

Climatology of the United States

No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: SNOWSHOE LAKE, AK

1971-2000

COOP ID: 508594

Climate Division: AK 4

NWS Call Sign:

Elevation: 2,301 Feet Lat: 62°02N

Lon: 146°42W

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 >= 90	Max >= 70	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	1.7	-18.3	-8.3	40+	1984	12	12.8	1977	-60	1993	25	-24.5	1996	2274	0	.0	.0	.0	30.0	31.0	26.2
Feb	13.0	-14.2	-.6	43+	1991	26	14.9	1977	-56	1993	2	-13.2	1999	1838	0	.0	.0	.0	26.0	28.3	22.5
Mar	26.8	-7.8	9.5	51	1965	23	20.5	1981	-53+	1964	15	-.7	1972	1723	0	.0	.0	.1	19.8	31.0	21.5
Apr	39.4	9.4	24.4	62+	1995	30	29.6	1980	-30+	1999	10	14.3	1972	1218	0	.0	.0	2.5	4.5	29.9	7.0
May	51.9	26.9	39.4	76	1993	16	44.9	1981	-10	1964	10	35.6	1985	794	0	.0	.5	19.9	@	25.4	.0
Jun	61.9	36.2	49.1	95	1991	21	52.4	1990	19	1996	5	45.7	1985	479	0	@	6.1	28.9	.0	8.6	.0
Jul	66.2	40.1	53.2	86	1997	1	55.7	1972	23+	1997	18	50.3	1991	368	0	.0	10.4	31.0	.0	3.8	.0
Aug	62.4	35.8	49.1	88	1994	5	54.7	1977	12	1987	31	44.4	2000	493	0	.0	5.3	30.1	.0	10.0	.0
Sep	51.6	26.7	39.2	74	1978	3	44.3	1978	-13	1998	29	28.6	1992	775	0	.0	.2	19.9	.6	22.3	.3
Oct	33.1	11.6	22.4	58+	1993	9	29.8	1979	-29+	1982	27	12.5	1996	1321	0	.0	.0	1.0	14.0	30.3	5.7
Nov	12.8	-6.8	3.0	44+	1970	1	16.4	1976	-50	1993	20	-9.6	1990	1861	0	.0	.0	.0	28.3	30.0	21.3
Dec	3.0	-14.3	-5.7	43	1986	10	6.5	1986	-63	1964	13	-25.7	1980	2191	0	.0	.0	.0	30.1	31.0	26.0
Ann	35.3	10.4	22.9	95	Jun 1991	21	55.7	Jul 1972	-63	Dec 1964	13	-25.7	Dec 1980	15335	0	@	22.5	133.4	153.3	281.6	130.5

+ 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: May 2005

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1963-2001

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

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NWS Call Sign:

Elevation: 2,301 Feet Lat: 62°02N

Lon: 146°42W

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	.48	.52	.85	2001	15	1.12	1980	.05+	1994	6.5	1.8	.1	.0	.07	.11	.18	.24	.31	.39	.48	.58	.73	.97	1.20
Feb	.52	.30	.72	1986	7	1.84	1996	.00+	2000	6.4	1.7	.2	.0	.00	.03	.11	.19	.27	.37	.49	.63	.84	1.18	1.52
Mar	.42	.27	1.57	1995	16	2.04	1991	.00+	2000	4.8	1.0	.2	.0	.00	.00	.06	.12	.19	.28	.38	.51	.70	1.01	1.32
Apr	.24	.21	.75	1976	26	.83	1976	.00+	1998	2.6	.7	.1	.0	.00	.00	.01	.05	.09	.14	.21	.29	.41	.62	.83
May	.59	.40	.94	1977	29	1.75	1999	.00+	1998	5.2	1.6	.2	.0	.00	.02	.08	.16	.26	.38	.52	.71	.99	1.46	1.94
Jun	2.09	1.89	1.52	1995	23	3.73	1988	.44	1982	11.4	6.0	1.1	.2	.70	.90	1.19	1.43	1.67	1.91	2.18	2.49	2.88	3.50	4.07
Jul	2.30	2.35	1.40	1966	28	4.41	1992	.55	1989	12.9	7.0	1.0	.1	.74	.96	1.28	1.56	1.82	2.10	2.40	2.75	3.20	3.91	4.56
Aug	1.60	1.41	.95	1976	12	3.54	1997	.61	1986	10.5	5.3	.5	.0	.60	.75	.96	1.14	1.31	1.49	1.68	1.89	2.17	2.60	2.99
Sep	1.08	.98	1.44	2001	3	2.88	2000	.06	1986	7.6	3.2	.4	.0	.18	.27	.43	.58	.73	.90	1.09	1.32	1.63	2.13	2.61
Oct	.94	.87	.95	1986	11	2.25	1999	.05	1995	7.9	2.7	.4	.0	.19	.28	.42	.54	.67	.81	.96	1.15	1.39	1.78	2.15
Nov	.80	.76	.91	1997	22	2.91	1976	.03	1995	7.4	2.3	.2	.0	.08	.14	.25	.36	.48	.62	.78	.98	1.26	1.71	2.16
Dec	.90	.73	1.00	2000	21	2.47	1999	.00	1995	7.3	2.6	.2	.0	.07	.16	.31	.44	.57	.73	.90	1.11	1.40	1.86	2.31
Ann	11.96	12.16	1.57	Mar 1995	16	4.41	Jul 1992	.00+	Mar 2000	90.5	35.9	4.6	.3	8.50	9.17	10.03	10.68	11.26	11.82	12.40	13.03	13.81	14.93	15.90

+ 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: 1963-2001

(3) Derived from 1971-2000 daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: SNOWSHOE LAKE, AK

COOP ID: 508594

Climate Division: AK 4

NWS Call Sign:

Elevation: 2,301 Feet

Lat: 62°02N

Lon: 146°42W

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	6.4	5.5	18	18	7.5	1993	1	14.2	1993	31	1997	29	30	1997	7.1	2.0	.4	.2	.0	28.0	28.0	28.0	27.1
Feb	5.6	3.9	21	21	7.8	1984	4	23.0	1984	37	1980	7	32	1980	6.2	1.8	.4	.1	.0	26.7	26.7	26.7	26.7
Mar	4.4	4.0	21	20	10.0	1994	26	12.8	1994	39	1992	8	35	1980	4.7	1.4	.2	.1	@	29.9	29.9	29.9	29.9
Apr	3.4	3.5	15	15	8.5	1976	26	10.0	1999	33+	1997	5	29	1980	2.4	1.0	.4	.1	.0	26.3	25.9	24.9	20.8
May	1.4	.4	1	0	4.5	1972	11	7.3	1999	25	1972	1	6	1992	1.4	.5	.1	.0	.0	5.5	4.3	3.2	1.5
Jun	.1	.0	0	0	1.6	1972	6	1.6	1972	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	1.0	1973	13	1.0	1973	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Sep	1.4	.0	#	0	5.0+	1993	26	7.9	1972	6	1972	30	1	1983	.9	.5	.2	.1	.0	.9	.3	@	.0
Oct	9.2	9.3	2	2	9.0	1972	2	19.4	1971	15	2000	31	11	2000	6.5	3.3	.9	.3	.0	18.2	11.9	8.1	1.5
Nov	8.1	7.1	8	9	8.2	1974	3	23.7	1979	24+	1994	30	17	2000	7.1	2.8	.6	.2	.0	27.4	25.5	20.0	12.1
Dec	9.6	7.9	14	15	12.5	1999	22	28.6	1999	30+	1994	25	27+	1993	7.4	2.9	.8	.2	@	28.5	27.3	25.6	21.7
Ann	49.6	41.6	N/A	N/A	12.5	Dec 1999	22	28.6	Dec 1999	39	Mar 1992	8	35	Mar 1980	43.7	16.2	4.0	1.3	@	191.4	179.8	166.4	141.3

+ 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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Station: SNOWSHOE LAKE, AK

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Climate Division: AK 4

NWS Call Sign:

Elevation: 2,301 Feet

Lat: 62° 02N

Lon: 146° 42W

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	8/06	8/02	7/31	7/29	7/27	7/25	7/23	7/21	7/17
32	8/07	8/01	7/28	7/24	7/20	7/17	7/13	7/09	7/03
28	7/23	7/13	7/06	6/30	6/24	6/18	6/12	6/05	5/25
24	6/24	6/16	6/11	6/06	6/01	5/27	5/23	5/17	5/09
20	5/28	5/23	5/20	5/17	5/14	5/11	5/08	5/04	4/29
16	5/12	5/09	5/06	5/04	5/02	4/30	4/28	4/26	4/22
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	7/31	8/01	8/02	8/03	8/04	8/05	8/06	8/07	8/09
32	7/31	8/03	8/05	8/07	8/09	8/11	8/13	8/15	8/18
28	8/03	8/08	8/11	8/14	8/16	8/19	8/21	8/25	8/29
24	8/11	8/17	8/22	8/26	8/29	9/02	9/06	9/10	9/17
20	8/23	8/29	9/02	9/06	9/09	9/13	9/17	9/21	9/27
16	9/03	9/09	9/13	9/17	9/20	9/24	9/27	10/01	10/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	19	15	12	9	7	5	2	0	0
32	43	35	29	23	19	14	9	3	0
28	92	78	69	60	53	45	37	27	13
24	118	108	101	94	89	83	77	69	59
20	143	134	128	123	118	113	108	102	93
16	161	154	149	144	140	136	132	126	119

* 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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COOP ID: 508594

Climate Division: AK 4

NWS Call Sign:

Elevation: 2,301 Feet Lat: 62°02N Lon: 146°42W

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	2274	1838	1723	1218	794	479	368	493	775	1321	1861	2191	15335
60	2119	1698	1568	1068	639	329	215	344	625	1166	1711	2036	13518
57	2026	1614	1475	978	546	239	130	260	537	1073	1621	1943	12442
55	1964	1558	1413	918	484	182	83	209	479	1011	1561	1881	11743
50	1809	1418	1258	768	331	67	14	110	341	856	1411	1726	10109
32	1262	914	705	274	20	0	0	1	36	337	875	1168	5592

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	11	0	5	46	248	511	655	531	251	38	4	0	2300
55	0	0	0	0	0	4	25	27	4	0	0	0	60
57	0	0	0	0	0	1	10	15	2	0	0	0	28
60	0	0	0	0	0	0	2	6	0	0	0	0	8
65	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	0	0	70	289	424	304	69	0	0	0	0	0	0	0	70	359	783	1087	1156	1156	1156	1156
45	0	0	0	0	15	150	269	165	18	0	0	0	0	0	0	0	15	165	434	599	617	617	617	617
50	0	0	0	0	3	58	129	64	0	0	0	0	0	0	0	0	3	61	190	254	254	254	254	254
55	0	0	0	0	0	13	39	17	0	0	0	0	0	0	0	0	0	13	52	69	69	69	69	69
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	4	71	199	271	208	67	0	0	0	0	0	0	4	75	274	545	753	820	820	820	820

(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/normals/usnormals.html

f. Mean "number of days statistics" for temperature were calculated from a serially complete daily data set. A serial dataset was not available for precipitation,

To ensure that a station's data was adequate to estimate these statistics, the following criteria were used:

1. A station must have 80% of its data for the 1971-2000 time period.
2. Only months with at least 21 days are used.
3. There must be a least 21 months (meeting criteria 2.) in the sample.

g. Snowfall and snow depth statistics were derived daily values quality controlled to be consistent with 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 differences 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. Other inconsistencies may appear from comparing statistically modeled values such as degree days to observed temperatures.

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

c. Snow Tables

1. Cooperative Summary of the Day

d. Freeze Data Table

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

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html

Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html