

Climatography of the United States

No. 20

1971-2000

Station: HOWE, ID

COOP ID: 104384

Climate Division: ID 9

NWS Call Sign:

Elevation: 4,820 Feet Lat: 43°48N

Lon: 113°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	30.7	6.0	18.4	58	1974	16	28.1	1983	-35+	1985	31	5.8	1979	1445	0	.0	.0	.2	18.5	30.5	10.4
Feb	36.9	11.6	24.3	59	1963	5	35.0	1992	-38	1985	1	8.6	1985	1141	0	.0	.0	1.7	9.4	27.7	5.7
Mar	48.0	22.3	35.2	74+	1986	28	42.7	1986	-23	1960	1	22.1	1985	925	0	.0	.0	12.0	1.6	28.4	.7
Apr	60.6	29.6	45.1	86	1992	29	53.8	1990	8	1997	6	37.5	1975	597	0	.0	.0	24.5	.1	19.1	.0
May	69.1	37.4	53.3	90+	1967	23	59.6	1987	16	1973	2	48.5	1995	369	5	.0	.0	30.1	.0	7.6	.0
Jun	78.1	44.6	61.4	102	1988	24	68.1	1988	28+	1995	7	55.8	1995	168	58	.1	2.6	30.0	.0	.5	.0
Jul	86.9	49.3	68.1	102+	1988	22	73.0	1989	33+	1993	18	59.3	1993	50	147	.2	10.1	31.0	.0	.0	.0
Aug	85.7	47.5	66.6	101	1990	6	71.1	1986	29	1995	19	61.9	1993	55	104	.1	8.0	31.0	.0	.2	.0
Sep	75.1	38.1	56.6	94+	1995	2	63.0	1990	18	1984	25	50.2	1971	266	13	.0	.9	29.8	.0	6.3	.0
Oct	61.5	28.8	45.2	85	1992	1	51.3	1988	9+	1996	17	41.8	1984	617	0	.0	.0	26.4	.3	21.3	.0
Nov	43.0	17.6	30.3	69	1965	4	37.5+	1999	-22	1985	23	23.4	1985	1041	0	.0	.0	7.1	4.8	28.4	1.6
Dec	31.4	6.3	18.9	58	1995	1	27.0	1980	-37	1972	9	8.7	1990	1431	0	.0	.0	.6	16.3	30.7	8.9
Ann	58.9	28.3	43.6	102+	Jul 1988	22	73.0	Jul 1989	-38	Feb 1985	1	5.8	Jan 1979	8105	327	.4	21.6	224.4	51.0	200.7	27.3

+ 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

049-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: HOWE, ID

COOP ID: 104384

Climate Division: ID 9

NWS Call Sign:

Elevation: 4,820 Feet Lat: 43°48N

Lon: 113°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	.49	.41	1.04	1963	31	1.25	1978	.00+	1991	3.8	1.7	@	.0	.00	.05	.13	.21	.29	.38	.48	.61	.78	1.06	1.33
Feb	.62	.53	.90	1969	24	2.27	1986	.00+	1997	3.8	1.9	.2	.0	.00	.00	.14	.24	.35	.47	.61	.78	1.00	1.38	1.75
Mar	.58	.42	.75	1974	1	1.86	1982	.00+	2000	4.0	2.0	.1	.0	.00	.00	.09	.17	.27	.39	.53	.71	.95	1.38	1.80
Apr	.60	.49	1.53	1981	20	3.01	1978	.00+	1987	4.2	1.8	.1	@	.00	.00	.06	.14	.24	.36	.52	.72	1.00	1.50	2.00
May	1.10	1.00	1.26	1972	7	3.24	1980	.08	1988	7.5	3.5	.2	@	.19	.29	.45	.60	.75	.92	1.11	1.34	1.65	2.14	2.62
Jun	1.11	.87	1.75	1995	6	4.06	1995	.00	2000	5.8	2.7	.4	.2	.01	.06	.18	.33	.50	.71	.98	1.32	1.81	2.67	3.53
Jul	.74	.57	1.31	1984	28	3.55	1984	.00+	1999	3.7	1.7	.2	@	.00	.00	.18	.31	.44	.58	.74	.93	1.19	1.62	2.04
Aug	.77	.56	2.50	1961	17	3.67	1983	.00+	2000	4.0	1.8	.3	.1	.00	.00	.07	.18	.30	.46	.65	.91	1.28	1.93	2.59
Sep	.53	.37	1.66	1976	11	2.66	1980	.00+	1993	3.3	1.4	.3	.1	.00	.00	.05	.13	.21	.32	.45	.63	.88	1.32	1.77
Oct	.56	.46	1.10	1949	8	1.40	1991	.00	1988	3.7	1.8	.2	.0	.01	.03	.09	.17	.25	.36	.49	.67	.92	1.35	1.79
Nov	.65	.52	1.15	1970	29	2.32	1983	.00+	1995	4.3	2.0	.1	.0	.00	.00	.10	.20	.32	.45	.60	.80	1.07	1.54	2.00
Dec	.68	.59	1.10	1955	23	2.06	1983	.00+	2000	5.1	2.2	.2	.0	.00	.00	.11	.21	.33	.47	.64	.85	1.13	1.62	2.11
Ann	8.43	8.40	2.50	Aug 1961	17	4.06	Jun 1995	.00+	Dec 2000	53.2	24.5	2.3	.4	4.52	5.19	6.09	6.81	7.46	8.11	8.80	9.58	10.54	11.98	13.25

+ 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

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Station: HOWE, ID

COOP ID: 104384

Climate Division: ID 9

NWS Call Sign:

Elevation: 4,820 Feet

Lat: 43°48N

Lon: 113°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	4.6	4.8	2	#	6.2	1981	30	11.4	1978	15	1971	15	11	1971	2.0	1.3	.3	@	.0	12.4	11.6	8.4	3.3
Feb	3.1	1.7	1	#	5.8	1978	11	13.6	1978	12	1971	28	9	1971	1.5	1.0	.2	@	.0	5.5	5.2	4.7	.6
Mar	1.1	.0	#	0	5.5	1979	1	6.6	1979	12	1971	6	4	1985	.9	.5	.1	@	.0	2.3	1.9	.9	.3
Apr	.3	.0	#	0	5.0	1982	3	7.2	1982	5	1982	3	#+	1984	.2	.1	@	@	.0	.1	@	@	.0
May	.1	.0	0	0	1.6	1979	9	1.6	1979	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	#	1971	4	#	1971	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.2	.0	#	0	2.5	1984	17	2.5	1984	3	1984	17	#+	1984	.1	.1	.0	.0	.0	.1	@	.0	.0
Nov	2.2	.5	#	0	8.0	1983	25	9.5	1978	8	1983	25	2	1985	.9	.5	.2	@	.0	.6	.3	.1	.0
Dec	3.3	3.4	2	1	8.0	1972	3	10.0	1972	16	1971	22	10	1971	1.5	1.3	.4	.1	.0	7.7	5.9	3.6	2.0
Ann	14.9	10.4	N/A	N/A	8.0+	Nov 1983	25	13.6	Feb 1978	16	Dec 1971	22	11	Jan 1971	7.1	4.8	1.2	.1	.0	28.7	24.9	17.7	6.2

+ 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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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	7/10	7/03	6/28	6/23	6/19	6/15	6/11	6/06	5/30
32	6/12	6/07	6/03	5/31	5/28	5/25	5/21	5/18	5/12
28	5/28	5/22	5/19	5/15	5/12	5/09	5/06	5/02	4/26
24	5/16	5/09	5/05	5/01	4/27	4/23	4/19	4/15	4/08
20	5/09	5/02	4/26	4/22	4/18	4/14	4/10	4/05	3/29
16	4/21	4/12	4/06	4/01	3/27	3/22	3/16	3/10	3/02
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	8/13	8/19	8/23	8/26	8/29	9/01	9/05	9/09	9/14
32	8/26	9/01	9/05	9/08	9/11	9/14	9/18	9/22	9/28
28	9/10	9/15	9/19	9/22	9/24	9/27	9/30	10/04	10/08
24	9/18	9/24	9/28	10/02	10/05	10/08	10/12	10/16	10/21
20	9/30	10/05	10/09	10/12	10/16	10/19	10/22	10/26	10/31
16	10/11	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/10
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	96	87	81	75	70	65	59	53	44
32	127	120	114	110	106	102	97	92	85
28	158	150	144	139	135	130	125	119	112
24	186	177	171	165	160	155	149	143	133
20	203	195	189	184	180	175	170	165	157
16	242	232	225	218	213	207	201	193	183

* 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	1445	1141	925	597	369	168	50	55	266	617	1041	1431	8105
60	1290	1001	770	452	233	86	15	14	150	462	891	1276	6640
57	1197	917	677	369	164	51	6	4	95	370	801	1183	5834
55	1135	861	617	315	125	33	3	2	66	310	741	1121	5329
50	980	726	473	200	53	10	0	0	20	174	591	966	4193
32	467	300	101	10	0	0	0	0	0	2	148	442	1470

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	44	82	200	402	658	880	1119	1072	737	408	97	35	5734
55	0	0	2	18	70	223	409	361	114	3	0	0	1200
57	0	0	0	12	47	181	350	301	82	1	0	0	974
60	0	0	0	5	23	126	266	218	47	0	0	0	685
65	0	0	0	0	5	58	147	104	13	0	0	0	327
70	0	0	0	0	0	20	65	34	2	0	0	0	121

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	34	180	400	644	871	830	501	190	12	0	0	0	34	214	614	1258	2129	2959	3460	3650	3662	3662
45	0	0	4	89	257	495	716	675	359	90	0	0	0	0	4	93	350	845	1561	2236	2595	2685	2685	2685
50	0	0	0	37	140	348	561	520	224	32	0	0	0	0	0	37	177	525	1086	1606	1830	1862	1862	1862
55	0	0	0	11	61	217	407	368	114	5	0	0	0	0	0	11	72	289	696	1064	1178	1183	1183	1183
60	0	0	0	1	17	109	261	219	38	0	0	0	0	0	0	1	18	127	388	607	645	645	645	645
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	2	44	160	283	418	561	541	371	180	18	0	0	2	46	206	489	907	1468	2009	2380	2560	2578	2578

(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