

# Climatology of the United States

No. 20

1971-2000

Station: ASHTON, ID

COOP ID: 100470

Climate Division: ID 9

NWS Call Sign:

Elevation: 5,212 Feet Lat: 44°04N

Lon: 111°27W

## 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	29.5	8.5	19.0	54	1981	1	26.6	1981	-32	1979	1	8.0	1979	1427	0	.0	.0	.1	20.9	30.6	7.3
Feb	34.4	13.4	23.9	61+	1963	7	30.2	1992	-28+	1985	1	14.4	1985	1151	0	.0	.0	.2	12.1	27.6	4.7
Mar	41.9	21.1	31.5	69	1986	28	39.4	1992	-20	1955	5	25.1	1985	1038	0	.0	.0	4.1	2.7	28.8	.8
Apr	53.3	29.3	41.3	81	1987	27	48.0	1987	-1	1975	1	34.0	1975	712	0	.0	.0	18.6	.1	20.1	@
May	64.4	36.9	50.7	89	1994	12	56.2	1992	8	1967	2	45.3	1975	446	1	.0	.0	28.5	.0	8.4	.0
Jun	73.6	42.3	58.0	96	1988	26	64.2	1988	24	1951	3	51.1	1998	229	18	.0	.5	29.8	.0	1.5	.0
Jul	81.6	46.2	63.9	97+	2000	30	67.6+	1989	28	1997	3	55.7	1993	103	69	.0	1.6	31.0	.0	.2	.0
Aug	82.0	44.3	63.2	98	2000	1	68.6	1998	26	1964	27	59.2	1975	114	57	.0	1.8	31.0	.0	.4	.0
Sep	72.9	36.5	54.7	95	1950	3	61.0	1990	12	1999	28	49.3	1985	317	8	.0	.0	29.4	.0	6.1	.0
Oct	60.6	28.3	44.5	85	1957	1	51.3	1988	0	1970	27	38.2	1984	637	0	.0	.0	24.1	.3	19.8	.0
Nov	41.8	18.9	30.4	69	1999	5	38.1	1998	-16	1993	25	22.6	1985	1040	0	.0	.0	5.3	7.5	27.3	1.7
Dec	30.9	9.0	20.0	59	1999	1	27.5	1995	-32	1972	5	10.7	1990	1397	0	.0	.0	.1	19.9	30.6	5.9
Ann	55.6	27.9	41.8	98	Aug 2000	1	68.6	Aug 1998	-32+	Jan 1979	1	8.0	Jan 1979	8611	153	.0	3.9	202.2	63.5	201.4	20.4

+ 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](http://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

007-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: ASHTON, ID**

**COOP ID: 100470**

**Climate Division: ID 9**

**NWS Call Sign:**

**Elevation: 5,212 Feet Lat: 44°04N**

**Lon: 111°27W**

**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	2.25	2.27	2.61	1982	23	4.56	1982	.46	1992	14.5	7.4	.7	.1	.93	1.13	1.42	1.66	1.88	2.11	2.35	2.64	2.99	3.54	4.03	
Feb	1.67	1.42	1.27+	1986	15	3.78	1986	.35	1977	10.5	5.2	.5	.1	.46	.62	.86	1.07	1.27	1.49	1.73	2.01	2.37	2.95	3.49	
Mar	1.60	1.55	1.36	1986	8	4.12	1995	.02	2000	10.5	5.3	.5	@	.25	.39	.62	.84	1.07	1.32	1.60	1.95	2.42	3.17	3.90	
Apr	1.47	1.49	1.53	1954	28	2.90	1986	.13	1977	9.5	5.0	.4	@	.33	.46	.68	.87	1.07	1.27	1.50	1.78	2.15	2.73	3.27	
May	2.38	2.43	1.20	1950	28	5.68	1981	.73	1974	11.2	6.5	1.2	.1	.76	.98	1.32	1.60	1.88	2.16	2.48	2.84	3.31	4.05	4.73	
Jun	1.64	1.43	1.10+	1999	3	4.79	1999	.32	1988	8.2	4.2	.9	.1	.36	.52	.76	.97	1.19	1.42	1.68	1.99	2.40	3.04	3.66	
Jul	1.12	1.18	1.78	1967	17	3.15	1993	.00	1998	6.0	3.0	.6	@	.04	.12	.28	.44	.62	.82	1.07	1.37	1.79	2.50	3.19	
Aug	1.08	1.13	1.32	1965	19	2.32	1980	.07	1988	6.4	3.1	.5	.0	.19	.29	.44	.59	.74	.90	1.09	1.31	1.61	2.09	2.55	
Sep	1.18	1.09	1.30	1949	30	2.69	1998	.00+	1999	5.9	3.1	.9	.1	.00	.15	.37	.56	.75	.96	1.19	1.47	1.85	2.48	3.07	
Oct	1.41	1.33	1.44	1949	18	3.91	1994	.00	1978	6.9	3.9	.7	.1	.07	.20	.42	.63	.85	1.10	1.38	1.74	2.23	3.03	3.82	
Nov	2.03	1.63	1.05	1954	15	4.30	1994	.00	1976	10.9	6.3	1.0	.0	.27	.52	.87	1.15	1.44	1.75	2.09	2.50	3.04	3.90	4.71	
Dec	2.25	2.15	.89	1961	3	5.05	1971	.18	1986	12.3	6.8	.9	.0	.41	.61	.94	1.24	1.56	1.89	2.27	2.74	3.35	4.34	5.29	
Ann	20.08	19.50	2.61	Jan 1982	23	5.68	May 1981	.00+	Sep 1999	112.8	59.8	8.8	.6	13.66	14.88	16.45	17.65	18.72	19.76	20.84	22.03	23.49	25.61	27.45	

+ 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

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Station: ASHTON, ID

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Climate Division: ID 9

NWS Call Sign:

Elevation: 5,212 Feet

Lat: 44°04N

Lon: 111°27W

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	24.0	23.2	22	23	28.0	1982	23	59.0	1982	54	1982	23	35+	1989	13.0	9.1	2.7	.9	.1	29.5	28.4	28.4	27.3
Feb	15.0	14.6	25	24	10.5	1993	20	31.0	1979	50	1993	23	43	1979	9.1	6.4	2.0	.3	@	27.9	27.9	27.9	26.8
Mar	11.3	11.3	17	16	7.0	1980	15	32.0	1980	52	1979	4	37+	1993	6.9	4.5	1.3	.3	.0	22.5	21.9	21.3	18.1
Apr	4.5	3.5	3	1	7.0	1983	26	14.5	1975	30	1975	9	15	1975	3.1	1.7	.5	.1	.0	3.9	2.9	2.3	1.0
May	2.0	.0	#	0	5.0	1986	7	9.2	1975	4+	1986	7	#+	1986	1.2	.9	.3	@	.0	.3	.1	.0	.0
Jun	.1	.0	#	0	1.0	1990	13	1.0	1990	#	1972	25	#	1972	.1	@	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#	1991	10	#	1991	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	#	0	.0	0	0	.0	0	1	2000	5	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.2	.0	#	0	3.0	1978	18	3.0	1978	1	1971	30	#	1971	.2	.1	@	.0	.0	@	.0	.0	.0
Oct	2.3	.8	#	#	5.0	1975	22	9.0	1971	5	1975	25	1	1975	1.6	.9	.2	@	.0	1.4	.7	.1	.0
Nov	18.0	12.2	3	2	17.0	1975	26	54.5	1985	30	1985	30	12	1985	7.8	5.7	2.0	1.0	.1	14.0	9.6	5.9	2.1
Dec	22.9	20.0	13	12	12.0	1983	6	56.8	1983	43	1971	15	31	1971	11.4	8.1	3.3	1.1	.1	26.7	24.3	21.1	16.8
Ann	100.3	85.6	N/A	N/A	28.0	Jan 1982	23	59.0	Jan 1982	54	Jan 1982	23	43	Feb 1979	54.4	37.4	12.3	3.7	.3	126.2	115.8	107.0	92.1

+ 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	7/16	7/09	7/04	6/30	6/26	6/22	6/18	6/13	6/07
32	6/29	6/22	6/17	6/13	6/09	6/05	6/01	5/27	5/20
28	6/14	6/05	5/30	5/25	5/20	5/15	5/10	5/03	4/25
24	5/14	5/08	5/04	4/30	4/26	4/23	4/19	4/15	4/09
20	4/30	4/25	4/21	4/18	4/15	4/13	4/10	4/06	4/01
16	4/20	4/13	4/08	4/03	3/30	3/26	3/22	3/17	3/10
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	8/06	8/13	8/18	8/22	8/25	8/29	9/02	9/07	9/14
32	8/23	8/29	9/02	9/06	9/09	9/12	9/16	9/20	9/26
28	9/03	9/09	9/14	9/18	9/21	9/24	9/28	10/03	10/09
24	9/18	9/24	9/28	10/02	10/05	10/08	10/12	10/16	10/22
20	9/30	10/06	10/10	10/14	10/17	10/20	10/24	10/28	11/03
16	10/06	10/13	10/19	10/23	10/28	11/01	11/06	11/11	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	85	76	70	64	59	54	49	43	34
32	117	108	102	96	91	86	81	75	66
28	153	143	136	129	123	118	111	104	94
24	187	178	171	166	161	156	151	144	136
20	207	199	193	188	184	179	174	168	160
16	246	234	225	218	211	204	196	187	175

\* 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: 5,212 Feet    Lat: 44°04N    Lon: 111°27W**

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	1427	1151	1038	712	446	229	103	114	317	637	1040	1397	8611
60	1272	1011	883	562	300	122	35	42	191	483	890	1242	7033
57	1179	927	790	475	219	75	15	19	131	393	800	1149	6172
55	1117	871	728	419	173	50	8	10	97	334	740	1087	5634
50	962	731	573	286	82	13	0	1	37	205	593	932	4415
32	422	256	118	23	0	0	0	0	0	7	163	396	1385

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	18	28	103	301	577	779	989	966	681	392	114	23	4971
55	0	0	0	7	37	139	284	263	88	7	0	0	825
57	0	0	0	4	22	104	229	209	62	3	0	0	633
60	0	0	0	0	9	61	156	140	33	1	0	0	400
65	0	0	0	0	1	18	69	57	8	0	0	0	153
70	0	0	0	0	0	3	18	14	1	0	0	0	36

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	0	9	128	340	550	762	735	453	193	15	0	0	0	9	137	477	1027	1789	2524	2977	3170	3185	3185
45	0	0	0	62	209	401	607	580	311	91	1	0	0	0	0	62	271	672	1279	1859	2170	2261	2262	2262
50	0	0	0	21	107	262	452	426	184	31	0	0	0	0	0	21	128	390	842	1268	1452	1483	1483	1483
55	0	0	0	3	38	141	304	278	86	3	0	0	0	0	0	3	41	182	486	764	850	853	853	853
60	0	0	0	0	7	58	159	141	26	0	0	0	0	0	0	0	7	65	224	365	391	391	391	391
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	9	100	232	363	502	490	327	168	15	0	0	0	9	109	341	704	1206	1696	2023	2191	2206	2206

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
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## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)