U. S. DEPARTMENT OF COMMERCE
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CLIMATOGRAPHY OF THE UNITED STATES NO. 81-30

DECENNIAL CENSUS OF UNITED STATES CLIMATE—

MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION, AND HEATING DEGREE DAYS

OKLAHOMA

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PREFACE

The climatological standard normals presented in this publication are based on records for the 30-year period 1931-1960 inclusive. For the first time, normals have been computed for substations and divisions using a base period identical to that used for first-order stations.

Previous normals were published in Weather Bureau Technical Paper No. 31, "Monthly Normal Temperatures, Precipitation, and Degree Days," and were based on records for the period 1921-1950. Earlier sets of normals are described in [1].

This is the first series of publications resulting from the project "The Decennial Census of United States Climate, 1960." The project is a continuation of earlier censuses of the climate of the United States that date back to the early 19th Century and are described in [2]. Future publications of this project will be listings of daily normals of temperature, and degree days; summaries of hourly observations; and listings of monthly divisional averages of temperature and precipitation.

Units used in this publication are degrees F. for temperatures, and inches for precipitation. The heating degree day normals are derived from the monthly normal temperatures, and are computed on the standard base of 65°F. Monthly normals of less than 5 degree days are shown as zero.

Standard Normals for Weather Bureau First Order Stations

A normal of a climatological element is an arithmetic mean for a specific period of record which estimates the true mean of the element at the current exposure of the meteorological instrument measuring the element. The true mean is the mean of all possible observations (population) at the current exposure. It is from this population that future observations will come, not from values in the past record. This is what makes it important to obtain an estimate of this mean. The true mean can never be known exactly but must be estimated from a sample of the past record ([3] p. 53 section 4. 3). The normals presented here are estimates of the true mean obtained from the 30-year sample record 1931-1960. They are called standard normals because they conform to the World Meteorological Organization standard for climatological normals.

If no exposure changes have occurred at a station the normal is estimated by simply averaging the 30 values from the 1931-1960 record. Since it is next to impossible to maintain a multiple purpose network of meteorological stations without having exposure changes, it is first necessary to find and evaluate these changes and then make adjustments for them if necessary.

Heterogeneities in record due to exposure changes are found in two ways: by determining them from the station histories and by use of statistical tests. The statistical test when standardized for the purpose is easy to apply and will often find heterogeneities which are not defined by the station histories as well as those which have been so determined. Two statistical tests were employed: one for temperature and the other for precipitation. These are described in [4].

After the periods of heterogeneity have been determined, adjustments are applied to remove the heterogeneities introduced into the mean. This is done by comparing the record at the base station, for which the normal is desired, to the record at a supplementary station with a homogeneous period which covers the heterogeneous period at the base station. The difference method is applied to the monthly average maximum and minimum temperatures and the ratio method to the monthly total precipitation. A weighted average of the various partial means of the adjusted and unadjusted record is then prepared to give the normal. Brief discussions of the methods of adjustment are found in [3] (p. 49, section 4. 24).

Normal heating degree days are derived by the method described in [5].

Normals for Substations and Divisions

Normals for substations were computed somewhat differently than those for first-order stations. Monthly substation normals are the simple arithmetic averages of the monthly values of temperature and precipitation for the period 1931-1960. These were computed for only those substations that were active during the entire period and no attempt was made to adjust for minor changes in location of the observing site, or for changes in the time of observation. Normals were not computed for substations that were moved a significant distance during the 1931-1960 period. Missing values in the data series were estimated by methods described in [6]. Substations whose locations were essentially unchanged during the 1931-1960 period are identified in the tables.

Monthly divisional normals are the means of the monthly divisional averages of temperature and precipitation for the period 1931-1960. In calculating the monthly divisional averages, all of the stations in the division that furnished both temperature and precipitation data during the particular month were used. The averages therefore were obtained from a variable station sample. As a result, the divisional normals often differ from the averages of the normals for stations in the division.

Annual substation and divisional normals are the averages of the 12 monthly temperature normals and the sums of the 12 monthly precipitation normals.

References

1. U. S. Weather Bureau, "History of Climatological Publications," Key to Meteorological Records Documentation No. 4. 1, Washington, D. C., 1958.

2. H. E. Landsberg, "The Decennial United States Census of Climate 1960 and Its Antecedents," Key to Meteorological Records Documentation No. 6. 2, U. S. Weather Bureau, Washington, D. C., 1960.

3. U. S. Weather Bureau, Climatology at Work, Gerald L. Barger, ed., Washington, D. C., 1960.

4. H. C. S. Thom, "Tests of Significance for Temperature and Precipitation Normals," U. S. Weather Bureau Manuscript, 1961.

5. H. C. S. Thom, "The Rational Relationship Between Heating Degree Days and Temperature," Monthly Weather Review, Vol. 82, No. 1, January 1954.

6. U. S. Weather Bureau, Administrative Manual, Vol. III, Chap. C-05, paras. C-0509 and C-0510.

NOTES

1. Station Names

In Table I, "AP" after the city name indicates "airport station" "CO" indicates "city office station." Figures and letters following the station name indicate a rural location, and refer to the distance and direction of the station from the nearest post office.

# indicates a station whose location has been essentially unchanged during the period 1931-1960.

H indicates the ground elevation of the station in feet above sea level, as of December 31, 1960.

G indicates the elevation at hygrothermometer site (where different from "H").

T indicates the height of the thermometer in feet above the ground as of December 31, 1960.

/NO TEST/ indicates that significant difference tests were not made.

2. Table Content

* indicates that the departure of the 1951-60 record from the 1921-50 normal is statistically significant, but through the adjustments for changes in location and exposure the absolute difference between old and new normals may even in these cases be very small.

T in the data tables indicates a monthly precipitation amount of only a trace.

February monthly normals are for a 28-day month.

TABLE I - NORMALS FOR FIRST ORDER STATIONS

OKLAHOMA

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
OKLAHOMA CITY AP	H1280 T 6													
MAX TEMP		45.9	51.3	59.5	69.6*	77.1	86.4	91.8	92.5	84.7	73.9	58.8	49.2	70.1
MIN TEMP		27.1	30.2	36.5	48.1*	57.6	66.5	70.2	70.0	61.9	50.8	37.0*	30.4	48.9
AVG TEMP		36.5	40.8	48.0	58.9*	67.4	76.5	81.0	81.3	73.3	62.4	47.9*	39.8	59.5
DEG DAYS		884	678	536	213*	50	0	0	0	15	174	513*	781	3844
PRECIP		1.31	1.37	1.97	3.12	5.19*	4.47	2.37	2.52	3.02	2.51	1.56*	1.41	30.82
TULSA AP	G 649 T 5													
MAX TEMP		46.9	51.6	60.0	70.5	77.9	87.2	92.9	93.1	85.6*	75.0	59.6	50.0	70.9
MIN TEMP		27.5	30.6	37.2	48.2	57.7*	67.3	71.4*	71.0	62.9	52.6	38.5*	31.2	49.7
AVG TEMP		37.2	41.1	48.6	59.4	67.8*	77.3	82.2*	82.1	74.3*	63.8	49.1*	40.6	60.3
DEG DAYS		862	669	524	198	47*	0	0	0	9*	146	477*	756	3688
PRECIP		1.71	1.77	2.43	4.02	5.26	4.69	2.94	3.04	4.01	3.31	2.28	1.62	37.08

TABLE II - NORMALS BY CLIMATOLOGICAL DIVISIONS

STATIONS (By Divisions)	TEMPERATURE (°F) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL	PRECIPITATION (In.) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
PANHANDLE DIVISION																										
ARNETT	35.8	39.8	46.7	57.5	66.2	76.2	80.7	80.3	72.3	61.2	46.5	38.9	58.5	.66	.96	1.17	2.12	3.68	3.42	2.28	2.38	1.66	2.07	.74	.69	21.83
BEAVER	•	•	•	•	•	•	•	•	•	•	•	•	•	.56	.71	1.01	1.52	3.17	2.67	2.34	2.24	1.46	1.41	.65	.61	18.35
BUFFALO	35.7	40.3	47.6	58.6	67.4	78.2	83.3	82.4	73.9	62.5	47.2	38.8	59.7	•	•	•	•	•	•	•	•	•	•	•	•	•
GOODWELL	35.2	39.2	45.0	55.5	64.8	75.3	79.8	78.8	70.9	59.5	44.6	37.6	57.2	.41	.54	.77	1.25	2.75	2.20	2.78	2.38	1.57	1.42	.60	.48	17.15
HOOKER	33.8	38.1	44.5	55.5	64.7	75.5	80.6	79.2	71.4	59.3	44.2	36.8	57.0	.59	.66	1.08	1.36	3.18	2.89	2.69	2.55	1.44	1.43	.81	.51	19.19
#KENTON	34.7	38.4	43.8	53.9	63.1	73.6	78.3	77.6	70.0	58.1	43.9	37.2	56.1	.40	.34	.89	1.46	2.50	1.74	2.41	2.20	1.66	.93	.48	.37	15.38
DIVISION	34.8	38.9	45.1	56.0	65.0	75.6	80.3	79.4	71.4	59.8	45.0	37.6	57.4	.55	.69	1.00	1.68	3.16	2.58	2.58	2.38	1.58	1.53	.67	.58	18.98
NORTH CENTRAL DIVISION																										
ALVA	36.3	40.2	47.8	58.9	68.0	78.6	83.9	83.4	74.6	63.1	47.9	39.1	60.2	.96	1.16	1.57	2.66	4.23	3.61	2.02	2.67	2.58	1.95	1.22	1.01	25.64
BLACKWELL 1 W	•	•	•	•	•	•	•	•	•	•	•	•	•	1.04	1.22	1.60	2.80	3.93	3.78	3.25	3.00	2.90	2.28	1.60	1.26	28.66
CHEROKEE	36.5	40.6	48.3	59.3	68.1	78.9	83.7	83.2	74.5	63.0	47.7	39.1	60.2	•	•	•	•	•	•	•	•	•	•	•	•	•
ENID	37.4	41.4	48.8	59.8	68.5	78.7	83.4	83.2	74.8	63.7	48.9	40.4	60.8	1.02	1.20	1.58	2.93	4.37	3.86	2.76	3.46	2.96	2.27	1.43	1.31	29.15
JEFFERSON	36.0	40.2	47.8	58.9	67.8	78.7	83.2	82.9	74.3	62.9	47.5	39.1	59.9	.98	1.14	1.60	2.76	4.32	3.77	3.15	2.74	2.79	2.25	1.48	1.29	28.27
MUTUAL 2 NE	36.0	40.1	47.2	58.1	66.9	77.9	82.4	82.0	73.3	62.0	47.2	38.9	59.3	.81	1.03	1.42	2.65	4.43	3.33	1.95	2.41	2.35	2.09	.98	.82	24.27
NEWKIRK	35.3	39.7	47.4	58.8	67.6	77.6	82.4	81.9	73.7	62.5	47.4	38.7	59.4	.95	1.20	1.77	3.11	4.58	4.20	3.16	3.27	3.25	2.37	1.53	1.21	30.60
PERRY	38.0	42.2	49.9	61.0	68.8	78.2	82.9	82.7	74.8	64.1	49.4	41.2	61.1	1.15	1.39	2.06	3.33	4.95	4.22	2.97	2.98	3.29	2.33	1.80	1.38	31.85
#PONCA CITY	37.1	41.5	49.1	60.5	69.2	78.8	83.5	83.2	74.9	63.9	48.9	40.2	60.9	1.04	1.23	1.92	3.13	4.71	4.43	3.60	3.09	3.52	2.41	1.70	1.33	32.11
SUPPLY 1 E	•	•	•	•	•	•	•	•	•	•	•	•	•	.80	1.23	1.47	2.12	3.75	3.18	2.40	1.98	1.67	1.81	.88	.85	22.14
WOODWARD	36.9	40.7	48.0	59.3	67.9	78.1	82.7	82.1	73.5	62.2	47.4	39.5	59.9	.84	1.20	1.53	2.49	4.10	3.62	2.35	2.36	2.12	2.18	1.10	.90	24.79
DIVISION	36.5	40.7	48.0	59.4	68.1	78.4	83.0	82.6	74.2	63.1	48.0	39.4	60.1	.95	1.20	1.67	2.76	4.43	3.80	2.79	2.84	2.74	2.21	1.34	1.12	27.85
NORTHEAST DIVISION																										
BARTLESVILLE 2 W	36.4	40.6	48.3	59.7	68.1	77.3	81.8	81.2	73.1	62.1	47.9	39.4	59.7	1.56	1.56	2.25	3.55	5.20	4.62	3.29	2.68	4.21	3.14	2.02	1.47	35.55
CLAREMORE	37.9	41.9	49.5	60.3	68.4	77.3	81.9	81.6	73.9	63.1	48.8	40.7	60.4	1.85	1.87	2.54	3.95	5.52	4.91	3.16	3.03	3.89	3.36	2.21	1.79	38.08
CLEVELAND	38.3	42.5	50.1	61.2	69.2	78.5	82.9	82.7	74.7	63.5	49.4	41.3	61.2	1.51	1.61	2.34	3.31	5.21	4.29	3.60	3.36	4.00	3.44	2.32	1.35	36.34
MIAMI	37.2	41.5	48.9	59.9	68.1	77.6	82.1	81.8	74.0	63.0	48.6	40.1	60.2	1.75	2.01	2.83	3.99	6.01	5.19	3.43	3.13	4.65	3.86	2.36	2.01	41.22
PAWHUSKA	•	•	•	•	•	•	•	•	•	•	•	•	•	1.26	1.45	2.26	3.39	5.35	4.42	3.06	3.12	3.92	3.05	1.98	1.38	34.64
PRYOR	37.5	41.5	48.7	59.8	68.3	77.4	81.9	81.6	73.6	62.8	48.5	40.5	60.2	1.99	2.16	2.81	4.29	5.73	4.98	3.06	3.13	4.06	3.86	2.47	1.89	40.43
RALSTON	•	•	•	•	•	•	•	•	•	•	•	•	•	1.08	1.16	1.91	3.08	5.06	4.56	3.05	3.21	3.58	2.50	1.94	1.38	32.51
SPAVINAW	•	•	•	•	•	•	•	•	•	•	•	•	•	2.12	2.30	2.92	4.80	6.02	5.05	3.49	3.25	4.63	4.58	2.57	2.06	43.79
TULSA AP	37.2	41.1	48.6	59.4	67.8	77.3	82.2	82.1	74.3	63.8	49.1	40.6	60.3	1.71	1.77	2.43	4.02	5.26	4.69	2.94	3.04	4.01	3.31	2.28	1.62	37.08
VINITA 3 NNE	37.1	41.1	48.4	59.4	67.9	77.3	82.2	81.7	73.5	62.5	48.1	40.0	59.9	1.94	2.00	2.85	4.28	6.16	5.81	3.46	3.42	4.94	3.92	2.51	2.12	43.41
DIVISION	37.2	41.5	48.8	60.1	68.2	77.3	81.8	81.6	73.6	62.7	48.5	40.3	60.1	1.81	2.02	2.66	4.15	5.72	5.00	3.31	3.08	4.07	3.59	2.18	1.75	39.34
WEST CENTRAL DIVISION																										
CHEYENNE	•	•	•	•	•	•	•	•	•	•	•	•	•	.82	1.09	1.40	2.95	4.71	3.34	1.86	2.53	1.86	2.46	.93	.86	24.81
CLOUD CHIEF 2 SE	38.6	42.8	49.6	60.1	68.9	79.0	83.4	83.1	75.0	63.8	49.1	41.0	61.2	1.02	1.02	1.47	2.75	4.78	3.37	2.43	2.14	2.13	2.37	.99	1.16	25.63
ELK CITY	38.0	41.8	49.1	59.7	68.1	77.9	81.9	81.4	73.3	62.4	48.4	40.6	60.2	.84	.89	1.35	2.30	4.82	2.75	2.29	1.70	1.88	2.19	.87	.97	22.85
GEARY	38.4	42.2	49.4	60.2	68.7	78.6	83.3	83.1	75.0	64.1	49.4	41.0	61.1	1.08	1.17	1.72	2.78	4.40	3.86	2.35	2.55	2.81	2.53	1.26	1.27	27.78
HAMMON	37.8	41.6	49.1	59.6	68.2	78.4	83.0	82.3	73.8	62.5	48.1	40.1	60.4	•	•	•	•	•	•	•	•	•	•	•	•	•
OKEENE	•	•	•	•	•	•	•	•	•	•	•	•	•	.87	1.03	1.54	2.61	4.06	3.35	2.46	2.69	2.59	2.02	1.16	1.11	25.49
WATONGA	•	•	•	•	•	•	•	•	•	•	•	•	•	1.02	1.13	1.57	2.61	4.47	3.79	2.37	2.30	2.46	2.41	1.27	1.43	26.83
WEATHERFORD	38.4	42.6	49.9	60.4	68.8	78.7	82.9	82.7	74.5	63.4	49.1	41.1	61.0	1.00	1.03	1.53	2.75	4.54	4.28	2.52	2.52	2.57	2.59	1.13	1.24	27.70
DIVISION	37.7	42.0	49.1	60.0	68.2	78.4	82.6	82.4	74.1	62.9	48.5	40.4	60.5	.93	1.01	1.46	2.64	4.68	3.44	2.30	2.18	2.22	2.38	1.01	1.04	25.29
CENTRAL DIVISION																										
BRISTOW	38.1	42.3	49.6	60.5	68.4	77.5	81.8	81.9	74.2	63.3	49.3	41.2	60.7	1.71	1.86	2.45	4.11	5.46	4.95	3.59	2.66	3.75	3.19	2.25	1.56	37.54
CHANDLER	39.0	43.2	50.6	61.4	68.9	78.0	82.5	82.6	74.9	64.1	50.1	41.9	61.4	1.58	1.70	2.21	3.62	5.14	4.51	3.16	2.68	3.46	2.77	2.11	1.50	34.44
CHICKASHA	39.3	43.7	50.9	61.2	69.2	78.5	83.0	82.9	75.0	63.8	49.7	41.8	61.6	1.35	1.47	1.90	3.07	5.36	4.16	2.42	2.57	3.13	3.03	1.63	1.51	31.60
EL RENO 1 N	•	•	•	•	•	•	•	•	•	•	•	•	•	1.15	1.31	1.62	2.85	4.79	3.83	2.48	2.51	2.71	2.85	1.65	1.33	29.08
GUTHRIE	38.3	42.2	49.7	60.8	69.0	78.2	82.9	82.8	74.6	63.8	49.3	41.1	61.1	1.22	1.37	1.77	3.09	4.51	4.06	2.69	2.99	3.45	2.83	1.71	1.28	30.97
HENNESSEY 1 N	37.4	41.6	49.1	59.9	68.8	79.0	83.5	83.3	75.1	63.9	48.7	40.0	60.9	1.17	1.24	1.71	2.84	4.60	4.01	2.76	2.89	2.40	2.30	1.46	1.33	28.71
KINGFISHER 1 NW	38.0	42.1	49.6	60.5	69.0	79.2	83.6	83.4	75.1	63.7	48.8	40.4	61.1	1.06	1.14	1.71	2.60	4.25	3.66	2.63	2.49	2.69	2.37	1.31	1.28	27.19
LAKE OVERHOLSER	•	•	•	•	•	•	•	•	•	•	•	•	•	1.17	1.34	1.91	3.14	4.80	4.14	2.48	2.41	3.17	2.82	1.58	1.33	30.29
NORMAN 3 S	39.7	44.0	51.3	61.6	69.4	78.4	82.8	82.9	75.2	64.5	50.6	42.6	61.9	•	•	•	•	•	•	•	•	•	•	•	•	•
#OKEMAH	39.6	43.8	50.9	61.2	68.9	77.5	82.0	82.0	74.5	64.1	50.4	42.6	61.5	1.88	2.04	2.65	4.55	5.82	5.19	3.10	2.64	3.85	3.36	2.32	2.07	39.47
OKLAHOMA CITY PENN AVE	38.5	42.5	49.8	60.8	70.0	78.4	82.8	82.6	74.8	63.9	49.4	41.3	61.2	1.39	1.45	1.98	3.42	5.35	4.51	2.62	2.68	3.10	2.97	1.70	1.41	32.58
OKLAHOMA CITY AP	36.5	40.8	48.0	58.9	67.4	76.5	81.0	81.3	73.3	62.4	47.9	39.8	59.5	1.31	1.37	1.97	3.12	5.19	4.47	2.37	2.52	3.02	2.51	1.56	1.41	30.82
PERKINS	•	•	•	•	•	•	•	•	•	•	•	•	•	1.53	1.46	2.20	3.16	5.09	4.58	3.45	3.19	3.81	3.21	1.90	1.42	35.00
SHAWNEE	39.7	43.8	51.1	61.6	69.2	78.1	82.4	82.3	74.7	64.0	50.3	42.4	61.6	1.63	1.86	2.37	4.11	5.81	4.93	3.22	2.92	3.48	3.16	2.07	1.66	37.22
STILLWATER 2 W	37.9	42.2	49.6	60.6	68.5	77.9	82.5	82.3	74.2	63.5	49.1	40.8	60.8	1.16	1.35	1.86	2.86	4.62	4.24	3.53	3.21	3.38	2.78	1.85	1.34	32.18
UNION CITY 1 SSE	•	•	•	•	•	•	•	•	•	•	•	•	•	1.33	1.69	2.05	3.59	5.53	4.57	2.71	2.57	3.02	3.02	1.79	1.55	33.42
DIVISION	38.8	43.0	50.3	61.1	69.0	78.2	82.6	82.5	74.7	63.9	49.7	41.5	61.3	1.43	1.58	2.08	3.44	5.44	4.46	3.07	2.69	3.35	2.93	1.81	1.53	33.81
EAST CENTRAL DIVISION																										
CALVIN	•	•	•	•	•	•	•	•	•	•	•	•	•	1.98	2.85	3.06	3.98	6.42	4.60	3.52	3.16	3.76	3.30	2.45	2.25	41.33
HOLDENVILLE	40.8	44.7	51.8	62.1	69.6	78.4	82.9	82.9	75.6	65.0	51.3	43.6	62.4	2.02	2.50	3.06	4.27	6.34	5.23	3.97	3.10	3.75	3.26	2.41	2.30	42.21
MCALESTER FAA AIRPORT	40.7	44.6	51.8	61.4	69.5	78.4	82.9	82.9	75.3	64.6	50.8	43.3	62.2	2.13	3.03	3.28	4.33	6.10	4.57	3.72	3.17	3.66	3.29	2.60	2.81	42.69
MUSKOGEE	39.9	43.9	51.2	61.8	69.6	78.3	82.8	82.7	75.2	64.3	50.4	42.5	61.9	2.30	2.63	3.23	4.54	5.75	5.48	3.15	2.89	3.49	3.42	2.79	2.35	42.02
OKMULGEE MUNICIPAL AP	39.4	43.4	50.6	61.4	68.9	77.8	81.9	81.5	73.9	63.2	49.9	42.3	61.2	1.97	2.21	2.84	4.58	5.63	5.63	3.26	2.49	3.94	3.62	2.46	2.05	40.68
SALLISAW	40.0	43.8	50.8	61.4	69.3	77.8	82.0	81.7	74.8	63.8	50.1	42.5	61.5	2.57	3.22	3.35	4.43	5.68	4.87	2.92	3.31	3.80	3.07	2.86	2.68	42.76
TAHLEQUAH	38.6	42.7	49.8	60.5	67.7	76.5	81.0	80.7	73.2	62.1	48.7	41.4	60.2	2.33	2.79	3.17	4.63	6.14	5.10	3.00	3.05	4.00	3.67	2.89	2.33	43.10
WEBBERS FALLS	39.5	43.2	50.7	61.7	69.6	78.3	82.8	82.3	74.9	63.8	49.9	42.1	61.6	2.49	3.06	3.19	4.67	6.09	5.28	3.28	3.22	3.57	3.55	2.83	2.69	43.92
DIVISION	39.8	43.9	50.9	61.7	69.2	78.0	82.4	82.2	74.8	64.0	50.3	42.6	61.7	2.27	2.74	3.17	4.51	6.03	5.16	3.42	3.07	3.71	3.36	2.67	2.48	42.59

TABLE II - NORMALS BY CLIMATOLOGICAL DIVISIONS

OKLAHOMA

STATIONS (By Divisions)	TEMPERATURE (°F) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL	PRECIPITATION (In.) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
SOUTHWEST DIVISION																										
ALTUS	41.0	44.7	52.2	62.7	71.1	80.6	84.4	84.1	76.1	65.4	51.4	43.3	63.1	.98	1.02	1.27	2.25	4.47	3.49	1.90	1.95	2.36	2.78	.85	1.17	24.49
APACHE	39.9	44.2	51.2	61.4	69.4	78.6	83.1	83.2	75.4	64.3	50.3	42.3	61.9	1.39	1.63	2.08	2.97	5.87	3.79	2.75	2.30	3.34	2.98	1.55	1.65	32.30
CARNEGIE 3 ENE	38.8	43.3	50.7	61.4	69.8	79.7	83.6	83.4	75.1	63.7	49.3	41.2	61.7	1.19	1.23	1.53	2.68	4.80	3.63	2.49	2.38	2.57	2.35	1.06	1.49	27.40
CHATTANOOGA 3 NE	40.8	45.1	52.1	61.9	70.4	79.9	83.9	84.1	76.4	65.2	51.0	43.0	62.8	1.23	1.44	1.53	2.24	5.52	3.17	2.36	1.73	2.57	2.88	1.31	1.39	27.37
FREDERICK	42.2	46.5	53.4	63.3	71.4	80.8	85.0	85.0	77.3	66.4	52.3	44.4	64.0	1.21	1.39	1.78	2.26	4.98	3.29	2.18	1.97	2.39	2.67	1.36	1.35	26.83
HOBART FAA AIRPORT	38.5	42.5	49.5	60.3	69.0	79.4	83.6	83.4	74.9	63.4	48.9	40.7	61.2	1.02	1.00	1.30	2.56	4.90	3.47	2.13	1.96	2.01	2.60	.96	1.22	25.13
HOLLIS	40.2	44.4	51.7	62.4	71.3	81.3	85.3	84.9	76.3	64.9	50.4	42.4	63.0	.78	.87	1.01	2.50	5.07	3.08	2.04	1.72	2.15	2.21	.70	1.07	23.20
LAWTON	40.7	45.1	52.3	62.4	70.4	79.5	83.6	83.7	76.1	64.8	50.9	43.1	62.7	1.39	1.58	1.78	2.37	5.95	3.67	2.61	1.96	2.71	3.01	1.62	1.53	30.18
MANGUM	.	.	.	.	.	.	.	.	.	.	.	.	.	.97	.94	1.22	2.42	4.89	2.70	1.98	2.05	2.16	2.28	.82	1.07	23.50
WALTERS	41.7	45.9	53.2	63.2	71.0	80.4	84.6	84.7	77.0	65.9	52.0	44.0	63.6	1.26	1.53	1.83	2.56	5.40	3.42	2.33	2.35	2.84	3.11	1.44	1.62	29.69
WICHITA MT WILDLIFE REF	39.3	43.2	50.5	61.0	68.5	77.6	82.0	82.1	74.3	62.9	49.0	41.5	61.0	1.37	1.47	1.71	2.46	5.26	3.77	2.68	2.33	2.81	2.64	1.31	1.38	29.19
DIVISION	40.2	44.5	51.6	62.0	70.3	79.8	83.9	83.8	75.8	64.7	50.5	42.6	62.5	1.18	1.27	1.54	2.49	5.18	3.47	2.33	2.10	2.49	2.68	1.16	1.33	27.22
SOUTH CENTRAL DIVISION																										
ADA	41.6	45.6	52.4	62.3	69.8	78.4	82.9	82.8	75.5	65.3	51.6	43.9	62.7	1.92	2.55	2.77	3.79	6.38	4.47	3.13	3.12	3.43	3.45	2.40	2.35	39.76
ARDMORE	43.2	46.9	54.0	63.9	71.1	79.9	84.0	84.2	77.3	67.0	53.6	45.7	64.2	2.00	2.46	2.95	4.18	5.74	3.97	2.95	2.54	2.87	3.16	2.06	2.26	37.14
DURANT SE STATE COLLEGE	43.0	46.7	53.7	63.4	71.0	79.4	83.4	83.6	76.3	65.7	52.8	45.4	63.7	2.26	3.08	2.85	4.41	5.44	3.76	3.04	2.37	3.16	3.23	2.81	2.59	39.00
MARLOW 1 WSW	40.5	44.8	51.9	62.1	69.5	78.2	82.6	82.8	75.4	65.0	51.2	43.2	62.3	1.40	1.70	2.07	2.99	6.24	4.56	2.37	2.23	2.88	3.36	1.74	1.72	33.26
PAULS VALLEY	40.5	44.8	52.1	62.7	70.6	79.5	83.5	83.3	75.7	64.5	50.7	42.7	62.6	1.68	2.18	2.39	3.26	5.87	4.27	2.72	2.79	3.47	3.31	2.10	1.87	35.91
SULPHUR PLATT NATL PARK	41.7	45.8	53.0	62.8	70.0	78.9	83.1	83.3	76.2	65.5	51.6	43.8	63.0	2.08	2.54	2.89	3.97	6.08	4.07	2.77	2.73	3.31	3.22	2.43	2.31	38.40
TISHOMINGO NATIONAL WLR	42.5	46.3	53.3	63.0	70.4	78.8	82.7	82.7	75.8	65.3	52.2	44.7	63.1	2.20	2.79	3.07	4.77	5.79	3.96	2.87	2.21	3.07	3.25	2.29	2.58	38.85
WAURIKA	42.6	46.8	53.7	63.8	71.3	80.0	83.9	84.1	76.8	66.3	52.8	44.9	63.9	1.53	1.80	2.04	2.84	5.67	3.47	2.52	2.03	2.74	3.19	1.72	1.93	31.48
DIVISION	42.0	46.1	53.1	63.1	70.6	79.1	83.3	83.4	76.1	65.6	52.1	44.3	63.2	1.92	2.48	2.68	3.95	5.87	4.20	2.91	2.54	3.05	3.28	2.14	2.21	37.23
SOUTHEAST DIVISION																										
ANTLERS 2 ENE	.	.	.	.	.	.	.	.	.	.	.	.	.	3.40	3.83	3.29	5.20	6.66	4.05	3.15	3.19	3.82	3.17	3.53	3.15	46.44
HUGO	43.4	47.1	54.2	63.6	71.0	79.3	83.1	83.0	76.3	65.9	52.9	45.8	63.8	3.54	3.31	3.83	5.15	5.94	4.34	3.65	3.54	3.59	3.44	3.50	3.25	47.08
IDABEL	44.1	47.4	54.0	63.2	70.3	78.5	82.3	82.3	75.7	65.3	52.6	45.5	63.4	4.05	3.80	4.19	5.23	6.35	3.50	3.79	2.42	3.25	3.17	3.96	3.78	47.49
POTEAU	42.6	46.1	53.0	62.8	70.3	79.0	83.5	83.2	76.1	65.1	52.0	44.7	63.2	3.04	3.53	3.84	4.46	6.00	3.88	3.42	3.40	3.53	3.22	3.47	2.80	44.59
DIVISION	42.8	46.3	53.0	62.9	70.2	78.5	82.4	82.3	75.4	64.9	52.0	44.8	63.0	3.44	3.65	3.71	5.08	6.20	4.03	3.98	3.30	3.69	3.26	3.51	3.31	47.16

GPO 924542

1963 REVISIONS AND ADDITIONS TO CLIMATOGRAPHY OF THE UNITED STATES NO. 81-30
OKLAHOMA

TABLE I — NORMALS FOR FIRST ORDER STATIONS

STATION	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
OKLAHOMA CITY AP													
G1280 T 5													
MAX TEMP	45.9	51.3	59.5	70.6	78.1	87.4	92.8	93.5	84.7	73.9	58.8	49.2	70.5
MIN TEMP	28.1	31.2	37.5	49.1	58.6	68.5	72.2	72.0	62.9	51.8	38.0	31.4	50.1
AVG TEMP	37.0	41.3	48.5	59.9	68.4	78.0	82.5	82.8	73.8	62.9	48.4	40.3	60.3
DEG DAYS	868	664	527	189	34	0	0	0	15	164	498	766	3725
TULSA AP													
G 676 T 5													
MAX TEMP	45.9	51.6	60.0	70.5	77.9	87.2	92.9	93.1	85.6	75.0	58.6	49.0	70.6
MIN TEMP	26.5	29.6	36.2	47.2	57.7	67.3	71.4	70.0	61.9	50.6	36.5	30.2	48.8
AVG TEMP	36.2	40.6	48.1	58.9	67.8	77.3	82.2	81.6	73.8	62.8	47.6	39.6	59.7
DEG DAYS	893	683	539	213	47	0	0	0	18	158	522	787	3860

TABLE II — NORMALS BY CLIMATOLOGICAL DIVISIONS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
TEMPERATURE (°F.)													
PANHANDLE DIVISION				55.9	65.1	75.5	80.4						
NORTH CENTRAL DIVISION		40.6	48.1	59.3			83.1	82.8	74.3	63.0	47.9		
NORTHEAST DIVISION	37.4		49.0			77.4	82.0	81.7	73.7	62.8	48.6	40.4	60.2
WEST CENTRAL DIVISION	37.9	41.9	49.2	59.9	68.4		82.8	82.5		63.0	48.6		60.6
CENTRAL DIVISION	38.7	42.8	50.1	60.9	68.9				74.6	63.8	49.5		61.2
EAST CENTRAL DIVISION		43.7		61.4	69.0	77.8	82.2	82.0	74.7	63.9	50.2	42.5	61.5
SOUTHWEST DIVISION		44.4	51.5		70.2					64.6	50.4	42.5	62.4
SOUTH CENTRAL DIVISION	42.1					79.2			76.2			44.4	63.3
SOUTHEAST DIVISION		46.4	53.2	62.8			82.6	82.4	75.5		52.1		
PRECIPITATION (In.)													
PANHANDLE DIVISION			1.03	1.63	3.15	2.63	2.49	2.34	1.62	1.46		.57	18.83
NORTH CENTRAL DIVISION		1.19	1.66		4.37	3.76	2.77		2.73	2.20	1.35	1.13	27.71
NORTHEAST DIVISION	1.79	1.94	2.60	4.08	5.64	4.97	3.28	3.12	4.14	3.63	2.32	1.81	39.32
WEST CENTRAL DIVISION	.90	1.00		2.59	4.53	3.39	2.23	2.22	2.28	2.29	1.02	1.09	25.00
CENTRAL DIVISION	1.44	1.59	2.12	3.43	5.34	4.44	3.01	2.75	3.37	2.94	1.85	1.54	33.82
EAST CENTRAL DIVISION	2.26	2.81	3.23	4.54	5.97	5.11	3.35	3.09	3.76	3.45	2.73		42.78
SOUTHWEST DIVISION	1.16	1.28	1.55	2.46	5.14	3.44	2.31		2.55	2.71	1.19	1.36	27.25
SOUTH CENTRAL DIVISION	1.89	2.44	2.69	3.88	5.83	4.13	2.82	2.53	3.14		2.19	2.22	37.04
SOUTHEAST DIVISION	3.38	3.69	3.85	5.06	6.14	4.16	3.84	3.34	3.66		3.57	3.34	47.29

REVISIONS TO FIRST ORDER STATIONS IN TABLE I AFFECT THE SAME STATIONS IN TABLE II.

USCOMM-WB-Asheville, N. C. -3/31/64- 1900

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