

Climatography of the United States

No. 20

1971-2000

Station: WENATCHEE AP, WA

COOP ID: 459082

Climate Division: WA 8

NWS Call Sign: EAT

Elevation: 1,229 Feet Lat: 47° 24N

Lon: 120° 12W

Temperature (°F)																					
Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	33.9	21.8	27.9	60	1971	31	36.5	1981	-12	1996	30	17.1	1979	1153	0	.0	.0	1.4	13.8	28.4	.9
Feb	41.6	26.7	34.2	65	1988	21	41.6	1991	-15	1996	3	24.7	1985	864	0	.0	.0	5.1	4.8	22.4	.4
Mar	53.6	33.6	43.6	78+	1994	28	50.0	1992	6	1960	4	37.8	1971	664	0	.0	.0	23.2	.3	12.8	.0
Apr	62.9	40.0	51.5	93	1977	24	55.5	1994	27+	1998	12	47.0	1972	408	1	.0	@	29.1	.0	2.6	.0
May	71.5	47.3	59.4	103+	1986	31	65.1	1993	32+	1985	12	53.8	1984	204	30	.1	1.2	31.0	.0	.1	.0
Jun	78.7	54.0	66.4	105+	1992	23	73.3	1992	38	1976	3	61.0	1981	75	114	.3	3.5	30.0	.0	.0	.0
Jul	86.7	59.8	73.3	108	1998	27	79.3	1985	43+	1971	7	67.6	1993	16	272	2.1	12.4	31.0	.0	.0	.0
Aug	86.1	59.7	72.9	109	1961	4	78.2	1971	42	1992	23	68.2	1995	14	258	1.6	11.5	31.0	.0	.0	.0
Sep	76.5	51.0	63.8	101	1987	1	69.7	1998	31	1985	29	58.4	1985	136	98	.1	2.3	30.0	.0	.1	.0
Oct	61.7	40.1	50.9	87	1992	1	56.0	1988	16	1984	31	46.4	1984	439	2	.0	.0	28.3	@	3.6	.0
Nov	43.9	30.4	37.2	70+	1989	9	42.3	1999	-5+	1985	24	23.0	1985	835	0	.0	.0	8.6	2.8	17.9	.2
Dec	33.5	22.9	28.2	62	1972	1	35.5	1991	-21	1968	30	17.4	1984	1142	0	.0	.0	1.1	14.3	27.7	.8
Ann	60.9	40.6	50.8	109	Aug 1961	4	79.3	Jul 1985	-21	Dec 1968	30	17.1	Jan 1979	5950	775	4.2	30.9	249.8	36.0	115.6	2.3

+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1959-2001

(3) Derived from 1971-2000 serially complete daily data

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No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: WENATCHEE AP, WA

COOP ID: 459082

Climate Division: WA 8

NWS Call Sign: EAT

Elevation: 1,229 Feet Lat: 47°24N

Lon: 120°12W

Precipitation (inches)

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days ⁽³⁾				Precipitation Probabilities ⁽¹⁾ Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians ⁽¹⁾		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution										
Month	Mean	Med-ian	Highest Daily ⁽²⁾	Year	Day	Highest Monthly ⁽¹⁾	Year	Lowest Monthly ⁽¹⁾	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.14	1.16	.76	1998	17	2.84	1995	.01	1977	9.7	4.1	.2	.0	.15	.24	.41	.57	.73	.92	1.13	1.39	1.75	2.33	2.89
Feb	.86	.80	1.12	1960	1	2.30	1998	.00	1988	7.6	2.9	.1	.0	.08	.18	.32	.44	.57	.71	.87	1.06	1.31	1.73	2.12
Mar	.68	.61	1.35	1991	24	2.34	1983	.02	1994	6.2	2.3	.1	@	.05	.09	.17	.27	.37	.49	.64	.82	1.08	1.52	1.95
Apr	.47	.48	1.43	1967	18	1.54	1978	.00	1977	4.6	1.7	.0	.0	.02	.06	.13	.20	.28	.36	.45	.57	.74	1.01	1.27
May	.61	.38	.91	1981	19	2.02	1998	.00	1992	5.2	1.7	.2	.0	.02	.06	.14	.23	.32	.44	.57	.75	.99	1.40	1.81
Jun	.64	.55	1.26	1972	9	1.87	1972	.01	1999	4.3	1.9	.2	@	.03	.06	.13	.22	.31	.43	.58	.77	1.04	1.50	1.97
Jul	.30	.24	.75	1965	3	.92	1993	.00+	1988	2.6	1.0	.1	.0	.00	.00	.03	.09	.15	.21	.29	.38	.51	.72	.94
Aug	.35	.21	1.51	1975	18	2.01	1976	.00+	2000	2.6	.9	.1	@	.00	.00	.00	.04	.11	.18	.28	.41	.60	.93	1.27
Sep	.43	.20	1.36	1984	22	2.31	1986	.00+	1999	2.8	1.1	.2	.1	.00	.00	.00	.04	.12	.22	.34	.51	.75	1.16	1.58
Oct	.45	.34	.90	1997	30	1.64	1997	.00+	1978	4.1	1.2	.2	.0	.00	.01	.07	.13	.20	.29	.40	.54	.74	1.09	1.44
Nov	1.15	1.03	1.32	1965	24	3.58	1983	.00	1993	9.4	3.4	.3	.1	.12	.26	.45	.62	.79	.97	1.17	1.42	1.75	2.28	2.78
Dec	1.43	1.27	1.12	1987	9	5.29	1996	.10	1976	10.3	4.5	.4	@	.19	.31	.52	.71	.92	1.15	1.42	1.74	2.18	2.90	3.59
Ann	8.51	8.26	1.51	Aug 1975	18	5.29	Dec 1996	.00+	Aug 2000	69.4	26.7	2.1	.2	5.01	5.64	6.47	7.11	7.70	8.28	8.88	9.56	10.40	11.64	12.73

+ Also occurred on an earlier date(s)

Denotes amounts of a trace

@ Denotes mean number of days greater than 0 but less than .05

** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals

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Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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COOP ID: 459082

Climate Division: WA 8

NWS Call Sign: EAT

Elevation: 1,229 Feet

Lat: 47° 24N

Lon: 120° 12W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	10.3	8.4	5	3	10.0	1998	17	27.5	1998	25	1997	1	19	1993	6.3	3.7	1.2	.2	@	21.8	15.9	11.4	5.2
Feb	4.7	3.0	2	2	6.0	1993	19	15.5	1980	17	1980	15	10	1980	3.0	1.5	.7	.2	.0	10.9	8.1	6.2	2.1
Mar	1.4	.0	#	0	4.0	1972	1	9.8	1971	9	1993	2	2	1993	1.1	.7	@	.0	.0	1.1	.4	.2	.0
Apr	#	.0	0	0	#	1997	3	#+	1997	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.2	.0	#	0	3.0	1991	31	3.0	1991	3	1991	31	#	1999	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	4.3	2.0	1	0	13.0	1996	19	17.6	1996	12	1996	20	3+	1996	2.2	1.2	.5	.2	@	3.9	2.1	1.1	.2
Dec	12.4	8.1	3	1	8.9	1980	2	42.9	1996	29	1996	30	13	1996	6.2	3.9	1.6	.6	.0	15.4	10.3	8.3	3.4
Ann	33.3	21.5	N/A	N/A	13.0	Nov 1996	19	42.9	Dec 1996	29	Dec 1996	30	19	Jan 1993	18.9	11.1	4.0	1.2	@	53.2	36.8	27.2	10.9

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ Denotes mean number of days greater than 0 but less than .05

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/15	5/09	5/05	5/01	4/28	4/25	4/21	4/17	4/11
32	4/25	4/20	4/17	4/14	4/12	4/09	4/06	4/03	3/29
28	4/09	4/02	3/27	3/22	3/18	3/13	3/09	3/03	2/23
24	3/20	3/13	3/08	3/03	2/27	2/22	2/18	2/13	2/05
20	3/03	2/24	2/19	2/15	2/12	2/08	2/04	1/30	1/23
16	2/26	2/18	2/13	2/08	2/03	1/30	1/25	1/19	1/09
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/26	9/30	10/04	10/06	10/09	10/11	10/14	10/17	10/22
32	10/06	10/10	10/14	10/17	10/19	10/22	10/25	10/28	11/02
28	10/22	10/26	10/29	11/01	11/03	11/06	11/08	11/11	11/16
24	10/29	11/05	11/10	11/14	11/18	11/22	11/26	12/01	12/08
20	10/31	11/10	11/16	11/22	11/27	12/03	12/09	12/15	12/25
16	11/09	11/19	11/26	12/02	12/08	12/13	12/20	12/27	1/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	187	179	173	168	163	158	153	147	139
32	211	204	199	194	190	186	182	177	169
28	255	246	240	235	230	225	219	213	204
24	294	284	276	270	263	257	251	243	233
20	322	310	302	295	288	282	274	266	255
16	>365	332	320	312	305	298	291	283	272

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

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Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1153	864	664	408	204	75	16	14	136	439	835	1142	5950
60	998	724	509	265	104	25	3	2	67	291	685	987	4660
57	905	640	417	188	61	11	0	1	39	210	595	894	3961
55	843	584	358	143	39	6	0	0	25	162	537	832	3529
50	688	451	222	59	10	0	0	0	7	69	399	682	2587
32	226	92	7	0	0	0	0	0	0	0	69	230	624

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	97	152	366	583	849	1029	1279	1267	952	586	224	111	7495
55	0	0	4	36	175	345	566	554	287	35	2	0	2004
57	0	0	1	21	134	290	504	493	240	21	0	0	1704
60	0	0	0	8	85	214	414	402	179	9	0	0	1311
65	0	0	0	1	30	114	272	258	98	2	0	0	775
70	0	0	0	0	7	47	154	138	44	0	0	0	390

Growing Degree Units (2)																								
Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	5	18	148	353	607	797	1040	1028	720	353	56	3	5	23	171	524	1131	1928	2968	3996	4716	5069	5125	5128
45	0	0	54	213	452	647	885	873	570	210	12	0	0	0	54	267	719	1366	2251	3124	3694	3904	3916	3916
50	0	0	16	105	303	497	730	718	421	107	1	0	0	0	16	121	424	921	1651	2369	2790	2897	2898	2898
55	0	0	1	38	171	348	575	563	281	40	0	0	0	0	1	39	210	558	1133	1696	1977	2017	2017	2017
60	0	0	0	7	82	215	420	408	159	12	0	0	0	0	0	7	89	304	724	1132	1291	1303	1303	1303
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	14	87	205	355	492	671	665	443	200	18	0	0	14	101	306	661	1153	1824	2489	2932	3132	3150	3150

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
- c. Only observed validated values were used to select the extreme daily values.
- d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.
- e. Degree Days were derived using the same techniques as the 1971-2000 normals.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from the Snow Climatology.
Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf