

Climatology of the United States

No. 20

1971-2000

Station: RITZVILLE 1 SSE, WA

COOP ID: 457059

Climate Division: WA 8

NWS Call Sign:

Elevation: 1,830 Feet Lat: 47°07N

Lon: 118°23W

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	34.3	22.5	28.4	60+	1971	31	36.5	1994	-23	1957	26	12.8	1979	1135	0	.0	.0	1.2	11.6	27.8	1.5
Feb	41.5	26.2	33.9	66	1995	21	39.8	1998	-24	1950	1	24.1	1989	872	0	.0	.0	4.9	4.7	23.5	.7
Mar	51.2	30.1	40.7	75+	1964	31	46.1	1992	0	1989	3	34.1	1971	754	0	.0	.0	18.8	.4	22.0	@
Apr	60.3	34.1	47.2	92	1977	25	52.5	1987	16	1968	13	42.8	1975	534	0	.0	@	28.2	.0	14.1	.0
May	68.6	40.6	54.6	99+	1986	30	59.8	1993	22+	1985	12	49.6	1984	331	8	.0	.6	30.8	.0	4.3	.0
Jun	76.4	47.0	61.7	105	1961	18	67.9	1986	29+	1991	4	56.4	1991	157	58	.2	3.0	30.0	.0	.2	.0
Jul	85.3	52.7	69.0	108	1960	19	75.4	1985	33+	1971	7	61.9	1993	45	169	1.5	11.3	31.0	.0	.0	.0
Aug	85.4	52.8	69.1	112	1961	5	74.5	1971	32+	1992	23	64.0	1995	42	169	1.6	11.0	31.0	.0	@	.0
Sep	75.7	45.6	60.7	103	1988	4	66.5	1998	22	1958	24	54.8	1985	192	61	.1	2.2	30.0	.0	1.2	.0
Oct	62.1	36.6	49.4	88	1980	7	57.0	1988	11	1971	29	43.7	1990	488	1	.0	.0	28.2	.0	10.6	.0
Nov	44.1	29.7	36.9	70	1988	1	43.0	1999	-14	1985	24	23.1	1985	844	0	.0	.0	7.9	2.8	21.3	.3
Dec	34.7	23.3	29.0	58	1980	27	36.1	1973	-18	1964	17	18.2	1985	1115	0	.0	.0	1.1	11.1	27.8	1.4
Ann	60.0	36.8	48.4	112	Aug 1961	5	75.4	Jul 1985	-24	Feb 1950	1	12.8	Jan 1979	6509	466	3.4	28.1	243.1	30.6	152.8	3.9

+ 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

085-A

Climatography of the United States

No. 20

1971-2000

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

Station: RITZVILLE 1 SSE, WA

COOP ID: 457059

Climate Division: WA 8

NWS Call Sign:

Elevation: 1,830 Feet Lat: 47°07N

Lon: 118°23W

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	1.33	1.25	.82	1959	24	2.45+	1997	.31	1977	10.2	4.8	.2	.0	.45	.57	.76	.91	1.06	1.22	1.38	1.58	1.83	2.22	2.58
Feb	1.17	1.20	1.10	1963	1	2.64	1999	.01	1988	9.4	4.2	.2	.0	.17	.27	.44	.60	.77	.96	1.17	1.43	1.79	2.36	2.91
Mar	1.21	1.05	.82	1986	24	2.56	1989	.23	1994	8.8	4.6	.3	.0	.33	.44	.61	.77	.92	1.07	1.25	1.45	1.72	2.14	2.54
Apr	.92	.79	.87	1958	26	2.11	1993	.04	1977	7.2	3.3	.2	.0	.18	.26	.40	.52	.65	.78	.93	1.12	1.36	1.75	2.12
May	1.01	.87	.81	1988	29	2.60	1980	.20	1992	7.1	3.4	.4	.0	.27	.36	.51	.64	.76	.90	1.04	1.22	1.45	1.80	2.14
Jun	.74	.71	1.14	1957	6	2.08	1995	.06+	1989	5.4	2.7	.1	.0	.10	.16	.27	.37	.48	.60	.73	.90	1.12	1.49	1.84
Jul	.55	.39	1.74	1993	23	3.81	1993	.00+	1996	3.5	1.5	.2	.1	.00	.00	.07	.15	.24	.35	.49	.66	.91	1.34	1.77
Aug	.45	.37	1.39	1959	21	1.85	1990	.00+	2000	3.3	1.4	.1	.0	.00	.00	.04	.09	.16	.26	.37	.53	.76	1.17	1.58
Sep	.60	.49	.92	1984	23	1.94	1973	.00+	1999	4.4	2.0	.2	.0	.00	.00	.06	.15	.25	.37	.52	.72	1.01	1.50	2.00
Oct	.90	.69	.85	1979	19	3.40	1996	.00	1987	6.1	2.8	.3	.0	.02	.07	.19	.31	.46	.62	.83	1.09	1.46	2.08	2.70
Nov	1.66	1.37	.85	1966	15	4.17	1973	.21	1976	11.7	5.6	.4	.0	.41	.56	.80	1.02	1.23	1.46	1.71	2.01	2.40	3.02	3.60
Dec	1.77	1.64	.97	1977	14	3.64	1996	.32	1976	11.3	6.3	.5	.0	.46	.62	.88	1.11	1.33	1.56	1.82	2.13	2.54	3.17	3.77
Ann	12.31	12.11	1.74	Jul 1993	23	4.17	Nov 1973	.00+	Aug 2000	88.4	42.6	3.1	.1	8.05	8.85	9.88	10.67	11.38	12.07	12.79	13.59	14.57	16.00	17.24

+ 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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COOP ID: 457059

Climate Division: WA 8

NWS Call Sign:

Elevation: 1,830 Feet

Lat: 47°07N

Lon: 118°23W

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	6.5	5.4	2	1	8.0	1997	22	16.4	1993	14	1993	15	9	1993	4.5	2.5	.5	.1	.0	12.5	7.0	4.1	.8
Feb	2.8	1.4	1	#	5.5	1985	8	11.8	1986	13	1996	2	6	1985	2.5	.9	.3	.1	.0	3.0	1.7	.9	@
Mar	.6	.0	#	0	4.0	1989	2	4.0	1989	6	1993	2	1	1993	.5	.2	@	.0	.0	.4	.2	.1	.0
Apr	.1	.0	#	0	1.8	1975	5	1.8	1975	2	1975	5	#+	1999	.1	@	.0	.0	.0	.1	.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	.1	.0	#	0	1.5	1971	31	1.5	1971	2	1971	31	#	1971	@	@	.0	.0	.0	@	.0	.0	.0
Nov	2.7	.3	#	#	5.5	1996	24	15.0	1973	10	1985	30	4	1985	1.9	1.0	.3	.1	.0	2.3	1.0	.6	.1
Dec	6.9	6.3	1	1	6.5	1992	20	19.4	1983	14	1996	29	8	1985	4.7	2.9	.5	.1	.0	11.2	5.1	2.0	.1
Ann	19.7	13.4	N/A	N/A	8.0	Jan 1997	22	19.4	Dec 1983	14+	Dec 1996	29	9	Jan 1993	14.2	7.5	1.6	.4	.0	29.5	15.0	7.7	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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NWS Call Sign:

Elevation: 1,830 Feet

Lat: 47° 07N

Lon: 118° 23W

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	6/29	6/21	6/16	6/11	6/07	6/02	5/29	5/23	5/16
32	6/03	5/27	5/22	5/18	5/14	5/09	5/05	4/30	4/23
28	5/16	5/09	5/04	4/30	4/26	4/22	4/18	4/13	4/06
24	5/01	4/21	4/14	4/08	4/03	3/28	3/22	3/15	3/06
20	4/05	3/23	3/14	3/06	2/27	2/19	2/11	2/02	1/20
16	3/02	2/21	2/16	2/11	2/06	2/01	1/27	1/20	1/10
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	9/02	9/08	9/13	9/16	9/20	9/23	9/27	10/01	10/07
32	9/15	9/20	9/24	9/28	10/01	10/04	10/08	10/12	10/17
28	9/29	10/04	10/08	10/12	10/15	10/18	10/22	10/26	10/31
24	10/11	10/18	10/23	10/27	11/01	11/05	11/09	11/14	11/21
20	10/20	10/29	11/05	11/11	11/16	11/21	11/27	12/04	12/13
16	10/29	11/08	11/16	11/22	11/28	12/04	12/11	12/19	12/31
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	135	124	117	110	104	98	92	84	74
32	167	158	151	145	140	134	129	122	113
28	197	188	182	176	171	166	161	155	146
24	249	236	226	219	211	204	196	186	173
20	312	295	282	272	262	252	241	229	211
16	346	324	313	304	296	288	280	270	257

* 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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NWS Call Sign:

Elevation: 1,830 Feet Lat: 47°07N Lon: 118°23W

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	1135	872	754	534	331	157	45	42	192	488	844	1115	6509
60	980	732	599	386	200	77	13	12	107	339	694	960	5099
57	887	648	506	300	137	43	5	4	68	259	604	867	4328
55	825	592	444	246	102	28	2	2	48	209	548	805	3851
50	680	459	298	131	38	7	0	0	17	109	410	653	2802
32	235	98	14	0	0	0	0	0	0	1	75	204	627

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	123	149	283	456	700	891	1147	1150	859	538	221	112	6629
55	0	0	0	12	89	229	436	439	217	33	4	0	1459
57	0	0	0	6	62	185	377	379	178	21	1	0	1209
60	0	0	0	2	32	128	292	294	126	8	0	0	882
65	0	0	0	0	8	58	169	169	61	1	0	0	466
70	0	0	0	0	1	19	82	81	23	0	0	0	206

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	3	19	85	226	453	650	895	894	611	289	44	3	3	22	107	333	786	1436	2331	3225	3836	4125	4169	4172
45	0	0	24	116	302	500	740	739	463	164	11	0	0	0	24	140	442	942	1682	2421	2884	3048	3059	3059
50	0	0	0	52	178	352	585	584	321	78	0	0	0	0	0	52	230	582	1167	1751	2072	2150	2150	2150
55	0	0	0	19	85	217	432	432	197	32	0	0	0	0	0	19	104	321	753	1185	1382	1414	1414	1414
60	0	0	0	3	38	117	287	285	104	8	0	0	0	0	0	3	41	158	445	730	834	842	842	842
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	13	62	168	302	411	558	561	394	201	20	0	0	13	75	243	545	956	1514	2075	2469	2670	2690	2690

(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