

Climatography of the United States

No. 20

1971-2000

Station: METHOW 2 S, WA

COOP ID: 455326

Climate Division: WA 7

NWS Call Sign:

Elevation: 1,170 Feet Lat: 48°06N

Lon: 120°01W

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	31.0	14.4	22.7	55	1989	19	30.9	1981	-20	1996	30	9.5	1979	1311	0	.0	.0	.4	15.4	30.4	3.4
Feb	39.5	20.4	30.0	69	1988	28	39.1	1991	-15	1996	1	20.3	1985	982	0	.0	.0	2.9	5.4	26.6	1.2
Mar	52.2	27.7	40.0	76	1992	31	47.5	1992	0	1989	3	33.3	1971	776	0	.0	.0	20.2	.3	24.1	@
Apr	63.4	34.2	48.8	87	1987	28	53.3	1987	21+	1982	1	43.8	1982	486	0	.0	.0	29.3	.0	12.1	.0
May	71.8	41.6	56.7	100	1986	31	61.9	1993	25	1982	4	51.6	1984	269	11	@	.8	31.0	.0	2.3	.0
Jun	79.4	47.7	63.6	105	1992	24	70.8	1992	33+	1996	18	58.2	1981	120	77	.4	4.1	30.0	.0	.0	.0
Jul	87.6	52.9	70.3	107	1994	20	75.8	1985	35	1979	1	64.5	1983	27	189	2.3	13.4	31.0	.0	.0	.0
Aug	88.0	52.2	70.1	105+	1998	5	75.3	1986	35	1992	23	64.4	1980	27	185	2.8	14.1	31.0	.0	.0	.0
Sep	78.2	43.3	60.8	102+	1998	2	66.9	1990	24+	1972	28	55.0	1972	186	59	.2	3.2	30.0	.0	1.2	.0
Oct	62.9	32.7	47.8	88	1992	2	52.7	1988	11+	1984	31	44.4	1990	533	0	.0	.0	28.8	@	15.2	.0
Nov	43.1	24.6	33.9	72	1975	4	41.1	1999	-12	1985	28	21.9	1985	935	0	.0	.0	7.7	2.7	24.0	.5
Dec	31.5	15.8	23.7	53+	1981	10	30.6	1989	-21	1990	29	13.3	1984	1282	0	.0	.0	.5	15.5	30.2	2.3
Ann	60.7	34.0	47.4	107	Jul 1994	20	75.8	Jul 1985	-21	Dec 1990	29	9.5	Jan 1979	6934	521	5.7	35.6	242.8	39.3	166.1	7.4

+ 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: 1970-2001

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

057-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: METHOW 2 S, WA

COOP ID: 455326

Climate Division: WA 7

NWS Call Sign:

Elevation: 1,170 Feet Lat: 48°06N

Lon: 120°01W

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	1.54	1.52	1.42	1983	27	4.03	1983	.00	1977	7.3	4.8	.8	@	.18	.37	.63	.85	1.08	1.31	1.58	1.90	2.32	3.00	3.65
Feb	1.42	1.46	1.09	1994	18	3.31	1998	.04	1988	6.6	4.3	.7	@	.31	.44	.64	.83	1.02	1.22	1.45	1.72	2.08	2.65	3.19
Mar	1.13	1.01	.88	1985	27	3.35	1995	.07	1981	6.5	3.9	.4	.0	.16	.26	.42	.58	.74	.92	1.13	1.39	1.73	2.29	2.83
Apr	.82	.66	.99	1994	26	2.82	1975	.00+	1999	4.9	2.8	.3	.0	.00	.04	.15	.27	.40	.56	.75	1.00	1.34	1.92	2.51
May	1.15	.83	1.69	1989	28	3.78	1990	.00	1973	5.9	3.0	.5	.2	.03	.10	.25	.41	.60	.81	1.07	1.40	1.87	2.65	3.43
Jun	.89	.81	1.53	1992	29	3.19	1992	.02	1973	5.8	2.9	.4	.1	.07	.13	.24	.37	.50	.66	.85	1.09	1.42	1.97	2.52
Jul	.49	.15	1.30	1992	23	3.03	1993	.00+	1988	3.6	1.6	.1	.1	.00	.01	.04	.09	.17	.26	.39	.56	.81	1.26	1.73
Aug	.61	.32	1.83	1983	10	2.89	1976	.00+	1996	3.4	1.8	.2	.1	.00	.02	.09	.17	.27	.39	.54	.74	1.02	1.49	1.98
Sep	.60	.37	1.20+	1980	14	2.47	1986	.00+	1999	3.2	1.7	.2	.1	.00	.00	.00	.00	.18	.35	.53	.76	1.08	1.59	2.09
Oct	.70	.59	.94	1989	22	2.12	1981	.00+	1988	4.0	2.1	.4	.0	.00	.00	.08	.19	.30	.45	.62	.85	1.17	1.73	2.28
Nov	1.79	1.60	1.46	1983	20	6.16	1983	.00	1976	8.5	5.2	.9	.1	.24	.46	.77	1.02	1.27	1.54	1.84	2.20	2.68	3.43	4.14
Dec	1.96	1.85	1.71	1987	10	4.39	1987	.24	1989	8.1	5.3	1.0	.1	.40	.58	.87	1.13	1.39	1.68	1.99	2.38	2.89	3.70	4.47
Ann	13.10	12.82	1.83	Aug 1983	10	6.16	Nov 1983	.00+	Sep 1999	67.8	39.4	5.9	.8	8.37	9.24	10.39	11.27	12.07	12.84	13.65	14.55	15.65	17.27	18.68

+ 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: 1970-2001

(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: METHOW 2 S, WA

COOP ID: 455326

Climate Division: WA 7

NWS Call Sign:

Elevation: 1,170 Feet

Lat: 48°06N

Lon: 120°01W

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	9.7	7.7	11	9	11.0	1971	15	27.0	1971	48	1997	1	43	1997	3.6	3.2	1.5	.5	.1	-9.9	-9.9	-9.9	-9.9
Feb	7.1	5.0	9	9	13.0	1989	17	23.5	1975	43	1997	12	38	1997	2.5	2.2	1.0	.3	@	-9.9	-9.9	-9.9	-9.9
Mar	2.8	.0	2	1	5.0	1971	6	15.0	1972	23	1997	16	12	1971	1.2	1.0	.5	.1	.0	4.5	3.8	3.1	1.6
Apr	.3	.0	#	0	5.0	1975	5	5.0	1975	5	1975	5	#+	1993	.1	.1	@	@	.0	.2	.1	@	.0
May	.0	.0	#	0	.0	0	0	.0	0	#	1990	14	#	1990	.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	.3	.0	#	0	3.0	1996	18	4.0	1971	5	1991	30	#+	1996	.2	.1	@	.0	.0	.2	@	.0	.0
Nov	4.6	1.0	1	#	6.0	1984	2	23.0	1984	15	1996	17	4	1996	1.2	1.1	.5	.3	.0	2.8	1.6	.9	.2
Dec	10.6	9.5	6	5	11.5	1979	2	24.5	1979	48	1996	31	20	1996	4.8	4.1	1.5	.8	.1	-9.9	-9.9	-9.9	-9.9
Ann	35.4	23.2	N/A	N/A	13.0	Feb 1989	17	27.0	Jan 1971	48+	Jan 1997	1	43	Jan 1997	13.6	11.8	5.0	2.0	.2	-9.9	-9.9	-9.9	-9.9

+ 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

Complete documentation available from:

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Lat: 48° 06N

Lon: 120° 01W

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	6/21	6/14	6/09	6/04	5/31	5/27	5/22	5/17	5/10
32	5/25	5/20	5/17	5/14	5/11	5/08	5/05	5/01	4/26
28	5/12	5/06	5/01	4/27	4/23	4/19	4/15	4/10	4/03
24	4/14	4/06	3/31	3/25	3/21	3/16	3/11	3/05	2/24
20	3/22	3/15	3/11	3/07	3/03	2/27	2/23	2/18	2/12
16	3/13	3/05	2/28	2/23	2/19	2/14	2/10	2/04	1/27
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	9/12	9/16	9/19	9/22	9/26	9/30	10/06
32	9/21	9/25	9/27	9/30	10/02	10/04	10/06	10/09	10/13
28	9/30	10/04	10/08	10/11	10/13	10/16	10/19	10/22	10/27
24	10/12	10/18	10/23	10/27	10/30	11/03	11/07	11/11	11/17
20	10/18	10/26	11/01	11/06	11/11	11/16	11/21	11/27	12/05
16	11/02	11/10	11/15	11/20	11/24	11/28	12/03	12/08	12/15
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	127	121	115	110	105	100	94	85
32	161	155	150	147	143	140	136	131	125
28	196	188	182	177	173	168	164	158	150
24	257	246	237	230	223	216	209	200	188
20	283	273	265	259	253	246	240	232	222
16	312	300	291	284	277	271	263	255	243

* 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	1311	982	776	486	269	120	27	27	186	533	935	1282	6934
60	1156	842	621	338	146	51	6	6	99	380	785	1127	5557
57	1063	758	528	255	91	26	2	2	62	292	695	1034	4808
55	1001	702	468	204	62	16	0	1	42	237	635	972	4340
50	846	563	325	101	17	3	0	0	13	119	493	817	3297
32	343	153	27	0	0	0	0	0	0	1	113	313	950

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	55	95	274	504	766	946	1185	1181	863	491	168	54	6582
55	0	0	2	18	114	272	472	468	215	13	0	0	1574
57	0	0	0	10	82	222	411	408	174	7	0	0	1314
60	0	0	0	3	44	158	323	319	122	2	0	0	971
65	0	0	0	0	11	77	189	185	59	0	0	0	521
70	0	0	0	0	2	27	91	86	22	0	0	0	228

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	0	3	86	279	535	723	954	950	638	270	28	0	0	3	89	368	903	1626	2580	3530	4168	4438	4466	4466
45	0	0	21	154	382	573	799	795	491	147	7	0	0	0	21	175	557	1130	1929	2724	3215	3362	3369	3369
50	0	0	1	66	235	424	644	640	344	61	0	0	0	0	1	67	302	726	1370	2010	2354	2415	2415	2415
55	0	0	0	22	122	279	490	485	207	18	0	0	0	0	0	22	144	423	913	1398	1605	1623	1623	1623
60	0	0	0	3	52	156	337	335	103	3	0	0	0	0	0	3	55	211	548	883	986	989	989	989
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	6	79	211	350	457	593	588	425	216	19	0	0	6	85	296	646	1103	1696	2284	2709	2925	2944	2944

(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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data
- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data
- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. 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