

OKLAHOMA MONTHLY SUMMARY NOVEMBER 1990

TABLE OF CONTENTS

November 1990 Oklahoma Summary.....	2
Table of November 1989/1990 Comparisons.....	4
November 1990 Data Summary Tables.....	5
November 1990 State Map Summary.....	11
January 1991 Climatological Normals.....	14
90-Day National Weather Service Outlook.....	16
Explanation of Tables.....	17
January 1991 Climate Calendar.....	19

NOVEMBER 1990 OKLAHOMA SUMMARY

The themes of warm days, episodic rainfall events, and abundant sunshine were recurrent in November. The statewide average temperature of 54.5 degrees exceeded the 30-year mean by 5.2 degrees. Despite such warmth, November ranked only as the 5th warmest, and the year-to-date slipped from the 18th to 19th warmest. Buoyed by a warm September and November, Autumn ranked as the 14th warmest on record.

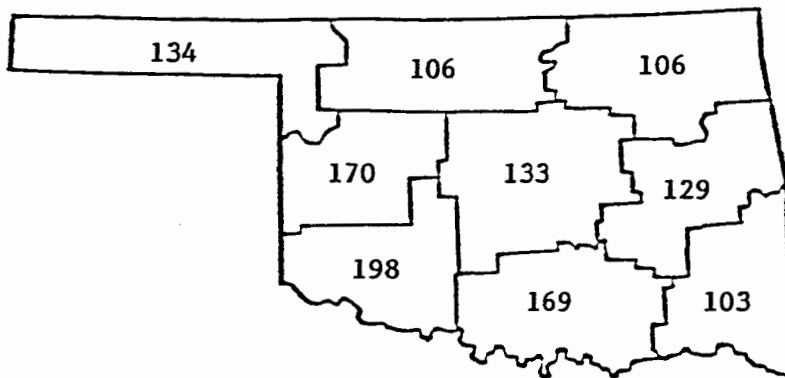
1990 also lost ground in the standings for wettest year. November's statewide-average total of 2.73 inches was 0.68 inches above normal, but was not enough to prevent a slide from the 8th to 9th wettest year. The year's total precipitation stands at a statewide-averaged 41.59 inches. Autumn was drier overall than previous seasons, ranking only as the 39th wettest. Unlike previous months, every climate division (CD) recorded above-normal precipitation, with western portions of the state having the greatest departures from normal.

The warmth of late October continued into early November. Buffalo reached 91 degrees on the 1st, the warmest temperature of the month statewide. No further 90 degree temperatures were recorded, but highs in the 80's were reached as late as the 27th. A strong cold front swept across the state on November 3-4, bringing with it over two inches of rain to many locations. The cold air behind the front dropped high temperatures into the 30's and 40's across much of the state, and brought snow to the panhandle. The cold air was reinforced by a second front which cleared the state on the 7th.

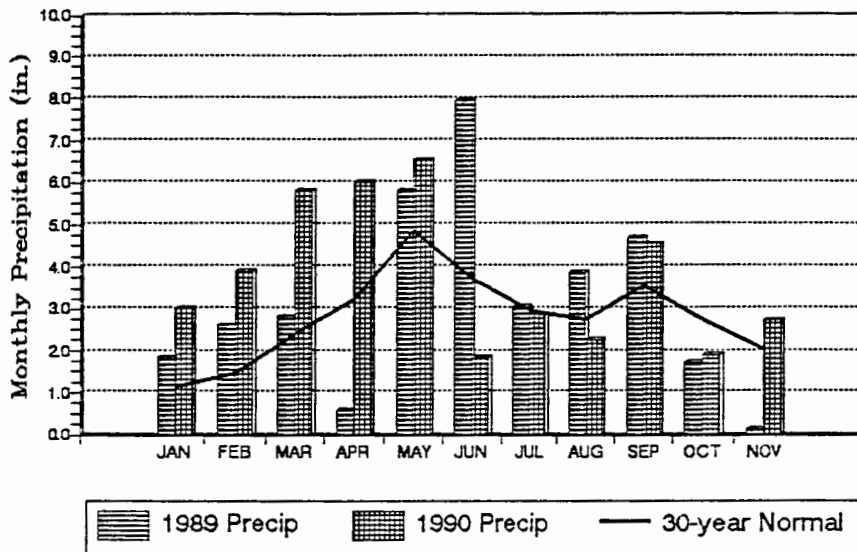
A ridge of high pressure built into the state beginning on the 10th, bringing warm, dry conditions statewide. The ridge dominated Oklahoma's weather for the next ten days, until a weak front passed through the state on the 21st. Rainfall amounts in excess of one inch were recorded with the passage of the front. The cool air did not last long. Temperatures warmed to record levels over Thanksgiving weekend, and Caney reported a low temperature of 70 degrees on the 26th. A much stronger cold front moved across the state on the 27th, bringing an end to the record warmth and dropping nighttime lows into the teens in northwest Oklahoma on the 29th.

-Mark A. Shafer

November 1990 percent of normal precipitation.



Comparison of Monthly Precipitation Statewide Average for Oklahoma



Comparison of Monthly Temperature Statewide Average for Oklahoma

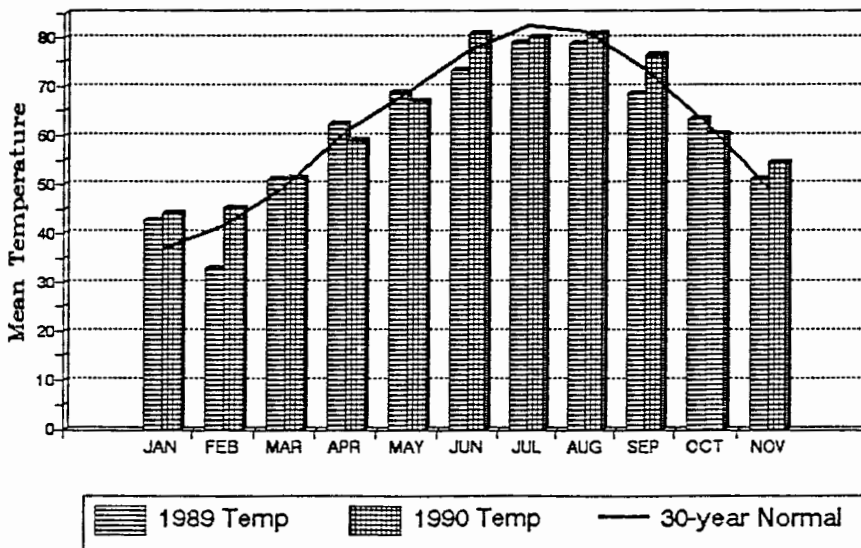


TABLE OF 1989/1990 COMPARISONS

Station	November Temperature (F)		November Precipitation (in.)	
	1989	1990	1989	1990
ARNETT	47.2	49.5	0.0	2.12
ENID	49.3	53.0	.04	2.54
MUTUAL	47.2	51.2	.001	1.39
TULSA	54.4	57.8	.15	2.41
ELK CITY	51.6	52.9	0.0	2.06
OKLAHOMA CITY	53.6	56.5	.09	1.61
MCALESTER	55.5	57.5	.46	3.20
ALTUS IRR STA	53.1	54.9	0.0	3.00
DURANT	54.0	57.3	.15	3.30
ADA	54.3	56.0	.31	4.32
ANTLERS	54.9	56.4	0.0	2.41

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Kenton	1	11	29
Maximum temperature (F)	Buffalo	1	91	1
Maximum 24-hour precipitation	Elmore City	8	3.50"	4

NOVEMBER 1990 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT		DEV	
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	PPT	NUM	FROM	MAX	24-HR	DAY
ARNETT	332	1	49.3	30	3.6	86.	2	20.	30	474.5	-104.5	4.0	4.0	2.120	30	1.03	1.04	4	
BEAVER	593	1	48.9	30	4.3	88.	1	13.	30	488.5	-123.5	4.5	4.5	.741	30	-.15	.38	5	
BOISE CITY 2 E	908	1	48.0	30	4.1	80.	15	13.	29	508.5	-124.5	.0	.0	1.721	30	1.09	1.30	3	
BUFFALO	1243	1	52.3	30	5.3	91.	1	20.	30	395.5	-144.5	15.5	15.5	.730	30	-.60	.45	4	
FARGO	3070	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.460	30	.44	.97	4	
GAGE FAA APT	3407	1	51.8	30	6.5	89.	1	18.	29	406.0	-185.0	9.0	9.0	1.623	30	.78	1.31	4	
GATE	3489	1	50.4	30	*****	90.	2	21.	29	450.0	*****	12.0	*****	.442	30	*****	.29	4	
GOODWELL RES	ST3628	1	48.5	30	4.2	83.	2	15.	29	497.0	-124.0	1.5	1.5	1.041	30	.40	.72	3	
GUYMON	3835	1	50.8	28	*****	84.	1	14.	29	402.0	*****	5.5	*****	.760	29	*****	.76	3	
HOOKER	4298	1	49.3	30	5.2	84.	2	20.	30	473.0	-154.0	2.0	2.0	.862	30	.10	.47	3	
KENTON	4766	1	46.4	30	2.5	81.	16	11.	29	557.5	-75.5	.0	.0	1.111	30	.58	.98	3	
LAVERNE	5045	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.990	30	.00	.65	4	
OPTIMA LAKE	6740	1	49.1	30	*****	85.	2	14.	29	479.5	*****	2.5	*****	.500	28	*****	.50	4	
RANGE	7412	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.492	30	*****	.30	4	
REGNIER	7534	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.991	30	.48	.90	3	
TURPIN 4 SSE	9017	1	48.1	30	*****	85.	2	15.	29	510.0	*****	3.0	*****	.441	30	*****	.24	3	

NOVEMBER 1990 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT		DEV	
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	PPT	NUM	FROM	MAX	24-HR	DAY
ALVA	193	2	51.8	30	*****	87.	1	23.	29	406.0	*****	10.5	*****	1.430	30	*****	1.20	4	
VANCE AFB	302	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.654	30	*****	1.33	4	
BILLINGS	755	2	52.5	30	*****	82.	1	20.	29	386.5	*****	12.5	*****	1.902	30	.01	1.05	4	
BLACKWELL 2E	818	2	52.3	30	*****	81.	1	22.	29	390.5	*****	8.0	*****	1.853	30	*****	.97	4	
BRAMAN	1075	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.011	30	*****	1.35	4	
CHEROKEE	1724	2	52.3	30	5.0	84.	1	21.	29	397.0	-134.0	14.5	14.5	1.730	30	.45	.70	4	
ENID	2912	2	53.2	30	4.7	81.	1	26.	29	364.5	-130.5	9.0	9.0	2.540	30	.76	.86	3	
FT SUPPLY DAM	3304	2	49.2	30	2.1	89.	2	15.	29	485.0	-52.0	9.5	9.5	2.220	30	1.30	1.00	4	
FREEDOM	3358	2	51.2	30	*****	88.	1	19.	29	429.5	*****	15.0	*****	1.260	30	*****	1.09	4	
GREAT SALT PLNS	3740	2	52.7	30	*****	85.	2	26.	29	381.0	*****	13.0	*****	2.521	22	*****	1.72	4	
HARDY	3909	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.756	30	*****	.77	3	
HELENA 1 SSE	4019	2	50.3	30	*****	83.	2	20.	30	447.5	*****	8.0	*****	1.930	30	.39	1.35	4	
JEFFERSON	4573	2	52.0	30	4.2	84.	1	20.	29	402.0	-114.0	12.5	12.5	1.990	30	.07	1.55	3	
LAMONT	5013	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.561	30	*****	.89	4	
MEDFORD	5768	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.771	30	*****	1.36	3	
MORRISON	6065	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.480	30	*****	1.05	4	
MUTUAL	6139	2	51.2	30	4.6	85.	2	21.	30	424.0	-128.0	8.5	8.5	1.390	30	.24	.95	4	
NEWKIRK	6278	2	53.6	30	6.2	81.	1	24.	29	348.0	-180.0	6.5	6.5	1.463	30	-.48	1.09	4	
ORIENTA	6751	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.020	30	*****	1.48	4	
PERRY	7012	2	56.3	30	6.7	82.	1	24.	29	278.5	-183.5	16.5	16.5	1.341	30	-.46	.96	4	
PONCA CITY FAA	7201	2	55.2	30	8.6	82.	1	24.	28	319.0	-233.0	25.0	25.0	1.963	30	-.09	1.11	4	
RED ROCK 1 NNE	7505	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.530	30	-.19	1.07	4	
RENFROW	7556	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.430	30	-1.27	.25	6	
WAYNOKA	9404	2	51.6	30	3.7	86.	1	16.	29	413.5	-99.5	12.5	12.5	1.530	30	.25	1.40	4	
WOODWARD	9760	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.401	30	*****	.85	4	

NOVEMBER 1990 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	DEV						HEAT	DEV	COOL	DEV	TOT	NUM	FROM	MAX	24-HR	DAY
			MEAN	NUM	FROM	MAX	MIN	DAY	DEG	FROM	DEG	FROM						
BARNSDALL	535	3	53.5	29	*****	81.	1	21.	29	342.0	*****	8.5	*****	1.940	30	-.38	1.30	4
BARTLESVILLE 2W	548	3	54.8	30	6.5	82.	1	23.	28	319.5	-181.5	13.0	13.0	2.071	30	-.18	1.45	4
BIXBY	782	3	54.3	30	5.6	80.	13	26.	29	338.0	-151.0	17.5	17.5	2.270	30	-.46	1.70	4
BURBANK	1256	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.101	30	*****	.70	4
CHELSEA 4 S	1717	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.770	30	*****	1.34	4
CLAREMORE	1828	3	55.2	29	6.8	80.	1	24.	29	306.5	-191.5	22.0	22.0	1.893	29	*****	1.54	4
CLEVELAND 5 WSW	1902	3	55.7	28	*****	82.	12	24.	28	275.0	*****	13.5	*****	2.750	30	*****	2.19	4
FORAKER	3250	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.870	30	-.50	1.26	4
HOMINY	4289	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.772	30	.71	2.14	4
HULAH DAM	4393	3	55.8	19	*****	83.	2	26.	29	196.5	*****	22.5	*****	2.710	24	*****	2.06	4
JAY TOWER	4567	3	55.8	30	*****	82.	13	24.	28	283.5	*****	6.0	*****	2.640	30	*****	1.10	27
KANSAS 1 ESE	4672	3	54.5	30	*****	78.	12	24.	28	318.5	*****	3.0	*****	3.960	30	*****	1.53	27
KEYSTONE DAM	4812	3	53.8	30	*****	84.	1	26.	29	345.5	*****	9.0	*****	2.712	25	*****	2.20	4
LENAPAH	5118	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.061	28	*****	2.00	4
MANNFORD 6 NW	5522	3	56.0	30	*****	83.	12	22.	29	286.0	*****	15.0	*****	2.500	30	.30	1.86	4
MARAMEC	5540	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.630	30	.62	2.07	4
MIAMI	5855	3	55.4	30	7.0	78.	3	24.	28	295.5	-202.5	7.0	7.0	1.550	30	-1.40	1.11	4
NOWATA	6485	3	54.3	29	5.7	79.	2	23.	28	320.5	-171.5	11.5	11.5	3.550	29	*****	2.15	4
ONETA 1 WNW	6713	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.390	30	*****	1.65	4
PAWHUSKA	6935	3	54.2	30	6.2	81.	1	22.	29	336.0	-174.0	10.5	10.5	3.311	30	1.28	2.49	4
PAWNEE	6940	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.980	30	.10	1.48	4
PRYOR 6 N	7309	3	54.2	26	*****	78.	1	23.	29	292.5	*****	12.0	*****	2.250	30	-.65	1.45	4
RALSTON	7390	3	55.0	30	*****	84.	12	21.	29	313.0	*****	14.0	*****	2.024	30	.07	1.40	4
RAMONA 4 N	7394	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.190	30	*****	2.19	4
SLATOOK	8258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.200	30	.85	2.58	4
SPAVINAW	8380	3	56.9	28	*****	79.	12	25.	29	247.5	*****	21.0	*****	2.640	29	*****	1.06	4
TULSA WSO APT	8992	3	57.8	30	8.6	81.	1	27.	28	247.0	-227.0	31.0	31.0	2.411	30	-.15	2.00	4
UPPER SPAVINAW	9101	3	57.0	24	*****	80.	26	26.	28	230.0	*****	38.0	*****	2.672	30	*****	.75	27
VINITA 2 N	9203	3	54.4	29	6.5	79.	1	22.	29	314.0	-199.0	6.5	6.5	1.870	29	*****	1.28	4
WAGONER	9247	3	56.7	30	6.6	80.	1	27.	28	265.0	-182.0	16.5	16.5	3.600	30	.40	1.14	4
WANN	9298	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.600	30	*****	2.00	4
WYNONA	9792	3	58.2	29	*****	81.	2	25.	28	229.5	*****	31.5	*****	2.853	30	*****	2.15	4

NOVEMBER 1990 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	DEV						HEAT	DEV	COOL	DEV	TOT	NUM	FROM	MAX	24-HR	DAY
			MEAN	NUM	FROM	MAX	MIN	DAY	DEG	FROM	DEG	FROM						
CANTON DAM	1445	4	51.1	14	*****	78.	26	23.	29	194.5	*****	.5	*****	2.142	21	*****	1.47	5
CHEYENNE	1738	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.290	30	*****	1.07	4
CLINTON	1909	4	53.5	30	5.0	85.	1	24.	29	358.5	-136.5	13.0	13.0	2.821	30	1.35	1.80	4
COLONY	2039	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.710	30	*****	1.35	4
CORDELL	2125	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.692	30	1.30	1.51	4
ELK CITY 1 E	2849	4	52.7	30	*****	83.	1	25.	29	375.0	*****	4.5	*****	2.063	30	.70	1.44	4
ERICK 4 E	2944	4	53.6	30	5.2	87.	1	20.	29	351.0	-147.0	8.5	8.5	2.220	30	1.23	1.22	4
GEARY	3497	4	52.5	29	3.7	81.	1	24.	29	365.5	-120.5	4.0	4.0	2.000	29	*****	1.10	4
HAMMON 1 NNE	3871	4	49.7	30	2.2	85.	2	21.	30	465.5	-59.5	7.5	7.5	2.201	30	.81	1.80	4
LEEDEY	5090	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.810	30	.48	.95	3
MACKIE 4 NNW	5463	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.600	30	*****	.82	4
MORAVIA 2 NNE	6035	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.350	30	1.30	1.41	4
OKEENE	6629	4	53.0	30	3.9	83.	1	22.	30	368.5	-108.5	8.0	8.0	2.070	30	.47	1.71	4
RETROP	7565	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.730	30	*****	1.52	4
REYDON	7579	4	51.7	27	*****	85.	1	20.	29	365.5	*****	7.5	*****	1.970	30	1.01	.85	3
SAYRE	7952	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.850	30	.76	1.22	4
SWEETWATER 2 E	8652	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.201	30	*****	1.12	3
TALOGA	8708	4	50.1	30	3.1	84.	1	17.	29	450.0	-90.0	4.0	4.0	2.081	30	.61	1.49	4
THOMAS	8815	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.480	30	*****	1.58	4
VICI	9172	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.524	30	*****	.49	4
WEATHERFORD	9422	4	52.8	30	3.9	82.	2	24.	29	377.0	-106.0	11.5	11.5	2.551	30	1.19	1.61	4
WATONCA	9364	4	52.3	30	*****	84.	1	23.	29	389.0	*****	9.5	*****	2.182	30	.76	1.51	4

NOVEMBER 1990 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	DEV						HEAT	DEV	COOL	DEV	TOT	NUM	DEV	MAX	24-HR	DAY
			MEAN	NUM	FROM	MAX	MIN	DAY	DEG	FROM	DEG	FROM						
AMBER	200	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.770	30	*****	.83	4
ARCADIA	288	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.800	30	*****	1.20	4
TINKER AFB	325	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.784	29	*****	1.11	4
BLANCHARD 2 SSW	830	5	55.5	30	*****	79.	1	26.	29	295.5	*****	11.5	*****	2.255	30	*****	1.29	4
BRISTOW	1144	5	55.9	30	6.2	80.	12	24.	29	295.0	-169.0	21.0	16.0	2.311	30	-.02	1.83	4
CHANDLER	1684	5	56.1	30	5.7	82.	1	25.	28	284.0	-159.0	17.0	17.0	2.751	30	.66	2.00	4
CHICKASHA EX ST1	1750	5	54.4	30	4.4	81.	1	24.	29	329.0	-121.0	10.5	10.5	2.500	30	.95	1.20	4
COX CITY 1 E	2196	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.870	30	*****	1.45	9
CRESCENT	2242	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.530	30	*****	.82	4
CUSHING	2318	5	55.9	30	7.0	81.	1	27.	29	294.5	-188.5	20.5	20.5	3.210	30	1.20	2.83	4
EL RENO 1 N	2818	5	53.5	30	5.0	79.	1	23.	29	350.5	-144.5	6.5	6.5	1.860	30	.22	1.19	4
GUTHRIE	3821	5	55.8	30	6.5	82.	1	22.	29	295.5	-175.5	18.0	18.0	2.252	30	.45	1.08	4
HENNESSEY 2 SE	4055	5	51.7	30	3.2	80.	1	20.	29	407.0	-88.0	7.5	7.5	1.550	30	-.08	.90	4
INGALLS	4489	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.273	30	*****	1.75	4
KINGFISHER 2 SE	4861	5	53.8	30	4.9	81.	1	20.	29	343.5	-139.5	8.5	8.5	1.710	30	.18	.95	4
KONAWA	4915	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.290	30	2.15	2.00	4
MARSHALL	5589	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.500	30	-.13	.91	4
MEEKER 4 W	5779	5	55.6	30	6.3	80.	1	26.	28	298.5	-172.5	15.5	15.5	3.450	30	1.40	2.27	3
MULHALL	6110	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.610	30	*****	1.01	4
NORMAN 3 S	6386	5	55.0	30	*****	82.	1	29.	29	319.5	*****	18.0	*****	2.522	30	.48	1.56	4
OILTON 2 SE	6616	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.550	30	*****	2.10	4
OKEMAH	6638	5	56.7	30	6.0	79.	12	27.	28	264.0	-165.0	16.0	16.0	3.861	30	1.42	1.60	4
OKLAHOMA CITY WS	6661	5	56.5	30	7.7	80.	1	28.	28	276.5	-209.5	22.5	22.5	1.615	30	.09	.84	4
PERKINS	7003	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.800	30	-.27	1.39	4
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.790	30	*****	.55	4
PRAGUE	7264	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.080	30	.87	2.10	4
PURCELL 5 SW	7327	5	54.9	30	5.3	81.	1	23.	29	317.0	-150.0	14.0	14.0	3.451	30	1.39	1.60	4
SEMINOLE	8042	5	57.2	30	5.5	81.	1	28.	29	255.5	-148.5	22.0	17.0	3.620	30	1.10	1.83	4
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.480	30	1.14	2.38	4
STELLA	8479	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.500	30	*****	2.18	4
STILLWATER 2 W	8501	5	56.0	30	7.1	83.	25	23.	29	294.5	-188.5	25.0	25.0	1.750	30	-.03	1.11	4
STROUD 1 N	8563	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.182	30	*****	1.84	4
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.240	30	*****	2.00	4
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.000	30	*****	2.62	4
UNION CITY 1 SE	9086	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.220	30	.16	1.30	4
WELTY 1 SSE	9479	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.460	30	*****	1.60	4
WEWOKA	9575	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.620	31	1.39	1.91	4

NOVEMBER 1990 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	DEV						HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	DEV				
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN DAY	DAY TEMP						NUM OBS	FROM NORM	MAX 24-HR	DAY	
ASHLAND	364	6	****	0	****	****	0	****	0	*****	*****	*****	*****	6.350	30	****	2.60	4
BEGGS	631	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.191	30	****	1.90	4
BOYNTON	1027	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.441	30	****	1.50	4
CALVIN	1391	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.670	30	.98	1.14	3
CHECOTAH	1711	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.901	30	.06	1.01	4
CLAYTON 11 WNW	1858	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.650	30	****	1.20	4
DEWAR 2 NE	2485	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.350	30	.66	1.73	5
DUSTIN	2690	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.660	30	****	1.82	4
EUFULA	2993	6	57.4	30	****	79.	12	33.	29	249.5	*****	21.5	*****	3.400	30	.44	1.08	4
HANNA	3884	6	55.5	30	****	79.	12	26.	29	302.0	*****	18.0	*****	3.632	30	.69	1.66	4
HARTSHORNE	3946	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.760	30	****	1.58	27
HASKELL	3956	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.500	30	.61	1.54	4
HOLDENVILLE	4235	6	56.3	30	4.9	79.	24	28.	29	277.5	-135.5	18.0	18.0	4.270	30	1.87	2.29	4
LAKE EUFAULA	4975	6	57.9	30	****	82.	1	30.	28	246.5	*****	34.0	*****	3.031	30	****	.76	4
LYONS 2 N	5437	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.640	30	1.69	1.37	27
MARBLE CITY	5546	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.151	30	****	1.15	28
MCALESTER FAA	5664	6	57.5	30	6.7	79.	12	30.	29	257.5	-175.5	33.0	26.0	3.200	30	.13	.75	27
MCCURTAIN 1 SE	5693	6	57.3	30	****	81.	12	28.	30	253.0	*****	23.5	*****	3.930	30	.35	.90	28
MUSKOGEE	6130	6	55.8	30	5.7	79.	13	29.	28	292.0	-155.0	16.5	16.5	3.050	30	.07	.94	26
OKMULGEE W W	6670	6	53.5	30	3.0	80.	13	25.	30	354.5	-77.5	11.0	11.0	3.932	27	****	2.23	4
OKTAHA 2 NE	6678	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.470	30	****	.96	4
QUINTON	7372	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.571	30	.33	.81	27
SALLISAW 2 NE	7862	6	54.4	30	3.7	79.	12	23.	30	324.0	-110.0	6.0	1.0	5.301	30	1.89	1.75	22
SCIPIO	7979	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.190	30	****	2.06	4
SCRAPER	7993	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.720	30	****	1.60	27
SHORT	8170	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.190	30	****	1.13	27
STILLWELL 1 NE	8506	6	54.9	30	****	80.	12	25.	28	315.0	*****	11.0	*****	4.261	30	1.01	.98	22
TAHLEQUAH	8677	6	55.1	30	8.8	80.	12	23.	29	310.5	-165.5	13.0	8.0	3.660	30	.46	1.51	27
WEBBERS FALLS	9445	6	55.1	30	5.8	82.	13	27.	28	312.0	-159.0	15.5	15.5	2.541	30	-.45	.73	27
WESTVILLE	9523	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.270	30	****	1.15	28
WETUMKA 3 NE	9571	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.833	30	1.06	2.00	4

NOVEMBER 1990 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	DEV						HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	DEV				
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN DAY	DAY TEMP						NUM OBS	FROM NORM	MAX 24-HR	DAY	
ALTUS IRR STA	179	7	54.5	30	3.3	86.	1	25.	29	325.5	-88.5	11.5	11.5	3.000	30	1.98	1.60	4
ALTUS DAM	184	7	53.5	30	****	85.	2	25.	29	363.0	*****	18.5	*****	3.490	30	2.47	1.83	4
ANADARKO	224	7	52.6	28	****	80.	2	20.	29	353.0	*****	4.5	*****	1.720	30	.14	1.31	4
APACHE	260	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.270	30	****	1.00	4
ALTUS AFB	447	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.832	30	****	1.36	4
CARNEGIE 2 ENE	1504	7	53.6	27	****	83.	1	20.	29	319.0	*****	10.0	*****	2.461	29	****	1.51	4
CHATTANOOGA	1706	7	54.2	30	3.3	83.	1	24.	29	332.5	-90.5	7.5	7.5	2.351	30	.98	.98	4
DUNCAN 12 W	2668	7	****	0	****	****	0	****	0	*****	*****	*****	*****	1.970	30	****	.90	9
FREDERICK	3353	7	53.1	30	.9	82.	1	28.	27	367.5	-21.5	9.5	4.5	2.660	30	1.25	1.19	3
GRANDFIELD 4 NW	3709	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.240	30	1.69	2.05	4
HOBART FAA APT	4204	7	54.2	30	5.7	85.	1	26.	29	335.5	-159.5	12.5	12.5	3.530	30	2.45	2.11	4
HOLLIS	4249	7	53.7	30	3.3	89.	1	23.	29	344.5	-93.5	6.5	6.5	2.700	30	1.82	1.33	4
LAWTON	5063	7	54.4	30	3.5	82.	2	29.	30	329.5	-98.5	12.0	12.0	2.250	30	.50	.95	3
FORT SILL	5068	7	54.2	30	****	81.	1	28.	28	330.5	*****	7.5	*****	2.104	30	.35	1.10	8
LOOKEBA 2 ENE	5329	7	****	0	****	****	0	****	0	*****	*****	*****	*****	1.941	30	****	1.00	4
MANGUM RES STA	5509	7	54.2	30	4.0	87.	1	22.	28	328.5	-115.5	5.0	5.0	3.380	30	2.47	1.12	4
RANDLETT 9 E	7403	7	****	0	****	****	0	****	0	*****	*****	*****	*****	1.030	30	****	.65	4
ROOSEVELT	7727	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.300	30	2.06	2.12	4
SEDAN	8016	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.630	30	****	1.62	4
VINSON 3 WNW	9212	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.180	30	1.16	1.01	4
WALTERS	9278	7	55.3	30	3.6	81.	1	27.	28	299.0	-116.0	9.5	3.5	2.151	30	.32	1.17	8
WICHITA MT WLR	9629	7	51.3	30	1.8	81.	2	26.	5	416.5	-48.5	5.0	5.0	2.570	30	1.03	1.50	4
WILLOW	9668	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.081	30	****	1.94	4

NOVEMBER 1990 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

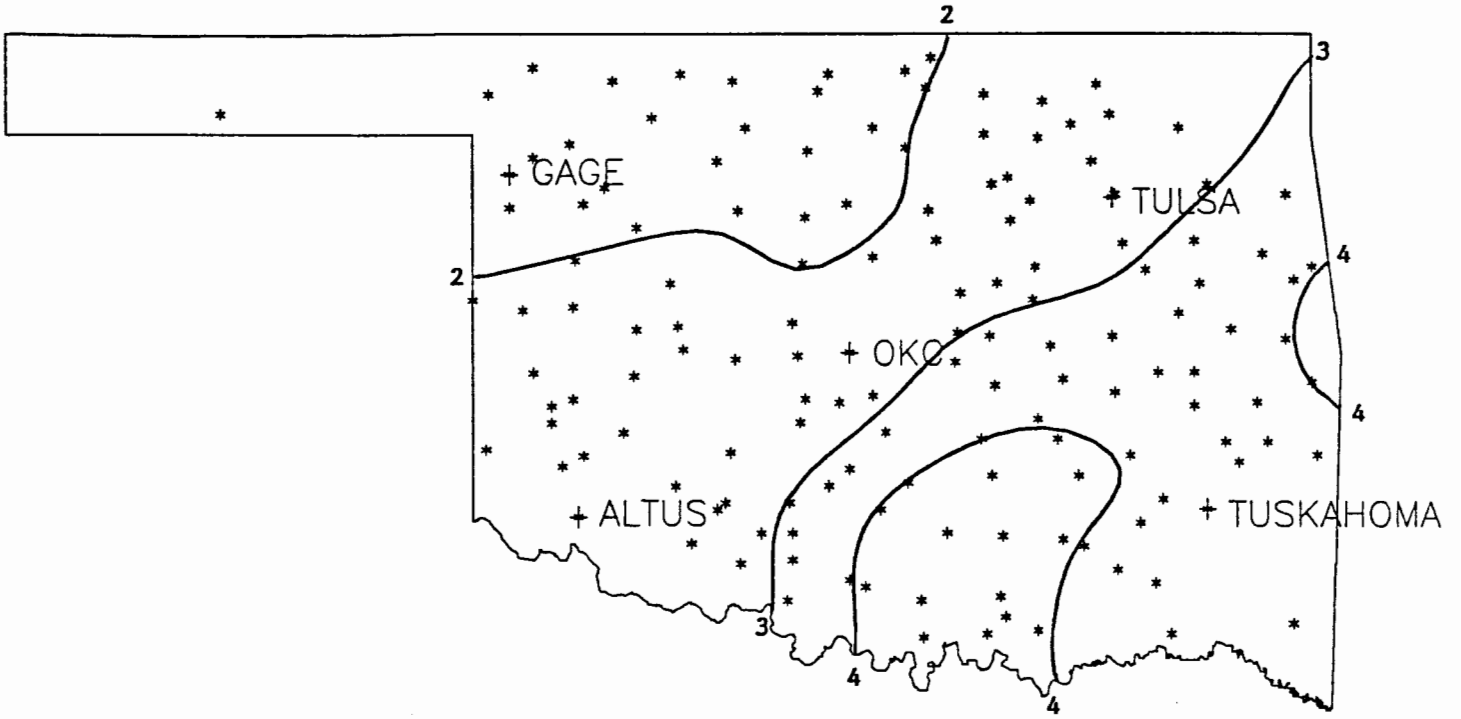
NAME	ID CD	DEV							HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	DEV			
		MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN DAY	MIN TEMP	MIN DAY						NUM OBS	FROM NORM	MAX	24-HR DAY
ADA	17 8	56.7	30	4.9	79.	1	28.	29	258.5	-145.5	10.5	2.5	4.320	30	1.77	2.03	4
ALLEN	147 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.200	30	*****	1.70	4
ARDMORE	292 8	58.4	30	4.1	80.	1	31.	5	225.0	-105.0	27.5	18.5	4.830	30	2.59	2.79	4
ATOKA DAM	394 8	57.2	30	*****	80.	4	31.	30	257.0	*****	23.0	*****	2.760	30	*****	1.56	27
BOKCHITO	917 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.250	30	*****	2.50	9
CANEY	1437 8	58.0	30	*****	77.	20	30.	28	241.0	*****	29.5	*****	3.870	30	*****	1.20	4
CENTRAHOMA	1648 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.150	30	*****	1.80	3
CHICKASAW NRA	1745 8	55.8	30	*****	79.	2	25.	29	296.0	*****	20.0	*****	4.380	30	*****	2.00	4
COLEMAN	2011 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.270	30	*****	2.50	27
COMPANCHE	2054 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.591	30	*****	2.06	4
DAISY 4 ENE	2354 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.192	30	-.17	1.26	9
DUNCAN	2660 8	56.6	29	4.6	81.	2	28.	28	260.0	-137.0	15.5	8.5	3.680	30	1.78	2.25	4
DURANT USDA	2678 8	57.3	30	*****	80.	2	28.	28	257.5	*****	25.0	*****	3.300	30	.50	1.24	5
ELMORE CITY	2872 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.033	30	*****	3.50	4
FARRIS 3 WNW	3083 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.640	30	*****	.96	28
GRADY	3688 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.550	30	*****	2.20	4
HEALDTON	4001 8	56.8	30	*****	82.	1	29.	28	268.5	*****	22.0	*****	5.810	30	3.77	2.67	4
HENNEPIN	4052 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.820	30	*****	1.00	9
KETCHUM RANCH	4780 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.090	30	*****	1.35	4
KINGSTON	4865 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.430	30	1.90	1.50	4
LEHIGH	5108 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.351	30	*****	1.65	4
LINDSAY 2 W	5216 8	54.8	30	*****	79.	1	24.	29	313.0	*****	6.5	*****	2.451	30	.37	1.12	4
LOCO 6 SE	5247 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.770	30	*****	1.77	4
MADILL	5468 8	58.2	30	5.2	80.	2	30.	28	226.5	-139.5	22.0	16.0	5.151	30	2.69	1.33	4
MARLETTA	5563 8	58.5	30	5.6	80.	25	30.	5	226.5	-144.5	30.5	22.5	4.901	30	2.44	1.47	4
MARLOW 1 WSW	5581 8	56.3	30	*****	82.	1	24.	28	278.0	*****	15.5	*****	2.870	30	.92	1.42	4
MCGEE CREEK DAM	5713 8	56.9	30	*****	80.	1	29.	30	262.5	*****	18.5	*****	2.720	30	*****	.80	9
PAULS VALLEY	6926 8	56.7	30	5.3	82.	1	28.	29	274.0	-139.0	23.5	23.5	4.851	30	2.68	2.50	4
PONOTOC	7214 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.530	30	1.64	1.77	3
TISHOMINGO NWLR	8884 8	57.0	24	*****	79.	2	27.	30	215.5	*****	22.5	*****	5.860	30	3.37	2.25	4
TUSSY	9032 8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.840	30	*****	2.28	4
WAURIKA	9395 8	57.3	30	4.7	84.	1	28.	29	253.0	-126.0	22.5	15.5	1.710	30	-.22	1.03	9
WAURIKA DAM	9399 8	55.9	30	*****	83.	2	30.	30	292.0	*****	18.0	*****	4.282	30	*****	2.35	4

NOVEMBER 1990 SUMMARY FOR SOUTHEAST DIVISION (CD9)

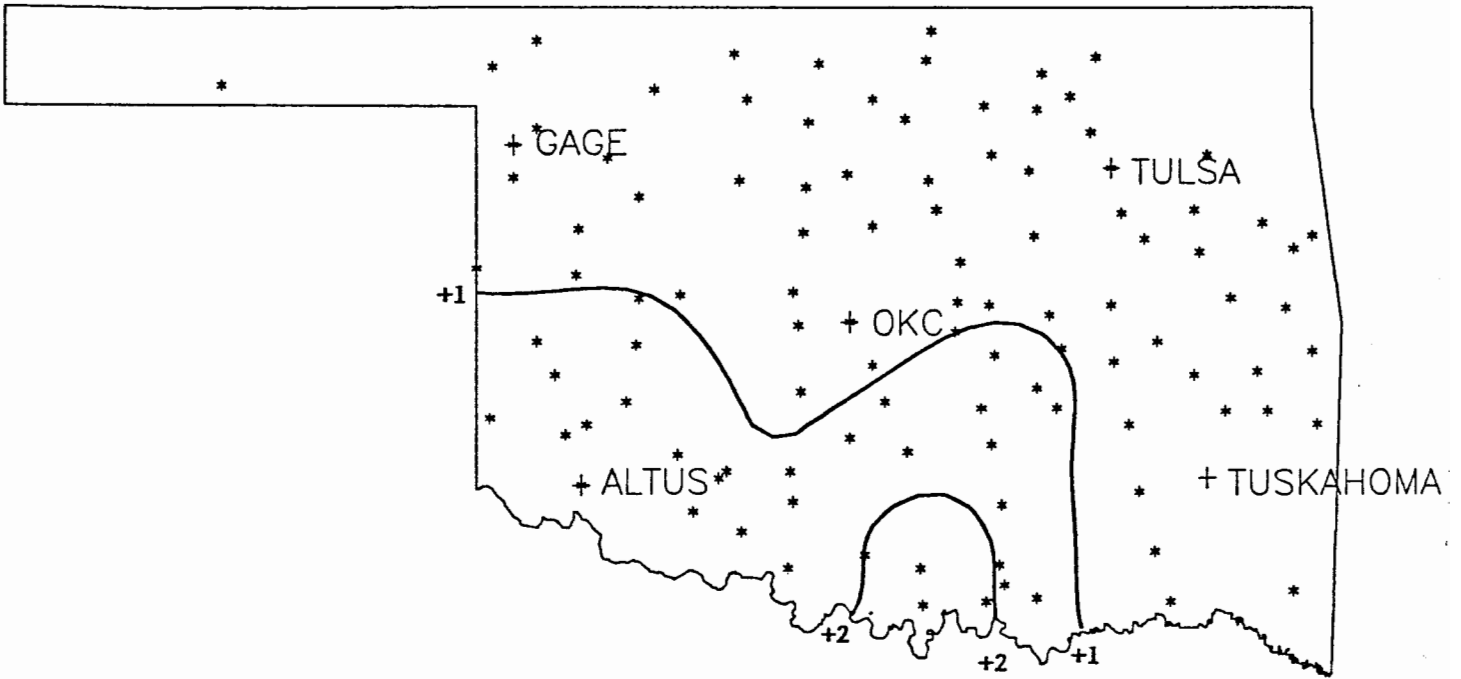
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		MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	MIN DAY	MIN TEMP	MIN DAY						NUM OBS	FROM NORM	MAX	24-HR DAY
ANTLERS	256 9	56.4	30	4.6	79.	1	24.	30	273.0	-127.0	15.5	15.5	2.410	30	-.77	1.07	4
BATTLEST 1 SSW	567 9	53.2	30	*****	78.	12	19.	30	355.5	*****	2.0	*****	3.931	30	*****	1.27	5
BENGAL	670 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.550	30	*****	.94	9
BOSWELL 4 NNW	980 9	59.5	29	*****	81.	1	30.	29	189.0	*****	29.5	*****	2.850	29	*****	.92	9
BROKEN BOW 1 N	1162 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.040	30	.02	1.39	9
BROKEN BOW DAM	1168 9	56.1	30	*****	80.	13	24.	30	277.0	*****	11.0	*****	3.580	30	*****	1.35	9
CARNASAW TWR	1499 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.600	30	-.68	1.39	9
CARTER TWR	1544 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.920	30	.10	1.12	8
FANSHAWE	3065 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.671	30	-.28	.95	9
FLAGPOLE TWR	3169 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.560	30	*****	.95	9
HEAVENER 1 SE	4008 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.721	30	.03	1.05	9
HEE MT TWR	4017 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.000	30	*****	1.05	9
HUGO	4384 9	58.5	30	5.1	78.	12	29.	30	211.5	-145.5	16.5	7.5	2.930	30	-.33	1.15	9
JADIE TOWER	4560 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.790	30	*****	1.76	9
POTEAU	7246 9	54.8	29	3.1	82.	21	21.	29	298.5	-104.5	2.0	2.0	3.771	29	*****	1.07	3
SMITHVILLE 1 W	8285 9	54.5	30	*****	80.	12	18.	30	326.5	*****	10.0	*****	3.523	30	*****	1.15	5
SOBAL TOWER	8305 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.480	30	-.93	.76	3
SPIRO	8416 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.070	30	.22	1.02	5
TUSKAHOMA	9023 9	56.8	30	*****	82.	12	22.	30	276.0	*****	30.0	*****	3.881	30	*****	1.07	5
VALLIANT 3 W	9118 9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.731	30	.13	1.48	9
WILBURTON 9 ENE	9634 9	55.2	30	4.3	81.	12	22.	30	304.0	-124.0	10.5	10.5	4.800	30	1.22	1.25	27

NOVEMBER 1990 CLIMATE DIVISION SUMMARY

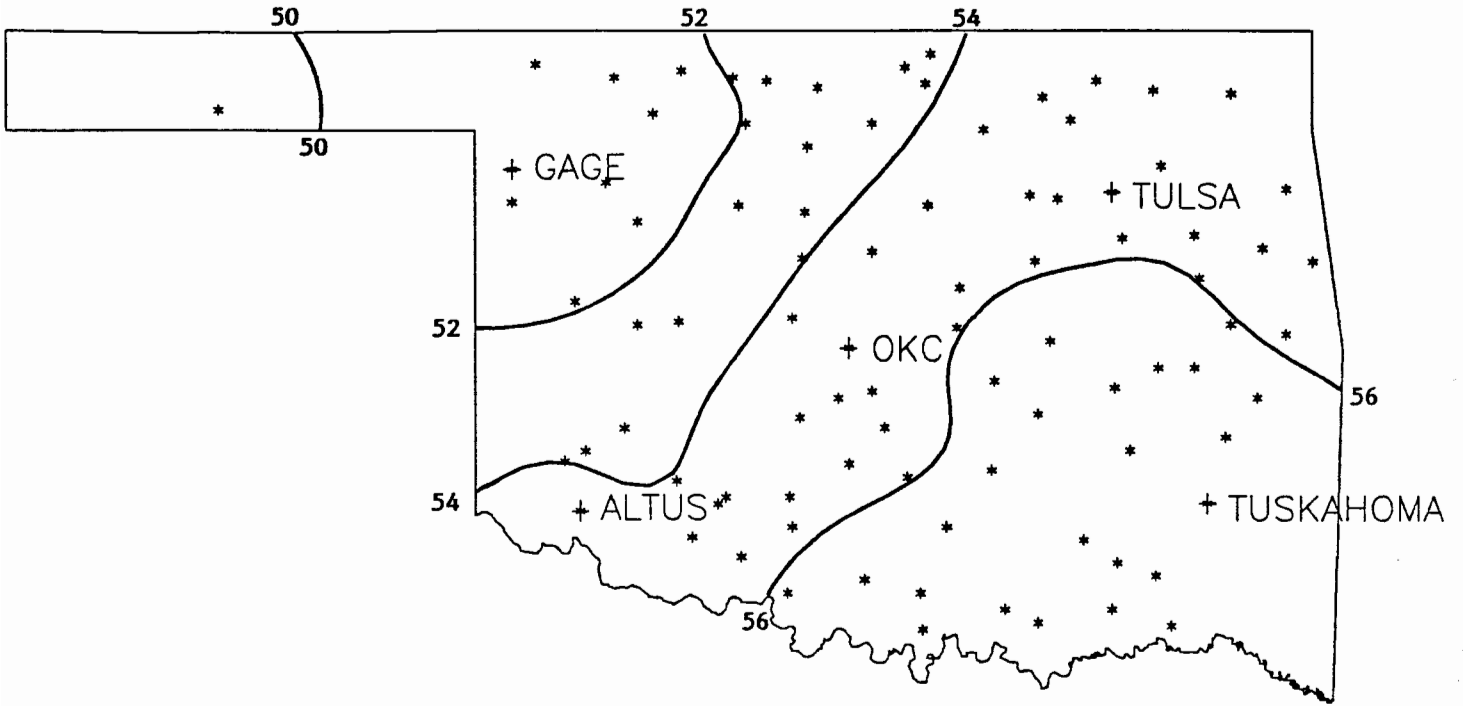
CLIMATE DIV	MEAN TEMP	NUM STA	DEV			HEAT			DEV			COOL			DEV		
			FROM NORM	MAX TEMP	MIN DAY	DEGREE DAY	FROM NORM	DEGREE DAY	DEGREE DAY	FROM NORM	TOT PPT	NUM STA	FROM NORM	MAX 24-HR	DAY		
1	49.3	11	4.4	91.0	1	11.0	29	476.4	-128.1	4.9	4.9	1.05	14	.22	1.31	4	
2	52.4	15	4.7	89.0	2	15.0	29	391.5	-129.2	12.1	12.1	1.67	24	.07	1.72	4	
3	55.2	16	6.8	84.0	12	21.0	29	303.8	-192.9	13.9	13.9	2.53	25	.06	2.58	4	
4	52.3	9	3.9	87.0	1	17.0	29	388.9	-111.4	7.8	7.8	2.22	20	.90	1.80	4	
5	55.3	16	5.8	83.0	25	20.0	29	307.5	-158.5	15.9	15.2	2.56	36	.58	2.83	4	
6	55.9	12	6.0	82.0	13	23.0	29	291.2	-152.5	18.4	16.0	3.79	30	.82	2.60	4	
7	53.9	11	3.5	89.0	1	20.0	29	343.0	-96.6	9.5	8.5	2.56	22	1.23	2.12	4	
8	56.9	16	4.4	84.0	1	24.0	28	261.8	-118.2	20.6	14.2	3.98	33	1.59	3.50	4	
9	56.1	9	4.2	82.0	12	18.0	30	279.0	-118.0	14.1	11.9	3.69	19	.03	1.76	9	



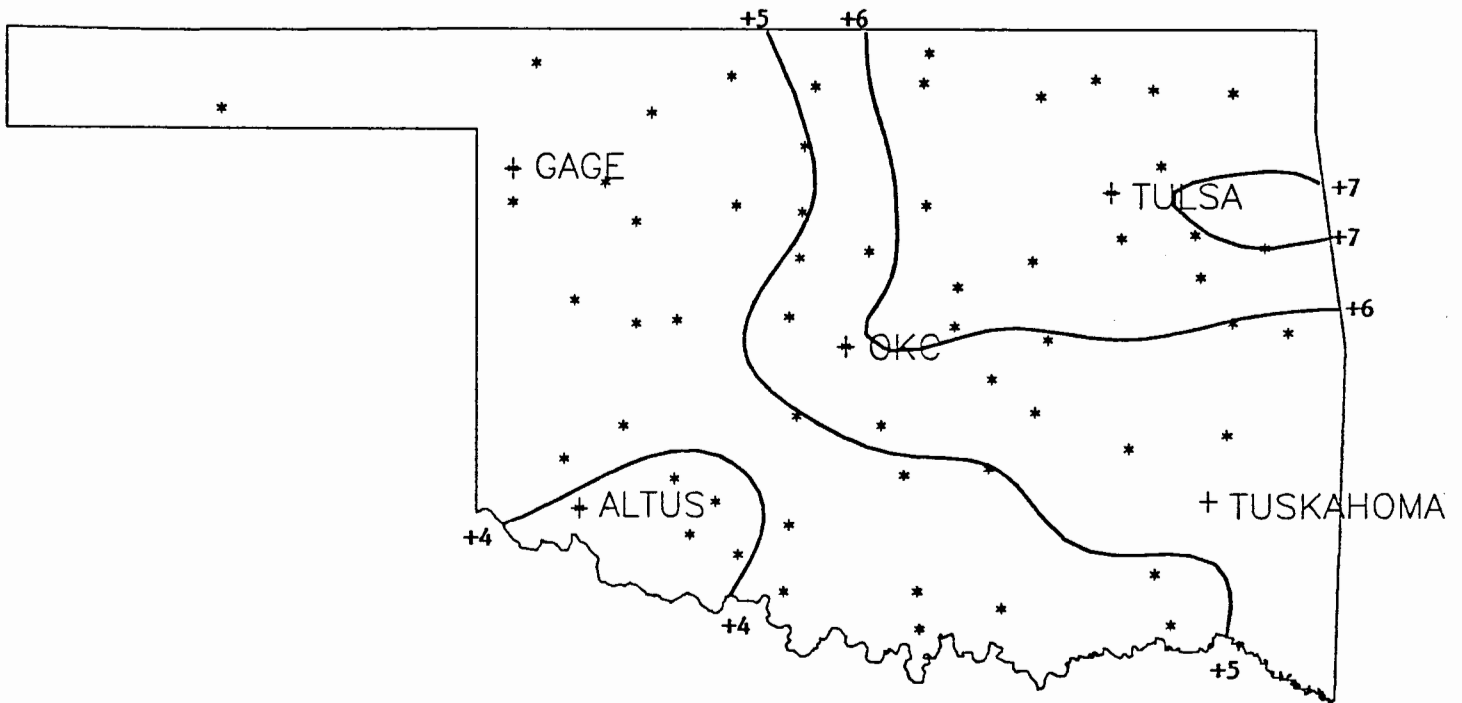
NOVEMBER 1990 TOTAL PRECIPITATION
(Inches)



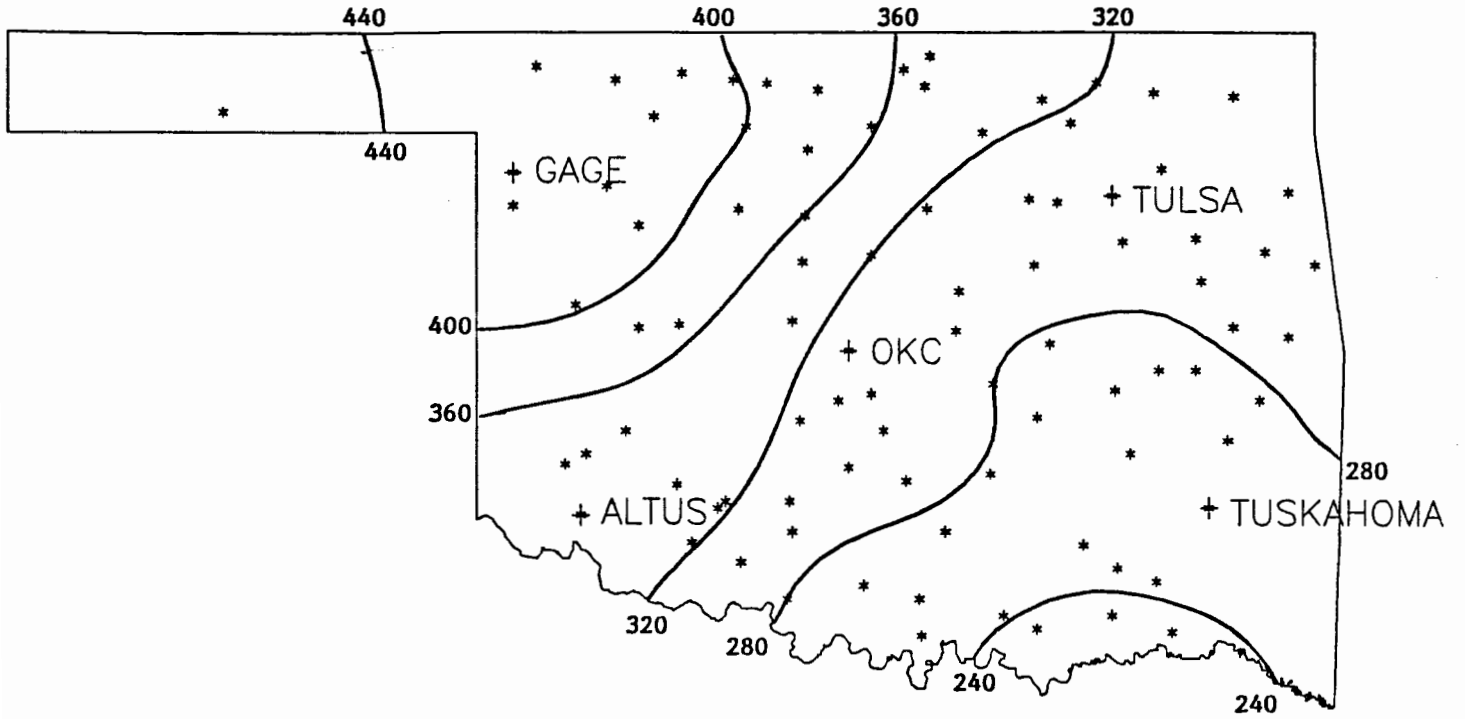
NOVEMBER 1990 DEVIATION FROM NORMAL PRECIPITATION
(Inches)



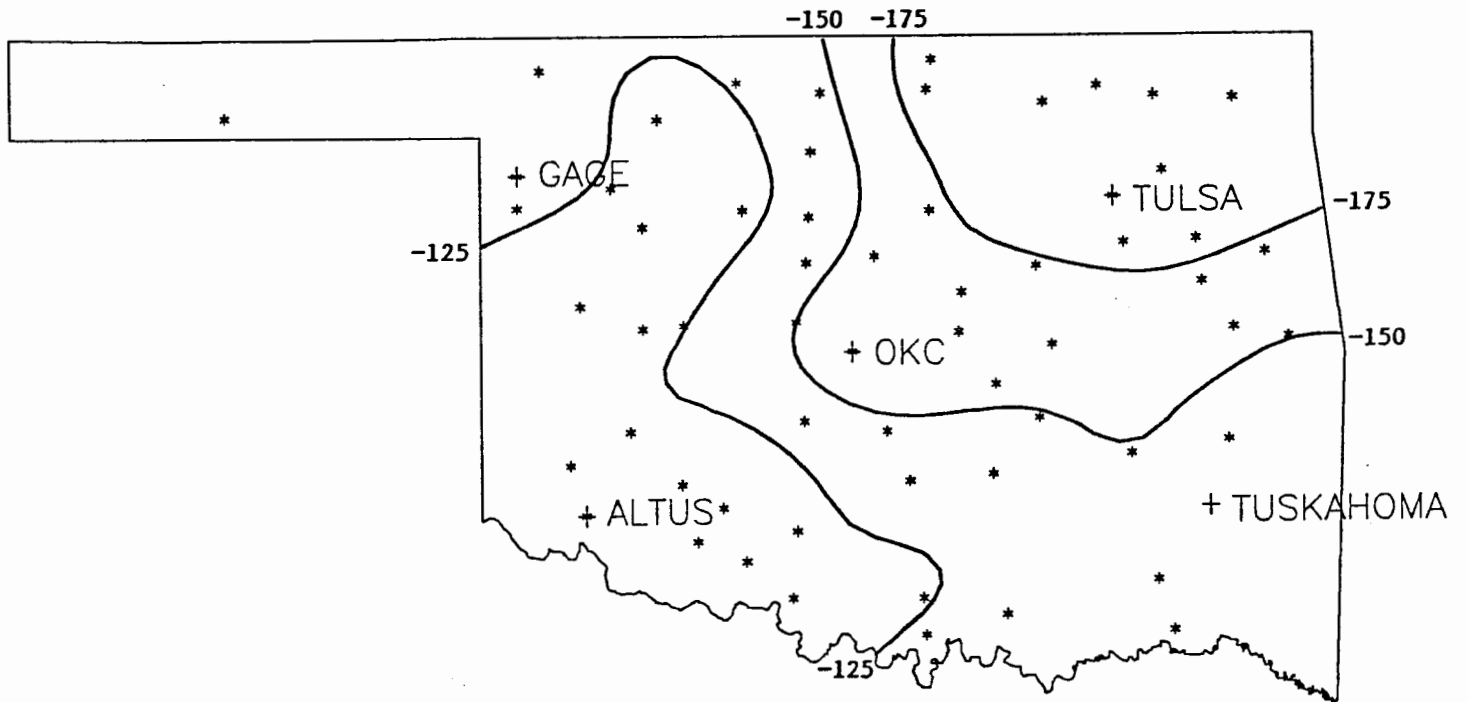
NOVEMBER 1990 AVERAGE MONTHLY TEMPERATURES
(Degrees F)



NOVEMBER 1990 DEVIATION FROM NORMAL TEMPERATURES
(Degrees F)

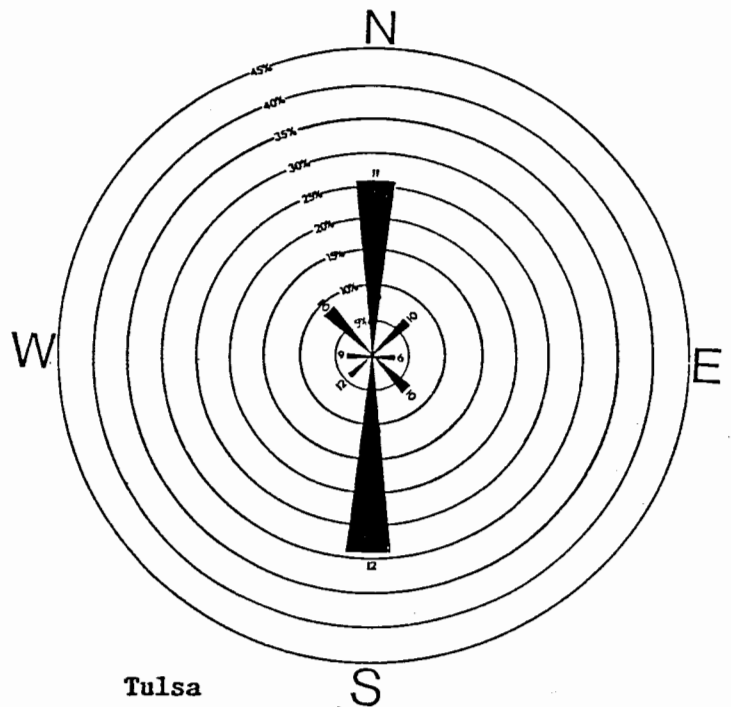
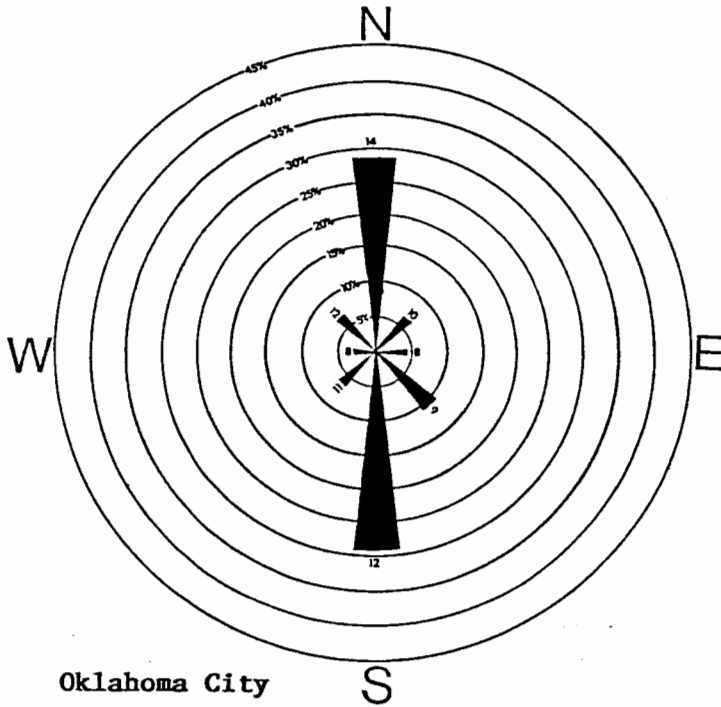


NOVEMBER 1990 HEATING DEGREE DAYS



NOVEMBER 1990 DEVIATION FROM NORMAL HEATING DEGREE DAYS

January 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.



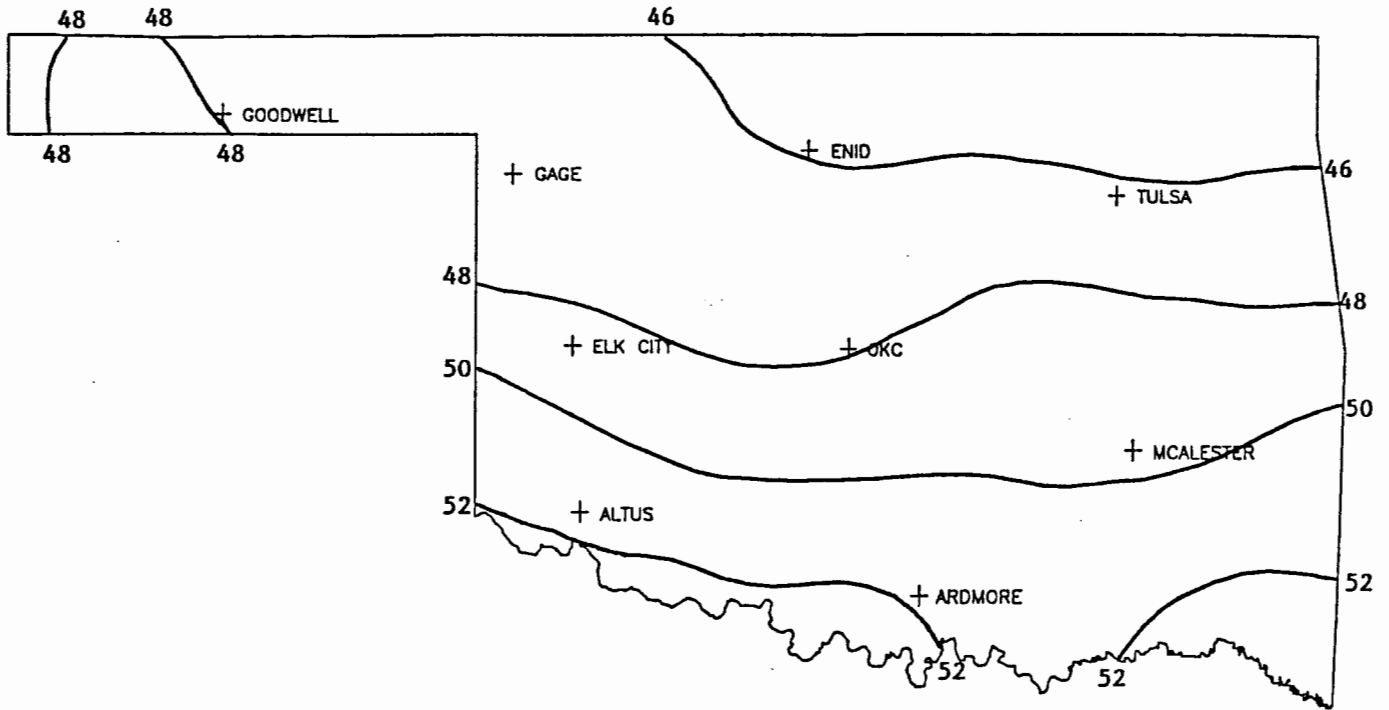
JANUARY 1991 SUNRISE AND SUNSET

Oklahoma City

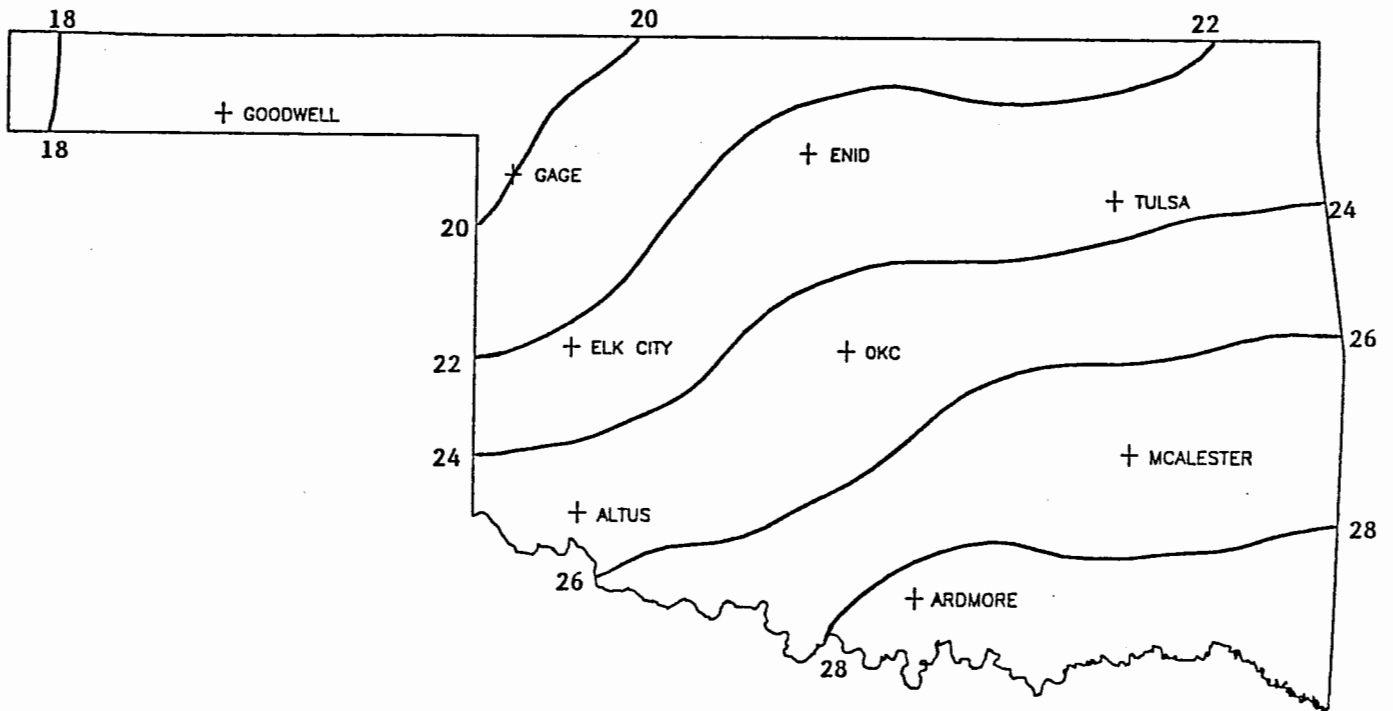
DATE	SUNRISE	SUNSET	DAYLIGHT
910101	7:38AM	5:30PM LT	9:53
910102	7:38AM	5:31PM LT	9:53
910103	7:38AM	5:31PM LT	9:54
910104	7:38AM	5:32PM LT	9:54
910105	7:38AM	5:33PM LT	9:55
910106	7:38AM	5:34PM LT	9:56
910107	7:38AM	5:35PM LT	9:56
910108	7:38AM	5:35PM LT	9:57
910109	7:38AM	5:36PM LT	9:58
910110	7:38AM	5:37PM LT	9:59
910111	7:38AM	5:38PM LT	9:60
910112	7:38AM	5:39PM LT	10: 1
910113	7:38AM	5:40PM LT	10: 2
910114	7:38AM	5:40PM LT	10: 3
910115	7:38AM	5:41PM LT	10: 4
910116	7:37AM	5:42PM LT	10: 5
910117	7:37AM	5:43PM LT	10: 6
910118	7:37AM	5:44PM LT	10: 7
910119	7:37AM	5:45PM LT	10: 8
910120	7:36AM	5:46PM LT	10:10
910121	7:36AM	5:47PM LT	10:11
910122	7:35AM	5:48PM LT	10:12
910123	7:35AM	5:49PM LT	10:14
910124	7:35AM	5:50PM LT	10:15
910125	7:34AM	5:51PM LT	10:17
910126	7:34AM	5:52PM LT	10:18
910127	7:33AM	5:53PM LT	10:20
910128	7:32AM	5:54PM LT	10:21
910129	7:32AM	5:55PM LT	10:23
910130	7:31AM	5:56PM LT	10:24
910131	7:31AM	5:57PM LT	10:26

Tulsa

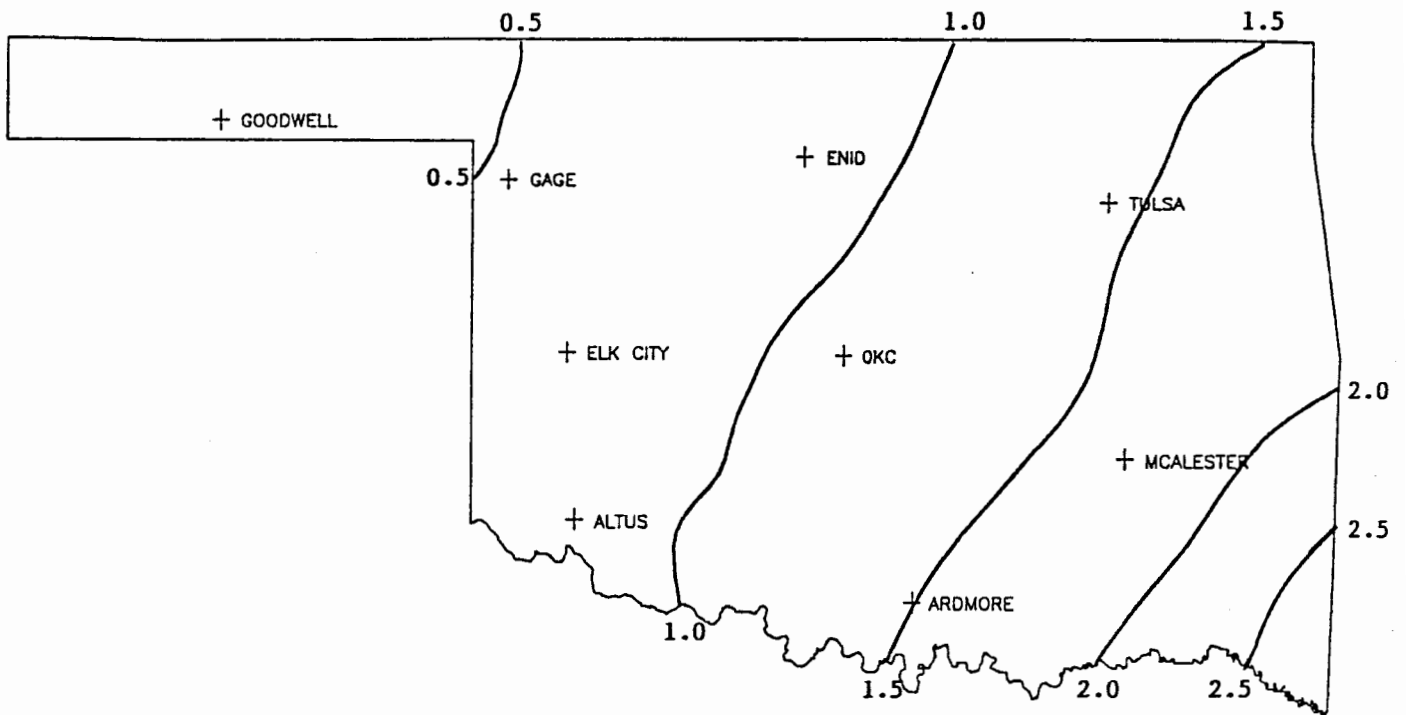
DATE	SUNRISE	SUNSET	DAYLIGHT
910101	7:33AM	5:21PM LT	9:49
910102	7:33AM	5:22PM LT	9:49
910103	7:33AM	5:23PM LT	9:50
910104	7:33AM	5:23PM LT	9:50
910105	7:33AM	5:24PM LT	9:51
910106	7:33AM	5:25PM LT	9:52
910107	7:33AM	5:26PM LT	9:52
910108	7:33AM	5:27PM LT	9:53
910109	7:33AM	5:27PM LT	9:54
910110	7:33AM	5:28PM LT	9:55
910111	7:33AM	5:29PM LT	9:56
910112	7:33AM	5:30PM LT	9:57
910113	7:33AM	5:31PM LT	9:58
910114	7:33AM	5:32PM LT	9:59
910115	7:33AM	5:33PM LT	10: 0
910116	7:32AM	5:34PM LT	10: 1
910117	7:32AM	5:35PM LT	10: 2
910118	7:32AM	5:35PM LT	10: 4
910119	7:31AM	5:36PM LT	10: 5
910120	7:31AM	5:37PM LT	10: 6
910121	7:31AM	5:38PM LT	10: 8
910122	7:30AM	5:39PM LT	10: 9
910123	7:30AM	5:40PM LT	10:10
910124	7:29AM	5:41PM LT	10:12
910125	7:29AM	5:42PM LT	10:13
910126	7:28AM	5:43PM LT	10:15
910127	7:28AM	5:44PM LT	10:17
910128	7:27AM	5:45PM LT	10:18
910129	7:27AM	5:46PM LT	10:20
910130	7:26AM	5:47PM LT	10:21
910131	7:25AM	5:48PM LT	10:23



30-YEAR MEAN JANUARY MAXIMUM TEMPERATURE



30-YEAR MEAN JANUARY MINIMUM TEMPERATURE



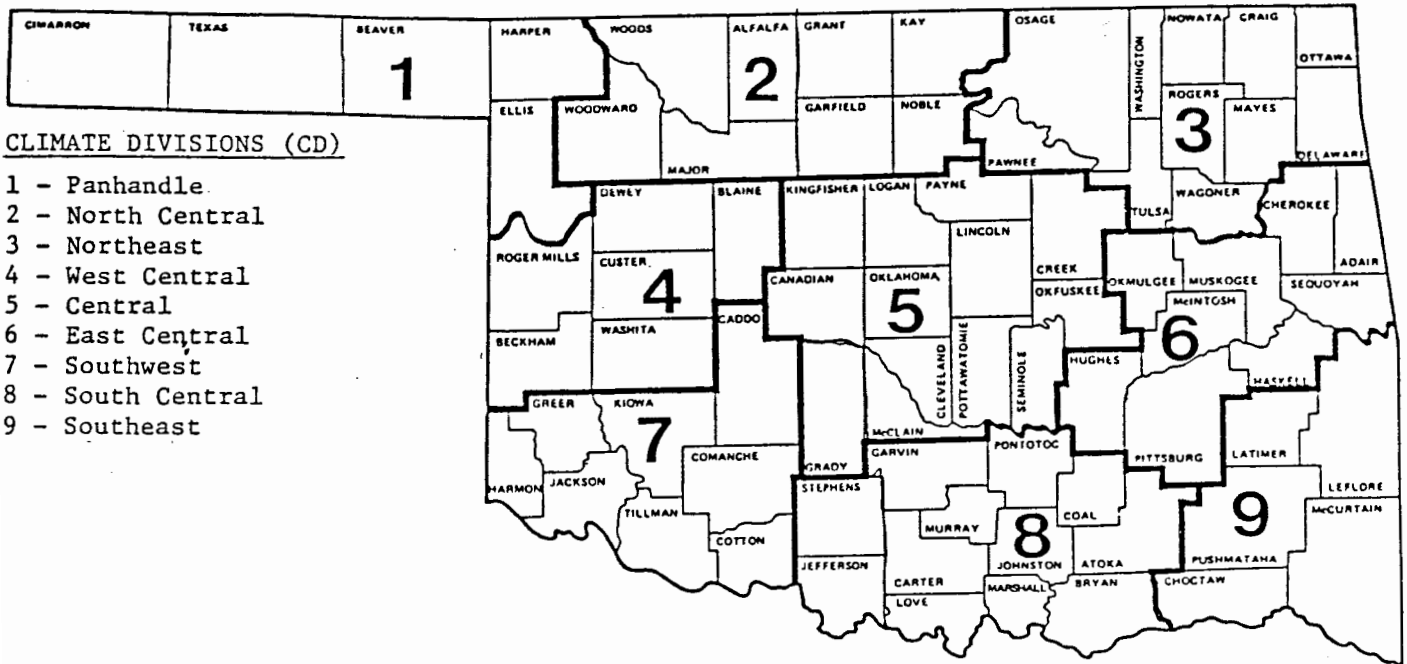
30-YEAR MEAN JANUARY PRECIPITATION

90-DAY NATIONAL WEATHER SERVICE OUTLOOK

(DECEMBER-FEBRUARY)

Precipitation - Near Normal Southeast
Below Normal Elsewhere

Temperature - Below Normal East
Above Normal Extreme West
Near Normal Elsewhere



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:

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

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.

CLIMATE CALENDAR

The data on this calendar are for Oklahoma City.
 Normal values are calculated for the period
 1948-1988. Extremes are found for the period
 of record (1924-present).

1		2		3		4		5		6		7	
Normal	46.0	Normal	47.0	Normal	45.0	Normal	43.4	Normal	46.1	Normal	47.3	Normal	44.3
max	26.4	max	27.0	max	24.3	max	24.9	max	25.9	max	47.3	max	44.3
min	.021	min	.076	min	.064	min	.023	min	.051	min	24.9	min	24.1
pcpn	29	pcpn	28	pcpn	30	pcpn	.31	pcpn	29	pcpn	.29	pcpn	.007
HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	31
CDD	72-1943	CDD	70-1964	CDD	71-1939	CDD	72-1927	CDD	71-1927	CDD	71-1927	CDD	67-1927
Highest Max	13-1979	Highest Max	21-1928	Highest Max	11-1947	Highest Max	11-1959	Highest Max	22-1940	Highest Max	22-1940	Highest Max	20-1979
Lowest Min	2-1928	Lowest Min	3-1919	Lowest Min	1-1959	Lowest Min	-7-1947	Lowest Min	-2-1959	Lowest Min	6-1968	Lowest Min	2-1968
Highest Min	51-1966	Highest Min	56-1950	Highest Min	50-1955	Highest Min	60-1955	Highest Min	47-1989	Highest Min	47-1965	Highest Min	54-1965
Greatest pcpn	.50-1966	Greatest pcpn	1.01-1951	Greatest pcpn	.83-1973	Greatest pcpn	1.81-1932	Greatest pcpn	1.00-1962	Greatest pcpn	1.02-1934	Greatest pcpn	.93-1943
8		9		10		11		12		13		14	
Normal	46.6	Normal	44.3	Normal	41.5	Normal	43.1	Normal	45.7	Normal	47.0	Normal	48.0
max	23.2	max	23.1	max	22.2	max	21.8	max	25.0	max	25.0	max	26.0
min	.031	min	.019	min	.023	min	.015	min	.029	min	.007	min	.017
pcpn	30	pcpn	31	pcpn	33	pcpn	32	pcpn	29	pcpn	29	pcpn	28
HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	28
CDD	70-1954	CDD	68-1935	CDD	75-1990	CDD	73-1928	CDD	73-1935	CDD	73-1935	CDD	75-1928
Highest Max	11-1937	Highest Max	9-1977	Highest Max	13-1962	Highest Max	16-1963	Highest Max	11-1963	Highest Max	11-1963	Highest Max	17-1979
Lowest Min	-4-1988	Lowest Min	-2-1977	Lowest Min	4-1978	Lowest Min	-1-1962	Lowest Min	-3-1963	Lowest Min	-1-1963	Lowest Min	1-1979
Highest Min	49-1939	Highest Min	45-1966	Highest Min	47-1928	Highest Min	45-1928	Highest Min	51-1960	Highest Min	49-1952	Highest Min	50-1928
Greatest pcpn	1.45-1935	Greatest pcpn	.43-1930	Greatest pcpn	.59-1949	Greatest pcpn	.39-1949	Greatest pcpn	.78-1927	Greatest pcpn	.27-1989	Greatest pcpn	.37-1946
15		16		17		18		19		20		21	
Normal	49.0	Normal	46.1	Normal	46.9	Normal	45.9	Normal	43.7	Normal	45.7	Normal	45.2
max	25.2	max	24.7	max	25.5	max	25.3	max	24.7	max	24.7	max	25.9
min	.025	min	.026	min	.038	min	.029	min	.070	min	.018	min	.081
pcpn	28	pcpn	29	pcpn	29	pcpn	29	pcpn	31	pcpn	29	pcpn	29
HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	29
CDD	73-1952	CDD	75-1935	CDD	68-1951	CDD	72-1951	CDD	73-1951	CDD	73-1951	CDD	71-1933
Highest Max	14-1930	Highest Max	11-1930	Highest Max	8-1930	Highest Max	12-1943	Highest Max	12-1942	Highest Max	12-1942	Highest Max	19-1978
Lowest Min	1-1972	Lowest Min	0-1930	Lowest Min	-9-1930	Lowest Min	-9-1930	Lowest Min	8-1962	Lowest Min	-3-1984	Lowest Min	13-1954
Highest Min	53-1969	Highest Min	57-1990	Highest Min	51-1973	Highest Min	47-1935	Highest Min	48-1954	Highest Min	48-1954	Highest Min	-2-1935
Greatest pcpn	1.07-1932	Greatest pcpn	.70-1990	Greatest pcpn	1.61-1926	Greatest pcpn	1.07-1968	Greatest pcpn	1.28-1980	Greatest pcpn	.28-1980	Greatest pcpn	53-1933
22		23		24		25		26		27		28	
Normal	46.7	Normal	46.0	Normal	49.9	Normal	49.3	Normal	45.9	Normal	45.4	Normal	47.0
max	25.2	max	24.2	max	26.7	max	27.6	max	26.3	max	24.9	max	25.7
min	.030	min	.026	min	.019	min	.079	min	.029	min	.028	min	.006
pcpn	29	pcpn	30	pcpn	27	pcpn	26	pcpn	29	pcpn	30	pcpn	.006
HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	0	HDD	28
CDD	79-1967	CDD	73-1942	CDD	80-1950	CDD	76-1952	CDD	76-1952	CDD	72-1952	CDD	71-1969
Highest Max	16-1962	Highest Max	13-1963	Highest Max	13-1940	Highest Max	16-1949	Highest Max	16-1949	Highest Max	20-1957	Highest Max	17-1961
Lowest Min	-8-1930	Lowest Min	-1-1963	Lowest Min	-1-1963	Lowest Min	5-1940	Lowest Min	5-1940	Lowest Min	8-1963	Lowest Min	21-1948
Highest Min	49-1967	Highest Min	51-1967	Highest Min	44-1967	Highest Min	58-1944	Highest Min	58-1944	Highest Min	53-1944	Highest Min	5-1948
Greatest pcpn	.34-1927	Greatest pcpn	.89-1949	Greatest pcpn	.37-1949	Greatest pcpn	.61-1967	Greatest pcpn	.61-1967	Greatest pcpn	.64-1983	Greatest pcpn	60-1978
29		30		31		JANUARY AVERAGES		Temperature		Precipitation		Heating Degree Days	
Normal	47.7	Normal	46.2	Normal	47.4	: 35.6°F		: 1.18"		: 906		: 0	
max	26.0	max	25.5	max	27.3	Cooling Degree Days:		Cooling Degree Days:		Cooling Degree Days:		Cooling Degree Days:	
min	.068	min	.078	min	.058	: 0		: 0		: 0		: 0	
pcpn	28	pcpn	29	pcpn	27	: 0		: 0		: 0		: 0	
HDD	0	HDD	0	HDD	0	: 0		: 0		: 0		: 0	
CDD	72-1971	CDD	73-1931	CDD	75-1989	: 0		: 0		: 0		: 0	
Highest Max	13-1966	Highest Max	17-1949	Highest Max	11-1985	: 0		: 0		: 0		: 0	
Lowest Min	3-1951	Lowest Min	2-1966	Lowest Min	-1-1979	: 0		: 0		: 0		: 0	
Highest Min	50-1988	Highest Min	55-1988	Highest Min	47-1986	: 0		: 0		: 0		: 0	
Greatest pcpn	.89-1938	Greatest pcpn	1.02-1975	Greatest pcpn	.47-1941	: 0		: 0		: 0		: 0	