

Climatography of the United States

No. 20

1971-2000

Station: PORT TOWNSEND, WA

COOP ID: 456678

Climate Division: WA 2

NWS Call Sign:

Elevation: 100 Feet Lat: 48°07N Lon: 122°46W

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	45.0	37.8	41.4	62	1976	29	45.5	1994	5	1950	25	36.1	1979	732	0	.0	.0	6.8	.8	6.4	.0
Feb	47.4	38.7	43.1	65+	1986	27	46.7	1992	7	1950	1	35.9	1989	616	0	.0	.0	11.6	.2	3.7	.0
Mar	51.3	40.3	45.8	67	1994	28	49.5	1992	19	1951	10	41.5	1971	594	0	.0	.0	22.2	.0	2.3	.0
Apr	56.2	42.7	49.5	76+	1987	27	52.1	1989	27	1951	20	45.5	1972	466	0	.0	.0	28.2	.0	.0	.0
May	61.9	46.8	54.4	86	1983	28	58.3	1993	28	1954	1	51.9+	1999	330	0	.0	.0	31.0	.0	.0	.0
Jun	65.7	50.1	57.9	93	1955	9	62.3	1992	37+	1966	7	54.7	1971	217	3	.0	@	29.7	.0	.0	.0
Jul	70.4	52.8	61.6	93+	1961	12	64.9	1985	40	1949	3	59.5	1982	116	10	.0	@	31.0	.0	.0	.0
Aug	71.1	53.3	62.2	96+	1960	9	65.0	1986	37	1972	5	59.1	1976	107	21	.0	.3	31.0	.0	.0	.0
Sep	66.8	50.7	58.8	89	1967	15	61.9	1974	36	1949	12	55.5	1972	195	6	.0	.0	30.0	.0	.0	.0
Oct	57.4	45.6	51.5	75+	1987	1	53.7	1992	22	1971	29	49.1	1984	418	0	.0	.0	29.8	.0	.2	.0
Nov	49.1	41.2	45.2	68	1949	26	48.6	1995	12	1955	12	35.4	1985	595	0	.0	.0	16.7	.3	2.3	.0
Dec	44.6	37.8	41.2	61+	1980	26	45.7	1980	5	1964	16	34.8	1990	738	0	.0	.0	6.9	.9	5.2	.0
Ann	57.2	44.8	51.1	96+	Aug 1960	9	65.0	Aug 1986	5+	Dec 1964	16	34.8	Dec 1990	5124	40	.0	.3	274.9	2.2	20.1	.0

+ 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: 1948-2001

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

075-A

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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: PORT TOWNSEND, WA

COOP ID: 456678

Climate Division: WA 2

NWS Call Sign:

Elevation: 100 Feet Lat: 48°07N

Lon: 122°46W

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	2.18	2.08	1.14	1951	15	3.73	1974	.25	1985	15.9	7.5	.4	@	.68	.89	1.20	1.46	1.72	1.98	2.27	2.61	3.05	3.74	4.38
Feb	1.62	1.63	1.18	1957	24	3.81	1999	.30	1977	13.7	5.7	.5	.0	.46	.62	.85	1.05	1.25	1.45	1.68	1.95	2.29	2.84	3.34
Mar	1.69	1.71	.80	1957	20	2.97	1971	.47	1996	14.5	5.5	.4	.0	.73	.88	1.09	1.26	1.43	1.59	1.77	1.97	2.23	2.61	2.97
Apr	1.50	1.38	1.50	1972	28	3.41	1972	.58	1989	13.3	4.8	.3	@	.66	.79	.98	1.13	1.27	1.42	1.57	1.75	1.97	2.30	2.61
May	1.58	1.65	1.87	1983	15	2.83	1977	.33	1972	12.3	4.5	.5	.1	.46	.61	.84	1.03	1.22	1.42	1.64	1.89	2.22	2.74	3.22
Jun	1.27	1.13	1.24	1984	29	3.15	1980	.14+	1987	10.5	4.0	.3	@	.26	.37	.56	.73	.90	1.09	1.30	1.55	1.88	2.42	2.93
Jul	1.00	.86	1.50	1974	9	2.93	1974	.04	1984	6.8	2.6	.6	.1	.15	.24	.38	.52	.66	.82	1.00	1.22	1.52	2.00	2.47
Aug	.89	.65	1.38	1975	19	2.80	1975	.04	1998	6.1	2.5	.4	.1	.08	.15	.27	.39	.52	.68	.86	1.08	1.39	1.90	2.41
Sep	1.04	.84	1.98	1983	1	3.18	1983	.07	1989	7.7	3.1	.4	.1	.09	.16	.30	.45	.60	.78	.99	1.26	1.63	2.24	2.84
Oct	1.43	1.25	.95+	2001	27	4.45	1997	.01	1987	11.8	5.0	.5	.0	.21	.34	.54	.74	.95	1.17	1.43	1.75	2.18	2.88	3.54
Nov	2.61	2.67	1.30	1978	4	4.81	1995	.62	1976	17.5	8.2	1.1	.1	.95	1.20	1.55	1.85	2.13	2.42	2.73	3.09	3.56	4.28	4.93
Dec	2.61	2.65	1.69	1967	25	5.28	1971	.41	1985	17.4	8.1	.9	.1	.86	1.10	1.47	1.78	2.07	2.38	2.72	3.11	3.61	4.40	5.12
Ann	19.42	19.87	1.98	Sep 1983	1	5.28	Dec 1971	.01	Oct 1987	147.5	61.5	6.3	.6	14.03	15.08	16.41	17.43	18.33	19.19	20.09	21.08	22.27	24.00	25.49

+ 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

(2) Derived from station's available digital record: 1948-2001

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

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

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Station: PORT TOWNSEND, WA

COOP ID: 456678

Climate Division: WA 2

NWS Call Sign:

Elevation: 100 Feet

Lat: 48°07N

Lon: 122°46W

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	1.3	.0	#	0	6.0	1980	10	10.5	1980	2	1973	5	#+	1975	.9	.5	.1	@	.0	.1	.0	.0	.0
Feb	.8	.0	#	0	6.5	1989	1	6.5	1989	7	1989	1	#+	1996	.5	.3	.1	@	.0	.1	.1	.1	.0
Mar	.1	.0	#	0	1.5	1989	2	2.8	1989	2	1989	2	#+	1994	.1	.1	.0	.0	.0	.1	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	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	0	0	0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.9	.0	#	0	9.0	1978	19	9.5	1985	1	1993	24	#	1993	.2	.2	.1	.1	.0	.0	.0	.0	.0
Dec	.7	.0	#	0	4.0	1992	28	5.5	1992	4	1992	28	#+	1992	.6	.3	@	.0	.0	.2	.1	.0	.0
Ann	3.8	.0	N/A	N/A	9.0	Nov 1978	19	10.5	Jan 1980	7	Feb 1989	1	#+	Feb 1996	2.3	1.4	.3	.1	.0	.5	.2	.1	.0

+ 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

Complete documentation available from:

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Climate Division: WA 2

NWS Call Sign:

Elevation: 100 Feet

Lat: 48° 07N

Lon: 122° 46W

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	5/03	4/24	4/18	4/12	4/07	4/02	3/27	3/21	3/12
32	3/28	3/18	3/10	3/03	2/25	2/19	2/12	2/04	1/24
28	3/02	2/19	2/12	2/05	1/29	1/23	1/15	1/05	0/00
24	2/19	2/04	1/23	1/12	12/31	12/16	0/00	0/00	0/00
20	2/02	1/14	12/27	11/30	0/00	0/00	0/00	0/00	0/00
16	1/17	12/16	0/00	0/00	0/00	0/00	0/00	0/00	0/00
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	10/21	10/28	11/02	11/06	11/10	11/14	11/18	11/23	11/30
32	10/31	11/10	11/17	11/23	11/28	12/03	12/09	12/16	12/25
28	11/16	11/27	12/05	12/13	12/20	12/27	1/05	1/16	0/00
24	11/25	12/11	12/23	1/04	1/17	2/04	0/00	0/00	0/00
20	12/15	12/31	1/16	0/00	0/00	0/00	0/00	0/00	0/00
16	12/23	1/24	0/00	0/00	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	246	236	229	222	216	210	204	196	186
32	317	303	292	284	275	267	258	248	234
28	>365	>365	358	338	325	314	303	291	275
24	>365	>365	>365	>365	>365	>365	346	318	290
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

* 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

Complete documentation available from:

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Elevation: 100 Feet Lat: 48°07N Lon: 122°46W

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	732	616	594	466	330	217	116	107	195	418	595	738	5124
60	577	476	439	316	183	93	25	27	80	263	445	583	3507
57	484	392	346	227	108	45	5	7	34	173	356	490	2667
55	422	336	286	171	70	23	1	2	16	119	301	428	2175
50	276	204	149	59	12	2	0	0	0	29	172	283	1186
32	7	1	0	0	0	0	0	0	0	0	2	9	19

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	298	309	429	524	693	776	917	936	801	605	397	295	6980
55	0	0	2	5	49	109	205	226	127	11	6	0	740
57	0	0	0	1	26	71	147	169	86	3	1	0	504
60	0	0	0	0	7	29	74	95	41	0	0	0	246
65	0	0	0	0	0	3	10	21	6	0	0	0	40
70	0	0	0	0	0	0	0	1	0	0	0	0	1

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	98	120	202	303	467	559	696	713	582	381	183	96	98	218	420	723	1190	1749	2445	3158	3740	4121	4304	4400
45	25	34	72	158	312	409	541	558	432	229	67	29	25	59	131	289	601	1010	1551	2109	2541	2770	2837	2866
50	0	0	8	48	164	262	386	403	282	92	12	0	0	0	8	56	220	482	868	1271	1553	1645	1657	1657
55	0	0	0	6	56	121	232	249	140	16	0	0	0	0	0	6	62	183	415	664	804	820	820	820
60	0	0	0	0	6	32	96	104	38	0	0	0	0	0	0	0	6	38	134	238	276	276	276	276
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	7	27	59	113	212	280	389	406	298	146	33	3	7	34	93	206	418	698	1087	1493	1791	1937	1970	1973

(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