OKLAHOMA MONTHLY SUMMARY APRIL 1989

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APRIL 1989 OKLAHOMA SUMMARY

This month was the driest April in Oklahoma's 98-year climatological history. Precipitation averaged only .52" Statewide, well below the previous record of .88" in 1936 and long term mean of 3.3". Numerous stations broke records for the least April precipitation, (see Table 1), with several recording no rain for the entire month. The dry weather directly affected State agricultural production. The percentage of the State experiencing soil moisture deficits increased from 50% to 90% (topsoil) and 15% to 55% (subsoil). The resulting water stress left 50% of the State's wheat crop in poor or very poor condition. Experts predict a 20-30% bu/planted acre decrease from last year's harvest.

A jet stream track located far to the north prevented organized frontal systems from entering the State for several days. Without these systems, many stations reported only one day of at least .10" of precipitation, 2 to 3 days fewer than typical in April. Oklahoma City recorded its first April since record-keeping began without a thunderstorm. The northerly jet stream allowed warm air from the south and southwest to flow northward into Oklahoma. This warmer air produced a Statewide average monthly mean temperature 2 degrees above normal.

Record-breaking cold air accompanied a strong Canadian high pressure system into the State April 9-12. The coldest air arrived on the 11th, producing a Statewide freeze. On the following morning, the northern one-half of Oklahoma recorded the State's last spring freeze for 1989. Typically, last spring freeze dates range from April 4 to 25 within this region. This system produced snow showers as far south as central Oklahoma on April 9. The Panhandle received the greatest snow accumulations, as much as 2 inches.

An upper level disturbance supported severe thunderstorm development along a western Oklahoma dry line on April 20. Roger Mills County reported golfball-size hail and 60 mph winds. Scattered thunderstorms delivered nearly one-third of an inch of rain to stations in southwest and west central Oklahoma. The dry line redeveloped on several consecutive days along a surface trough over the Texas Panhandle. Although a strong thunderstorm moved over Beckham County on April 25, producing Oklahoma's only reported tornado of the month, the nearly stationary dryline provided very limited precipitation to the rest of the State. The trough finally moved slowly westward across the State. On April 26 north central stations recorded one-fourth to two-thirds of an inch of rain from scattered thunderstorms. The trough developed into a cold front which, on the 29th, kept high temperatures below 80 degrees Statewide for the first time in 8 days. Thunderstorms along the front produced over an inch of rain at many southeastern Oklahoma stations.

- R. J. Sladewski

PERCENT OF MEAN PRECIPITATION
April 1989

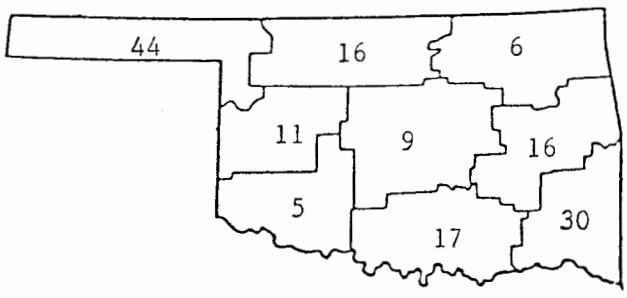


Table 1.

1989 RECORD-BREAKING APRIL PRECIPITATION AMOUNTS
FOR SELECTED OKLAHOMA STATIONS

CD	STATION	APRIL 1989 PRECIPITATION AMOUNT	PREVIOUS RECORD AMOUNT	YEAR OF PREVIOUS RECORD*
2	Perry	.17	.39	1987
3	Tulsa	.34	.51	1950
4	Elk City	T	.04	1987
4	Cordell	T	.02	1987
5	Oklahoma City	.17	.41	1987
7	Mangum	0*	0	1956
7	Hobart	.01	.02	1987
8	Duncan	.32	.35	1987

* Ties Record

T Trace

TABLE OF 1988/1989 COMPARISONS

Station	April Temperatures (F) 1988	1989	April Precipitation (in.) 1988	1989
Arnett	53.5	60.4	3.32	.68
Enid	58.1	62.7	4.46	.60
Mutual	52.7	60.6	3.89	.63
Tulsa	60.1	64.0	3.38	.34
Elk City	57.6	62.8	5.88	.001
Oklahoma City	61.0	63.9	3.05	.17
McAlester	60.0	63.7	2.63	.50
Altus Irr. Sta.	60.6	65.7	2.19	.34
Durant	59.2	63.1	2.19	.66
Ada	60.9	63.0	1.80	.54
Antlers	62.4	64.3	1.44	1.04

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Perry	2	18	11
Maximum temperature (F)	Buffalo	1	105	23
Maximum 24-hour Precipitation	Bear Mt. Tw.	9	2.35"	29

APRIL 1989 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ARNETT	332	1	60.4	28	*****	98.	24	28.	11	212.0	******	82.5	******	.680	30	-1.10	.37	21
BEAVER	593	1	59.5	30	2.5	102.	23	28.	10	247.0	-7.0	83.5	66.5	.161	30	-1.09	.08	10
BOISE CITY 2 E	908	1	57.4	30	3.0	95.	22	20.	10	267.0	-59.0	39.5	31.5	.470	30	-.88	.29	30
BUFFALO	1243	1	64.4	30	4.7	105.	23	26.	11	151.0	-43.0	133.5	98.5	2.270	30	.20	1.30	10
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	.702	30	-1.13	.39	27
GAGE FAA APT	3407	1	61.7	30	4.2	99.	23	31.	11	197.5	-45.5	98.0	80.0	.343	30	-1.51	.23	27
GATE	3489	1	62.6	30	*****	102.	23	28.	9	186.0	******	113.5	******	.253	30	*****	.13	9
GOODWELL RES ST	3628	1	57.1	30	1.2	100.	23	23.	11	296.5	6.5	59.5	42.5	.230	30	-.88	.16	13
GUYMON	3835	1	61.0	24	*****	101.	22	24.	10	163.5	******	68.0	******	.820	29	*****	.37	10
HOOKER	4298	1	58.4	30	2.1	101.	23	25.	10	267.5	-6.5	69.5	56.5	.360	30	-.83	.15	10
KENTON	4766	1	56.0	30	1.6	94.	23	20.	10	310.5	-17.5	42.0	32.0	.882	30	-.41	.65	30
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	.202	30	-1.33	.10	10
OPTIMA LAKE	6740	1	58.8	30	*****	100.	23	25.	11	257.5	******	71.0	******	.320	30	*****	.14	10
RANGE	7412	1	*****	0	*****	****	0	****	0	******	******	******	******	.330	30	*****	.17	9
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	1.103	30	-.01	.89	30
TURPIN 4 SSE	9017	1	57.7	29	*****	101.	24	27.	11	266.0	******	55.0	******	.230	29	*****	.11	10

APRIL 1989 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALVA 1 ENE	194	2	63.0	30	4.1	100.	23	26.	11	165.5	-48.5	105.5	74.5	.900	30	-1.53	.84	27
VANCE AFB	302	2	*****	0	*****	****	0	****	0	******	******	******	******	.173	30	*****	.17	21
BILLINGS	755	2	60.4	30	*****	92.	27	28.	11	215.0	******	76.0	******	.271	30	-2.65	.23	20
BLACKWELL 2E	818	2	60.3	30	*****	91.	26	26.	11	208.5	******	69.0	******	.541	30	*****	.32	19
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	.431	30	*****	.24	21
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	.740	30	*****	.51	27
CHEROKEE	1724	2	63.1	30	3.3	97.	26	30.	11	169.0	-27.0	111.0	71.0	.750	30	-1.80	.75	27
ENID	2912	2	62.7	30	2.3	92.	26	34.	11	171.0	-7.0	101.5	61.5	.600	30	-2.18	.48	21
FT SUPPLY DAM	3304	2	60.0	30	1.0	98.	24	30.	11	232.0	16.0	83.5	47.5	.750	29	*****	.32	27
FREEDOM	3358	2	63.1	30	*****	103.	23	27.	11	175.0	******	117.5	******	.200	30	*****	.12	27
GREAT SALT PLNS	3740	2	61.1	30	*****	96.	27	29.	11	200.0	******	84.0	******	.833	30	-1.82	.61	27
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	.134	30	*****	.10	20
HELENA 1 SSE	4019	2	59.3	30	*****	94.	24	29.	11	245.0	******	75.5	******	.311	30	-2.26	.12	10
JEFFERSON	4573	2	62.4	30	2.8	95.	26	30.	11	177.0	-21.0	98.0	62.0	.601	30	-2.17	.39	26
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	.670	30	*****	.56	21
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	1.482	30	*****	1.20	20
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	.200	30	*****	.10	10
MUTUAL	6139	2	60.6	30	2.4	95.	24	32.	11	213.5	-16.5	80.5	54.5	.630	30	-1.82	.45	27
NEWKIRK	6278	2	61.1	30	1.6	91.	26	31.	11	199.0	-5.0	83.0	44.0	.350	30	-2.60	.15	9
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	.110	30	*****	.08	10
PERRY	7012	2	60.8	30	-.7	93.	27	18.	11	198.0	41.0	73.5	21.5	.170	30	-2.53	.08	14
PONCA CITY FAA	7201	2	62.6	30	4.0	93.	26	33.	11	180.0	-43.0	107.0	76.0	.461	30	-2.44	.30	19
RED ROCK 1 NNE	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	.000	30	-2.79	.00	30
RENFROW	7556	2	*****	0	*****	****	0	****	0	******	******	******	******	.440	30	-2.12	.13	21
WAYNOKA	9404	2	61.7	30	1.4	99.	23	20.	11	197.0	20.0	99.0	63.0	.820	30	-1.36	.67	27
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	.404	30	*****	.25	27

APRIL 1989 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	62.1	30	*****	89.	26	24.	11	183.5	******	96.0	******	.323	30	-2.97	.22	21
BARTLESVILLE ZW	548	3	62.5	30	1.7	92.	22	24.	11	171.0	.0	95.5	50.5	.131	30	-3.19	.12	21
BIXBY	782	3	61.1	30	.5	91.	23	27.	11	205.0	37.0	88.0	52.0	.370	30	-3.54	.37	14
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	.211	30	*****	.12	20
CHELSEA 4 S	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	.151	30	*****	.06	21
CLAREMORE	1828	3	60.0	30	.0	88.	23	26.	12	226.0	39.0	74.5	40.5	.147	30	-3.61	.11	14
CLEVELAND 5 WSW	1902	3	64.4	27	*****	92.	26	29.	11	127.5	******	111.5	******	.000	27	*****	.00	30
FORAKER	3250	3	*****	0	*****	****	0	****	0	******	******	******	******	1.581	30	-1.55	.67	5
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	.140	30	-3.58	.12	19
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	.162	30	-2.96	.12	21
HULAH DAM	4393	3	60.7	20	*****	92.	27	24.	11	153.5	******	66.5	******	.000	30	-3.16	.00	30
JAY TOWER	4567	3	62.5	27	*****	88.	28	26.	11	166.0	******	98.0	******	.500	27	*****	.44	18
KANSAS 1 ESE	4672	3	60.6	30	*****	86.	22	26.	11	198.0	******	65.0	******	.274	30	*****	.20	19
KEYSTONE DAM	4812	3	61.7	27	*****	89.	27	25.	11	173.0	******	84.5	******	.132	27	*****	.08	21
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	.230	30	*****	.12	19
MANNFORD 6 NW	5522	3	64.7	30	*****	94.	26	27.	11	137.5	******	129.0	******	.062	30	-3.23	.06	20
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	.042	30	-2.95	.04	15
MIAMI	5855	3	60.3	30	.2	88.	26	33.	11	216.5	30.5	75.0	36.0	.161	30	-3.56	.14	19
NOWATA	6485	3	61.4	30	1.5	88.	27	30.	11	190.0	-4.0	83.0	42.0	.002	30	-3.50	.00	20
ONETA 1 WNW	6713	3	*****	0	*****	****	0	****	0	******	******	******	******	.740	30	*****	.31	19
PAWHUSKA	6935	3	62.0	30	1.5	91.	26	25.	11	184.0	6.0	93.0	50.0	.266	30	-2.80	.18	20
PAWHUSKA	6937	3	*****	0	*****	****	0	****	0	******	******	******	******	.184	30	*****	.18	21
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	.070	30	-2.90	.05	12
PRYOR 6 N	7309	3	58.9	29	-1.1	87.	22	26.	12	240.0	44.0	63.5	17.5	.033	30	-3.87	.03	20
QUAPAW	7358	3	*****	0	*****	****	0	****	0	******	******	******	******	.250	30	-3.73	.15	14
RALSTON	7390	3	63.8	30	*****	93.	26	25.	11	150.5	******	115.0	******	.231	30	-2.74	.10	21
RAMONA 4 N	7394	3	*****	0	*****	****	0	****	0	******	******	******	******	.041	30	*****	.04	21
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	******	******	******	******	.300	30	-3.17	.19	20
SPAVINAW	8380	3	62.1	30	*****	86.	23	29.	11	181.0	******	94.0	******	.061	30	-4.02	.06	15
TULSA WSO APT	8992	3	64.0	30	3.1	89.	22	34.	11	144.5	-23.5	114.0	69.0	.344	30	-3.81	.14	21
UPPER SPAVINAW	9101	3	64.8	30	*****	95.	22	28.	11	141.0	******	136.0	******	.512	30	*****	.38	14
VINITA 2 N	9203	3	61.4	28	*****	87.	23	25.	11	182.5	******	83.0	******	.290	30	-3.78	.29	19
WAGONER	9247	3	62.9	30	1.3	89.	22	31.	11	166.5	16.5	102.5	54.5	.313	30	-4.36	.11	19
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	.170	30	*****	.09	21

APRIL 1989 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
CANTON DAM	1445	4	60.0	28	*****	93.	24	28.	11	216.0	******	75.0	******	.153	28	*****	.08	26
CHEYENNE	1738	4	*****	0	*****	****	0	****	0	******	******	******	******	.301	30	*****	.30	26
CLINTON	1909	4	64.5	30	3.9	96.	23	29.	11	134.5	-44.5	120.0	73.0	.390	30	-2.00	.39	26
COLONY	2039	4	*****	0	*****	****	0	****	0	******	******	******	******	.000	30	*****	.00	30
CORDELL	2125	4	*****	0	*****	****	0	****	0	******	******	******	******	.001	30	-2.19	.00	14
ELK CITY 1 E	2849	4	62.5	30	*****	96.	23	29.	11	162.5	******	87.5	******	.001	30	-2.21	.00	26
ERICK 4 E	2944	4	63.3	30	2.9	100.	23	30.	11	148.0	-30.0	97.5	57.5	.001	30	-2.20	.00	26
GEARY	3497	4	61.9	27	*****	89.	23	30.	11	165.5	******	80.5	******	.230	27	*****	.23	26
HAMMON 1 NNE	3871	4	60.5	30	.2	98.	24	28.	11	219.0	36.0	82.5	40.5	.450	30	-1.77	.45	26
LEEDEY	5090	4	*****	0	*****	****	0	****	0	******	******	******	******	.001	30	-2.50	.00	23
MACKIE 4 NNW	5463	4	*****	0	*****	****	0	****	0	******	******	******	******	1.300	30	*****	.91	27
MORAVIA 2 NNE	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	.001	30	-2.09	.00	27
OKEENE	6629	4	62.5	30	1.5	94.	25	30.	12	175.0	7.0	100.5	52.5	.400	30	-1.93	.20	11
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	.000	30	*****	.00	30
REYDON	7579	4	62.9	30	*****	101.	23	29.	10	172.0	******	110.0	******	.930	30	-1.34	.75	27
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	.001	30	-2.05	.00	26
SWEETWATER 2 E	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	.880	30	*****	.88	25
TALOGA	8708	4	62.0	30	2.8	95.	23	27.	11	165.5	-35.5	77.0	47.0	.060	30	-2.38	.06	10
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	.450	30	*****	.45	26
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	.590	30	*****	.39	27
WATONGA	9364	4	62.7	30	*****	93.	23	32.	11	176.0	******	107.0	******	.152	30	-2.27	.08	10
WEATHERFORD	9422	4	61.3	30	.5	94.	25	30.	11	188.0	20.0	76.5	34.5	.270	30	-1.96	.22	26

APRIL 1989 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	*****	0	*****	****	0	****	0	******	******	******	******	.100	30	*****	.10	14
ARCADIA	288	5	*****	0	*****	****	0	****	0	******	******	******	******	.130	30	*****	.08	10
TINKER AFB	325	5	*****	0	*****	****	0	****	0	******	******	******	******	.381	30	*****	.25	10
BLANCHARD 2 SSW	830	5	63.8	30	*****	89.	26	33.	11	137.5	******	101.0	******	.182	30	*****	.18	14
BRISTOW	1144	5	63.4	30	1.5	89.	26	26.	11	153.0	-3.0	106.0	43.0	.470	30	-3.08	.22	19
CHANDLER	1684	5	63.4	29	1.4	90.	26	30.	11	143.0	2.0	98.0	47.0	.252	29	*****	.15	14
CHICKASHA EX ST	1750	5	63.8	30	1.5	92.	23	28.	11	148.5	6.5	112.5	51.5	.270	30	-2.57	.27	14
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	.000	30	*****	.00	30
CUSHING	2318	5	61.5	30	1.0	90.	27	31.	12	195.5	26.5	89.0	58.0	.171	30	-3.01	.17	21
EL RENO 1 N	2818	5	63.1	30	2.6	90.	26	31.	11	155.5	-22.5	98.5	55.5	.130	30	-2.45	.08	14
GUTHRIE	3821	5	65.3	30	4.1	97.	25	31.	11	123.5	-40.5	132.0	82.0	.140	30	-2.46	.06	21
HENNESSEY 2 SE	4055	5	61.1	30	.9	91.	26	29.	11	200.5	16.5	83.0	43.0	.092	30	-2.29	.09	10
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	.201	30	*****	.10	10
KINGFISHER 2 SE	4861	5	62.2	30	1.4	91.	26	29.	11	180.5	6.5	95.5	47.5	.051	30	-2.37	.05	10
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	.571	30	-3.55	.44	14
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	.300	30	-2.08	.30	21
MEEKER 4 W	5779	5	63.2	29	1.9	89.	26	29.	11	150.5	-7.5	97.5	50.5	.160	29	*****	.16	14
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	.080	30	*****	.08	10
NORMAN 3 S	6386	5	64.3	30	*****	92.	26	28.	11	134.5	******	113.5	******	.361	30	-2.94	.32	14
OILTON 2 SE	6616	5	*****	0	*****	****	0	****	0	******	******	******	******	.040	30	*****	.02	15
OKEMAH	6638	5	63.3	30	1.5	88.	22	31.	11	146.5	10.5	95.0	55.0	.452	30	-3.73	.15	14
OKLAHOMA CITY WS	6661	5	63.9	30	3.7	90.	26	32.	11	136.5	-47.5	103.0	63.0	.171	30	-2.74	.10	10
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	.210	30	-2.43	.11	21
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	.151	30	*****	.08	10
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	.600	30	-3.27	.44	14
PURCELL 5 SW	7327	5	63.1	30	1.4	88.	26	24.	11	153.5	-.5	95.5	40.5	.650	30	-2.72	.65	14
SEMINOLE	8042	5	65.4	30	2.2	89.	26	27.	11	117.0	-15.0	129.5	51.5	.340	30	-3.75	.22	14
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	.680	30	-3.19	.55	14
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	.390	30	*****	.33	14
STILLWATER 2 W	8501	5	60.0	30	-.4	91.	27	27.	11	229.5	46.5	81.0	36.0	.171	30	-2.41	.10	21
STROUD 1 N	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	.272	30	*****	.10	14
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	.481	30	*****	.48	13
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	******	******	******	******	.420	30	*****	.42	14
UNION CITY 1 SE	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	.001	30	-3.33	.00	14
WELTY 1 SSE	9479	5	*****	0	*****	****	0	****	0	******	******	******	******	.400	30	*****	.35	13
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	.750	30	-3.02	.36	14

APRIL 1989 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.180	30	*****	.60	15
BEGGS	631	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.100	30	*****	1.10	19
BOYNTON	1027	6	*****	0	*****	****		0 ****	0	******	******	******	******	.410	30	*****	.18	15
CALVIN	1391	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.091	30	-3.34	.72	19
CHECOTAH	1711	6	*****	0	*****	****		0 ****	0	******	******	******	******	.442	30	-4.15	.21	15
DEWAR 2 NE	2485	6	*****	0	*****	****		0 ****	0	******	******	******	******	.230	30	-4.05	.16	19
DUSTIN	2690	6	*****	0	*****	****		0 ****	0	******	******	******	******	.420	30	*****	.22	14
EUFAULA	2993	6	63.2	30	*****	87.	22	30.	11	158.5	******	104.5	******	2.040	30	-2.64	1.30	19
HANNA	3884	6	62.9	30	*****	88.	22	24.	11	162.0	******	98.0	******	.571	30	-3.87	.36	15
HARTSHORNE	3946	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.230	30	*****	.34	19
HASKELL	3956	6	*****	0	*****	****		0 ****	0	******	******	******	******	.272	30	-3.84	.18	14
HOLDENVILLE	4235	6	63.3	30	1.1	86.	28	27.	11	146.0	15.0	95.5	48.5	.870	30	-3.50	.30	19
LAKE EUFAULA	4975	6	62.4	30	*****	89.	24	33.	11	179.5	******	102.0	******	.840	30	*****	.40	15
LYONS 2 N	5437	6	*****	0	*****	****		0 ****	0	******	******	******	******	.202	30	-4.53	.10	29
MARBLE CITY	5546	6	*****	0	*****	****		0 ****	0	******	******	******	******	.053	30	*****	.05	11
MCALESTER FAA	5664	6	63.7	30	1.8	88.	28	28.	11	146.5	2.5	106.0	55.0	.500	30	-4.04	.17	15
MCCURTAIN 1 SE	5693	6	64.3	30	*****	90.	22	25.	11	153.5	******	134.0	******	1.171	30	-3.60	.40	15
MUSKOGEE	6130	6	63.3	30	1.3	88.	23	28.	11	155.5	17.5	106.0	58.0	.770	30	-3.81	.54	18
OKMULGEE W W	6670	6	60.9	28	*****	89.	23	26.	11	184.0	******	68.0	******	.402	28	*****	.26	14
OKTAHA 2 NE	6678	6	*****	0	*****	****		0 ****	0	******	******	******	******	.720	30	*****	.49	19
QUINTON	7372	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.611	30	-2.72	.51	29
SALLISAW 2 NE	7862	6	62.5	30	.3	89.	28	24.	11	158.0	28.0	84.5	38.5	.551	30	-3.92	.35	30
SCIPIO	7979	6	*****	0	*****	****		0 ****	0	******	******	******	******	.830	30	*****	.40	15
SCRAPER	7993	6	*****	0	*****	****		0 ****	0	******	******	******	******	.060	30	*****	.06	14
SHORT	8170	6	*****	0	*****	****		0 ****	0	******	******	******	******	1.160	30	*****	1.16	19
STILWELL 1 NE	8506	6	61.2	30	*****	87.	28	24.	11	194.5	******	80.0	******	.241	30	-4.47	.09	15
TAHLEQUAH	8677	6	62.6	30	1.5	88.	23	24.	11	167.0	4.0	96.0	50.0	.261	30	-4.30	.09	10
WEBBERS FALLS	9445	6	61.3	30	.7	89.	28	27.	11	202.5	31.5	92.0	53.0	.770	30	-3.83	.32	15
WESTVILLE	9523	6	*****	0	*****	****		0 ****	0	******	******	******	******	.240	30	*****	.19	19
WETUMKA 3 NE	9571	6	*****	0	*****	****		0 ****	0	******	******	******	******	.470	30	-3.90	.23	14

APRIL 1989 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS IRR STA	179	7	65.7	30	2.4	101.	23	27.	11	106.0	-18.0	125.5	52.5	.340	30	-1.69	.33	21
ALTUS DAM	184	7	63.9	30	*****	97.	24	37.	11	160.5	******	128.5	******	.000	30	-1.98	.00	30
ANADARKO	224	7	62.3	25	*****	96.	23	23.	11	143.0	******	76.5	******	.070	30	-2.52	.07	14
APACHE	260	7	*****	0	*****	****		0 ****	0	******	******	******	******	.170	30	*****	.17	14
ALTUS AFB	447	7	*****	0	*****	****		0 ****	0	******	******	******	******	.023	30	*****	.01	14
CARNEGIE 2 ENE	1504	7	64.0	30	2.2	95.	23	30.	11	143.0	-7.0	113.5	59.5	.020	30	-2.40	.02	14
CHATTANOOGA	1706	7	64.4	30	1.6	94.	23	27.	11	121.5	-7.5	103.0	40.0	.150	30	-2.33	.09	14
DUNCAN 12 W	2668	7	*****	0	*****	****		0 ****	0	******	******	******	******	.110	30	*****	.08	14
FREDERICK	3353	7	64.6	30	.2	96.	24	32.	11	137.0	32.0	125.0	38.0	.190	30	-2.13	.13	13
GRANDFIELD 4 NW	3709	7	*****	0	*****	****		0 ****	0	******	******	******	******	.220	30	-2.20	.13	13
HOBART FAA APT	4204	7	63.7	30	3.4	98.	23	29.	11	149.0	-31.0	110.0	71.0	.011	30	-2.23	.01	14
HOLLIS	4249	7	65.1	30	1.9	99.	24	28.	12	116.5	-5.5	118.0	50.0	.501	30	-1.70	.26	20
LAWTON	5063	7	63.9	30	1.2	92.	23	32.	10	139.5	12.5	106.0	48.0	.102	30	-2.31	.10	13
FORT SILL	5068	7	64.9	30	*****	92.	23	35.	11	117.5	******	115.0	******	.065	30	-2.35	.06	13
LOOKEBA 2 ENE	5329	7	*****	0	*****	****		0 ****	0	******	******	******	******	.070	30	*****	.05	14
MANGUM RES STA	5509	7	65.6	30	2.9	99.	22	28.	11	126.5	-13.5	145.5	74.5	.000	30	-1.89	.00	30
RANDLETT 9 E	7403	7	*****	0	*****	****		0 ****	0	******	******	******	******	.360	30	*****	.23	14
ROOSEVELT	7727	7	*****	0	*****	****		0 ****	0	******	******	******	******	.000	30	-2.25	.00	30
SEDAN	8016	7	*****	0	*****	****		0 ****	0	******	******	******	******	.002	30	*****	.00	15
SNYDER	8299	7	*****	0	*****	****		0 ****	0	******	******	******	******	.110	30	-1.94	.04	14
VINSON 3 WNW	9212	7	*****	0	*****	****		0 ****	0	******	******	******	******	.002	30	-2.07	.00	14
WALTERS	9278	7	64.5	30	.9	92.	24	30.	11	123.5	-.5	109.0	27.0	.172	30	-2.66	.17	14
WICHITA MT WLR	9629	7	64.4	30	2.6	95.	24	26.	11	137.0	-11.0	119.0	67.0	.161	30	-2.29	.10	14
WILLOW	9668	7	*****	0	*****	****		0 ****	0	******	******	******	******	.000	30	*****	.00	30

APRIL 1989 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

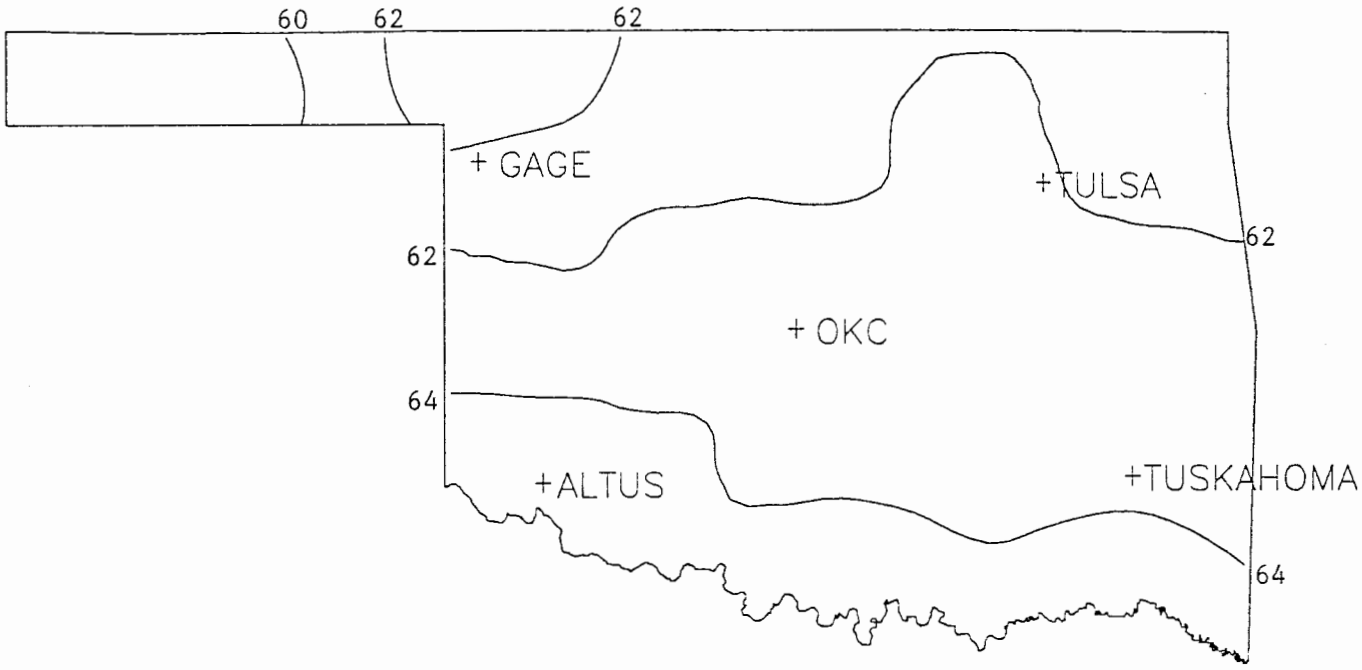
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ADA	17	8	63.3	30	.8	86.	28	32.	11	136.5	5.5	84.5	28.5	.541	30	-3.23	.54	14
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	.700	30	*****	.70	13
ARDMORE	292	8	64.9	30	-.3	89.	17	33.	11	119.0	38.0	115.5	28.5	.651	30	-3.22	.65	13
ATOKA DAM	394	8	63.5	30	*****	89.	4	30.	11	153.0	******	107.0	******	.500	30	*****	.50	14
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	1.200	30	*****	1.20	14
CANEY	1437	8	65.9	30	*****	91.	3	31.	11	94.5	******	121.0	******	1.470	30	*****	.87	30
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	******	******	******	******	.750	30	*****	.35	13
CHICKASAW NRA	1745	8	62.4	30	*****	88.	29	29.	11	167.0	******	88.0	******	.510	30	*****	.45	14
COLEMAN	2011	8	*****	0	*****	****	0	****	0	******	******	******	******	.670	30	*****	.55	14
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	.231	30	*****	.23	14
DAISY 4 ENE	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	1.680	30	-3.75	.51	30
DUNCAN	2660	8	63.1	30	-.6	89.	23	32.	11	148.5	36.5	90.5	17.5	.320	30	-2.39	.25	14
DURANT USDA	2678	8	63.1	30	*****	89.	4	36.	10	148.5	******	91.0	******	.660	30	-3.88	.62	14
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	.350	30	*****	.35	14
FARRIS 3 WNW	3083	8	*****	0	*****	****	0	****	0	******	******	******	******	.890	30	*****	.38	14
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	.930	30	*****	.91	14
HEALDTON	4001	8	64.5	30	*****	88.	28	25.	11	129.0	******	113.5	******	.550	30	-2.90	.52	14
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	.300	30	*****	.30	13
KETCHUM RANCH	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	.181	30	*****	.13	14
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	.670	30	-3.43	.57	13
LEHIGH	5108	8	*****	0	*****	****	0	****	0	******	******	******	******	1.251	30	*****	.75	14
LINDSAY 2 W	5216	8	63.5	29	*****	88.	26	24.	11	142.5	******	99.5	******	.381	30	-2.93	.38	14
LOCO 6 SE	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	.510	30	*****	.51	14
MARIETTA	5563	8	65.7	30	2.2	90.	28	30.	11	107.5	-2.5	127.5	62.5	.450	30	-3.35	.40	14
MARLOW 1 WSW	5581	8	64.3	30	*****	89.	26	29.	11	125.0	******	102.5	******	.150	30	-2.53	.15	14
MCGEE CREEK DAM	5713	8	63.6	30	*****	91.	29	27.	11	144.5	******	103.5	******	.630	30	*****	.38	14
OSWALT	6787	8	*****	0	*****	****	0	****	0	******	******	******	******	.000	30	*****	.00	30
PAULS VALLEY	6926	8	64.8	30	1.5	89.	26	26.	11	125.5	7.5	120.0	53.0	.400	30	-3.10	.33	14
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	.650	30	-3.44	.65	14
TISHOMINGO NWLR	8884	8	64.9	28	*****	92.	3	25.	11	111.5	******	107.5	******	.780	30	-3.83	.67	14
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	.260	30	*****	.26	14
WAURIKA	9395	8	65.8	30	1.3	92.	21	29.	11	113.5	9.5	137.0	48.0	.501	30	-2.46	.50	14
WAURIKA DAM	9399	8	63.3	29	*****	90.	23	28.	11	149.5	******	99.0	******	.400	29	*****	.35	14

APRIL 1989 SUMMARY FOR SOUTHEAST DIVISION (CD9)

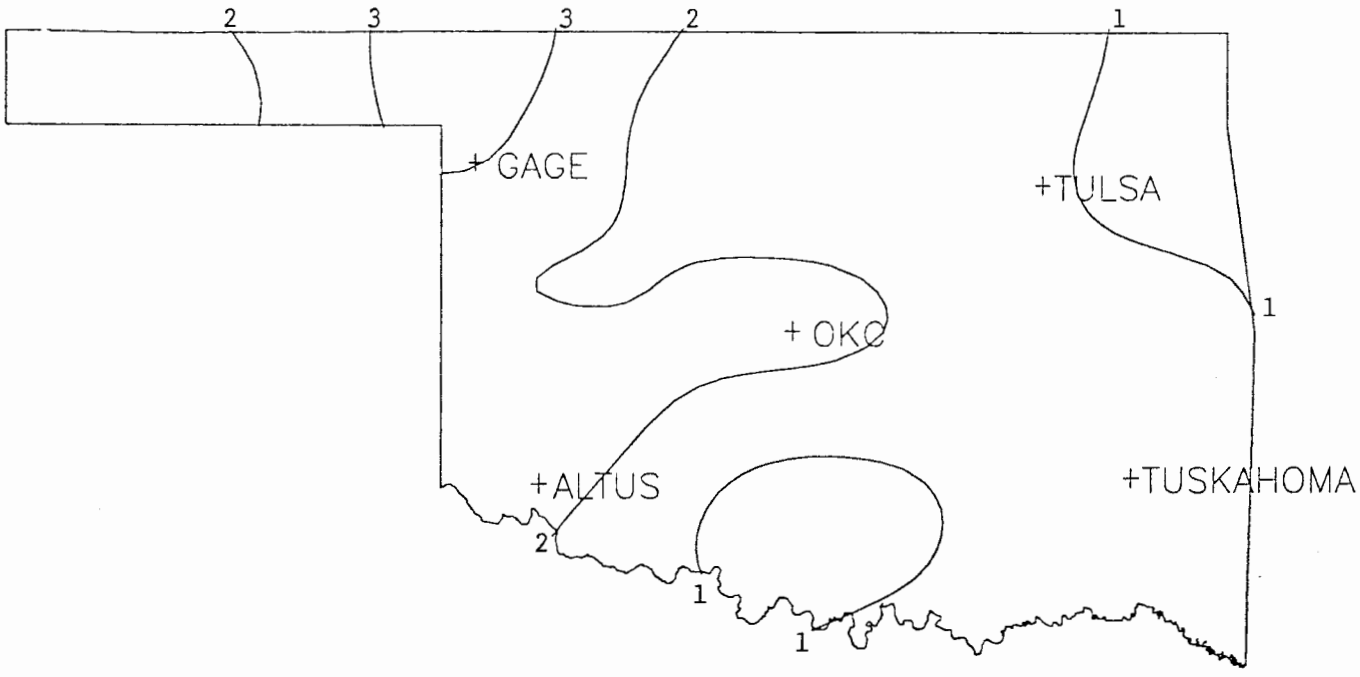
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ANTLERS	256	9	64.1	30	1.5	91.	3	25.	11	134.5	13.5	106.5	57.5	1.040	30	-4.07	.61	14
BATTIEST 1 SSW	567	9	62.2	30	*****	88.	3	23.	11	160.5	******	75.5	******	4.012	30	*****	1.43	30
BEAR MT TWR	584	9	63.5	30	*****	89.	3	29.	11	140.0	******	94.5	******	4.320	30	-.78	2.35	29
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	2.310	30	*****	.86	29
BOSWELL 4 NNW	980	9	65.5	30	*****	90.	28	28.	11	106.0	******	122.0	******	.912	30	-3.66	.58	14
BROKEN BOW 1 N	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	3.300	30	-2.03	1.22	29
BROKEN BOW DAM	1168	9	61.9	30	*****	92.	4	26.	11	165.5	******	73.5	******	3.030	30	*****	1.42	19
CARNASAW TWR	1499	9	*****	0	*****	****	0	****	0	******	******	******	******	2.450	30	-3.03	1.07	19
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	3.430	30	-1.83	1.62	19
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	.980	30	-4.02	.44	15
HEAVENER 1 SE	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	1.660	30	-3.27	.58	30
HEE MT TWR	4017	9	*****	0	*****	****	0	****	0	******	******	******	******	2.150	30	*****	.65	30
HUGO	4384	9	65.2	30	1.1	89.	28	30.	11	108.5	14.5	113.5	46.5	2.031	30	-2.69	1.09	29
IDABEL	4451	9	62.8	30	-.4	90.	4	28.	12	155.5	47.5	91.0	37.0	2.520	30	-2.88	1.00	29
JADIE TOWER	4560	9	*****	0	*****	****	0	****	0	******	******	******	******	2.520	30	*****	1.45	19
POTEAU W W	7254	9	62.2	30	*****	90.	22	28.	11	166.0	******	81.0	******	1.871	30	*****	1.04	28
SMITHVILLE 1 W	8285	9	59.9	30	*****	88.	3	19.	11	199.0	******	45.5	******	2.681	30	*****	1.32	30
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	.480	30	-4.14	.32	15
TUSKAHOMA	9023	9	63.8	30	*****	89.	29	22.	11	142.5	******	106.0	******	1.890	30	*****	.62	19
VALLIANT 3 W	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	2.421	30	-2.58	1.59	29

APRIL 1989 CLIMATE DIVISION SUMMARY

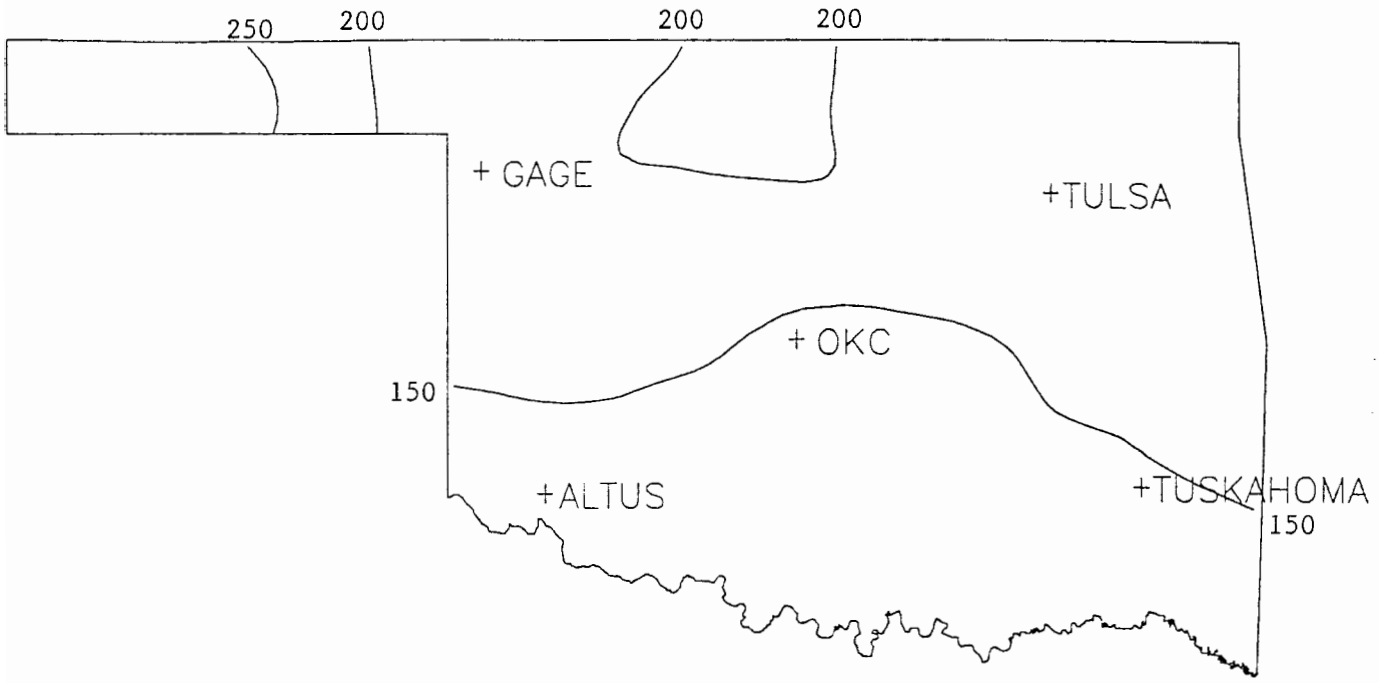
CLIMATE DIV	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEGREE DAYS	DEV FROM NORM	COOL DEGREE DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	59.4	10	2.8	105.0	23	20.0	10	244.6	-25.0	76.5	59.3	.59	14	-.89	1.30	10
2	61.5	15	1.9	103.0	23	18.0	11	196.4	-2.9	91.0	54.3	.49	25	-2.10	1.20	20
3	62.1	15	1.8	95.0	22	24.0	11	182.3	1.4	94.9	55.3	.25	31	-3.31	.67	5
4	62.5	9	2.1	101.0	23	27.0	11	171.2	-9.0	95.4	53.3	.31	20	-1.98	.91	27
5	63.2	16	1.9	97.0	25	24.0	11	156.6	-4.5	101.9	52.5	.29	34	-2.93	.65	14
6	62.8	11	1.0	90.0	22	24.0	11	165.8	21.8	99.9	53.1	.70	29	-3.80	1.30	19
7	64.6	12	2.0	101.0	23	23.0	11	131.5	-4.1	118.2	54.6	.12	24	-2.18	.33	21
8	64.1	15	.3	92.0	21	24.0	11	133.6	24.3	106.7	33.8	.62	32	-3.16	1.20	14
9	63.1	10	-.2	92.0	4	19.0	11	147.8	40.1	90.9	34.2	2.30	20	-2.74	2.35	29



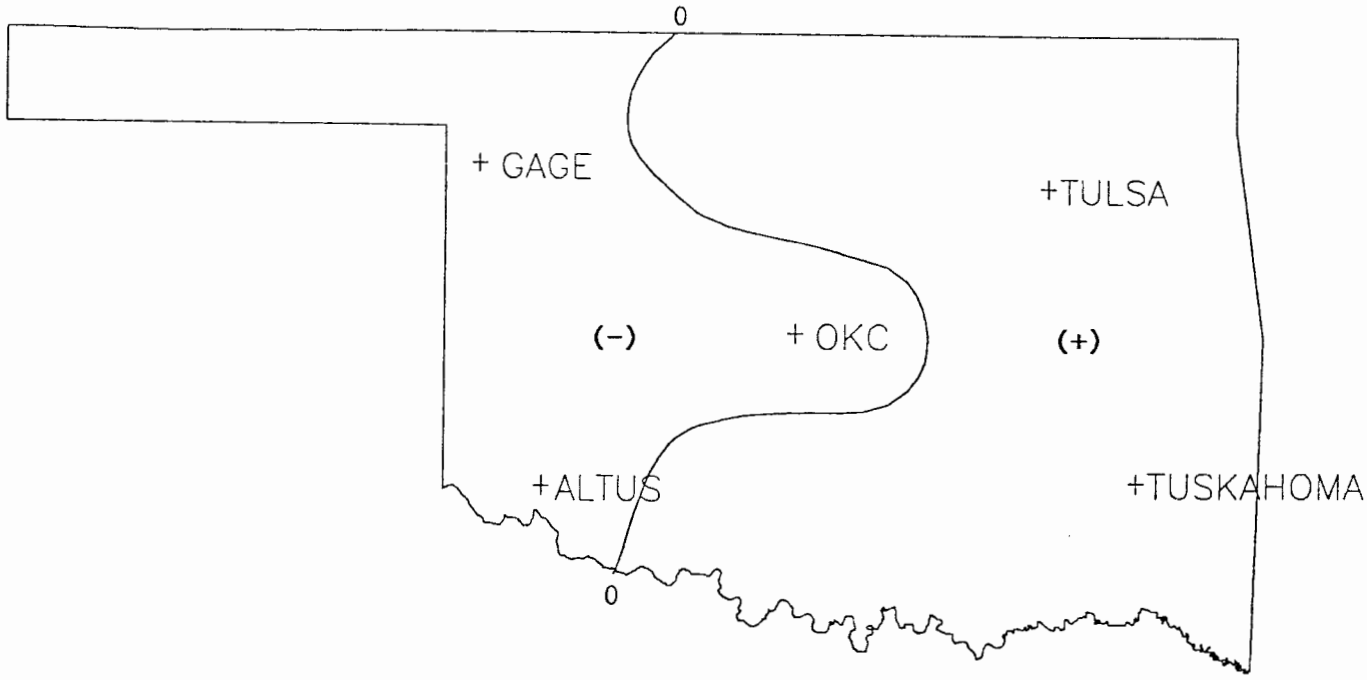
APRIL 1989 AVERAGE MONTHLY TEMPERATURE
(Degrees F)



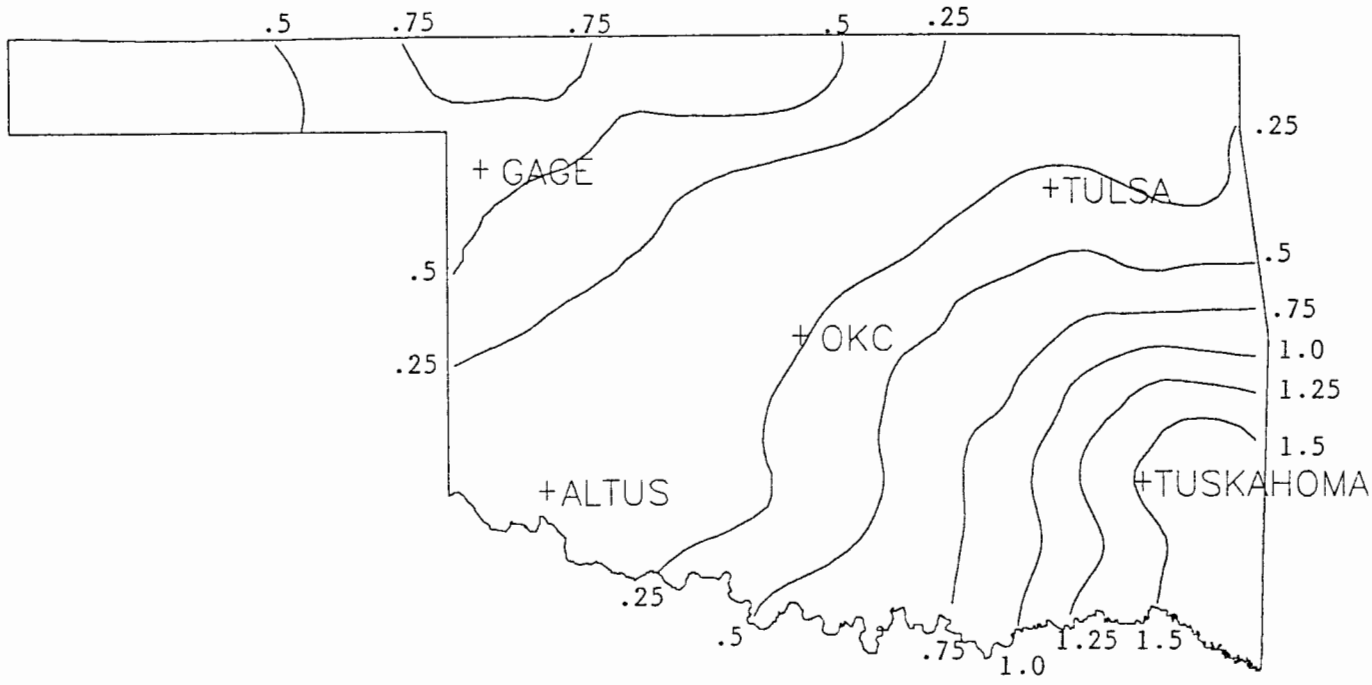
APRIL 1989 DEVIATION FROM NORMAL TEMPERATURE
(Degrees F)



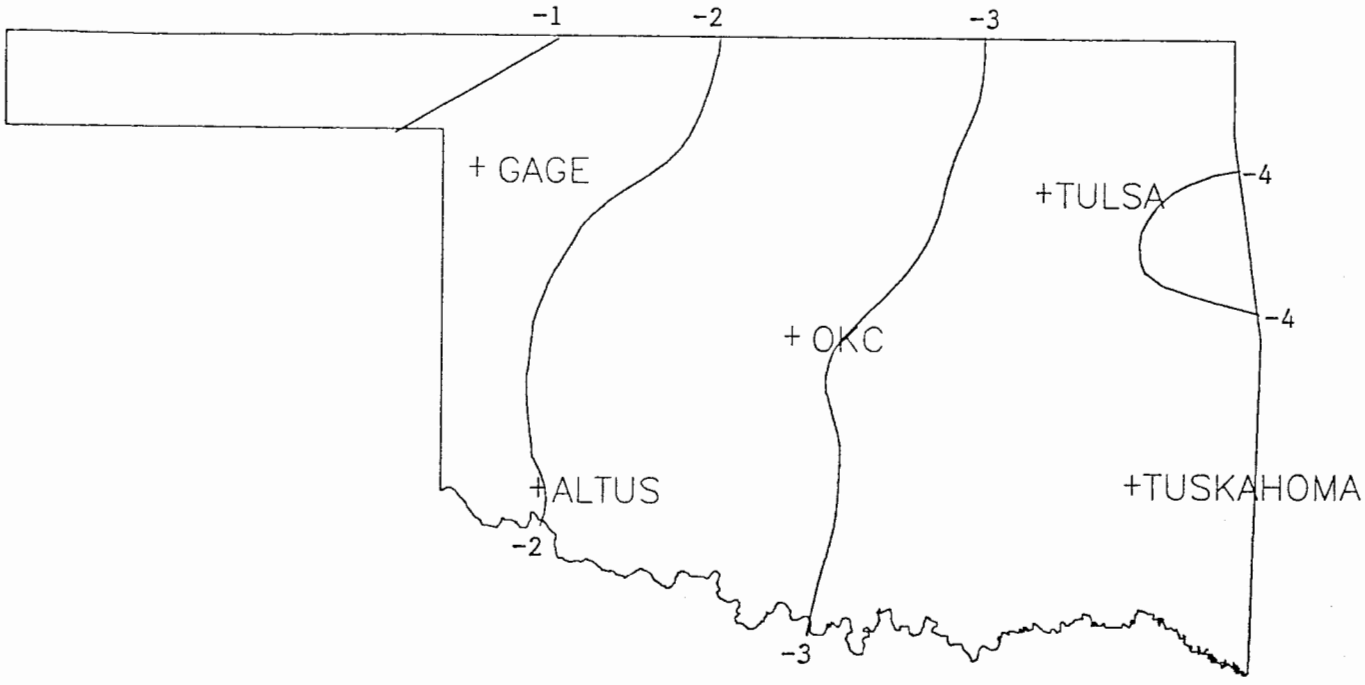
APRIL 1989 TOTAL HEATING DEGREE DAYS



APRIL 1989 DEVIATION FROM NORMAL HEATING DEGREE DAYS

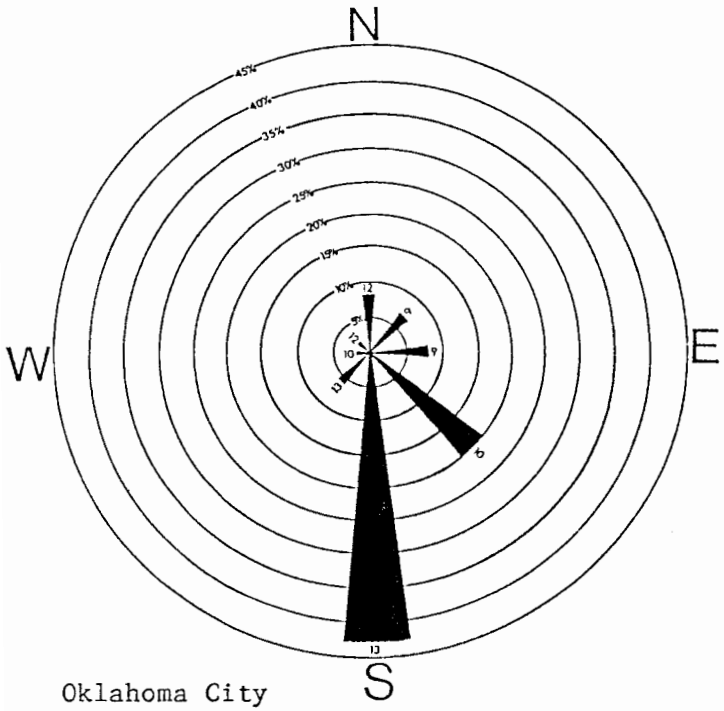


APRIL 1989 TOTAL PRECIPITATION
(Inches)

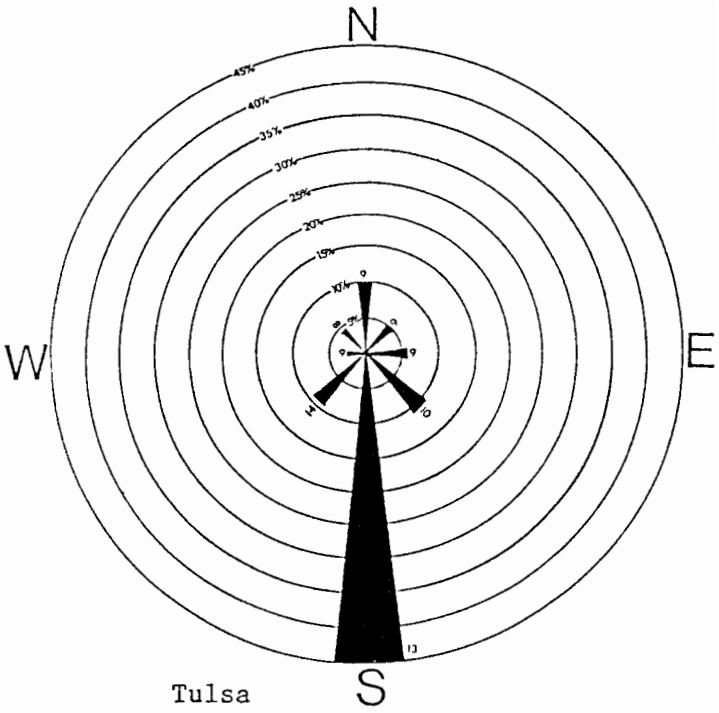


APRIL 1989 DEVIATION FROM NORMAL PRECIPITATION
(Inches)

June wind roses for Oklahoma City and Tulsa for 10-year (1965-1974) mean winds (data adapted from NOAA Airport Climatology Series). Percents represent the percentage for winds coming from a direction. The numbers at the end of the bars indicate the average speed (miles per hour) of winds from that direction.



Oklahoma City

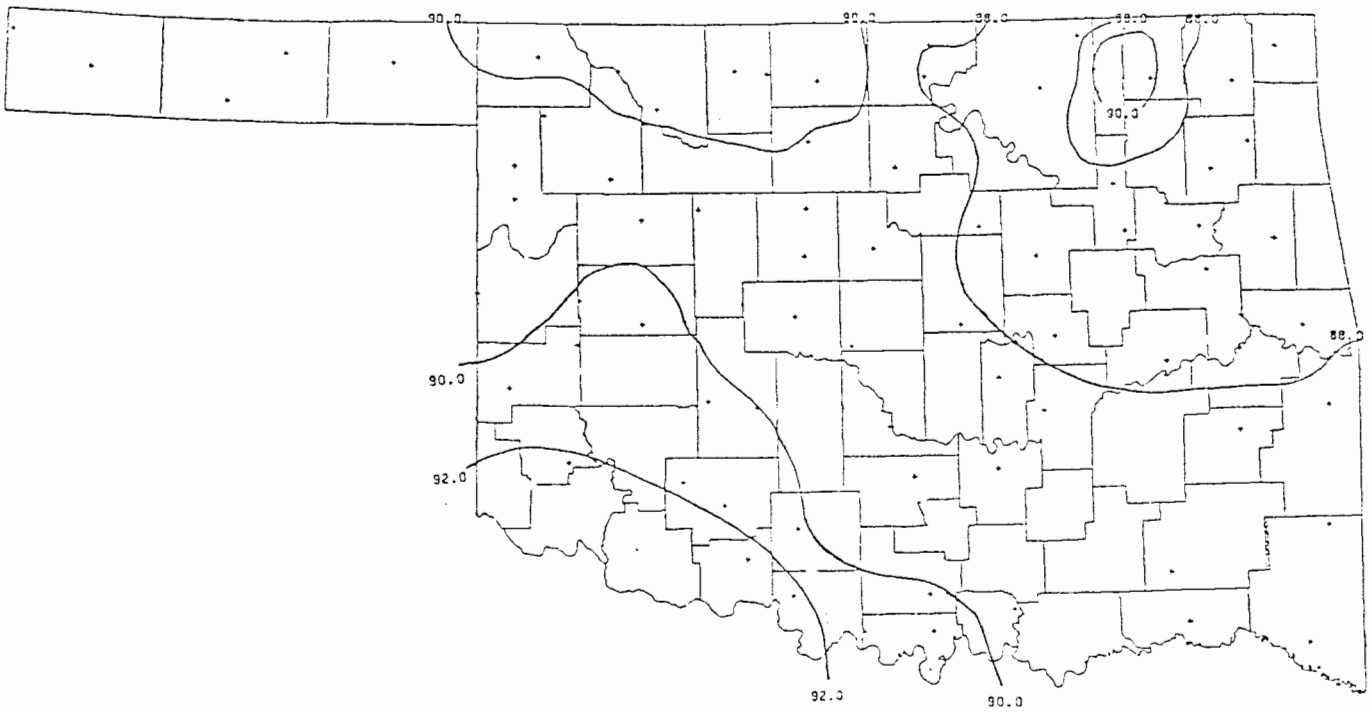


Tulsa

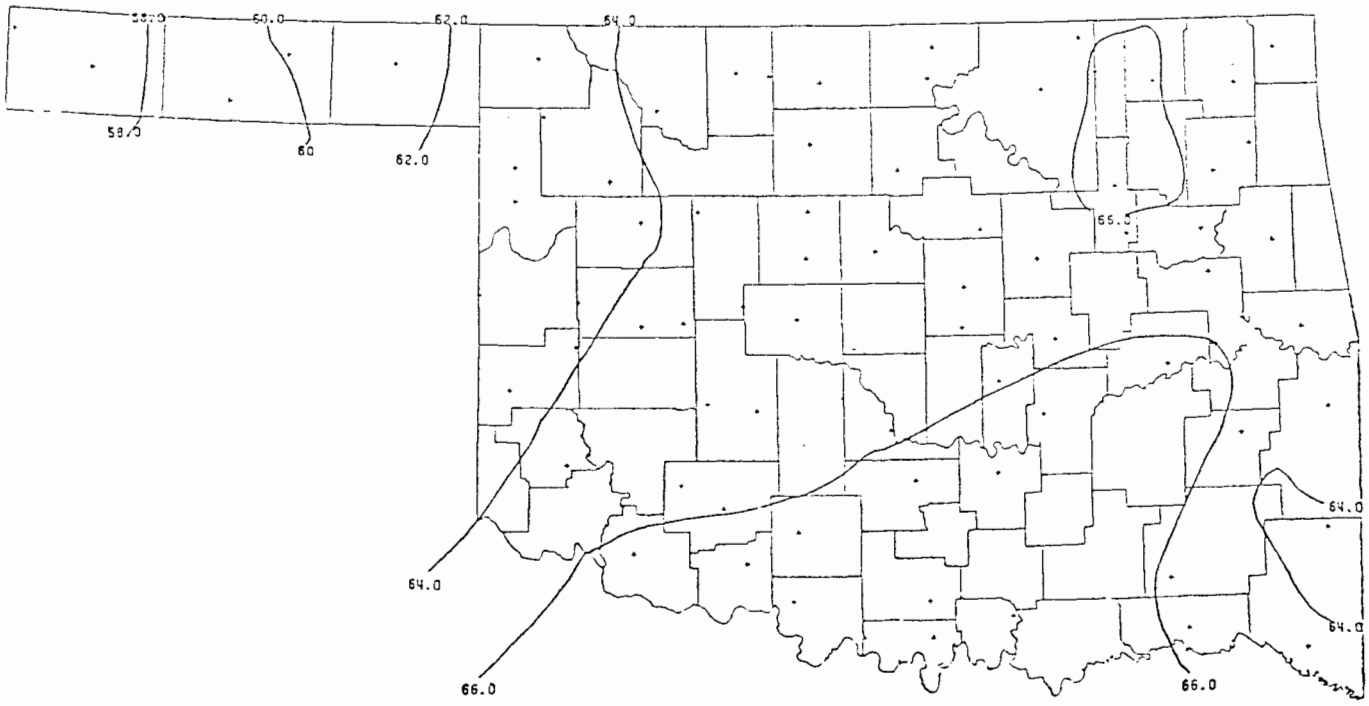
JUNE 1989 SUNRISE AND SUNSET

DATE	SUNRISE	SUNSET	DAYLIGHT
890601	6:19AM	8:37PM LT	14:19
890602	6:18AM	8:38PM LT	14:19
890603	6:18AM	8:38PM LT	14:20
890604	6:18AM	8:39PM LT	14:21
890605	6:18AM	8:40PM LT	14:22
890606	6:18AM	8:40PM LT	14:23
890607	6:17AM	8:41PM LT	14:23
890608	6:17AM	8:41PM LT	14:24
890609	6:17AM	8:42PM LT	14:24
890610	6:17AM	8:42PM LT	14:25
890611	6:17AM	8:43PM LT	14:26
890612	6:17AM	8:43PM LT	14:26
890613	6:17AM	8:43PM LT	14:26
890614	6:17AM	8:44PM LT	14:27
890615	6:17AM	8:44PM LT	14:27
890616	6:17AM	8:45PM LT	14:28
890617	6:17AM	8:45PM LT	14:28
890618	6:17AM	8:45PM LT	14:28
890619	6:17AM	8:46PM LT	14:28
890620	6:18AM	8:46PM LT	14:28
890621	6:18AM	8:46PM LT	14:28
890622	6:18AM	8:46PM LT	14:28
890623	6:18AM	8:46PM LT	14:28
890624	6:18AM	8:47PM LT	14:28
890625	6:19AM	8:47PM LT	14:28
890626	6:19AM	8:47PM LT	14:28
890627	6:19AM	8:47PM LT	14:28
890628	6:20AM	8:47PM LT	14:28
890629	6:20AM	8:47PM LT	14:27
890630	6:20AM	8:47PM LT	14:27

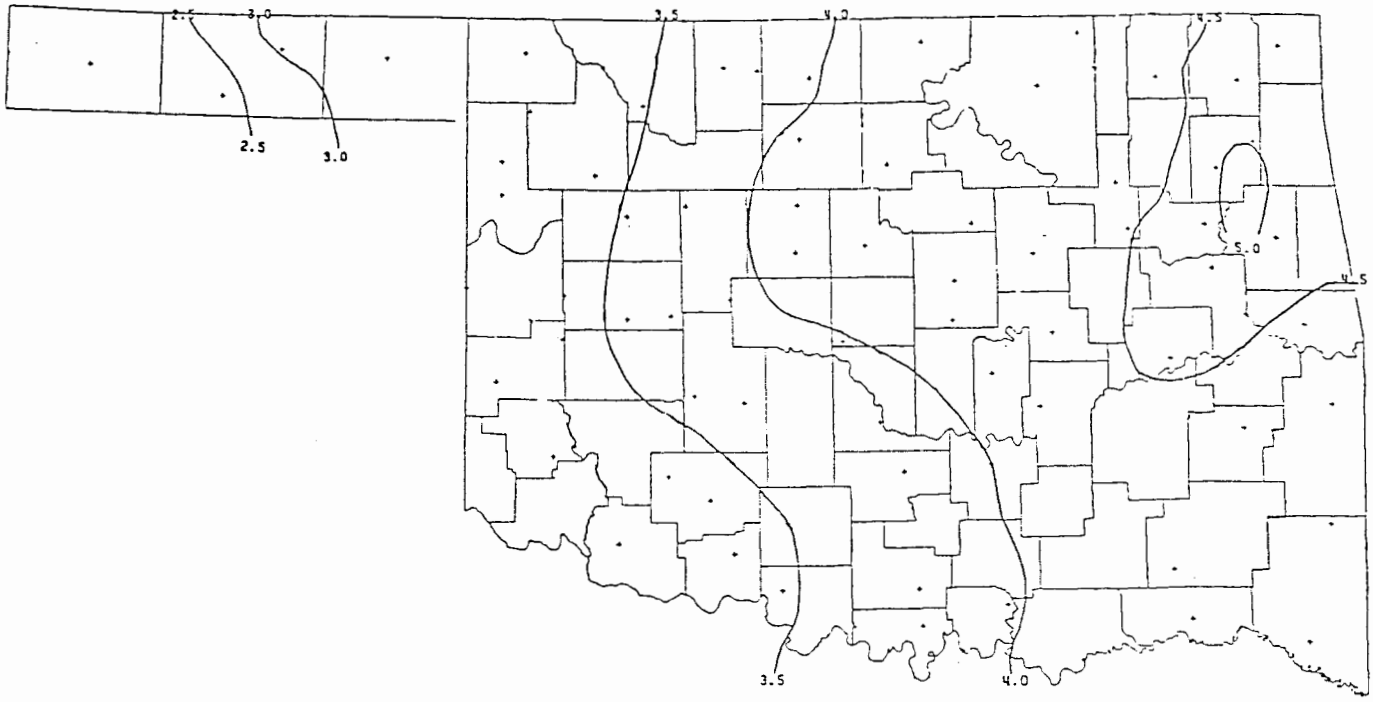
DATE	SUNRISE	SUNSET	DAYLIGHT
890601	6:10AM	8:32PM LT	14:23
890602	6:10AM	8:33PM LT	14:23
890603	6: 9AM	8:34PM LT	14:24
890604	6: 9AM	8:34PM LT	14:25
890605	6: 9AM	8:35PM LT	14:26
890606	6: 9AM	8:35PM LT	14:27
890607	6: 8AM	8:36PM LT	14:27
890608	6: 8AM	8:36PM LT	14:28
890609	6: 8AM	8:37PM LT	14:29
890610	6: 8AM	8:37PM LT	14:29
890611	6: 8AM	8:38PM LT	14:30
890612	6: 8AM	8:38PM LT	14:30
890613	6: 8AM	8:39PM LT	14:31
890614	6: 8AM	8:39PM LT	14:31
890615	6: 8AM	8:40PM LT	14:31
890616	6: 8AM	8:40PM LT	14:32
890617	6: 8AM	8:40PM LT	14:32
890618	6: 8AM	8:41PM LT	14:32
890619	6: 8AM	8:41PM LT	14:32
890620	6: 9AM	8:41PM LT	14:33
890621	6: 9AM	8:41PM LT	14:33
890622	6: 9AM	8:42PM LT	14:33
890623	6: 9AM	8:42PM LT	14:33
890624	6: 9AM	8:42PM LT	14:33
890625	6:10AM	8:42PM LT	14:32
890626	6:10AM	8:42PM LT	14:32
890627	6:10AM	8:42PM LT	14:32
890628	6:11AM	8:43PM LT	14:32
890629	6:11AM	8:43PM LT	14:32
890630	6:11AM	8:43PM LT	14:31



30-YEAR MEAN JUNE DAILY MAXIMUM TEMPERATURE



30-YEAR MEAN JUNE DAILY MINIMUM TEMPERATURE



30-YEAR MEAN JUNE PRECIPITATION

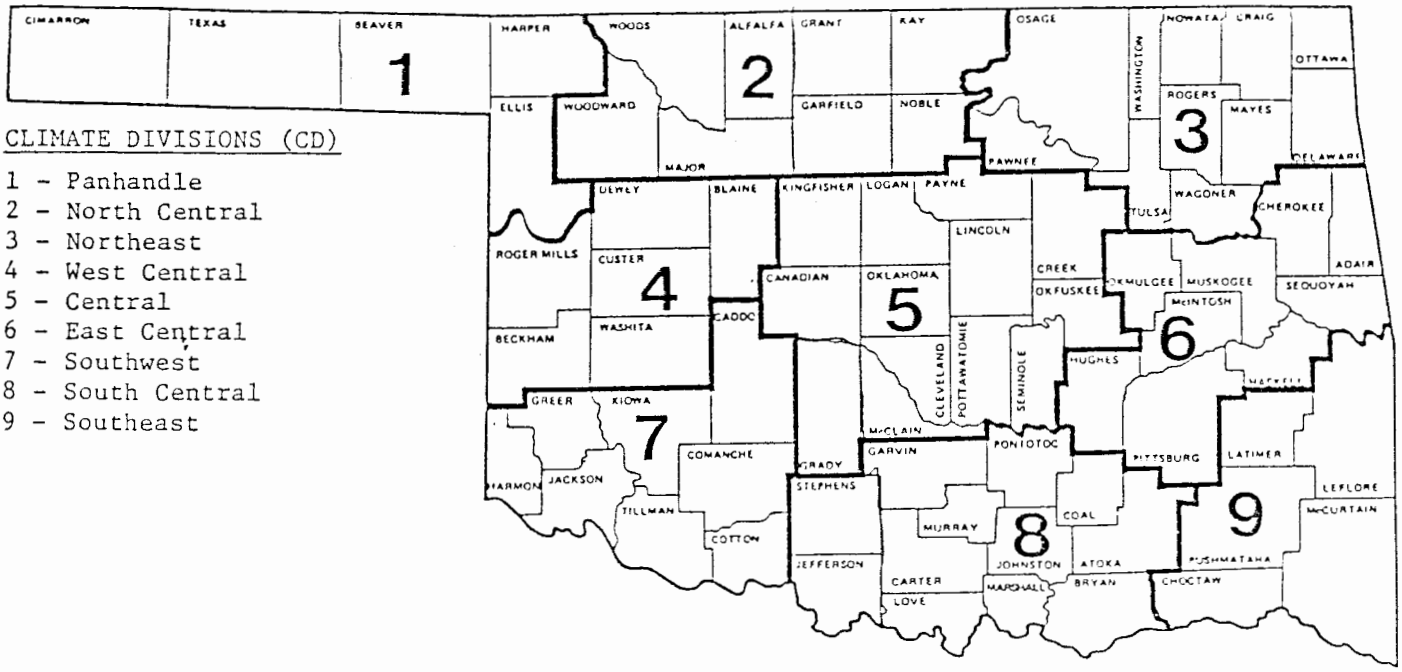
30- AND 90-DAY NATIONAL WEATHER SERVICE OUTLOOK

30-DAY OUTLOOK (MAY)

Precipitation - Near Normal Statewide.
Temperature - Slight Chance of Above Normal in Western Oklahoma. Near Normal Elsewhere.

90-DAY OUTLOOK (MAY-JULY)

Precipitation - Near Normal Statewide.
Temperature - Above Normal Statewide.



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.

JUNE 1989

CLIMATE CALENDAR

The data on this calendar are for Oklahoma City. Normal values are calculated for the period 1948-1987. Extremes are found for the period of record (1924-present).

Normal	1	Actual
80.7	max	
61.4	min	
.204	pcpn	
0	HDD	
7	CDD	
Highest Max		96-1953
Lowest Max		69-1970
Lowest Min		49-1964
Highest Min		75-1943
Greatest pcpn		3.37-1962

Normal	2	Actual
81.1	max	
61.9	min	
.217	pcpn	
1	HDD	
7	CDD	
Highest Max		94-1953
Lowest Max		61-1946
Lowest Min		52-1969
Highest Min		74-1943
Greatest pcpn		1.66-1973

Normal	3	Actual
81.4	max	
61.9	min	
.211	pcpn	
0	HDD	
7	CDD	
Highest Max		95-1953
Lowest Max		63-1982
Lowest Min		51-1946
Highest Min		73-1942
Greatest pcpn		6.75-1932

Normal	4	Actual
83.0	max	
62.9	min	
.222	pcpn	
0	HDD	
8	CDD	
Highest Max		94-1942
Lowest Max		62-1928
Lowest Min		47-1954
Highest Min		73-1943
Greatest pcpn		3.38-1986

Normal	5	Actual
83.9	max	
63.7	min	
.124	pcpn	
0	HDD	
9	CDD	
Highest Max		98-1933
Lowest Max		72-1950
Lowest Min		52-1928
Highest Min		75-1933
Greatest pcpn		3.72-1985

Normal	6	Actual
85.2	max	
64.1	min	
.069	pcpn	
0	HDD	
10	CDD	
Highest Max		95-1926
Lowest Max		72-1950
Lowest Min		53-1973
Highest Min		74-1934
Greatest pcpn		3.01-1940

Normal	7	Actual
86.8	max	
64.8	min	
.087	pcpn	
0	HDD	
11	CDD	
Highest Max		97-1926
Lowest Max		70-1935
Lowest Min		51-1935
Highest Min		78-1980
Greatest pcpn		1.10-1968

Normal	8	Actual
86.9	max	
66.2	min	
.199	pcpn	
0	HDD	
12	CDD	
Highest Max		100-1988
Lowest Max		72-1938
Lowest Min		56-1977
Highest Min		76-1984
Greatest pcpn		2.60-1974

Normal	9	Actual
86.4	max	
65.8	min	
.113	pcpn	
0	HDD	
11	CDD	
Highest Max		100-1933
Lowest Max		64-1955
Lowest Min		54-1974
Highest Min		76-1941
Greatest pcpn		1.43-1984

Normal	10	Actual
86.6	max	
64.7	min	
.161	pcpn	
0	HDD	
11	CDD	
Highest Max		99-1934
Lowest Max		68-1955
Lowest Min		50-1955
Highest Min		75-1953
Greatest pcpn		4.48-1945

Normal	11	Actual
86.6	max	
65.9	min	
.109	pcpn	
0	HDD	
12	CDD	
Highest Max		98-1929
Lowest Max		73-1940
Lowest Min		51-1955
Highest Min		75-1929
Greatest pcpn		1.61-1951

Normal	12	Actual
86.9	max	
66.3	min	
.088	pcpn	
0	HDD	
12	CDD	
Highest Max		102-1953
Lowest Max		73-1945
Lowest Min		51-1955
Highest Min		78-1958
Greatest pcpn		4.74-1944

Normal	13	Actual
87.3	max	
66.6	min	
.053	pcpn	
0	HDD	
12	CDD	
Highest Max		98-1953
Lowest Max		70-1927
Lowest Min		53-1985
Highest Min		78-1958
Greatest pcpn		1.66-1927

Normal	14	Actual
88.5	max	
67.1	min	
.195	pcpn	
0	HDD	
13	CDD	
Highest Max		105-1953
Lowest Max		62-1927
Lowest Min		51-1947
Highest Min		77-1953
Greatest pcpn		3.95-1929

Normal	15	Actual
87.8	max	
66.2	min	
.107	pcpn	
0	HDD	
12	CDD	
Highest Max		103-1953
Lowest Max		74-1969
Lowest Min		55-1969
Highest Min		78-1953
Greatest pcpn		3.01-1929

Normal	16	Actual
86.5	max	
66.1	min	
.201	pcpn	
0	HDD	
12	CDD	
Highest Max		99-1953
Lowest Max		70-1961
Lowest Min		54-1976
Highest Min		77-1953
Greatest pcpn		3.59-1955

Normal	17	Actual
87.5	max	
66.3	min	
.081	pcpn	
0	HDD	
12	CDD	
Highest Max		97-1936
Lowest Max		69-1963
Lowest Min		57-1945
Highest Min		76-1985
Greatest pcpn		1.85-1975

Normal	18	Actual
88.4	max	
67.6	min	
.063	pcpn	
0	HDD	
13	CDD	
Highest Max		101-1936
Lowest Max		75-1961
Lowest Min		57-1945
Highest Min		77-1931
Greatest pcpn		.93-1957

Normal	19	Actual
89.1	max	
67.7	min	
.059	pcpn	
0	HDD	
14	CDD	
Highest Max		100-1953
Lowest Max		73-1926
Lowest Min		55-1926
Highest Min		79-1953
Greatest pcpn		1.68-1987

Normal	20	Actual
89.5	max	
67.3	min	
.242	pcpn	
0	HDD	
14	CDD	
Highest Max		105-1953
Lowest Max		80-1961
Lowest Min		51-1976
Highest Min		76-1942
Greatest pcpn		.96-1932

Normal	21	Actual
89.5	max	
68.4	min	
.270	pcpn	
0	HDD	
14	CDD	
Highest Max		104-1936
Lowest Max		72-1958
Lowest Min		56-1961
Highest Min		78-1936
Greatest pcpn		3.28-1948

Normal	22	Actual
90.2	max	
68.4	min	
.150	pcpn	
0	HDD	
14	CDD	
Highest Max		107-1936
Lowest Max		78-1927
Lowest Min		56-1935
Highest Min		79-1936
Greatest pcpn		2.38-1957

Normal	23	Actual
88.0	max	
67.9	min	
.212	pcpn	
0	HDD	
13	CDD	
Highest Max		101-1933
Lowest Max		73-1957
Lowest Min		58-1958
Highest Min		77-1934
Greatest pcpn		1.65-1963

Normal	24	Actual
88.1	max	
67.9	min	
.150	pcpn	
0	HDD	
13	CDD	
Highest Max		103-1933
Lowest Max		67-1929
Lowest Min		54-1957
Highest Min		78-1937
Greatest pcpn		2.06-1948

Normal	25	Actual
88.5	max	
68.2	min	
.234	pcpn	
0	HDD	
14	CDD	
Highest Max		105-1980
Lowest Max		68-1967
Lowest Min		51-1974
Highest Min		79-1953
Greatest pcpn		2.29-1960

Normal	26	Actual
89.3	max	
68.2	min	
.117	pcpn	
0	HDD	
14	CDD	
Highest Max		102-1972
Lowest Max		71-1928
Lowest Min		50-1958
Highest Min		81-1933
Greatest pcpn		1.70-1986

Normal	27	Actual
90.9	max	
68.3	min	
.041	pcpn	
0	HDD	
15	CDD	
Highest Max		103-1980
Lowest Max		76-1985
Lowest Min		52-1974
Highest Min		79-1933
Greatest pcpn		1.81-1985

Normal	28	Actual
91.2	max	
68.7	min	
.074	pcpn	
0	HDD	
15	CDD	
Highest Max		105-1980
Lowest Max		81-1940
Lowest Min		56-1974
Highest Min		78-1986
Greatest pcpn		3.10-1988

Normal	29	Actual
91.9	max	
69.6	min	
.014	pcpn	
0	HDD	
16	CDD	
Highest Max		100-1933
Lowest Max		81-1942
Lowest Min		62-1985
Highest Min		78-1947
Greatest pcpn		2.00-1987

Normal	30	Actual
91.9	max	
70.4	min	
.081	pcpn	
0	HDD	
16	CDD	
Highest Max		101-1934
Lowest Max		77-1987
Lowest Min		59-1943
Highest Min		80-1980
Greatest pcpn		1.09-1942

JUNE AVERAGES

Temperature : 76.8
Precipitation : 4.15"
Heating Degree Days: 1
Cooling Degree Days: 363