

OKLAHOMA  
ANNUAL SUMMARY

1988

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## 1988 IN PERSPECTIVE

### SUMMARY OF THE YEAR

Extremely low temperatures ( $-17^{\circ}\text{F}$  at Alva reported on January 8), unusually warm temperatures ( $75^{\circ}\text{F}$  reported throughout south central Oklahoma on January 31), and a record-breaking snowstorm highlighted January 1988 weather. On January 6-7 snowfall ranged from 7" at Clinton to 13" of snow at Duncan.

Generally cool, dry February weather included 24-hour temperature swings of 40 degrees, icy road conditions and numerous grass fires. The Oklahoma City Fire Department reported 22 grass fires in one 15-hour period on February 22. Firefighters battled a 4000 acre grass fire for seven hours near the Greer-Beckham county line.

March, Oklahoma's traditional winter-to-spring transition month, contained numerous weather events of note including destructive hailstorms, a fatal tornado, heavy snowfall, freezing cold and widespread grass fires. Maximum snowfall ranged from 2" at Hennessey to 16" at Cherokee. Hail and a 100-foot diameter tornado reported in Midwest City on March 27 claimed one life and delivered approximately \$1 million of damages to Oklahoma City area auto dealerships and nearly \$6 million of damage to Tinker Air Force Base vehicles and buildings.

April weather was cooler and wetter than long-term averages. Above average precipitation in the northwestern two-thirds of the State resulted from a strong storm system that entered the State on the 1st and a steady intrusion of fronts throughout most of the month. The month ended with south central and southeastern areas of the State in need of moisture.

May 1988 was one of the driest May's ever recorded in Oklahoma. All stations but one recorded below average precipitation. May precipitation was the lowest in 39 years at many stations. By the middle of the month, dry weather resulted in the lowest soil moisture supplies since summer, 1987.

Few rain days and scattered thunderstorms resulted in June rainfall totals ranging from 96% (northwest) to less than 25% (northeast) of normal. Extreme moisture deficits continued to build in southeastern Oklahoma which received only 44% of its average June precipitation. Above average temperatures in eastern Oklahoma aggravated these dry conditions. Altus Air Force Base reported a high temperature of  $115^{\circ}\text{F}$  on June 8, the highest in the nation for that day. Dry conditions in eastern Oklahoma also contributed to a record 169 grass and forest fires. These fires consumed 2579 acres. This is nearly three times the previous record acreage lost to June fires.

In July, several days of isolated thunderstorms delivered above average precipitation to most of the State. Unfortunately, these rains were insufficient to alleviate long-established moisture deficit conditions. Deep moisture reserves continued to be depleted. By month's end, 50% of topsoil and 70% of subsoil moisture supplies were reported to be inadequate.

August was slightly warmer and drier than normal. Hot summertime conditions most of the month were moderated by a record breaking cool air mass which entered the State near the end of the month. Monthly precipitation ranged from about one-third of normal in the western two-thirds of the State, to nearly 100% of normal in the southeast.

Above average precipitation over most of the State during September provided moisture vitally needed for agriculture. Early in the month Oklahoma Department of Agriculture reports indicated that 93% of topsoil and 80% of subsoil moisture supplies throughout the State were inadequate. These figures improved to 25% and 40% by the end of the month.

Persistent northwesterly flow in the upper atmosphere over Oklahoma resulted in the 15th coolest and 26th driest October in the last 97 years. Most stations reported more raindays than normal, but monthly totals were generally less than the long-term average.

November weather provided a mix of large hail, destructive winds, duststorms and snow. An unusual storm system struck the State on the 15th as an intense upper-level low approached. A surface cold front ahead of the low generated winds over 60 mph over much of the State and produced a visibility-reducing duststorm. Strong winds fanned a devastating fire in Altus which destroyed over \$2 million of cotton and 29 houses and businesses. Strong winds caused \$250,000 damage in Hennessey and approximately \$150,000 in Leflore County. In spite of the storm's vigorous nature, rainfall amounts averaged less than .5" Statewide.

1988 ended on an unseasonably warm note, with December ranking in the warmest 10 of the last 40 years of record in Oklahoma. Precipitation was notably below average in western and north central portions of Oklahoma. The Panhandle received only 13% of its average December precipitation.

#### IMPACTS OF THE 1988 DROUGHT IN OKLAHOMA

##### Weather

Statewide, 1988 ranks in the coolest one-third and driest one-third of the last 90 years. From a geographic coverage and duration point of view, the six worst drought years (as defined by the Palmer Drought Severity Index, PDSI) between 1892 and 1988 were 1895-96, 1911, 1917-18, 1954, 1955 and 1956. Of these six periods, five can be clearly categorized as being hot and dry (1895-96, 1911, 1954, 1955 and 1956). 1917-18 was very cool and very dry, far more so than 1988. It can be stated then, that most large-scale, long-lasting droughts in Oklahoma are characterized by hot and dry weather conditions, but cool and dry drought episodes such as occurred during 1988 have been reported during the historical record as well.

The majority of precipitation shortages were felt in the cattle and forage areas of the eastern one-third of the State. These were also the areas of most persistent drought. Later in the summer, dry conditions spread to the southwest and affected non-irrigated row-crop production. September proved to be an extremely wet month for the State which permitted the wheat crop to get off to a promising start, but this was followed by three consecutive months of further moisture shortages in northwestern Oklahoma. In summary, PDSI drought conditions first became established in southeastern Oklahoma during early spring, 1988, spread westward and ended the year in the northwest.

PDSI values during 1988 ranged from extremely moist (values larger than 4.0) during the early summer in the Panhandle, north central and west central portions of the State, to severe drought in southeastern Oklahoma (values more negative than -4.0). The last date "near normal" range PDSI values (.4 to -.4) were reported by the Climate Analysis Center for southeastern Oklahoma was the week ending February 20, 1988. Duration of drought conditions during 1988 are presented in the table below. To summarize, southeastern Oklahoma was characterized as experiencing some level of PDSI drought 84% of 1988. Severe PDSI drought was reported in this area 36% of 1988. Other areas of the State experiencing PDSI drought conditions for more than 50% of 1988 were east central and south central Oklahoma.

PERCENTAGE OF 1988 REPORTING PDI DROUGHT CONDITIONS

AREA	MILD	MODERATE	SEVERE	TOTAL
Panhandle	2	0	0	2
North Central	23	0	0	23
Northeastern	15	23	10	48
West Central	13	10	0	23
Central	17	29	0	46
East Central	21	31	0	52
Southwestern	23	6	0	29
South Central	31	33	0	64
Southeastern	19	29	36	84

There were 5 heat related deaths reported during 1988 (Figure 1). Eighteen tornadoes were reported as compared to a 30-year annual average of 61 (Figure 2). There were 41 hail days reported during 1988. This compares to a 1959-1982 average of 76 hail days per year. These statistics are not unexpected since drought years are usually associated with a drop in the number of realized precipitation and severe weather opportunities. The overall result of relatively low frequencies of extreme weather in Oklahoma during 1988 (tornadoes, hail, winds, flood, lightning, blizzards and heat) are direct economic losses to the State that are significantly smaller than those of 1987 (Figure 3). Figure 3 estimates do not explicitly contain the costs of drought. Such dollar estimates are extremely difficult to assemble across the wide range of impact areas in Oklahoma. The discussion that follows represents a mixture of qualitative and quantitative assessments provided to the Survey by the following agencies: Oklahoma Department of Agriculture, Oklahoma Wildlife Commission, Oklahoma Department of Pollution Control and the Oklahoma Water Resources Board.

Agriculture

Drought associated agricultural costs during 1988 were the highest in the southeastern one-third of Oklahoma. Severe hay and forage shortages were reported in these areas and ranchers were forced to purchase feed for their cattle throughout most of 1988. In many cases there was inadequate moisture for natural forage grasses to become established. Farmers and ranchers in this area were most greatly impacted by high hay prices.

Moisture conditions elsewhere in the State were adequate until July. At this time dryland cotton in the southwest began to exhibit moisture stress, but irrigated cotton produced record yields as a result of favorably cool summertime temperatures.

1988 winter wheat and peanut yields were up from 1987 levels (70% of all Oklahoma peanuts are irrigated). Southwestern peanut yields were hurt, but this was more than made up by good irrigated yields in south central and southeastern Oklahoma. All other crops (corn, sorghum, cotton, hay and soybeans) showed yield declines over 1987 levels. In spite of these declines, Oklahoma agricultural production value was 137% of the 1987 level. This is the result of good wheat and peanut harvests and price increases in response to supply shortages of the other crops. Therefore, although yields were down, prices were up and the aggregate State-level economic impact of the drought on the agricultural sector during 1988 is likely to be negligible.

Wildfire

The following table illustrates the impact of dry 1988 conditions in eastern Oklahoma characterized by wildfire events and losses. May and June 1988 witnessed new records for the number of wildfires reported in eastern Oklahoma.

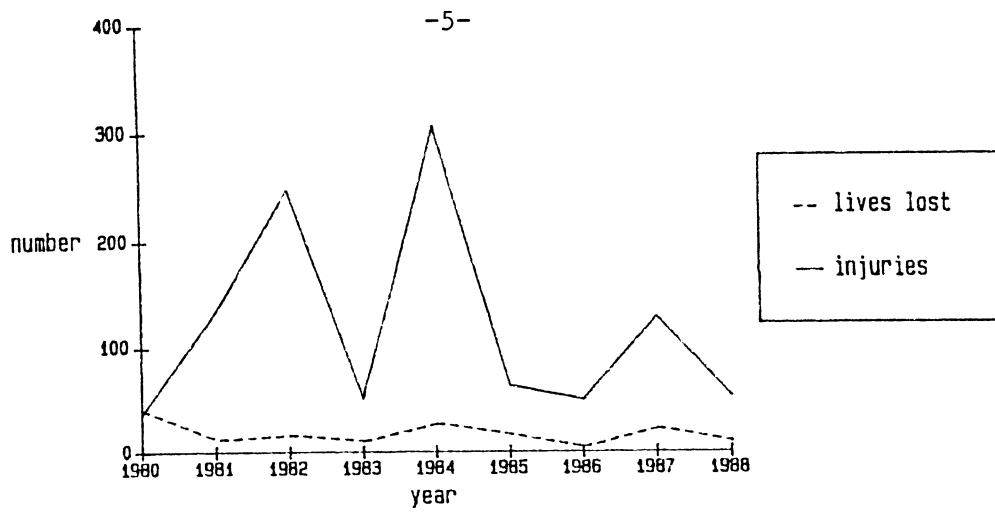


Figure 1. The cost in lives lost and injuries resulting from extreme Oklahoma weather events. (Source: NOAA, Storm Data)

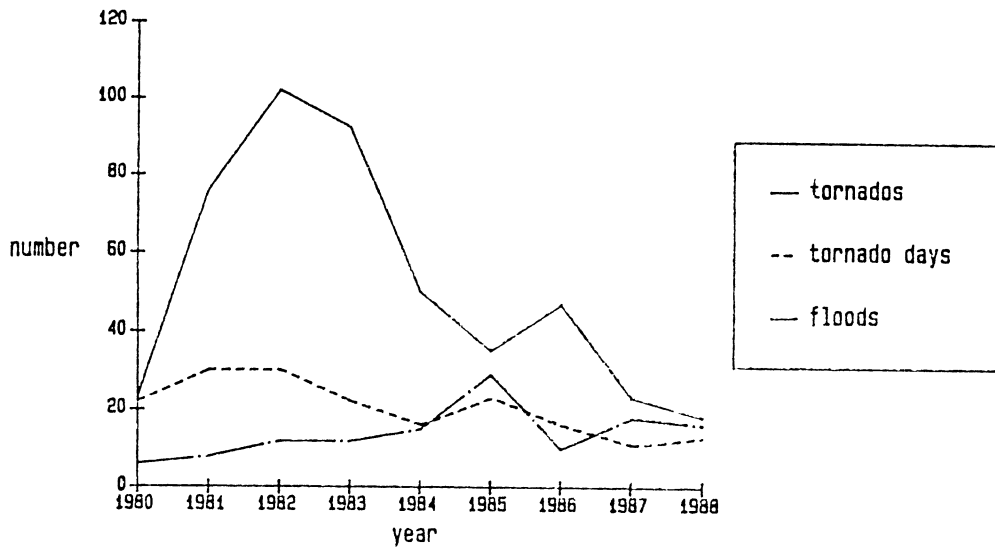


Figure 2. Occurrence of selected extreme weather events. (Source: NOAA, Storm Data)

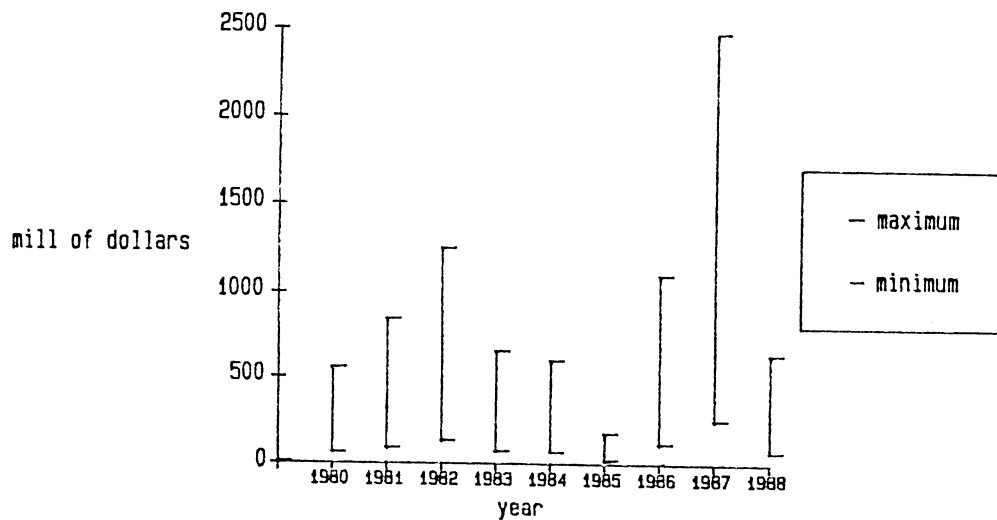


Figure 3. Direct economic costs of Oklahoma extreme weather events. (Source: NOAA, Storm Data)

Wildfire Statistics for Eastern Oklahoma Counties

Month	1988	1988 Acres	10-yr Avg	10-yr Avg Acres
January	121	1354	170	2823
February	537	12973	215	5579
March	595	16280	390	12456
April	189	3360	185	5451
May	110	1737	18	377
June	168	2354	16	105
July	103	970	90	1126
August	48	450	131	2580
September	32	198	99	1490
October	46	125	90	1680
November	137	1588	92	1484
December	175	2477	91	1396
TOTAL	2261	43864	1588	36484
Cost (\$85/ac)		\$3.7 mill		\$3.1 mill

Wildlife

No major wildlife impacts have been reported as yet, but Wildlife Commission personnel expected to receive such reports during the 1989 big game hunting season (May-June). As a result of reduced forage all through the summer, deer reproduction has been affected. Fewer fawns have been born and those that were born, arrived late. A poor survival rate is expected. The area of most severe impact is expected to be eastern Oklahoma. Mild winter conditions have been a blessing for the deer. Even though they entered the winter season in poor physical condition, they should have a better than expected survival rate. The dry weather has been beneficial in terms of parasite control, but the herd concentration resulting from limited natural forage may enhance the spread of those surviving parasites. Impacts on smaller game are more difficult to detect because of fairly high natural rates of population turn-over.

Water Quality

The Department of Pollution Control reported that a higher than average number of complaints were received during the summer of 1988. Most of this increase is attributed to fish-kill and surface water complaints. No information is available that would directly relate the surface water complaints to drought (unusual low-flow) conditions.

Water Quantity

Surface water supply data were provided by the Oklahoma Water Resources Board for 36 major lakes and reservoirs throughout the State. These data indicate that although below normal precipitation was reported in east central and southeastern portions of Oklahoma over an extended period of time, lake levels (with the exception of those used for water transfer or with controlled pools) were never drawn below 90% of capacity. No data are available for lake levels in the northwest or west central portions of the State.

Lake Keystone in north central Oklahoma functions as the headwaters of the Kerr-McClellan Navigation System. Significant draw-downs were not begun until July, 1988. Capacity returned to near 100% (normal levels) during September 1988. The 1988 minimum percent of capacity during this

time was 87.9 reported during August. Lake Eucha, a major source of water for Lake Spavinaw and, subsequently, the City of Tulsa, was tracked as an indicator of municipal demands in northeastern Oklahoma. Significant draw-down began during July, 1988. A minimum capacity of 73.9% was reported during November, 1988. The lake had not fully recovered as of January 1989 and is reported at 87.3% of capacity.

Potentially serious conditions were reported in central and southwestern Oklahoma (see table which follows). Lake Altus, in southwestern Oklahoma has a primary use of providing irrigation water for row crop production in the area. Although municipal supply lakes remained at adequate levels, larger 1988 draw-downs and slower recovery of Lake Altus than during 1987 were noted. Minimum capacity occurred in August, 1988 (52.1%). Recovery has begun but levels were reported at 75.2% of capacity as of January 1989. If full recovery is not achieved and another precipitation deficit year similar to 1988 were to occur, surface water supplies for irrigation agriculture in southwestern Oklahoma could be limited.

A second impact area is major municipal water supply in central Oklahoma. All metropolitan Oklahoma City municipal supply lakes have provision for water transfers from other sources. For example, Lake Atoka, in southeastern Oklahoma serves as the primary source of water for Lake Draper, an Oklahoma City municipal reservoir. Lake Atoka levels (as percent of capacity) during 1987 were either approximately equal to or even higher than those of Draper Lake. This assures a ready supply of supplemental water when needed. By August, 1988 this role was reversed and has remained reversed through January, 1989 with Lake Atoka at 62.5% of capacity and Draper Lake at 88.5% of capacity. The Lake Atoka minimum, 51.5% of capacity, was reported during December. As in Lake Altus, although adequate supplies were reported during 1988, if southeastern Oklahoma does not receive adequate rainfall and runoff to refill a substantial volume of Lake Atoka, water supplies for summer municipal demands provided by Lake Draper could be limited.

Percent of Lake Capacity of Selected Oklahoma Lakes

	Southwestern		Central		Southeastern	
	Altus (irrigation)		Draper (municipal)		Atoka (transfer)	
	1987	1988	1987	1988	1987	1988
J	100	94.1	90.0	70.3	75.4	100
F	100	64.2	90.0	68.2	85.8	100
M	100	100	86.6	68.2	100	98.6
A	100	99.7	84.5	76.9	99.4	100
M	98.0	100	80.9	78.7	98.0	96.2
J	100	90.9	100	80.4	99.5	82.2
J	100	83.1	78.2	81.0	99.0	81.2
A	81.9	52.1	70.7	81.0	93.9	73.4
S	82.2	61.0	73.3	83.1	88.5	65.5
O	84.0	-	73.3	-	80.7	-
N	-	66.2	-	85.1	-	55.9
D	-	71.3	-	88.5	-	51.5

STATE RESPONSE ACTIONS FOR THE 1988 DROUGHT

Brian Vance

Oklahoma Water Resources Board

In July, as last summer's nationwide drought became an increasing threat to Oklahoma, Governor Bellmon formed the State Drought Action Coordinating Council. The group was created to ensure that "the full capabilities of both State and Federal agencies - and affected areas of the private sector - are aware of the drought and are working together to minimize potential drought impacts in Oklahoma."

Members of the Drought Council were selected from various State and Federal agencies and from private agricultural groups. Each member contributed information as to how their agency or group is set up to mitigate the effects of drought.

The final result of the fact-finding mission was a report to the Governor which contains a general inventory of what programs are in place - or could be put into place - to deal with drought problems. The report is a likely precursor to an eventual drought contingency plan for Oklahoma.

At the Council's first meeting, they recommended the creation of a "Hay Hot-Line" to assist in locating available hay for drought-stricken areas. Subsequently, the State Department of Agriculture put that communication tool into operation.

Following several more meetings and an information-gathering period, the Council made nine recommendations to Governor Bellmon. First, the Council advised him to appoint a full-time Coordinator to coordinate drought-related program information among State and Federal organizations and act as a liaison with the Governor's Heat Task Force. As a result, the Governor appointed Glenn Sullivan, State Secretary of Natural Resources to the Drought Coordinator post. Also, bi-weekly reports were begun - a cooperative effort among the Oklahoma Climatological Survey, State Water Resources, Department of Health and Department of Agriculture - to update citizens on the increasing severity of the drought. These reports contained information on current drought conditions (rainfall and moisture data, including Palmer Drought Indices for all segments of the State), 30- and 90-day precipitation and temperature outlooks, and current drought impacts (crop conditions and reservoir and groundwater levels). The Council also recommended that the Drought Coordinator take the lead in developing a long-term drought mitigation plan to identify drought assistance programs and recommend actions resulting from the planning process.

Thirdly, the Council suggested that additional monies be appropriated to the Statewide Water Development Revolving Fund, administered by the Oklahoma Water Resources Board, so it can meet all of Oklahoma's water resources development needs. From an original appropriation of \$25 million, the Revolving Fund has been depleted to approximately \$5 million today. In the Governor's budget request to the Legislature, he requested a \$5 million appropriation to the Fund.

Governor Bellmon indicated that he would not support the Council's fourth recommendation - to implement a State-funded, comprehensive weather modification program. He stated that cloud seeding technology has not advanced far enough.

Other recommendations included development of a "Red Flag Fire Warning" system to signal potential periods of fire danger and development of a burning permit system to regulate citizen use of fire outdoors. They also suggested that the Governor seek permission from the Secretary of Agriculture to allow all counties in Oklahoma to hay and graze on Crop Reserve Program protected acreage when 40 percent of the counties containing this acreage have been designated for Emergency Haying and Grazing. And the Governor should request the Secretary to designate available funds to help farmers and ranchers pay for transportation of livestock from drought areas to other areas where grazing land is available. The last recommendation was that advance deficiency payments received under wheat, feed grain, cotton and rice programs should not have to be refunded regardless of the market price.



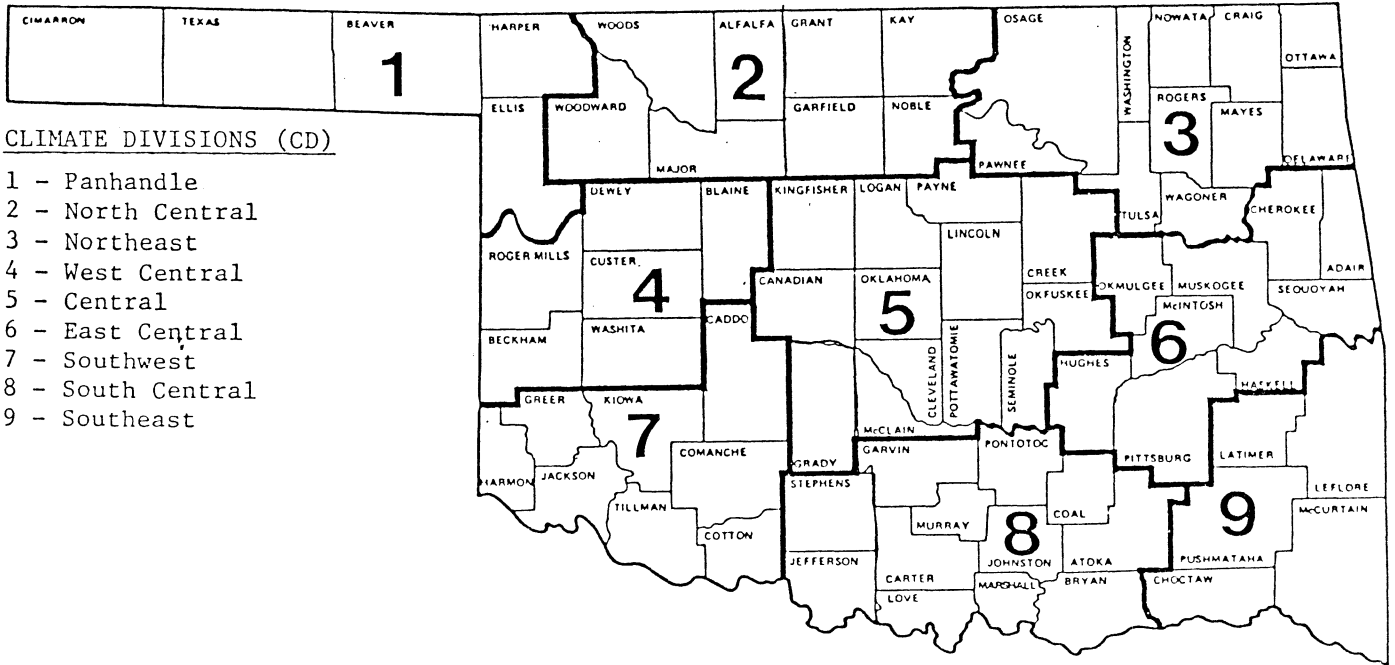
### STORM SUMMARY REPORT

STATE OKLAHOMA MONTH \_\_\_\_\_ YEAR 1988

TYPE OF STORM	NUMBER	DAYS	DEATHS	INJURIES	DAMAGE*	
					PROPERTY	CROPS
TORNADOES	18	13	1	2	.565 mill to 5.65 mill	No Estimate
HAIL	<del> </del>	<del> </del>	0	1	55 mill to 550 mill	No Estimate
THUNDERSTORM WINDS	<del> </del>	<del> </del>	0	19	1.2 mill to 12 mill	No Estimate
HIGH WINDS	<del> </del>	<del> </del>	0	0	0	0
LIGHTNING	<del> </del>	<del> </del>	2	4	10,000 to 100,000	No Estimate
FLASH FLOODS	12	<del> </del>	0	2	550,000 to 5.5 mill	No Estimate
FLOODS	4	<del> </del>	0	0	50,000 to 500,000	No Estimate
HEAVY SNOWSTORMS AND BLIZZARDS	<del> </del>	<del> </del>	5	25	5 mill to 50 mill	No Estimate
ICE STORMS #	<del> </del>	<del> </del>	0	0	0	0
HURRICANES & TROPICAL STORMS	<del> </del>	<del> </del>	0	0	0	0
ALL OTHERS    Heat/ Drought	<del> </del>	<del> </del>	5	0	No Estimate	See Drought Discussion

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

O K L A H O M A



1988 STATION SUMMARIES

The following tables contain summaries of the cooperative data received at the OCS during 1988. 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.

1988 TOTAL PRECIPITATION AND DEVIATIONS 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
1	0332	ARNETT	1.15	0.7	0.05	-0.6	3.14	1.8	3.32	1.5	0.48	-3.6	4.91	1.6	1.21	-0.8	0.33	-2.0	4.72	2.8	1.31	-0.5	0.76	-0.3	0.04	-0.5	21.44	-0.3
1	0593	BEAVER	0.89	0.5	0.05	-0.5	2.65	1.4	3.58	2.3	1.59	-1.6	0.70	-2.1	9.84	6.9	0.00	-2.8	4.26	2.7	0.30	-0.9	0.04	-0.8	0.00	-0.4	23.90	4.6
1	0908	BOISE CITY	*	*	0.13	-0.3	0.51	-0.3	1.25	-0.1	6.21	3.7	6.10	4.1	1.32	-1.2	0.48	-1.9	4.10	2.5	0.13	-0.7	0.25	-0.3	0.00	-0.4	*	*
1	1243	BUFFALO	1.15	0.6	0.10	-0.8	3.80	2.0	4.06	1.9	1.24	-3.1	0.92	-2.6	3.65	0.3	1.43	-1.9	3.40	0.6	1.02	-0.9	0.20	-1.1	0.12	-0.5	21.09	-5.5
1	3070	FARGO	1.04	0.5	0.02	-0.8	4.74	3.4	3.48	1.6	0.54	-3.4	2.66	-0.5	4.31	2.1	1.54	-0.9	4.40	2.5	0.95	-0.7	0.64	-0.3	0.01	-0.6	24.34	2.9
1	3407	GAGE FAA	0.79	0.3	0.01	-0.8	3.50	2.3	3.10	1.2	0.42	-3.2	3.58	0.8	1.78	-0.3	1.42	-1.0	3.46	1.8	1.06	-0.5	0.40	-0.4	0.04	-0.6	19.58	-0.3
1	3489	GATE	1.64	*	0.00	*	3.88	*	2.35	*	1.42	*	1.46	*	2.94	*	1.24	*	2.23	*	0.62	*	0.06	*	0.08	*	17.92	*
1	3628	GOODWELL	0.34	0.0	0.03	-0.2	0.78	0.0	2.53	1.4	2.49	-0.3	3.19	0.8	3.00	0.1	0.49	-1.8	4.44	3.1	0.12	-0.8	0.03	-0.6	0.09	-0.1	17.54	1.5
1	4298	HOOVER	0.66	0.2	0.08	-0.3	0.75	-0.4	4.44	3.2	1.67	-1.7	1.02	-1.9	2.91	-0.0	1.30	-1.4	4.31	2.6	0.06	-1.0	0.10	-0.6	0.03	-0.3	17.33	-1.9
1	4766	KENTON	0.27	-0.0	0.17	-0.1	0.75	-0.0	1.34	0.0	2.51	0.0	2.02	0.2	5.49	2.6	1.87	-0.6	3.05	1.5	0.04	-0.8	0.10	-0.4	0.07	-0.2	17.68	2.1
1	5045	LAVERNE	1.12	0.4	0.05	-0.8	2.98	1.4	3.69	2.1	0.54	-2.8	2.29	-0.6	3.90	1.4	0.84	-2.1	2.84	0.8	0.82	-0.6	0.17	-0.8	0.09	-0.5	19.34	-2.2
1	6740	OPTIMA LK	0.74	*	0.00	*	1.03	*	3.87	*	1.59	*	0.68	*	7.13	*	0.09	*	3.00	*	0.01	*	0.09	*	0.06	*	18.29	*
1	7534	REGNIER	0.32	0.0	0.09	-0.1	0.56	-0.1	1.43	0.3	5.07	3.1	1.40	-0.4	0.69	-1.8	1.31	-0.6	6.08	4.6	0.00	-0.7	0.28	-0.2	0.02	-0.2	17.25	3.8
1	9017	TURPIN	0.62	*	0.00	*	1.67	*	4.40	*	1.84	*	1.81	*	6.80	*	1.81	*	3.73	*	0.08	*	0.00	*	0.07	*	22.83	*
2	0194	ALVA 1 ENE	0.99	0.4	0.18	-0.6	5.13	3.5	5.33	2.9	1.28	-2.7	2.13	-1.6	2.06	-0.5	*	*	1.44	-1.0	3.66	2.0	0.90	-0.3	0.21	-0.6	*	*
2	0302	VANCE AFB	0.65	*	*	*	2.54	*	4.45	*	0.48	*	4.38	*	4.74	*	0.49	*	6.82	*	1.74	*	*	*	0.34	*	*	*
2	0755	BILLINGS	0.94	0.0	0.30	-0.9	4.62	2.5	7.97	5.0	1.03	-3.5	2.34	-1.7	5.59	2.0	0.10	-2.7	4.93	0.7	1.60	-0.8	2.75	0.8	0.64	-0.5	32.83	0.7
2	0818	BLACKWELL	0.73	*	0.02	*	2.84	*	7.56	*	1.95	*	0.82	*	2.23	*	0.05	*	5.14	*	1.75	*	2.34	*	1.16	*	26.63	*
2	1075	BRAMAN	0.77	*	0.12	*	0.99	*	5.60	*	1.19	*	0.38	*	1.13	*	0.09	*	2.18	*	1.98	*	2.10	*	0.45	*	17.01	*
2	1620	CEDARDALE	1.43	*	0.00	*	6.06	*	4.59	*	0.63	*	2.97	*	2.89	*	1.78	*	4.34	*	1.16	*	1.18	*	0.02	*	27.07	*
2	1724	CHEROKEE	*	*	0.00	0.0	1.50	-0.4	3.27	0.7	1.50	-2.3	2.10	-1.8	4.08	1.3	0.00	-2.5	1.56	-1.1	2.32	0.5	1.30	0.0	0.20	-0.6	*	*
2	2912	ENID	1.55	0.6	0.19	-0.9	3.61	1.7	4.46	1.6	1.05	-3.9	2.47	-1.6	2.69	-0.4	0.43	-2.9	*	*	2.05	-0.7	1.74	-0.0	0.66	-0.3	*	*
2	3304	FT SUPPLY	0.77	0.2	0.00	-0.8	3.49	2.0	3.86	2.2	7.56	3.8	0.00	-2.9	1.52	-0.6	0.00	-2.5	4.85	2.8	1.67	0.2	0.86	-0.0	0.03	-0.5	24.62	4.1
2	3358	FREEDOM	1.01	*	0.13	*	3.94	*	4.05	*	0.38	*	2.46	*	4.96	*	1.06	*	1.01	*	1.22	*	0.37	*	0.00	*	20.59	*
2	3909	HARDY	0.49	*	0.25	*	6.63	*	3.28	*	2.16	*	0.41	*	3.51	*	1.87	*	6.15	*	1.72	*	2.07	*	0.82	*	29.38	*
2	4019	HELENA	1.48	0.7	0.01	-0.9	7.37	5.4	4.89	2.3	1.29	-3.0	4.41	0.4	3.02	-0.0	0.27	-2.3	3.06	0.1	2.79	0.6	0.91	-0.6	*	*	*	*
2	4573	JEFFERSON	1.33	0.6	0.06	-0.9	7.99	6.0	4.65	1.8	2.18	-1.7	2.31	-1.6	2.74	-1.1	0.42	-2.8	2.88	-0.2	2.38	-0.1	1.47	-0.4	0.47	-0.5	28.90	-1.1
2	5013	LAMONT	1.17	*	0.10	*	4.58	*	5.98	*	1.47	*	1.05	*	2.35	*	0.11	*	6.14	*	1.67	*	2.63	*	1.35	*	28.61	*
2	5768	MEDFORD	1.34	*	0.08	*	4.39	*	7.02	*	1.52	*	1.45	*	1.71	*	1.48	*	2.32	*	2.07	*	1.53	*	0.33	*	25.25	*
2	6065	MORRISON	0.44	*	0.45	*	4.34	*	*	*	2.24	*	1.00	*	1.94	*	*	*	8.69	*	1.43	*	2.82	*	0.83	*	*	*
2	6139	MUTUAL	0.94	0.4	0.02	-0.9	3.18	1.6	3.89	1.4	0.35	-3.9	2.52	-0.6	2.22	-0.3	0.81	-1.3	2.23	-0.2	1.30	-0.2	0.63	-0.5	0.01	-0.6	18.10	-5.4
2	6278	NEWKIRK	1.06	0.2	0.18	-0.9	4.03	2.0	10.48	7.5	1.06	-3.6	0.93	-3.6	4.88	1.3	0.20	-3.3	6.16	2.6	2.36	-0.4	2.92	0.9	0.38	-0.8	34.65	1.9
2	6751	ORIENTA	1.00	*	0.06	*	3.26	*	4.40	*	0.92	*	0.84	*	3.46	*	0.74	*	3.22	*	1.56	*	0.62	*	0.23	*	20.31	*
2	7012	PERRY	1.65	0.7	0.49	-0.8	4.45	2.0	5.69	2.9	2.07	-3.2	3.25	-0.8	6.00	2.4	0.64	-2.6	6.13	2.3	1.39	-1.2	2.53	0.7	0.78	-0.4	35.07	2.1
2	7505	RED ROCK	0.83	-0.0	0.20	-1.1	4.91	2.6	7.31	4.5	1.32	-3.3	1.62	-2.4	3.77	0.0	0.00	-2.9	6.38	2.6	1.77	-0.7	3.26	1.5	0.42	-0.8	31.79	0.0
2	7556	RENFROW	1.22	0.5	0.13	-0.8	3.80	1.8	6.22	3.6	1.11	-2.7	1.09	-2.8	1.58	-1.9	0.86	-2.0	1.74	-1.4	2.08	-0.2	1.96	0.2	0.42	-0.5	22.22	-6.3
2	9404	WAYNOKA	1.30	0.7	0.11	-0.8	3.73	2.1	4.51	2.3	0.53	-3.9	1.53	-2.2	1.93	-0.6	0.60	-2.1	2.26	-0.2	1.49	-0.2	0.75	-0.5	0.15	-0.6	18.89	-6.2
2	9760	WOODWARD	1.25	*	0.03	*	4.27	*	3.73	*	0.28	*	2.48	*	4.72	*	0.94	*	3.19	*	1.55	*	0.76	*	0.02	*	23.23	*

1988 TOTAL PRECIPITATION AND DEVIATIONS 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
3	0535	BARNSDALL	0.75	-0.4	0.69	-0.7	3.71	0.6	5.33	2.0	1.20	-4.0	1.66	-2.8	5.14	1.9	0.77	-2.4	6.99	2.2	1.30	-1.7	5.31	2.9	0.87	-0.7	33.75	-3.1
3	0548	BARTLSVL	0.84	-0.3	0.69	-0.7	4.34	1.6	6.25	2.9	1.17	-3.5	0.38	-3.7	2.96	-0.0	3.25	0.2	7.55	3.4	1.35	-1.8	4.35	2.1	1.59	0.1	34.73	0.2
3	0782	BIXBY	1.30	-0.1	1.36	-0.2	5.80	3.1	2.53	-1.3	1.11	-3.5	1.11	-3.6	5.18	1.9	0.80	-1.9	6.35	2.0	1.12	-2.0	5.19	2.4	2.16	0.3	34.01	-3.1
3	1256	BURBANK	1.07	*	0.43	*	5.26	*	5.40	*	1.93	*	1.13	*	3.70	*	0.45	*	7.81	*	1.78	*	3.80	*	1.03	*	33.80	*
3	1717	CHELSEA	2.43	*	1.09	*	5.19	*	4.30	*	1.08	*	0.53	*	3.52	*	1.90	*	9.29	*	1.42	*	6.16	*	2.09	*	39.00	*
3	1828	CLAREMORE	2.43	1.0	1.27	-0.3	6.47	3.3	3.97	0.2	1.17	-3.5	1.00	-3.6	4.18	1.1	1.82	-1.0	7.77	3.8	1.13	-2.2	4.69	1.9	3.40	1.5	39.32	2.4
3	1902	CLEVELAND	1.42	*	*	*	4.08	*	*	*	3.53	*	0.57	*	4.21	*	2.23	*	8.20	*	1.50	*	*	*	1.21	*	*	*
3	3250	FORAKER	0.48	-0.5	0.47	-0.7	2.92	0.5	6.74	3.6	1.40	-3.4	0.17	-4.0	2.62	-0.8	0.57	-2.9	8.62	4.5	*	*	*	*	0.80	-0.5	*	*
3	4258	HOLLOW	0.84	-0.5	1.22	-0.3	5.55	2.4	4.78	1.0	1.21	-3.6	0.75	-3.8	3.47	-0.2	2.13	-1.1	7.52	2.6	1.26	-2.2	4.65	1.6	2.36	0.4	35.74	-3.7
3	4289	HOMINY	0.74	-0.3	0.99	-0.4	4.51	1.6	6.22	3.1	3.12	-1.5	1.30	-2.8	5.85	2.4	1.61	-1.4	7.22	2.7	2.09	-0.8	4.31	2.2	1.95	0.6	39.92	5.5
3	4567	JAY TOWER	1.39	*	2.14	*	5.07	*	4.02	*	1.42	*	0.49	*	3.41	*	4.35	*	6.84	*	1.49	*	3.70	*	3.31	*	37.63	*
3	4672	KANSAS	1.37	*	1.65	*	7.77	*	3.28	*	2.56	*	1.16	*	2.48	*	4.18	*	4.52	*	1.40	*	5.17	*	3.45	*	39.01	*
3	4812	KEYSTONE	*	*	*	*	7.30	*	4.22	*	1.31	*	0.32	*	6.12	*	1.52	*	7.21	*	*	*	4.29	*	*	*	*	*
3	5118	LENAPAH	1.17	*	1.00	*	4.95	*	7.74	*	1.17	*	0.40	*	1.69	*	0.60	*	5.73	*	1.07	*	5.59	*	1.78	*	32.89	*
3	5522	MANNFORD	1.12	0.0	1.02	-0.4	6.52	3.9	5.03	1.7	3.56	-1.2	0.40	-3.4	4.23	1.0	2.49	-0.5	4.97	0.7	1.32	-1.3	4.60	2.4	1.91	0.4	37.17	3.2
3	5540	MARAMEC	1.33	0.2	0.59	-0.8	5.18	2.7	7.22	4.2	3.42	-1.5	0.49	-3.4	4.03	0.9	1.72	-1.2	9.66	5.7	1.29	-1.8	5.26	3.2	1.16	-0.0	41.36	8.3
3	5855	MIAMI	0.81	-0.7	1.32	-0.5	6.07	2.6	4.72	1.0	1.87	-3.1	2.69	-2.1	5.36	1.4	2.49	-1.0	10.78	6.1	1.46	-2.2	5.01	2.0	4.22	2.0	46.80	5.4
3	6485	NOWATA	2.20	0.9	0.99	-0.6	6.40	3.1	5.02	1.5	1.49	-3.1	*	*	4.20	1.2	1.22	-2.1	9.02	4.7	1.00	-2.3	4.88	2.3	1.94	0.1	*	*
3	6713	ONETA	0.91	*	1.37	*	5.30	*	2.79	*	2.91	*	0.56	*	4.96	*	1.53	*	5.66	*	1.13	*	5.13	*	2.33	*	34.59	*
3	6935	PAWHUSKA	1.21	0.1	0.63	-0.6	5.98	3.3	7.52	4.4	3.78	-0.9	1.93	-2.3	3.96	0.5	0.72	-2.6	9.52	5.4	1.97	-0.9	4.32	2.2	1.26	-0.0	42.82	8.3
3	6937	PAWHUSKA	1.30	*	0.53	*	4.31	*	7.38	*	2.89	*	1.60	*	3.47	*	0.89	*	8.31	*	1.89	*	4.07	*	1.19	*	37.84	*
3	6940	PAWNEE	*	*	*	*	*	*	5.33	2.3	5.43	0.5	0.78	-3.2	6.51	3.3	0.60	-2.4	7.66	3.2	1.63	-1.0	3.67	1.7	0.66	-0.5	*	*
3	7309	PRYOR 6 N	0.78	-0.7	1.31	-0.4	*	*	5.64	1.7	2.07	-2.8	0.79	-3.8	*	*	1.99	-1.4	9.30	5.1	1.19	-2.5	4.71	1.8	2.54	0.5	*	*
3	7358	QUAPAW	1.06	-0.4	0.03	-1.7	7.17	3.8	0.69	-3.2	0.84	-4.3	2.45	-2.3	5.33	1.5	1.59	-1.8	10.02	5.2	0.51	-3.1	6.25	3.3	4.35	2.3	40.29	-0.8
3	7390	RALSTON	1.07	0.0	0.37	-0.9	3.63	1.1	7.22	4.2	3.25	-1.4	0.77	-3.6	6.60	3.1	1.17	-1.7	10.32	6.4	1.91	-0.7	2.64	0.6	1.10	-0.2	40.07	6.9
3	7394	RAMONA	0.96	*	0.92	*	3.80	*	4.82	*	1.68	*	0.24	*	6.15	*	4.05	*	7.05	*	1.48	*	3.48	*	1.79	*	36.42	*
3	8258	SKIATOOK	*	*	1.01	-0.6	4.62	1.7	3.75	0.2	1.45	-3.2	0.73	-3.5	2.71	-0.7	2.92	0.0	7.18	2.8	1.58	-1.6	4.82	2.4	2.12	0.6	*	*
3	8380	SPAVINAW	1.00	-0.5	1.50	-0.2	5.29	2.1	5.14	1.0	1.83	-3.2	0.42	-4.3	2.87	-0.8	3.17	-0.4	4.69	0.3	1.22	-2.4	4.56	1.3	2.83	-0.8	34.54	-6.4
3	8992	TULSA WSO	1.08	-0.2	1.03	-0.7	6.52	3.3	3.38	-0.7	1.18	-3.9	0.58	-3.9	4.20	0.6	2.43	-0.5	5.35	0.9	1.43	-1.9	4.38	1.8	1.84	0.0	33.43	-5.3
3	9101	U SPAVINAW	0.86	*	*	*	6.08	*	3.82	*	1.59	*	0.79	*	1.61	*	4.10	*	7.08	*	2.40	*	5.06	*	3.48	*	*	*
3	9203	VINITA 2 N	0.32	-1.2	1.32	-0.4	4.68	1.1	4.43	0.3	1.40	-3.9	0.72	-4.1	3.87	0.4	1.12	-2.4	9.03	4.2	1.53	-2.1	5.91	2.9	3.94	1.8	38.27	-3.4
3	9247	WAGONER	1.65	-0.0	1.64	-0.2	6.48	3.0	3.17	-1.5	2.73	-2.1	1.10	-3.9	7.28	3.7	3.32	0.4	4.29	0.2	1.47	-1.6	5.18	1.9	3.13	1.0	41.45	1.0
3	9298	WANN	1.00	*	0.60	*	4.24	*	8.67	*	1.39	*	1.38	*	4.15	*	*	*	4.78	*	1.08	*	4.54	*	1.79	*	*	*
3	9792	WYNONA	0.94	*	0.72	*	7.36	*	2.41	*	2.57	*	1.25	*	8.87	*	*	*	7.61	*	1.43	*	3.10	*	1.30	*	*	*

1988 TOTAL PRECIPITATION AND DEVIATIONS 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	1445	CANTON DAM	1.08	0.5	0.06	-0.9	3.27	1.6	4.44	2.1	1.75	-3.2	2.73	-0.9	2.57	0.1	0.42	-1.8	4.30	1.1	2.03	-0.0	1.03	-0.5	*	*	*	*
4	1738	CHEYENNE	0.96	*	0.00	*	*	*	1.60	*	0.08	*	1.39	*	2.68	*	0.66	*	6.02	*	1.42	*	1.25	*	0.00	*	*	*
4	1909	CLINTON	1.53	0.8	0.05	-0.9	3.60	1.9	3.83	1.4	1.02	-3.9	4.56	1.2	0.53	-1.9	0.85	-1.9	8.21	5.2	1.31	-1.3	1.78	0.3	0.80	-0.1	28.08	0.5
4	2039	COLONY	1.00	*	0.15	*	2.98	*	4.94	*	0.74	*	2.07	*	1.76	*	1.19	*	5.53	*	1.68	*	2.14	*	0.38	*	24.57	*
4	2125	CORDELL	1.43	0.7	0.05	-0.9	4.03	2.4	4.43	2.2	0.43	-4.2	1.41	-1.6	3.11	0.5	0.41	-2.2	4.94	2.1	0.98	-1.6	1.76	0.3	0.26	-0.6	23.25	-2.8
4	2849	ELK CITY	*	*	0.07	-0.8	4.03	2.5	5.88	3.6	1.47	-3.4	0.58	-2.7	2.60	0.1	1.20	-1.1	10.87	8.2	0.36	-1.6	1.77	0.4	0.10	-0.6	*	*
4	2944	ERICK 4 E	0.80	0.3	0.13	-0.7	2.44	1.0	3.80	1.6	0.46	-3.9	3.73	0.7	3.57	1.4	0.40	-1.7	8.03	5.2	0.38	-1.8	1.68	0.6	0.07	-0.6	25.51	2.2
4	3497	GEARY	1.00	0.3	0.00	-1.1	3.92	2.1	5.54	3.0	0.80	-4.0	3.08	-0.7	1.80	-6	0.80	-1.3	6.00	2.7	2.23	-0.2	*	*	0.00	-1.0	*	*
4	3871	HAMMON	2.37	1.8	0.00	-0.9	3.45	1.8	3.80	1.5	0.11	-4.4	1.33	-1.6	4.11	1.9	0.96	-1.4	4.34	1.6	2.14	0.2	1.89	0.5	0.00	-0.7	24.50	0.4
4	5090	LEEDEY	0.30	-0.1	0.00	-0.9	2.76	1.4	3.92	1.4	0.34	-4.4	3.93	0.6	3.56	1.5	1.03	-1.5	3.50	1.2	2.35	0.5	1.05	-0.2	0.00	-0.6	22.75	-1.0
4	5463	MACKIE	0.83	*	0.00	*	3.04	*	3.35	*	0.08	*	2.19	*	2.65	*	1.80	*	4.63	*	0.83	*	0.80	*	0.00	*	20.20	*
4	6035	MORAVIA	0.95	0.4	0.12	-0.8	2.78	1.2	5.79	3.7	0.56	-4.1	4.91	1.9	1.58	-0.7	0.63	-1.4	10.87	8.1	0.51	-1.9	1.04	-0.0	0.91	0.1	30.66	6.4
4	6629	OKEENE	1.40	0.8	0.15	-0.7	4.30	2.4	5.12	2.7	0.75	-4.2	2.65	-1.3	4.61	2.2	0.43	-2.1	5.39	2.4	2.00	-0.1	1.54	-0.0	0.19	-0.6	28.53	1.4
4	7565	RETROP	1.20	*	0.11	*	2.98	*	6.05	*	0.71	*	4.67	*	2.21	*	0.78	*	8.43	*	0.66	*	1.43	*	0.36	*	29.59	*
4	7579	REYDON	0.53	0.1	0.00	-0.7	3.10	1.7	3.43	1.1	1.58	-2.7	1.20	-2.1	*	*	1.27	-0.9	6.75	4.4	0.43	-1.2	0.98	0.0	0.03	-0.5	*	*
4	7952	SAYRE	0.92	0.5	0.05	-0.6	2.25	0.9	5.12	3.0	0.30	-4.1	2.56	-0.6	2.46	0.3	0.82	-1.2	10.70	8.2	0.30	-1.8	1.06	-0.0	0.00	-0.6	26.55	4.1
4	8652	SWEETWTR	1.47	*	0.00	*	2.74	*	2.66	*	0.41	*	0.79	*	1.72	*	0.54	*	8.24	*	0.23	*	1.28	*	0.00	*	20.09	*
4	8708	TALOGA	0.99	0.4	0.00	-0.9	4.10	2.4	2.69	0.2	0.60	-4.5	2.72	-0.5	4.45	1.8	0.77	-1.6	3.59	0.9	1.65	-0.2	2.08	0.6	0.00	-0.6	23.65	-1.9
4	8815	THOMAS	1.20	*	0.05	*	3.82	*	4.45	*	1.35	*	1.12	*	2.71	*	0.49	*	10.03	*	2.68	*	1.12	*	0.42	*	29.44	*
4	9172	VICI	1.35	*	0.00	*	3.57	*	2.89	*	1.92	*	1.15	*	1.75	*	1.69	*	2.61	*	1.20	*	0.55	*	0.00	*	18.69	*
4	9364	WATONGA	1.61	0.8	0.06	-0.9	4.98	3.2	4.99	2.5	0.86	-4.1	2.34	-1.4	2.50	0.2	1.79	-0.2	5.25	2.3	2.81	0.5	1.68	0.2	0.38	-0.6	29.26	2.6
4	9422	WEATHRFRD	1.23	0.5	0.09	-0.9	3.41	1.8	4.45	2.2	0.30	-4.4	2.62	-1.0	1.25	-1.2	0.77	-1.9	6.98	3.7	1.63	-1.1	0.71	-0.6	0.35	-0.5	23.81	-3.4

1988 TOTAL PRECIPITATION AND DEVIATIONS 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	1.13	*	0.26	*	4.58	*	5.29	*	0.07	*	4.36	*	0.80	*	0.15	*	6.73	*	2.67	*	2.11	*	1.17	*	29.32	*
5	0288	ARCADIA	1.04	*	0.52	*	4.46	*	4.52	*	1.26	*	2.39	*	2.13	*	1.65	*	4.17	*	3.25	*	2.95	*	0.88	*	29.23	*
5	0830	BLANCHARD	1.01	*	0.44	*	5.13	*	4.65	*	0.20	*	2.60	*	0.29	*	1.38	*	6.12	*	2.36	*	1.63	*	1.85	*	27.67	*
5	1144	BRISTOW	1.23	0.0	0.99	-0.6	6.71	4.1	2.98	-0.5	1.19	-4.5	1.64	-2.7	3.17	-0.3	0.84	-1.7	3.63	-0.3	1.54	-1.0	4.62	2.2	1.40	-0.1	29.96	-5.6
5	1684	CHANDLER	0.16	-0.9	0.99	-0.5	5.38	3.0	5.35	2.1	1.24	-4.1	0.93	-2.8	2.61	-0.7	3.35	1.1	5.65	1.8	1.21	-1.2	3.11	1.0	2.47	1.0	32.46	-0.1
5	1750	CHICKASHA	1.59	0.6	0.37	-0.8	3.42	1.4	4.45	1.6	0.39	-4.7	2.47	-0.6	0.46	-2.0	2.79	0.2	5.96	2.4	2.65	-0.0	1.58	0.0	1.31	0.2	27.44	-1.5
5	2196	COX CITY	2.35	*	0.50	*	6.43	*	1.00	*	1.30	*	2.79	*	0.96	*	0.36	*	9.20	*	3.03	*	1.75	*	2.07	*	31.74	*
5	2242	CRESCENT	0.83	*	0.26	*	1.66	*	2.47	*	0.64	*	1.44	*	2.36	*	2.45	*	7.18	*	1.87	*	2.00	*	0.46	*	23.62	*
5	2318	CUSHING	0.90	-0.1	0.98	-0.3	6.12	3.6	4.22	1.0	1.50	-3.8	2.70	-1.5	5.74	2.0	3.23	0.5	3.78	-0.1	1.54	-1.1	4.17	2.1	1.23	-0.0	36.12	2.1
5	2818	EL RENO	2.35	1.5	0.38	-0.7	4.35	2.5	5.78	3.2	0.62	-4.5	3.14	-0.4	1.18	-1.5	1.03	-1.2	4.89	1.2	2.77	-0.1	1.91	0.2	0.32	-0.7	28.72	-0.6
5	3821	GUTHRIE	1.35	0.4	0.60	-0.6	5.70	3.6	4.76	2.1	0.62	-4.8	1.69	-2.2	2.09	-0.7	0.91	-1.4	6.44	2.4	1.08	-1.5	3.45	1.6	2.50	1.3	31.20	0.1
5	4055	HENNESSEY	0.64	-0.0	0.19	-0.9	4.81	2.9	6.55	4.1	1.05	-4.2	2.59	-1.3	5.23	2.7	0.68	-2.0	8.92	5.5	2.65	0.5	1.66	0.0	0.29	-0.7	35.27	6.6
5	4489	INGALLS	0.19	*	0.59	*	5.59	*	5.27	*	2.45	*	1.28	*	2.11	*	1.10	*	8.99	*	1.69	*	3.71	*	0.61	*	33.60	*
5	4861	KINGFISHER	0.82	-0.0	0.26	-0.8	5.01	3.2	6.51	4.0	0.18	-4.7	1.32	-2.4	1.87	-0.7	1.56	-0.8	9.74	6.1	2.72	0.2	1.83	0.3	0.33	-0.8	32.15	3.6
5	4915	KONAWA	2.13	0.8	0.76	-0.8	4.66	1.7	4.60	0.4	0.73	-5.3	2.68	-1.0	4.33	1.8	0.32	-2.1	3.72	-0.4	1.73	-1.8	3.46	1.3	2.05	0.1	31.17	-5.5
5	5589	MARSHALL	1.17	0.4	0.00	-1.1	3.96	1.9	6.58	4.2	0.37	-4.8	2.30	-1.7	2.58	-0.0	0.65	-2.1	6.03	2.5	1.23	-1.3	2.43	0.8	0.57	-0.5	27.87	-1.8
5	5779	MEEKER 4 W	0.25	-0.8	1.67	0.2	9.06	6.6	1.60	-1.9	0.89	-4.7	1.75	-1.9	1.93	-1.0	0.41	-2.1	5.26	1.4	2.55	-0.2	3.02	0.9	1.97	0.5	30.36	-3.1
5	6110	MULHALL	1.13	*	0.37	*	5.04	*	3.96	*	0.89	*	2.24	*	2.68	*	1.12	*	6.66	*	1.58	*	2.11	*	0.47	*	28.26	*
5	6386	NORMAN 3 S	1.25	0.1	0.71	-0.6	4.86	2.5	5.20	1.9	0.18	-5.7	3.52	-0.1	2.11	-1.1	2.25	-0.3	7.83	4.1	1.84	-0.7	2.18	0.1	1.78	0.4	33.73	0.5
5	6616	OILTON	0.78	*	*	*	6.92	*	5.26	*	2.20	*	2.40	*	2.59	*	2.70	*	3.60	*	1.37	*	4.47	*	1.97	*	*	*
5	6638	OKEMAH	2.30	0.9	1.23	-0.2	5.08	2.3	4.89	0.7	1.32	-3.7	2.06	-2.4	8.23	4.8	0.63	-1.9	4.75	0.9	2.01	-0.8	4.93	2.4	2.76	0.9	40.20	4.0
5	6661	OKC WSFO	1.24	0.2	0.41	-0.8	6.88	4.8	3.19	0.2	0.65	-4.8	4.07	0.2	1.97	-1.0	1.60	-0.8	3.94	0.5	1.91	-0.8	2.43	0.9	1.39	0.1	29.70	-1.1
5	7003	PERKINS	0.84	-0.2	0.45	-0.8	5.97	3.5	5.07	2.4	2.91	-2.2	1.95	-2.2	2.45	-1.0	1.55	-1.0	7.89	3.6	1.44	-1.7	3.24	1.1	0.88	-0.4	34.64	0.9
5	7068	PIEDMONT	1.03	*	0.25	*	3.48	*	5.82	*	0.33	*	2.49	*	2.11	*	*	*	4.66	*	3.69	*	1.80	*	0.73	*	*	*
5	7264	PRAGUE	1.53	0.2	0.90	-0.6	9.29	6.7	2.13	-1.7	1.31	-3.9	0.79	-2.9	2.87	-0.3	1.51	-1.0	4.33	0.5	2.39	-0.4	4.15	1.9	2.30	0.7	33.51	-0.7
5	7327	PURCELL	1.22	0.1	0.89	-0.4	4.11	1.7	7.62	4.2	0.25	-5.7	3.56	-0.0	1.47	-1.5	1.91	-0.5	7.39	3.4	3.28	0.1	2.85	0.7	2.34	0.8	36.91	3.0
5	8042	SEMINOLE	2.46	1.1	0.91	-0.6	5.19	2.6	3.53	-0.5	0.80	-4.5	1.23	-2.5	0.74	-2.2	1.74	-1.1	5.84	1.8	2.98	0.1	4.12	1.6	2.26	0.4	31.80	-3.8
5	8110	SHAWNEE	1.85	0.6	0.94	-0.5	6.56	4.0	5.60	1.7	1.20	-4.8	0.90	-3.0	1.54	-1.1	0.39	-2.5	4.70	0.9	3.14	-0.0	4.91	2.5	2.09	0.5	33.82	-1.6
5	8479	STELLA	1.05	*	0.99	*	6.26	*	6.87	*	0.63	*	3.91	*	1.66	*	1.40	*	5.90	*	2.73	*	2.53	*	1.85	*	35.78	*
5	8501	STILLWTR	1.40	0.5	0.35	-0.8	5.47	3.2	4.19	1.6	3.14	-1.9	1.30	-2.6	2.66	-1.1	0.97	-1.8	7.78	3.8	1.56	-1.3	3.45	1.6	0.96	-0.2	33.25	0.9
5	8563	STROUD 1 N	0.75	*	1.31	*	5.10	*	4.66	*	0.68	*	3.62	*	5.08	*	2.98	*	5.14	*	1.93	*	4.40	*	1.39	*	37.06	*
5	8751	TECUMSEH	0.93	*	0.15	*	6.43	*	4.06	*	*	*	2.07	*	0.77	*	1.14	*	6.05	*	2.16	*	2.28	*	1.53	*	*	*
5	8960	TROUSDALE	2.16	*	0.84	*	3.65	*	3.99	*	0.76	*	3.62	*	3.03	*	0.43	*	6.05	*	1.44	*	2.94	*	1.02	*	29.93	*
5	9086	UNION CTY	1.81	0.7	0.06	-1.3	7.11	4.7	6.03	2.7	0.15	-5.7	1.90	-2.3	1.68	-0.4	1.70	-0.8	6.31	2.5	1.98	-1.1	2.80	0.7	0.59	-0.7	32.13	-1.8
5	9479	WELTY	2.13	*	0.60	*	6.12	*	3.03	*	0.50	*	2.32	*	4.56	*	0.45	*	5.73	*	1.72	*	3.87	*	1.38	*	32.42	*
5	9575	WEWOKA	1.45	0.0	0.88	-0.8	5.14	2.4	3.37	-0.4	1.06	-4.2	1.01	-3.2	3.54	0.7	1.36	-1.4	4.89	0.7	2.31	-0.6	3.77	1.5	2.27	0.4	31.05	-4.8

1988 TOTAL PRECIPITATION AND DEVIATIONS 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	1.99	*	1.62	*	4.99	*	2.21	*	1.12	*	2.92	*	5.05	*	1.12	*	1.43	*	1.71	*	3.32	*	3.19	*	30.67	*
6	0631	BEGGS	1.36	*	0.41	*	7.27	*	2.93	*	0.60	*	2.91	*	5.61	*	0.46	*	5.53	*	1.49	*	4.91	*	2.12	*	35.60	*
6	1027	BOYNTON	1.30	*	1.18	*	5.97	*	3.54	*	1.96	*	1.92	*	5.45	*	1.11	*	3.75	*	1.27	*	5.57	*	2.50	*	35.52	*
6	1391	CALVIN	1.77	0.3	0.82	-1.0	6.07	2.6	3.16	-1.2	0.62	-5.2	1.68	-2.8	5.20	1.6	1.95	-0.6	3.61	-0.7	1.86	-1.8	*	*	2.42	0.4	*	*
6	1711	CHECOTAH	1.30	-0.1	1.12	-0.7	5.91	2.5	2.54	-2.0	1.37	-4.0	1.27	-2.7	6.08	2.6	0.69	-2.0	4.48	0.0	1.37	-2.0	4.03	1.1	2.30	0.1	32.49	-7.2
6	2485	DEWAR 2 NE	1.21	-0.2	1.19	-0.6	6.38	3.2	3.42	-0.8	0.88	-4.2	1.62	-2.4	9.57	6.0	0.79	-1.8	4.98	0.6	1.57	-1.6	4.13	1.4	1.91	0.0	37.65	-0.4
6	2690	DUSTIN	1.35	*	1.23	*	5.63	*	3.54	*	0.61	*	1.21	*	10.24	*	0.89	*	5.25	*	1.92	*	*	*	2.47	*	*	*
6	2993	EUFULA	1.44	-0.0	1.23	-0.8	5.38	1.4	2.36	-2.3	1.26	-4.2	1.18	-2.9	6.56	2.9	1.60	-1.1	3.02	-1.1	1.74	-1.6	4.29	1.3	2.68	0.2	32.74	-8.5
6	3884	HANNA	1.72	0.2	0.88	-0.9	6.43	2.7	2.87	-1.5	1.06	-4.3	0.91	-3.0	7.19	4.0	1.59	-1.2	5.13	0.9	2.08	-1.1	4.25	1.3	2.93	0.8	37.05	-2.2
6	3946	HARTSHORNE	1.27	*	1.63	*	4.16	*	3.01	*	1.43	*	2.05	*	5.60	*	*	*	1.81	*	2.69	*	0.00	*	2.96	*	*	*
6	3956	HASKELL	1.66	0.0	1.45	-0.4	6.70	3.5	2.78	-1.3	1.05	-3.9	0.78	-4.0	5.74	2.5	1.28	-1.0	6.63	2.6	1.06	-2.0	8.04	5.1	2.58	0.6	39.76	1.7
6	4235	HOLDENVL	1.71	0.3	0.86	-0.8	5.21	2.2	3.06	-1.3	1.29	-4.3	1.17	-2.6	5.38	1.9	1.75	-0.9	4.48	0.4	2.37	-1.1	3.42	1.0	2.05	0.2	32.76	-4.9
6	4975	LK EUFAULA	1.04	*	1.70	*	5.46	*	2.63	*	1.36	*	1.03	*	5.75	*	2.39	*	4.45	*	1.85	*	4.32	*	3.06	*	35.04	*
6	5437	LYONS 2 N	0.41	-1.3	0.00	-1.9	5.32	1.3	5.16	0.4	3.70	-1.6	0.10	-4.3	2.59	-0.6	2.95	0.0	4.01	-0.2	0.75	-2.3	4.66	1.7	1.00	-1.0	30.67	-10.1
6	5664	MCALESTER	1.32	-0.3	1.14	-1.1	4.36	0.5	2.63	1.9	1.14	-4.4	0.39	-3.2	3.18	-0.2	1.25	-2.0	2.70	-2.2	1.73	-2.1	3.87	0.8	2.84	0.4	26.55	-15.9
6	5693	MCCURTAIN	2.06	0.1	1.30	-1.2	4.47	0.5	3.81	-0.9	1.07	-4.6	0.91	-3.3	2.24	-1.5	3.23	0.2	4.88	0.4	1.33	-1.9	5.23	1.6	2.96	0.3	33.51	-10.3
6	6130	MUSKOGEE	1.13	-0.5	1.22	-0.8	7.05	3.8	2.22	-2.3	2.32	-2.7	1.62	-2.9	4.69	1.5	2.44	-0.5	3.56	-0.5	1.36	-1.9	7.28	4.3	2.43	0.1	37.32	-2.6
6	6670	OKMULGEE	2.54	0.9	1.60	-0.1	5.51	2.4	2.97	-1.5	1.91	-3.1	2.03	-2.6	6.45	3.4	0.71	-1.9	5.65	1.8	1.46	-1.4	6.20	3.5	2.96	0.9	40.01	2.2
6	6678	OKTAHA	1.56	*	1.36	*	5.56	*	1.63	*	2.55	*	2.32	*	6.39	*	0.99	*	4.76	*	1.27	*	4.57	*	1.85	*	34.81	*
6	7372	QUINTON	1.22	-0.4	1.49	-0.6	4.87	1.1	2.23	-2.1	0.58	-4.9	0.72	-3.3	7.52	3.7	4.25	1.1	4.68	0.2	1.55	-2.0	4.31	1.0	2.40	0.0	35.84	-6.0
6	7862	SALLISAW	1.67	-0.1	1.29	-1.1	6.23	2.4	2.21	-2.2	1.81	-3.6	1.39	-2.9	3.06	-0.4	2.19	-0.9	4.27	-0.1	1.62	-2.2	5.82	2.4	2.00	-0.4	33.58	-9.6
6	7979	SCIPIO	0.99	*	0.63	*	5.27	*	2.40	*	1.26	*	0.59	*	6.22	*	1.64	*	2.49	*	2.36	*	3.97	*	2.49	*	30.31	*
6	7993	SCRAPER	1.14	*	*	*	7.63	*	2.92	*	3.82	*	1.44	*	3.32	*	2.67	*	4.09	*	1.71	*	5.41	*	2.31	*	*	*
6	8170	SHORT	1.60	*	1.58	*	6.77	*	3.70	*	1.27	*	2.66	*	3.67	*	1.77	*	3.90	*	0.83	*	7.48	*	2.09	*	37.34	*
6	8506	STILWELL	1.72	-0.2	1.20	-1.3	6.89	3.1	3.46	-1.2	1.76	-3.8	0.74	-3.7	3.43	-0.3	3.97	0.6	4.42	0.1	1.67	-1.6	5.52	2.2	2.47	-0.2	37.27	-6.4
6	8677	TAHLEQUAH	1.91	0.1	1.24	-1.1	6.28	2.6	2.92	-1.6	3.18	-2.2	1.17	-3.4	8.56	5.1	3.72	0.6	3.02	-1.3	1.56	-1.8	5.35	2.1	1.73	-0.7	40.65	-1.6
6	9445	WEBBER FLS	1.42	-0.2	1.57	-0.7	6.30	2.7	2.96	-1.6	3.33	-1.9	2.42	-1.6	3.93	0.7	2.51	-0.3	3.07	-1.2	1.30	-2.4	3.72	0.7	2.39	0.1	34.92	-6.0
6	9523	WESTVILLE	2.20	*	1.20	*	8.24	*	2.02	*	1.24	*	0.50	*	3.63	*	3.95	*	4.07	*	1.96	*	5.44	*	2.35	*	36.80	*
6	9571	WETUMKA	1.23	-0.1	0.98	-0.6	5.83	2.7	2.68	-1.6	0.99	-4.4	1.26	-3.0	11.64	8.4	1.29	-1.1	6.05	2.0	2.40	-0.7	3.80	1.0	2.54	0.6	40.71	3.0

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			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	1.47	0.6	0.10	-0.8	2.08	0.8	2.19	0.1	1.73	-2.9	3.54	0.6	2.10	0.1	0.60	-1.6	5.96	3.1	0.90	-1.6	0.46	-0.5	0.77	-0.1	21.91	-2.1
7	0184	ALTUS DAM	1.01	0.3	0.05	-0.8	4.28	2.9	5.56	3.5	0.38	-4.4	1.26	-2.2	0.94	-1.6	0.48	-1.4	7.45	4.7	0.67	-2.0	1.03	0.0	0.44	-0.4	23.55	-0.5
7	1504	CARNEGIE	1.46	0.6	0.11	-1.0	2.71	1.0	6.61	4.1	0.41	-4.7	1.61	-1.4	3.24	0.6	0.72	-1.4	7.73	4.3	0.87	-1.3	2.63	1.3	0.18	-0.8	28.28	1.4
7	1706	CHATTANOOGA	1.50	0.5	0.20	-0.9	4.04	2.3	2.72	0.2	0.00	-4.7	1.38	-1.4	1.27	-1.2	0.43	-2.1	6.60	3.5	0.51	-2.2	0.71	-0.6	0.76	-0.3	20.13	-7.1
7	260	APACHE	1.69	*	0.07	*	3.71	*	4.71	*	0.14	*	0.83	*	0.84	*	0.70	*	6.25	*	1.41	*	1.74	*	1.15	*	23.24	*
7	2668	DUNCAN	2.18	*	0.19	*	4.90	*	3.37	*	0.17	*	2.73	*	0.77	*	1.12	*	5.94	*	1.50	*	1.06	*	1.23	*	25.17	*
7	3353	FREDERICK	1.20	0.3	0.10	-0.9	2.63	0.9	3.04	0.7	0.32	-4.4	3.33	0.3	2.23	0.0	0.45	-2.0	7.24	4.2	0.35	-2.1	0.42	-0.9	0.93	-0.0	22.24	-3.8
7	3709	GRANDFIELD	1.10	0.0	0.30	-0.8	2.17	0.4	2.65	0.2	0.00	-4.9	1.73	-1.4	0.99	-1.0	0.07	-2.3	7.71	4.2	0.77	-2.0	0.48	-1.0	1.50	0.2	19.47	-8.6
7	4204	HOBART FAA	0.61	0.0	0.04	-0.8	3.76	2.4	3.54	1.3	0.73	-4.2	1.57	-1.3	1.28	-1.2	0.87	-1.0	6.91	4.0	1.05	-1.4	1.92	0.8	0.52	-0.2	22.81	-1.7
7	4249	HOLLIS	*	*	0.01	-0.7	*	3.20	1.0	0.52	-3.6	6.84	3.8	0.98	-0.8	0.71	-1.3	6.79	4.1	0.08	-2.1	0.37	-0.5	0.77	0.0	*	*	*
7	5063	LAWTON	1.18	0.1	0.19	-0.9	3.53	1.7	1.88	-0.5	0.30	-5.3	0.61	-2.9	0.38	-2.1	0.38	-1.7	5.54	2.5	1.02	-1.8	1.12	-0.6	1.58	0.3	17.72	-11.4
7	5068	FORT SILL	1.57	0.5	0.18	-0.9	3.72	1.8	2.22	-0.1	0.36	-5.3	1.15	-2.4	1.32	-1.1	1.40	-0.7	6.10	3.1	0.99	-1.8	0.77	-0.9	1.09	-0.1	20.90	-8.3
7	5299	LOOKABA	1.37	*	0.13	*	4.55	*	6.05	*	0.65	*	1.38	*	2.66	*	0.75	*	6.02	*	1.20	*	1.86	*	0.20	*	26.82	*
7	5509	MANGUM	0.48	-0.6	0.00	-1.4	4.01	1.4	4.24	0.9	0.46	-4.3	5.16	1.2	1.11	-2.0	1.28	-1.8	5.57	1.3	0.34	-2.3	0.82	-1.3	0.45	-0.9	23.93	0.0
7	7403	HANDLETT	0.89	*	0.00	*	0.34	*	3.14	*	0.00	*	1.79	*	1.93	*	0.13	*	6.18	*	0.94	*	0.81	*	0.84	*	17.01	*
7	7727	ROOSEVELT	1.85	1.1	0.00	-0.9	5.23	3.9	4.74	2.4	0.65	-4.6	1.77	-1.5	1.83	-0.5	0.93	-1.2	8.90	6.1	1.16	-1.3	1.04	-0.2	0.45	-0.5	28.55	2.8
7	8016	SEDAN	1.05	*	0.00	*	6.31	*	3.73	*	0.92	*	0.64	*	3.14	*	0.23	*	4.57	*	2.46	*	1.33	*	0.03	*	24.42	*
7	8299	SNYDER	0.99	0.1	0.04	-1.0	3.06	1.6	2.87	0.8	1.03	-3.9	1.06	-1.8	2.02	-0.4	0.77	-1.4	9.39	6.5	0.58	-1.7	0.84	-0.3	0.55	-0.4	23.22	-2.1
7	9212	WINSON	0.55	0.0	0.02	-0.6	2.37	1.0	2.92	0.8	0.51	-4.1	3.37	0.5	0.98	-0.9	0.85	-1.4	6.82	3.9	0.42	-1.8	0.61	-0.4	0.21	-0.5	19.63	-3.4
7	9278	WALTERS	3.25	2.0	0.15	-1.1	6.74	4.6	1.86	-0.9	0.00	-5.3	3.07	-0.5	2.06	-0.9	0.45	-2.1	10.29	7.0	0.90	-2.0	1.24	-0.5	1.14	-0.2	31.15	-0.1
7	9629	WICHITA MT	1.15	0.2	0.05	-1.1	3.85	1.9	4.04	1.5	0.44	-4.8	1.32	-2.1	2.79	0.3	1.06	-0.9	11.30	8.1	0.94	-1.7	0.80	-0.7	0.53	-0.5	28.27	0.1
7	9668	WILLOW	1.04	*	0.21	*	3.67	*	4.68	*	0.68	*	2.55	*	2.57	*	0.55	*	9.43	*	0.63	*	0.92	*	0.42	*	27.36	*



1988 TOTAL PRECIPITATION AND DEVIATIONS 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	1.66	0.3	0.68	-1.2	5.17	2.2	1.80	-1.9	0.25	-5.3	1.64	-2.0	2.63	-0.0	1.60	-1.4	3.66	-0.3	3.65	-0.2	2.43	-0.1	2.67	0.7	27.85	-9.6
8	0147	ALLEN	1.63	*	0.70	*	5.50	*	1.51	*	0.80	*	1.00	*	2.72	*	3.05	*	4.40	*	1.10	*	3.70	*	3.40	*	29.51	*
8	0292	ARDMORE	1.27	-0.0	0.93	-0.7	3.22	0.2	1.07	-2.2	0.59	-4.0	3.54	0.2	4.95	2.6	0.15	-2.3	1.42	-2.5	3.29	-0.1	1.73	-0.5	2.01	0.3	24.17	-9.6
8	0394	ATOKA DAM	0.94	*	0.30	*	4.13	*	2.60	*	0.30	*	0.51	*	2.90	*	1.42	*	2.13	*	1.89	*	3.16	*	*	*	*	*
8	0917	BOKCHITO	1.03	*	2.25	*	3.73	*	2.00	*	1.47	*	3.12	*	2.95	*	0.75	*	3.29	*	2.25	*	2.90	*	1.90	*	27.64	*
8	1437	CANEY	1.34	*	1.10	*	3.30	*	1.41	*	0.65	*	1.18	*	2.16	*	1.55	*	2.17	*	2.05	*	2.35	*	*	*	*	*
8	1648	CENTRAHOMA	1.55	*	0.59	*	3.32	*	1.41	*	0.17	*	2.05	*	4.51	*	*	*	1.00	*	3.60	*	2.45	*	3.00	*	*	*
8	1745	CHICKASAW	1.38	*	0.87	*	4.85	*	1.96	*	0.67	*	4.60	*	2.46	*	0.19	*	3.68	*	2.39	*	1.91	*	2.77	*	27.73	*
8	2011	COLEMAN	*	*	*	*	*	*	0.94	*	0.70	*	2.55	*	3.90	*	0.50	*	*	*	2.47	*	3.48	*	3.07	*	*	*
8	2054	COMANCHE	2.49	*	0.45	*	4.69	*	4.45	*	0.14	*	3.44	*	1.18	*	0.11	*	7.03	*	2.17	*	1.08	*	2.95	*	30.19	*
8	2354	DAISY	1.82	-0.1	2.22	-0.4	4.17	0.3	2.43	-3.0	0.98	-5.3	3.17	-1.3	9.13	4.8	1.73	-1.7	3.13	-2.5	4.29	0.4	2.57	-0.7	2.93	0.2	38.60	-9.4
8	2660	DUNCAN	2.44	1.4	0.51	-0.7	3.58	1.4	4.62	1.9	0.34	-5.2	3.11	-0.3	4.76	2.4	0.79	-1.5	7.64	3.9	2.12	-0.8	1.56	-0.3	1.65	0.3	33.12	2.4
8	2678	DURANT	1.28	-0.4	2.04	-0.2	4.13	0.8	2.19	-2.3	0.99	-4.0	2.20	-1.5	1.25	-1.2	3.49	1.0	3.28	-2.3	3.13	-0.3	2.43	-0.3	2.85	0.6	29.26	-10.3
8	2872	ELMORE CTY	1.14	*	0.35	*	8.50	*	2.25	*	0.05	*	1.72	*	0.25	*	*	*	4.80	*	2.86	*	1.70	*	2.02	*	*	*
8	3083	FARRIS	1.29	*	1.79	*	4.02	*	2.54	*	0.18	*	2.51	*	3.26	*	3.00	*	2.40	*	3.44	*	3.65	*	3.00	*	31.08	*
8	3688	GRADY	0.45	*	0.92	*	2.52	*	2.20	*	0.25	*	3.50	*	2.50	*	0.18	*	5.28	*	1.92	*	1.43	*	1.35	*	22.50	*
8	4001	HEALDTON	1.73	0.3	0.75	-0.6	4.15	1.6	2.27	-1.1	0.19	-4.6	4.95	1.2	2.41	0.0	1.09	-1.2	7.21	3.1	3.22	0.1	1.33	-0.7	2.63	1.0	31.93	0.7
8	4052	HENNEPIN	*	*	*	*	7.11	*	2.17	*	1.32	*	2.60	*	1.23	*	0.57	*	4.27	*	4.53	*	1.74	*	2.62	*	*	*
8	4865	KINGSTON	1.07	-0.6	1.76	-0.5	2.46	-0.7	1.30	-2.8	1.33	-3.7	4.71	1.0	1.33	-1.0	0.80	-1.6	3.62	-1.0	2.36	-1.2	2.97	0.4	2.84	0.8	26.55	-11.0
8	5108	LEHIGH	1.30	*	0.97	*	3.34	*	2.27	*	0.63	*	2.41	*	3.93	*	0.40	*	1.49	*	2.15	*	5.67	*	3.14	*	27.73	*
8	5216	LINDSAY	1.68	0.5	0.38	-1.0	3.74	1.4	4.49	1.1	0.10	-6.1	3.47	0.0	1.48	-1.1	1.54	-0.7	7.18	3.3	3.09	0.0	0.85	-1.2	2.13	0.6	30.14	-3.0
8	5247	LOCO 6 SE	1.43	*	0.55	*	3.73	*	2.65	*	0.87	*	4.94	*	2.17	*	1.22	*	8.55	*	3.15	*	1.10	*	1.69	*	32.06	*
8	5468	MADILL	1.07	-0.6	1.50	-0.6	2.55	-0.4	1.87	-2.6	0.95	-4.1	3.84	-0.0	2.27	-0.0	1.24	-1.1	3.21	-1.3	3.61	0.0	2.77	0.3	2.75	0.7	27.63	-9.9
8	5563	MARIETTA	1.19	-0.2	1.51	-0.2	1.95	-0.8	1.35	-2.4	0.75	-3.8	3.20	-0.4	3.90	1.7	1.66	-0.9	3.72	-0.2	4.00	0.9	2.44	-0.0	2.70	1.0	28.38	-5.5
8	5581	MARLOW	1.57	0.6	0.39	-0.8	3.30	1.3	5.27	2.5	0.25	-5.7	3.31	-0.5	3.52	0.9	0.83	-1.5	7.57	3.9	2.13	-0.8	1.39	-0.5	2.18	0.8	31.72	0.2
8	5713	MCGEE CRK	1.44	*	2.18	*	4.28	*	1.64	*	0.50	*	3.16	*	3.15	*	3.51	*	2.87	*	3.58	*	3.89	*	3.03	*	33.23	*
8	6787	OSWALT	*	*	0.74	*	2.48	*	*	*	0.00	*	3.16	*	4.32	*	0.32	*	2.80	*	0.75	*	1.23	*	1.05	*	*	*
8	6926	PAULS VLY	1.78	0.4	0.52	-0.9	4.46	2.1	2.40	-1.1	0.14	-5.3	1.45	-1.9	2.31	-0.0	0.49	-1.8	2.35	-1.3	2.29	-1.2	1.63	-0.5	1.66	-0.0	21.49	-11.6
8	7214	PONTOTOC	2.52	1.1	0.20	-1.7	5.00	1.7	1.20	-2.8	0.50	-5.2	3.05	-0.5	3.70	1.1	1.22	-1.4	2.00	-2.1	0.75	-3.0	3.70	0.8	2.20	0.3	26.04	-11.8
8	8884	TISHOMINGO	1.40	-0.1	1.39	-0.6	2.87	-0.3	1.55	-3.0	0.34	-4.5	5.97	2.5	3.34	0.6	0.50	-2.0	3.29	-1.5	2.36	-1.2	2.80	0.3	2.75	0.6	28.56	-9.4
8	9032	TUSSY	1.69	*	0.21	*	4.78	*	3.40	*	0.06	*	1.66	*	1.85	*	1.89	*	6.70	*	2.72	*	1.39	*	2.38	*	28.74	*
8	9395	WAURIKA	1.83	0.7	*	*	2.50	0.5	2.74	-0.2	0.15	-4.7	4.95	1.7	1.43	-0.8	1.38	-1.1	4.64	1.2	0.66	-2.0	0.51	-1.4	1.39	-0.0	*	*
8	9399	WAURIKA DM	1.59	*	0.40	*	3.60	*	3.88	*	0.25	*	4.29	*	1.01	*	0.20	*	6.20	*	1.26	*	1.16	*	1.60	*	25.44	*

1988 TOTAL PRECIPITATION AND DEVIATIONS FROM NORMAL (Inches)

CD	ID	STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
			PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP	PCP
			DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV	DEV
9	0256	ANTLEERS	* * * * *	1.64 -1.1	3.51 -0.0	1.44 -3.6	0.70 -5.2	4.54 0.5	3.88 0.7	1.89 -1.3	* * * * *	3.29 -1.9	3.10 -0.0	2.74 -0.2	* * * * *
9	0567	BATTLEST	* * * * *	3.30 * * *	4.58 * * *	4.50 * * *	0.00 * * *	0.00 * * *	0.00 * * *	6.29 * * *	1.61 * * *	2.69 -2.5	4.52 0.3	6.75 * * *	3.43 -0.6
9	0584	BEAR MT TW	1.45 -1.2	2.97 -0.4	6.44 2.0	3.31 -1.7	0.00 -5.5	1.44 -2.1	6.63 2.5	6.79 3.2	2.69 -2.5	3.25 * * *	7.61 * * *	4.00 * * *	46.42 -3.1
9	0670	BENGAL	1.80 * * *	1.86 * * *	5.02 * * *	4.01 * * *	0.79 * * *	0.84 * * *	4.92 * * *	3.84 * * *	5.22 * * *	1.94 * * *	6.00 * * *	3.48 * * *	39.73 * * *
9	0980	BOSWELL	1.34 -0.7	2.57 -0.2	3.84 0.5	2.58 -1.9	0.29 -4.6	1.54 -2.0	4.43 1.7	2.53 -0.1	2.46 -2.4	2.12 -1.5	3.32 0.3	2.62 -0.0	29.67 -11.2
9	1162	BROKEN BOW	1.30 -1.7	2.89 -0.4	4.64 0.1	2.39 -2.9	1.28 -4.4	1.75 -2.0	4.72 0.8	7.99 5.0	1.86 -2.8	3.08 -0.7	9.50 5.4	1.96 -1.8	43.36 -5.4
9	1168	BRKN BW DM	1.30 * * *	2.98 * * *	5.40 * * *	2.39 * * *	1.82 * * *	* * * * *	* * * * *	* * * * *	1.39 * * *	5.35 * * *	8.90 * * *	2.52 * * *	* * * * *
9	1499	CARNASAW	1.37 -1.8	3.00 -0.3	5.32 0.6	2.47 -3.0	1.11 -5.2	4.28 0.2	5.69 1.5	5.79 2.6	0.82 -4.1	5.67 1.5	8.36 4.0	2.19 -2.0	46.07 -5.4
9	1544	CARTER TWR	1.39 -1.3	2.92 -0.3	5.31 0.7	5.14 * * *	1.05 -4.8	1.88 * * *	5.59 1.2	6.07 * * *	1.91 -3.0	4.76 0.1	7.63 3.8	2.86 -1.0	46.51 -4.4
9	3065	FANSHAWE	1.38 -0.5	2.16 -0.6	4.71 0.2	4.16 -0.8	1.29 -4.6	0.63 -3.5	4.07 0.0	4.28 1.2	4.28 -0.4	1.71 -1.3	5.16 1.2	4.19 1.2	38.02 -7.9
9	4008	HEAVENER	1.49 -0.7	2.70 -0.0	3.45 -0.7	5.03 0.1	2.47 -3.0	1.44 -2.5	2.51 -1.0	4.41 1.0	3.38 -1.1	2.74 -0.5	4.89 1.2	2.61 -0.6	37.13 -8.0
9	4017	HEE MT TWR	1.43 * * *	2.89 * * *	5.89 * * *	3.85 * * *	2.05 * * *	3.16 * * *	6.25 * * *	6.57 * * *	2.24 * * *	3.98 * * *	7.17 * * *	2.89 * * *	48.37 * * *
9	4384	HUGO	1.14 -1.0	3.67 0.9	5.96 2.1	3.44 -1.2	0.75 -4.9	1.38 -3.1	2.61 -0.4	1.01 -2.4	1.62 -3.5	3.02 -0.9	5.20 1.9	3.45 0.3	33.26 -12.3
9	4451	IDABEL	1.49 -1.5	0.00 -3.4	5.43 1.0	1.76 -3.6	1.82 -3.8	0.00 -3.6	5.96 2.4	5.07 2.4	0.66 -3.8	5.03 1.1	7.78 3.9	2.17 -1.3	37.17 -10.2
9	7254	POTEAU W W	1.21 * * *	1.98 * * *	3.98 * * *	4.90 * * *	4.01 * * *	1.89 * * *	3.14 * * *	2.45 * * *	4.39 * * *	1.15 * * *	5.72 * * *	2.10 * * *	36.94 * * *
9	8416	SPIRO	1.93 0.1	2.24 -0.4	4.37 0.2	4.84 0.2	2.16 -3.2	1.07 -2.4	2.84 -0.9	1.30 -1.3	2.14 -1.8	1.30 -2.0	5.41 1.5	2.31 -0.4	31.91 -10.6
9	9023	TUSKAHOMA	0.96 * * *	1.90 * * *	4.74 * * *	3.70 * * *	0.54 * * *	1.97 * * *	6.22 * * *	4.48 * * *	1.99 * * *	3.15 * * *	3.91 * * *	3.27 * * *	36.85 * * *
9	9118	VAULTAINT	1.02 -1.5	2.89 -0.3	3.90 -0.3	3.71 -1.2	0.86 -4.6	1.15 -2.5	4.54 0.9	4.97 2.2	3.97 -1.0	3.96 0.3	5.90 2.3	2.27 -1.3	39.14 -7.2

**1988 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
1	0332	ARNETT	28.8	-4.5	37.1	-1.1	44.0	-1.4	53.3	-4.1	66.0	-0.3	75.8	0.1	78.6	-2.2	80.4	1.1	68.8	-2.2	56.2	-3.6	47.3	1.6	39.2	2.0	56.3	-1.2
1	0593	BEAVER	27.0	-5.8	35.3	-2.8	42.6	-2.7	52.0	-5.1	65.0	-1.3	77.4	1.2	79.0	-2.5	79.9	0.3	68.7	-2.3	55.6	-3.6	45.4	0.8	37.0	0.8	55.4	-1.9
1	0908	BOISE CITY 2 E	30.5	-3.6	38.0	-0.3	44.0	-0.1	53.3	-1.1	62.2	-1.0	73.8	0.3	75.9	-2.1	76.5	0.8	66.1	-2.0	56.5	-0.9	46.7	2.8	38.0	1.2	55.1	-0.5
1	1243	BUFFALO	30.1	-4.6	40.1	-0.3	45.7	-2.3	54.7	-5.0	68.0	-0.5	78.9	0.5	80.7	-2.7	82.5	0.7	72.2	-1.0	59.4	-2.7	48.3	1.3	40.7	2.2	58.4	-1.2
1	3407	GAGE FAA APT	29.8	-3.5	37.9	-0.4	45.2	-0.7	54.6	-2.9	66.6	0.1	77.2	0.6	79.6	-1.9	81.1	1.0	70.4	-0.9	58.0	-1.7	48.7	3.4	40.5	3.7	57.5	-0.2
1	3489	GATE	29.4	*	38.6	*	*	*	54.5	*	67.0	*	79.4	*	81.0	*	82.4	*	70.0	*	57.2	*	48.8	*	39.8	*	*	*
1	3628	GOODWELL RES ST	28.1	-5.4	35.6	-3.0	42.5	-2.3	50.8	-5.2	61.8	-2.9	74.3	-0.3	76.8	-2.6	78.4	1.0	66.3	-3.2	55.4	-3.0	46.0	1.7	37.4	0.7	54.4	-2.1
1	4298	HOOKE	28.3	-4.9	36.5	-1.9	43.6	-1.6	51.2	-5.1	63.7	-1.7	76.2	0.6	78.2	-2.1	79.6	1.4	67.2	-2.1	56.0	-2.8	46.6	2.5	38.0	1.6	55.4	-1.4
1	4766	KENTON	29.2	-5.2	35.1	-3.5	42.4	-1.6	51.3	-3.1	61.2	-2.3	73.0	-0.7	75.1	-3.5	75.7	-0.8	65.3	-3.6	55.9	-1.6	45.6	1.7	34.4	-2.5	53.7	-2.2
1	9017	TURPIN 4 SSE	26.9	*	35.7	*	43.2	*	51.4	*	64.7	*	76.9	*	78.4	*	79.9	*	66.4	*	55.1	*	45.4	*	36.6	*	55.0	*
2	0194	ALVA 1 ENE	29.4	-4.7	38.2	-1.1	45.1	-2.3	56.6	-2.3	69.7	1.6	78.1	0.0	80.8	-2.6	*	*	71.5	-1.7	57.5	-4.6	*	*	*	*	*	*
2	0755	BILLINGS	29.7	*	36.4	*	45.6	*	54.8	*	68.1	*	78.0	*	81.2	*	84.1	*	73.1	*	57.6	*	49.3	*	40.4	*	58.2	*
2	0818	BLACKWELL 2E	31.2	*	37.1	*	46.3	*	56.5	*	68.6	*	79.0	*	81.9	*	84.4	*	72.9	*	57.0	*	47.8	*	40.4	*	58.6	*
2	1724	CHEROKEE	30.6	-3.9	39.9	0.0	47.2	-1.0	57.8	-2.0	71.0	2.3	81.2	2.3	84.0	0.3	85.2	3.0	74.5	1.0	59.8	-2.4	49.5	2.2	42.7	4.4	60.3	0.5
2	2912	ENID	31.4	-4.0	39.6	-1.1	47.9	-1.2	58.1	-2.3	70.4	1.4	80.1	1.6	82.2	-1.3	84.3	2.2	*	*	58.6	-4.3	50.0	1.5	43.3	4.0	*	*
2	3304	FT SUPPLY DAM	26.6	-8.0	36.0	-3.8	42.9	-4.6	53.4	-5.6	66.0	-1.5	75.7	-1.2	78.4	-3.4	79.8	-0.6	68.0	-4.2	55.7	-5.6	46.7	-0.4	38.9	0.8	55.7	-3.2
2	3358	FREEDOM	29.3	*	37.8	*	44.6	*	57.2	*	68.5	*	77.7	*	80.2	*	81.2	*	71.4	*	57.6	*	47.3	*	40.0	*	57.7	*
2	3740	GREAT SALT PLNS	29.9	*	37.8	*	46.1	*	55.0	*	69.8	*	79.5	*	82.2	*	84.3	*	72.5	*	57.6	*	49.0	*	41.0	*	58.7	*
2	4019	HELENA 1 SSE	28.5	*	36.9	*	44.6	*	53.1	*	67.0	*	77.3	*	80.3	*	83.1	*	71.2	*	56.4	*	46.3	*	*	*	*	*
2	4573	JEFFERSON	30.6	-3.8	38.4	-1.2	47.2	-0.9	56.9	-2.7	70.5	1.8	79.8	1.1	82.5	-1.1	85.3	3.2	73.9	0.3	59.0	-3.4	48.5	0.7	41.5	3.2	59.5	-0.2
2	6139	MUTUAL	28.8	-5.3	36.7	-2.5	42.1	-4.7	52.6	-5.6	66.6	-0.5	76.7	-0.5	79.8	-2.8	81.3	0.3	69.5	-2.8	56.6	-4.3	47.1	0.5	39.5	1.7	56.4	-2.3
2	6278	NEWKIRK	30.9	-2.5	37.8	-1.1	46.5	-1.0	57.8	-1.8	69.7	1.5	78.9	1.4	81.0	-1.5	83.9	2.8	73.5	0.7	58.2	-3.7	49.8	2.4	41.8	4.2	59.1	0.1
2	7012	PERRY	32.8	-3.5	41.0	-0.5	49.8	-0.1	59.9	-1.6	71.7	2.4	80.4	2.3	82.3	-0.9	85.0	2.9	75.3	1.1	59.7	-3.8	51.3	1.7	44.3	3.9	61.1	0.3
2	9404	WAYNOKA	30.2	-5.0	37.9	-2.7	45.2	-3.6	56.2	-4.1	69.0	-0.1	78.7	0.2	80.6	-2.9	82.5	0.4	72.2	-1.2	57.8	-4.4	47.6	-0.3	40.7	2.1	58.2	-1.8
3	0535	BARNSDALL	32.6	*	37.7	*	48.0	*	58.7	*	68.8	*	77.2	*	80.9	*	81.8	*	72.1	*	57.2	*	50.0	*	41.0	*	58.8	*
3	0548	BARTLESVILLE 2W	32.3	-2.3	38.5	-1.8	48.5	-0.3	59.2	-1.6	69.7	1.0	78.3	1.3	81.7	-0.3	82.4	1.8	72.8	0.0	57.3	-4.3	51.0	2.7	41.5	2.5	59.4	-0.1
3	0782	BIXBY	32.1	-3.3	37.7	-3.0	47.7	-1.1	57.8	-2.8	68.8	0.2	77.4	0.5	81.1	-0.7	81.8	1.5	72.1	-0.6	57.0	-4.7	49.1	0.4	40.6	0.3	58.6	-1.1
3	1828	CLAREMORE	31.7	-2.8	38.4	-1.4	47.3	-0.8	57.8	-2.2	68.1	0.2	77.6	1.3	81.2	-0.4	82.5	2.2	72.4	-0.3	56.7	-4.7	49.7	1.3	40.4	1.4	58.6	-0.6
3	4567	JAY TOWER	35.7	*	39.8	*	50.8	*	60.6	*	69.1	*	79.3	*	82.5	*	82.6	*	74.1	*	58.4	*	53.3	*	43.7	*	60.8	*
3	4672	KANSAS 1 ESE	33.6	*	38.6	*	*	*	59.0	*	67.6	*	76.9	*	79.6	*	80.5	*	71.5	*	57.1	*	51.0	*	42.4	*	*	*
3	4812	KEYSTONE DAM	*	*	*	*	46.6	*	56.8	*	69.2	*	77.5	*	81.0	*	81.7	*	71.6	*	*	*	*	*	*	*	*	*
3	5522	MANNFORD 6 NW	34.8	*	41.7	*	50.3	*	60.6	*	70.6	*	79.1	*	81.9	*	82.8	*	73.1	*	58.8	*	51.8	*	43.3	*	60.7	*
3	5855	MIAMI	32.0	-2.7	37.6	-2.2	47.1	-1.1	58.8	-1.3	67.5	-0.4	77.2	1.0	79.0	-2.1	80.7	0.8	71.9	-0.7	54.9	-6.5	50.8	2.4	40.0	0.8	58.1	-1.0
3	6485	NOWATA	32.4	-2.3	37.6	-2.4	47.4	-1.0	58.0	-1.9	69.2	1.0	*	*	81.5	0.0	82.6	1.8	73.2	0.3	57.0	-4.8	50.6	2.0	41.5	2.5	*	*
3	6935	PAWHUSKA	32.3	-2.2	38.3	-1.7	47.4	-1.2	58.6	-1.9	69.2	1.0	77.3	0.7	80.6	-1.2	82.5	2.0	72.6	0.0	57.9	-3.6	50.5	2.5	41.5	2.8	59.1	-0.2
3	7309	PRYOR 6 N	30.6	-4.3	35.8	-4.2	*	*	56.3	-3.7	66.6	-1.5	75.4	-1.0	80.0	-1.6	80.8	0.5	71.7	-0.9	55.4	-6.0	48.9	0.7	39.4	0.0	*	*
3	7390	RALSTON	33.9	*	40.1	*	48.6	*	60.0	*	71.0	*	79.0	*	82.3	*	83.3	*	73.7	*	59.4	*	51.0	*	42.6	*	60.4	*
3	8380	SPAVINAW	35.0	*	38.9	*	50.6	*	59.5	*	69.3	*	78.6	*	81.0	*	82.4	*	74.2	*	59.0	*	53.6	*	43.3	*	60.4	*
3	8992	TULSA WSC APT	35.7	0.5	40.0	-0.7	50.3	1.0	60.1	-0.8	70.9	1.8	79.8	2.1	82.7	-0.5	83.3	1.6	73.4	-0.4	59.1	-3.5	52.7	3.5	44.1	4.3	61.0	0.7
3	9101	UPPER SPAVINAW	38.0	*	*	*	51.9	*	61.4	*	70.6	*	82.4	*	84.6	*	*	*	76.0	*	60.4	*	53.6	*	44.2	*	*	*
3	9203	VINITA 2 N	32.5	-2.0	36.9	-2.9	48.1	0.0	57.2	-2.5	67.0	-0.6	77.3	1.3	80.1	-1.0	82.1	2.3	73.3	1.0	57.5	-3.7	51.8	3.9	41.5	2.6	58.8	-0.1
3	9247	WAGONER	35.3	-1.6	40.0	-2.2	51.0	0.5	60.4	-1.2	69.8	0.6	79.2	2.0	81.9	-0.5	81.8	0.7	74.7	0.8	59.3	-3.8	53.3	3.3	44.3	2.9	60.9	0.1

1988 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	*	*	*	*	46.7	-2.4	54.5	-5.6	68.1	-0.4	77.4	-0.3	80.5	-2.4	81.9	0.2	70.8	-2.6	56.7	-5.9	*	*	*	*	*	*
4	1909	CLINTON	33.8	-2.6	41.4	0.0	50.1	0.6	57.5	-3.1	70.2	1.2	80.4	2.0	83.5	0.2	85.2	3.2	73.6	0.0	62.0	-0.2	52.6	4.1	44.6	4.7	61.2	0.8
4	2849	ELK CITY 1 E	32.6	*	41.9	*	48.5	*	57.6	*	68.0	*	77.5	*	80.5	*	81.7	*	71.9	*	60.0	*	50.3	*	43.1	*	59.5	*
4	2944	ERICK 4 E	33.0	-4.0	40.8	-1.2	48.3	-1.2	57.0	-3.4	67.9	-0.6	77.4	-0.3	80.0	-1.9	81.5	0.9	71.4	-1.7	59.9	-1.9	50.7	2.3	43.0	2.7	59.2	-0.3
4	3497	GEARY	30.9	-5.4	38.5	-2.6	47.8	-1.5	55.6	-5.1	67.3	-1.6	76.7	-1.1	80.4	-2.6	81.6	-0.3	72.2	-1.6	58.9	-3.7	50.3	1.5	*	*	*	*
4	3871	HAMMON 1 NNE	28.8	-6.9	36.6	-4.3	44.7	-4.2	52.8	-7.5	66.8	-1.5	77.2	-0.9	79.9	-3.1	81.1	0.0	69.0	-3.5	55.9	-5.4	47.8	0.3	38.0	-1.0	56.5	-3.2
4	6629	OKEENE	32.2	-4.2	39.9	-1.7	49.6	-0.3	57.4	-3.6	69.7	0.2	78.6	-0.4	81.6	-2.3	82.9	0.4	73.2	-1.1	59.3	-4.1	50.3	1.2	43.3	3.0	59.8	-1.1
4	7579	REYDON	32.2	*	41.0	*	47.6	*	57.8	*	68.0	*	78.1	*	80.6	*	81.5	*	71.0	*	59.5	*	49.7	*	42.5	*	59.1	*
4	8708	TALOGA	30.8	-4.3	41.6	1.5	47.4	-0.9	55.8	-3.5	68.4	0.5	76.7	-0.8	81.5	-0.7	82.4	1.7	71.6	-1.0	57.8	-3.2	48.4	1.4	41.0	2.3	58.6	-0.6
4	9364	WATONGA	31.9	*	39.1	*	48.1	*	57.2	*	69.3	*	78.6	*	81.9	*	82.0	*	72.8	*	58.8	*	50.2	*	42.8	*	59.4	*
4	9422	WEATHERFORD	31.1	-5.5	39.3	-2.4	48.2	-1.7	56.3	-4.5	69.8	0.5	79.2	0.9	82.4	-0.6	83.7	2.1	72.3	-1.3	58.1	-4.6	49.5	0.5	41.6	1.4	59.3	-1.3
5	0830	BLANCHARD 2 SSW	34.9	*	41.4	*	51.8	*	60.5	*	70.6	*	77.3	*	82.3	*	83.7	*	74.2	*	60.7	*	51.9	*	44.6	*	61.2	*
5	1144	BRISTOW	35.0	-1.7	42.2	-0.2	50.8	0.3	59.9	-2.0	70.5	1.4	78.9	1.7	82.1	-0.1	83.2	2.0	73.6	-0.1	59.4	-3.9	52.1	2.4	43.9	3.1	61.0	0.3
5	1684	CHANDLER	34.9	-2.5	41.1	-1.3	50.9	0.2	60.4	-1.6	69.8	0.7	78.7	1.2	82.1	-0.7	82.8	1.0	74.1	0.0	59.6	-3.7	52.0	1.6	44.8	3.3	60.9	-0.2
5	1750	CHICKASHA EX ST	32.6	-5.2	40.1	-3.0	48.6	-3.0	57.6	-4.7	70.1	-0.1	78.3	-0.6	81.6	-1.4	82.3	1.1	72.3	-1.7	58.3	-4.9	50.4	0.4	43.9	2.3	59.7	-1.7
5	2318	CUSHING	31.8	-3.0	39.1	-0.9	47.7	-0.7	58.3	-2.1	69.8	1.3	78.4	1.5	81.4	-1.0	82.9	1.5	73.2	-0.4	56.9	-5.5	50.5	1.6	42.6	3.1	59.4	-0.4
5	2818	EL RENO 1 N	32.5	-3.8	39.6	-1.7	48.5	-1.0	58.5	-2.0	69.5	0.8	78.1	0.7	82.0	-0.5	82.6	1.3	72.9	-0.5	59.7	-2.7	52.0	3.5	48.2	8.1	60.3	0.1
5	3821	GUTHRIE	35.0	-1.2	41.7	0.4	50.5	0.7	61.0	-0.2	71.7	2.4	80.3	2.4	83.7	0.6	85.5	3.4	74.8	0.7	60.9	-2.1	52.2	2.9	44.8	4.8	61.8	1.2
5	4055	HENNESSEY 2 SE	31.3	-4.2	38.6	-2.0	47.3	-1.6	56.9	-3.3	69.3	0.1	78.7	0.2	81.2	-2.5	83.0	0.7	73.3	-0.7	58.9	-3.9	49.7	1.2	41.9	2.6	59.2	-1.1
5	4861	KINGFISHER 2 SE	32.2	-3.8	39.1	-2.1	49.0	-0.6	57.8	-3.0	69.6	0.2	78.4	-0.2	82.6	-1.1	84.0	1.6	73.3	-0.8	59.1	-3.8	50.1	1.2	42.9	3.0	59.8	-0.8
5	5779	MEEKER 4 W	35.1	-1.4	41.5	-0.4	50.9	0.8	59.7	-1.6	69.5	0.5	77.5	0.3	81.5	-0.8	82.8	1.5	71.6	-2.1	59.5	-3.0	51.7	2.4	44.0	3.2	60.4	-0.1
5	6638	OKEMAH	34.6	-3.3	41.1	-2.0	50.5	-0.6	60.4	-1.4	69.6	0.5	77.9	0.8	81.2	-0.9	81.6	0.4	73.7	-0.4	59.2	-4.3	52.5	1.8	44.7	2.7	60.6	-0.5
5	6661	OKLAHOMA CTY WS	34.8	-1.1	40.5	-0.3	50.6	1.5	61.0	0.8	70.1	1.7	78.5	1.5	81.7	-0.4	83.3	2.2	73.7	0.4	60.2	-2.1	51.9	3.1	44.9	5.0	60.9	1.0
5	7327	PURCELL 5 SW	34.4	-2.5	41.2	-1.0	51.0	0.6	60.1	-1.6	69.3	-0.2	77.1	-0.9	81.6	-1.2	83.1	1.2	73.4	-0.8	60.5	-2.4	51.6	2.0	44.0	3.0	60.6	-0.3
5	8042	SEMINOLE	36.7	-2.4	43.2	-1.3	52.9	0.5	61.9	-1.3	71.9	1.5	79.8	1.3	83.4	-0.3	84.3	1.7	75.8	0.6	61.3	-3.3	53.9	2.2	44.9	1.9	62.5	0.1
5	8501	STILLWATER 2 W	31.2	-4.1	37.6	-2.9	46.3	-2.5	56.1	-4.3	69.0	0.6	77.2	0.2	81.7	-0.4	83.0	2.0	72.2	-0.9	56.7	-5.2	48.9	0.0	40.0	0.2	58.3	-1.5
6	2993	EUFULA	37.1	*	41.4	*	52.9	*	61.6	*	70.7	*	79.3	*	*	*	82.8	*	74.7	*	60.9	*	53.3	*	45.4	*	*	*
6	3884	HANNA	36.0	*	41.5	*	51.7	*	60.6	*	68.8	*	77.8	*	81.4	*	81.6	*	73.9	*	60.2	*	52.7	*	43.8	*	60.8	*
6	4235	HOLDENVILLE	35.7	-3.1	42.2	-1.9	51.5	-0.2	60.7	-1.5	69.8	0.1	78.1	0.6	81.5	-1.1	82.7	0.8	75.0	0.4	60.0	-4.1	53.0	1.6	44.1	1.2	61.2	-0.6
6	4975	LAKE EUFULA	34.8	*	40.4	*	50.8	*	59.8	*	70.2	*	79.5	*	81.9	*	82.1	*	74.0	*	59.6	*	53.5	*	43.5	*	60.8	*
6	5664	MCALISTER FAA	37.1	-1.0	42.0	-1.1	52.2	0.9	61.0	-0.9	69.6	0.1	79.0	1.2	81.7	-1.0	82.8	1.1	75.3	1.2	61.5	-1.7	53.9	3.1	45.5	3.5	61.8	0.4
6	5693	MCCURTAIN 1 SE	38.2	*	44.1	*	53.0	*	61.5	*	70.8	*	79.8	*	83.5	*	82.7	*	75.7	*	62.1	*	54.7	*	45.5	*	62.6	*
6	6130	MUSKOGEE	35.9	-1.8	41.3	-1.6	51.9	0.8	61.5	-0.5	70.2	0.7	78.9	1.4	82.5	-0.1	82.4	0.9	74.8	0.6	59.8	-3.1	53.1	3.0	44.2	2.5	61.4	0.3
6	6670	OKMULGEE W W	32.7	-4.4	39.7	-3.3	50.1	-1.2	59.4	-2.9	68.5	-0.8	76.8	-0.5	80.2	-1.5	79.8	-1.0	71.9	-1.6	57.9	-5.2	50.8	0.2	42.7	0.8	59.2	-0.8
6	7862	SALLISAW 2 NE	35.4	-3.0	40.8	-2.6	51.1	-0.2	60.0	-2.2	68.9	-0.8	77.9	0.5	*	*	82.2	1.2	75.0	0.8	58.5	-4.9	51.3	0.6	42.3	0.1	*	*
6	8506	STILWELL 1 NE	34.6	*	39.7	*	49.9	*	59.0	*	68.2	*	77.1	*	80.1	*	80.3	*	73.4	*	57.2	*	51.7	*	42.1	*	59.4	*
6	8677	TAHLEQUAH	33.7	-3.3	38.4	-3.7	49.8	-0.2	58.3	-2.8	67.9	-0.3	76.9	0.8	79.4	-1.3	80.8	0.9	73.8	0.9	58.7	-3.2	51.7	5.4	42.8	2.0	59.3	-0.7
6	9445	WEBBERS FALLS	33.9	-2.0	38.9	-1.9	49.1	-0.1	58.3	-2.3	68.4	-0.6	77.7	0.6	80.8	-1.3	80.7	0.0	73.1	-0.4	58.2	-3.8	51.2	1.9	42.0	1.6	59.4	-0.7

1988 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	35.7	-3.6	42.8	-1.6	53.0	0.5	60.5	-2.8	71.0	-0.6	79.3	-1.2	83.0	-1.6	84.2	1.1	74.4	-1.0	63.1	-1.5	52.7	1.5	44.6	1.8	62.0	-0.8
7	0184	ALTUS DAM	34.1	*	40.3	*	50.5	*	58.0	*	70.3	*	80.1	*	82.9	*	84.9	*	74.1	*	60.5	*	52.2	*	43.0	*	60.9	*
7	1504	CARNEGIE 2 ENE	33.8	-3.5	41.1	-1.5	50.5	-0.3	59.2	-2.6	70.0	0.0	79.0	-0.2	82.5	-1.2	83.5	1.2	74.1	-0.3	60.3	-2.9	51.0	1.5	43.3	2.2	60.7	-0.6
7	1706	CHATTANOOGA	35.3	-3.7	42.5	-1.8	52.0	-0.3	60.2	-2.6	70.7	-0.1	79.8	-0.1	83.5	-0.8	85.1	1.8	74.8	-0.9	63.1	-1.2	52.3	1.4	44.3	1.9	62.0	-0.5
7	3353	FREDERICK	33.9	-6.7	41.0	-4.7	51.8	-2.0	60.0	-4.4	71.0	-1.3	79.6	-1.4	82.8	-3.0	84.6	0.0	74.2	-2.4	61.8	-3.8	53.0	0.8	43.9	0.1	61.5	-2.4
7	4204	HOBART FAA APT	33.3	-2.9	39.8	-1.4	50.4	1.1	57.7	-2.6	69.6	0.5	79.3	0.4	82.2	-1.3	83.3	1.2	73.1	-0.7	60.5	-1.9	50.6	2.1	43.3	3.4	60.3	-0.1
7	4249	HOLLIS	34.9	-4.0	41.5	-2.8	51.6	-0.7	*	*	70.2	-1.6	79.8	-1.2	81.8	-3.1	82.9	-0.5	72.8	-2.5	62.1	-1.9	51.6	1.2	43.3	*	*	*
7	5063	LAWTON	34.5	-4.3	41.1	-2.6	51.0	-1.0	58.9	-3.8	70.9	0.3	79.2	0.2	83.2	-0.5	84.9	2.2	74.1	-1.0	59.5	-4.5	51.8	0.8	42.9	0.7	61.0	-1.1
7	5068	FORT SILL	35.1	*	42.1	*	50.4	*	58.9	*	69.6	*	78.6	*	83.8	*	84.5	*	73.0	*	60.6	*	51.3	*	42.6	*	60.9	*
7	5509	MANGUM RES STA	34.3	-4.3	43.2	-0.7	52.9	1.0	61.5	-1.2	71.0	0.0	80.6	0.8	84.7	0.8	84.9	2.3	74.9	0.0	60.9	-2.9	52.0	1.8	45.4	3.5	62.2	0.1
7	9278	WALTERS	38.0	-1.9	43.1	-1.9	54.4	1.3	61.8	-1.8	71.0	-0.5	78.8	-1.2	83.0	-1.5	85.1	1.4	74.9	-1.3	63.1	-1.7	53.1	1.4	45.1	1.6	62.6	-0.5
7	9629	WICHITA MT WLR	33.3	-4.5	41.1	-1.7	50.1	-0.8	59.0	-2.8	70.3	1.1	78.5	0.8	82.4	-0.2	83.5	2.0	71.7	-2.0	59.9	-2.8	51.3	1.8	42.6	1.4	60.3	-0.7
8	0017	ADA	36.4	-3.2	43.3	-1.4	52.1	-0.3	60.9	-1.6	71.1	1.4	78.9	1.2	82.5	-0.2	83.4	1.7	74.9	0.3	60.7	-3.7	52.4	0.6	44.6	1.1	61.8	-0.3
8	0292	ARDMORE	38.5	-3.5	44.5	-2.9	54.4	-0.7	62.7	-2.5	71.1	-1.3	78.8	-1.5	82.2	-2.6	84.7	0.7	76.2	-1.0	63.3	-3.6	54.8	0.5	46.7	0.5	63.2	-1.5
8	0394	ATOKA DAM	35.6	*	40.7	*	51.4	*	60.9	*	70.3	*	80.7	*	83.2	*	83.9	*	77.4	*	61.4	*	53.0	*	*	*	*	*
8	1437	CANEY	38.3	*	42.7	*	52.8	*	61.6	*	71.4	*	78.5	*	81.7	*	82.6	*	75.4	*	60.9	*	54.4	*	*	*	*	*
8	1745	CHICKASAW NRA	34.1	*	41.2	*	50.4	*	59.3	*	69.2	*	77.7	*	81.1	*	84.1	*	74.3	*	59.9	*	52.0	*	42.6	*	60.5	*
8	2660	DUNCAN	34.3	-5.6	41.1	-3.8	51.4	-1.6	60.1	-3.6	69.9	-1.0	77.7	-1.3	82.0	-1.8	84.0	1.0	73.7	-2.0	60.5	-4.3	52.7	0.7	43.5	-0.2	60.9	-2.0
8	2678	DURANT USDA	36.3	*	42.0	*	51.6	*	59.0	*	68.7	*	76.6	*	81.8	*	82.7	*	75.1	*	60.5	*	53.5	*	43.9	*	61.0	*
8	4001	HEALDTON	37.3	*	42.8	*	53.0	*	61.5	*	70.4	*	77.5	*	82.0	*	*	*	73.8	*	61.7	*	52.9	*	*	*	*	*
8	5216	LINDSAY 2 W	34.7	*	41.6	*	51.3	*	60.1	*	70.0	*	77.6	*	82.3	*	83.3	*	72.7	*	61.1	*	51.1	*	44.1	*	60.8	*
8	5468	MADILL	38.5	-2.5	43.8	-2.1	53.7	0.1	62.3	-1.3	70.9	0.0	78.7	-0.2	82.7	-1.0	84.8	1.7	75.7	-0.2	62.7	-2.6	54.7	1.7	46.3	1.5	62.9	-0.4
8	5563	MARIETTA	39.6	-1.6	44.8	-1.3	54.6	0.8	63.6	0.1	71.5	0.7	79.4	0.7	83.8	0.2	85.8	2.9	76.6	0.7	63.5	-1.9	55.2	2.3	46.6	1.8	63.7	0.4
8	5581	MARLOW 1 WSW	36.4	*	41.9	*	53.2	*	60.5	*	70.4	*	78.0	*	82.1	*	84.3	*	74.3	*	61.0	*	52.5	*	44.5	*	61.6	*
8	5713	MCGEE CREEK DAM	36.2	*	43.0	*	52.4	*	60.8	*	70.7	*	79.7	*	83.1	*	83.4	*	75.9	*	61.0	*	52.8	*	44.7	*	62.0	*
8	6926	PAULS VALLEY	35.5	-3.7	42.1	-2.4	52.4	-0.2	60.9	-2.4	70.3	-0.8	78.1	-1.4	82.5	-1.6	83.8	0.7	75.4	-0.2	62.0	-2.3	52.7	1.3	*	*	*	*
8	8884	TISHOMINGO NWLR	37.7	*	*	*	*	*	*	*	70.3	*	*	*	*	*	84.2	*	75.8	*	60.6	*	*	*	44.1	*	*	*
8	9395	WAURIKA	38.9	-2.1	44.1	-2.1	54.9	0.7	62.5	-2.0	71.6	-0.3	79.3	-0.8	84.0	-0.7	85.3	1.5	75.6	-0.9	63.8	-1.7	54.2	1.6	46.2	1.6	63.4	-0.4
8	9399	WAURIKA DAM	*	*	*	*	52.2	*	60.6	*	70.3	*	77.0	*	83.0	*	84.6	*	74.7	*	*	*	*	*	*	*	*	*
9	0256	ANTLERS	42.4	2.2	46.6	1.7	54.2	1.4	62.4	-0.2	70.0	0.2	78.1	0.6	82.4	0.4	83.2	2.1	*	*	*	*	54.2	2.4	45.7	2.0	*	*
9	0567	BATTIEST 1 SSW	36.7	*	43.3	*	51.1	*	60.0	*	67.5	*	76.2	*	*	*	*	*	*	*	60.2	*	51.7	*	43.6	*	*	*
9	0584	BEAR MT TWR	39.6	*	46.0	*	52.9	*	*	*	71.0	*	79.6	*	*	*	81.5	*	75.2	*	61.0	*	53.7	*	45.9	*	*	*
9	0980	BOSWELL 4 NNW	39.1	*	45.0	*	52.6	*	61.8	*	70.3	*	78.6	*	82.0	*	82.9	*	76.1	*	62.0	*	54.7	*	46.5	*	62.6	*
9	1168	BROKEN BOW DAM	36.5	*	43.0	*	51.7	*	60.3	*	69.0	*	77.6	*	*	*	*	*	74.6	*	60.4	*	53.1	*	44.6	*	*	*
9	4384	HUGO	39.6	-2.7	45.7	-1.2	54.4	-0.2	62.5	-1.5	71.0	-0.3	79.6	0.9	83.8	0.8	84.5	2.3	77.7	1.9	63.6	-1.6	55.5	2.1	46.6	0.9	63.7	0.1
9	4451	IDABEL	36.9	-5.1	44.0	-2.3	51.7	-2.2	60.6	-2.6	69.5	-1.0	77.8	-0.1	81.3	-0.6	81.7	0.4	74.7	-0.2	61.2	-2.9	52.7	0.1	44.8	-0.2	61.4	-1.4
9	7254	POTEAU W W	35.3	*	40.6	*	50.3	*	58.5	*	69.1	*	77.6	*	81.2	*	81.5	*	72.5	*	59.0	*	*	*	*	*	*	*
9	9023	TUSKAHOMA	38.0	*	43.2	*	52.7	*	61.1	*	69.4	*	77.6	*	81.8	*	81.3	*	74.9	*	61.5	*	53.9	*	44.8	*	61.7	*

1988 MONTHLY AND ANNUAL HEATING DEGREE DAYS (Base = 65 Degrees Fahrenheit)

CD	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
1	0332	ARNETT	1121	138	810	60	630	16	352	104	85	-2	9	2	0	0	4	4	41	10	281	74	531	-49	801	-62	4661	293
1	0593	BEAVER	1179	181	863	110	693	76	393	139	97	3	7	-3	0	0	8	8	44	13	296	77	588	-25	870	-24	5035	554
1	0908	BOISE CITY 2 E	1070	112	784	36	650	2	352	26	134	4	6	-5	0	0	6	6	50	13	269	20	550	-83	839	-36	4707	94
1	1243	BUFFALO	1081	142	723	34	598	57	319	125	49	-14	0	-6	0	0	3	3	16	-3	204	49	504	-37	752	-70	4246	278
1	3407	GAGE FAA APT	1092	109	787	39	617	18	321	78	73	-14	0	0	0	0	7	7	27	1	239	37	493	-99	759	-115	4414	61
1	3489	GATE	1105	*	765	*	*	*	310	*	72	*	0	*	0	*	2	*	29	*	258	*	496	*	782	*	*	*
1	3628	GOODWELL RES ST	1143	166	854	115	698	66	428	138	145	26	6	-6	0	0	4	4	64	25	303	72	571	-51	857	-21	5070	534
1	4298	HOOKER	1139	153	827	82	665	44	414	140	117	20	6	-4	0	0	4	4	43	*	287	61	552	-75	836	-51	4888	386
1	4766	KENTON	1111	162	868	129	700	49	412	84	171	55	13	-2	0	0	11	11	88	56	282	32	581	-52	950	79	5185	602
1	9017	TURPIN 4 SSE	1180	*	851	*	677	*	407	*	105	*	7	*	0	*	4	*	75	*	311	*	589	*	881	*	5084	*
2	0194	ALVA 1 ENE	1103	145	778	58	617	59	260	46	28	-30	0	-5	0	0	*	*	20	0	245	91	*	*	*	*	*	*
2	0755	BILLINGS	1094	*	830	*	609	*	318	*	38	*	0	*	0	*	0	*	12	*	247	*	470	*	763	*	4379	*
2	0818	BLACKWELL 2E	1047	*	809	*	580	*	261	*	31	*	0	*	0	*	0	*	13	*	259	*	517	*	764	*	4279	*
2	1724	CHEROKEE	1066	120	703	-1	554	21	228	32	21	-24	0	0	0	0	0	0	10	-5	188	37	466	-65	691	-137	3926	-22
2	2912	ENID	1042	124	736	56	533	26	228	50	22	-19	0	0	0	0	0	0	*	*	218	84	452	-44	673	-125	*	*
2	3304	FT SUPPLY DAM	1191	249	841	135	686	128	350	134	82	13	2	-5	0	0	9	9	42	17	290	126	552	15	809	-25	4852	795
2	3358	FREEDOM	1108	*	788	*	635	*	250	*	38	*	0	*	0	*	3	*	23	*	246	*	530	*	775	*	4393	*
2	3740	GREAT SALT PLNS	1090	*	790	*	586	*	308	*	26	*	0	*	0	*	1	*	13	*	247	*	463	*	743	*	4265	*
2	4019	HELENA 1 SSE	1130	*	815	*	632	*	359	*	62	*	0	*	0	*	5	*	18	*	275	*	560	*	*	*	*	*
2	4573	JEFFERSON	1067	118	770	59	556	23	252	54	19	-28	0	0	0	0	0	0	10	-6	212	68	495	-22	729	-100	4108	167
2	6139	MUTUAL	1122	164	820	98	709	135	375	145	66	-14	0	-6	0	0	9	9	31	13	270	95	538	-14	791	-52	4729	572
2	6278	NEWKIRK	1058	78	788	57	576	22	234	30	25	-27	0	0	0	0	0	0	8	-14	232	75	460	-69	720	-130	4098	22
2	7012	PERRY	998	108	696	38	490	7	190	33	14	-25	0	0	0	0	0	0	5	-10	176	51	416	-46	643	-120	3626	35
2	9404	WAYNOKA	1078	154	786	103	616	98	276	99	42	-6	0	0	0	0	2	2	20	4	239	81	522	9	754	-64	4333	478
3	0535	BARNSDALL	1005	*	793	*	542	*	214	*	20	*	2	*	0	*	1	*	13	*	257	*	451	*	743	*	4038	*
3	0548	BARTLESVILLE 2W	1013	71	769	77	527	11	199	28	19	-18	0	0	0	0	0	0	10	-9	255	95	425	-77	728	-78	3942	100
3	0782	BIXBY	1019	101	792	112	543	29	241	73	29	-14	0	0	0	0	4	4	10	-11	263	91	477	-13	755	-11	4130	359
3	1828	CLAREMORE	999	53	772	66	552	18	238	51	29	-34	0	0	0	0	4	4	7	-19	270	90	460	-39	762	-44	4091	145
3	4567	JAY TOWER	909	*	732	*	439	*	161	*	14	*	0	*	0	*	0	*	3	*	227	*	361	*	662	*	3505	*
3	4672	KANSAS 1 ESE	973	*	765	*	*	*	202	*	29	*	1	*	0	*	0	*	6	*	263	*	422	*	701	*	*	*
3	4812	KEYSTONE DAM	*	*	*	*	573	*	254	*	21	*	3	*	0	*	6	*	20	*	*	*	*	*	*	*	*	*
3	5522	MANNFORD 6 NW	936	*	652	*	472	*	169	*	9	*	0	*	0	*	0	*	13	*	216	*	391	*	674	*	3530	*
3	5855	MIAMI	1025	86	794	88	544	13	207	21	31	-28	0	-7	0	0	1	1	7	-20	325	151	427	-71	775	-25	4135	209
3	6485	NOWATA	1010	71	796	96	548	24	234	40	22	-25	*	*	0	0	0	0	10	-12	266	109	433	-60	730	-76	*	*
3	6935	PAWHUSKA	1015	69	774	74	555	34	214	36	19	-30	2	2	0	0	1	1	11	-14	239	78	438	-72	729	-86	3994	91
3	7309	PRYOR 6 N	1066	133	848	148	*	*	270	74	40	-16	2	2	0	0	6	6	9	-16	306	139	485	-20	768	-26	*	*
3	7390	RALSTON	964	*	724	*	516	*	180	*	9	*	2	*	0	*	1	*	7	*	198	*	425	*	696	*	3718	*
3	8380	SPAVINAW	930	*	756	*	458	*	191	*	17	*	0	*	0	*	0	*	3	*	207	*	368	*	609	*	3537	*
3	8992	TULSA WSO APT	907	-17	725	45	464	-36	185	17	13	-27	0	0	0	0	4	4	13	-6	192	46	378	-96	648	-133	3528	-203
3	9101	UPPER SPAVINAW	815	*	*	*	430	*	157	*	24	*	0	*	0	*	*	*	0	*	183	*	340	*	646	*	*	*
3	9203	VINITA 2 N	1008	62	814	108	533	-1	248	59	32	-31	4	-3	0	0	0	0	3	-24	243	67	398	-115	729	-80	4011	42
3	9247	WAGONER	920	49	724	86	443	-23	176	26	15	-15	0	0	0	0	0	0	1	-16	202	61	355	-93	641	-91	3476	-16

1988 MONTHLY AND ANNUAL HEATING DEGREE DAYS (Base = 65 Degrees Fahrenheit)

CD	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
4	1445	CANTON DAM	*	*	*	*	562	54	325	133	44	-6	0	0	0	0	6	6	13	-2	260	115	*	*	*	*	*	*
4	1909	CLINTON	967	80	685	24	462	-32	233	54	18	-23	0	0	0	0	0	0	3	-13	143	-2	376	-120	634	-145	3519	-176
4	2849	ELK CITY 1 E	972	*	648	*	516	*	233	*	41	*	0	*	0	*	3	*	11	*	178	*	445	*	679	*	3724	*
4	2944	ERICK 4 E	992	124	703	59	522	31	245	67	37	-10	3	3	0	0	3	3	16	3	183	38	433	-65	683	-83	3818	169
4	3497	GEARY	1047	157	768	99	533	34	283	111	48	8	0	0	0	0	1	1	12	-7	211	71	432	-54	*	*	*	*
4	3871	HAMMON 1 NNE	1124	216	823	148	630	115	368	185	55	-8	0	-6	0	0	5	5	38	16	293	123	518	-8	836	30	4687	814
4	6629	OKEFENE	1017	130	728	73	481	-2	240	72	22	-15	0	0	0	0	0	0	13	-5	195	73	444	-33	673	-94	3810	200
4	7579	REYDON	1017	*	697	*	532	*	237	*	48	*	0	*	0	*	5	*	13	*	194	*	444	*	699	*	3882	*
4	8708	TALOGA	1061	134	656	-41	546	18	279	78	43	-14	0	0	0	0	8	8	9	-11	238	70	499	-41	745	-70	4082	131
4	9364	WATONGA	1027	*	751	*	529	*	255	*	31	*	0	*	0	*	1	*	12	*	218	*	448	*	688	*	3958	*
4	9422	WEATHERFORD	1051	171	745	93	522	40	271	103	30	-3	0	0	0	0	5	5	17	2	238	104	467	-17	726	-43	4071	455
5	0830	BLANCHARD 2 SSW	932	*	686	*	412	*	172	*	10	*	0	*	0	*	0	*	3	*	156	*	392	*	632	*	3393	*
5	1144	BRISTOW	929	52	662	29	454	-13	186	30	11	21	0	0	0	0	0	0	11	-12	200	64	395	-70	653	-97	3499	-37
5	1684	CHANDLER	934	78	695	62	449	-12	182	41	16	-17	0	0	0	0	0	0	13	-6	192	63	397	-47	607	-122	3483	41
5	1750	CHICKASHA EX ST	1005	162	721	108	517	82	233	91	19	-6	0	0	0	0	0	0	9	-5	222	94	439	-11	655	-70	3818	445
5	2318	CUSHING	1031	95	751	51	544	12	228	59	17	-32	0	0	0	0	5	5	8	-12	256	106	436	-48	694	-98	3967	137
5	2818	EL RENO 1 N	977	84	711	47	511	18	220	42	22	-16	0	0	0	0	1	1	11	-5	188	48	384	-111	521	-251	3543	-144
5	3821	GUTHRIE	930	37	676	12	464	-21	166	2	12	-23	0	0	0	0	0	0	10	-5	163	24	391	-80	625	-150	3435	-204
5	4055	HENNESSEY 2 SE	1046	131	765	82	549	37	255	71	28	-13	0	0	0	0	0	0	11	-4	210	69	460	-35	716	-82	4037	255
5	4861	KINGFISHER 2 SE	1018	119	752	86	500	10	232	58	27	-8	0	0	0	0	0	0	11	-3	207	78	450	-33	684	-94	3880	212
5	5779	MEEKER 4 W	927	43	682	35	437	-39	191	33	15	-20	0	0	0	0	0	0	29	12	192	42	405	-66	650	-100	3526	-61
5	6638	OKEMAH	942	102	695	82	452	2	170	34	16	-12	0	0	0	0	0	0	8	-10	199	74	370	-59	629	-84	3479	129
5	6661	OKLAHOMA CTY WS	936	34	710	32	457	-50	165	-19	20	-22	0	0	0	0	4	4	14	-1	175	30	400	-87	623	-155	3502	-233
5	7327	PURCELL 5 SW	950	79	692	54	448	-28	178	24	15	-21	0	0	0	0	0	0	5	-7	168	33	410	-57	653	-92	3516	-15
5	8042	SEMINOLE	879	76	633	59	390	-21	142	10	8	-16	0	0	0	0	0	0	4	-6	149	49	340	-64	623	-60	3166	27
5	8501	STILLWATER 2 W	1047	126	795	109	587	72	285	102	27	-22	1	1	0	0	4	4	22	4	270	112	489	6	774	-8	4298	505
6	2993	EUFULA	866	*	684	*	389	*	139	*	8	*	0	*	*	*	0	*	1	*	159	*	354	*	607	*	*	*
6	3884	HANNA	901	*	681	*	422	*	165	*	19	*	0	*	0	*	0	*	1	*	179	*	377	*	657	*	3399	*
6	4235	HOLDENVILLE	911	99	661	68	421	-9	164	33	15	-9	0	0	0	0	0	0	5	-6	183	68	366	-47	648	-37	3372	290
6	4975	LAKE EUFULA	937	*	713	*	452	*	180	*	10	*	0	*	0	*	0	*	4	*	191	*	351	*	667	*	3503	*
6	5664	MCALESTER FAA	867	33	668	55	397	-45	165	21	19	-15	0	0	0	0	0	0	1	-16	148	15	336	-97	604	-110	3203	-158
6	5693	MCCURTAIN 1 SE	832	*	609	*	389	*	143	*	7	*	0	*	0	*	0	*	0	*	132	*	319	*	604	*	3033	*
6	6130	MUSKOGEE	902	56	688	69	422	-27	148	10	14	-18	0	0	0	0	0	0	1	-16	186	46	351	-97	646	-76	3356	-53
6	6670	OKMULGEE W W	1001	145	708	92	454	6	195	64	18	-12	0	0	0	0	0	0	9	-7	234	96	414	-18	691	-25	3723	340
6	7862	SALLISAW 2 NE	918	93	702	97	438	-5	175	45	16	-9	0	0	*	*	0	0	0	-10	211	85	413	-21	703	-4	*	*
6	8506	STILWELL 1 NE	941	*	733	*	473	*	205	*	32	*	1	*	0	*	0	*	6	*	257	*	404	*	709	*	3759	*
6	8677	TAHLEQUAH	970	102	771	130	477	-4	220	57	31	-26	0	0	0	0	0	0	3	-21	221	52	401	-76	690	-61	3782	155
6	9445	WEBBERS FALLS	966	64	756	78	497	-4	217	46	21	-15	0	0	0	0	0	0	2	-14	236	84	415	-56	714	-49	3823	134

1988 MONTHLY AND ANNUAL HEATING DEGREE DAYS (Base = 65 Degrees Fahrenheit)

CD	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	HDD	DEV	
7	0179	ALTUS IRR STA	908	111	644	67	393	-14	162	38	16	-2	0	0	0	0	0	0	7	-1	104	-4	378	-37	634	-55	3243	104			
7	0184	ALTUS DAM	959	*	717	*	458	*	235	*	27	*	0	*	0	*	2	*	8	*	175	*	389	*	683	*	3651	*			
7	1504	CARNEGIE 2 ENE	968	109	693	66	461	6	202	52	16	-9	0	0	0	0	0	0	8	-6	188	62	430	-35	674	-67	3638	177			
7	1706	CHATTANOOGA	922	116	629	49	415	3	164	35	12	-6	0	0	0	0	0	0	3	-5	107	6	388	-35	642	-59	3281	103			
7	3353	FREDERICK	964	208	696	146	417	40	175	70	13	-2	0	0	0	0	0	0	4	-3	125	32	362	-27	656	-2	3410	461			
7	4204	HOBART FAA APT	982	89	731	65	462	-36	237	57	28	-11	0	0	0	0	0	0	13	-4	170	28	434	-61	674	-104	3729	23			
7	4249	HOLLIS	904	95	682	102	423	10	*	*	20	1	0	0	0	0	2	2	7	1	117	7	399	-39	625	-82	*	*			
7	5063	LAWTON	945	133	694	98	434	10	198	71	13	-10	0	0	0	0	0	0	1	-5	191	76	401	-28	686	-22	3561	324			
7	5068	FORT SILL	926	*	664	*	461	*	202	*	15	*	0	*	0	*	0	*	10	*	166	*	414	*	695	*	3552	*			
7	5509	MANGUM RES STA	951	133	634	43	381	-46	143	3	6	-18	0	0	0	0	0	0	4	-2	130	12	395	-49	608	-108	3250	-33			
7	9278	WALTERS	833	55	636	76	353	-41	131	7	13	-5	0	0	0	0	0	0	3	-11	107	-9	368	-47	616	-51	3058	-15			
7	9629	WICHITA MT WLR	976	133	694	72	467	10	209	61	20	-10	0	0	0	0	3	3	11	-2	189	50	412	-54	693	-45	3673	218			
8	0017	ADA	888	101	629	61	407	-6	149	18	8	-16	0	0	0	0	0	0	4	-9	158	39	379	-26	633	-35	3252	128			
8	0292	ARDMORE	824	126	596	95	342	2	112	31	7	0	0	0	0	0	0	0	2	2	102	33	318	-13	549	-35	2849	240			
8	0394	ATOKA DAM	911	*	588	*	431	*	153	*	21	*	0	*	0	*	0	*	0	*	135	*	399	*	*	*	*	*	*	*	
8	1437	CANEY	828	*	647	*	386	*	135	*	8	*	0	*	0	*	0	*	2	*	158	*	332	*	*	*	*	*	*	*	
8	1745	CHICKASAW NRA	958	*	691	*	457	*	201	*	23	*	0	*	0	*	0	*	10	*	190	*	392	*	694	*	3613	*	*	*	
8	2660	DUNCAN	952	174	692	122	428	32	172	60	17	-1	0	0	0	0	1	1	6	-2	167	62	372	-26	667	7	3471	428			
8	2678	DURANT USDA	882	*	668	*	418	*	192	*	23	*	1	*	0	*	0	*	1	*	169	*	347	*	654	*	3354	*	*	*	
8	4001	HEALDTON	861	*	645	*	391	*	142	*	14	*	0	*	0	*	*	*	3	*	143	*	376	*	*	*	*	*	*	*	
8	5216	LINDSAY 2 W	940	*	678	*	435	*	177	*	15	*	0	*	0	*	0	*	7	*	147	*	421	*	648	*	3466	*	*	*	
8	5468	MADILL	823	79	594	54	356	-23	127	20	8	-5	0	0	0	0	0	0	2	-5	119	26	322	-44	580	-47	2929	55			
8	5563	MARIETTA	790	52	586	50	343	-28	103	-8	6	-9	0	0	0	0	0	0	1	-9	103	11	309	-63	569	-57	2809	-60			
8	5581	MARLOW 1 WSW	888	*	669	*	383	*	166	*	16	*	0	*	0	*	0	*	5	*	159	*	386	*	636	*	3306	*	*	*	
8	5713	MCGEE CREEK DAM	893	*	637	*	396	*	155	*	17	*	0	*	0	*	0	*	2	*	150	*	367	*	629	*	3244	*	*	*	
8	6926	PAULS VALLEY	914	114	665	91	400	-5	156	38	11	-8	0	0	0	0	0	0	3	-6	128	23	378	-35	*	*	*	*	*	*	
8	8884	TISHOMINGO NWLR	846	*	*	*	*	*	*	*	11	*	*	*	*	*	0	*	0	*	159	*	*	*	647	*	*	*	*	*	*
8	9395	WAURIKA	812	68	608	76	340	-24	112	8	8	-6	0	0	0	0	0	0	3	-3	100	6	330	-50	584	-49	2895	27	*	*	
8	9399	WAURIKA DAM	*	*	*	*	405	*	159	*	18	*	0	*	0	*	0	*	6	*	*	*	*	*	*	*	*	*	*	*	*
9	0256	ANTILERS	702	-67	535	-29	343	-55	98	-24	11	-16	0	0	0	0	0	0	*	*	*	*	332	-68	598	-63	*	*	*	*	
9	0567	BATTIEST 1 SSW	849	*	630	*	436	*	166	*	27	*	1	*	*	*	*	*	*	*	166	*	405	*	664	*	*	*	*	*	
9	0584	BEAR MT TWR	786	*	551	*	378	*	*	*	3	*	0	*	*	*	0	*	2	*	142	*	335	*	592	*	*	*	*	*	
9	0980	BOSWELL 4 NNW	809	*	580	*	394	*	130	*	14	*	0	*	0	*	0	*	2	*	130	*	316	*	573	*	2946	*	*	*	
9	1168	BROKEN BOW DAM	883	*	637	*	414	*	156	*	19	*	0	*	*	*	*	*	0	*	160	*	358	*	633	*	*	*	*	*	
9	4384	HUGO	789	85	560	47	338	-9	103	9	6	-4	0	0	0	0	0	0	2	2	90	-5	296	-61	571	-28	2752	36	*	*	
9	4451	IDABEL	872	159	609	85	415	51	148	40	10	-5	0	0	0	0	0	0	0	-6	145	30	371	-10	625	5	3194	349	*	*	
9	7254	POTEAU W W	922	*	683	*	462	*	208	*	11	*	3	*	0	*	0	*	28	*	211	*	*	*	*	*	*	*	*	*	
9	9023	TUSKAHOMA	838	*	633	*	396	*	154	*	21	*	0	*	0	*	0	*	2	*	149	*	347	*	628	*	3166	*	*	*	



1988 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
1	0332	ARNEIT	0	0	0	0	0	-6	2	-19	117	-11	331	3	423	-67	481	38	154	-55	9	-38	0	0	0	0	1515	-154
1	0593	BEAVER	0	0	0	0	0	-6	1	-16	96	-38	380	34	433	-80	469	16	153	-55	6	-34	0	0	0	0	1538	-178
1	0908	BOISE CITY 2 E	0	0	0	0	0	0	0	-8	49	-26	269	4	338	-66	362	30	82	-49	4	-10	0	0	0	0	1102	-124
1	1243	BUFFALO	0	0	0	0	0	-14	9	-27	142	-29	417	9	488	-83	545	24	231	-35	31	-34	4	4	0	0	1865	-184
1	3407	GAGE FAA APT	0	0	0	0	2	-5	9	-9	122	-13	367	14	453	-60	507	39	190	-26	23	-16	5	5	0	0	1675	-70
1	3489	GATE	0	*	0	*	0	*	5	*	133	*	432	*	497	*	542	*	179	*	21	*	9	*	0	*	1816	*
1	3628	GOODWELL RES ST	0	0	0	0	0	-6	0	-17	46	-63	284	-16	365	-82	419	35	102	-72	6	-22	0	0	0	0	1220	-242
1	4298	HOOKEE	0	0	0	0	0	-7	0	-13	77	-32	343	15	408	-66	457	48	131	-45	8	-27	0	0	0	0	1423	-127
1	4766	KENTON	0	0	0	0	0	0	0	-10	55	-15	253	-22	312	-110	342	-15	96	-53	1	-18	0	0	0	0	1058	-242
1	9017	TURPIN 4 SSE	0	*	0	*	0	*	0	*	96	*	365	*	415	*	466	*	116	*	3	*	0	*	0	*	1459	*
2	0194	ALVA 1 ENE	0	0	0	0	0	-12	7	-25	173	20	393	-6	490	-80	*	*	215	-52	13	-52	*	*	*	*	*	*
2	0755	BILLINGS	0	*	0	*	9	*	12	*	135	*	391	*	502	*	593	*	255	*	17	*	0	*	0	*	1912	*
2	0818	BLACKWELL 2E	0	*	0	*	0	*	7	*	144	*	420	*	525	*	602	*	250	*	12	*	2	*	0	*	1961	*
2	1724	CHEROKEE	0	0	0	0	3	-10	11	-29	206	46	486	69	590	10	627	94	285	15	26	-38	0	0	0	0	2232	156
2	2912	ENID	0	0	0	0	2	-13	22	-19	189	25	453	48	533	-41	600	70	*	*	21	-49	1	1	0	0	*	*
2	3304	FT SUPPLY DAM	0	0	0	0	0	-15	2	-34	112	-35	322	-41	416	-106	469	-9	131	-111	3	-46	3	3	0	0	1456	-393
2	3358	FREEDOM	0	*	0	*	1	*	14	*	148	*	380	*	473	*	505	*	215	*	16	*	0	*	0	*	1751	*
2	3740	GREAT SALT PLNS	0	*	0	*	0	*	9	*	176	*	434	*	533	*	599	*	237	*	19	*	0	*	0	*	2006	*
2	4019	HELENA 1 SSE	0	*	0	*	0	*	2	*	123	*	370	*	474	*	565	*	205	*	8	*	0	*	*	*	*	*
2	4573	JEFFERSON	0	0	0	0	3	-7	10	-26	191	29	445	34	544	-34	630	100	277	4	25	-38	0	0	0	0	2123	62
2	6139	MUTUAL	0	0	0	0	0	-9	3	-23	116	-30	351	-21	460	-87	515	19	183	-55	11	-38	0	0	0	0	1637	-242
2	6278	NEWKIRK	0	0	0	0	3	-9	17	-23	171	20	418	43	496	-47	586	87	264	8	20	-42	5	5	0	0	1977	42
2	7012	PERRY	0	0	0	0	17	2	37	-15	223	51	461	68	537	-28	622	92	315	24	13	-67	6	6	0	0	2229	133
2	9404	WAYNOKA	0	0	0	0	1	-15	12	-24	166	-10	411	6	485	-90	546	16	236	-33	24	-48	0	0	0	0	1878	-197
3	0535	BARNSDALL	0	*	0	*	14	*	25	*	137	*	356	*	476	*	522	*	227	*	16	*	3	*	0	*	1774	*
3	0548	BARTLESVILLE 2W	0	0	0	0	14	0	26	-20	166	16	401	41	517	-11	539	55	245	-7	16	-39	6	6	0	0	1927	41
3	0782	BIXBY	0	0	0	0	5	-7	25	-12	146	-9	371	10	499	-22	526	52	216	-36	15	-56	0	0	0	0	1802	-79
3	1828	CLAREMORE	0	0	0	0	2	-9	20	-14	126	-26	378	39	504	-12	546	72	229	-29	14	-54	0	0	0	0	1817	-32
3	4567	JAY TOWER	0	*	0	*	12	*	32	*	143	*	430	*	543	*	546	*	276	*	21	*	9	*	0	*	2011	*
3	4672	KANSAS 1 ESE	0	*	0	*	*	*	22	*	109	*	357	*	453	*	480	*	201	*	18	*	0	*	0	*	*	*
3	4812	KEYSTONE DAM	*	*	*	*	3	*	8	*	151	*	378	*	495	*	524	*	217	*	*	*	*	*	*	*	*	*
3	5522	MANNFORD 6 NW	0	*	0	*	17	*	38	*	176	*	409	*	525	*	552	*	248	*	25	*	8	*	0	*	1996	*
3	5855	MIAMI	0	0	0	0	8	-2	20	-20	109	-40	365	22	433	-67	489	27	214	-42	12	-52	0	0	0	0	1647	-172
3	6485	NOWATA	0	0	0	0	2	-8	23	-18	152	7	*	*	517	-13	545	55	254	-4	19	-40	1	1	0	0	*	*
3	6935	PAWHUSKA	0	0	0	0	10	-3	29	-14	148	1	370	22	485	-37	545	64	239	-13	18	-36	5	5	0	0	1846	-11
3	7309	PRYOR 6 N	0	0	0	0	*	*	9	-37	91	-61	324	-23	472	-43	496	22	209	-43	9	-47	1	1	0	0	*	*
3	7390	RALSTON	0	*	0	*	9	*	31	*	193	*	423	*	536	*	568	*	267	*	24	*	6	*	0	*	2053	*
3	8380	SPAVINAW	0	*	0	*	12	*	24	*	150	*	409	*	497	*	540	*	279	*	21	*	7	*	2	*	1940	*
3	8992	TULSA WSO APT	0	0	0	0	9	-5	37	-8	195	28	445	64	550	-15	573	55	265	-17	14	-58	8	8	0	0	2094	51
3	9101	UPPER SPAVINAW	3	*	*	*	24	*	49	*	199	*	521	*	609	*	*	*	331	*	44	*	21	*	0	*	*	*
3	9203	VINITA 2 N	0	0	0	0	10	0	15	-16	93	-51	383	46	468	-31	529	70	252	6	19	-39	3	3	0	0	1770	-12
3	9247	WAGONER	0	0	0	0	8	-8	37	-11	165	4	425	59	524	-16	522	23	293	9	25	-57	5	5	0	0	2003	8

1988 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	*	*	*	*	3	-12	11	-34	140	-20	372	-10	482	-74	529	11	191	-76	11	-60	*	*	*	*	*	*
4	1909	CLINTON	0	0	0	0	0	-13	6	-41	180	15	463	61	575	8	627	100	262	-13	49	-10	4	4	0	0	2165	112
4	2849	ELK CITY 1 E	0	*	0	*	4	*	12	*	133	*	376	*	482	*	522	*	225	*	22	*	5	*	0	*	1780	*
4	2944	ERICK 4 E	0	0	0	0	4	-7	7	-34	127	-27	376	-9	451	-73	514	30	208	-49	26	-20	5	5	0	0	1716	-183
4	3497	GEARY	0	0	0	0	0	-12	0	-43	124	-36	339	-46	486	-72	515	-9	228	-55	21	-46	0	0	*	*	*	*
4	3871	HAMMON 1 NNE	0	0	0	0	0	-16	4	-39	110	-55	365	-34	463	-95	503	4	158	-90	10	-47	0	0	0	0	1612	-370
4	6629	OKEENE	0	0	0	0	4	-11	11	-37	169	-8	408	-13	515	-71	556	13	258	-39	19	-55	4	4	0	0	1941	-215
4	7579	REYDON	0	*	0	*	*	*	22	*	142	*	392	*	490	*	515	*	187	*	24	*	1	*	0	*	*	*
4	8708	TALOGA	0	0	0	0	0	-10	4	-27	148	2	350	-26	513	-21	548	61	205	-42	14	-31	0	0	0	0	1780	-92
4	9364	WATONGA	0	*	0	*	5	*	20	*	163	*	408	*	525	*	526	*	246	*	25	*	2	*	0	*	1919	*
4	9422	WEATHERFORD	0	0	0	0	0	-14	9	-34	178	11	426	27	541	-18	584	69	238	-39	23	-40	0	0	0	0	1997	-37
5	0830	BLANCHARD 2 SSW	0	*	0	*	17	*	38	*	178	*	368	*	537	*	579	*	280	*	32	*	7	*	0	*	2035	*
5	1144	BRISTOW	0	0	0	0	13	-5	33	-31	189	30	418	52	539	6	565	63	269	-14	26	-60	7	2	0	0	2057	46
5	1684	CHANDLER	0	0	0	0	11	-7	44	-7	161	-2	412	37	529	-23	553	32	285	-7	25	-53	6	6	0	0	2024	-23
5	1750	CHICKASHA EX ST	0	0	0	0	8	-11	10	-51	178	-8	398	-17	516	-42	535	33	226	-54	16	-57	0	0	0	0	1886	-206
5	2318	CUSHING	0	0	0	0	6	-11	26	-5	172	14	409	47	515	-24	560	52	245	-33	12	-57	1	1	0	0	1946	-16
5	2818	EL RENO 1 N	0	0	0	0	3	-10	30	-13	160	8	392	20	526	-18	545	40	247	-20	24	-35	4	4	0	0	1930	-24
5	3821	GUTHRIE	0	0	0	0	15	2	46	-4	219	52	459	72	584	23	634	104	305	17	35	-42	8	8	0	0	2304	231
5	4055	HENNESSEY 2 SE	0	0	0	0	1	-13	12	-29	161	-11	410	5	501	-79	560	24	258	-23	22	-52	2	2	0	0	1924	-176
5	4861	KINGFISHER 2 SE	0	0	0	0	4	-8	17	-32	170	-2	404	-5	547	-34	590	51	262	-29	23	-42	4	4	0	0	2018	-94
5	5779	MEEKER 4 W	0	0	0	0	13	-1	36	-11	156	-3	378	12	513	-23	533	28	221	-58	26	-47	5	5	0	0	1880	-97
5	6638	OKEMAH	0	0	0	0	4	-15	31	-10	160	6	389	26	503	-27	516	14	268	-22	19	-61	4	4	0	0	1892	-85
5	6661	OKLAHOMA CTY WS	0	0	0	0	9	-4	46	6	179	32	404	44	518	-13	571	72	275	11	27	-34	7	7	0	0	2035	121
5	7327	PURCELL 5 SW	0	0	0	0	15	-8	32	-24	148	-27	364	-26	516	-36	562	38	256	-32	29	-42	8	8	0	0	1928	-149
5	8042	SEMINOLE	1	1	0	0	14	-7	48	-30	222	31	446	41	571	-9	600	54	329	13	35	-53	8	3	0	0	2273	43
5	8501	STILLWATER 2 W	0	0	0	0	6	-6	19	-26	150	-5	366	6	518	-13	562	66	238	-23	12	-50	5	5	0	0	1875	-45
6	2993	EUFULA	1	*	0	*	14	*	38	*	185	*	428	*	*	*	559	*	292	*	33	*	4	*	0	*	*	*
6	3884	HANNA	1	*	0	*	9	*	33	*	135	*	384	*	510	*	514	*	268	*	31	*	6	*	0	*	1889	*
6	4235	HOLDENVILLE	1	1	0	-8	4	-15	34	-14	165	-5	392	17	512	-35	549	25	306	7	28	-59	7	7	0	0	1996	-77
6	4975	LAKE EUFULA	0	*	0	*	11	*	23	*	170	*	434	*	524	*	532	*	275	*	25	*	7	*	0	*	1999	*
6	5664	MCALISTER FAA	2	2	0	0	13	-4	46	-5	162	-12	421	37	518	-56	558	40	311	19	40	-38	14	7	0	0	2084	14
6	5693	MCCURTAIN 1 SE	2	*	2	*	18	*	40	*	186	*	445	*	574	*	548	*	321	*	44	*	10	*	0	*	2186	*
6	6130	MUSKOGEE	0	0	0	0	15	-3	43	-5	174	2	418	43	543	-4	539	27	211	-82	26	-50	5	5	0	0	1971	-82
6	6670	OKMULGEE W W	0	0	0	0	7	-16	26	-24	133	-30	354	-15	470	-48	459	-31	217	-54	21	*	1	1	0	0	1688	-275
6	7862	SALLISAW 2 NE	1	1	0	0	6	-12	25	-22	138	-32	388	16	*	*	534	38	301	15	10	-66	4	-2	0	0	*	*
6	8506	STILWELL 1 NE	0	*	0	*	4	*	24	*	130	*	364	*	467	*	475	*	257	*	17	*	4	*	0	*	1740	*
6	8677	TAHLEQUAH	0	0	0	0	4	-11	20	-26	120	-36	359	26	446	-42	491	29	269	8	25	-48	2	-4	0	0	1734	-103
6	9445	WEBBERS FALLS	0	0	0	0	3	-8	17	-23	128	-33	380	17	491	-40	487	-1	246	-25	25	-34	0	0	0	0	1774	-145

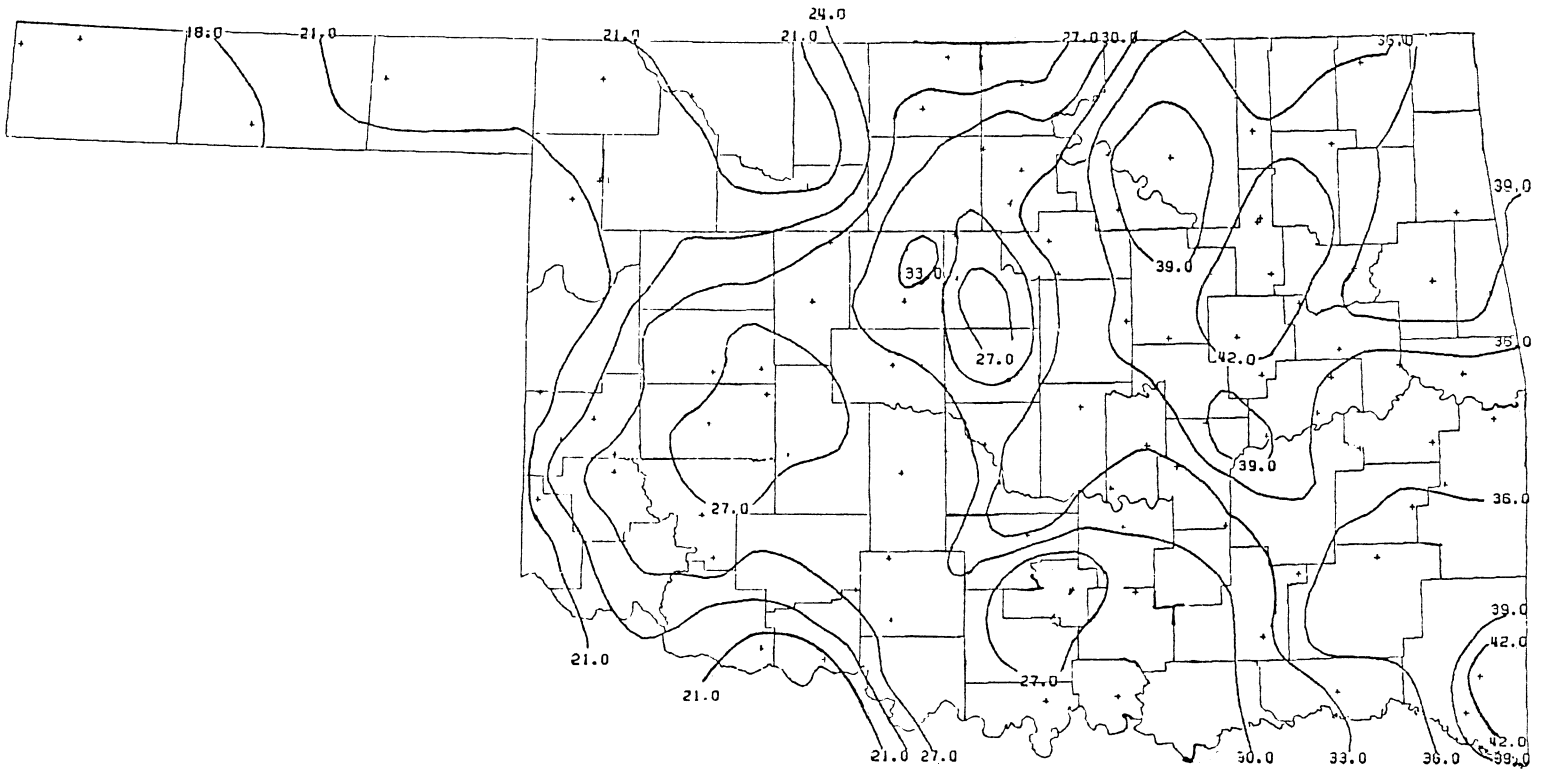
1988 MONTHLY AND ANNUAL COOLING DEGREE DAYS (Base = 65 Degrees Fahrenheit)

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	21	2	26	-47	203	-20	428	-37	557	-51	596	35	288	-31	46	-50	8	8	0	0	2172	-190
7	0184	ALTUS DAM	0	*	0	*	8	*	23	*	193	*	454	*	556	*	619	*	281	*	36	*	5	*	0	*	2172	*
7	1504	CARNEGIE 2 ENE	0	0	0	0	11	-3	28	-27	169	-10	421	-6	526	-54	575	39	282	-14	42	-29	11	11	0	0	2064	-92
7	1706	CHATTANOOGA	0	0	0	0	13	-6	21	-43	194	-4	445	-2	574	-24	624	57	304	-25	47	-33	8	8	0	0	2229	-71
7	3353	FREDERICK	0	0	0	-10	7	-22	26	-62	201	-41	447	-33	557	-88	609	1	280	-75	24	-88	2	-3	0	0	2152	-420
7	4204	HOBART FAA APT	0	0	0	0	9	-2	18	-21	170	4	415	-2	532	-42	567	37	256	-24	32	-30	1	1	0	0	1999	78
7	4249	HOLLIS	0	0	0	0	8	-13	*	*	187	-43	444	-37	506	-112	556	-15	242	-73	34	-45	3	3	0	0	*	*
7	5063	LAWTON	0	0	0	0	0	-21	16	-43	195	0	426	6	564	-16	616	67	273	-36	22	-63	3	3	0	0	2114	-102
7	5068	FORT SILL	0	*	0	*	9	*	20	*	159	*	409	*	584	*	606	*	250	*	28	*	4	*	0	*	2068	*
7	5509	MANGUM RES STA	0	0	0	0	4	-16	37	-34	193	-18	469	25	610	24	617	71	301	-2	3	-78	6	6	0	0	2240	-21
7	9278	WALTERS	0	0	0	0	23	-2	34	-49	199	-21	416	-35	558	-48	625	45	299	-50	49	-62	11	5	0	0	2211	-214
7	9629	WICHITA MT WLR	0	0	0	0	6	-15	28	-25	186	26	406	25	540	-6	576	64	218	-56	30	-39	0	0	0	0	1988	-25
8	0017	ADA	1	1	0	0	8	-15	27	-30	197	29	418	37	543	-7	572	54	302	2	24	-76	0	-8	0	0	2090	-13
8	0292	ARDMORE	1	1	0	-9	14	-20	46	-42	198	-39	415	-44	532	-82	610	21	337	-35	50	-78	13	4	0	0	2214	-321
8	0394	ATOKA DAM	0	*	0	*	8	*	30	*	185	*	470	*	565	*	587	*	372	*	30	*	3	*	*	*	*	*
8	1437	CANEY	0	*	0	*	8	*	34	*	206	*	405	*	519	*	547	*	315	*	30	*	15	*	*	*	*	*
8	1745	CHICKASAW NRA	0	*	0	*	6	*	31	*	152	*	382	*	500	*	593	*	287	*	33	*	0	*	0	*	1982	*
8	2660	DUNCAN	0	0	0	-8	7	-17	26	-47	169	-32	382	-38	526	-57	590	32	268	-62	26	-73	2	-6	0	0	1995	-306
8	2678	DURANT USDA	0	*	0	*	2	*	13	*	138	*	350	*	505	*	548	*	305	*	28	*	3	*	0	*	1890	*
8	4001	HEALDTON	1	*	1	*	20	*	37	*	180	*	381	*	526	*	*	*	267	*	41	*	13	*	*	*	*	*
8	5216	LINDSAY 2 W	0	*	0	*	12	*	31	*	166	*	379	*	538	*	548	*	238	*	29	*	5	*	0	*	1944	*
8	5468	MADILL	2	2	0	-5	17	-9	44	-18	191	-5	410	-7	548	-33	613	52	324	-10	49	-53	12	6	0	0	2209	-79
8	5563	MARIETTA	2	2	0	-6	20	-5	60	-5	208	13	433	22	582	5	644	89	349	12	57	-49	15	7	0	0	2368	85
8	5581	MARLOW 1 WSW	0	*	0	*	18	*	29	*	183	*	389	*	530	*	597	*	285	*	36	*	10	*	0	*	2075	*
8	5713	MCGEE CREEK DAM	0	*	0	*	4	*	30	*	194	*	442	*	563	*	570	*	328	*	27	*	1	*	0	*	2157	*
8	6926	PAULS VALLEY	0	0	1	1	19	-2	36	-31	176	-32	392	-44	542	-51	584	23	222	-105	35	-48	8	8	*	*	*	*
8	8884	TISHOMINGO NWLR	0	*	*	*	*	*	*	*	175	*	*	*	*	*	575	*	314	*	27	*	*	*	0	*	*	*
8	9395	WAURIKA	4	4	2	-4	26	-4	39	-51	212	-15	428	-25	590	-21	629	46	320	-32	63	-46	6	-1	1	1	2318	-147
8	9399	WAURIKA DAM	*	*	*	*	9	*	30	*	178	*	361	*	557	*	609	*	286	*	*	*	*	*	*	*	*	*
9	0256	ANTLERS	1	1	0	0	10	-11	24	-26	166	-9	394	19	541	14	565	66	*	*	*	*	8	8	0	0	*	*
9	0567	BATTIEST 1 SSW	0	*	0	*	4	*	16	*	102	*	336	*	*	*	*	*	*	*	21	*	4	*	0	*	*	*
9	0584	BEAR MT TWR	0	*	0	*	4	*	*	*	187	*	439	*	*	*	512	*	309	*	18	*	3	*	0	*	*	*
9	0980	BOSWELL 4 NNW	5	*	0	*	9	*	34	*	178	*	409	*	526	*	556	*	333	*	37	*	8	*	0	*	2093	*
9	1168	BROKEN BOW DAM	0	*	0	*	3	*	13	*	143	*	378	*	*	*	*	*	289	*	18	*	1	*	0	*	*	*
9	4384	HUGO	0	0	0	-6	9	-15	29	-38	192	-14	439	28	583	25	604	71	383	55	46	-56	10	1	0	0	2293	51
9	4451	IDABEL	0	0	1	1	2	-18	15	-39	150	-37	386	-2	506	-19	517	12	292	-12	27	-61	1	-8	0	0	1894	-180
9	7254	POTEAU W W	0	*	0	*	6	*	14	*	138	*	382	*	502	*	511	*	254	*	24	*	*	*	*	*	*	*
9	9023	TUSKAHOMA	0	*	0	*	16	*	37	*	157	*	379	*	521	*	505	*	298	*	39	*	14	*	0	*	1965	*

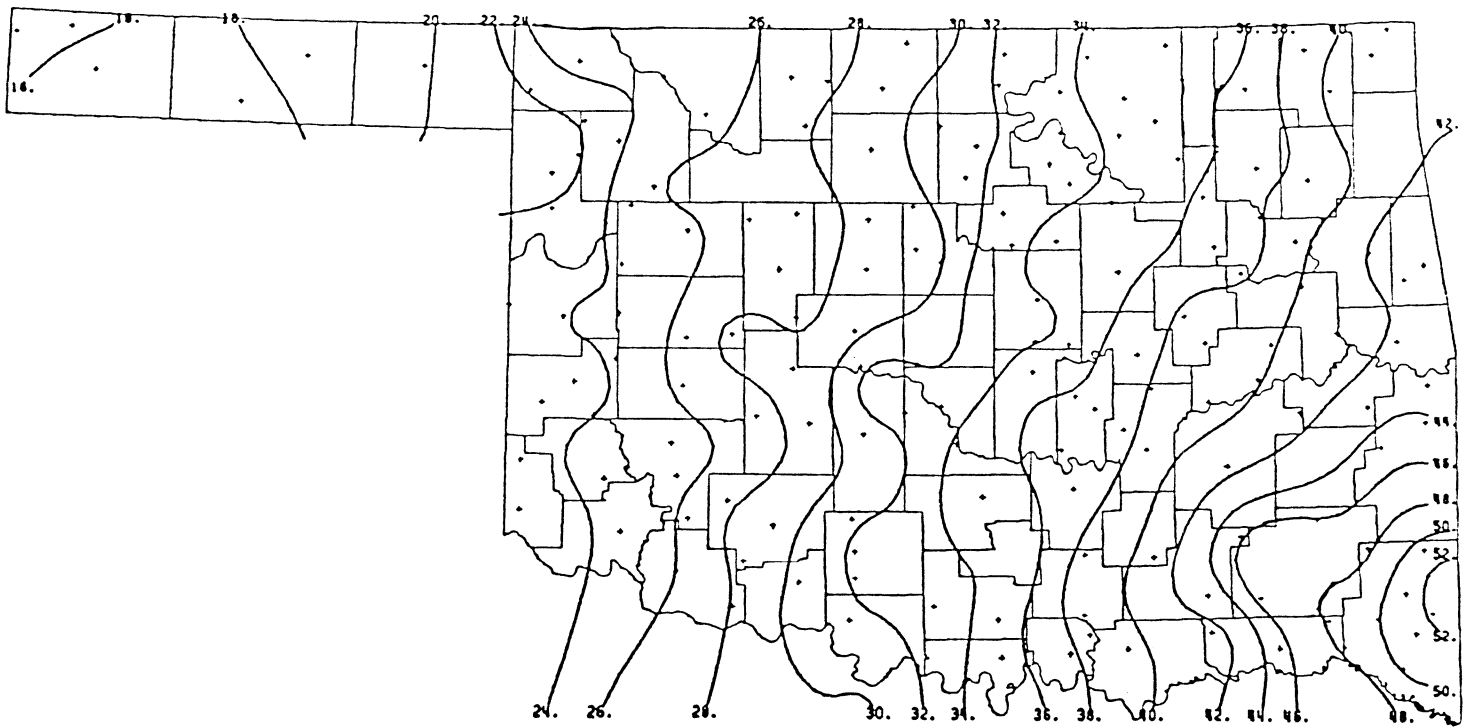
\* STATE SUMMARY BY CLIMATE DIVISION

DIV	TEMP	DEV	PCP	DEV	HDD	DEV	CDD	DEV
1	55.7	-1.4	19.88	0.6	4809	443	1466	77
2	58.5	-0.9	25.84	-1.9	4271	-430	1923	76
3	59.6	0.1	37.70	-0.2	3817	-98	1898	11
4	59.1	-0.8	25.24	-0.2	3950	-292	1863	-55
5	60.4	-0.3	31.88	-0.6	3635	-109	2000	6
6	60.6	-0.5	35.17	-5.9	3494	-134	1905	76
7	61.3	-0.7	23.61	-2.9	3458	-255	2127	113
8	61.9	-0.8	29.41	-6.9	3198	-286	2112	135
9	62.3	0.3	39.37	-7.7	3014	-181	2060	67

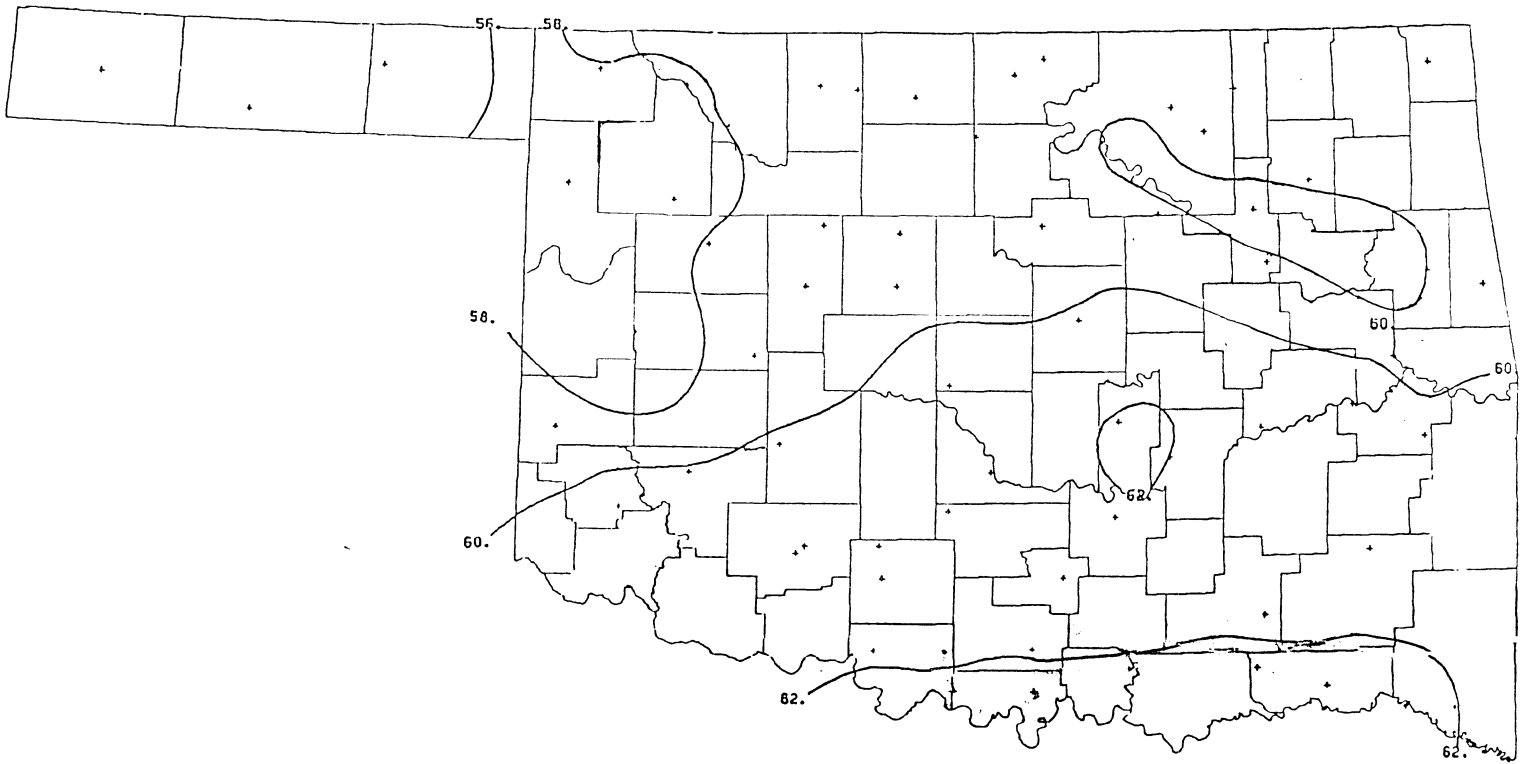
\* Divisional temperature and precipitation normals were obtained from "Climatological Data, Annual Summary", NOAA/NCDC. Divisional heating and cooling degree day normals were computed from "Climatology of the United States No. 81 (By State)", NOAA/NCDC.



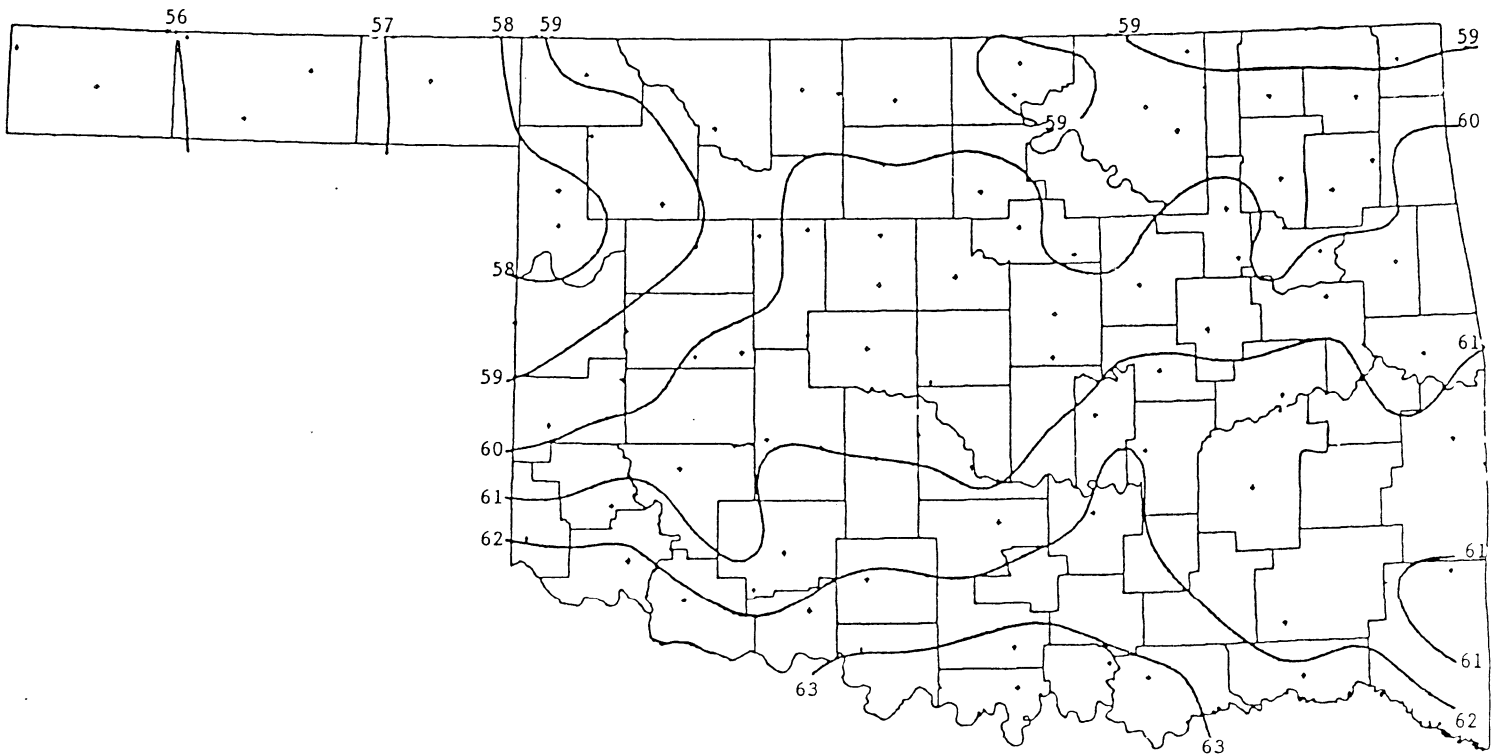
1988 ANNUAL TOTAL PRECIPITATION (Inches)



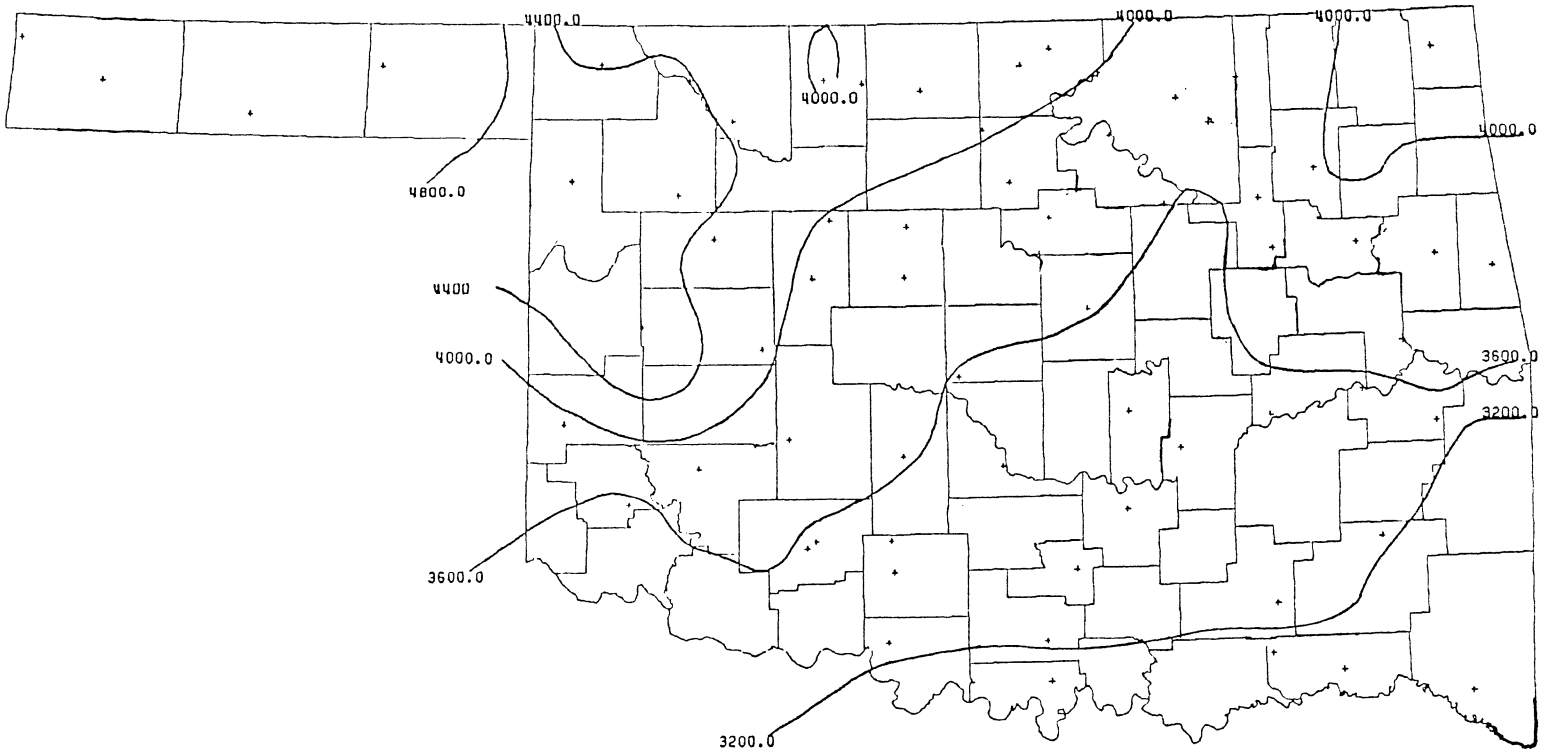
LONG-TERM MEAN ANNUAL TOTAL PRECIPITATION (Inches)



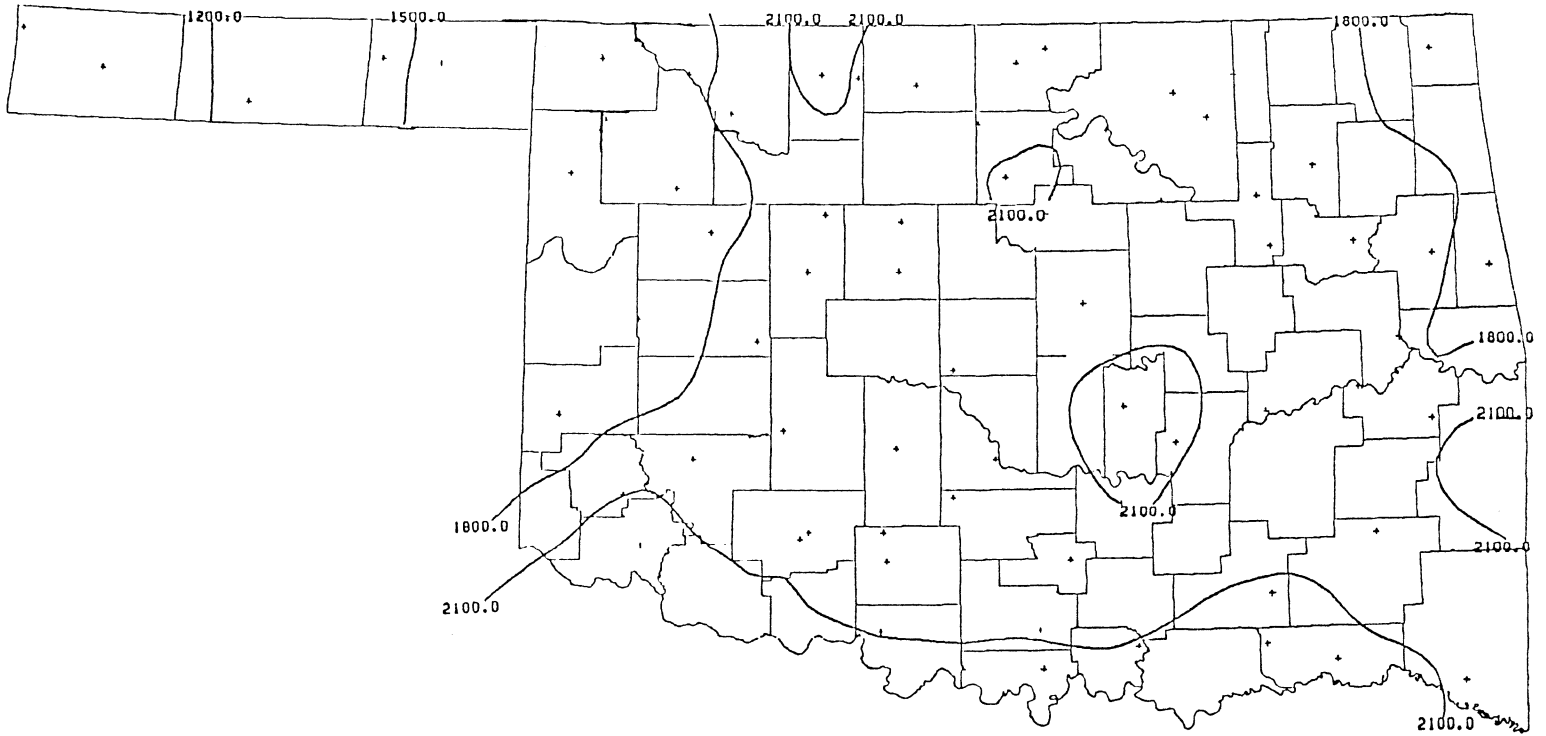
1988 MEAN ANNUAL TEMPERATURE (Degrees F)



LONG-TERM MEAN ANNUAL TEMPERATURE (Degrees F)



**1988 TOTAL HEATING DEGREE DAYS**



**1988 TOTAL COOLING DEGREE DAYS**

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.

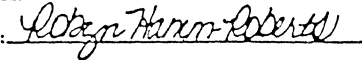
  
Speaker Pro Tempore of the House of  
Representatives

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

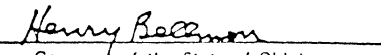
  
President Pro Tempore of the Senate

OFFICE OF THE GOVERNOR

Received by the Governor this 10<sup>th</sup>  
day of March, 1988  
at 1:51, o'clock P. M.

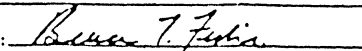
By: 

Approved by the Governor of the State of Oklahoma the 14<sup>th</sup> 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 15<sup>th</sup>  
day of March, 1988  
at 10:45, o'clock P. M.

By: 



Oklahoma Climatological Survey  
University of Oklahoma  
710 Asp, Suite 8  
Norman, OK 73019

