The Oklahoma Climatological Survey was established with its own budget and offices in the spring of 1980. The mission of the Survey is to provide a climatological archiving and information service to the State of Oklahoma. Although as many as 160 stations may appear in any one summary, it may not be possible to list every station report received at the Survey as we plan to have the summaries in the mail before the middle of each month. If you would like information about a station that does appear, please feel free to contact the Climate Survey. If you would like to know more about the services we offer or our plans for the future, please let us hear from you. You can help us by contributing to our newspaper clipping file. If you see an article in your local newspaper dealing with some impact of climate on your community, please clip it and send it to us along with the name of the newspaper and the date the article appeared.

OKLAHOMA CLIMATE SUMMARY NOVEMBER 1987

November weather featured an interesting precipitation distribution. The western third of the State recorded below normal precipitation amounts, the central third recorded slightly above normal, and the eastern third recorded nearly double its normal amount. Temperatures began above normal early in the month and then fluctuated dramatically in response to numerous storm systems.

Stability in the upper atmosphere allowed sunny skies, southerly breezes, and warmer and drier than usual weather to dominate most of the first week. By the 4th, each CD had recorded what would become its highest temperature for the month. These conditions favored the agricultural hazard of grass fires, common during dry, fall seasons in Oklahoma. One such fire affected over a mile of grassland near Bartlesville on the 6th.

The warm and dry conditions changed drastically as an upper level low moved over Oklahoma on the 8th. An associated front moved southeastward through the State, pushed by a huge mass of cold, Canadian air. As a result, the panhandle received freeze warnings and 10 degree wind chill factors partially due to brisk 30 mph northerly winds. Many stations Statewide recorded their lowest temperature of the month on the morning of the 11th.

Aided by southerly winds, maximum temperatures at many stations increased over 20 degrees between the 10th and the 13th. Meanwhile another strong upper level disturbance was strengthening west of Oklahoma. On the 15th a vigorous cold front delivered hail, damaging lightning and high winds, a tornado, and abundant rainfall to various parts of the State. Perry reported pea size hail, and damage to some mobile homes by strong winds. Winds toppled mobile homes in the Miami area and upended an airplane in Ponca City. A confirmed tornado near Guthrie did little damage whereas a possible tornado near Vinita downed power lines, caused damage to a barn, and blew the roof off a house. Rainfall amounts on the 15th included Billings 2.16, Wagoner 3.10, Konawa 2.16, Tahlequah 2.67, and Hugo 2.00 inches.

After the passage of the cold front, temperatures in the northwestern two-thirds of Oklahoma dropped more than 20 degrees between the 16th and 18th. On the 18th an unusually early snow event occurred as an upper level storm drifted out of Colorado toward Oklahoma. Oklahoma City received its earliest measurable snowfall in 7 years, recording more than 1 inch. Although Ellis and Custer Counties also received nearly an inch, much of the northern and south central portions of the State recorded only light snowfall.

Damaging floods resulted from excessive rains on the 24th as a cold front collided with abundant moisture which had accumulated over Oklahoma. The Neosho River overflowed its banks and flooded several Miami area homes. Nearly 5 inches of rain fell near Miami in a 24-hour period. Crop and house damage amounts had not yet been determined.

Oklahoma received another weather assault on the 26th as an extensive winter storm entered the panhandle form the northwest. The western third of the State received snow from the Rocky Mountain storm system, while much of the eastern two-thirds of the State received some precipitation on the 27th.

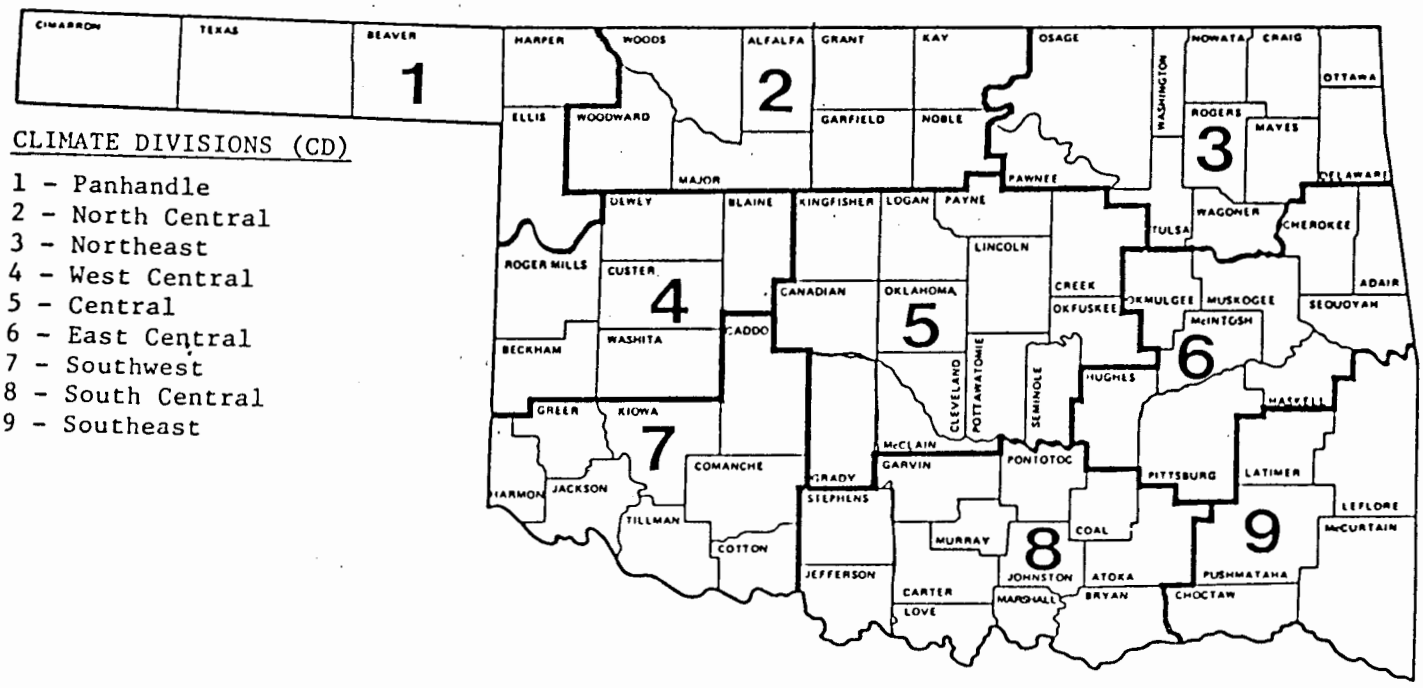
TABLE OF 1986/1987 COMPARISONS

Station	NOVEMBER Temperatures (F) 1986	1987	NOVEMBER Precipitation (in.) 1986	1987
Goodwell	41.9	44.1	2.144	.543
Enid	42.9	50.0	3.230	1.671
Mutual	41.7	47.6	3.231	.380
Tulsa	44.2	55.4	2.934	5.172
Elk City	43.9	45.6	1.785	1.572
Oklahoma City	45.6	51.7	4.635	1.926
McAlester	48.0	53.1	2.661	6.574
Altus Irr. Sta.	48.8	53.6	2.670	.220
Durant	50.3	52.6	4.850	5.380
Ada	47.3	52.2	4.972	3.512
Antlers	51.1	53.9	5.830	7.170

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Taloga	4	14	19
Maximum temperature (F)	Spavinaw	3	87	2
	Atoka	8	87	4
	Tishomingo	8	87	3
	Boswell	9	87	12
Maximum 24-hour Precipitation	Quapaw	3	6.50"	25

O K L A H O M A



CLIMATE DIVISIONS (CD)

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

EXPLANATION OF TABLES

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

Station Name:

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

Climate Division: See the figure above.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EXPLANATION OF MAPS

To give a Statewide perspective, a series of maps is produced each month from the information contained in the station tables. Each map is calculated using between 50 and 200 observations. Only stations with complete monthly records are used. Each observation is put into one of three categories and assigned a plus (+), minus (-), or a dot (.). The minus is the lowest numeric category, the dot is the middle and the plus the highest numeric category. If a map location has no report, a value is estimated. Each map is accompanied by its own legend. The categories will vary from month to month throughout the year. The categories for the deviations from normal maps will always remain constant. This is to facilitate comparisons between months and across years.

NOVEMBER 1987 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ARNETT	332	1	47.3	29	1.6	81.	3	20.	11	522.5	-56.5	9.5	9.5	.541	30	-.55	.28	27
BUFFALO	1243	1	48.7	30	1.7	85.	1	15.	10	498.0	-42.0	10.5	10.5	.730	30	-.60	.28	27
FARGO	3070	1	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.461	30	-.56	.30	27
GAGE	3407	1	48.6	30	3.3	82.	2	21.	29	504.5	-86.5	12.0	12.0	.412	30	-.43	.22	27
GOODWELL RES.STA.	3628	1	43.9	29	-.4	81.	1	18.	25	611.0	-10.0	0.0	0.0	.543	30	-.10	.36	7
GUYMON	3835	1	44.6	27	999.0	83.	2	18.	25	554.0	9999.0	3.0	9999.0	.701	27	99.99	.47	7
LAVERNE	5045	1	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.443	30	-.55	.24	27

NOVEMBER 1987 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ALVA	194	2	49.6	29	2.2	85.	3	19.	19	460.0	-68.0	13.5	13.5	.780	29	-.42	.55	28
VANCE AFB	302	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.848	30	99.99	.36	27
BILLINGS	755	2	49.4	29	999.0	82.	3	18.	11	467.5	9999.0	16.5	9999.0	3.452	30	1.56	2.12	16
BLACKWELL	818	2	49.2	30	999.0	81.	4	25.	19	487.0	9999.0	11.5	9999.0	5.192	30	99.99	2.00	23
CHEROKEE	1724	2	47.2	26	-.1	80.	4	22.	10	462.5	-68.5	0.0	0.0	.950	27	-.33	.95	27
ENID	2912	2	49.9	30	1.4	82.	4	23.	11	463.5	-31.5	11.0	11.0	1.671	30	-.11	.71	24
FT.SUPPLY DAM	3304	2	48.5	26	1.4	81.	1	20.	18	434.0	-103.0	6.0	6.0	.441	30	-.48	.27	27
FREEDOM	3358	2	48.8	30	999.0	84.	3	16.	11	500.5	9999.0	14.5	9999.0	.392	30	99.99	.17	27
GREAT SALT PLAINS	3740	2	49.5	29	999.0	82.	4	24.	19	467.0	9999.0	16.5	9999.0	1.490	30	.04	.45	2
HARDY	3909	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.052	30	99.99	2.20	23
HELENA	4019	2	47.9	29	999.0	81.	4	20.	19	504.5	9999.0	10.0	9999.0	.692	30	-.85	.31	27
JEFFERSON	4573	2	50.2	30	2.5	83.	4	19.	11	462.0	-54.0	19.5	19.5	1.142	30	-.78	.51	27
LAHOMA RES.STA.	4950	2	49.9	29	999.0	68.	4	33.	29	437.0	9999.0	0.0	9999.0	0.000	30	99.99	0.00	30
LAMONT	5013	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.902	30	99.99	.80	16
MEDFORD	5768	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.892	30	99.99	.41	30
MUTUAL	6139	2	47.6	29	1.0	80.	4	21.	11	513.0	-39.0	7.5	7.5	.380	30	-.77	.20	28
NEWKIRK	6278	2	50.2	30	2.8	82.	4	25.	11	459.5	-68.5	16.0	16.0	5.820	30	3.88	3.10	24
ORIENTA	6751	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.330	30	99.99	.20	27
PERY	7012	2	52.2	30	2.6	82.	4	26.	11	407.5	-54.5	23.0	23.0	2.550	30	.75	1.00	16
PONCA CITY	7201	2	50.5	25	3.9	83.	5	24.	11	376.0	-176.0	14.5	14.5	1.982	26	-.07	.72	16
RED ROCK	7505	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.720	30	1.00	.80	16
RENFROW	7556	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.153	30	-.55	.46	28
WAYNOKA	9404	2	49.4	30	1.5	83.	3	17.	11	485.5	-27.5	16.5	16.5	.320	30	-.96	.28	28
WOODWARD	9760	2	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.310	30	-.78	.23	25

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	49.8	30	999.0	82.	4	18.	11	470.0	9999.0	14.0	9999.0	4.203	30	1.88	1.38	25
BARTLESVILLE	548	3	50.0	30	1.7	83.	4	19.	11	466.5	-34.5	17.0	17.0	4.731	30	2.48	2.35	25
BIXBY	782	3	50.4	29	1.7	82.	4	21.	12	435.0	-54.0	10.5	10.5	3.341	30	.61	1.44	16
BURBANK	1256	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.743	30	99.99	1.25	15
CHELSEA	1717	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.060	30	99.99	2.66	25
CLAREMORE	1828	3	53.7	29	5.3	83.	3	29.	12	348.5	-149.5	19.5	19.5	6.234	30	3.44	2.44	25
CLEVELAND	1902	3	49.9	26	999.0	85.	4	22.	11	409.5	9999.0	16.5	9999.0	2.721	26	99.99	1.10	16
FORAKER	3250	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.110	30	-.26	1.09	16
HOLLOW	4258	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	8.900	30	5.91	4.08	25
HOMINY	4289	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.141	30	1.08	1.34	16
HULAH LAKE	4393	3	51.5	11	4.4	82.	3	19.	12	158.0	-379.0	9.5	9.5	.820	18	-1.37	.49	24
JAY TOWER	4567	3	51.6	26	999.0	82.	4	26.	11	363.0	9999.0	13.5	9999.0	5.250	29	99.99	2.28	15
KANSAS	4672	3	50.2	30	999.0	80.	4	25.	11	450.0	9999.0	7.5	9999.0	4.874	30	99.99	2.35	16
MANNFORD	5522	3	51.3	30	999.0	84.	3	18.	11	434.0	9999.0	23.5	9999.0	4.770	30	99.99	2.18	25
MARAMEC	5540	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.360	30	.35	1.16	16
MIAMI	5855	3	49.5	29	1.1	80.	5	22.	12	456.5	-41.5	8.0	8.0	7.870	30	4.92	3.50	25
NOWATA	6485	3	49.9	29	1.3	81.	4	23.	11	451.0	-41.0	12.5	12.5	5.300	30	2.75	2.60	25
ONETA	6713	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.732	30	99.99	1.47	16
PAWHUSKA	6935	3	49.9	30	1.9	84.	4	19.	11	472.0	-38.0	20.0	20.0	5.301	30	3.27	2.98	24
PAWHUSKA	6937	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.990	30	99.99	1.52	24
PAWNEE	6940	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.740	30	.86	.82	16
PRYOR	7309	3	48.7	29	.5	81.	4	21.	13	480.5	-23.5	6.5	6.5	7.673	30	4.77	3.89	25
QUAPAW	7358	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	8.692	30	5.81	6.50	25
RALSTON	7390	3	50.7	30	999.0	82.	3	19.	11	452.5	9999.0	22.0	9999.0	3.852	30	1.90	1.68	25
RAMONA	7394	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.100	30	99.99	2.30	25
SKIATOOK	8258	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.360	30	3.01	2.60	24
SPAVINAW	8380	3	52.2	30	999.0	80.	4	27.	11	400.5	9999.0	15.5	9999.0	2.713	30	-.50	1.79	25
TULSA	8992	3	52.9	30	3.7	83.	5	28.	11	382.0	-92.0	20.0	20.0	5.172	30	2.61	2.26	24
UPPER SPAVINAW	9101	3	52.8	29	999.0	87.	2	26.	11	376.5	9999.0	23.0	9999.0	5.070	30	99.99	2.10	16
VINITA	9203	3	49.8	30	1.9	80.	4	19.	11	463.0	-50.0	8.5	8.5	7.310	30	4.35	3.35	25
WAGONER	9247	3	52.5	30	2.4	80.	4	24.	11	389.0	-58.0	13.5	13.5	6.280	30	3.08	3.01	16
WANN	9298	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.590	30	99.99	2.33	25
WYNONA	9792	3	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.192	27	99.99	1.75	15

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.781	30	99.99	1.65	16
CHEYENNE	1738	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.680	30	99.99	.44	7
CLINTON	1909	4	51.2	30	2.7	81.	4	19.	19	423.5	-71.5	9.0	9.0	.800	30	-.67	.22	19
COLONY	2039	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.471	30	99.99	.19	25
CORDELL	2125	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.450	30	-.94	.22	27
ELK CITY	2849	4	45.6	21	999.0	72.	22	24.	10	406.5	9999.0	0.0	9999.0	1.572	21	.21	1.33	10
ERICK	2944	4	49.9	30	1.5	83.	4	22.	19	460.5	-37.5	8.0	8.0	.471	30	-.52	.33	7
GEARY	3497	4	48.2	29	-.6	78.	4	20.	19	493.0	7.0	6.0	6.0	.280	29	-1.13	.28	7
HAMMON	3871	4	47.5	29	.0	82.	4	18.	20	514.5	-10.5	8.0	8.0	.560	30	-.83	.30	7
LEEDEY	5090	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.001	30	-1.33	.00	28
MACKIE	5463	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.420	30	99.99	.22	7
MORAVIA	6035	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.701	30	-.35	.34	7
OKEENE	6629	4	48.5	30	-.6	80.	4	20.	10	505.0	28.0	10.5	10.5	.740	30	-.86	.25	27
RETROP	7565	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.790	30	99.99	.35	27
REYDON	7579	4	48.8	30	999.0	82.	4	21.	11	497.5	9999.0	13.0	9999.0	.553	30	-.41	.28	7
SAYRE	7952	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.480	30	-.61	.25	7
TALOGA	8700	4	48.7	30	1.7	83.	3	14.	19	495.0	-45.0	7.0	7.0	.512	30	-.96	.19	7
THOMAS	8815	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.760	30	99.99	.24	27
VICI	9172	4	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.810	30	99.99	.25	27
WATONGA	9364	4	49.5	30	999.0	79.	4	21.	11	477.0	9999.0	10.5	9999.0	1.221	30	-.20	.36	8
WEATHERFORD	9422	4	49.5	29	.6	80.	4	22.	19	457.5	-25.5	8.0	8.0	1.062	30	-.30	.50	7

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.200	30	99.99	.46	15
ARCADIA	288	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.910	30	99.99	.55	25
BLANCHARD	830	5	51.3	30	999.0	80.	4	25.	19	425.5	9999.0	15.5	9999.0	1.494	30	99.99	.78	16
BRISTOW	1144	5	51.8	30	2.1	83.	4	20.	11	412.0	-52.0	16.5	11.5	4.262	30	1.93	1.59	25
CHANDLER	1684	5	51.3	30	.9	82.	4	24.	11	428.0	-15.0	17.5	17.5	2.660	30	.57	1.32	25
CHICKASHA	1750	5	50.7	30	.7	80.	4	21.	11	444.0	-6.0	14.5	14.5	1.412	30	-.14	.44	15
COX CITY	2196	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.230	30	99.99	.60	24
CRESCENT	2242	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.290	30	99.99	1.08	16
CUSHING	2318	5	50.2	29	1.3	82.	4	28.	11	443.0	-40.0	15.0	15.0	2.391	30	.38	.55	16
EL RENO	2818	5	48.2	30	-.3	78.	3	21.	11	505.5	10.5	2.5	2.5	1.800	30	.16	.72	16
GUTHRIE	3821	5	51.5	30	2.2	81.	1	23.	11	423.5	-47.5	19.5	19.5	2.070	30	.27	1.11	19
HENNESSEY	4055	5	49.0	30	.5	79.	4	22.	11	493.0	-2.0	12.5	12.5	2.501	30	.87	1.33	16
INGALLS	4489	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.992	30	99.99	.80	27
KINGFISHER	4861	5	49.6	30	.7	80.	3	22.	11	475.0	-8.0	14.0	14.0	2.300	30	.77	.97	16
KINGFISHER CREEK	4862	5	49.3	30	999.0	80.	3	22.	11	484.5	9999.0	14.0	9999.0	2.320	30	99.99	.97	16
KINGFISHER UJC	4864	5	49.3	30	999.0	80.	3	22.	11	484.5	9999.0	14.0	9999.0	2.320	30	99.99	.97	16
KONAWA	4915	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.013	30	1.87	2.17	16
MARSHALL	5589	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.791	30	.16	1.13	16
MEEKER	5779	5	51.2	30	1.9	82.	4	22.	11	429.5	-41.5	14.0	14.0	2.770	30	.72	1.24	24
NORMAN	6386	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.782	30	-1.26	.30	25
OILTON	6616	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.910	30	99.99	1.80	25
OKEMAH	6638	5	50.6	30	-.1	80.	4	27.	29	439.5	10.5	8.0	8.0	3.431	30	.99	1.65	16
OKLAHOMA CITY	6661	5	51.7	30	3.0	79.	5	26.	11	411.5	-74.5	14.0	14.0	1.926	30	.40	.77	16
PERKINS	7003	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.200	30	-.87	.31	25
PIEDMONT	7068	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.700	30	99.99	.63	16
PRAGUE	7264	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.461	30	.25	.80	25
PURCELL	7327	5	50.7	30	1.1	80.	4	20.	11	436.5	-30.5	8.5	8.5	2.343	30	.28	.76	16
SEMINOLE	8042	5	52.9	30	1.2	84.	4	24.	11	376.5	-27.5	14.5	9.5	3.101	30	.58	1.84	16
SHAWNEE	8110	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.091	30	.75	.99	25
STELLA	8479	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.390	30	99.99	1.21	25
STILLWATER	8501	5	50.2	29	1.3	83.	4	20.	11	447.5	-35.5	18.0	18.0	2.621	30	.84	.67	24
STROUD	8563	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.701	30	99.99	1.14	25
TECUMSEH	8751	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.950	30	99.99	1.24	17
TROUSDALE	8960	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.340	30	99.99	.87	16
UNION CITY	9086	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.170	30	-.89	.37	16
WELTY	9479	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.261	30	99.99	1.85	16
WEWOKA	9575	5	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.431	30	2.20	2.30	16

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BEGGS	631	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.400	30	99.99	2.00	16
CALVIN	1391	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.737	30	.05	1.27	16
BOYNTON	1027	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.513	30	99.99	2.05	16
CHECOTAH	1711	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.392	30	2.55	2.29	16
DEWAR	2485	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.860	30	2.17	2.18	25
DUSTIN	2690	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.890	30	99.99	1.50	16
EUFAULA	2993	6	52.7	30	999.0	82.	4	29.	11	378.5	9999.0	11.0	9999.0	5.411	30	2.45	2.32	16
HANNA	3884	6	51.4	30	999.0	83.	4	24.	11	416.0	9999.0	8.0	9999.0	3.720	30	.78	1.76	16
HARTSHORNE	3946	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	7.390	30	99.99	2.28	16
HASKELL	3956	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.410	30	1.52	2.37	16
HOLDENVILLE	4235	6	51.7	30	.3	84.	4	23.	11	409.0	-4.0	11.5	11.5	3.681	30	1.28	1.95	16
LYONS	5437	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.441	30	1.49	1.96	15
MCALESTER	5664	6	53.1	30	2.3	85.	5	25.	11	374.0	-59.0	16.0	9.0	6.574	30	3.50	2.29	16
MCCURTAIN	5693	6	54.3	30	999.0	85.	4	25.	11	340.0	9999.0	19.0	9999.0	6.502	30	2.92	2.15	16
MUSKOGEE	6130	6	52.5	30	2.4	81.	4	24.	11	383.5	-63.5	8.5	8.5	5.160	30	2.18	2.60	15
OKMULGEE WATER	6670	6	49.9	30	-.7	83.	4	19.	11	458.5	26.5	5.0	5.0	3.493	30	.86	2.05	15
OKTAHA	6678	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.270	30	99.99	2.30	16
QUINTON	7372	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.492	30	2.25	2.02	15
SALLISAW	7862	6	51.7	30	1.0	85.	4	21.	11	403.0	-31.0	5.0	0.0	7.550	30	4.14	2.15	16
SCIPIO	7979	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.760	30	99.99	1.38	16
SCRAPER	7993	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.680	30	99.99	2.37	16
SHORT	8170	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.342	30	99.99	2.50	16
STILWELL	8306	6	51.1	30	999.0	82.	4	21.	11	428.5	9999.0	10.5	9999.0	6.523	30	99.99	2.75	16
TAHLEQUAH	8677	6	50.2	30	3.9	83.	4	20.	11	451.5	-24.5	6.5	1.5	6.410	30	3.21	2.67	16
WEBBERS FALLS	9445	6	51.9	29	2.6	85.	4	24.	11	393.0	-78.0	13.0	13.0	5.490	30	2.50	2.49	16
WESTVILLE	9523	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.701	30	99.99	2.85	16
WETUMKA	9571	6	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.297	30	1.53	1.80	16

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS IRR.STA.	179	7	53.3	29	2.1	80.	3	23.	19	351.0	-63.0	12.0	12.0	.220	30	-.80	.12	26
ALTUS DAM	184	7	51.6	29	999.0	79.	3	24.	19	403.0	9999.0	14.5	9999.0	.310	30	-.71	.19	27
ANADARKO	224	7	52.0	25	2.3	80.	4	16.	11	337.5	-121.5	12.5	12.5	.460	25	-1.12	.18	27
APACHE	260	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.030	30	99.99	.48	24
ALTUS AFB	447	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.046	29	99.99	.02	7
CARNEGIE	1504	7	51.1	30	1.6	81.	4	19.	11	429.5	-35.5	12.5	12.5	.780	30	-.54	.31	15
CHATTANOOGA	1706	7	51.9	30	1.0	83.	4	23.	19	402.5	-20.5	10.0	10.0	.441	30	-.93	.33	16
DUNCAN	2668	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.230	30	99.99	1.90	16
FREDERICK	3353	7	51.8	29	-.4	82.	4	26.	19	398.0	9.0	16.5	11.5	.800	30	-.61	.41	15
GRANDFIELD	3709	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.950	30	-.60	.75	9
HOBART	4204	7	51.1	30	2.6	80.	5	22.	19	425.0	-70.0	8.0	8.0	.212	30	-.87	.16	27
HOLLIS	4249	7	51.1	29	.7	82.	5	21.	11	410.5	-27.5	6.5	6.5	.330	30	-.55	.24	7
LAWTON	5063	7	51.1	29	.2	82.	3	25.	18	411.5	-16.5	7.0	7.0	.930	30	-.82	.31	14
FT.SILL	5068	7	50.0	29	999.0	80.	3	25.	19	444.0	9999.0	8.5	9999.0	.761	30	-.99	.40	15
LOCO	5247	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.072	30	99.99	.60	16
LOOKEBA	5329	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.870	30	99.99	.78	16
MANGUM	5509	7	50.9	30	.7	81.	4	21.	19	426.0	-18.0	4.0	4.0	.331	30	-.58	.20	27
RANDLETT	7403	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.231	30	99.99	.99	15
ROOSEVELT	7727	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.321	30	-.92	.20	9
SEDAN	8016	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.441	30	99.99	.44	27
SNYDER	8299	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.242	30	-.99	.18	27
VINSON	9212	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.600	30	-.42	.31	7
WALTERS	9278	7	53.2	30	1.5	83.	5	24.	11	369.0	-46.0	14.5	8.5	1.920	30	.09	.95	25
WILLOW	9668	7	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	.571	30	99.99	.33	27

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	52.5	30	.7	84.	4	24.	11	388.5	-15.5	13.0	5.0	3.512	30	.96	1.41	16
ALLEN	147	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.150	30	99.99	1.45	15
ARDMORE	292	8	53.9	30	-.4	83.	4	29.	29	350.5	20.5	16.5	7.5	3.790	30	1.55	1.95	15
ATOKA DAM	394	8	52.5	29	999.0	87.	4	26.	11	370.5	9999.0	8.5	9999.0	5.060	30	99.99	2.55	16
BOKCHITO	917	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.020	30	99.99	1.97	16
CANEY	1437	8	52.2	29	999.0	84.	3	29.	29	380.0	9999.0	7.5	9999.0	5.400	30	99.99	1.60	16
CENTRAHOMA	1648	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.720	30	99.99	2.00	24
CHICKASAW	1745	8	51.7	29	999.0	84.	4	21.	11	400.0	9999.0	13.5	9999.0	2.870	30	99.99	1.25	25
COLEMAN	2011	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.120	30	99.99	2.45	16
COMANCHE	2054	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.922	30	99.99	1.25	16
DAISY	2354	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	7.213	30	3.85	3.13	16
DUNCAN	2660	8	51.8	29	-.2	85.	4	25.	19	397.0	0.0	13.5	6.5	1.740	30	-.16	.79	25
DURANT USDA	2678	8	52.7	29	999.0	85.	4	24.	11	362.0	9999.0	6.0	9999.0	5.380	30	2.58	2.02	16
ELMORE CITY	2872	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	3.002	30	99.99	1.90	15
FARRIS	3083	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.660	30	99.99	2.29	16
GRADY	3688	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	1.380	30	99.99	.38	16
HEALDTON	4001	8	52.1	30	999.0	85.	4	22.	11	398.5	9999.0	11.0	9999.0	1.720	30	-.32	.60	16
KINGSTON	4865	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.220	30	1.69	1.47	15
LEHIGH	5108	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	4.993	30	99.99	2.05	16
LINDSAY	5216	8	49.9	28	999.0	81.	3	23.	11	427.0	9999.0	5.0	9999.0	.943	29	-1.14	.33	15
MADILL	5468	8	53.1	30	.1	85.	4	28.	29	368.0	2.0	12.0	6.0	4.331	30	1.87	1.18	15
MARETTA	5563	8	54.1	30	1.2	86.	4	25.	11	343.0	-28.0	15.5	7.5	3.291	30	.83	1.42	25
MARLOW	5581	8	51.4	30	999.0	82.	4	22.	29	412.5	9999.0	5.5	9999.0	1.030	30	-.92	.56	16
MCGEE CREEK	5713	8	52.5	29	999.0	86.	4	28.	29	374.0	9999.0	10.5	9999.0	5.680	30	99.99	2.21	16
OSWALT	6787	8	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	2.510	30	99.99	1.25	15
PAULS VALLEY	6926	8	51.8	30	.4	83.	4	22.	11	409.0	-4.0	13.5	13.5	3.140	30	.97	1.81	16
TISHOMINGO	8884	8	53.2	15	999.0	87.	3	19.	29	184.5	9999.0	7.5	9999.0	4.330	22	1.84	1.22	16
WAURIKA	9395	8	53.6	30	1.0	86.	4	24.	11	361.0	-18.0	18.5	11.5	1.440	30	-.49	.89	16
WAURIKA LAKE	9399	8	53.7	25	999.0	84.	4	22.	30	296.0	9999.0	14.0	9999.0	1.861	28	99.99	1.17	15

NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

NOVEMBER 1987 SUMMARY FOR SOUTHEAST DIVISION (CD9)

NAME	ID	DIV	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	54.0	30	2.2	85.	4	32.	13	334.0	-66.0	4.5	4.5	7.170	30	3.99	3.00	15
BATTIEST	567	9	51.3	30	999.0	84.	4	23.	12	411.0	9999.0	0.0	9999.0	7.862	30	99.99	2.39	15
BENGAL	670	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.341	30	99.99	1.95	16
BOSWELL	980	9	54.8	30	999.0	87.	4	26.	12	322.5	9999.0	16.5	9999.0	7.404	30	4.38	2.14	16
BROKEN BOW	1168	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.810	30	99.99	1.91	9
BUFFALO	1251	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	7.670	30	99.99	2.10	16
CARNASAW TW	1499	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	8.980	30	4.70	2.64	16
CARTER MT	1544	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	7.770	30	3.95	2.01	15
FANSHAWE	3065	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.402	30	2.45	2.20	16
HEAVENER	4008	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	5.931	30	2.24	2.28	16
HEE MT TW	4017	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	8.540	30	99.99	2.73	16
HUGO	4384	9	54.5	30	1.1	85.	4	29.	11	324.0	-33.0	10.5	1.5	6.632	30	3.37	2.00	15
IDABEL	4451	9	53.1	29	.5	83.	4	28.	12	352.0	-28.0	5.5	-2.5	8.930	30	5.10	2.32	10
POTEAU	7254	9	50.3	29	999.0	86.	3	22.	11	427.5	9999.0	1.0	9999.0	4.212	30	99.99	1.91	15
SMITHVILLE	8285	9	49.2	30	999.0	83.	4	18.	12	475.0	9999.0	1.0	9999.0	5.932	30	99.99	1.76	17
SOBAL	8305	9	53.1	27	999.0	80.	4	30.	26	329.0	9999.0	6.5	9999.0	6.970	29	3.56	3.08	16
SPIRO	8416	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	6.720	30	2.87	2.36	16
TUSKAHOMA	9023	9	52.5	30	999.0	86.	4	22.	12	379.5	9999.0	5.5	9999.0	8.320	30	99.99	2.07	16
VALLIANT	9118	9	999.0	0	999.0	999.	0	999.	0	999.0	9999.0	999.0	9999.0	8.941	30	5.34	3.26	16

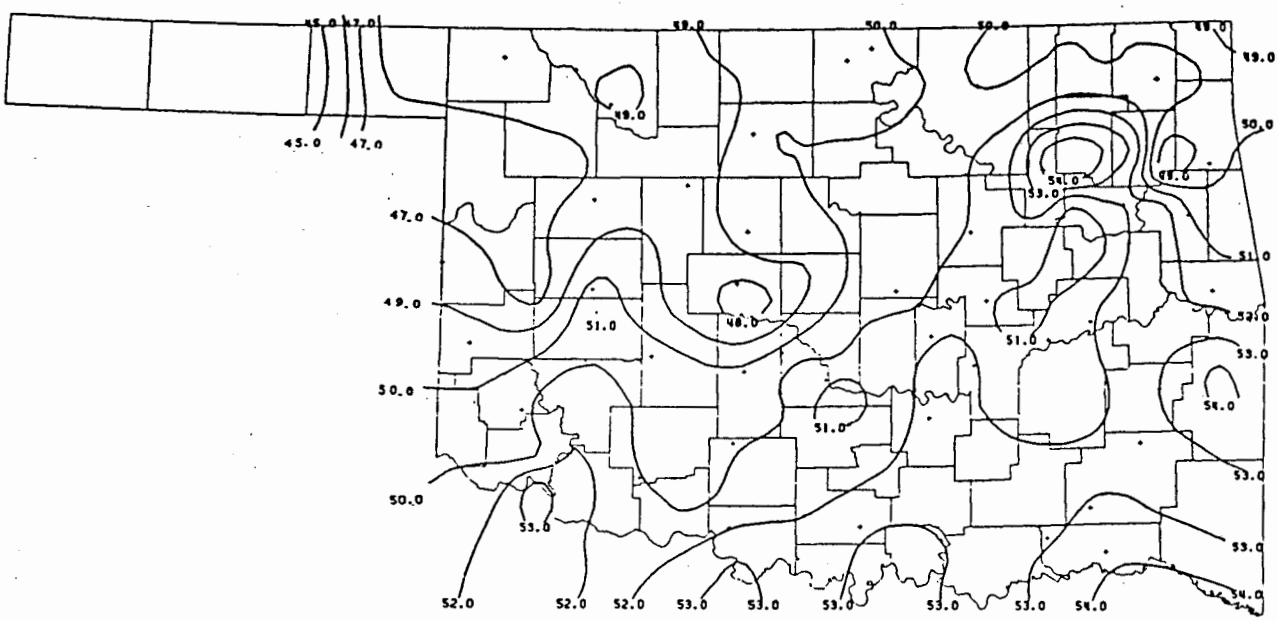
NOVEMBER 1987 CLIMATE DIVISION SUMMARY

CLIMATE DIV	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEGREE DAYS	DEV FROM NORM	COOL DEGREE DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	46.6	5	1.1	85.0	1	15.0	10	538.0	-44.7	7.0	7.0	.55	7	-.44	.47	7
2	49.5	13	1.9	85.0	3	16.0	11	470.3	-51.1	13.5	13.5	1.64	24	.10	3.10	24
3	50.9	16	2.4	87.0	2	18.0	11	433.0	-63.7	15.1	15.1	4.83	32	2.30	6.50	25
4	49.1	9	.8	83.0	3	14.0	19	480.4	-20.2	8.9	8.9	.83	20	-.48	1.65	16
5	50.6	17	1.1	84.0	4	20.0	11	444.7	-21.3	13.7	13.0	2.42	37	.43	2.30	16
6	51.9	11	2.0	85.0	4	19.0	11	403.2	-40.5	10.4	7.9	5.00	27	2.12	2.85	16
7	51.6	11	1.0	83.0	5	16.0	11	406.4	-30.6	10.4	9.3	.77	23	-.54	1.90	16
8	52.4	15	-.2	87.0	3	19.0	29	382.8	2.8	11.3	4.9	3.61	28	1.26	3.13	16
9	52.5	9	-.1	87.0	4	18.0	12	372.7	-6.3	5.7	0.0	7.24	19	3.61	3.26	16

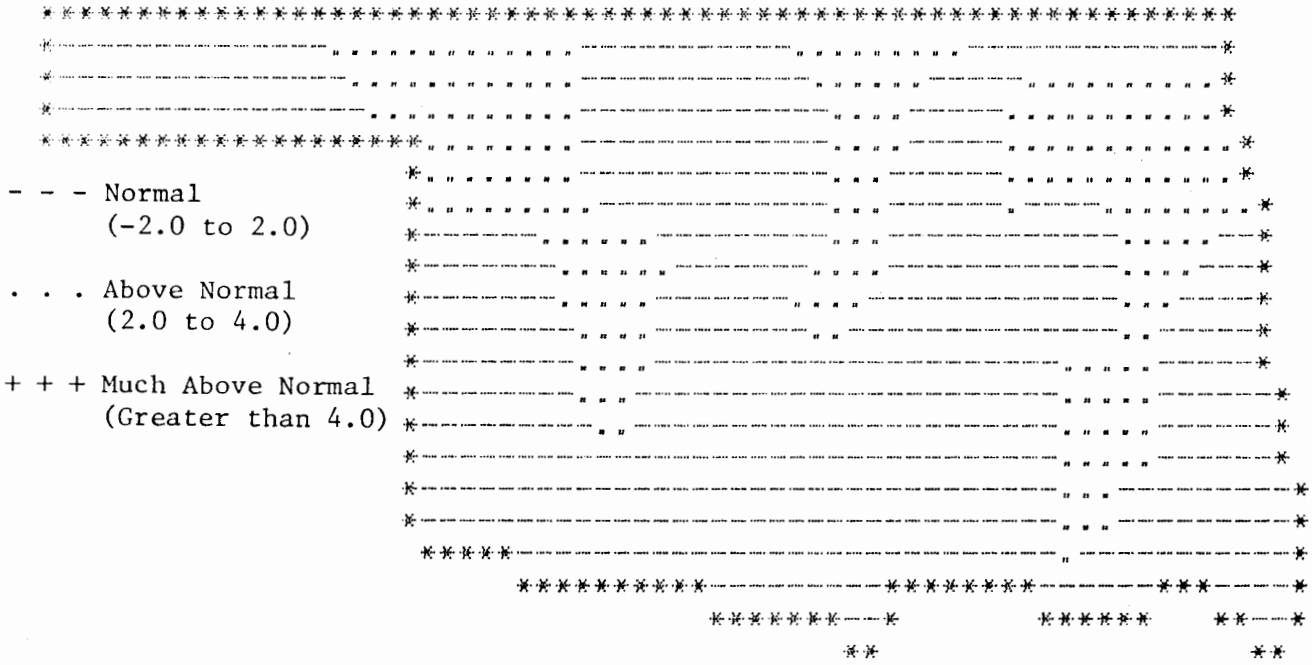
NOTE: 9999.0, 999.0, 99.99 indicates missing data TRACE = .001

THE DATA FOR THE FOLLOWING STATIONS WERE NOT DIGITIZED IN TIME FOR INCLUSION IN THE TABLES.

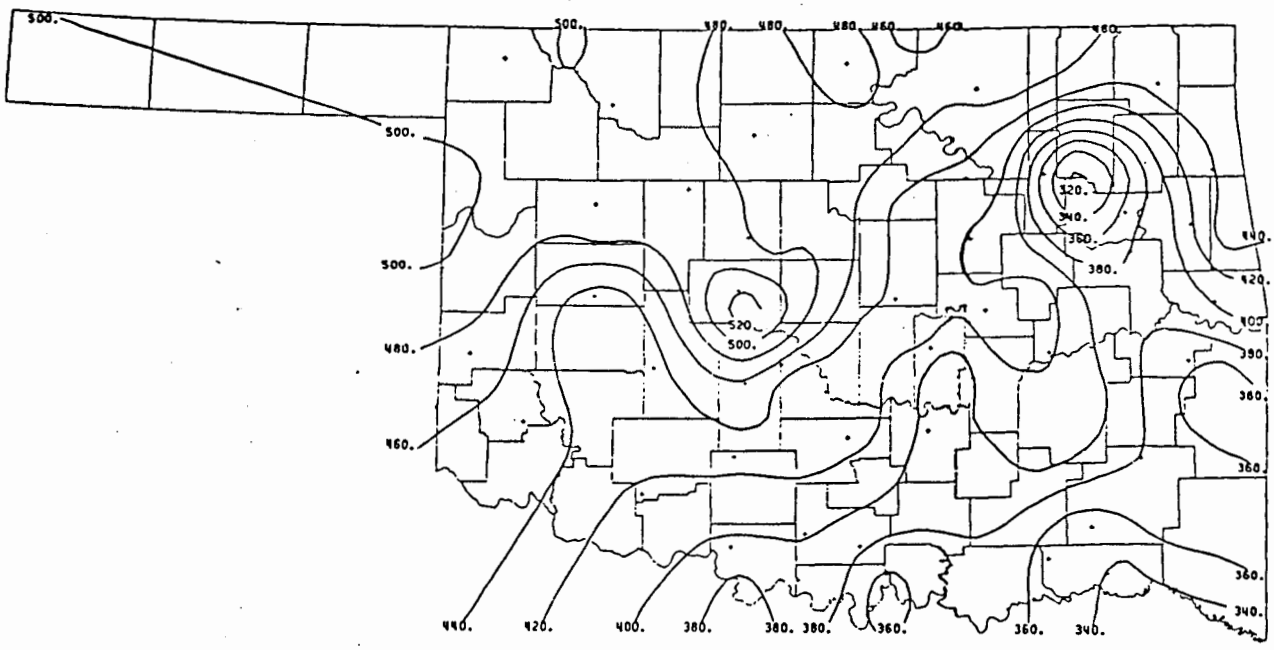
NAME	ID	DIV	MEAN TEMP	NUM OBS	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	TOT PPT	NUM OBS	MAX 24-HR	DAY
Gage	3407	1	45.1	29	82	2	21	19	---	.412	29	.22	27
Guymon	3835	1	40.5	27	83	2	18	25	---	.701	29	.16	27
Ponca City	7201	2	47.1	24	83	5	24	11	---	1.982	29	.72	16
Vance AFB	0302	2	---	--	--	-	--	--	---	.848	30	.36	16
Tinker AFB	0325	5	---	--	--	-	--	--	---	1.036	30	.37	24
Okla City	6661	5	50.9	30	79	5	26	11	416	1.656	30	.77	16
McAlester	5664	6	49.5	29	85	5	27	29	---	6.547	29	2.29	16
Altus AFB	0447	7	---	--	--	-	--	--	---	.046	29	.02	7
Hobart	4204	7	49.6	29	80	5	24	29	---	.212	29	.16	27



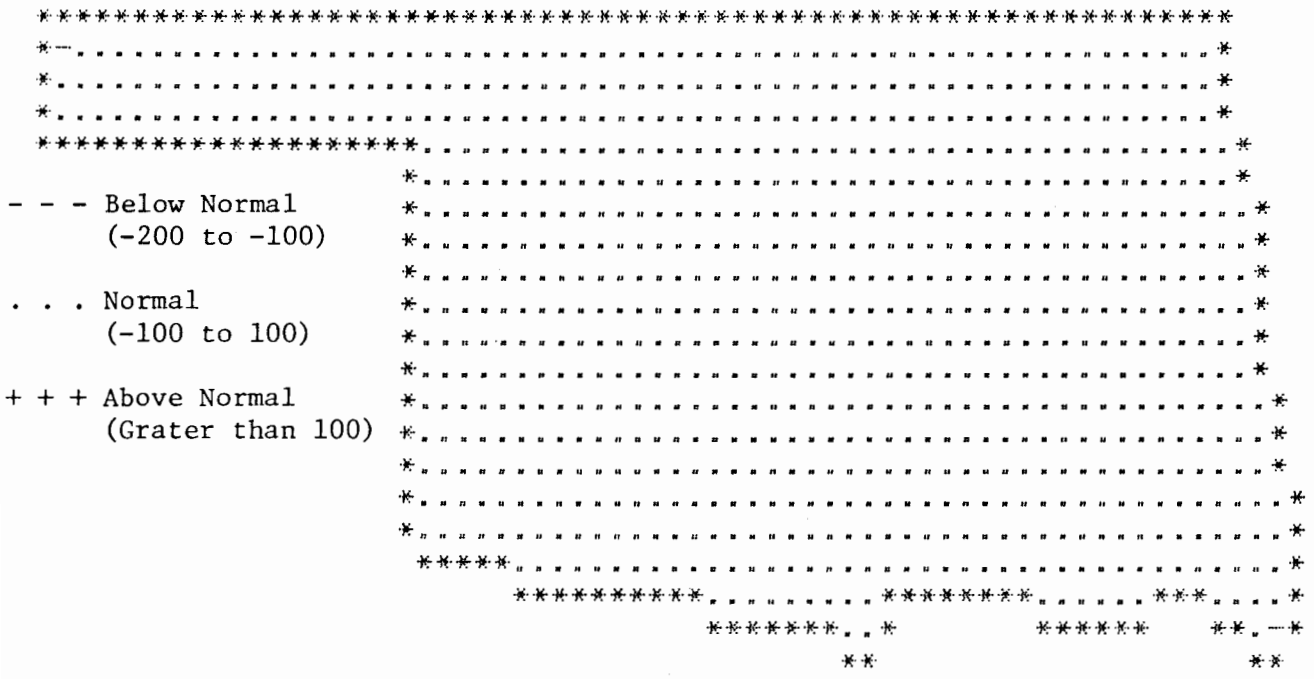
NOVEMBER 1987 AVERAGE MONTHLY TEMPERATURE
(Degrees F)



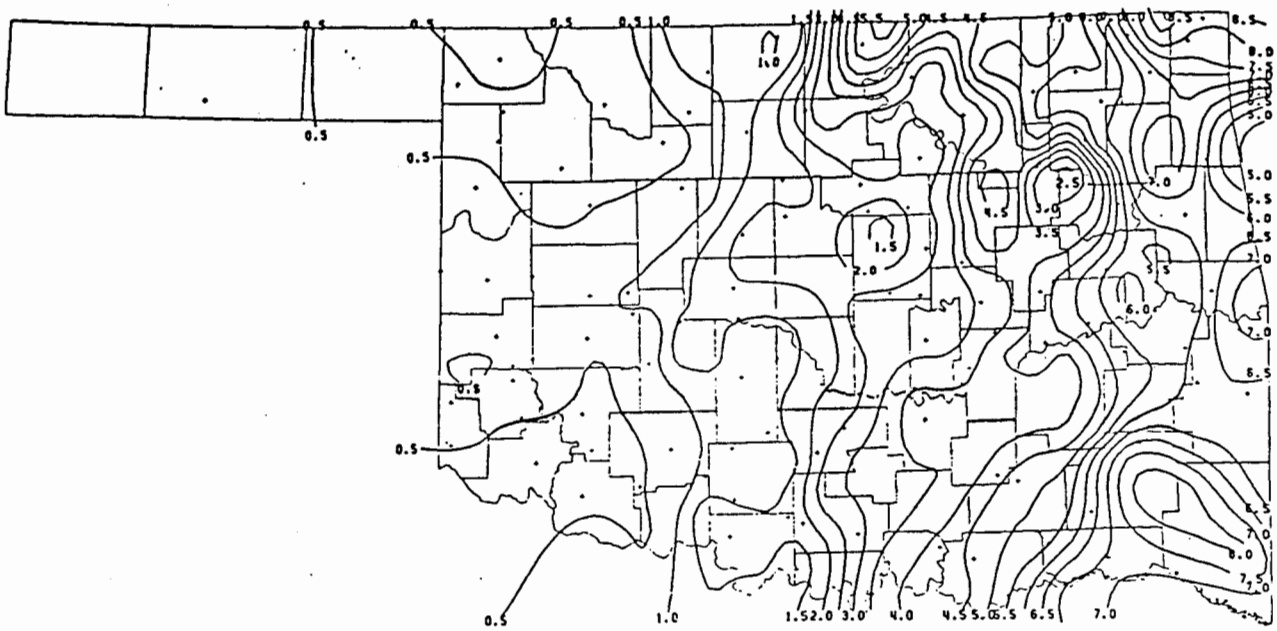
NOVEMBER 1987 DEVIATION FROM NORMAL TEMPERATURES



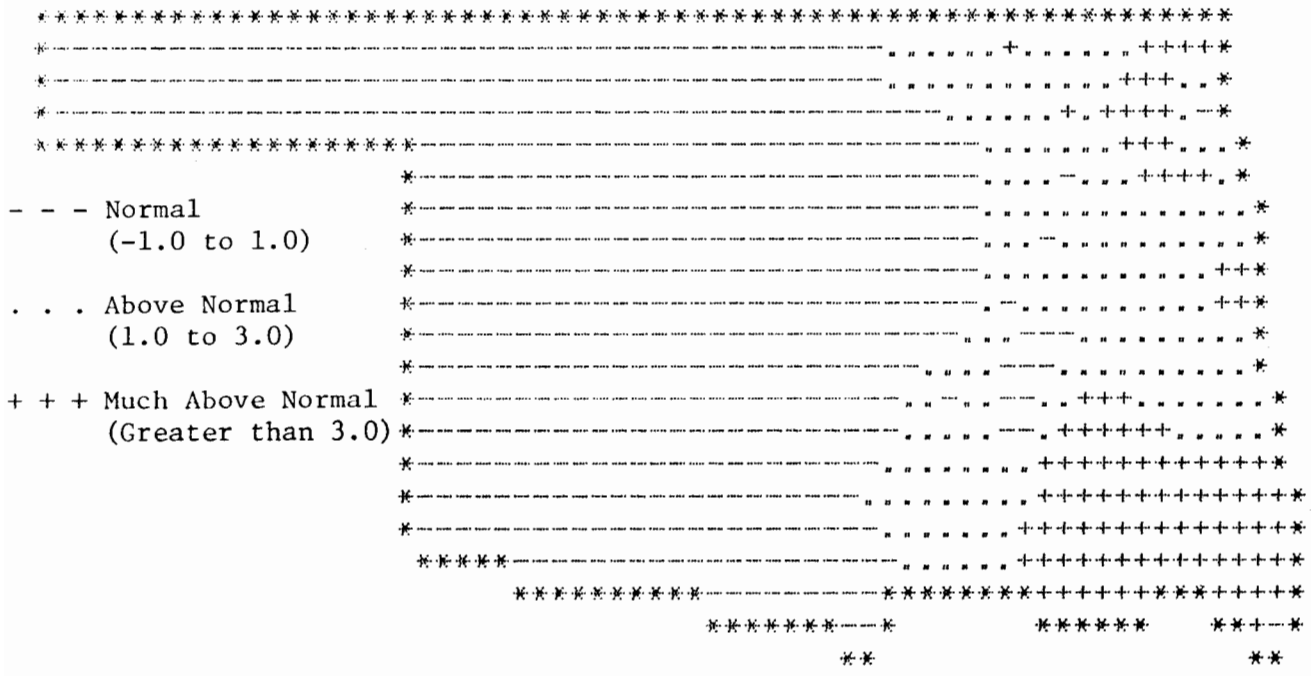
NOVEMBER 1987 TOTAL HEATING DEGREE DAYS



NOVEMBER 1987 DEVIATION FROM NORMAL HEATING DEGREE DAYS



NOVEMBER 1987 TOTAL PRECIPITATION
(Inches)



NOVEMBER 1987 DEVIATION FROM NORMAL PRECIPITATION

More Climate Information

Beginning this month, The Monthly Climate Summary will contain an expanded Climate Atlas for the upcoming month. Complimenting and preceding the familiar Climate Calendar will be the following additional informative graphics:

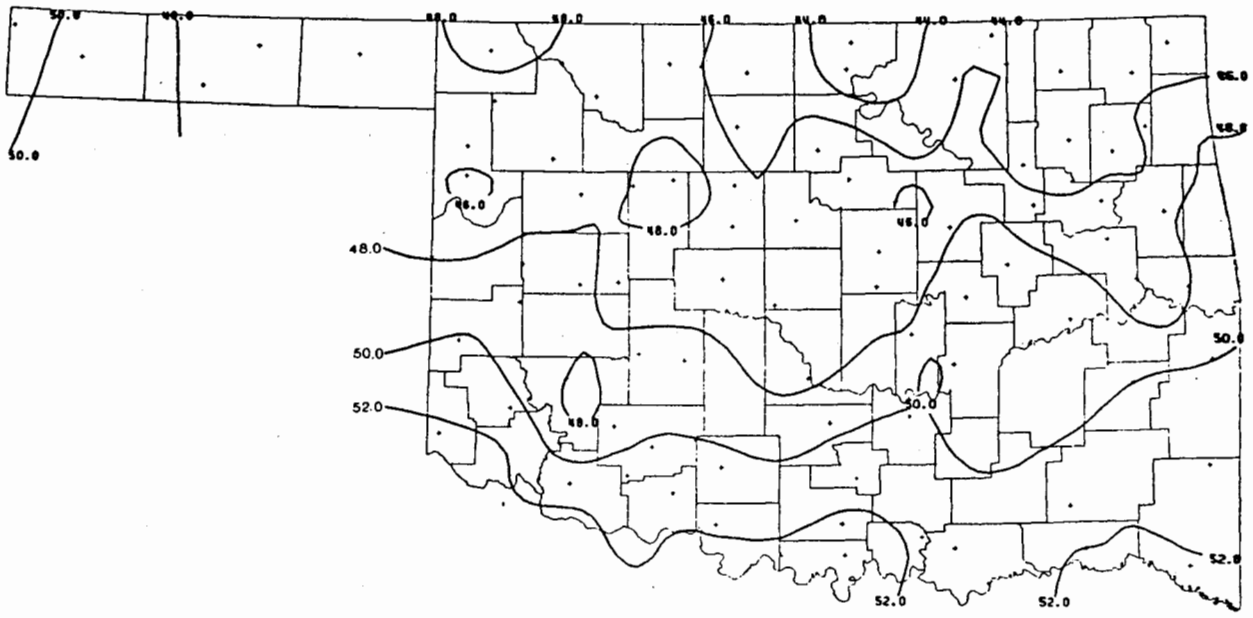
1) 30-year mean monthly maximum temperature map

2) 30-year mean monthly minimum temperature map

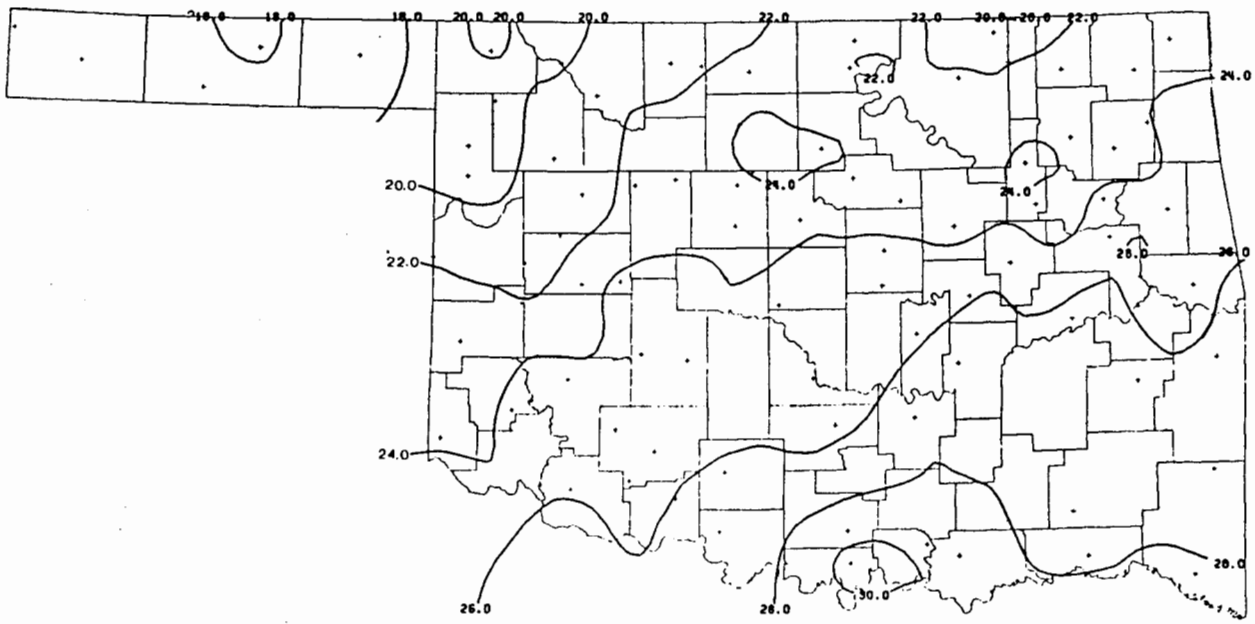
3) 30-year mean monthly precipitation map

4) 10-year mean wind roses (Oklahoma City and Tulsa)

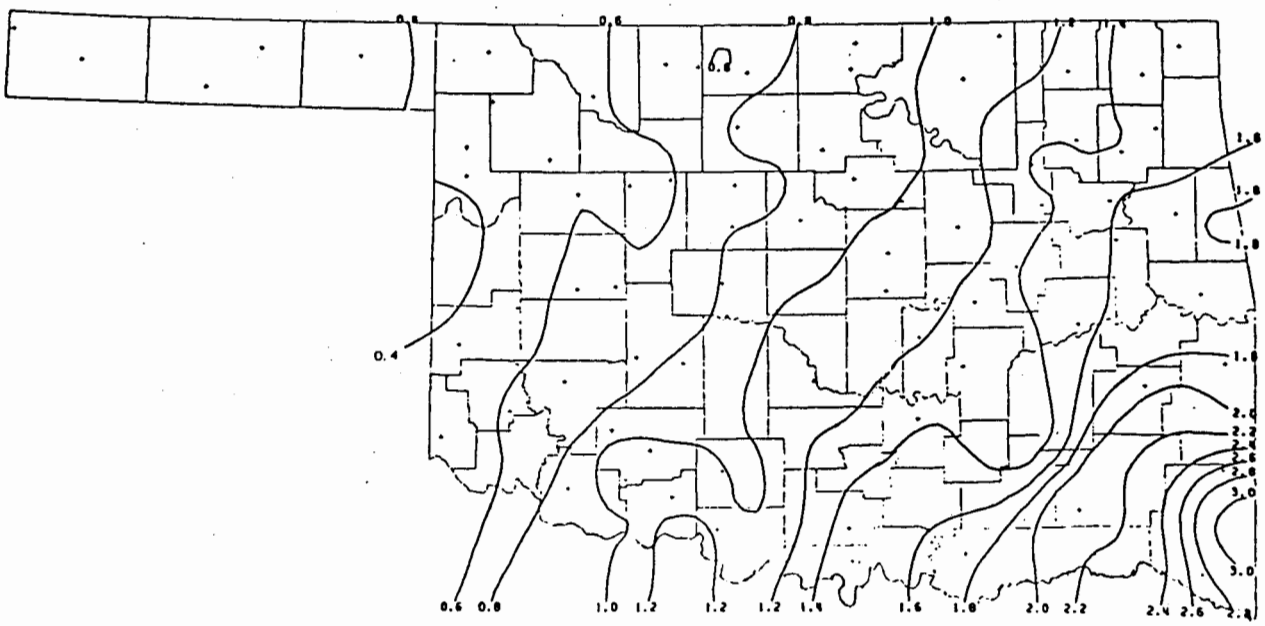
5) A topical feature (this month: 30-year mean monthly snowfall amounts for CD-representative stations).



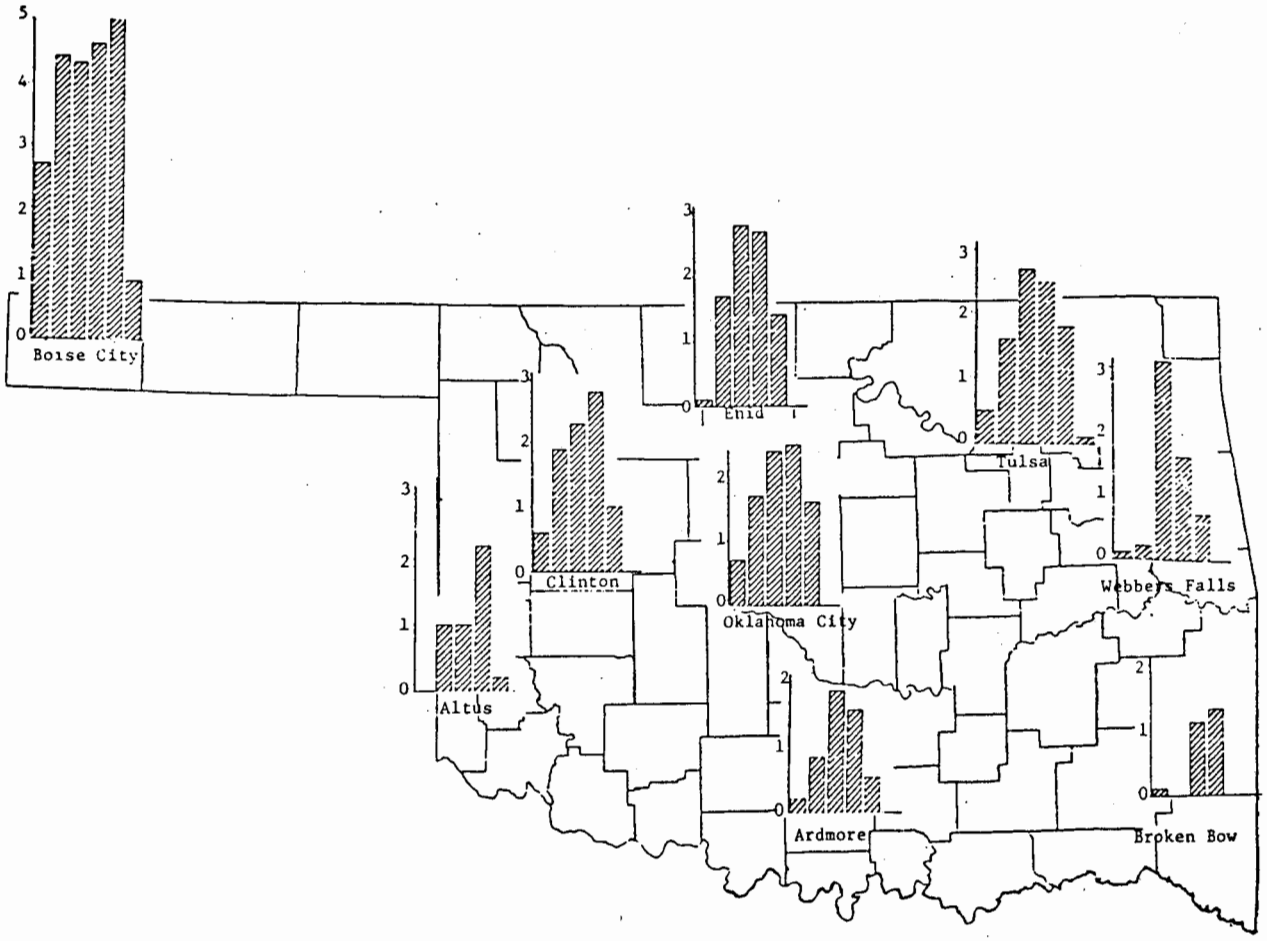
30-YEAR MEAN JANUARY DAILY MAXIMUM TEMPERATURE



30-YEAR MEAN JANUARY DAILY MINIMUM TEMPERATURE

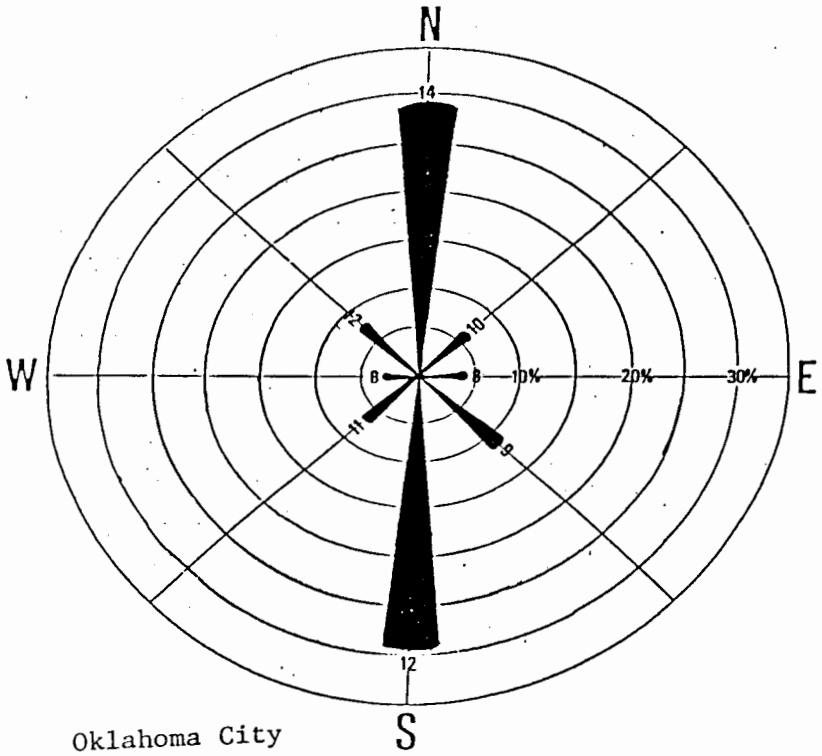


30-YEAR MEAN JANUARY PRECIPITATION

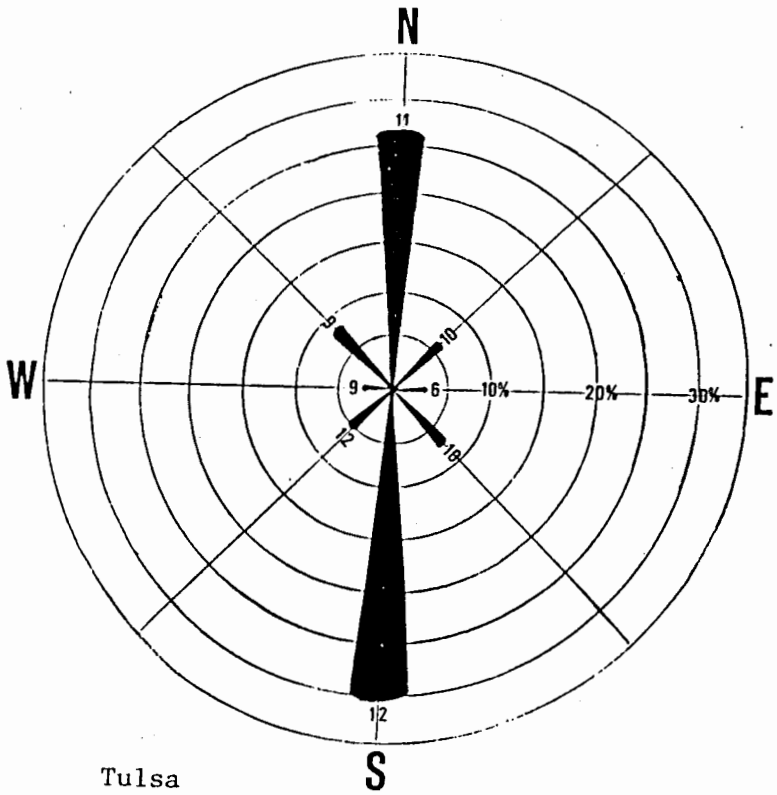


30-YEAR MEAN MONTHLY (NOV-APR) SNOWFALL AMOUNTS FOR ONE STATION PER CLIMATE DIVISION. (BAR 1 = NOVEMBER, BAR 2 = DECEMBER, BAR 3 = JANUARY, ETC.) DEPTHS ARE IN INCHES.

January wind roses for Oklahoma City and Tulsa for 10-year (1965-1974) mean winds*. Percents represent the percentage of winds coming from a direction. The numbers at the end of the bars indicate the average speed of winds from that direction. Graphics by Tim Johnson.



Oklahoma City



Tulsa

*Data adapted from NOAA Airport Climatology Series.