

Climatology of the United States

No. 20

1971-2000

Station: MASON DAM, OR

COOP ID: 355258

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,900 Feet Lat: 44°40N

Lon: 118°00W

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	33.3	12.0	22.7	59	1971	29	29.9	1981	-28	1996	31	10.6	1979	1312	0	.0	.0	.2	11.1	30.6	5.7
Feb	39.9	15.1	27.5	64	1970	27	35.8	1992	-40	1989	6	14.5	1989	1051	0	.0	.0	2.8	3.7	27.6	3.7
Mar	47.8	22.7	35.3	73	1978	29	42.5	1992	-9+	1993	1	28.3	1985	924	0	.0	.0	13.0	.6	29.5	.4
Apr	56.1	28.9	42.5	85	1987	27	47.9	1987	6	1975	6	34.1	1975	676	0	.0	.0	22.5	@	22.4	.0
May	64.9	35.3	50.1	91+	1986	30	55.4	1993	20+	1999	9	45.6	1977	462	0	.0	.1	29.4	.0	11.7	.0
Jun	72.7	40.6	56.7	95	1992	25	61.9	1986	22	1973	10	53.0	1991	260	9	.0	.8	29.8	.0	3.0	.0
Jul	81.7	44.7	63.2	98+	1980	27	68.0	1998	27	1979	2	54.9	1993	112	56	.0	5.8	31.0	.0	.4	.0
Aug	81.2	44.7	63.0	98+	1990	5	67.5	1971	26	1992	24	58.2	1980	124	61	.0	5.3	31.0	.0	.4	.0
Sep	72.4	38.1	55.3	95+	1998	5	61.1	1998	20+	1985	29	49.2	1985	305	12	.0	.6	29.7	.0	6.4	.0
Oct	60.3	30.3	45.3	85+	1996	10	51.8	1988	5	1971	29	41.1	1984	611	0	.0	.0	26.4	.0	19.8	.0
Nov	42.5	23.3	32.9	65	1988	1	39.7	1976	-10	1985	21	23.1	1985	963	0	.0	.0	6.4	2.6	26.6	.5
Dec	33.5	14.8	24.2	54	1995	13	30.4	1977	-28	1983	23	13.3	1985	1268	0	.0	.0	.1	11.5	30.6	3.3
Ann	57.2	29.2	43.2	98+	Aug 1990	5	68.0	Jul 1998	-40	Feb 1989	6	10.6	Jan 1979	8068	138	.0	12.6	222.3	29.5	209.0	13.6

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1969-2000

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

080-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: MASON DAM, OR

COOP ID: 355258

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,900 Feet Lat: 44°40N

Lon: 118°00W

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	1.86	1.70	2.70	1971	15	5.34	1971	.21	1989	11.3	5.9	.7	.1	.44	.61	.88	1.12	1.36	1.62	1.91	2.25	2.70	3.41	4.08
Feb	1.38	1.22	1.68	1989	22	2.75	1986	.39	1973	10.9	5.3	.2	.1	.42	.55	.75	.91	1.08	1.24	1.43	1.65	1.93	2.37	2.78
Mar	1.58	1.54	.85	1986	7	3.13	1995	.27	1973	11.6	5.5	.2	.0	.46	.61	.83	1.03	1.22	1.42	1.64	1.89	2.23	2.76	3.24
Apr	1.26	1.22	.84	1969	6	3.10	1978	.21	1977	10.3	4.5	.3	.0	.37	.49	.66	.82	.97	1.13	1.30	1.51	1.78	2.19	2.58
May	1.74	1.49	1.30	1991	19	5.34	1998	.32	1976	10.4	5.2	.6	.1	.38	.54	.79	1.02	1.26	1.50	1.78	2.11	2.55	3.25	3.91
Jun	1.67	1.72	2.00	1989	3	3.61	1980	.05	1986	8.5	4.4	.8	.2	.35	.50	.74	.97	1.19	1.44	1.71	2.04	2.47	3.16	3.82
Jul	.85	.70	1.53	1982	1	2.85	1982	.01	1973	5.4	2.8	.3	@	.04	.09	.19	.31	.44	.59	.78	1.02	1.36	1.94	2.52
Aug	.95	.61	2.05	1984	31	4.08	1989	.02	1998	5.0	2.7	.5	.1	.04	.09	.20	.32	.47	.64	.86	1.14	1.53	2.22	2.91
Sep	.81	.62	2.00	1976	24	2.44	1976	.00+	1999	5.0	2.3	.3	.1	.00	.00	.10	.24	.39	.56	.76	1.02	1.37	1.96	2.54
Oct	.93	.85	.93	1982	29	2.29	1975	.00	1987	7.0	3.4	.2	.0	.05	.14	.28	.42	.56	.72	.91	1.15	1.46	1.99	2.49
Nov	1.86	1.82	1.11	1985	9	4.76	1973	.39	1999	12.3	5.9	.7	@	.44	.61	.88	1.13	1.37	1.63	1.91	2.25	2.70	3.41	4.08
Dec	1.95	1.94	1.14	1980	2	5.07	1973	.04	1985	10.6	5.9	.9	.1	.16	.29	.54	.81	1.11	1.45	1.86	2.38	3.09	4.28	5.46
Ann	16.84	16.47	2.70	Jan 1971	15	5.34+	May 1998	.00+	Sep 1999	108.3	53.8	5.7	.8	11.40	12.43	13.76	14.78	15.69	16.57	17.49	18.51	19.75	21.55	23.12

+ 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: 1969-2000

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

Complete documentation available from:

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

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: MASON DAM, OR

COOP ID: 355258

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,900 Feet

Lat: 44° 40N

Lon: 118° 00W

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	9.8	9.9	5	3	13.0	1998	11	25.3	1982	29	1982	23	20	1982	6.0	4.2	1.2	.6	.1	13.0	11.2	9.6	3.8
Feb	5.1	5.8	3	#	6.0	1975	2	11.0	1979	28	1982	13	22	1982	3.6	2.2	.6	.1	.0	9.6	7.1	4.5	1.6
Mar	2.8	2.0	1	0	5.5	1997	2	13.0	1982	18	1975	1	14	1975	1.5	1.0	.4	.1	.0	2.3	1.9	1.9	1.1
Apr	.3	.0	#	0	2.0	1975	10	2.0+	1978	7	1982	7	2	1982	.4	.2	.0	.0	.0	.5	.5	.4	.0
May	.1	.0	#	0	1.5	1981	4	1.5	1981	#+	1978	4	#+	1978	@	@	.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	1975	23	1.5	1975	5	1989	28	#+	1989	@	@	.0	.0	.0	.1	.0	.0	.0
Nov	4.6	2.0	#	0	10.0	1984	27	18.5	1984	10	1973	25	3	1973	2.4	1.5	.7	.2	@	3.3	2.4	1.0	.1
Dec	13.4	11.5	1	#	10.0	1980	2	24.3	1981	17	1973	30	5	1974	5.3	4.0	1.5	.6	@	9.1	6.1	2.8	.9
Ann	36.2	31.2	N/A	N/A	13.0	Jan 1998	11	25.3	Jan 1982	29	Jan 1982	23	22	Feb 1982	19.2	13.1	4.4	1.6	.1	37.9	29.2	20.2	7.5

+ 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:

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

Climatography of the United States

No. 20 1971-2000

Station: MASON DAM, OR

COOP ID: 355258

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,900 Feet

Lat: 44° 40N

Lon: 118° 00W

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	7/28	7/22	7/18	7/14	7/11	7/08	7/04	6/30	6/24
32	7/08	7/02	6/28	6/24	6/21	6/17	6/14	6/09	6/04
28	6/19	6/11	6/06	6/01	5/27	5/23	5/18	5/12	5/04
24	5/23	5/16	5/11	5/07	5/03	4/29	4/25	4/20	4/13
20	5/01	4/24	4/20	4/16	4/12	4/08	4/04	3/30	3/24
16	4/12	4/03	3/28	3/23	3/18	3/13	3/08	3/02	2/21
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	8/02	8/09	8/14	8/19	8/23	8/27	8/31	9/05	9/12
32	8/19	8/26	8/31	9/04	9/08	9/12	9/17	9/22	9/29
28	9/07	9/12	9/16	9/19	9/22	9/25	9/28	10/01	10/06
24	9/25	9/30	10/04	10/07	10/10	10/13	10/16	10/20	10/25
20	10/10	10/15	10/19	10/22	10/26	10/29	11/01	11/05	11/10
16	10/23	10/30	11/04	11/08	11/12	11/16	11/20	11/25	12/02
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	71	61	54	48	42	36	30	23	13
32	107	97	90	84	79	73	67	60	51
28	146	136	129	122	117	111	105	97	87
24	184	176	169	164	159	154	149	143	134
20	225	215	208	202	196	190	184	177	167
16	273	261	253	245	239	232	225	216	204

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: MASON DAM, OR

COOP ID: 355258

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,900 Feet Lat: 44° 40N

Lon: 118° 00W

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	1312	1051	924	676	462	260	112	124	305	611	963	1268	8068
60	1157	911	769	526	312	141	40	50	183	456	813	1113	6471
57	1064	827	676	437	229	87	17	24	125	365	723	1020	5594
55	1002	771	614	380	179	59	9	14	92	305	663	958	5046
50	847	631	464	247	83	16	0	2	34	172	513	803	3812
32	331	212	74	10	0	0	0	0	0	1	103	292	1023

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	42	85	173	325	561	739	967	960	697	413	131	47	5140
55	0	0	0	5	27	107	263	260	99	4	0	0	765
57	0	0	0	2	15	76	208	208	72	2	0	0	583
60	0	0	0	0	5	39	138	142	41	0	0	0	365
65	0	0	0	0	0	9	56	61	12	0	0	0	138
70	0	0	0	0	0	1	14	16	2	0	0	0	33

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	1	32	133	325	510	729	722	462	200	18	0	0	1	33	166	491	1001	1730	2452	2914	3114	3132	3132
45	0	0	3	57	194	361	574	567	318	96	1	0	0	0	3	60	254	615	1189	1756	2074	2170	2171	2171
50	0	0	0	18	98	227	419	412	192	30	0	0	0	0	0	18	116	343	762	1174	1366	1396	1396	1396
55	0	0	0	0	36	117	273	265	93	9	0	0	0	0	0	0	36	153	426	691	784	793	793	793
60	0	0	0	0	7	47	140	141	29	0	0	0	0	0	0	0	7	54	194	335	364	364	364	364
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	5	42	126	245	351	485	481	343	185	15	0	0	5	47	173	418	769	1254	1735	2078	2263	2278	2278

(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