U. S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

CLIMATOGRAPHY OF THE UNITED STATES NO. 81-31

DECENNIAL CENSUS OF UNITED STATES CLIMATE—

MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION, AND HEATING DEGREE DAYS

OREGON

LIBRARY
APR 5 - 1962
WEATHER BUREAU

WASHINGTON, D. C.:1962

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. - Price 5 cents

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

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
ASTORIA AP	H 8 T 6													
	MAX TEMP	46.5*	49.9	51.9	55.9	60.6*	64.1	67.6*	68.2	67.2	61.1*	53.5*	49.4*	58.0
	MIN TEMP	34.8	35.7	37.1*	41.0*	44.9*	49.5*	52.5*	52.7*	48.8*	44.7*	39.1*	36.8*	43.1
	AVG TEMP	40.7*	42.8	44.5*	48.5*	52.8*	56.8*	60.1*	60.5*	58.0*	52.9*	46.3*	43.1*	50.6
	DEG DAYS	753*	622	636*	495*	378*	246*	158*	146*	210*	375*	561*	679*	5259
	PRECIP	11.71	9.89	8.92	5.18	3.20	3.02	1.27	1.49	3.13	7.78	11.20	13.65*	80.44
BURNS CO	H4151 T 5													
	MAX TEMP	35.2	40.4	48.8*	59.8*	68.0*	75.0*	86.8*	84.7*	76.6	64.2	48.3	39.1	60.6
	MIN TEMP	14.3*	18.9	25.9*	32.2	38.8	44.6	52.1	49.6	40.9	32.5*	23.9	19.0	32.7
	AVG TEMP	24.8*	29.7	37.4*	46.0*	53.4*	59.8*	69.5*	67.2	58.8	48.4*	36.1	29.1	46.7
	DEG DAYS	1246*	988	856*	570*	366*	177*	12*	37	210	515*	867	1113	6957
	PRECIP	1.62	1.27	.97*	.75	.89	.88	.34*	.29	.50	.86	1.16	1.43	10.96
EUGENE AP	H 361 T 4													
	MAX TEMP	45.3	50.2	55.1*	61.9	68.1	73.6*	82.2	81.6*	76.2	64.2	52.6	47.5	63.2
	MIN TEMP	32.8*	34.9	36.8*	39.6	44.0	48.1	51.0	50.2	46.8	42.1	38.4	36.0*	41.7
	AVG TEMP	39.1*	42.6	46.0*	50.8	56.1	60.9*	66.6	65.9*	61.5	53.2	45.5	41.8*	52.5
	DEG DAYS	803*	627	589*	426	279	135*	34	34	129	366	585	719*	4726
	PRECIP	6.33*	4.97	4.32	2.38	2.14	1.42	.27	.40	1.27*	3.83	5.62	6.61	39.56
MEACHAM AP	H4050 T 5													
	MAX TEMP	32.7	36.3	41.6*	50.7	59.1	65.7	77.6	75.1*	67.5	55.6	41.6	35.5	53.3
	MIN TEMP	19.3*	21.8	24.9*	30.8	36.8	41.7	49.2*	48.2	43.8	36.9*	27.1	24.1	33.7
	AVG TEMP	26.0*	29.1	33.3*	40.8	48.0	53.7	63.4*	61.7*	55.7	46.3*	34.4	29.8	43.5
	DEG DAYS	1209*	1005	983*	726	527	339	84*	124*	288	580*	918	1091	7874
	PRECIP	4.20	4.00*	3.96*	2.80	2.45	2.45	.50	.53*	1.46	2.84	4.15	4.53	33.87
MEDFORD AP	H1312 T 6													
	MAX TEMP	44.4	51.5	57.7*	65.5	72.4	79.1*	89.3*	88.3*	82.0	68.1	53.0	45.0	66.4
	MIN TEMP	29.4	31.6	33.9*	37.7	43.5	49.3	54.7	53.1	47.4	39.9	33.7	31.8	40.5
	AVG TEMP	36.9	41.6	45.8*	51.6	58.0	64.2*	72.0*	70.7*	64.7	54.0	43.4	38.4	53.4
	DEG DAYS	871	655	595*	402	226	78*	0	0	72	341	648	825	4713
	PRECIP	3.14*	2.40*	1.78	1.06*	1.47	1.02	.21	.18	.60	1.94	2.60	3.38	19.78
PENDLETON AP	H1482 T 6													
	MAX TEMP	38.3*	44.4	53.2*	62.5	71.1	77.9*	88.3*	85.3*	77.1	63.7	48.4	42.0	62.7
	MIN TEMP	25.1	29.4	35.0*	40.5*	47.1	52.6*	58.8*	57.5*	51.2	42.6	33.1*	29.9	41.9
	AVG TEMP	31.7*	36.9	44.1*	51.5*	59.1	65.3*	73.6*	71.4*	64.2	53.2	40.8*	36.0	52.3
	DEG DAYS	1032*	787	648*	405*	214	66*	0	0	111	366	726*	899	5254
	PRECIP	1.42	1.18	1.20	1.09	1.12	1.17	.22	.28	.63	1.18	1.40	1.49	12.38
PORTLAND AP	H 21 T 6													
	MAX TEMP	43.7	48.8	54.2*	61.7	67.5	71.8*	78.6*	77.9*	73.7	63.2	51.7	46.5	61.6
	MIN TEMP	33.0*	35.1	37.9*	41.8	47.2	52.2	55.7	55.2	50.7	45.1*	38.4	36.1	44.0
	AVG TEMP	38.4*	42.0	46.1*	51.8	57.4	62.0*	67.2*	66.6*	62.2	54.2*	45.1	41.3	52.9
	DEG DAYS	825*	644	586*	396	245	105*	25	28*	114	335*	597	735	4635
	PRECIP	5.37*	4.22	3.83	2.09	1.99	1.67	.41	.65	1.63	3.61	5.33	6.38	37.18
#PORTLAND CO	H 30 T 68													
	MAX TEMP	44.9	49.5	54.6*	62.2	68.5	72.6	79.2	78.4*	74.2*	64.0*	52.6	47.6	62.4
	MIN TEMP	35.5	38.1	40.7*	44.8	49.7	54.2	57.9	57.8	54.8	49.0	41.7	38.6	46.9
	AVG TEMP	40.2	43.8	47.7*	53.5	59.1	63.4	68.6	68.1*	64.5*	56.5*	47.2	43.1	54.6
	DEG DAYS	769	594	536*	351	198	78	12	16*	75*	267*	534	679	4109
	PRECIP	6.34*	4.90	4.78	2.45	2.05	1.68	.39	.69	1.74	3.89	6.04	7.42	42.37
ROSEBURG AP	H 505 T 5													
	MAX TEMP	47.2*	51.9	56.7*	63.5	69.4	75.1*	84.0	83.8	78.0*	65.9	53.8	48.3	64.8
	MIN TEMP	33.4*	34.6	36.4	39.4	43.5	47.9	51.8	51.4*	47.5*	42.9	38.4	35.6*	41.9
	AVG TEMP	40.3*	43.3	46.6*	51.5	56.5	61.5*	67.9	67.6*	62.8*	54.4	46.1	42.0*	53.4
	DEG DAYS	766*	608	570*	405	267	123*	22	16*	105*	329	567	713*	4491
	PRECIP	5.51*	4.21*	3.42	1.93	1.85	1.50	.21*	.31	1.00	3.02	4.46	5.69*	33.11
SALEM AP	H 195 T 5													
	MAX TEMP	45.5	50.3	55.1*	62.5	69.3	74.4*	82.7*	81.8*	76.8	64.7	52.8	47.6	63.6
	MIN TEMP	32.5*	34.5	36.5*	39.6*	44.2*	48.8*	51.4*	51.3*	48.1*	43.5*	37.6*	35.3	41.9
	AVG TEMP	39.0*	42.4	45.8*	51.1*	56.8*	61.6*	67.1*	66.6*	62.5*	54.1*	45.2*	41.5	52.8
	DEG DAYS	806*	633	595*	417*	257*	120*	28*	28*	111*	338*	594*	729	4656
	PRECIP	6.70*	5.31	4.68	2.33	2.11	1.45	.35	.45	1.38	3.91	5.71	7.37	41.75
SEXTON SUMMIT WB	H3836 T 4													
	MAX TEMP	38.3*	40.8	44.8*	52.8	59.8*	65.5*	74.5	73.9*	68.7*	57.8	47.9*	41.6	55.5
	MIN TEMP	28.9	30.4	31.4*	35.6	40.2	45.8	52.6*	51.5	49.6*	43.6*	37.7*	33.0*	40.0
	AVG TEMP	33.6*	35.6	38.1*	44.2	50.0*	55.7*	63.6*	62.7*	59.2*	50.7*	42.8*	37.3*	47.8
	DEG DAYS	973*	823	834*	624	465*	279*	81*	87*	183*	443*	666*	859*	6317
	PRECIP	5.59*	4.12*	3.47	1.85	2.19	1.53	.32	.25	1.25	3.41	4.38	4.76*	33.12

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
COASTAL AREA																										
ASTORIA AP	40.7	42.8	44.5	48.5	52.8	56.8	60.1	60.5	58.0	52.9	46.3	43.1	50.6	11.71	9.89	8.92	5.18	3.20	3.02	1.27	1.49	3.13	7.78	11.20	13.65	80.44
BANDON	•	•	•	•	•	•	•	•	•	•	•	•	•	9.61	7.58	6.78	3.65	2.62	1.45	.43	.39	1.59	5.13	7.67	9.14	56.04
BROOKINGS	47.1	48.0	48.9	51.1	54.6	57.7	58.9	58.9	59.5	56.0	51.7	48.8	53.4	13.16	11.07	10.19	5.42	4.30	2.46	.58	.58	1.84	7.27	10.75	13.78	81.40
#CANARY	43.2	45.1	46.4	49.4	53.3	57.2	60.2	60.8	59.3	54.6	48.4	45.2	51.9	12.67	10.25	9.84	5.22	3.66	2.39	.85	.94	2.66	7.12	10.71	13.04	79.35
FALLS CITY	37.9	41.1	44.4	49.5	54.8	59.2	64.4	64.5	61.4	53.4	44.3	40.5	51.3	12.71	10.25	8.74	4.04	2.72	1.48	.34	.62	1.75	5.69	10.78	13.83	72.95
GOLD BEACH RS	•	•	•	•	•	•	•	•	•	•	•	•	•	14.08	10.61	10.46	5.49	4.19	2.10	.49	.62	1.77	6.98	10.69	13.93	81.41
LANGLOIS 2	•	•	•	•	•	•	•	•	•	•	•	•	•	13.60	10.76	10.06	4.99	4.05	2.44	.46	.55	2.24	7.20	11.25	13.69	81.29
NEWPORT	43.7	44.9	46.0	49.2	52.3	55.8	57.4	57.7	56.8	53.6	48.8	45.5	51.0	10.01	8.38	8.38	4.16	2.93	2.39	.81	.92	2.31	6.12	8.80	11.02	66.23
NORTH BEND FAA AP	45.3	46.5	47.6	50.1	53.6	57.0	59.1	59.6	58.3	55.0	50.1	47.1	52.4	10.29	8.35	7.63	3.87	2.77	1.69	.43	.52	1.73	5.49	8.56	10.49	61.82
POWERS	•	•	•	•	•	•	•	•	•	•	•	•	•	10.82	8.51	8.03	3.88	2.98	1.64	.31	.33	1.28	4.98	8.14	10.66	61.56
#SEASIDE	43.4	45.0	46.1	49.3	53.1	57.1	59.5	60.1	58.7	54.5	48.3	45.4	51.7	11.90	9.84	9.27	5.41	3.31	3.12	1.23	1.53	2.94	7.57	10.40	13.18	79.70
SUMMIT	•	•	•	•	•	•	•	•	•	•	•	•	•	10.57	8.75	7.85	4.05	2.98	1.87	.50	.70	1.98	5.92	9.20	11.68	66.05
TILLAMOOK	•	•	•	•	•	•	•	•	•	•	•	•	•	13.23	11.48	10.87	5.78	4.17	3.36	1.14	1.42	3.13	7.88	12.01	14.98	89.45
#TIMBER	•	•	•	•	•	•	•	•	•	•	•	•	•	10.11	8.27	7.16	3.48	2.36	1.70	.47	.62	1.61	5.01	9.04	11.57	61.40
DIVISION	43.0	45.0	46.6	50.1	54.0	57.8	60.8	61.0	59.3	54.5	48.2	45.0	52.1	12.30	10.07	9.42	4.93	3.45	2.35	.73	.87	2.31	6.84	10.43	13.20	76.90
WILLAMETTE VALLEY																										
ALBANY 1 N	39.4	42.9	46.7	52.2	57.5	62.1	67.1	66.5	62.3	53.9	45.3	41.8	53.1	6.25	5.06	4.55	2.28	2.13	1.50	.38	.48	1.42	4.00	5.87	6.75	40.67
#CASCADIA RS	•	•	•	•	•	•	•	•	•	•	•	•	•	8.31	6.97	7.32	4.83	3.93	3.05	.57	.82	2.23	5.84	8.05	9.34	61.26
CORVALLIS STATE COLLEGE	39.4	42.9	46.5	51.7	57.0	61.6	66.6	66.4	62.7	54.4	45.4	41.8	53.0	6.30	4.79	4.12	2.04	1.80	1.24	.31	.38	1.25	3.52	5.35	6.57	37.67
#COTTAGE GROVE 1 S	39.6	42.7	45.8	50.2	55.3	59.9	65.0	64.7	60.5	53.9	45.6	41.7	52.1	7.03	5.63	5.45	3.10	2.62	1.85	.30	.49	1.52	4.35	6.47	7.50	46.31
DISSTON 1 NE LAYNG CR	•	•	•	•	•	•	•	•	•	•	•	•	•	7.61	6.15	6.13	4.09	3.51	2.64	.40	.55	1.94	4.95	6.85	8.19	53.01
ESTACADA 2 SE	39.0	42.0	45.5	50.9	56.0	60.1	65.3	65.0	60.9	53.2	44.8	41.4	52.0	7.72	6.19	7.02	4.15	3.42	2.83	.62	1.05	2.36	5.77	7.68	8.72	57.53
EUGENE AP	39.1	42.6	46.0	50.8	56.1	60.9	66.6	65.9	61.5	53.2	45.5	41.8	52.5	6.33	4.97	4.32	2.38	2.14	1.42	.27	.40	1.27	3.83	5.62	6.61	39.56
FOREST GROVE	37.5	41.3	45.4	51.1	57.0	61.5	66.6	66.2	62.1	53.1	44.1	40.4	52.2	7.54	5.87	5.15	2.32	1.88	1.38	.42	.53	1.49	3.86	6.78	8.52	45.74
HASKINS DAM	•	•	•	•	•	•	•	•	•	•	•	•	•	12.41	10.59	8.93	4.35	2.83	1.53	.38	.61	1.91	5.98	11.18	14.16	74.86
HEADWORKS PTLND WATER	36.9	39.9	43.7	49.6	55.4	59.5	64.8	64.1	60.4	52.7	44.0	39.9	50.9	11.76	9.03	9.79	5.87	5.37	4.67	1.09	1.56	3.85	8.04	11.85	12.83	85.71
HILLSBORO	37.8	41.5	45.4	51.3	57.0	61.4	66.6	65.7	61.8	53.2	44.0	40.5	52.2	5.95	4.51	4.02	1.89	1.85	1.46	.38	.50	1.44	3.31	5.54	6.97	37.82
MEHAMA	•	•	•	•	•	•	•	•	•	•	•	•	•	9.58	7.83	8.22	4.91	4.38	3.25	.73	.93	2.67	6.02	9.12	10.52	68.16
PORTLAND AP	38.4	42.0	46.1	51.8	57.4	62.0	67.2	66.6	62.2	54.2	45.1	41.3	52.9	5.37	4.22	3.83	2.09	1.99	1.67	.41	.65	1.63	3.61	5.33	6.38	37.18
#PORTLAND CO	40.2	43.8	47.7	53.5	59.1	63.4	68.6	68.1	64.5	56.5	47.2	43.1	54.6	6.34	4.90	4.78	2.45	2.05	1.68	.39	.69	1.74	3.89	6.04	7.42	42.37
SALEM AP	39.0	42.4	45.8	51.1	56.8	61.6	67.1	66.6	62.5	54.1	45.2	41.5	52.8	6.70	5.31	4.68	2.33	2.11	1.45	.35	.45	1.38	3.91	5.71	7.37	41.75
WATERLOO	•	•	•	•	•	•	•	•	•	•	•	•	•	6.64	5.52	5.14	3.25	3.02	2.10	.36	.60	1.73	4.44	6.55	7.06	46.41
DIVISION	38.3	41.5	45.1	50.5	55.9	60.3	65.5	65.1	61.3	53.4	44.7	40.9	51.9	7.71	6.17	5.88	3.29	2.78	2.15	.50	.72	1.87	4.85	7.25	8.62	51.79

TABLE II - NORMALS BY CLIMATOLOGICAL DIVISIONS

OREGON

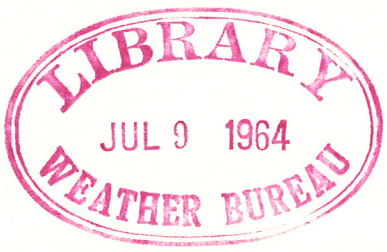
STATIONS (By Divisions)	TEMPERATURE (°F) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL	PRECIPITATION (In.) JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
SOUTHWESTERN VALLEYS																										
ASHLAND 1 N	37.5	41.4	45.1	50.8	56.5	62.2	69.1	68.0	62.7	53.1	43.8	38.9	52.4	2.78	2.15	2.06	1.30	1.74	1.20	.34	.27	.78	1.84	2.53	3.00	19.99
GRANTS PASS	39.2	43.4	48.0	53.7	59.4	64.6	70.6	69.4	64.4	54.7	44.5	40.7	54.4	5.82	4.50	3.20	1.69	1.63	.91	.26	.18	.71	2.71	3.94	5.52	31.07
MEDFORD AP	36.9	41.6	45.8	51.6	58.0	64.2	72.0	70.7	64.7	54.0	43.4	38.4	53.4	3.14	2.40	1.78	1.06	1.47	1.02	.21	.18	.60	1.94	2.60	3.38	19.78
#MODOC ORCHARD	37.7	42.2	46.7	52.5	58.3	64.1	71.0	69.8	64.1	54.1	43.7	39.1	53.6	3.86	2.88	2.11	1.23	1.40	1.13	.31	.22	.58	2.10	3.04	4.00	22.86
PROSPECT 2 SW	35.4	38.5	42.0	47.8	53.9	59.2	66.2	65.0	60.4	51.3	42.2	37.4	49.9	6.60	4.94	4.55	2.90	2.73	1.80	.33	.30	1.06	3.95	5.67	6.86	41.69
RIDDLE 2 NNE	•	•	•	•	•	•	•	•	•	•	•	•	•	5.46	4.17	3.37	1.87	1.66	1.20	.18	.22	.85	2.78	4.26	5.71	31.71
ROSEBURG AP	40.3	43.3	46.6	51.5	56.5	61.5	67.9	67.6	62.8	54.4	46.1	42.0	53.4	5.51	4.21	3.42	1.93	1.85	1.50	.21	.31	1.00	3.02	4.46	5.69	33.11
SEXTON SUMMIT WB	33.6	35.6	38.1	44.2	50.0	55.7	63.6	62.7	59.2	50.7	42.8	37.3	47.8	5.59	4.12	3.47	1.85	2.19	1.53	.32	.25	1.25	3.41	4.38	4.76	33.12
DIVISION	37.2	40.6	44.6	50.3	56.2	61.7	68.6	67.5	62.5	53.2	43.5	38.9	52.1	4.90	3.76	3.27	1.93	1.99	1.41	.27	.27	.90	2.84	3.95	5.10	30.59
NORTHERN CASCADES																										
DETROIT	•	•	•	•	•	•	•	•	•	•	•	•	•	11.27	9.10	8.58	5.15	3.86	2.86	.59	.89	2.55	7.23	11.05	12.83	75.96
MC KENZIE BRIDGE RS	•	•	•	•	•	•	•	•	•	•	•	•	•	10.48	8.42	8.39	4.75	3.91	2.93	.52	.72	2.25	6.61	9.62	11.84	70.44
OAKRIDGE SALMON HATCH	•	•	•	•	•	•	•	•	•	•	•	•	•	6.73	5.24	5.09	3.10	2.74	2.12	.44	.50	1.32	3.92	5.96	6.81	43.97
#THREE LYNX	35.7	38.8	42.7	49.2	54.9	59.5	64.9	64.2	60.7	52.4	42.8	38.5	50.4	9.78	7.94	8.10	4.76	4.04	3.06	.59	.86	2.40	6.45	9.28	10.95	68.21
DIVISION	33.5	36.5	40.1	47.1	53.0	58.0	64.3	63.6	59.4	50.8	40.6	36.0	48.6	10.07	8.07	8.17	4.75	3.89	3.06	.60	.83	2.31	6.44	9.40	11.09	68.68
HIGH PLATEAU																										
FREMONT	25.8	30.5	35.3	41.2	47.9	53.3	60.7	58.5	52.4	44.0	34.5	29.0	42.8	1.48	.98	.78	.61	1.12	.93	.37	.26	.42	.83	1.07	1.64	10.49
ROUND GROVE	•	•	•	•	•	•	•	•	•	•	•	•	•	1.78	1.73	1.68	1.28	1.92	1.40	.44	.38	.72	1.52	1.58	2.11	16.54
DIVISION	25.7	29.2	33.1	39.6	46.3	52.2	60.1	58.5	52.6	44.4	34.5	29.0	42.1	5.05	3.72	3.46	2.00	1.98	1.60	.48	.45	.95	2.70	3.92	5.26	31.57
NORTH CENTRAL																										
ANTELOPE 1 N	30.4	34.9	40.0	46.6	53.3	59.1	67.1	65.6	59.4	50.0	39.3	34.2	48.3	1.51	1.12	1.13	.88	1.40	1.11	.30	.37	.65	1.10	1.56	1.61	12.74
ARLINGTON	32.6	38.3	46.0	53.9	61.7	67.9	75.6	73.7	66.5	54.9	41.6	36.5	54.1	1.44	1.01	.84	.49	.56	.65	.14	.16	.33	.85	1.24	1.33	9.04
CONDON	29.0	33.1	39.3	45.7	52.6	58.6	66.6	65.1	58.9	49.0	37.9	32.9	47.4	1.42	1.17	1.23	.95	1.32	1.22	.39	.31	.62	1.12	1.44	1.45	12.64
DUFUR	30.9	36.1	42.7	49.3	56.2	61.7	68.0	66.8	61.6	51.6	39.8	34.8	50.0	2.06	1.41	1.19	.63	.82	.84	.16	.17	.45	1.00	1.60	1.67	12.00
ECHO	32.6	38.3	45.9	53.6	61.5	67.6	74.3	71.9	64.3	53.9	41.6	36.7	53.5	1.33	1.07	.99	.84	.76	.85	.19	.19	.55	.98	1.19	1.32	10.26
FRIEND 2 W	•	•	•	•	•	•	•	•	•	•	•	•	•	2.91	2.11	1.54	.76	1.06	.99	.21	.17	.60	1.41	2.39	2.73	16.88
#HEPPNER	32.3	36.7	42.7	48.8	55.2	61.0	68.1	66.6	60.7	51.6	40.9	36.1	50.1	1.28	1.13	1.29	1.27	1.34	1.40	.32	.38	.73	1.29	1.44	1.38	13.25
HERMISTON 2 S	31.3	36.9	45.3	53.6	61.4	67.7	74.6	72.0	64.2	53.2	40.5	35.4	53.0	1.18	.93	.81	.62	.66	.75	.19	.13	.44	.87	1.05	1.14	8.77
#HOOD RIVER EXP STA	33.0	37.5	43.5	50.4	56.8	61.7	66.8	65.9	60.7	52.0	41.0	36.7	50.5	5.04	3.62	3.41	1.49	1.10	.92	.15	.27	.86	2.62	4.77	5.44	29.69
#KENT	29.4	33.6	39.6	46.3	53.7	60.0	68.1	66.6	60.3	50.3	38.5	33.0	48.3	1.31	1.05	1.04	.80	1.15	1.06	.24	.24	.56	.91	1.29	1.31	10.96
#MIKKALO 6 W	•	•	•	•	•	•	•	•	•	•	•	•	•	1.43	1.03	.85	.71	.93	.85	.20	.17	.48	.94	1.19	1.30	10.08
MILTON FREEWATER 4 NW	33.1	38.2	46.2	54.1	61.3	67.1	74.7	72.2	65.1	54.3	41.8	37.1	53.8	1.57	1.29	1.44	1.30	1.36	1.40	.27	.29	.66	1.28	1.47	1.81	14.14
MORGAN 3 NE	•	•	•	•	•	•	•	•	•	•	•	•	•	1.35	1.03	.85	.65	.76	.79	.12	.19	.42	.94	1.07	1.17	9.34
#MORO	29.7	34.6	41.4	48.3	55.6	61.4	68.9	67.5	61.2	50.6	38.8	33.7	49.3	1.79	1.25	1.08	.76	.84	.88	.17	.17	.50	1.11	1.62	1.64	11.81
#PARKDALE	30.2	34.4	40.2	46.9	53.3	58.2	63.6	62.5	57.6	48.8	38.6	33.9	47.4	7.87	5.74	5.29	2.38	1.84	1.31	.25	.35	1.19	3.73	6.83	8.56	45.34
PENDLETON AP	31.7	36.9	44.1	51.5	59.1	65.3	73.6	71.4	64.2	53.2	40.8	36.0	52.3	1.42	1.18	1.20	1.09	1.12	1.17	.22	.28	.63	1.18	1.40	1.49	12.38
PILOT ROCK 1 SE	•	•	•	•	•	•	•	•	•	•	•	•	•	1.40	1.19	1.39	1.39	1.53	1.50	.31	.43	.75	1.23	1.37	1.54	14.03
THE DALLES	33.9	39.0	46.4	54.2	61.5	67.4	73.7	72.3	66.0	55.2	42.9	38.0	54.2	2.55	1.80	1.37	.53	.62	.66	.08	.16	.47	1.17	2.02	2.36	13.79
#UMATILLA	32.0	37.4	45.6	53.9	61.8	67.9	74.9	72.8	64.7	53.2	41.0	36.0	53.4	1.08	.79	.74	.56	.59	.69	.18	.13	.44	.82	1.00	1.11	8.13
WASCO	•	•	•	•	•	•	•	•	•	•	•	•	•	1.84	1.23	1.12	.69	.74	.78	.18	.19	.49	1.11	1.58	1.74	11.69
DIVISION	31.6	36.5	43.3	50.4	57.5	63.2	70.4	68.7	62.3	52.1	40.4	35.5	51.0	2.46	1.88	1.79	1.14	1.17	1.10	.27	.27	.69	1.54	2.27	2.60	17.18
SOUTH CENTRAL																										
BEND	30.2	33.9	38.3	44.6	50.7	56.4	63.7	62.2	56.3	47.8	38.5	33.3	46.3	1.82	1.14	.80	.65	1.12	1.16	.45	.45	.42	.90	1.40	1.73	12.04
BURNS CO	24.8	29.7	37.4	46.0	53.4	59.8	69.5	67.2	58.8	48.4	36.1	29.1	46.7	1.62	1.27	.97	.75	.89	.88	.34	.29	.50	.86	1.16	1.43	10.96
CHILOQUIN	•	•	•	•	•	•	•	•	•	•	•	•	•	2.79	1.99	1.62	1.08	1.46	1.09	.32	.28	.65	1.43	2.25	2.76	17.72
KENO	•	•	•	•	•	•	•	•	•	•	•	•	•	3.03	2.23	1.82	1.08	1.39	.93	.31	.32	.68	1.70	2.36	2.94	18.79
KLAMATH FALLS 2 SSW	29.4	33.8	39.5	46.9	53.7	60.1	68.7	66.9	60.4	50.0	38.5	32.2	48.3	2.11	1.56	1.24	.84	1.15	.95	.31	.33	.60	1.15	1.61	2.21	14.06
LAKEVIEW	27.2	30.8	36.7	44.7	51.6	58.1	66.8	64.6	57.8	48.0	37.2	31.2	46.2	1.84	1.71	1.52	1.15	1.51	1.28	.22	.17	.58	1.21	1.37	1.88	14.44
MADRAS	30.2	35.1	40.0	46.0	52.8	58.9	65.6	63.6	57.4	47.9	38.1	33.7	47.4	1.13	.83	.77	.60	1.08	.96	.27	.25	.51	.78	1.14	1.09	9.41
PAISLEY	•	•	•	•	•	•	•	•	•	•	•	•	•	1.23	1.01	.90	.67	1.25	1.13	.37	.27	.43	.82	.85	1.16	10.09
PRINEVILLE 4 NW	30.3	34.9	39.3	45.4	51.8	57.0	63.3	61.1	55.7	47.5	38.4	33.6	46.5	1.05	.78	.71	.68	1.23	1.19	.29	.33	.52	.84	1.09	1.10	9.81
REDMOND	31.7	36.2	40.7	46.8	53.0	58.6	65.8	63.6	58.1	49.6	39.7	35.0	48.2	1.06	.75	.57	.51	.95	1.04	.32	.24	.45	.68	.87	1.07	8.51
VALLEY FALLS	29.7	33.1	38.1	45.1	51.6	57.7	65.9	63.8	56.7	47.9	37.6	32.6	46.7	1.41	1.31	1.12	.96	1.43	1.38	.30	.29	.57	1.11	.99	1.50	12.37
DIVISION	28.7	33.0	38.3	45.4	52.0	58.0	65.9	63.8	57.3	48.2	37.6	32.1	46.7	1.56	1.21	1.08	.86	1.28	1.17	.40	.30	.55	1.02	1.30	1.55	12.28
NORTHEAST																										
AUSTIN 3 S	•	•	•	•	•	•	•	•	•	•	•	•	•	2.67	2.17	1.90	1.09	1.55	1.54	.50	.54	.73	1.51	2.14	2.70	19.04
BAKER KBKR	25.6	30.3	37.5	45.8	53.1	59.0	67.8	65.7	58.5	48.6	36.2	29.6	46.5	.98	.88	1.05	.87	1.44	1.41	.48	.38	.60	.82	1.00	1.06	10.97
COVE 1 ENE	29.0	33.1	39.0	46.6	53.2	58.7	66.7	64.7	58.0	48.9	38.2	32.9	47.4	1.90	1.93	2.25	2.28	2.72	2.68	.61	.65	1.20	2.03	2.40	2.32	22.97
ENTERPRISE	23.3	28.1	35.0	43.6	50.4	55.9	63.0	60.6	54.4	45.7	33.7	27.4	43.4	.92	.86	1.19	1.22	1.72	2.19	.60	.59	1.01	1.17	1.07	1.00	13.54
HUNTINGTON	29.0	34.3	43.1	52.4	61.7	69.3	79.6	77.5	67.1	54.3	39.5	32.2	53.3	1.65	1.58	.97	.78	.84	.80	.28	.16	.49	.72	1.20	1.61	11.08
LA GRANDE	30.3	34.0	39.9	48.2	55.8	61.7	70.7	68.7	61.0	50.7	39.3	34.3	49.6	1.99	2.01	2.13	1.91	1.90	1.96	.53	.53	.94	1.69	2.29	2.45	20.33
MEACHAM AP	26.0	29.1	33.3	40.8	48.0	53.7	63.4	61.7	55.7	46.3	34.4	29.8	43.5	4.20	4.00	3.96	2.80	2.45	2.45	.50	.53	1.46	2.84	4.15	4.53	33.87
MINAM 7 NE	•	•	•	•	•	•	•	•	•	•	•	•	•	2.50	2.37	2.17	1.76	2.07	2.12	.55	.63	1.14	2.01	2.62	2.78	22.72
ROCK CREEK	•	•	•	•	•	•	•	•	•	•	•	•	•	2.64	2.42	1.89	1.49	1.97	1.98	.64	.66	.77	1.67	2.21	2.88	21.22
UKIAH	•	•	•	•	•	•	•	•	•	•	•	•	•	1.91	1.76	1.72	1.52	1.89	1.99	.44	.52	.93	1.50	1.79	2.20	18.17
#UNION	29.8	33.9	39.9	47.4	53.8	58.9	66.4	64.6	57.9	49.2	38.9	33.7	47.9	.89	1.03	1.32	1.34	1.82	1.81	.46	.55	.79	1.22	1.25	1.22	13.70
#WALLOWA	•	•	•	•	•	•	•	•	•	•	•	•	•	1.71	1.54	1.69	1.54	1.81	1.99	.69	.53	1.05	1.66	2.00	1.98	18.19
DIVISION	26.0	30.2	36.8	45.2	52.4	58.2	66.3	64.2	57.1	47.8	36.0	29.9	45.8	1.85	1.71	1.66	1.46	1.76	1.77	.58	.48	.88	1.48	1.84	2.05	17.52
SOUTHEAST																										
ADRIAN	28.5	34.5	42.7	51.9	59.9	66.7	75.6	72.5	63.0	51.9	38.3	32.4	51.5	1.08	.97	.86	.77	1.02	.78	.18	.23	.41	.69	.91	1.00	8.90
DANNER	25.7	30.7	37.7	46.0	53.5	60.1	69.1	66.5	57.9	48.0	36.2	29.8	46.8	1.21	1.07	1.03	.99	1.36	1.06	.29	.15	.61	.90	1.05	1.32	11.04
VALE	27.3	33.3	42.3	50.9	58.8	65.4	74.2	70.9	61.3	50.7	37.5	31.5	50.3	1.09	.98	.81	.68	1.03	.80	.17	.24	.46	.77	.85	1.00	8.88
WARM SPRINGS RES	26.3	32.0	40.0	48.6	56.2	63.0	72.7	70.4	62.0	50.8	37.5	31.1	49.2	1.06	.89	.65	.57	.88	1.04	.31	.21	.43	.66	.68	.95	8.33
DIVISION	27.0	32.7	40.8	49.4	57.3	63.9	73.0	70.3	61.3	51.0	37.4	31.1	49.6	1.12	.97	.86	.75	1.06	.92	.24	.21	.46	.78	.88	1.07	9.32

☆ U. S. GOVERNMENT PRINTING OFFICE : 1962 O - 630711

1963 REVISIONS AND ADDITIONS TO CLIMATOGRAPHY OF THE UNITED STATES NO. 81-31 OREGON

TABLE I — NORMALS FOR FIRST ORDER STATIONS

STATION	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
ASTORIA AP													
H 8 T 6													
MAX TEMP	46.5	49.9	51.9	56.9	61.6	65.1	68.6	69.2	67.2	61.1	53.5	49.4	58.4
MIN TEMP	34.8	35.7	37.1	41.0	44.9	49.5	52.5	52.7	48.8	44.7	39.1	36.8	43.1
AVG TEMP	40.7	42.8	44.5	49.0	53.3	57.3	60.6	61.0	58.0	52.9	46.3	43.1	50.8
DEG DAYS	753	622	636	480	363	231	146	130	210	375	561	679	5186
MEDFORD AP													
G1298 T 4													
MAX TEMP	42.4	49.5	55.7	63.5	71.4	78.1	88.3	87.3	80.0	66.1	51.0	43.0	64.7
MIN TEMP	28.4	30.6	32.9	37.7	43.5	50.3	55.7	54.1	48.4	39.9	33.7	30.8	40.5
AVG TEMP	35.4	40.1	44.3	50.6	57.5	64.2	72.0	70.7	64.2	53.0	42.4	36.9	52.6
DEG DAYS	918	697	642	432	242	78	0	0	78	372	678	871	5008
PENDLETON AP													
G1482 T 6													
MAX TEMP	39.3	45.4	54.2	63.5	72.1	78.9	89.3	87.3	78.1	64.7	49.4	43.0	63.8
MIN TEMP	25.1	29.4	36.0	40.5	47.1	52.6	57.8	56.5	50.2	42.6	33.1	29.9	41.7
AVG TEMP	32.2	37.4	45.1	52.0	59.6	65.8	73.6	71.9	64.2	53.7	41.3	36.5	52.8
DEG DAYS	1017	773	617	396	205	63	0	0	111	350	711	884	5127
SALEM AP													
G 195 T 4													
MAX TEMP	45.5	50.3	55.1	62.5	68.3	73.4	81.7	80.8	76.8	65.7	53.8	48.6	63.5
MIN TEMP	31.5	33.5	35.5	39.6	44.2	47.8	50.4	51.3	48.1	42.5	36.6	34.3	41.3
AVG TEMP	38.5	41.9	45.3	51.1	56.3	60.6	66.1	66.1	62.5	54.1	45.2	41.5	52.4
DEG DAYS	822	647	611	417	273	144	37	31	111	338	594	729	4754
SEXTON SUMMIT WB													
H3836 T 4													
MAX TEMP	39.3	41.8	45.8	53.8	60.8	66.5	75.5	75.9	70.7	58.8	48.9	41.6	56.6
MIN TEMP	28.9	30.4	31.4	35.6	39.2	44.8	51.6	50.5	48.6	42.6	36.7	32.0	39.4
AVG TEMP	34.1	36.1	38.6	44.7	50.0	55.7	63.6	63.2	59.7	50.7	42.8	36.8	48.0
DEG DAYS	958	809	818	609	465	279	81	81	171	443	666	874	6254

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

USCOMM-WB-Asheville, N. C. -3/31/64- 2000