.1	8.61	4.8	3.64	0.4	0.05	-2.2	0.23	-1.3	41.62	6.16
5	8479	STELLA	2.34	*	3.58	*	1.94	*	0.39	*	4.00	*	7.75	*	5.60	*	5.39	*	6.13	*	2.52	*	0.06	*	0.25	*	39.95	*
5	8501	STILLWATER 2 W	1.66	0.7	1.71	0.5	3.74	1.5	0.17	-2.4	6.76	1.6	5.46	1.5	4.42	0.6	5.03	2.2	4.86	0.9	2.82	-0.0	0.00	-1.7	0.50	-0.7	37.14	4.82
5	8563	STROUD 1 N	*	*	2.74	*	2.00	*	0.27	*	6.00	*	8.60	*	1.70	*	5.12	*	5.43	*	2.92	*	0.08	*	0.53	*	*	*
5	8751	TECUMSEH	2.49	*	3.14	*	0.80	*	0.48	*	4.02	*	6.94	*	1.73	*	6.00	*	4.33	*	2.40	*	0.00	*	*	*	*	*
5	8960	TROUSDALE	1.35	*	3.89	*	1.88	*	0.42	*	4.96	*	8.20	*	5.55	*	3.45	*	6.20	*	2.52	*	0.59	*	0.30	*	39.31	*
5	9086	UNION CITY 1 SE	1.61	0.5	2.03	0.6	2.07	-0.3	0.00	-3.3	6.06	0.1	14.82	10.6	0.56	-1.5	3.96	1.4	6.20	2.4	3.56	0.4	0.00	-2.0	0.14	-1.2	41.02	3.07
5	9479	WELTY 1 SSE	2.70	*	3.02	*	1.89	*	0.40	*	7.37	*	8.82	*	2.56	*	2.80	*	5.80	*	2.98	*	0.00	*	0.42	*	38.76	*
5	9575	WEWOKA	1.32	-0.1	6.48	4.8	2.79	0.0	0.75	-3.0	5.61	0.2	6.88	2.6	3.41	0.6	6.88	4.0	6.30	2.1	1.78	-1.2	0.40	-1.8	0.33	-1.4	42.93	7.05

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
6	0364	ASHLAND	3.71	*	4.65	*	2.83	*	1.18	*	7.01	*	6.54	*	3.11	*	1.68	*	6.60	*	0.95	*	0.90	*	1.33	*	40.51	*
6	0631	BEGGS	2.72	*	3.53	*	2.06	*	1.10	*	6.31	*	6.19	*	4.19	*	0.71	*	3.75	*	2.27	*	0.00	*	0.20	*	33.04	*
6	1027	BOYNTON	*	*	4.25	*	5.47	*	0.41	*	12.95	*	6.05	*	3.71	*	0.67	*	2.43	*	1.65	*	0.38	*	0.75	*	*	*
6	1391	CALVIN	1.89	0.4	5.91	4.0	2.59	-0.7	1.09	-3.3	6.78	0.9	6.66	2.1	6.28	2.7	4.14	1.5	7.12	2.8	1.22	-2.4	0.64	-2.0	0.61	-1.3	44.95	4.68
6	1711	CHECOTAH	1.97	0.4	5.27	3.4	4.23	0.8	0.44	-4.1	8.39	3.0	7.18	3.1	3.55	0.0	2.00	-0.7	8.09	3.6	0.95	-2.4	0.56	-2.2	0.72	-1.3	43.37	3.64
6	1858	CLAYTON 11 WNW	*	*	*	*	*	*	*	*	5.99	*	9.55	*	6.00	*	4.55	*	4.64	*	1.25	*	0.40	*	0.20	*	*	*
6	2485	DEWAR 2 NE	1.61	0.2	4.92	3.1	2.46	-0.6	0.23	-4.0	7.92	2.8	3.43	-0.6	4.34	0.8	1.27	-1.3	5.74	1.4	2.25	-1.0	0.06	-2.6	0.32	-1.5	34.55	-3.53
6	2690	DUSTIN	1.34	*	6.10	*	2.33	*	0.42	*	7.16	*	5.90	*	2.34	*	2.61	*	10.74	*	0.78	*	0.65	*	0.60	*	40.97	*
6	2993	EUFULA	2.82	1.2	5.39	3.3	4.36	0.3	2.04	-2.6	6.85	1.3	7.07	2.9	5.75	2.1	1.31	-1.4	9.89	5.6	0.82	-2.5	1.01	-1.9	1.01	-1.4	48.33	7.09
6	3884	HANNA	2.91	1.4	5.59	3.7	2.13	-1.5	0.57	-3.8	9.23	3.7	4.99	1.0	4.97	1.8	1.04	-1.7	10.47	6.3	1.65	-1.6	0.55	-2.3	0.91	-1.1	45.02	5.69
6	3946	HARTSHORNE	3.43	*	4.60	*	4.48	*	1.23	*	10.52	*	10.41	*	4.11	*	2.52	*	9.09	*	1.82	*	0.46	*	1.08	*	53.76	*
6	3956	HASKELL	2.69	1.0	2.67	0.7	2.92	-0.2	0.27	-3.8	9.46	4.4	7.73	2.9	3.30	0.1	4.59	2.2	3.12	-0.8	1.74	-1.3	0.15	-2.7	0.61	-1.3	39.26	1.23
6	4235	HOLDENVILLE	1.33	-0.0	5.17	3.4	3.34	0.3	0.87	-3.5	5.38	-0.2	6.29	2.4	3.05	-0.4	5.04	2.3	5.17	1.1	1.62	-1.9	0.40	-2.0	0.46	-1.3	38.13	0.44
6	4975	LAKE EUFAULA	2.83	*	6.11	*	3.36	*	0.84	*	8.79	*	7.58	*	*	*	1.43	*	7.15	*	0.96	*	*	*	0.02	*	*	*
6	5437	LYONS 2 N	2.16	0.4	1.79	-0.8	3.36	-0.5	0.20	-4.5	3.39	-0.9	*	*	3.58	0.3	1.25	-1.6	5.00	0.7	1.28	-1.8	0.46	-2.4	0.28	-1.7	*	*
6	5546	MARBLE CITY	*	*	5.88	*	6.54	*	0.05	*	9.62	*	10.33	*	4.09	*	1.49	*	4.77	*	0.71	*	0.25	*	0.46	*	*	*
6	5664	MCALESTER FAA	4.92	3.3	5.40	3.1	4.08	0.2	0.50	-4.0	6.49	0.8	8.38	4.7	1.75	-1.6	1.77	-1.4	9.68	4.7	0.89	-3.0	0.46	-2.6	0.70	-1.6	45.03	2.51
6	5693	MCCURTAIN 1 SE	4.59	2.7	6.40	3.8	5.31	1.4	1.17	-3.6	8.96	3.2	3.85	-0.4	3.70	-0.1	1.52	-1.4	4.88	0.4	0.80	-2.5	0.40	-3.1	0.68	-1.9	42.29	-1.56
6	6130	MUSKOGEE	2.16	0.5	4.44	2.3	4.14	0.9	0.77	-3.8	6.40	1.3	7.26	2.6	4.54	1.4	1.91	-1.1	2.16	-1.9	1.15	-2.1	0.21	-2.7	0.62	-1.6	35.76	-4.24
6	6670	OKMULGEE W W	2.52	0.8	3.90	2.1	3.21	0.1	0.40	-4.1	10.23	5.1	4.69	*	3.05	0.0	2.59	-0.0	3.09	-0.7	2.53	*	0.10	-2.5	0.59	-1.4	36.91	-0.90
6	6678	OKTAHA 2 NE	2.47	*	5.81	*	4.21	*	0.72	*	10.54	*	6.55	*	2.81	*	2.03	*	5.94	*	1.96	*	0.25	*	1.06	*	44.35	*
6	7372	QUINTON	4.76	3.1	5.54	3.4	5.01	1.3	1.61	-2.7	*	*	8.98	4.9	4.63	0.8	0.80	-2.3	6.27	1.8	0.84	-2.7	0.49	-2.7	0.81	-1.5	*	*
6	7862	SALLISAW 2 NE	2.97	1.1	8.72	6.2	6.50	2.7	0.55	-3.9	11.07	5.6	4.91	0.5	3.46	-0.0	0.50	-2.6	3.42	-0.9	1.00	-2.8	0.87	-2.5	0.33	-2.1	44.31	1.11
6	7979	SCIPIO	2.85	*	4.58	*	2.71	*	0.83	*	8.42	*	8.64	*	3.65	*	2.70	*	8.47	*	0.85	*	0.62	*	1.14	*	45.46	*
6	7993	SCRAPER	3.77	*	4.78	*	4.23	*	0.06	*	*	*	8.21	*	4.13	*	3.70	*	3.28	*	1.25	*	0.38	*	*	*	*	*
6	8170	SHORT	4.54	*	8.73	*	6.06	*	1.16	*	10.37	*	8.31	*	2.09	*	0.59	*	4.42	*	0.72	*	0.63	*	0.54	*	48.17	*
6	8506	STILWELL 1 NE	2.56	0.6	5.78	3.2	7.96	4.2	0.24	-4.4	9.08	3.4	8.16	3.6	2.65	-1.0	2.86	-0.4	4.67	0.3	1.29	-1.9	0.68	-2.5	0.49	-2.2	46.44	2.76
6	8677	TAHLEQUAH	2.46	0.6	3.00	0.5	4.65	1.0	0.26	-4.3	6.31	0.8	9.63	5.0	4.42	1.0	4.92	1.8	5.48	1.1	0.87	-2.5	0.62	-2.5	0.27	-2.1	42.90	0.56
6	9445	WEBBERS FALLS	2.56	0.9	5.90	3.5	5.18	1.5	0.77	-3.8	10.15	4.8	7.59	3.5	2.69	-0.4	1.49	-1.3	10.12	5.7	0.82	-2.9	0.60	-2.3	0.48	-1.8	48.36	7.43
6	9523	WESTVILLE	2.29	*	5.00	*	5.13	*	0.24	*	5.79	*	6.22	*	2.49	*	2.32	*	5.49	*	1.12	*	0.43	*	0.40	*	36.92	*
6	9571	WETUMKA 3 NE	1.92	0.5	6.38	4.7	2.42	-0.7	0.47	-3.9	5.86	0.4	6.68	2.3	4.36	1.1	3.17	0.7	11.68	7.2	1.71	-1.4	0.47	-2.3	0.22	-1.6	45.36	7.69

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
7	0179	ALTUS IRR STA	1.57	0.7	1.25	0.3	2.36	1.0	0.34	-1.6	3.51	-1.1	7.66	4.7	1.97	0.0	2.01	-0.2	5.26	2.4	0.80	-1.7	0.00	-1.0	0.06	-0.8	26.79	2.74
7	0184	ALTUS DAM	1.74	1.1	1.13	0.1	1.21	-0.0	0.00	-1.9	3.29	-1.4	8.20	4.7	0.73	-1.8	3.50	1.3	5.71	2.9	2.50	-0.2	0.00	-1.0	0.05	-0.8	28.06	2.92
7	0224	ANADARKO	1.17	0.2	1.69	0.1	2.20	*	0.07	-2.5	7.11	2.2	10.98	7.5	*	*	3.03	0.5	6.34	3.0	*	*	0.00	-1.5	0.10	-1.0	*	*
7	0260	APACHE	1.17	*	1.98	*	1.71	*	0.17	*	5.78	*	13.06	*	2.47	*	2.56	*	2.85	*	2.53	*	0.00	*	0.08	*	34.36	*
7	1504	CARNEGIE 2 ENE	1.72	0.9	1.84	0.6	1.88	0.2	0.02	-2.4	7.19	2.0	12.50	9.4	0.27	-2.2	3.36	*	7.47	4.1	2.77	0.5	0.00	-1.3	0.09	-0.9	39.11	12.29
7	1706	CHATTANOOGA	1.20	0.2	2.35	1.2	1.49	-0.2	0.15	-2.3	4.22	-0.5	10.53	7.7	2.36	-0.1	0.63	*	6.29	3.2	0.71	*	0.13	-1.2	0.16	-0.9	30.22	2.95
7	2668	DUNCAN 12 W	1.78	*	2.72	*	1.56	*	0.11	*	4.07	*	9.66	*	2.22	*	2.11	*	5.85	*	2.76	-0.1	0.00	*	0.16	*	33.01	2.36
7	3353	FREDERICK	1.41	0.5	1.81	0.7	2.13	0.4	0.19	-2.1	5.12	0.3	7.09	4.1	0.61	-1.5	1.91	-0.5	4.52	1.5	1.43	-1.0	0.00	-1.4	0.15	-0.8	26.37	0.25
7	3709	GRANDFIELD 4 NW	1.19	0.1	2.24	1.0	2.52	0.7	0.22	-2.2	2.76	-2.1	9.18	6.0	2.05	-0.0	2.71	0.3	4.61	1.1	1.39	-1.4	0.00	-1.5	0.14	-1.1	29.01	0.90
7	4204	HOBART FAA APT	2.45	1.8	1.46	0.5	1.36	0.0	0.01	-2.2	4.57	-0.4	7.38	4.4	1.10	-1.3	3.11	1.2	7.16	4.2	1.45	-1.0	0.00	-1.0	0.03	-0.7	30.11	5.55
7	4249	HOLLIS	0.60	0.0	*	*	1.53	0.4	0.50	-1.7	5.88	1.8	5.27	2.2	1.07	-0.8	3.65	1.6	3.44	0.7	0.00	-2.2	0.00	-0.8	0.18	-0.5	*	*
7	447	ALTUS AFB	1.66	*	1.51	*	2.26	*	0.02	*	2.91	*	7.72	*	*	*	3.04	*	3.80	*	0.32	*	0.00	*	0.05	*	*	*
7	5063	LAWTON	1.23	0.1	2.42	1.2	*	*	0.10	-2.3	4.69	-1.0	9.49	5.9	1.17	-1.3	2.62	0.4	5.81	2.8	0.47	-2.3	0.03	-1.7	0.16	-1.0	*	*
7	5068	FORT SILL	1.42	0.3	2.54	1.3	2.19	0.3	0.06	-2.3	5.04	-0.6	8.26	4.6	0.79	-1.7	2.15	0.0	5.06	2.0	0.52	-2.3	0.00	-1.7	0.06	-1.1	28.12	0.18
7	5329	LOOKEBA 2 ENE	1.56	*	1.46	*	1.74	*	0.07	*	5.66	*	16.73	*	0.71	*	*	*	4.04	*	4.30	*	0.00	*	0.06	*	*	*
7	5509	MANGUM RES STA	1.76	1.1	1.38	0.5	1.03	-0.1	0.00	-1.8	4.13	-0.5	6.30	3.4	0.33	-2.3	1.78	-0.2	5.90	3.1	1.51	-1.1	0.00	-0.9	0.00	-0.7	24.12	*
7	7403	RANDLETT 9 E	1.55	*	1.57	*	1.69	*	0.36	*	2.80	*	7.01	*	1.28	*	2.04	*	3.75	*	1.19	*	*	*	0.00	*	*	*
7	7727	ROOSEVELT	1.56	0.8	1.18	0.2	1.58	0.2	0.00	-2.2	5.84	0.5	9.07	5.7	0.90	-1.4	3.67	1.5	4.39	1.6	0.43	-2.0	0.00	-1.2	0.10	-0.8	28.72	*
7	8016	SEDAN	1.39	*	1.16	*	1.71	*	0.00	*	6.14	*	10.22	*	0.50	*	2.98	*	4.80	*	0.90	*	0.00	*	0.13	*	29.94	*
7	8299	SNYDER	0.98	0.1	1.15	0.1	1.95	0.5	0.11	-1.9	5.63	*	10.16	7.2	1.34	-1.1	2.85	0.6	5.15	2.3	0.63	-1.7	*	*	*	*	*	*
7	9212	VINSON 3 WNW	0.51	0.0	0.79	0.1	2.33	*	0.00	-2.0	5.73	1.0	5.80	2.9	0.90	-1.0	1.80	-0.4	3.71	0.8	0.41	-1.8	0.00	-1.0	0.09	-0.6	22.07	-1.04
7	9278	WALTERS	1.43	0.2	3.10	1.8	0.90	-1.2	0.17	-2.6	3.66	-1.6	10.44	6.8	2.24	-0.7	2.75	0.1	6.93	3.6	2.28	-0.6	0.12	-1.7	0.16	-1.2	34.18	2.89
7	9629	WICHITA MT WLR	*	*	1.49	0.3	2.17	0.2	0.16	-2.2	6.13	0.8	10.36	6.9	2.62	0.1	2.44	0.4	5.31	2.2	1.60	-1.1	0.00	-1.5	0.03	-1.0	*	*
7	9668	WILLOW	1.44	*	1.18	*	1.56	*	0.00	*	6.86	*	5.51	*	0.87	*	5.57	*	5.19	*	0.62	*	0.00	*	0.12	*	28.93	*

1989 TOTAL PRECIPITATION AND DEVIATION FROM NORMAL (Inches)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
8	0017	ADA	1.20	-0.1	6.93	5.0	3.32	0.4	0.54	-3.2	4.55	-1.0	8.34	4.6	2.25	-0.4	11.13	8.0	8.61	4.6	1.92	-2.0	0.31	-2.2	0.33	-1.6	49.44	11.97
8	0147	ALLEN	1.65	*	6.52	*	2.45	*	0.70	*	7.75	*	9.10	*	2.60	*	*	*	9.80	*	1.40	*	0.00	*	0.85	*	*	*
8	0292	ARDMORE	1.36	0.0	3.39	1.7	2.08	-0.8	0.65	-3.2	6.72	2.0	9.47	6.2	5.57	3.2	2.66	0.1	4.53	0.6	0.50	-2.9	*	*	0.12	-1.6	*	*
8	0394	ATOKA DAM	4.20	*	3.23	*	2.03	*	0.50	*	9.22	*	4.96	*	4.06	*	1.35	*	4.35	*	0.87	*	0.30	*	*	*	*	*
8	0917	BOKCHITO	3.17	*	4.94	*	3.50	*	1.20	*	13.02	*	8.03	*	4.50	*	2.50	*	5.65	*	1.00	*	0.49	*	0.64	*	48.64	*
8	1437	CANEY	3.36	*	3.89	*	6.86	*	1.47	*	7.26	*	8.74	*	*	*	*	*	6.39	*	1.09	*	0.35	*	*	*	*	*
8	1648	CENTRAHOMA	3.40	*	1.70	*	3.18	*	0.75	*	5.80	*	5.90	*	2.59	*	3.77	*	3.74	*	1.10	*	0.75	*	0.75	*	33.43	*
8	1745	CHICKASAW NRA	1.33	*	4.21	*	3.45	*	0.51	*	6.16	*	5.60	*	5.67	*	0.91	*	6.79	*	1.45	*	0.27	*	0.47	*	36.82	*
8	2011	COLEMAN	6.86	*	4.31	*	3.40	*	0.67	*	*	*	6.05	*	3.48	*	0.47	*	*	*	0.45	*	*	*	0.57	*	*	*
8	2054	COMANCHE	1.42	*	3.59	*	1.73	*	0.23	*	6.10	*	11.44	*	1.34	*	2.75	*	6.69	*	2.19	*	0.00	*	0.30	*	37.79	*
8	2354	DAISY 4 ENE	3.58	1.6	4.44	1.7	5.79	1.9	1.68	-3.7	7.04	0.7	7.04	2.5	7.11	2.7	2.05	-1.4	7.15	1.4	0.86	-2.9	0.44	-2.9	0.34	-2.3	47.53	*
8	2660	DUNCAN	1.57	0.5	3.56	2.3	1.95	-0.1	0.32	-2.3	4.79	-0.8	11.79	8.3	4.98	2.6	1.82	-0.5	6.62	2.9	*	*	0.11	-1.7	0.24	-1.1	*	*
8	2678	DURANT USDA	2.96	1.2	3.93	1.6	5.84	2.5	0.66	-3.8	10.75	5.7	10.01	6.2	8.49	5.9	1.86	-0.6	8.03	2.4	1.54	-1.9	0.15	-2.6	0.46	-1.7	54.68	15.09
8	2872	ELMORE CITY	1.27	*	7.30	*	0.63	*	0.35	*	5.16	*	7.69	*	2.81	*	1.30	*	5.40	*	2.40	*	0.25	*	0.12	*	34.69	*
8	3083	FARRIS 3 WNW	3.99	*	3.91	*	4.55	*	0.89	*	8.15	*	6.23	*	4.73	*	1.35	*	6.80	*	1.00	*	0.10	*	0.51	*	42.21	*
8	3688	GRADY	1.30	*	2.96	*	2.15	*	0.93	*	5.05	*	8.54	*	*	*	1.11	*	10.53	*	0.88	*	0.36	*	0.30	*	*	*
8	4001	HEALDTON	1.41	0.0	3.50	2.1	2.35	-0.1	0.55	-2.9	5.77	0.9	10.19	6.4	2.41	0.0	*	*	4.68	0.5	1.09	-2.0	*	*	0.11	-1.5	*	*
8	4052	HENNEPIN	1.48	*	4.04	*	*	*	0.30	*	5.46	*	7.79	*	2.97	*	2.89	*	5.26	*	3.04	*	0.19	*	0.49	*	*	*
8	4780	KETCHUM RANCH	1.24	*	3.39	*	1.98	*	0.18	*	5.50	*	9.15	*	5.42	*	1.03	*	5.03	*	2.68	*	0.05	*	0.31	*	35.97	*
8	4865	KINGSTON	4.59	2.8	2.58	0.3	*	*	0.67	-3.4	8.99	3.9	8.38	4.7	6.69	4.3	0.83	-1.6	5.22	0.5	1.22	-2.4	0.57	-1.9	0.20	-1.8	*	*
8	5108	LEHIGH	4.52	*	3.57	*	4.06	*	1.25	*	8.60	*	6.33	*	5.87	*	1.82	*	4.44	*	1.10	*	0.50	*	0.48	*	42.57	*
8	5216	LINDSAY 2 W	1.96	0.8	3.40	1.9	2.11	-0.1	0.38	-2.9	*	*	6.89	3.4	0.65	-1.9	0.55	-1.7	4.50	0.7	*	*	0.07	*	0.23	-1.2	*	*
8	5247	LOCO 6 SE	1.21	*	5.16	*	1.18	*	0.51	*	4.94	*	8.40	*	0.77	*	2.18	*	5.28	*	0.75	*	0.11	*	0.22	*	30.71	*
8	5468	MADILL	5.92	4.2	3.67	1.5	4.88	1.8	0.95	-3.5	8.72	3.6	10.60	6.7	3.35	1.0	0.67	-1.7	4.72	0.1	1.06	-2.5	1.02	-1.4	0.36	-1.6	45.92	8.33
8	5563	MARIETTA	1.74	0.2	2.89	1.1	4.20	1.4	0.45	-3.3	6.71	2.1	7.98	4.3	3.20	1.0	1.65	-0.9	3.99	0.0	1.83	-1.2	0.52	-1.9	0.20	-1.5	35.37	1.49
8	5581	MARLOW 1 WSW	1.81	0.9	3.01	1.8	1.93	-0.0	0.15	-2.5	4.58	-1.4	9.52	5.7	2.26	-0.3	3.56	1.1	4.63	0.9	1.41	-1.5	0.05	-1.9	0.23	-1.1	33.14	1.62
8	5713	MCGEE CREEK DAM	4.97	*	5.12	*	5.21	*	0.63	*	7.09	*	7.30	*	5.13	*	2.79	*	6.64	*	0.94	*	0.23	*	0.46	*	46.51	*
8	6787	OSWALT	1.05	*	2.89	*	2.45	*	0.00	*	6.97	*	10.44	*	3.05	*	*	*	8.77	*	1.32	*	1.10	*	0.00	*	*	*
8	6926	PAULS VALLEY	*	*	4.24	2.7	2.25	-0.0	0.40	-3.1	5.08	-0.3	5.99	2.6	4.17	1.8	1.35	-0.9	6.73	3.0	2.28	-1.2	0.13	-2.0	0.18	-1.5	*	*
8	7214	PONTOTOC	1.90	0.5	2.30	0.3	4.70	1.4	0.65	-3.4	7.00	1.2	6.80	3.2	5.15	2.5	3.40	0.6	3.80	-0.3	1.05	-2.7	1.80	-1.0	*	*	*	*
8	8884	TISHOMINGO NWLR	4.85	3.3	3.77	1.7	4.35	1.1	0.78	-3.8	9.17	4.2	10.56	7.1	4.53	1.8	0.88	-1.6	6.71	1.8	1.03	-2.6	0.61	-1.8	0.51	-1.5	47.76	9.77
8	9032	TUSSY	1.18	*	4.77	*	0.91	*	0.26	*	5.43	*	8.79	*	1.58	*	1.48	*	5.74	*	2.33	*	0.05	*	0.39	*	32.91	*
8	9395	WAURIKA	1.01	-0.1	3.89	2.5	0.33	-1.6	0.50	-2.4	3.12	-1.7	10.77	7.5	2.48	0.2	0.57	-1.9	6.85	3.4	0.98	-1.7	0.24	-1.6	0.33	-1.1	31.07	1.31
8	9399	WAURIKA DAM	1.42	*	*	*	*	*	0.40	*	4.75	*	11.22	*	1.37	*	1.16	*	7.16	*	1.05	*	*	*	*	*	*	*

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CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV	PCP	DEV
9	0256	ANTILERS	2.80	0.6	3.84	1.0	3.64	0.0	1.04	-4.0	8.28	2.3	7.52	3.5	6.01	2.8	1.01	-2.2	5.53	0.2	0.99	-2.9	0.00	-3.1	0.30	-2.7	40.96	-4.36
9	0567	BATTIEST 1 SSW	*	*	7.13	*	3.98	*	4.01	*	8.93	*	6.05	*	5.84	*	3.85	*	*	*	1.46	*	0.42	*	2.01	*	*	*
9	0670	BENGAL	4.51	*	5.86	*	6.16	*	2.31	*	11.96	*	5.09	*	3.33	*	1.30	*	6.50	*	1.21	*	0.31	*	1.28	*	49.83	*
9	0980	BOSWELL 4 NNW	3.24	1.1	3.99	1.2	1.50	-1.3	0.91	-3.6	8.73	3.7	6.62	3.0	4.99	2.3	1.64	-1.0	4.86	-0.0	1.30	-2.4	0.30	-2.7	0.23	-2.4	38.33	*
9	1162	BROKEN BOW 1 N	3.73	0.7	5.72	2.4	4.43	-0.0	3.30	-2.0	7.08	1.3	7.71	3.9	6.03	2.1	2.91	-0.0	5.75	1.0	1.37	-2.4	0.62	-3.4	1.88	-1.7	50.53	1.69
9	1168	BROKEN BOW DAM	3.97	*	5.37	*	4.26	*	3.03	*	9.44	*	7.69	*	6.03	*	3.67	*	5.07	*	1.29	*	0.73	*	2.37	*	52.92	*
9	1499	CARNASAW TWR	3.59	0.4	5.54	2.2	4.03	-0.6	2.45	-3.0	9.43	3.0	7.10	3.0	4.69	0.5	1.76	-1.3	4.35	-0.6	1.01	-3.1	0.56	-3.7	1.91	-2.0	46.42	-5.13
9	1544	CARTER TWR	4.27	1.5	5.21	1.9	3.23	-1.3	3.43	-1.8	11.30	5.3	7.71	3.8	7.66	3.2	3.14	-0.5	6.28	1.3	1.26	-3.3	0.49	-3.3	2.10	-1.8	56.08	5.14
9	3065	FANSHAWE	5.05	3.1	6.78	3.9	5.66	1.2	0.98	-4.0	13.79	7.5	4.86	0.6	7.57	3.5	0.42	-2.6	6.34	1.6	1.06	-2.0	0.40	-3.5	1.58	-1.3	54.49	8.53
9	3169	FLAGPOLE TWR	3.11	*	4.48	*	5.43	*	2.50	*	8.30	*	8.02	*	5.21	*	0.83	*	6.70	*	0.84	*	0.06	*	0.77	*	46.25	*
9	4008	HEAVENER 1 SE	2.78	0.5	6.04	3.3	5.89	1.7	1.66	-3.2	8.14	2.6	7.66	3.6	5.90	2.3	1.18	-2.1	5.16	0.6	1.31	-1.9	0.40	-3.2	1.47	-1.7	47.59	2.38
9	4017	HEE MT TWR	4.53	*	5.49	*	4.37	*	2.15	*	8.45	*	6.44	*	6.75	*	0.55	*	3.60	*	1.55	*	0.64	*	1.52	*	46.04	*
9	4384	HUGO	4.70	2.4	5.12	2.3	5.51	1.7	2.03	-2.6	9.49	3.8	6.11	1.5	5.91	2.8	3.31	-0.1	4.50	-0.6	1.39	-2.5	0.53	-2.7	1.11	-1.9	49.72	4.11
9	4451	IDABEL	3.83	0.7	*	*	7.02	2.6	2.52	-2.8	*	*	8.99	5.3	4.78	1.2	3.99	-1.3	3.02	-1.5	1.90	-1.9	0.56	-3.2	1.95	*	*	*
9	4560	JADIE TOWER	4.42	*	6.41	*	5.44	*	2.52	*	10.55	*	*	*	7.69	*	4.36	*	3.90	*	1.35	*	0.92	*	*	*	*	*
9	7254	POTEAU W W	3.92	*	6.19	*	7.27	*	1.87	*	11.16	*	4.06	*	5.32	*	0.94	*	4.56	*	0.67	*	0.83	*	0.70	*	47.50	3.24
9	8285	SMITHVILLE 1 W	4.63	*	3.22	*	4.26	*	2.68	*	8.66	*	6.42	*	10.35	*	0.28	*	*	*	1.37	*	0.20	*	2.60	*	*	*
9	8305	SOBAL TOWER	4.13	1.7	*	*	5.43	1.2	*	*	9.82	3.9	*	*	7.69	4.0	3.56	0.2	10.61	5.2	0.83	-3.2	0.53	-2.8	*	*	*	*
9	8416	SPIRO	5.18	3.3	5.97	3.2	6.08	1.9	0.48	-4.1	9.67	4.3	4.51	0.9	4.47	0.6	2.22	-0.3	4.53	0.5	0.87	-2.4	0.61	-3.2	0.69	-2.1	45.29	2.73
9	9023	TUSKAHOMA	4.19	*	4.86	*	6.90	*	1.89	*	7.10	*	9.87	*	5.93	*	1.30	*	6.95	*	1.27	*	0.28	*	0.95	*	51.51	*
9	9118	VALLIANT 3 W	3.47	0.9	4.92	1.6	4.37	0.1	2.42	-2.5	9.31	3.8	7.87	4.1	6.84	3.2	2.45	-0.3	5.45	0.4	1.05	-2.5	0.47	-3.1	1.46	-2.1	50.09	3.75

1989 AVERAGE TEMPERATURES AND DEVIATIONS FROM NORMAL (Fahrenheit)

CD	ID	STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	TEMP DEV
1	0332	ARNETT	39.3	6.0	28.4	-9.8	48.3	2.9	60.2	*	66.0	-0.3	69.8	-5.9	77.7	-3.1
1	0593	BEAVER	36.5	3.7	27.1	-11.0	47.4	2.1	59.5	2.5	66.5	0.2	69.7	-6.5	77.1	-4.4
1	0908	BOISE CITY 2 E	38.4	4.3	30.3	-8.0	49.7	5.6	57.4	3.0	65.8	2.6	68.6	-4.9	75.9	-2.1
1	1243	BUFFALO	40.1	5.4	31.4	-9.0	50.4	2.4	64.1	4.4	69.7	1.2	72.1	-6.3	79.9	-3.5
1	3407	GAGE FAA APT	40.7	7.4	29.4	-8.9	49.4	5.3	61.7	4.2	67.7	1.2	70.3	-6.3	77.8	-3.7
1	3489	GATE	39.7	*	27.6	*	49.4	*	62.6	*	67.8	*	76.4	*	77.9	*
1	3628	GOODWELL RES ST	37.1	3.6	27.9	-10.7	47.0	2.2	57.1	1.2	64.9	0.2	68.1	-6.5	76.4	-3.0
1	4298	HOOKER	37.5	4.3	27.4	-11.0	47.2	0.9	58.4	2.1	66.2	0.8	68.5	-7.1	76.5	-3.8
1	4766	KENTON	35.7	1.2	29.1	-9.5	49.0	5.0	56.0	1.6	64.2	0.7	66.6	-7.1	74.5	-2.0
1	6740	OPTIMA LAKE	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1	9017	TURPIN 4 SSE	36.2	*	26.7	*	47.2	*	57.7	*	66.1	*	68.9	*	76.8	*
2	0193	ALVA	41.5	7.4	29.7	-9.6	49.5	2.1	63.0	4.1	69.0	0.9	73.4	-4.7	80.2	-3.2
2	0755	BILLINGS	38.8	*	29.6	*	49.3	*	60.4	*	67.0	*	73.3	*	80.0	*
2	0818	BLACKWELL 2E	39.7	*	29.4	*	49.5	*	61.1	*	67.9	*	73.9	*	81.5	*
2	3740	GREAT SALT PLNS	40.1	*	49.5	*	61.1	*	67.9	*	73.9	*	81.5	*	87.4	*
2	4019	HELENA 1 SSE	38.9	*	28.8	*	47.9	*	59.3	*	65.9	*	71.7	*	79.8	*
2	4573	JEFFERSON	40.4	6.0	30.4	-9.2	49.7	1.6	68.7	0.0	74.4	-4.3	80.8	-2.8	88.6	-1.1
2	6139	METULKA	38.6	4.5	29.6	-9.6	49.2	2.4	60.6	2.4	65.6	-1.5	69.8	-7.4	78.0	-4.6
2	6278	MONTKIRK	41.4	8.0	29.9	-9.0	50.1	2.6	61.1	1.6	67.0	-1.2	73.4	-4.1	80.7	-3.8
2	7012	PERRY	45.6	9.3	33.9	-7.6	52.8	3.5	61.2	-0.3	67.5	-1.8	72.9	-5.2	77.6	-4.5
2	7201	PONCA CITY FAA	42.2	9.8	30.6	-7.1	51.2	4.7	62.6	4.0	68.2	0.5	73.8	-3.4	79.8	-2.8
2	9404	WAYNOKA	40.1	4.9	30.0	-10.6	50.4	1.6	61.7	1.4	68.3	-0.8	71.9	-6.6	77.6	-4.5
3	0535	BARNSDALL	41.3	*	30.1	*	49.4	*	62.1	*	67.2	*	72.3	*	77.4	*
3	0548	BARTLESVILLE 2W	41.8	7.2	30.6	-9.7	49.9	1.1	62.5	1.7	68.1	-0.6	73.8	-3.2	79.0	-3.0
3	0782	BIXBY	40.7	5.3	31.3	-9.4	47.0	-1.8	61.1	0.5	67.0	-1.6	73.3	-3.6	78.8	-3.0
3	1828	CHAMBER	42.5	6.0	31.2	-8.6	47.9	-0.6	60.0	0.0	66.6	-1.3	74.1	-2.2	78.8	-2.8
3	4672	KANSAS 1 ESE	43.1	*	49.9	*	60.6	*	65.9	*	72.1	*	76.1	*	81.5	*
3	5222	MANNFORD 6 NW	43.9	*	52.6	*	64.7	*	68.7	*	73.3	*	78.1	*	83.5	*
3	5855	MIAMI	41.5	6.8	30.0	-9.8	48.8	*	60.3	0.2	65.9	-2.0	72.2	-4.0	77.6	-3.5
3	6485	NOWATA	41.8	7.1	29.7	-10.3	47.4	-1.0	61.4	1.5	66.6	-1.6	73.3	-3.2	78.3	-3.8
3	6935	PAWBUKA	41.6	7.1	30.2	-9.8	49.7	1.1	62.0	1.5	66.9	-1.3	72.6	-4.0	77.8	-4.0
3	7309	PRYOR 6 N	40.3	5.4	30.4	-9.6	45.9	-2.6	59.3	-0.7	64.7	-3.4	72.4	-4.0	77.5	-4.1
3	7390	RATSTON	42.3	*	32.1	*	51.5	*	63.8	*	69.7	*	75.2	*	80.4	*
3	8380	SPAVINAM	44.4	*	32.4	*	50.5	*	62.1	*	68.2	*	73.1	*	78.1	*
3	8922	TULSA WSO APT	44.4	9.2	32.6	-8.1	50.5	1.2	64.0	3.1	69.6	0.5	75.1	-2.6	80.5	-2.7
3	9101	UPPER SPAVINAM	44.0	*	33.7	*	52.5	*	64.8	*	70.8	*	77.3	*	82.1	*
3	9203	VINITA 2 N	42.0	7.5	30.6	-9.2	48.2	0.1	61.1	1.4	66.7	-0.9	73.9	-3.3	78.7	-3.7
3	9247	WAGONER	44.7	7.8	33.8	-8.4	51.6	1.1	62.9	1.3	68.8	-0.4	73.9	-3.3	78.7	-3.7
3	9247	WAGONER	44.7	7.8	33.8	-8.4	51.6	1.1	62.9	1.3	68.8	-0.4	73.9	-3.3	78.7	-3.7

1989 AVERAGE TEMPERATURES AND DEVIATIONS FROM NORMAL (Fahrenheit)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV
4	1445	CANTON DAM	*	*	*	*	*	*	60.4	0.3	66.5	-2.0	71.1	-6.6	78.5	-4.4	76.5	-5.2	66.8	-6.6	61.8	-0.8	*	*	*	*	*	*
4	1909	CLINTON	44.5	8.1	34.1	-7.3	53.9	4.4	64.5	3.9	70.5	1.5	74.6	-3.8	81.6	-1.7	80.5	-1.5	72.2	-1.4	64.8	2.6	51.8	3.3	34.1	-5.8	60.6	0.2
4	2849	ELK CITY 1 E	43.0	*	32.3	*	51.5	*	62.5	*	68.6	*	72.4	*	79.5	*	78.0	*	68.2	*	63.5	*	*	*	32.5	*	*	*
4	2944	ERICK 4 E	42.5	5.5	32.9	-9.1	51.5	2.0	63.3	2.9	69.4	0.9	73.0	-4.7	79.3	-2.6	78.6	-2.0	68.8	-4.3	63.5	1.7	50.1	1.7	32.2	-8.1	58.8	-1.3
4	3871	HAMMON 1 NNE	38.0	2.5	28.9	-12.0	48.2	-0.7	60.3	0.0	66.0	-2.3	71.3	-6.8	79.1	-3.9	77.3	-3.8	65.8	-6.8	58.0	-2.7	48.2	0.7	28.4	-10.6	55.8	-3.9
4	6629	OKEENE	41.5	5.1	31.6	-10.0	50.9	1.0	62.5	1.5	69.6	0.1	73.1	-5.9	80.5	-3.4	79.2	-3.3	69.1	-5.2	63.4	0.0	50.6	1.5	30.9	-9.4	58.6	-2.3
4	7579	REYDON	*	*	31.6	*	52.1	*	62.9	*	68.2	*	71.2	*	78.1	*	78.5	*	68.9	*	63.3	*	50.3	*	31.5	*	*	*
4	8708	TALOGA	40.8	5.7	30.5	-9.6	49.4	1.1	62.0	2.8	67.7	-0.2	72.6	-4.9	78.6	-3.6	78.6	-2.1	67.6	-5.0	62.3	1.3	49.0	2.0	31.2	-7.5	57.5	-1.7
4	9364	WATONGA	42.2	*	31.6	*	51.0	*	62.7	*	68.6	*	73.1	*	79.3	*	77.8	*	68.3	*	63.4	*	50.2	*	31.3	*	58.3	*
4	9422	WEATHERFORD	41.9	5.3	31.0	-10.7	50.9	1.0	61.3	0.5	68.6	-0.7	73.2	-5.2	80.9	-2.1	78.6	-3.0	69.1	-4.6	63.3	0.6	50.4	1.5	31.3	-8.9	58.4	-2.2
5	0830	BLANCHARD 2 SSW	43.9	*	33.9	*	52.5	*	63.8	*	70.3	*	73.5	*	79.6	*	79.6	*	69.5	*	65.9	*	53.2	*	32.9	*	59.9	*
5	1144	BRISTOW	44.0	7.3	33.3	-9.1	51.6	*	63.4	1.5	69.2	0.1	73.7	-3.5	79.0	-3.2	79.3	-1.9	67.8	-5.9	64.2	0.9	54.0	4.3	*	*	*	*
5	1684	CHANDLER	43.4	6.0	33.3	-9.1	52.1	1.4	63.4	1.4	69.3	0.1	73.6	-3.9	79.0	-3.8	78.8	-3.0	67.6	-6.5	64.6	1.3	53.5	3.1	32.5	-9.0	59.3	-1.8
5	1750	CHICKASHA EX ST	43.5	5.7	33.9	-9.2	53.0	1.4	63.8	1.5	70.8	0.6	74.1	-4.7	80.4	-2.6	80.0	-1.2	70.2	-3.7	65.2	2.0	52.7	2.7	31.3	-10.3	59.9	-1.9
5	2318	CUSHING	41.1	6.3	30.8	-9.2	49.1	0.7	61.5	1.0	68.3	-0.2	73.3	-3.7	78.7	-3.7	78.4	-3.0	67.8	-5.8	63.2	0.8	51.2	2.3	29.0	-10.5	57.7	-2.1
5	2818	EL RENO 1 N	*	*	32.5	-8.8	52.2	2.7	63.1	2.6	69.3	0.6	73.6	-3.8	79.6	-2.9	79.0	-2.3	68.8	-4.6	64.2	1.8	51.4	2.9	31.5	-8.6	*	*
5	3821	GUTHRIE	43.9	7.7	33.6	-7.7	53.6	3.9	65.3	4.1	70.5	1.2	74.9	-3.0	80.8	-2.3	80.4	-1.7	69.9	-4.2	65.1	2.1	52.6	3.3	31.8	-8.2	60.2	-0.4
5	4055	HENNESSEY 2 SE	41.0	5.5	31.0	-9.6	49.9	1.0	61.1	0.9	68.2	-1.0	73.9	-4.6	79.0	-4.7	77.4	-4.9	69.0	-4.9	64.2	1.4	48.5	0.5	30.0	-9.3	57.8	-2.5
5	4861	KINGFISHER 2 SE	41.9	5.9	31.4	-9.8	51.1	1.5	62.2	1.4	68.6	-0.8	73.6	-5.0	79.8	-3.9	78.5	-3.9	68.2	-6.0	63.7	0.8	50.4	1.5	30.3	-9.6	58.3	-2.3
5	5779	MEEKER 4 W	43.0	6.5	32.9	-9.0	52.2	2.1	63.2	1.9	69.0	0.0	*	*	73.8	-4.0	78.2	-3.1	67.4	-6.3	64.1	1.6	53.2	3.9	31.9	-8.9	*	*
5	6386	NORMAN 3 S	44.0	*	34.1	*	52.3	*	64.3	*	70.4	*	74.4	*	80.7	*	79.7	*	69.8	*	65.2	*	53.0	*	32.5	*	60.0	*
5	6638	OKEMAH	44.9	7.0	33.8	-9.3	52.3	1.2	63.3	1.5	69.9	0.8	74.6	-2.5	79.2	-2.9	79.8	-1.4	69.6	-4.5	64.4	0.9	53.8	3.1	33.2	-8.8	59.9	-1.2
5	6661	OKLAHOMA CTY WS	43.5	7.6	33.6	-7.2	52.3	3.2	63.9	3.7	70.1	1.7	74.5	-2.5	79.7	-2.4	78.5	-2.6	68.3	-5.0	63.8	1.5	53.6	4.8	33.3	-6.6	59.6	-0.3
5	7327	PURCELL 5 SW	43.8	6.9	34.2	-8.0	52.1	1.7	63.1	1.4	70.1	0.6	73.6	-4.4	79.2	-3.6	79.2	-2.7	68.9	-5.3	64.5	1.6	52.3	2.8	32.3	-8.7	59.4	-1.5
5	8042	SEMINOLE	45.5	6.4	35.6	-8.9	53.8	1.4	65.4	2.2	71.6	1.2	75.4	-3.1	80.6	-3.1	80.5	-2.1	70.0	-5.2	65.3	0.7	54.6	2.9	34.0	-9.0	61.0	-1.4
5	8501	STILLWATER 2 W	38.9	3.6	30.4	-10.1	48.8	0.0	60.0	-0.4	68.0	-0.4	73.3	-3.7	78.7	-3.4	78.6	-2.4	68.0	-5.1	61.5	0.7	50.0	1.1	27.6	-12.2	57.0	-2.8
6	2993	EUFAULA	45.2	*	34.7	*	52.0	*	63.2	*	69.3	*	75.3	*	78.9	*	80.1	*	69.7	*	64.1	*	54.6	*	34.0	*	60.1	*
6	3884	HANNA	44.4	*	34.5	*	51.4	*	62.9	*	69.7	*	74.4	*	78.6	*	79.4	*	68.8	*	63.7	*	53.5	*	32.6	*	59.5	*
6	4235	HOLDENVILLE	44.3	5.5	34.8	-9.3	51.7	0.0	63.3	1.1	70.0	0.3	73.9	-3.6	79.0	-3.6	79.1	-2.8	69.0	-5.6	64.5	0.4	53.8	2.4	33.5	-9.4	59.7	-2.7
6	4975	LAKE EUFAULA	43.5	*	34.4	*	50.9	*	62.4	*	67.6	0.3	74.0	*	*	*	80.9	*	70.0	*	*	*	54.1	*	32.3	*	*	*
6	5664	MCALESTER FAA	46.2	8.1	36.7	-6.4	52.2	0.9	63.7	1.8	69.7	0.2	75.4	-2.4	78.9	-3.8	80.2	-1.5	69.8	-4.4	64.5	2.9	53.5	4.8	35.2	-6.8	60.5	-0.9
6	5693	MCCURTAIN 1 SE	46.1	*	36.9	*	54.4	*	64.3	*	70.7	*	75.3	*	78.9	*	80.9	*	69.9	*	65.5	*	56.0	*	35.1	*	61.2	*
6	6130	MUSKOGEE	44.7	7.0	34.1	-8.8	51.7	0.6	63.3	1.3	68.9	-0.6	74.1	-3.4	79.3	-3.3	79.8	-1.7	69.8	-4.3	65.0	2.1	54.4	4.3	31.3	-10.4	59.7	-1.4
6	6670	OKMULGEE W W	42.6	5.5	*	*	50.8	-0.5	*	*	*	*	*	*	77.5	-4.2	*	*	67.4	-6.1	*	*	51.6	1.0	28.4	-13.5	*	*
6	7862	SALLISAW 2 NE	43.2	4.8	35.9	-7.5	52.1	0.8	62.5	0.3	68.0	-1.7	74.5	-2.9	78.0	*	79.7	-1.3	70.2	-4.0	63.5	0.1	51.7	1.0	31.6	-10.6	59.2	-2.1
6	8506	STILWELL 1 NE	43.2	*	33.8	*	51.1	*	61.2	*	66.4	*	72.0	*	76.3	*	77.9	*	67.9	*	63.5	*	52.5	*	32.0	*	58.1	*
6	8677	TAHLEQUAH	43.9	6.9	33.8	-8.3	51.5	1.5	62.6	1.5	68.1	-0.1	73.1	-3.0	77.6	-3.1	78.4	-1.5	68.1	-4.8	63.4	1.5	53.0	7.4	31.3	-9.5	58.7	-1.3
6	9445	WEBBERS FALLS	42.0	6.0	34.0	-6.8	48.9	-0.3	61.3	0.7	67.2	-1.8	*	*	78.7	-3.4	79.0	-1.7	68.5	-5.0	63.7	1.7	51.3	2.0	30.3	-10.1	*	*

1989 AVERAGE TEMPERATURES AND DEVIATIONS FROM NORMAL (Fahrenheit)

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV	TEMP	DEV
7	0179	ALTUS IRR STA	46.7	7.4	36.4	-8.0	56.6	4.1	65.7	2.4	72.8	1.2	75.6	-4.9	82.3	-2.3	80.5	-2.6	71.2	-4.2	66.6	2.0	53.3	2.1	34.5	-8.3	61.8	-1.0
7	0184	ALTUS DAM	43.9	*	33.6	*	52.8	*	63.9	*	70.6	*	75.6	*	82.9	*	81.0	*	71.8	*	65.7	*	51.2	*	32.8	*	60.5	*
7	1504	CARNEGIE 2 ENE	43.5	6.2	33.8	-8.8	53.2	2.4	64.0	2.2	70.8	0.8	*	*	81.1	-2.6	80.6	-1.7	69.8	-4.6	65.3	2.1	51.1	1.6	32.1	-9.0	*	*
7	1706	CHATTANOOGA	44.0	5.0	36.5	-7.8	54.1	1.8	64.4	1.6	72.8	2.0	76.3	-3.6	82.5	-1.8	81.4	-1.9	71.8	-3.8	66.6	2.3	52.8	1.9	33.6	*	61.4	-1.1
7	3353	FREDERICK	45.0	4.4	35.7	-10.0	53.1	-0.7	64.6	0.2	71.2	-1.1	75.3	-5.7	82.5	-3.3	80.5	-4.1	71.9	-4.7	65.5	-0.1	51.8	-0.5	*	*	*	*
7	4204	HOBART FAA APT	43.2	7.0	33.1	-8.1	51.7	-2.4	63.7	3.4	70.3	1.2	74.1	-4.8	81.7	-1.8	79.7	-2.4	69.9	-3.9	65.4	3.0	51.8	3.3	33.1	-6.8	59.8	-0.6
7	4249	HOLLIS	44.2	5.3	*	*	53.0	0.7	65.1	1.9	70.6	-1.2	74.9	-6.1	82.4	-2.5	80.6	-2.8	70.7	-4.6	65.6	1.6	51.8	1.4	33.2	-9.0	*	*
7	5063	LAWTON	43.6	4.8	34.3	-9.4	*	*	63.9	1.2	71.0	0.4	74.7	-4.3	82.1	-1.6	*	*	70.0	-5.1	64.3	0.3	50.9	0.0	31.4	-10.8	*	*
7	5068	FORT SILL	46.8	*	37.3	*	54.3	*	64.9	*	70.9	*	75.0	*	81.2	*	79.9	*	70.3	*	66.0	*	53.9	*	34.2	*	61.2	*
7	5509	MANGUM RES STA	45.8	7.2	35.0	-8.9	58.1	6.2	65.6	2.9	74.6	3.6	77.1	-2.7	82.4	-1.5	78.1	-4.5	70.5	-4.4	65.6	1.8	52.9	2.7	34.1	-7.8	61.6	-0.5
7	9278	WALTERS	45.9	6.0	37.0	-8.0	53.2	0.1	64.5	0.9	72.8	1.3	75.8	-4.2	82.2	-2.3	81.2	-2.5	71.6	-4.6	66.7	1.9	54.8	3.1	35.7	-7.8	61.8	*
7	9629	WICHITA MT WLR	*	*	34.5	-8.3	51.9	1.0	64.4	2.6	70.2	1.0	74.7	-3.0	83.1	0.5	78.9	-2.6	70.8	-2.8	65.1	2.4	49.0	0.3	30.6	-10.6	*	-1.3
8	0017	ADA	44.4	4.8	34.7	-10.0	52.2	-0.2	63.3	0.8	70.8	1.1	74.4	-3.3	79.5	-3.2	79.3	-2.4	70.0	-4.6	64.5	0.1	54.3	2.5	34.8	-8.7	60.2	-1.9
8	0292	ARDMORE	47.4	5.4	37.7	-9.7	53.9	-1.2	64.9	-0.3	71.3	-1.1	75.4	-4.9	79.7	-5.1	80.1	-3.9	*	*	66.6	-0.3	*	*	35.6	-10.6	*	*
8	0394	ATOKA DAM	45.0	*	36.5	*	51.7	*	63.5	*	70.6	*	75.3	*	*	*	81.0	*	71.2	*	65.0	*	53.7	*	*	*	*	*
8	1437	CANEY	45.2	*	37.2	*	53.1	*	65.9	*	70.6	*	76.7	*	*	*	*	*	71.2	*	65.9	*	55.5	*	*	*	*	*
8	1745	CHICKASAW NRA	43.6	*	35.3	*	51.0	*	62.4	*	68.5	*	73.5	*	79.1	*	79.0	*	69.1	*	64.2	*	52.0	*	31.6	*	59.1	*
8	2660	DUNCAN	44.1	4.2	35.1	-9.8	51.2	-1.8	63.1	-0.6	69.4	-1.5	74.5	-4.5	80.8	-3.0	79.7	-3.3	70.5	-5.2	*	*	51.8	-0.2	33.4	-10.3	*	*
8	2678	DURANT USDA	44.3	*	37.6	*	52.1	*	63.1	*	69.3	*	74.6	*	79.1	*	78.8	*	70.0	*	65.0	*	53.6	*	34.6	*	60.2	*
8	4001	HEALDTON	45.7	*	37.0	*	53.0	*	64.5	*	70.9	*	*	*	80.3	*	*	*	71.0	*	65.1	*	*	*	*	*	*	*
8	5216	LINDSAY 2 W	44.0	*	34.9	*	52.0	*	63.5	*	*	*	74.3	*	80.4	*	80.5	*	69.8	*	*	*	51.9	*	32.6	*	*	*
8	5468	MADILL	46.5	5.5	*	*	53.2	-0.4	64.8	1.3	71.5	0.6	75.3	-3.6	80.4	-3.3	80.6	-2.5	70.9	-5.0	66.0	0.7	55.5	2.9	35.6	-9.2	*	*
8	5563	MARIETTA	47.2	6.0	38.7	-7.4	54.1	0.3	65.7	2.2	72.2	1.4	75.8	-2.9	80.8	-2.8	81.0	-1.9	72.5	-3.4	67.1	1.7	56.2	3.3	36.8	-8.0	62.3	-1.0
8	5581	MARLOW 1 WSW	45.0	*	35.8	*	54.0	*	64.3	*	71.1	*	73.9	*	80.5	*	80.5	*	70.5	*	66.6	*	54.2	*	34.5	*	60.9	*
8	5713	MOGEE CREEK DAM	44.0	*	37.5	*	52.5	*	63.6	*	70.3	*	75.9	*	79.9	*	79.8	*	71.1	*	65.7	*	54.5	*	35.5	*	60.9	*
8	6926	PAULS VALLEY	*	*	36.2	-8.3	52.8	0.2	64.8	1.5	*	*	74.3	-5.2	79.5	-4.6	79.7	-3.4	69.9	-5.7	65.8	1.4	53.5	2.1	32.9	-9.9	*	*
8	8884	TISHOMINGO NWLR	46.5	*	37.5	*	*	*	53.4	*	70.9	*	76.1	*	80.5	*	80.4	*	70.9	*	*	*	54.6	*	34.0	*	*	*
8	9395	WAURIKA	47.5	6.5	37.7	-8.5	54.5	0.3	65.8	1.3	73.1	1.2	75.6	-4.5	82.3	-2.4	82.0	-1.8	73.0	-3.5	67.0	1.5	55.0	2.4	35.8	-8.8	62.4	-1.4
8	9399	WAURIKA DAM	*	*	*	*	*	*	63.3	*	70.4	*	75.3	*	81.5	*	81.0	*	72.0	*	65.4	*	*	*	*	*	*	*
9	0256	ANTLERS	46.3	6.0	39.3	-5.7	53.9	1.1	64.1	1.5	70.8	1.0	75.2	-2.3	79.1	-2.9	79.8	-1.3	70.7	-3.7	65.6	2.1	54.9	3.1	35.5	-8.2	61.3	-0.7
9	0567	BATTIEST 1 SSW	43.1	*	39.2	*	52.4	*	62.2	*	69.3	*	73.3	*	77.3	*	77.0	*	*	*	62.5	*	54.2	*	34.6	*	*	*
9	0980	BOSWELL 4 NNW	47.1	*	39.9	*	54.4	*	65.5	*	71.7	*	75.5	*	80.0	*	79.6	*	71.6	*	66.8	*	58.5	*	38.1	*	62.4	*
9	1168	BROKEN BOW DAM	43.9	*	39.3	*	52.1	*	61.9	*	69.6	*	74.3	*	78.1	*	78.0	*	70.9	*	62.5	*	52.5	*	35.3	*	59.9	*
9	4384	HUGO	47.0	4.7	40.2	-6.7	55.9	1.3	65.2	1.1	71.7	0.4	75.8	-2.9	*	*	79.9	-2.3	71.6	-4.2	66.6	1.4	56.7	3.3	38.2	-7.5	*	*
9	4451	IDABEL	45.7	3.7	*	*	53.1	-0.8	62.8	-0.4	*	*	75.1	-2.8	78.4	-3.5	78.6	-2.7	71.6	-3.3	64.4	0.3	54.9	2.3	35.0	*	*	*
9	7254	POTEAU W W	43.8	*	36.0	*	53.1	*	62.2	*	68.9	*	74.8	*	78.0	*	79.3	*	68.8	*	62.0	*	*	*	30.9	*	*	*
9	8285	SMITHVILLE 1 W	43.0	*	37.8	*	51.0	*	59.9	*	68.0	*	72.6	*	75.9	*	76.6	*	*	*	61.0	*	50.5	*	32.5	*	*	*
9	9023	TUSKAHOMA	46.6	*	39.0	*	54.2	*	63.8	*	70.0	*	74.4	*	78.0	*	79.6	*	69.9	*	66.0	*	55.0	*	34.7	*	60.9	*

**1989 MONTHLY AND ANNUAL HEATING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL			
		HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV		
0332	ARNETT	798	-186	1026	276	533	-82	*	*	84	-4	26	19	0	0	1	1	119	88	176	-31	535	-45	1126	264	*	*		
0593	BEAVER	884	-115	1062	309	556	-61	247	-7	91	-3	38	28	0	0	1	1	121	90	246	27	606	-6	1162	269	5012	531		
0908	BOISE CITY 2 E	825	-133	971	223	474	-174	267	-59	106	-25	42	32	0	0	0	0	92	55	236	-14	494	-140	1029	155	4533	-80		
1243	BUFFALO	772	-168	941	252	466	-76	151	-43	46	-18	13	7	0	0	0	0	79	60	150	-6	470	-71	1045	223	4131	163		
3407	GAGE FAA APT	755	-229	998	250	494	-171	198	-46	66	-21	20	20	0	0	0	0	103	77	182	-21	497	-94	1079	205	4390	37		
3489	GATE	784	*	1047	*	502	*	186	*	64	*	*	*	0	*	1	*	108	*	195	*	*	*	1097	*	*	*	*	
3628	GOODWELL RES ST	864	-113	1039	300	563	-70	297	7	100	-20	56	45	0	0	0	0	126	87	242	11	568	-53	1107	230	4959	423		
4298	HOOKER	854	-133	1052	307	551	-29	268	-7	96	-1	47	37	0	0	0	0	124	95	228	2	555	-73	1118	231	4890	388		
4766	KENTON	901	-37	1006	267	495	-156	311	-18	125	9	70	56	*	*	0	0	129	97	310	60	604	-30	1080	209	*	*		
6740	OPTIMA LAKE	*	*	*	*	*	*	258	*	86	*	*	*	0	*	0	*	113	*	237	*	567	*	1108	*	*	*	*	
9017	TURPIN 4 SSE	892	*	1072	*	541	*	266	*	97	*	45	*	0	*	0	*	126	*	245	*	597	*	1159	*	5038	*		
0193	ALVA	728	*	988	268	488	-70	166	-49	53	*	5	0	0	0	0	0	64	44	162	*	464	*	1090	*	4207	159		
0755	BILLINGS	812	*	993	*	493	*	215	*	63	*	0	*	0	*	3	*	90	*	148	*	450	*	1189	*	4453	*		
0818	BLACKWELL 2E	785	*	998	*	484	*	209	*	72	*	4	*	0	*	0	*	76	*	147	*	504	*	1140	*	4417	*		
1724	CHEROKEE	728	-219	935	232	455	-79	169	-27	50	5	6	6	0	0	*	*	70	55	145	-6	495	-37	1087	259	*	*		
2912	ENID	713	-206	*	*	*	*	171	-7	50	10	4	4	0	0	0	0	72	57	138	4	471	-25	1077	280	*	*		
3304	FT SUPPLY DAM	*	*	*	*	556	-3	232	16	*	*	34	28	0	0	*	*	101	76	*	*	*	*	1161	327	*	*		
3358	FREEDOM	800	*	985	*	494	*	175	*	52	*	8	*	0	*	1	*	81	*	184	*	550	*	1114	*	4442	*		
3740	GREAT SALT PLNS	771	*	*	*	500	*	200	*	69	*	8	*	0	*	3	*	81	*	162	*	496	*	1115	*	*	*	*	
4019	HELENA 1 SSE	809	*	1014	*	534	*	245	*	92	*	10	*	0	*	3	*	98	*	182	*	586	*	1197	*	4767	*		
4573	JEFFERSON	762	-187	968	257	482	-51	177	-21	56	9	4	4	0	0	0	0	78	63	*	*	509	-8	1117	289	*	*		
6139	MUTUAL	819	-139	992	270	503	-72	214	-17	101	22	32	26	0	0	0	0	121	103	186	11	534	-19	1108	265	4607	450		
6278	NEWKIRK	731	-249	984	253	468	-87	199	-5	75	24	5	5	0	0	0	0	77	55	158	1	461	-68	1108	259	4264	188		
7012	PERRY	613	-289	864	203	395	-103	198	41	93	55	21	21	*	*	0	0	85	70	152	27	580	118	1218	455	*	*		
7201	PONCA CITY FAA	708	-303	963	199	444	-136	180	-43	63	-3	2	2	0	0	0	0	81	53	163	-34	428	-125	1106	229	4136	-143		
9404	WAYNOKA	771	-153	981	298	465	-53	197	20	64	16	10	10	0	0	1	1	82	66	166	8	517	4	1096	278	4348	493		
0535	BARNSDALL	712	*	978	*	493	*	184	*	78	*	5	*	0	*	0	*	102	*	175	*	418	*	1134	*	4275	*		
0548	BARTLESVILLE 2W	720	-223	964	272	480	-36	171	0	68	32	3	3	0	0	0	0	85	67	153	-8	440	-61	1117	311	4199	357		
0782	BIXBY	754	-164	944	264	562	48	205	37	89	46	7	7	0	0	0	0	*	*	153	-20	452	-38	1116	350	*	*		
1828	CLAREMORE	758	-188	947	241	549	15	226	39	96	33	5	5	0	0	0	0	98	72	157	-23	*	*	1164	358	*	*		
4672	KANSAS 1 ESE	679	*	944	*	477	*	198	*	87	*	8	*	0	*	2	*	71	*	147	*	*	*	1071	*	*	*	*	
5522	MANNFORD 6 NW	*	*	*	*	413	*	138	*	56	*	2	*	*	*	0	*	78	*	110	*	375	*	994	*	*	*	*	
5855	MIAMI	729	-210	979	273	*	*	217	31	86	28	1	-7	0	0	*	*	93	66	168	-7	457	-41	1142	342	*	*		
6485	NOWATA	720	-220	988	288	549	25	190	-4	*	*	0	0	0	0	0	0	96	75	149	-9	*	*	1123	317	*	*		
6935	PAWUSKA	727	-220	974	274	486	-36	184	6	76	28	5	5	0	0	0	0	90	66	170	9	453	-58	1129	314	4291	388		
7309	PRYOR 6 N	767	-167	970	270	599	72	240	44	120	65	7	7	0	0	3	3	*	*	178	11	481	-23	1210	416	*	*		
7390	RALSTON	703	*	921	*	431	*	151	*	46	*	1	*	0	*	0	*	64	*	137	*	418	*	1058	*	3927	*		
8380	SPAVINAW	639	*	912	*	459	*	181	*	67	*	6	*	0	*	0	*	62	*	125	*	*	*	1055	*	*	*	*	
8992	TULSA WSO APT	639	-286	906	226	466	-35	145	-24	53	13	1	1	0	0	0	0	67	44	118	-28	342	-133	1018	237	3752	21		
9101	UPPER SPAVINAW	652	*	878	*	420	*	141	*	47	*	2	*	*	*	0	*	60	*	123	*	*	*	*	*	*	*	*	*
9203	VINITA 2 N	713	-234	965	259	531	-3	*	*	84	22	*	*	0	0	0	0	*	*	166	-11	422	-91	1151	342	*	*	*	*
9247	WAGONER	629	-242	873	235	434	-33	167	17	56	26	3	3	0	0	0	0	61	44	118	-23	335	-112	*	*	*	*	*	*

**1989 MONTHLY AND ANNUAL HEATING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

ID	CD	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV
4	1445	CANTON DAM	*	*	*	*	*	*	*	*	82	32	10	10	0	0	5	5	111	96	162	23	*	*	*	*	*	*
4	1909	CLINTON	635	-253	865	204	370	-124	135	-45	37	-5	0	0	0	0	0	0	46	30	108	-34	396	-100	958	180	3548	-147
4	2849	ELK CITY 1 E	683	*	916	*	437	*	163	*	*	*	4	*	0	*	*	*	69	*	118	*	*	*	*	*	*	*
4	2944	ERICK 4 E	697	-172	898	254	428	-63	148	-30	42	-4	3	3	0	0	0	0	77	64	120	-26	448	-51	1017	251	3876	227
4	3871	HAMMON 1 NNE	830	-79	1012	337	533	18	219	36	86	23	8	2	0	0	0	0	145	123	193	57	510	-16	1135	329	4669	796
4	6629	OKEENE	727	-160	936	281	454	-28	175	7	51	15	3	3	0	0	0	0	65	52	138	16	437	-41	1057	291	4041	431
4	7579	REYDON	*	*	936	*	415	*	172	*	57	*	9	*	*	*	0	*	80	*	138	*	442	*	*	*	*	*
4	8708	TALOGA	751	-176	965	268	492	-36	166	-36	63	7	7	7	0	0	0	0	89	70	151	-18	481	-60	1047	232	4209	258
4	9364	WATONGA	708	*	936	*	457	*	176	*	56	*	5	*	0	*	0	*	79	*	144	*	447	*	1046	*	4051	*
4	9422	WEATHERFORD	717	-163	952	300	462	-21	188	20	59	26	5	5	0	0	0	0	93	78	143	9	439	-45	1046	277	4103	487
5	0830	BLANCHARD 2 SSW	655	*	872	*	409	*	138	*	33	*	0	*	0	*	0	*	60	*	92	*	361	*	994	*	3613	*
5	1144	BRISTOW	629	-248	887	254	*	*	153	-3	53	21	2	2	0	0	0	0	80	58	123	-14	345	-119	*	*	*	*
5	1684	CHANDLER	647	-209	888	255	417	-44	143	2	46	14	2	2	0	0	0	0	72	54	108	-21	356	-87	976	247	3654	212
5	1750	CHICKASHA EX ST	666	-178	872	259	386	-49	149	7	39	15	0	0	0	0	0	0	59	46	118	-11	373	-77	1045	320	3705	332
5	2318	CUSHING	740	-197	959	259	499	-33	196	27	56	7	4	4	0	0	0	0	76	56	140	-10	422	-62	1115	324	4204	374
5	2818	EL RENO 1 N	*	*	911	247	422	-72	156	-23	47	10	3	3	0	0	0	0	71	56	126	-14	411	-85	1040	268	*	*
5	3821	GUTHRIE	654	-240	880	216	382	-99	124	-41	37	3	1	1	0	0	0	0	59	44	118	-21	381	-91	1030	255	3663	24
5	4055	HENNESSEY 2 SE	744	-172	952	269	481	-32	201	17	72	31	2	2	0	0	0	0	69	55	125	-16	483	-13	1087	290	4212	430
5	4861	KINGFISHER 2 SE	718	-182	941	275	454	-37	181	7	59	24	2	2	0	0	0	0	77	63	130	1	437	-46	1076	298	4073	405
5	5779	MEEKER 4 W	681	-203	900	253	406	-70	151	-8	53	18	*	*	*	*	0	0	86	69	119	-31	367	-105	1026	276	*	*
5	6386	NORMAN 3 S	652	*	867	*	416	*	135	*	35	*	2	*	0	*	0	*	61	*	114	*	364	*	1007	*	3651	*
5	6638	OKEMAH	624	-216	875	262	405	-46	147	11	40	13	1	1	0	0	0	0	52	35	111	-14	346	-83	985	272	3584	234
5	6661	OKLAHOMA CTY WS	668	-234	880	202	415	-92	137	-48	37	-4	0	0	0	0	0	0	77	62	122	-23	351	-135	983	205	3668	-67
5	7327	PURCELL 5 SW	656	-215	862	224	414	-62	154	-1	44	9	2	2	0	0	0	0	70	58	118	-17	385	-83	1013	269	3715	184
5	8042	SEMINOLE	606	-197	824	250	368	-43	117	-15	30	7	0	0	0	0	0	0	50	40	106	6	324	-80	962	280	3386	247
5	8501	STILLWATER 2 W	808	-113	970	284	511	-4	230	47	70	22	4	4	0	0	0	0	94	76	162	-4	450	-34	1160	379	4457	664
6	2993	EUFULA	613	*	849	*	413	*	159	*	50	*	0	*	0	*	0	*	51	*	110	*	336	*	962	*	3542	*
6	3884	HANNA	639	*	854	*	431	*	162	*	47	*	3	*	0	*	0	*	66	*	114	*	362	*	1004	*	3680	*
6	4235	HOLDENVILLE	641	-171	847	254	419	-11	146	15	41	18	3	3	0	0	0	0	61	50	113	-2	349	-65	977	292	3595	382
6	4975	LAKE EUFULA	668	*	857	*	455	*	180	*	59	*	3	*	*	*	0	*	57	*	*	*	350	*	1015	*	*	*
6	5664	MCALESTER FAA	582	-252	793	180	420	-22	147	3	43	9	0	0	0	0	0	0	54	38	116	-27	311	-123	924	211	3388	27
6	5693	MCCURTAIN 1 SE	587	*	786	*	362	*	154	*	39	*	3	*	0	*	0	*	58	*	109	*	298	*	926	*	3320	*
6	6130	MUSKOGEE	631	-216	866	247	424	-24	156	18	55	23	3	3	0	0	0	0	54	37	111	-30	336	-112	1046	324	3679	270
6	6670	OKMULGEE W W	696	-161	*	*	448	0	*	*	*	*	*	*	0	*	*	*	81	65	*	*	410	-23	1134	418	*	*
6	7862	SALLISAW 2 NE	675	-151	816	211	406	-37	158	28	61	36	5	5	*	*	0	0	51	41	135	9	409	-26	1002	295	*	*
6	8506	STILWELL 1 NE	675	*	875	*	441	*	195	*	90	*	7	*	0	*	2	*	72	*	141	*	391	*	1024	*	3910	*
6	8677	TAHLEQUAH	634	-234	874	233	426	-55	167	4	65	9	6	6	0	0	0	0	75	51	139	-31	355	-121	1044	294	3782	155
6	9445	WEBBERS FALLS	706	-187	869	191	503	2	203	32	82	46	*	*	0	0	0	0	73	58	139	-14	416	-55	1075	312	*	*

**1989 MONTHLY AND ANNUAL HEATING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL		
		HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	HDD	DEV	
0179	ALTUS IRR STA	567	-231	802	225	319	-84	106	-18	18	0	1	1	0	0	0	0	48	41	94	-13	353	-62	945	257	3251	112	
0184	ALTUS DAM	654	*	879	*	420	*	161	*	32	*	0	*	0	*	0	*	63	*	126	*	420	*	997	*	3750	*	
1504	CARNEGIE 2 ENE	646	-214	874	247	391	-64	143	-7	33	9	*	*	0	0	0	0	70	56	111	-16	421	-44	1021	280	*	*	
1706	CHATTANOOGA	650	-156	799	219	357	-56	122	-8	19	1	0	0	0	0	0	0	41	33	75	-27	370	-54	*	*	*	*	
3353	FREDERICK	622	-135	820	270	400	23	137	32	28	13	0	0	0	0	0	0	48	41	109	16	400	11	*	*	*	*	
4204	HOBART FAA APT	675	-218	892	226	*	*	149	-31	51	12	1	1	0	0	0	0	66	50	109	-33	397	-98	989	211	*	*	
4249	HOLLIS	646	-164	*	*	392	-22	117	-6	24	5	1	1	0	0	0	0	54	48	91	-20	398	-41	987	280	*	*	
5063	LAWTON	662	-150	859	263	*	*	140	13	24	2	0	0	0	0	*	*	67	61	115	0	424	-5	1041	334	*	*	
5068	FORT SILL	564	*	776	*	364	*	118	*	28	*	0	*	0	*	0	*	52	*	100	*	336	*	954	*	3289	*	
5509	MANGUM RES STA	597	-222	841	250	261	-166	127	-14	8	-17	0	0	0	0	0	0	53	47	110	-9	362	-82	959	243	3316	33	
9278	WALTERS	593	-186	785	225	393	0	124	-1	17	0	0	0	0	0	0	0	45	32	93	-24	316	-99	881	214	3245	172	
9629	WICHITA MT WLR	*	*	854	232	438	-20	137	-11	40	10	2	2	0	0	2	2	66	53	117	-22	458	-8	1067	329	*	*	
0017	ADA	640	-147	848	280	403	-11	137	6	16	-7	3	3	0	0	0	0	53	41	102	-17	324	-80	935	268	3460	336	
0292	ARDMORE	546	-153	765	264	*	*	119	38	22	15	0	0	0	0	0	0	*	*	91	22	*	*	881	298	*	*	
0394	ATOKA DAM	622	*	799	*	426	*	153	*	43	*	3	*	*	*	0	*	50	*	*	*	358	*	*	*	*	*	*
1437	CANEY	615	*	779	*	390	*	95	*	35	*	0	*	*	*	*	*	39	*	96	*	306	*	*	*	*	*	*
1745	CHICKASAW NRA	664	*	831	*	443	*	167	*	56	*	5	*	0	*	3	*	77	*	144	*	402	*	1035	*	3824	*	
2660	DUNCAN	648	-131	837	267	443	47	149	37	40	23	1	1	0	0	0	0	56	48	*	*	401	4	981	321	*	*	
2678	DURANT USDA	643	*	767	*	405	*	149	*	48	*	3	*	0	*	0	*	62	*	110	*	356	*	941	*	3482	*	
4001	HEALDTON	599	*	784	*	396	*	129	*	38	*	*	*	0	*	0	*	48	*	106	*	*	*	*	*	*	*	*
5216	LINDSAY 2 W	651	*	842	*	419	*	143	*	*	*	2	*	0	*	0	*	64	*	*	*	384	*	1003	*	*	*	*
5468	MADILL	575	-169	*	*	382	4	105	-2	25	12	0	0	0	0	0	0	64	57	90	-3	303	-63	912	286	*	*	
5563	MARIETTA	553	-185	737	201	357	-14	108	-3	19	4	0	0	0	0	0	0	31	21	89	-3	291	-80	875	249	3059	190	
5581	MARLOW 1 WSW	622	*	817	*	370	*	125	*	29	*	2	*	0	*	0	*	58	*	95	*	331	*	947	*	3395	*	
5713	MCGEE CREEK DAM	652	*	769	*	397	*	145	*	39	*	1	*	0	*	0	*	45	*	105	*	338	*	913	*	3403	*	
6926	PAULS VALLEY	*	*	808	234	402	-4	126	8	*	*	1	1	0	0	0	0	62	53	100	-5	354	-59	994	306	*	*	
8884	TISHOMINGO NWLR	555	*	771	*	*	*	*	*	36	*	0	*	0	*	*	*	56	*	*	*	*	*	961	*	*	*	*
9395	WAURIKA	543	-202	758	233	360	-5	114	10	14	1	0	0	0	0	0	0	25	21	88	-6	312	-67	905	273	3118	250	
9399	WAURIKA DAM	*	*	*	*	*	*	150	*	25	*	0	*	0	*	0	*	*	*	108	*	*	*	*	*	*	*	*
0256	ANTLERS	563	-207	721	158	356	-42	135	14	39	13	1	1	0	0	0	0	49	40	92	-33	330	-71	915	255	3199	129	
0567	BATTIEST 1 SSW	*	*	805	234	396	*	161	*	48	*	6	*	0	*	0	*	*	*	*	*	351	*	943	*	*	*	*
0980	BOSWELL 4 NNW	556	*	702	*	349	*	106	*	30	*	0	*	0	*	0	*	37	*	82	*	237	*	834	*	2933	*	
1168	BROKEN BOW DAM	653	*	720	*	408	*	166	*	53	*	3	*	0	*	0	*	24	*	135	*	382	*	921	*	3463	*	
4384	HUGO	557	-147	694	181	309	-39	109	15	26	17	0	0	*	*	0	0	36	36	83	-12	291	-66	830	232	*	*	
4451	IDABEL	601	-113	*	*	383	19	156	48	*	*	2	2	0	0	0	0	21	15	114	-1	338	-42	830	232	*	*	
7254	POTEAU W W	657	*	813	*	382	*	166	*	61	*	6	*	0	*	0	*	65	*	155	*	*	*	*	*	*	*	*
8285	SMITHVILLE 1 W	676	*	761	*	434	*	199	*	68	*	9	*	0	*	0	*	*	*	166	*	448	*	1009	*	*	*	*
9023	TUSKAHOMA	570	*	729	*	367	*	143	*	44	*	4	*	0	*	0	*	60	*	107	*	331	*	939	*	3291	*	

**1989 MONTHLY AND ANNUAL COOLING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL		
			CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD
1	0332	ARNETT	0	0	0	0	15	9	*	*	115	-13	171	-157	394	-97	367	-76	159	-49	59	13	1	1	0	0	*	*	
1	0593	BEAVER	0	0	0	0	11	5	84	67	139	5	180	-167	386	-126	341	-112	175	-34	42	2	0	0	0	0	1355	-361	
1	0908	BOISE CITY 2 E	0	0	0	0	1	1	40	32	130	56	149	-117	339	-64	289	-44	140	10	26	12	0	0	0	0	1112	-114	
1	1243	BUFFALO	0	0	0	0	14	-1	134	99	190	19	226	-183	462	-108	436	-86	180	-86	93	28	1	1	0	0	1733	-316	
1	3407	GAGE FAA APT	0	0	0	0	17	8	98	80	151	17	178	-175	398	-114	383	-85	175	-41	79	41	1	1	0	0	1480	-265	
1	3489	GATE	0	*	0	*	20	*	114	*	150	*	*	*	399	*	354	*	188	*	61	*	*	*	0	*	*	*	
1	3628	GOODWELL RES ST	0	0	0	0	4	-3	60	43	97	-12	149	-151	354	-92	336	-48	142	-33	29	2	0	0	0	0	1169	-293	
1	4298	HOOVER	0	0	0	0	7	-2	70	57	132	23	153	-175	355	-119	348	-61	175	-1	43	9	0	0	0	0	1282	-268	
1	4766	KENTON	0	0	0	0	1	1	42	32	99	30	118	-157	*	*	294	-64	128	-21	24	6	0	0	0	0	*	*	
1	6740	OPTIMA LAKE	*	*	*	*	*	*	71	*	124	*	*	*	361	*	358	*	162	*	30	*	0	*	0	*	*	*	*
1	9017	TURPIN 4 SSE	0	*	0	*	6	*	55	*	132	*	164	*	367	*	352	*	155	*	37	*	0	*	0	*	1267	*	
2	0193	ALVA	0	*	0	0	6	-6	106	75	168	*	249	-149	473	-98	405	-123	178	-88	83	*	4	*	0	*	1670	-351	
2	0755	BILLINGS	0	*	0	*	6	*	76	*	126	*	248	*	466	*	386	*	147	*	69	*	8	*	0	*	1530	*	
2	0818	BLACKWELL 2E	0	*	0	*	5	*	69	*	141	*	256	*	447	*	433	*	160	*	80	*	1	*	0	*	1590	*	
2	1724	CHEROKEE	0	0	0	0	13	1	111	71	201	41	287	-130	498	-82	*	*	197	-74	98	34	3	3	0	0	*	*	
2	2912	ENID	0	0	*	*	*	*	102	62	176	12	288	-117	470	-105	424	-107	182	-97	98	29	4	4	0	0	*	*	
2	3304	FT SUPPLY DAM	*	*	*	*	26	11	84	48	*	*	156	-207	369	-153	*	*	202	-40	*	*	*	*	0	0	*	*	
2	3358	FREEDOM	0	*	0	*	4	*	118	*	167	*	231	*	424	*	380	*	160	*	79	*	0	*	0	*	1560	*	
2	3740	GREAT SALT PLNS	0	*	*	*	20	*	84	*	159	*	274	*	512	*	418	*	196	*	79	*	6	*	0	*	*	*	
2	4019	HELENA 1 SSE	0	*	0	*	5	*	76	*	120	*	211	*	459	*	375	*	173	*	49	*	0	*	0	*	1466	*	
2	4573	JEFFERSON	0	0	0	0	8	-1	98	62	172	10	285	-126	491	-86	433	-97	185	-88	*	*	2	2	0	0	*	*	
2	6139	MUTUAL	0	0	0	0	12	3	81	55	118	-27	177	-196	404	-142	387	-109	169	-69	61	13	1	1	0	0	1408	-471	
2	6278	NEWKIRK	0	0	0	0	7	-4	83	44	137	-14	258	-117	425	-118	416	-84	161	-96	84	23	2	2	0	0	1572	-363	
2	7012	PERRY	0	0	0	0	23	6	74	22	170	-2	257	-137	*	*	392	-138	130	-161	66	-13	0	0	0	0	*	*	
2	7201	PONCA CITY FAA	0	0	0	0	17	10	107	76	162	14	262	-105	443	-104	443	-51	177	-70	99	48	4	4	0	0	1712	-174	
2	9404	WAYNOKA	0	0	0	0	12	-5	99	63	167	-9	218	-187	429	-146	390	-140	179	-89	91	20	3	3	0	0	1586	-489	
3	0535	BARNSDALL	0	*	0	*	10	*	96	*	145	*	215	*	385	*	390	*	141	*	55	*	6	*	0	*	1441	*	
3	0548	BARTLESVILLE 2W	0	0	0	0	11	-4	96	51	165	15	268	-93	435	-93	433	-52	159	-93	76	22	5	5	0	0	1645	-241	
3	0782	BIXBY	0	0	0	0	5	-8	88	52	152	-4	255	-107	427	-95	414	-61	*	*	57	-14	8	8	0	0	*	*	
3	1828	CLAREMORE	0	0	0	0	7	-3	75	41	146	-7	268	-71	429	-86	412	-63	166	-91	78	10	*	*	0	0	*	*	
3	4672	KANSAS 1 ESE	0	*	0	*	8	*	65	*	114	*	213	*	346	*	365	*	129	*	60	*	*	*	0	*	*	*	
3	5522	MANNFORD 6 NW	*	*	*	*	30	*	129	*	165	*	250	*	*	*	419	*	149	*	110	*	19	*	0	*	*	*	
3	5855	MIAMI	0	0	0	0	*	*	75	36	113	-36	216	-128	391	-109	*	*	116	-139	55	-9	5	5	0	0	*	*	
3	6485	NOWATA	0	0	0	0	3	-8	83	42	*	*	248	-101	413	-117	400	-91	144	-115	56	-2	*	*	0	0	*	*	
3	6935	PAWHUSKA	0	0	0	0	11	-2	93	50	134	-13	234	-114	396	-125	390	-92	163	-90	71	18	4	4	0	0	1495	-362	
3	7309	PRYOR 6 N	0	0	0	0	7	-9	64	18	107	-45	221	-127	388	-128	377	-97	*	*	39	-17	6	6	0	0	*	*	
3	7390	RALSTON	0	*	0	*	11	*	115	*	191	*	307	*	477	*	464	*	181	*	100	*	4	*	0	*	1848	*	
3	8380	SPAVINAW	0	*	0	*	9	*	94	*	167	*	249	*	407	*	431	*	176	*	106	*	*	*	0	*	*	*	
3	8992	TULSA WSO APT	0	0	0	0	15	1	114	69	195	28	302	-79	480	-84	484	-35	183	-88	111	39	23	23	0	0	1906	-137	
3	9101	UPPER SPAVINAW	0	*	0	*	34	*	136	*	226	*	370	*	*	*	531	*	220	*	121	*	*	*	*	*	*	*	
3	9203	VINITA 2 N	0	0	0	0	10	0	*	*	137	-7	*	*	381	-118	379	-81	*	*	65	7	20	20	0	0	*	*	
3	9247	WAGONER	0	0	0	0	19	3	103	55	173	12	270	-97	425	-114	454	-46	175	-110	121	39	24	24	*	*	*	*	

**1989 MONTHLY AND ANNUAL COOLING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV
4	1445	CANTON DAM	*	*	*	*	*	*	*	*	130	-29	192	-190	418	-137	356	-163	166	-101	73	-1	*	*	*	*	*	*
4	1909	CLINTON	0	0	0	0	25	12	120	73	204	39	288	-115	515	-52	481	-47	261	-14	107	48	0	0	0	0	1999	-54
4	2849	ELK CITY 1 E	0	*	0	*	19	*	88	*	*	*	228	*	450	*	*	*	161	*	73	*	*	*	*	*	*	*
4	2944	ERICK 4 E	0	0	0	0	10	-2	98	58	179	25	244	-142	443	-82	423	-62	191	-66	73	28	1	1	0	0	1658	-241
4	3871	HAMMON 1 NNE	0	0	0	0	13	-4	83	41	116	-49	197	-202	437	-121	380	-119	167	-80	30	-28	6	6	0	0	1428	-554
4	6629	OKEENE	0	0	0	0	18	4	101	53	193	17	246	-175	481	-106	440	-104	194	-107	89	16	6	6	0	0	1765	-391
4	7579	REYDON	*	*	0	*	28	*	110	*	156	*	194	*	*	*	420	*	197	*	84	*	0	*	*	*	*	*
4	8708	TALOGA	0	0	0	0	8	-2	77	47	145	-1	235	-140	421	-112	422	-66	165	-82	66	22	0	0	0	0	1538	-334
4	9364	WATONGA	0	*	0	*	21	*	107	*	167	*	248	*	442	*	396	*	179	*	93	*	3	*	0	*	1653	*
4	9422	WEATHERFORD	0	0	0	0	25	11	77	35	170	3	250	-150	494	-64	422	-94	215	-61	91	28	1	1	0	0	1743	-291
5	0830	BLANCHARD 2 SSW	0	*	0	*	23	*	101	*	193	*	256	*	452	*	452	*	195	*	118	*	6	*	0	*	1795	*
5	1144	BRISTOW	0	0	0	0	*	*	106	43	185	26	262	-105	433	-100	443	-60	163	-120	98	13	14	9	*	*	*	*
5	1684	CHANDLER	0	0	0	0	17	0	98	47	180	17	259	-117	434	-119	428	-93	146	-145	96	19	13	13	0	0	1669	-378
5	1750	CHICKASHA EX ST	0	0	0	0	15	-4	113	52	220	34	272	-142	476	-82	465	-37	216	-64	124	52	5	5	0	0	1904	-188
5	2318	CUSHING	0	0	0	0	6	-12	89	58	156	-3	251	-111	426	-113	415	-93	158	-120	85	16	8	8	0	0	1592	-370
5	2818	EL RENO 1 N	*	*	0	0	25	12	99	56	181	29	260	-112	452	-91	433	-72	185	-83	101	42	3	3	0	0	*	*
5	3821	GUTHRIE	0	0	0	0	35	22	132	82	208	41	297	-90	489	-72	476	-54	207	-81	121	44	8	8	0	0	1972	-101
5	4055	HENNESSEY 2 SE	0	0	0	0	11	-2	83	43	170	-3	269	-136	435	-145	385	-152	190	-92	100	27	2	2	0	0	1643	-457
5	4861	KINGFISHER 2 SE	0	0	0	0	24	12	96	48	171	-1	260	-148	458	-123	418	-121	171	-119	89	25	0	0	0	0	1685	-427
5	5779	MEEKER 4 W	0	0	0	0	22	9	98	51	178	19	*	*	*	*	410	-96	155	-124	91	18	14	14	0	0	*	*
5	6386	NORMAN 3 S	0	*	0	*	21	*	114	*	203	*	284	*	488	*	457	*	200	*	120	*	6	*	0	*	1891	*
5	6638	OKEMAH	0	0	0	0	10	-10	95	55	192	38	288	-76	442	-89	460	-42	189	-101	93	14	12	12	0	0	1779	-198
5	6661	OKLAHOMA CTY WS	0	0	0	0	22	9	103	63	190	43	285	-75	457	-73	417	-82	178	-87	84	23	8	8	0	0	1743	-171
5	7327	PURCELL 5 SW	0	0	0	0	15	-8	96	41	201	26	261	-129	441	-111	439	-85	188	-100	104	34	5	5	0	0	1749	-328
5	8042	SEMINOLE	0	0	0	0	20	-1	130	52	236	45	314	-92	484	-97	481	-66	201	-115	116	28	13	8	0	0	1992	-238
5	8501	STILLWATER 2 W	0	0	0	0	8	-4	81	36	164	10	254	-107	426	-105	421	-76	184	-78	78	17	0	0	0	0	1614	-306
6	2993	EUFULA	0	*	0	*	11	*	105	*	184	*	308	*	431	*	469	*	193	*	81	*	24	*	0	*	1803	*
6	3884	HANNA	0	*	0	*	8	*	98	*	193	*	285	*	422	*	447	*	182	*	75	*	17	*	0	*	1725	*
6	4235	HOLDENVILLE	0	0	0	-8	6	-12	96	49	197	28	271	-104	434	-112	439	-86	182	-117	97	10	14	14	0	0	1735	-338
6	4975	LAKE EUFULA	0	*	0	*	18	*	102	*	148	*	300	*	*	*	493	*	206	*	*	*	24	*	0	*	*	*
6	5664	MCALESTER FAA	0	0	0	0	22	5	106	55	189	15	312	-73	431	-143	471	-48	198	-95	125	63	27	20	0	0	1879	-191
6	5693	MCCURTAIN 1 SE	0	*	0	*	34	*	134	*	214	*	313	*	432	*	492	*	205	*	125	*	46	*	0	*	1994	*
6	6130	MUSKOGEE	0	0	0	0	13	-4	106	58	177	5	277	-98	443	-103	458	-54	199	-94	111	36	17	17	0	0	1800	-238
6	6670	OKMULGEE W W	0	0	*	*	7	-17	*	*	*	*	*	*	375	-143	*	*	154	-117	*	*	8	8	0	0	*	*
6	7862	SALLISAW 2 NE	0	0	0	0	5	-13	85	39	155	-15	289	-83	*	*	455	-42	208	-79	89	13	10	5	0	0	*	*
6	8506	STILWELL 1 NE	0	*	0	*	9	*	80	*	132	*	218	*	352	*	403	*	160	*	95	*	16	*	0	*	1463	*
6	8677	TAHLEQUAH	0	0	0	0	9	-7	96	50	161	6	250	-84	391	-97	415	-48	169	-93	90	17	15	10	0	0	1592	-245
6	9445	WEBBERS FALLS	0	0	0	0	4	-8	92	53	149	-12	*	*	426	-105	434	-53	178	-92	98	39	7	7	0	0	*	*

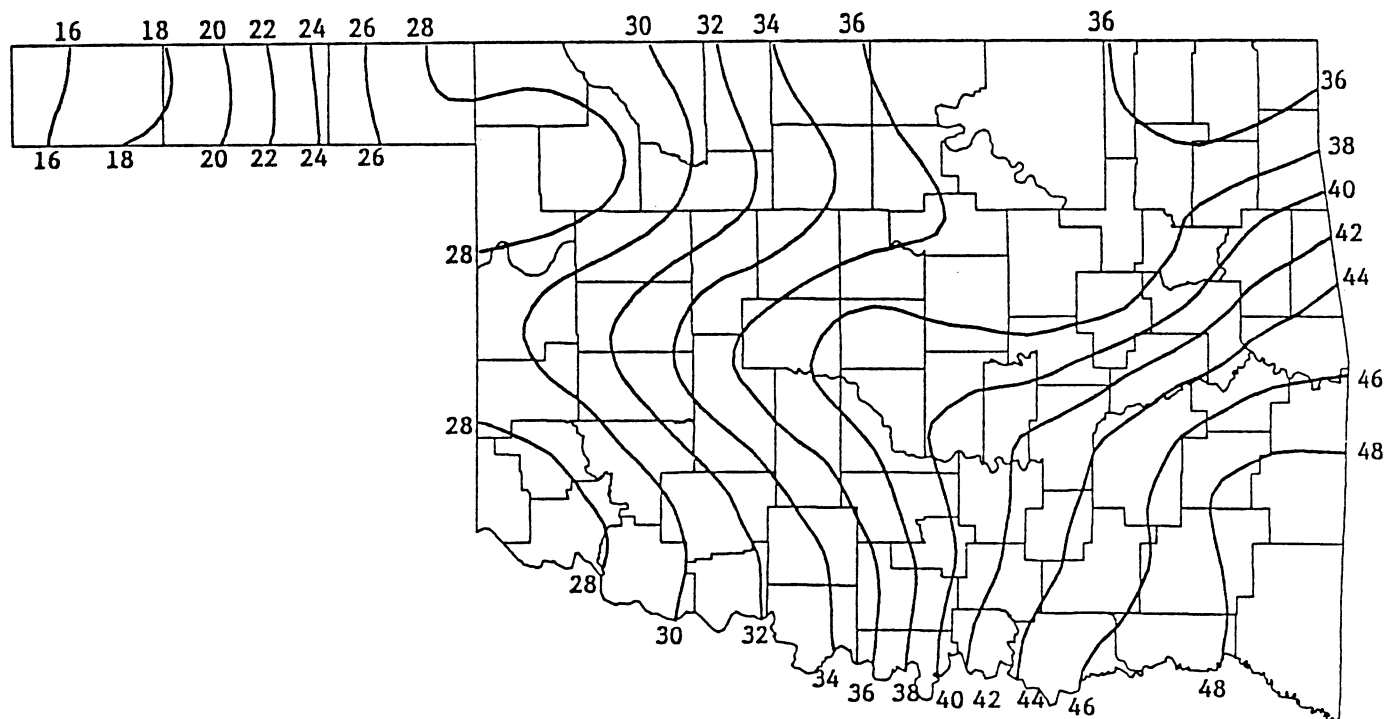
**1989 MONTHLY AND ANNUAL COOLING DEGREE DAYS
BASE = 65 DEGREES FAHRENHEIT**

CD	ID	STATION	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		ANNUAL	
			CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV	CDD	DEV
7	0179	ALTUS IRR STA	0	0	0	0	63	42	126	53	261	39	319	-147	536	-72	480	-82	234	-85	145	50	1	1	0	0	2163	-199
7	0184	ALTUS DAM	0	*	0	*	41	*	129	*	204	*	319	*	555	*	495	*	267	*	147	*	4	*	0	*	2159	*
7	1504	CARNEGIE 2 ENE	0	0	0	0	26	12	114	60	211	32	*	*	484	-97	468	-68	215	-81	120	49	3	3	0	0	*	*
7	1706	CHATTANOOGA	0	0	0	0	19	-1	103	40	260	62	341	-107	544	-54	491	-76	247	-83	124	45	4	4	*	*	*	*
7	3353	FREDERICK	0	0	0	-10	32	3	125	38	219	-22	308	-172	542	-103	479	-129	254	-101	126	14	2	-3	*	*	*	*
7	4204	HOBART FAA APT	0	0	0	0	*	*	110	71	215	49	273	-144	517	-58	455	-75	212	-68	120	59	0	0	0	0	*	*
7	4249	HOLLIS	0	0	*	*	20	0	118	50	199	-32	288	-192	540	-78	485	-85	225	-91	110	31	1	1	0	0	*	*
7	5063	LAWTON	0	0	0	0	*	*	106	48	203	8	290	-130	529	-51	*	*	217	-93	96	12	0	0	0	0	*	*
7	5068	FORT SILL	0	*	0	*	31	*	115	*	212	*	300	*	504	*	463	*	211	*	130	*	4	*	0	*	1967	*
7	5509	MANGUM RES STA	0	0	0	0	51	29	146	75	304	94	363	-82	539	-47	407	-139	219	-85	128	47	0	0	0	0	2156	-105
7	9278	WALTERS	0	0	0	0	28	4	109	27	260	41	326	-125	532	-73	501	-79	244	-106	147	37	10	4	0	0	2155	-270
7	9629	WICHITA MT WLR	*	*	0	0	31	11	119	67	200	40	294	-88	560	14	433	-79	242	-33	121	53	0	0	0	0	*	*
8	0017	ADA	0	0	0	0	6	-18	85	29	197	29	284	-97	450	-100	444	-74	204	-97	87	-13	4	-5	0	0	1758	-345
8	0292	ARDMORE	0	0	0	-9	*	*	116	29	225	11	311	-148	456	-159	468	-122	*	*	141	13	*	*	0	0	*	*
8	0394	ATOKA DAM	0	*	0	*	13	*	107	*	217	*	311	*	*	*	497	*	235	*	*	*	20	*	*	*	*	*
8	1437	CANEY	0	*	0	*	21	*	121	*	208	*	350	*	*	*	*	*	226	*	122	*	22	*	*	*	*	*
8	1745	CHICKASAW NRA	0	*	0	*	7	*	88	*	163	*	259	*	438	*	438	*	208	*	118	*	13	*	0	*	1730	*
8	2660	DUNCAN	0	0	0	-8	14	-10	91	18	172	-28	285	-135	490	-94	455	-104	221	-108	*	*	4	-4	0	0	*	*
8	2678	DURANT USDA	0	*	0	*	4	*	91	*	182	*	290	*	439	*	429	*	212	*	109	*	14	*	0	*	1768	*
8	4001	HEALDTON	0	*	0	*	24	*	114	*	222	*	*	*	474	*	*	*	227	*	110	*	*	*	*	*	*	*
8	5216	LINDSAY 2 W	0	*	0	*	14	*	100	*	*	*	282	*	478	*	480	*	207	*	*	*	6	*	0	*	*	*
8	5468	MADILL	0	0	*	*	18	-8	132	61	226	30	300	-117	478	-103	483	-79	242	-92	123	21	31	25	0	0	*	*
8	5563	MARIETTA	0	0	0	-6	20	-4	128	63	242	47	325	-87	490	-87	497	-59	256	-81	155	50	27	19	0	0	2138	-145
8	5581	MARLOW 1 WSW	0	*	0	*	29	*	103	*	217	*	268	*	479	*	479	*	224	*	146	*	7	*	0	*	1950	*
8	5713	MOGEE CREEK DAM	0	*	0	*	11	*	104	*	205	*	328	*	462	*	460	*	227	*	126	*	24	*	0	*	1943	*
8	6926	PAULS VALLEY	*	*	0	0	23	2	120	53	*	*	280	-155	450	-142	456	-106	210	-117	123	40	10	10	0	0	*	*
8	8884	TISHOMINGO NWLR	0	*	0	*	*	*	*	*	220	*	333	*	464	*	*	*	232	*	*	*	*	*	0	*	*	*
8	9395	WAURIKA	0	0	0	-5	35	5	137	48	265	38	318	-136	536	-75	528	-55	271	-80	149	40	12	5	0	0	2250	-215
8	9399	WAURIKA DAM	*	*	*	*	*	*	99	*	192	*	308	*	510	*	496	*	*	*	120	*	*	*	*	*	*	*
9	0256	ANTLERS	0	0	0	0	12	-9	107	58	218	44	305	-70	437	-91	460	-40	220	-72	112	34	27	27	0	0	1894	-119
9	0567	BATTIEST 1 SSW	*	*	0	0	6	*	76	*	181	*	256	*	381	*	374	*	*	*	*	*	26	*	0	*	*	*
9	0980	BOSWELL 4 NNW	0	*	0	*	21	*	122	*	238	*	315	*	467	*	452	*	235	*	139	*	53	*	0	*	2039	*
9	1168	BROKEN BOW DAM	0	*	0	*	7	*	74	*	195	*	281	*	407	*	405	*	200	*	70	*	19	*	0	*	1656	*
9	4384	HUGO	0	0	0	-6	27	3	114	47	234	29	325	-87	*	*	463	-71	234	-94	133	32	43	34	0	0	*	*
9	4451	IDABEL	2	2	*	*	15	-5	91	37	*	*	304	-83	416	-109	429	-76	227	-76	95	8	35	27	0	0	*	*
9	7254	POTEAU W W	0	*	0	*	12	*	81	*	182	*	300	*	402	*	444	*	179	*	65	*	*	*	*	*	*	*
9	8285	SMITHVILLE 1 W	0	*	0	*	1	*	46	*	163	*	237	*	339	*	361	*	*	*	42	*	17	*	0	*	*	*
9	9023	TUSKAHOMA	0	*	0	*	31	*	106	*	200	*	285	*	402	*	454	*	207	*	139	*	29	*	0	*	1851	*

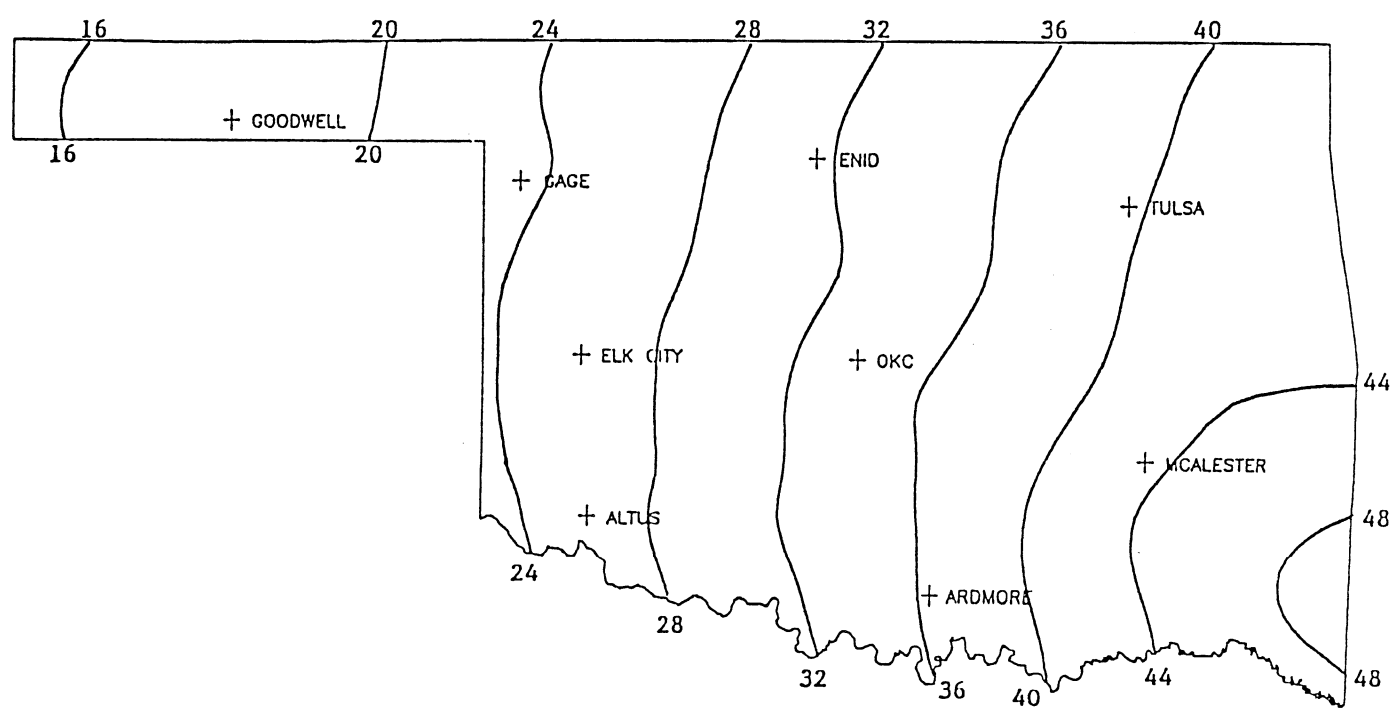
*1989 STATE ANNUAL SUMMARY BY CLIMATE DIVISION

DIVISION	TEMP	DEV	PCP	DEV	HDD	DEV	CDD	DEV
1	55.6	-1.5	24.03	4.75	4707	341	1342	-47
2	57.0	-2.4	32.71	4.97	4404	-297	1565	-282
3	58.3	-1.2	36.87	1.03	4088	173	1666	-221
4	58.3	-1.6	30.56	5.12	4070	-172	1683	-235
5	59.2	-1.5	38.29	5.81	3814	70	1771	-223
6	59.6	-1.5	42.67	1.60	3611	-17	1748	-81
7	61.2	-0.8	29.57	3.06	3370	-343	2119	105
8	60.8	-1.9	40.38	4.07	3391	-93	1933	-44
9	61.1	-0.9	48.35	1.28	3221	26	1860	-133

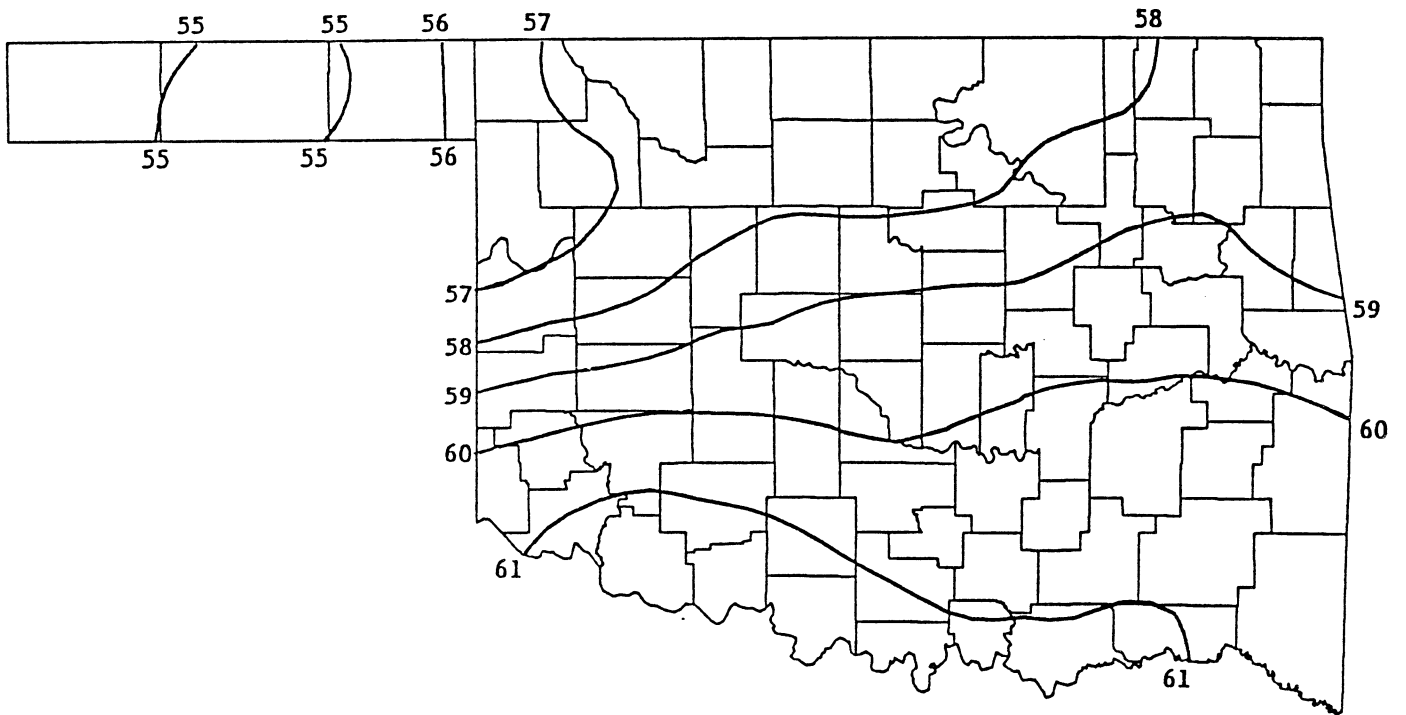
* Divisional temperature and precipitation normals were obtained from "Climatological Data, Annual Summary", NOAA/NCDC. Divisional heating and cooling degree day normals were computed from "Climatography of the United States No. 81 (By State)", NOAA/NCDC.



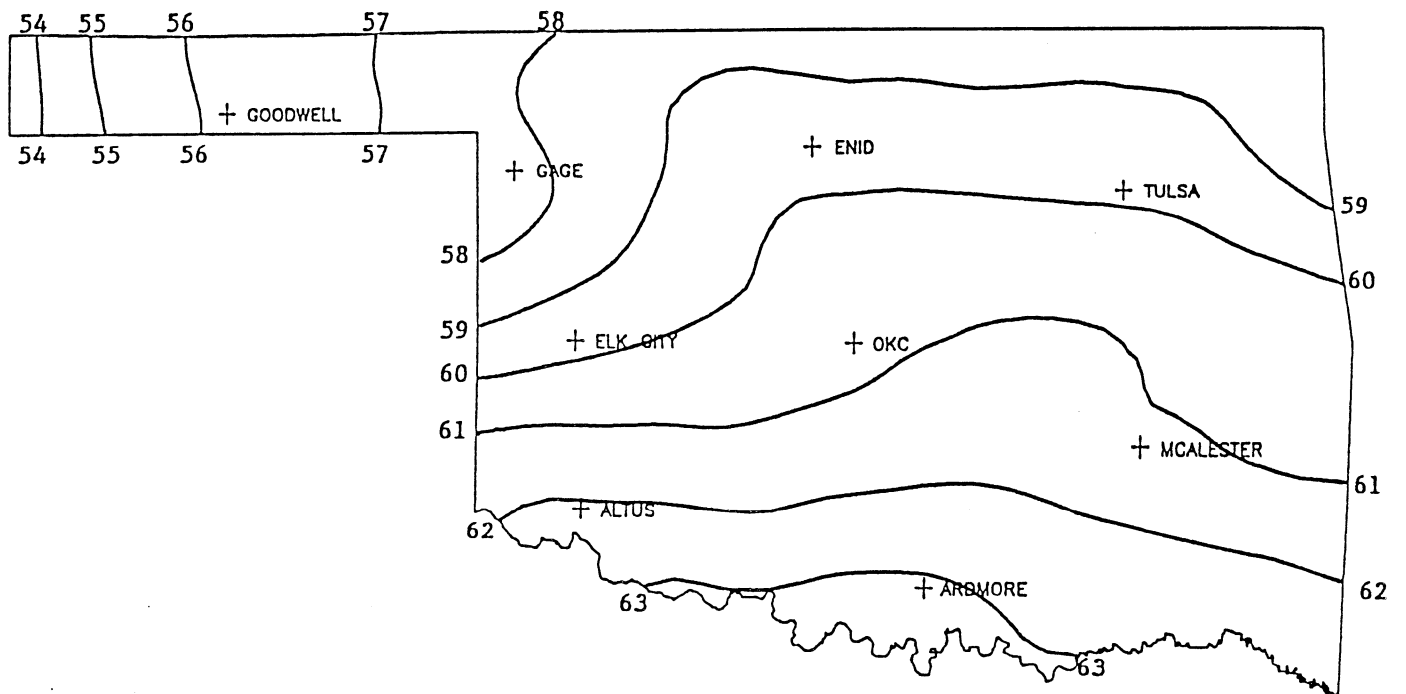
ANNUAL PRECIPITATION FOR 1989 (INCHES)



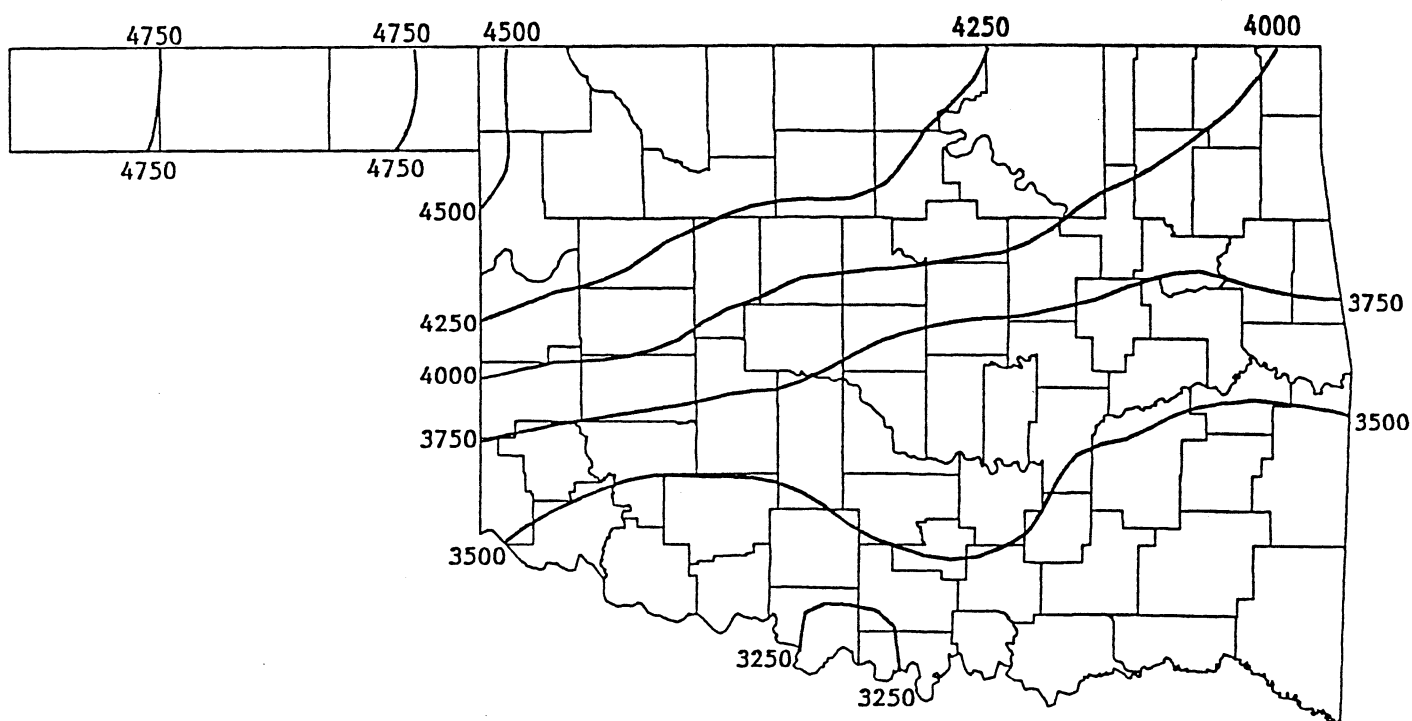
30-YEAR MEAN ANNUAL PRECIPITATION (INCHES)



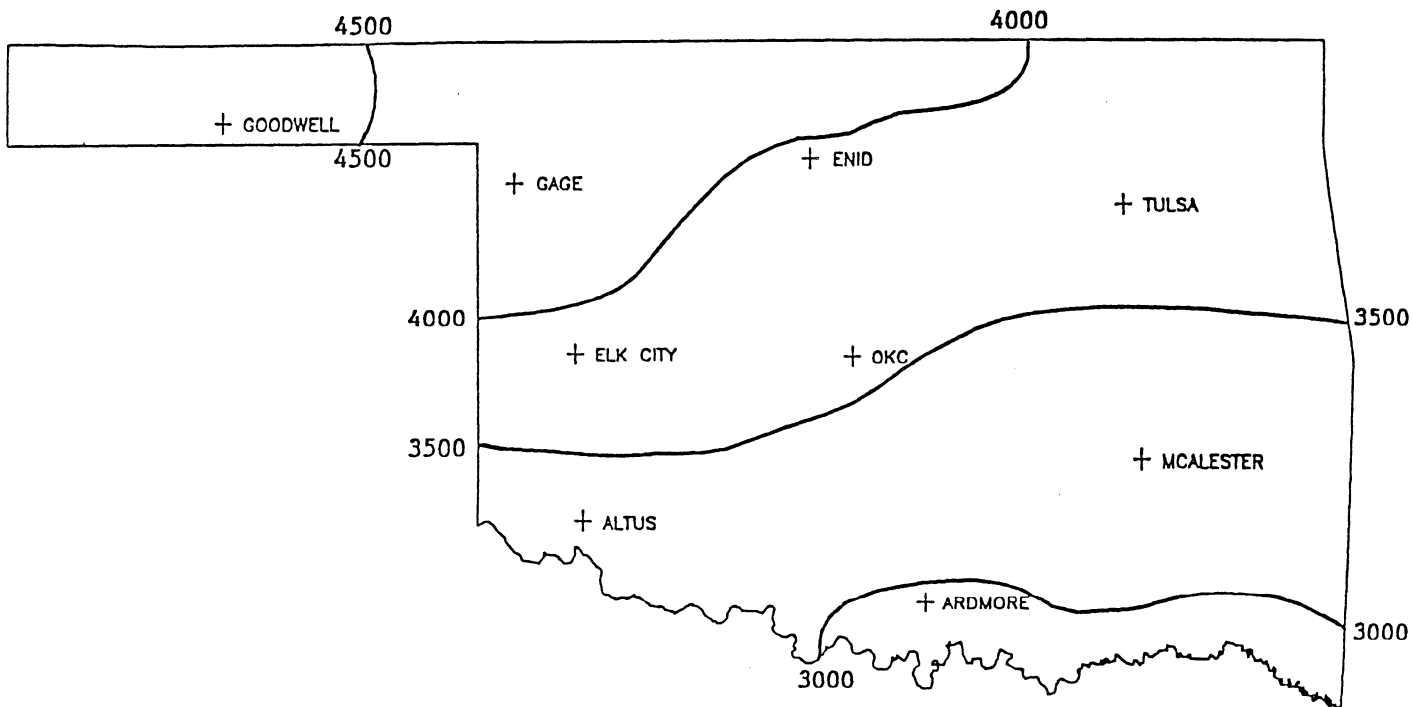
MEAN ANNUAL TEMPERATURE FOR 1989 (DEGREES F)



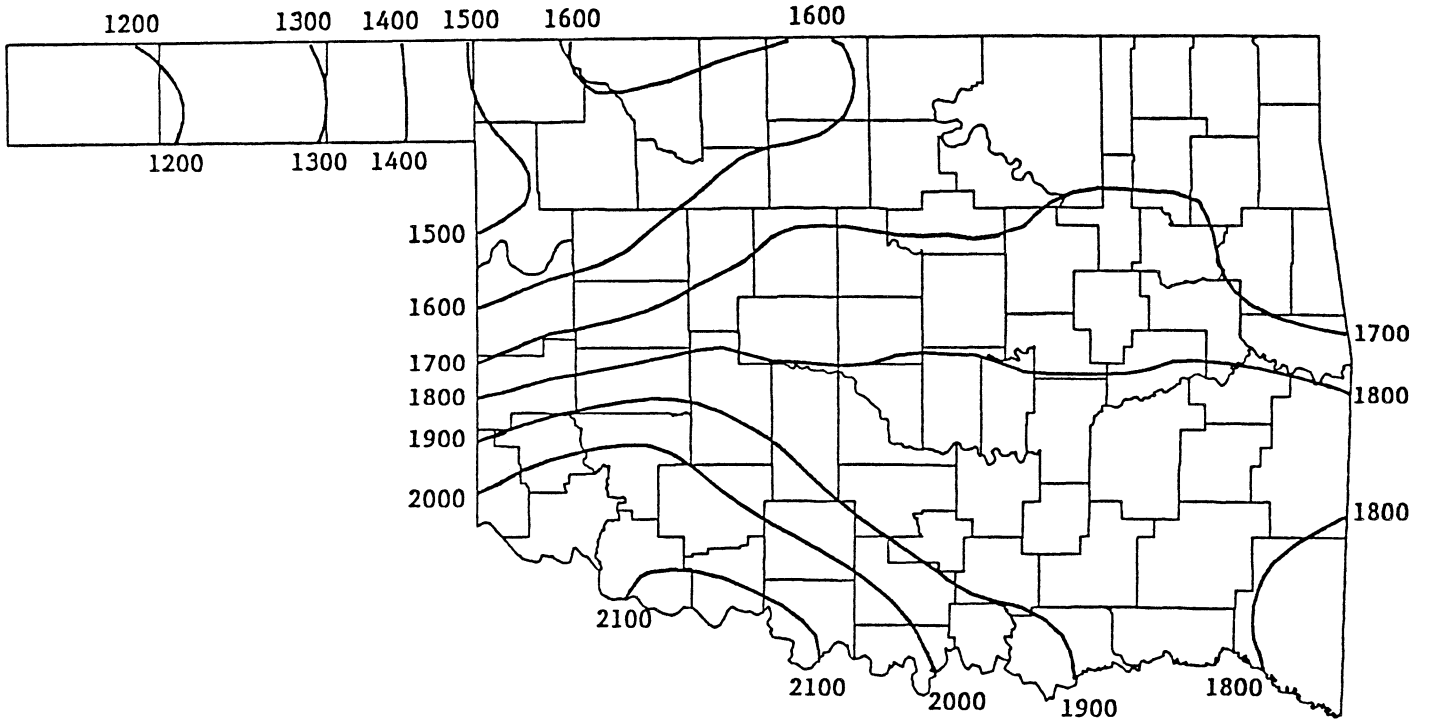
30-YEAR MEAN ANNUAL TEMPERATURE (DEGREES F)



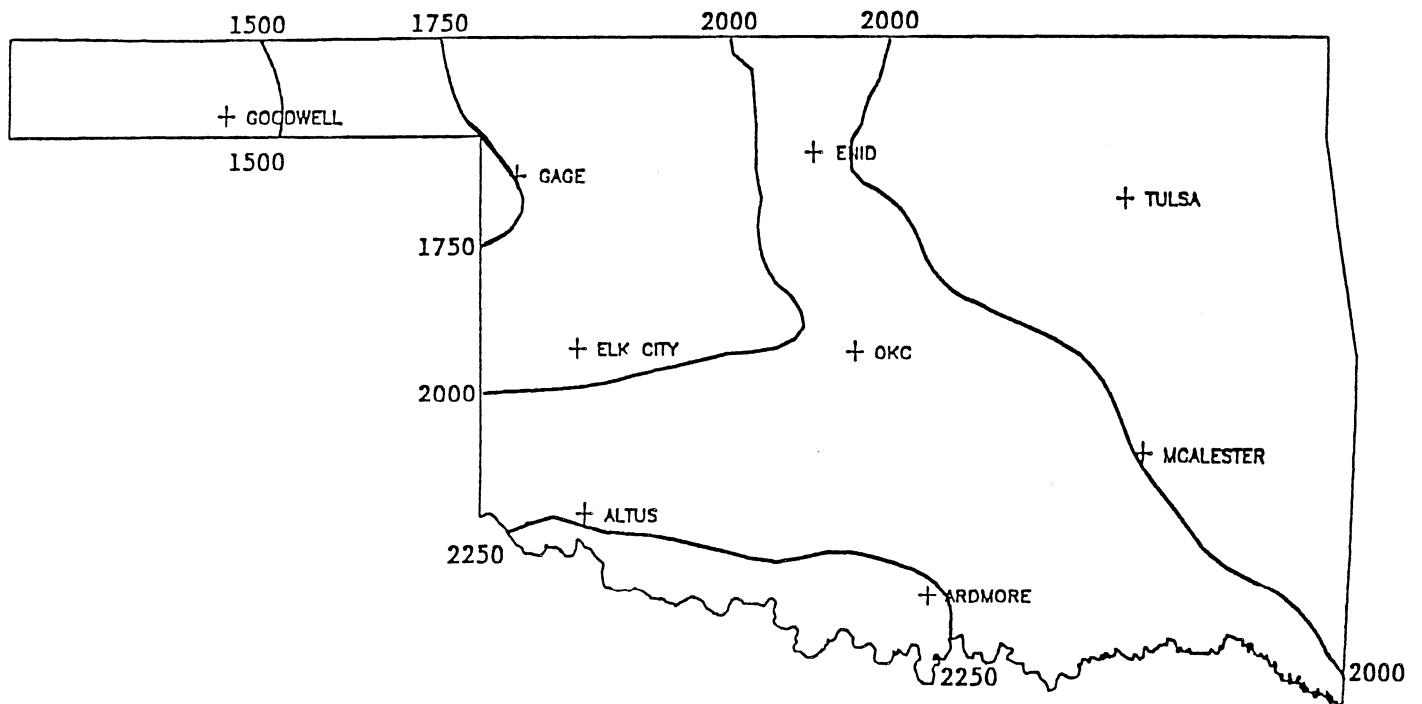
ANNUAL HEATING DEGREE DAYS (BASE 65) FOR 1989



30-YEAR MEAN ANNUAL HEATING DEGREE DAYS (BASE 65)



ANNUAL COOLING DEGREE DAYS (BASE 65) FOR 1989



30-YEAR MEAN ANNUAL COOLING DEGREE DAYS (BASE 65)

DECADE IN REVIEW

The close of the 1980's presents an opportunity to review the last ten weather years. Figures 1 and 2 compare temperature and precipitation decades from 1900 through 1989. Figure 3 highlights notable weather events of the 1980s. A short glossary of terms follows the Figure. Figures 4, 5 and 6 summarize the 1980s in Oklahoma by the number of damaging weather events and their associated costs in both dollar and human terms.

Figures 1 and 2 compare the state-averaged annual temperature and precipitation years of 1980-1989 with previous decades, beginning with 1900. Although Figure 1 suggests that the 1980s show a slight warming from the previous decade, the 1970s mark the coolest decade since the close of the 1920s. The average temperature for the 1980s of 60.1 is far below the decade-average temperature peak of 61.7 computed for the 1930s. Figure 2 suggests that the 1980s continue a trend of level or increasing state-averaged annual precipitation which started during in the 1950s.

Figure 1. State Mean Annual Temperature and Decade Averages

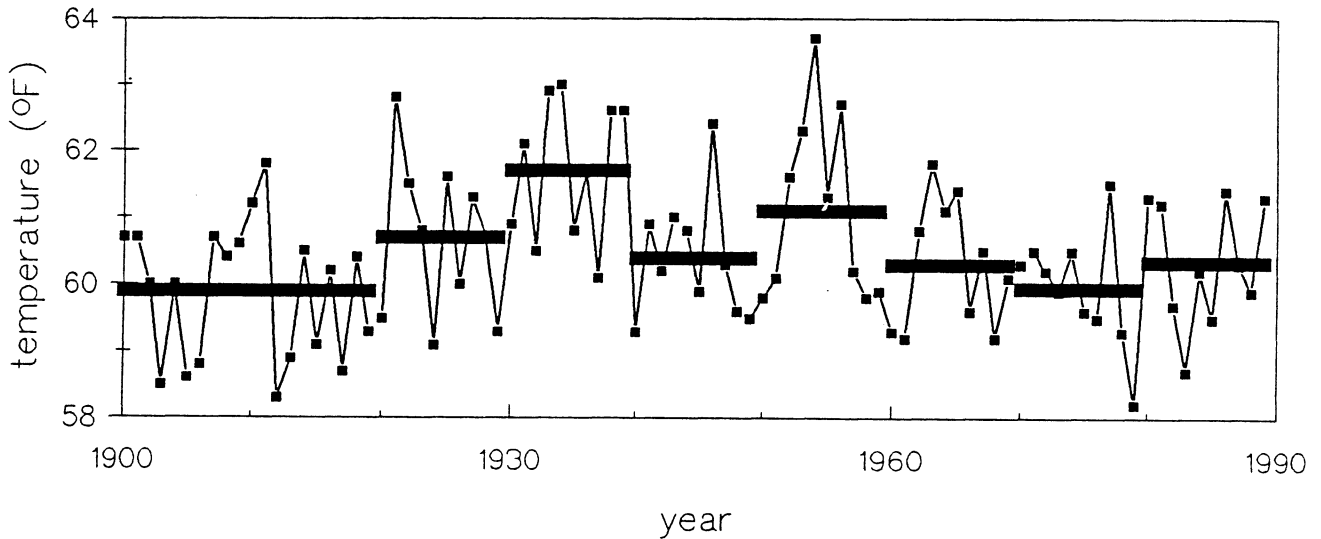


Figure 2. State Annual Precipitation and Decade Averages

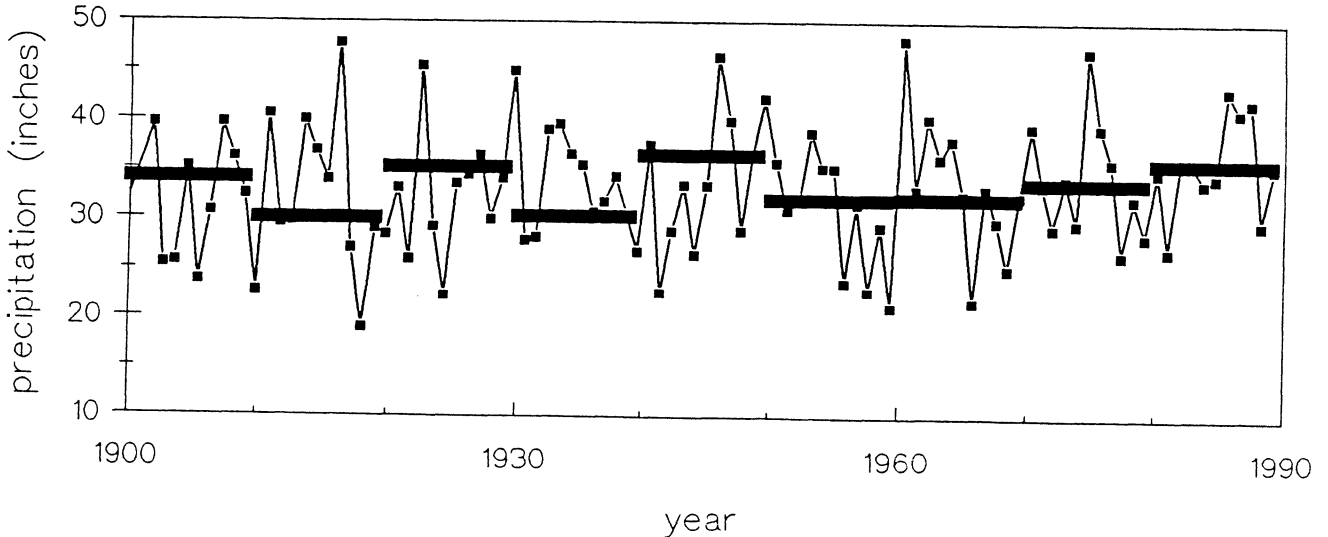


Figure 3. Oklahoma's Weather Decade in Review

January		Freezing temperatures (2 deaths) Flooding (3 deaths)	Snow and ice (drifts to 14 feet)	Snow Freezing temperatures	Snow Winter storm Strong winds	Drought Grassland and forest fires	Snow and ice (\$18 mill in damage and 4 deaths)	Snow (\$15 mill in damage and 2 deaths)		
February		Freezing temperatures (1 death) Winter storms	Snow and flooding		Flooding		Medicine Park tornado	Record cold		
March	Windstorm	Bartlesville Tornado (\$35 mill in damage) Ada tornado (\$2 mill in damage and 1 death)	Snow Freezing temperatures	Hail in Vinita (\$3 mill in damage)		Hail and thunderstorms (\$3 mill in damage)	Blizzard Freezing temperatures	Winter Storm Super-cell thunderstorm Hail (\$40 mill in damage)	Snow (\$2.4 mill poultry losses)	
April	Tulsa tornado (\$100 mill in damage) Bixby tornado (5 deaths)	Tornadoes across SE (30 injured) High winds across NW	High winds	Morris tornado (\$9 mill in damage, 8 deaths) Mannford tornado (\$10 mill in damage, 1 death) Teriton tornado	Ardmore tornado (\$4 mill in damage)	Broken Arrow tornado	No tornadoes	Snow No tornadoes		
May	Hail and wind across NW Clinton tornado Durant tornado (44 tornadoes on 5 days)	Floods (3 deaths) Altus AFB tornado (\$200 mill in damage)	Flooding (2 deaths) 40 tornadoes statewide	Tulsa flood (\$180 mill in damage and 14 deaths)	Heat (2 deaths)	Edmond tornado (\$6.5 mill in damage) Tornadoes and hail statewide (25 tornadoes in 4 days)	Flooding (\$65 mill in damage and 2 deaths)	Hail and wind (\$25 mill in damage)	2 Derecho events Hail High winds	
June	Coweta flash flood Hail across NW	Edmond Hail (\$10 mill in damage) OKC tornado	Strong winds Collinsville tornado		Hail in Cleveland		Thunderstorms	Heat (1 death)	Flash flooding	
July	Heat and drought (37 deaths)	Heat (1 death)					Heat (1 death)	Heat (1 death)		
August			Hurricane Alicia	Hail in Alva	Hail in Stillwell			Heat (1 death)	Heat (1 death) Flash flooding	
September						Tornadoes and microbursts statewide	Flash flooding	Hurricane Gilbert		
October	Flooding in south central (\$40 mill in damage, and 2 deaths)		Hurricane Tico (major flooding, \$93.7 mill in damage, and 1 death)			Flooding caused by Hurricane Paine (\$350 mill in damage)				
November		Atoka tornado (\$1 mill in damage)	Hail in Midwest City (\$4.5 mill in damage) Abion tornado		Tulsa tornado (\$37 mill in damage)			Snow Numerous downbursts and microbursts statewide	Drought Wildfires (59497 acres burned)	
December			Winter storm Record cold (4 deaths)	Winter storm Ice storm			Snow and ice (\$10 mill damage and 11 deaths)		Record cold statewide	
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989

Glossary

Derecho - is similar in appearance and behavior to a fast moving squall line, but produces multiple damaging wind events.

Downburst - an area of strong, potentially damaging straight-line winds that result from a thunderstorm down-draft.

Macroburst - a downburst resulting in an area of damage in excess of 2.5 miles in diameter.

Microburst - a downburst resulting in an area of damage less than 2.5 miles in diameter.

Supercell - large, intense and persistent storms which normally produce more severe weather than other types of thunderstorms.

Figure 4 summarizes the number of tornadic and flooding events during the last decade, while Figures 5 and 6 present the resultant costs in lives lost, injuries and dollars. All data for these figures were summarized from the NOAA publication, Storm Data. This analysis is based solely on the most recent 10-years of storm observations and may not reflect longer-term trends. Several interesting trends can be noted. First, the number of flooding and flash flooding events resulting in human or financial losses have demonstrated a steady rise throughout the past ten years. Peak event years were 1985 and 1989. If a polynomial model is derived using all ten data years, 57% of year-to-year variability can be explained. If the two extreme years are removed from the sample, 92% of year-to-year variability can be modeled. Using this latter model, 1990 would be expected to experience 17 flood and flash flooding events.

Figure 4. Summary of Tornado and Flooding Events in Oklahoma

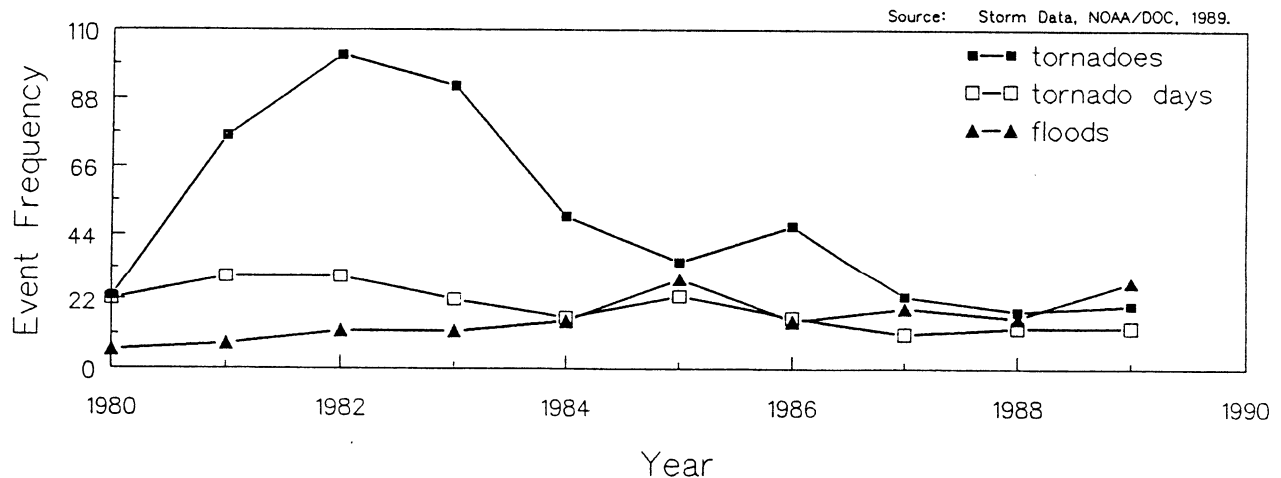


Figure 4 also suggests that the number of tornadic events reported annually in Oklahoma has been on the decline, both in terms of the number of days with tornadoes and the total number of tornadoes reported. The decline in the number of reported tornadoes is most notable after the peak activity year, 1982. The drop in the number of tornadoes reported each season has been more pronounced than the drop in the number of days on which tornadoes were observed. A simple polynomial regression model can be derived for the number of tornadoes from 1982 to the present that explains 92% of year-to-year variability. If the trend which began in 1982 were to continue, this model estimates Oklahomans might expect 24 tornadic events during 1990. Using the entire ten years of data, a polynomial model that explains 70% of year-to-year variability in the number of tornado days can be derived. This model estimates eight tornado days for 1990. Both of these model-generated values for 1990 reflect patterns established during the most recent ten years and may not be representative of long-term trends or patterns of variability.

Figure 5 illustrates the cost of Oklahoma's unpredictable weather in human terms. In spite of all forecast and warning efforts, the number of weather related deaths in Oklahoma has remained relatively constant through the decade. The unusually large number of weather related deaths during 1980 are the result of a heat wave during which 37 lives were lost to hyperthermia (see Figure 3). Other increases are noted in 1984 and 1987. These later two years also reported increases in the number of weather related injuries. The 1984 surge is the result of the Morris tornado which claimed eight lives in April of 1984 and the Tulsa flood in May of the same year which killed 14. Tornadoes at Morris, Mannford and Terilton injured a total of 192 people. The 1987 increase is primarily due to snow and ice storms in January and December of that year which resulted in a loss of 15 lives and injuries to 80. A third small increase in the number of weather related deaths and a far larger increase in the number of weather related injuries was reported during 1982. This rise is associated with floods in January and May which claimed 6 lives and freezing temperatures that killed 3. Tornadoes resulted in 101 injuries in March of 1982, 30 injuries during April and 74 injuries during May.

Figure 5. The Cost in Lives Lost and Injuries Resulting from Extreme Oklahoma Weather Events

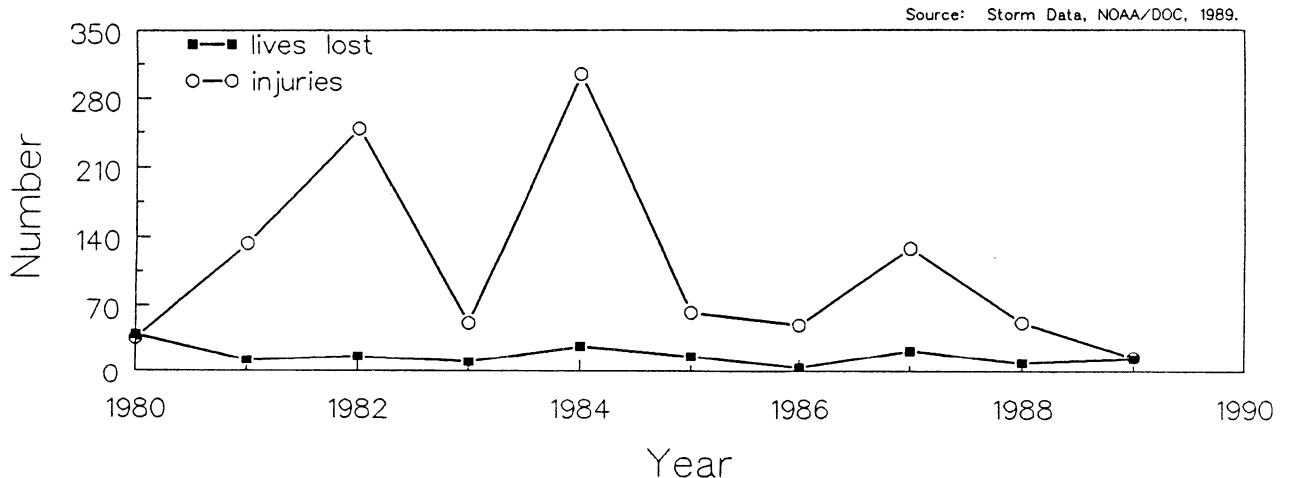
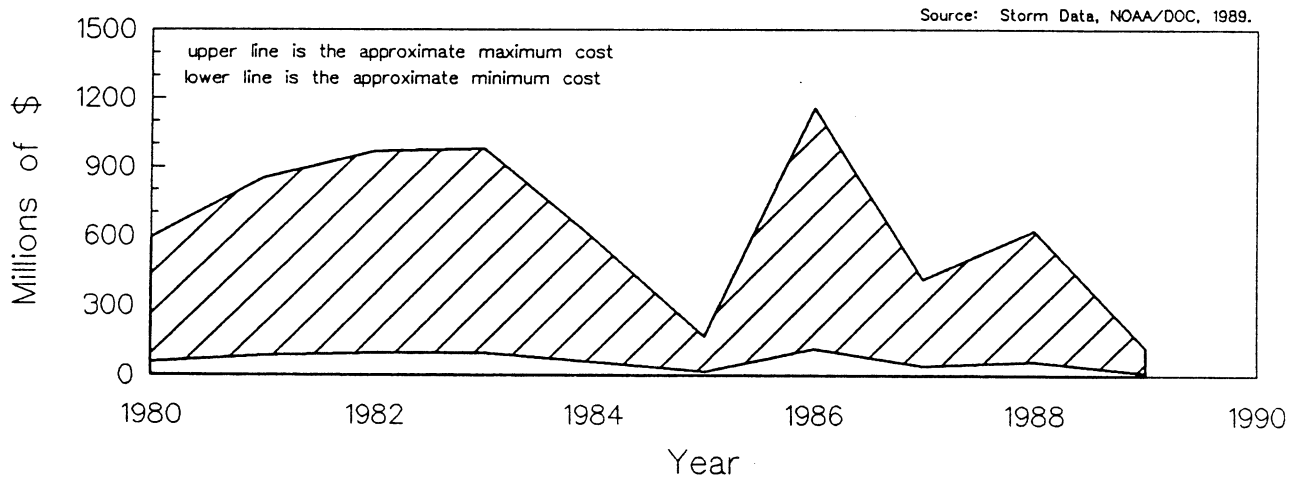


Figure 6 portrays the cost of Oklahoma weather in terms of unadjusted dollars. All values are estimated losses reported in the NOAA publication Storm Data. These figures tend to be conservative estimates since they represent known costs at the time of, or shortly after the event. Many costs are not realized until weeks or even months after the recorded event. For the most part, economic losses follow closely the number of tornadic and flooding events. One notable exception is 1986. During that year there was an increase in the number of tornadic events, but it would not account entirely for the large peak in economic losses. Figure 3 indicates that in October of 1986, statewide flooding resulting from the remnants of Hurricane Paine accounted for an unusually high \$350 million in damage. If this unusual event is removed from the data set, 92% of year-to-year variability in economic losses between 1980 and 1989 can be related to the number of floods and tornadoes reported annually. If the earlier estimates of the number of tornadoes and floods during 1990 are used in this economic model, weather related economic losses during 1990 ranging from \$44.2 to \$442 mill can be expected. In the past, losses reported in Storm Data have been dominated by tornado and flooding reports. Dollar estimates are available only occasionally for hail, heat and winter storm events or for specific agricultural sector losses. As a result, this model-generated estimate should be considered a reasonable "ball-park" figure and does not reflect unexpected losses that can result from extreme, large-scale or rare events.

Figure 6. Economic Costs of Oklahoma Weather



An Act

ENROLLED HOUSE
BILL NO. 1761

BY: WILLIAMS (Freddie), KAMAS
and THOMPSON of the HOUSE

and

HOOPER of the SENATE

AN ACT RELATING TO STATE GOVERNMENT; AMENDING SECTION 1, CHAPTER 63, O.S.L. 1982 (74 O.S. SUPP. 1987, SECTION 245), WHICH RELATES TO THE OKLAHOMA CLIMATOLOGICAL SURVEY; RE-CREATING THE OKLAHOMA CLIMATOLOGICAL SURVEY; AND PROVIDING AN OPERATIVE DATE.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. AMENDATORY Section 1, Chapter 63, O.S.L. 1982 (74 O.S. Supp. 1987, Section 245), is amended to read as follows:

Section 245. A. The Climate Office of the State of Oklahoma located at Norman, Oklahoma, shall be under the direction and supervision of the Board of Regents of the University of Oklahoma and shall be known as the Oklahoma Climatological Survey. The Oklahoma Climatological Survey is hereby re-created, to continue until July 1, 1994, in accordance with the provisions of the Oklahoma Sunset Law.

B. The director of the Oklahoma Climatological Survey shall be appointed by the Board and shall also be the state climatologist. The salary of the director shall be determined by the Board.

C. The Oklahoma Climatological Survey shall have for its object and duties the following:

1. To acquire, archive, process and disseminate, in the most cost-effective way possible, all climate and weather information which is or could be of value to policy and decision makers in the state;

2. To act as the representative of the state in all climatological and meteorological matters both within and outside the state when requested to do so by the legislative or executive branches of the state government;

3. To prepare, publish and disseminate periodic regular climate summaries for those individuals, agencies and organizations whose activities are related to the welfare of the state and are affected by climate and weather;

4. To conduct and report on studies of climate and weather phenomena of significant socio-economic importance to the state;

5. To evaluate the significance of natural and man-made, deliberate and inadvertent changes or modifications in important features of the climate and weather affecting the state, and to report this information to those agencies and organizations in the state who are likely to be affected by such changes or modifications.

D. The director is authorized to certify copies as being authentic reproductions of weather records held in the state.

E. The director of the Oklahoma Climatological Survey shall present a report each year to the Board of Regents of the University

of Oklahoma showing the progress, condition and all other information which the Board may deem necessary.

SECTION 2. This act shall become operative July 1, 1988.

Passed the House of Representatives the 1st day of March, 1988.


Speaker of the House of Representatives

Passed the Senate the 8th day of March, 1988.


President of the Senate

OFFICE OF THE GOVERNOR

Received by the Governor this 10th

day of March, 1988

at 1:51, o'clock P. M.

By: Robert H. Harrison

Approved by the Governor of the State of Oklahoma the 14th day of

March, 1988, at 5:11, o'clock P. M.


Governor of the State of Oklahoma

OFFICE OF THE SECRETARY OF STATE

Received by the Secretary of State this 15th

day of March, 1988.

at 10:45, o'clock P. M.

By: Beverly T. Felts

Oklahoma Climatological Survey
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Norman, OK 73019

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