

# Climatology of the United States

No. 20

1971-2000

Station: PAYETTE, ID

COOP ID: 106891

Climate Division: ID 5

NWS Call Sign:

Elevation: 2,150 Feet Lat: 44°05N

Lon: 116°56W

## 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	36.7	19.5	28.1	62+	1967	29	36.8	1978	-26	1962	22	14.3	1979	1145	0	.0	.0	2.4	9.4	28.0	2.8
Feb	45.8	24.9	35.4	70	1995	26	42.4	1992	-23	1989	5	20.9	1989	830	0	.0	.0	10.3	3.0	22.8	.8
Mar	57.7	31.8	44.8	83	1966	30	50.0	1986	7	1955	5	39.3	1976	628	0	.0	.0	27.0	.1	17.4	.0
Apr	66.1	37.7	51.9	92	1987	27	57.4	1987	18+	1968	13	46.3	1975	396	2	.0	.2	29.6	.0	8.4	.0
May	74.3	45.9	60.1	100	1966	25	65.2	1987	24	1984	7	55.3	1977	179	28	.0	2.0	31.0	.0	1.5	.0
Jun	82.4	53.2	67.8	104+	1970	23	73.1	1986	31+	1976	26	64.0	1984	50	134	.6	8.0	30.0	.0	.1	.0
Jul	90.8	58.9	74.9	109	1967	12	80.0	1998	38+	1981	8	67.0	1993	8	313	4.1	21.1	31.0	.0	.0	.0
Aug	89.6	57.3	73.5	109	1990	8	77.2	1971	35	1965	31	67.3	1976	11	272	2.8	19.4	31.0	.0	.0	.0
Sep	80.1	48.1	64.1	102	1967	1	71.1	1990	25+	1985	30	59.1	1985	107	80	.1	5.3	30.0	.0	1.6	.0
Oct	67.6	37.1	52.4	96	1992	2	59.6	1988	17+	1984	22	48.8	1976	395	2	.0	.1	30.5	.0	10.6	.0
Nov	50.1	28.6	39.4	75	1965	4	43.9	1999	-2+	1993	26	28.4	1985	769	0	.0	.0	17.3	1.1	20.9	.2
Dec	38.7	21.3	30.0	65	1955	22	38.2	1977	-21+	1990	22	12.6	1985	1085	0	.0	.0	3.0	6.6	27.8	1.8
Ann	65.0	38.7	51.9	109+	Aug 1990	8	80.0	Jul 1998	-26	Jan 1962	22	12.6	Dec 1985	5603	831	7.6	56.1	273.1	20.2	139.1	5.6

+ 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/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

076-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: PAYETTE, ID

COOP ID: 106891

Climate Division: ID 5

NWS Call Sign:

Elevation: 2,150 Feet Lat: 44°05N

Lon: 116°56W

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	1.46	1.49	2.30	1952	10	2.51	1979	.00	1985	10.3	5.1	.4	.0	.64	.83	1.03	1.17	1.30	1.43	1.56	1.71	1.90	2.17	2.42
Feb	1.24	1.15	.84	1958	12	3.13	1986	.15	1988	9.4	4.2	.3	.0	.20	.31	.49	.66	.83	1.02	1.24	1.51	1.87	2.45	3.00
Mar	1.10	1.01	1.13	1983	4	4.46	1983	.02	1992	9.0	4.2	.2	@	.10	.18	.33	.48	.65	.83	1.06	1.34	1.72	2.36	2.99
Apr	.80	.73	.91	1978	16	3.47	1978	.05	1977	7.2	2.6	.2	.0	.15	.22	.34	.44	.56	.67	.81	.98	1.20	1.55	1.88
May	.97	.76	1.55	1998	22	5.47	1998	.06+	1992	6.6	3.3	.4	.1	.05	.10	.22	.35	.50	.67	.89	1.16	1.55	2.22	2.89
Jun	.73	.57	1.60	1970	28	2.33	1993	.00	1996	4.8	2.3	.3	@	.05	.12	.23	.34	.45	.58	.72	.90	1.14	1.53	1.91
Jul	.32	.13	.90	1958	29	1.17	1997	.00+	2000	2.2	1.1	.1	.0	.00	.00	.00	.00	.05	.14	.24	.38	.58	.91	1.25
Aug	.32	.12	1.08	1965	3	2.55	1979	.00+	2000	2.6	1.0	.1	.0	.00	.00	.00	.03	.07	.14	.23	.35	.54	.88	1.23
Sep	.46	.19	1.31	1959	14	2.31	1980	.00+	1999	3.4	1.5	.1	.0	.00	.00	.00	.05	.12	.22	.35	.53	.79	1.25	1.72
Oct	.63	.53	1.14	1982	29	2.49	1982	.00+	1988	4.9	2.1	.2	@	.00	.00	.14	.25	.36	.48	.62	.79	1.01	1.39	1.76
Nov	1.43	1.14	.93	1971	26	4.12	1973	.08	1976	10.0	4.8	.3	.0	.24	.36	.57	.77	.97	1.19	1.44	1.75	2.15	2.82	3.45
Dec	1.60	1.34	.88	1981	19	4.12	1981	.08	1976	10.0	5.0	.6	.0	.18	.30	.52	.75	.99	1.25	1.57	1.95	2.48	3.35	4.20
Ann	11.06	10.00	2.30	Jan 1952	10	5.47	May 1998	.00+	Aug 2000	80.4	37.2	3.2	.1	6.67	7.46	8.51	9.32	10.05	10.77	11.52	12.37	13.40	14.93	16.28

+ 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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National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
[www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

**Station: PAYETTE, ID**

**COOP ID: 106891**

**Climate Division: ID 5**

**NWS Call Sign:**

**Elevation: 2,150 Feet**

**Lat: 44°05N**

**Lon: 116°56W**

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	4.9	3.0	3	2	11.5	1993	9	11.9	1987	23	1979	20	16	1979	2.9	2.3	.5	.2	.1	-9.9	-9.9	-9.9	-9.9
Feb	2.1	.5	1	0	6.0	1982	13	12.5	1982	20	1979	4	8	1979	1.3	1.2	.2	.1	.0	-9.9	-9.9	-9.9	-9.9
Mar	.2	.0	0	0	2.0	1993	4	3.5	1993	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Apr	#	.0	0	0	#	1985	20	#+	1985	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	1.0	1971	27	1.0	1971	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Nov	1.4	.0	#	0	7.5	1975	28	8.0	1979	6	1977	22	1	1977	.7	.5	.3	@	.0	.4	.4	.2	.0
Dec	6.7	7.7	1	#	8.0	1983	29	12.3	1974	12	1981	31	8	1984	3.2	2.2	.7	.2	.0	-9.9	-9.9	-9.9	-9.9
Ann	15.3	11.2	N/A	N/A	11.5	Jan 1993	9	12.5	Feb 1982	23	Jan 1979	20	16	Jan 1979	8.2	6.3	1.7	.5	.1	-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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**NWS Call Sign:**

**Elevation: 2,150 Feet**

**Lat: 44° 05N**

**Lon: 116° 56W**

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	6/14	6/07	6/01	5/28	5/23	5/19	5/15	5/09	5/02
32	5/31	5/23	5/16	5/11	5/06	5/01	4/26	4/20	4/12
28	5/05	4/28	4/24	4/19	4/15	4/11	4/07	4/02	3/26
24	4/23	4/15	4/09	4/04	3/30	3/26	3/21	3/15	3/06
20	4/01	3/22	3/15	3/09	3/03	2/25	2/19	2/12	2/02
16	3/05	2/24	2/18	2/12	2/07	2/02	1/28	1/21	1/12
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	9/07	9/12	9/16	9/19	9/22	9/26	9/29	10/03	10/08
32	9/15	9/21	9/25	9/28	10/02	10/05	10/08	10/12	10/18
28	9/30	10/05	10/09	10/12	10/16	10/19	10/22	10/26	10/31
24	10/10	10/16	10/20	10/24	10/27	10/31	11/03	11/07	11/13
20	10/19	10/26	10/31	11/05	11/09	11/13	11/17	11/23	11/30
16	11/04	11/12	11/17	11/22	11/26	11/30	12/05	12/10	12/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	152	142	134	127	121	115	108	101	90
32	182	170	162	154	148	141	134	125	113
28	210	201	194	188	182	177	171	164	154
24	242	231	223	216	210	204	197	189	178
20	293	278	268	258	250	242	233	222	207
16	326	314	305	298	291	284	277	268	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

Complete documentation available from:  
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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	1145	830	628	396	179	50	8	11	107	395	769	1085	5603
60	990	690	473	257	83	13	0	1	42	250	619	930	4348
57	898	612	382	183	44	4	0	0	20	175	531	837	3686
55	840	559	325	141	27	2	0	0	11	131	476	776	3288
50	696	431	192	61	5	0	0	0	1	54	340	634	2414
32	267	108	6	0	0	0	0	0	0	0	49	214	644

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	146	202	401	596	871	1074	1328	1284	964	630	270	152	7918
55	5	9	7	47	185	386	615	571	285	48	7	1	2166
57	1	6	2	29	141	329	553	509	234	30	2	0	1836
60	0	0	0	13	86	247	460	418	166	11	0	0	1401
65	0	0	0	2	28	134	313	272	80	2	0	0	831
70	0	0	0	0	5	57	181	148	30	0	0	0	421

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	45	179	360	625	835	1076	1034	710	374	83	9	3	48	227	587	1212	2047	3123	4157	4867	5241	5324	5333
45	0	12	80	222	470	685	921	879	561	236	26	1	0	12	92	314	784	1469	2390	3269	3830	4066	4092	4093
50	0	1	25	115	323	536	766	724	415	120	5	0	0	1	26	141	464	1000	1766	2490	2905	3025	3030	3030
55	0	0	1	49	194	391	611	569	277	49	0	0	0	0	1	50	244	635	1246	1815	2092	2141	2141	2141
60	0	0	0	15	97	250	456	416	154	14	0	0	0	0	0	15	112	362	818	1234	1388	1402	1402	1402
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	35	142	258	405	527	663	639	473	285	59	6	0	35	177	435	840	1367	2030	2669	3142	3427	3486	3492

(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)