U. S. DEPARTMENT OF COMMERCE
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CLIMATOGRAPHY OF THE UNITED STATES NO. 81-2

DECENNIAL CENSUS OF UNITED STATES CLIMATE—

MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION, AND HEATING DEGREE DAYS

ARIZONA

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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

ARIZONA

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
FLAGSTAFF AP	H6993 T 5													
MAX TEMP		41.4*	43.6*	49.5	58.6*	67.8	77.3*	81.4*	78.9*	74.6*	63.2*	51.4	43.9*	61.0
MIN TEMP		15.1*	17.5	21.6	28.0	34.0	41.6	50.6*	49.8*	42.3*	31.7	21.7	17.9*	31.0
AVG TEMP		28.3*	30.6*	35.6	43.3*	50.9	59.5*	66.0*	64.4*	58.5*	47.5*	36.6	30.9*	46.0
DEG DAYS		1138*	963*	911	651*	437	180*	37*	59*	201*	543*	852	1057*	7029
PRECIP		1.83	1.78	1.45	1.18	.51	.69*	2.28	2.84	1.58*	1.52	1.00*	1.65	18.31
PHOENIX AP	H1109 T 5													
MAX TEMP		64.0	68.1	75.0*	83.9*	92.9*	101.6	104.6*	101.6*	98.2	86.7	73.7*	66.1	84.7
MIN TEMP		37.3*	40.9*	45.9*	53.4*	61.1*	69.5*	78.0*	76.4*	70.3*	57.6*	44.4*	39.0*	56.2
AVG TEMP		50.7*	54.5*	60.5*	68.7*	77.0*	85.6*	91.3*	89.0*	84.3*	72.2*	59.1*	52.6*	70.5
DEG DAYS		443*	302*	189*	57*	0	0	0	0	0	16*	207*	384*	1598
PRECIP		.73	.85	.66	.32	.13	.09*	.77	1.12	.73*	.46*	.49	.85*	7.20
PRESCOTT AP	H5014 T 5													
MAX TEMP		51.0	53.4	60.4	68.7	77.1*	86.7	90.8*	87.6*	84.3*	73.7	61.3*	53.3*	70.7
MIN TEMP		23.1*	25.7	30.6	37.6	45.4	54.1*	61.1	59.1	53.0	41.5*	30.1	25.3	40.6
AVG TEMP		37.1*	39.6	45.5	53.2	61.3*	70.4*	76.0*	73.4*	68.7*	57.6*	45.7*	39.3*	55.7
DEG DAYS		865*	711	605	360	158*	15*	0	0	27*	245*	579*	797*	4362
PRECIP		1.01	1.08	.73	.69	.24	.32*	2.08*	2.66	1.19*	.73	.50	1.00	12.23
TUCSON AP	H2584 T 5													
MAX TEMP		62.6*	66.0	72.2	81.1	89.4	98.2	99.0	95.7	94.3*	84.2*	71.9	64.9	81.6
MIN TEMP		36.0*	38.8	42.8	49.6*	56.5	66.1*	73.1*	71.5	67.4	55.8*	43.2	37.9	53.2
AVG TEMP		49.3*	52.4	57.5	65.4*	73.0	82.2*	86.1*	83.6	80.9*	70.0*	57.6	51.4	67.5
DEG DAYS		487*	358	251	81*	9	0	0	0	0	25*	249	422	1882
PRECIP		.82	.84*	.53	.27	.13*	.29	2.06*	2.88	1.00*	.64*	.62	.92	11.00
WINSLOW AP	G4895 T 4													
MAX TEMP		46.2	53.4	63.1	73.4	83.1	93.0*	96.7*	93.4	87.7*	74.9*	58.4*	47.2*	72.5
MIN TEMP		16.8*	22.5	29.0	38.7	47.4	56.5*	64.6*	63.1*	54.6	40.9*	25.1	18.8	39.8
AVG TEMP		31.5*	38.0	46.1	56.1	65.3	74.8*	80.7*	78.3*	71.2*	57.9*	41.8*	33.0*	56.2
DEG DAYS		1039*	756	586	276	84	0	0	0	0	233*	696*	992*	4662
PRECIP		.43	.48	.39	.45	.32	.26	1.02	1.43	.91*	.66	.36	.52	7.23
YUMA AP	H 199 T 4													
MAX TEMP		69.3*	73.9*	80.8	88.3	95.8	103.4	108.2	106.5	103.4*	92.0*	78.7	70.8*	89.3
MIN TEMP		43.5	46.2*	51.1*	57.5*	64.3*	72.0*	81.3*	80.4*	74.8	62.6	50.0	45.1*	60.7
AVG TEMP		56.4*	60.1	66.0*	72.9*	80.1*	87.7*	94.8*	93.5*	89.1*	77.3*	64.4	58.0*	75.0
DEG DAYS		276*	168*	84*	15*	0	0	0	0	0	0	99	236*	878
PRECIP		.39	.36	.24	.09	.01*	.01	.23	.50	.38*	.38	.12*	.32*	3.03

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
NORTHWEST																										
MOUNT TRUMBULL	.	.	.	.	.	.	.	.	.	.	.	.	.	.96	1.06	1.04	.73	.53	.40	1.80	2.04	1.08	1.03	.77	1.06	12.50
TRUXTON CANYON	.	.	.	.	.	.	.	.	.	.	.	.	.	.98	1.26	.84	.66	.24	.17	1.37	1.94	1.33	.75	.60	1.17	11.31
#WIKIEUP	.	.	.	.	.	.	.	.	.	.	.	.	.	1.15	1.31	.93	.51	.07	.17	1.03	1.70	.90	.63	.57	1.23	10.20
DIVISION	41.9	45.0	50.8	59.0	66.8	75.7	82.2	79.9	74.6	64.2	50.8	44.3	61.3	1.01	1.29	.94	.65	.23	.17	.97	1.63	1.10	.72	.56	1.27	10.54
NORTHEAST																										
#ALPINE	.	.	.	.	.	.	.	.	.	.	.	.	.	1.60	1.38	1.24	.78	.54	.80	3.10	3.87	2.10	1.61	.92	1.27	19.21
CIBECUE	.	.	.	.	.	.	.	.	.	.	.	.	.	1.67	1.69	1.68	.94	.41	.56	2.42	3.25	1.74	1.57	1.27	1.62	18.82
FLAGSTAFF AP	28.3	30.6	35.6	43.3	50.9	59.5	66.0	64.4	58.5	47.5	36.6	30.9	46.0	1.83	1.78	1.45	1.18	.51	.69	2.28	2.84	1.58	1.52	1.00	1.65	18.31
FORT VALLEY	24.9	27.2	32.9	40.6	47.4	55.9	62.9	61.3	55.4	44.9	34.1	28.2	43.0	2.32	2.27	1.92	1.52	.69	.76	2.65	3.65	1.83	1.52	1.14	2.07	22.34
GANADO	27.5	32.6	38.6	47.0	55.4	64.3	70.7	68.7	62.0	51.0	37.3	29.5	48.7	.74	.82	.78	.71	.51	.46	1.32	1.90	1.15	1.16	.60	.85	11.00
#HOLBROOK	33.4	38.8	45.7	54.3	62.4	71.5	77.6	75.5	69.1	57.1	42.6	34.8	55.2	.47	.54	.46	.45	.28	.33	1.16	1.46	1.01	.68	.41	.49	7.74
#PETRIFIED FOREST NM	33.4	38.9	45.0	53.3	61.3	70.8	76.3	74.6	68.7	57.0	42.8	35.1	54.8	.53	.66	.53	.51	.38	.34	1.46	1.71	.97	.80	.53	.51	8.93
#PINEDALE	.	.	.	.	.	.	.	.	.	.	.	.	.	1.53	1.36	1.06	.91	.41	.55	2.45	3.11	1.72	1.91	1.26	1.48	17.75
#SAINT JOHNS	32.0	36.9	43.2	51.9	59.4	68.3	73.7	71.8	65.7	54.4	40.9	33.4	52.6	.69	.70	.75	.55	.52	.60	2.19	2.11	1.28	.91	.41	.68	11.39
SNOWFLAKE	.	.	.	.	.	.	.	.	.	.	.	.	.	.84	.62	.60	.63	.48	.49	1.87	2.50	1.41	1.02	.58	.65	11.69
#SPRINGERVILLE	.	.	.	.	.	.	.	.	.	.	.	.	.	.71	.53	.62	.43	.42	.48	2.49	3.12	1.57	.89	.35	.49	12.10
#TUBA CITY	.	.	.	.	.	.	.	.	.	.	.	.	.	.50	.47	.49	.39	.44	.23	.67	1.01	.76	.60	.41	.52	6.49
#WILLIAMS	31.0	33.2	38.5	46.9	54.8	63.6	68.7	66.6	61.4	51.0	40.4	34.4	49.2	1.89	2.15	1.85	1.38	.66	.54	2.59	3.73	1.85	1.32	1.06	2.23	21.25
WINSLOW AP	31.5	38.0	46.1	56.1	65.3	74.8	80.7	78.3	71.2	57.9	41.8	33.0	56.2	.43	.48	.39	.45	.32	.26	1.02	1.43	.91	.66	.36	.52	7.23
DIVISION	31.6	35.7	41.7	49.8	57.6	66.7	72.5	70.5	64.6	53.4	40.7	33.9	51.6	1.21	1.25	1.12	.82	.50	.47	1.78	2.34	1.36	1.14	.78	1.18	13.95
NORTH CENTRAL																										
#ASH FORK	36.1	39.3	44.5	52.0	59.4	68.1	74.3	72.5	67.1	56.6	45.2	38.8	54.5	1.02	1.15	.97	.87	.35	.47	1.62	2.52	1.42	.85	.57	1.18	12.99
#CHILDS	45.1	48.9	54.0	62.1	70.1	78.5	84.6	82.3	77.6	66.6	54.2	47.4	64.3	1.86	1.86	1.38	.88	.33	.53	1.90	2.94	1.45	1.20	1.06	1.93	17.32
#CORDES	.	.	.	.	.	.	.	.	.	.	.	.	.	1.25	1.52	.95	.62	.26	.31	1.52	2.21	1.21	.83	.74	1.41	12.83
#CROWN KING	.	.	.	.	.	.	.	.	.	.	.	.	.	2.92	2.81	2.14	1.25	.48	.50	3.24	4.75	1.81	1.58	1.43	3.05	25.96
#DRAKE RS	.	.	.	.	.	.	.	.	.	.	.	.	.	1.23	1.45	.96	.88	.37	.41	1.56	2.41	1.40	.80	.67	1.57	13.71
DUGAS 2 SE	.	.	.	.	.	.	.	.	.	.	.	.	.	1.52	1.96	1.32	.91	.26	.48	1.90	3.27	1.31	1.21	.93	1.75	16.82
JEROME	41.2	43.4	49.1	57.3	65.4	74.6	79.0	76.3	72.9	62.5	50.9	44.2	59.7	1.64	1.77	1.34	1.13	.49	.45	2.29	2.99	1.30	1.14	.95	1.68	17.17
PRESCOTT AP	37.1	39.6	45.5	53.2	61.3	70.4	76.0	73.4	68.7	57.6	45.7	39.3	55.7	1.01	1.08	.73	.69	.24	.32	2.08	2.66	1.19	.73	.50	1.00	12.23
#SELIGMAN	.	.	.	.	.	.	.	.	.	.	.	.	.	.99	1.00	.66	.56	.24	.40	1.36	2.22	1.09	.64	.46	.86	10.48
WALNUT CREEK	.	.	.	.	.	.	.	.	.	.	.	.	.	1.56	1.61	1.14	.76	.32	.48	2.34	3.14	1.70	.94	.66	1.54	16.19
#WALNUT GROVE	.	.	.	.	.	.	.	.	.	.	.	.	.	1.62	1.96	1.25	.80	.25	.35	1.90	3.50	1.37	.91	.83	1.77	16.51
DIVISION	40.1	43.2	48.4	55.8	63.4	72.1	78.3	76.2	71.4	60.6	49.0	42.6	58.4	1.43	1.61	1.13	.83	.32	.39	1.86	2.69	1.31	.92	.78	1.48	14.75
EAST CENTRAL																										
#GISELA	.	.	.	.	.	.	.	.	.	.	.	.	.	1.90	1.75	1.42	.85	.29	.44	1.88	2.48	1.67	1.22	1.26	1.82	16.98
GLOBE	42.8	46.9	52.4	60.2	68.0	77.0	82.8	80.1	75.1	63.6	50.7	44.6	62.0	1.58	1.36	1.28	.60	.28	.40	2.22	2.86	1.26	1.08	.84	1.61	15.37
MIAMI	44.1	47.9	53.6	61.9	70.4	79.7	83.8	81.3	77.0	65.8	52.6	46.2	63.7	2.07	1.83	1.69	.77	.29	.32	2.34	3.30	1.46	1.14	1.15	2.11	18.47
#NATURAL BRIDGE	.	.	.	.	.	.	.	.	.	.	.	.	.	2.45	2.73	2.14	1.36	.48	.53	2.26	3.60	2.09	1.68	1.59	2.66	23.57
#PAYSON RS	.	.	.	.	.	.	.	.	.	.	.	.	.	2.12	2.19	1.71	1.07	.41	.59	2.39	3.43	1.91	1.48	1.37	1.90	20.57
#RENO RS	.	.	.	.	.	.	.	.	.	.	.	.	.	1.96	2.08	1.76	.81	.31	.37	1.49	2.82	1.71	1.11	1.15	2.22	17.79
ROOSEVELT 1 WNW	47.5	51.6	57.4	66.2	74.8	84.0	89.0	86.5	82.0	70.5	56.9	49.7	68.0	1.82	1.70	1.54	.70	.25	.38	1.27	1.94	1.41	1.02	1.03	1.95	15.01
#SAN CARLOS RESERVOIR	45.8	49.7	55.3	63.8	72.6	82.1	86.7	84.6	79.9	68.2	54.4	47.2	65.9	1.57	1.38	1.32	.60	.23	.41	1.61	2.03	1.09	1.02	.95	1.59	13.80
#YOUNG	.	.	.	.	.	.	.	.	.	.	.	.	.	2.00	1.92	1.70	1.07	.41	.48	2.80	3.43	1.87	1.29	1.25	1.95	20.17
DIVISION	42.9	46.3	51.7	59.5	67.4	76.6	82.0	79.9	75.2	64.1	51.3	44.9	61.8	2.00	1.98	1.68	.88	.34	.44	2.03	2.95	1.59	1.28	1.21	2.04	18.42
SOUTHWEST																										
PARKER	51.5	56.3	62.5	70.3	77.8	86.3	93.4	91.7	85.6	73.5	59.9	53.1	71.8	.53	.66	.48	.23	.03	.02	.27	.60	.57	.23	.25	.66	4.53
YUMA CITRUS STATION	53.3	57.0	62.6	69.6	76.5	83.9	91.6	90.8	85.8	74.1	61.7	55.3	71.9	.39	.39	.22	.11	.01	.02	.19	.46	.32	.42	.12	.37	3.02
YUMA AP	56.4	60.1	66.0	72.9	80.1	87.7	94.8	93.5	89.1	77.3	64.4	58.0	75.0	.39	.36	.24	.09	.01	.01	.23	.50	.38	.38	.12	.32	3.03
DIVISION	52.1	56.2	62.2	69.7	76.8	84.8	92.0	90.7	85.5	73.9	60.3	53.9	71.5	.49	.55	.35	.17	.02	.05	.40	.80	.49	.32	.22	.52	4.38

TABLE II - NORMALS BY CLIMATOLOGICAL DIVISIONS

ARIZONA

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
SOUTH CENTRAL																										
#AGUILA	.	.	.	.	.	.	.	.	.	.	.	.	.	.91	1.11	.79	.48	.08	.08	.85	1.65	.73	.51	.53	1.05	8.77
CAMELBACK	51.3	54.8	60.1	67.6	74.9	83.1	89.4	87.8	83.4	72.2	59.9	53.4	69.8	.82	.96	.73	.39	.13	.09	.89	1.09	.78	.58	.52	.94	7.92
CASA GRANDE	50.0	54.1	59.9	68.1	76.1	85.1	91.1	88.8	83.8	71.7	58.5	51.8	69.9	.82	.81	.57	.34	.12	.17	1.11	1.28	.80	.54	.62	.84	8.02
#CASA GRANDE NAT MON	.	.	.	.	.	.	.	.	.	.	.	.	.	.91	.85	.60	.31	.13	.15	1.08	1.20	.89	.58	.66	.95	8.31
#FLORENCE	51.2	54.7	59.8	67.4	75.0	83.8	90.2	88.0	83.9	72.4	59.8	53.4	70.0	1.03	1.01	.79	.41	.16	.17	1.11	1.57	.77	.74	.73	1.10	9.59
#GILA BEND	52.3	56.4	62.4	70.0	77.7	86.3	93.2	91.6	86.2	74.6	60.9	54.5	72.2	.57	.50	.56	.25	.09	.04	.87	1.09	.40	.32	.35	.58	5.62
#GRANITE REEF DAM	.	.	.	.	.	.	.	.	.	.	.	.	.	1.06	.99	.88	.38	.13	.16	.82	1.42	.84	.57	.64	1.12	9.01
#LITCHFIELD PARK	50.8	54.7	60.3	68.1	76.0	84.6	91.1	88.9	83.7	71.7	58.9	52.6	70.1	.94	.97	.62	.31	.09	.09	.69	1.28	.78	.48	.54	.98	7.77
#MESA EXPERIMENT FARM	49.5	53.1	58.5	66.2	74.0	82.5	88.5	86.8	81.9	70.7	58.1	51.6	68.5	.80	.82	.65	.33	.13	.09	.83	1.20	.72	.51	.51	.94	7.53
MORMON FLAT	52.8	55.5	61.1	69.9	78.1	86.8	92.2	89.6	86.1	75.2	62.5	55.5	72.1	1.54	1.45	1.19	.57	.18	.28	1.22	2.15	1.14	.89	.96	1.48	13.05
PHOENIX INDIAN SCHOOL	.	.	.	.	.	.	.	.	.	.	.	.	.	.81	.89	.64	.34	.13	.05	.83	1.19	.79	.45	.50	.84	7.46
PHOENIX AP	50.7	54.5	60.5	68.7	77.0	85.6	91.3	89.0	84.3	72.2	59.1	52.6	70.5	.73	.85	.66	.32	.13	.09	.77	1.12	.73	.46	.49	.85	7.20
PHOENIX PO	52.4	56.0	61.6	69.5	77.7	86.2	91.8	89.8	85.3	73.5	60.8	54.4	71.6	.76	.84	.68	.36	.10	.07	.89	1.16	.81	.52	.47	.76	7.42
#PINAL RANCH	.	.	.	.	.	.	.	.	.	.	.	.	.	2.95	2.82	2.53	1.10	.33	.33	2.35	3.63	1.69	1.65	1.67	3.27	24.32
SACATON	49.0	53.0	58.9	66.9	74.9	83.6	89.5	87.5	82.6	70.8	57.3	50.7	68.7	.88	.82	.67	.37	.15	.14	1.20	1.51	.81	.50	.63	.86	8.54
SOUTH PHOENIX	51.5	55.3	60.6	68.1	76.0	84.4	90.7	88.7	84.0	72.4	59.9	53.3	70.4	.73	.87	.70	.32	.12	.10	.77	1.34	.70	.50	.48	.92	7.55
#SUPERIOR	.	.	.	.	.	.	.	.	.	.	.	.	.	2.11	1.95	1.69	.81	.29	.28	2.05	2.56	1.33	1.26	1.26	1.95	17.54
#TEMPE	50.0	53.7	58.9	66.3	73.6	81.7	88.4	86.8	81.9	70.3	57.9	51.9	68.5	.85	.80	.74	.32	.17	.09	.78	1.24	.63	.52	.51	.93	7.58
#WICKENBURG	.	.	.	.	.	.	.	.	.	.	.	.	.	1.11	1.28	.78	.47	.16	.16	1.21	2.40	.90	.58	.65	1.15	10.85
DIVISION	50.1	53.6	59.0	66.8	74.6	83.2	89.5	87.5	82.8	71.2	58.4	52.1	69.1	.97	.96	.77	.39	.14	.14	1.06	1.56	.83	.59	.60	1.01	9.02
SOUTHEAST																										
#AJO	52.5	55.9	61.6	69.6	77.2	85.6	90.6	88.3	85.4	74.4	61.7	55.0	71.5	.81	.69	.74	.31	.04	.10	1.32	2.34	.80	.60	.49	.82	9.06
#APACHE POWDER CO	.	.	.	.	.	.	.	.	.	.	.	.	.	.70	.79	.43	.26	.12	.68	2.95	3.10	1.27	.66	.47	.81	12.24
BENSON	.	.	.	.	.	.	.	.	.	.	.	.	.	.69	.81	.46	.25	.11	.51	2.60	3.21	1.21	.68	.49	.73	11.75
#BISBEE	45.3	48.4	53.4	60.6	67.8	76.4	77.2	75.0	72.3	63.9	53.5	47.8	61.8	1.31	1.15	.83	.42	.16	.78	3.63	4.43	1.93	.89	.63	1.18	17.34
CANELO 1 NW	.	.	.	.	.	.	.	.	.	.	.	.	.	1.21	1.20	.75	.41	.11	.94	4.21	4.78	1.53	.84	.68	1.23	17.89
#CLIFTON	46.6	51.8	58.1	66.2	74.4	83.4	86.6	85.1	80.7	70.3	56.3	48.5	67.3	.91	.91	.72	.37	.25	.39	1.84	2.38	1.64	.91	.53	1.02	11.87
DOUGLAS SMELTER	45.3	48.9	54.0	61.5	68.9	78.1	81.0	79.0	75.2	65.2	53.0	46.9	63.1	.72	.59	.46	.21	.12	.55	3.11	3.10	1.09	.70	.40	.67	11.72
EAGLE CREEK	.	.	.	.	.	.	.	.	.	.	.	.	.	1.32	1.23	1.02	.51	.28	.70	2.63	3.23	1.77	.90	.91	1.21	15.71
ELGIN 5 N	.	.	.	.	.	.	.	.	.	.	.	.	.	.92	.95	.61	.29	.10	.64	3.42	3.61	1.44	.71	.57	.91	14.17
#FAIRBANK	.	.	.	.	.	.	.	.	.	.	.	.	.	.65	.66	.38	.25	.11	.58	3.01	3.03	1.23	.61	.46	.67	11.64
PATAGONIA	.	.	.	.	.	.	.	.	.	.	.	.	.	1.29	1.09	.79	.36	.16	.47	4.37	4.26	1.63	.77	.74	1.09	17.02
RUCKER CANYON	.	.	.	.	.	.	.	.	.	.	.	.	.	1.39	1.42	1.04	.52	.18	.89	3.76	4.15	1.73	1.31	.84	1.31	18.54
SAFFORD	44.2	48.8	54.3	62.7	70.8	80.3	85.0	82.2	77.1	65.7	52.3	45.8	64.1	.70	.69	.61	.29	.13	.29	1.70	1.54	1.00	.59	.46	.66	8.66
#SAN RAFAEL RANCH	.	.	.	.	.	.	.	.	.	.	.	.	.	1.19	1.08	.85	.42	.08	.60	4.40	4.30	1.49	.75	.61	1.10	16.87
#SANTA RITA EXP RANGE	47.5	49.8	54.8	62.4	69.9	78.9	79.9	77.0	75.6	67.2	56.2	50.2	64.1	1.69	1.64	1.13	.58	.14	.75	3.98	4.69	1.88	.91	1.02	1.39	19.80
#STEPHENS RANCH	.	.	.	.	.	.	.	.	.	.	.	.	.	1.00	.82	.60	.25	.10	.55	2.60	3.14	1.28	.76	.96	.97	12.63
TOMBSTONE	.	.	.	.	.	.	.	.	.	.	.	.	.	.84	.77	.49	.33	.11	.59	3.67	3.69	1.30	.60	.51	.80	13.70
#TUCSON U OF A	50.3	53.3	58.4	66.1	73.7	82.5	86.9	84.7	81.0	70.2	58.1	52.2	68.1	.84	.88	.64	.35	.17	.30	1.86	2.24	1.06	.61	.67	.85	10.47
TUCSON AP	49.3	52.4	57.5	65.4	73.0	82.2	86.1	83.6	80.9	70.0	57.6	51.4	67.5	.82	.84	.53	.27	.13	.29	2.06	2.88	1.00	.64	.62	.92	11.00
DIVISION	46.0	49.3	54.4	61.9	69.4	78.3	81.6	79.5	75.9	66.1	54.1	48.0	63.7	.98	1.02	.73	.36	.16	.49	2.78	3.14	1.34	.79	.64	.99	13.42

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1963 REVISIONS AND ADDITIONS TO
CLIMATOGRAPHY OF THE UNITED STATES NO. 81-2
ARIZONA
TABLE I — NORMALS FOR FIRST ORDER STATIONS

STATION	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
FLAGSTAFF AP													
H6993 T 5													
MAX TEMP	40.4	42.6	49.5	58.6	67.8	77.3	81.4	78.9	74.6	63.2	51.4	43.9	60.8
MIN TEMP	14.1	16.5	21.6	28.0	34.0	41.6	49.6	48.8	42.3	30.7	20.7	16.9	30.4
AVG TEMP	27.3	29.6	35.6	43.3	50.9	59.5	65.5	63.9	58.5	47.0	36.1	30.4	45.6
DEG DAYS	1169	991	911	651	437	180	46	68	201	558	867	1073	7152
PHOENIX AP													
G1117 T 5													
MAX TEMP	64.0	68.1	75.0	83.9	92.9	101.6	104.6	101.6	98.2	86.7	73.7	66.1	84.7
MIN TEMP	35.3	38.9	42.9	50.4	57.1	65.5	75.0	73.4	67.3	54.6	42.4	37.0	53.3
AVG TEMP	49.7	53.5	59.0	67.2	75.0	83.6	89.8	87.5	82.8	70.7	58.1	51.6	69.0
DEG DAYS	474	328	217	75	0	0	0	0	0	22	234	415	1765
TUCSON AP													
H2584 T 5													
MAX TEMP	62.6	66.0	72.2	81.1	89.4	98.2	98.5	94.7	93.3	83.2	71.9	64.9	81.3
MIN TEMP	37.0	39.8	43.8	50.6	57.5	67.1	74.1	71.5	67.4	56.8	44.2	38.9	54.1
AVG TEMP	49.8	52.9	58.0	65.9	73.5	82.7	86.3	83.1	80.4	70.0	58.1	51.9	67.7
DEG DAYS	471	344	242	75	6	0	0	0	0	25	231	406	1800
WINSLOW AP													
G4880 T 4													
MAX TEMP	45.2	52.4	62.1	72.4	82.1	92.0	95.7	92.4	86.7	73.9	57.4	46.2	71.5
MIN TEMP	16.8	22.5	29.0	38.7	47.4	56.5	64.6	63.1	54.6	40.9	25.1	18.8	39.8
AVG TEMP	31.0	37.5	45.6	55.6	64.8	74.3	80.2	77.8	70.7	57.4	41.3	32.5	55.7
DEG DAYS	1054	770	601	291	96	0	0	0	6	245	711	1008	4782
YUMA AP													
H 199 T 4													
MAX TEMP	69.3	73.9	80.8	88.3	95.8	103.4	108.2	106.5	103.4	92.0	78.7	70.8	89.3
MIN TEMP	41.5	44.2	50.1	56.5	63.3	71.0	80.3	78.4	72.8	60.6	49.0	43.1	59.2
AVG TEMP	55.4	59.1	65.5	72.4	79.6	87.2	94.3	92.5	88.1	76.3	63.9	57.0	74.3
DEG DAYS	307	190	90	15	0	0	0	0	0	0	108	264	974

TABLE II — NORMALS BY CLIMATOLOGICAL DIVISIONS

	PRECIPITATION (In.)												
NORTH CENTRAL DIVISION		1.64	1.12	.87	.31	.40							14.81

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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