

# Climatography of the United States No. 20

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

Station: ANDERSON LAKE, AK

1971-2000

COOP ID: 500302

Climate Division: AK 5

NWS Call Sign:

Elevation: 495 Feet

Lat: 61° 37N

Lon: 149° 20W

## 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	23.3	9.3	16.3	48+	1994	29	35.0	1981	-44	1972	11	-1.5	1971	1510	0	.0	.0	.0	22.3	29.8	9.5
Feb	27.3	12.2	19.8	51	1986	14	32.3	1997	-35+	1999	5	3.2	1990	1267	0	.0	.0	@	16.7	26.8	6.7
Mar	34.5	18.1	26.3	55+	1981	24	35.6	1981	-24+	1977	8	13.3	1972	1200	0	.0	.0	.4	10.2	29.0	2.9
Apr	45.1	27.5	36.3	66	1976	30	42.1	1993	-7+	1986	7	24.5	1972	860	0	.0	.0	9.3	1.5	21.6	.3
May	56.4	36.1	46.3	77	1993	19	53.2	1981	11	1982	1	41.3	1971	582	0	.0	1.7	27.3	.1	8.7	.0
Jun	63.3	43.3	53.3	82	1976	27	56.6	1990	21	1983	1	50.0	1975	352	0	.0	7.1	29.9	.0	.4	.0
Jul	65.8	47.9	56.9	86	1993	9	60.9	1993	32	1971	21	54.2	1982	254	0	.0	9.7	31.0	.0	@	.0
Aug	63.1	45.8	54.5	86	1977	22	57.4	1977	28	1973	14	51.1	1973	328	0	.0	6.0	30.8	.0	.5	.0
Sep	54.7	38.5	46.6	72	1974	1	52.0	1995	17	1992	22	38.2	1992	552	0	.0	.2	25.3	.0	5.4	.0
Oct	40.5	26.7	33.6	60	1986	10	40.5	1986	-10+	1971	26	23.9	1996	973	0	.0	.0	4.4	5.0	21.9	.5
Nov	28.3	15.1	21.7	51+	1986	2	33.3	1976	-23	1990	28	10.1	1990	1299	0	.0	.0	.1	18.8	28.3	4.5
Dec	24.4	11.3	17.9	49+	1999	21	31.0	1985	-34	1975	3	5.8	1980	1461	0	.0	.0	.0	22.9	29.8	7.3
Ann	43.9	27.7	35.8	86+	Jul 1993	9	60.9	Jul 1993	-44	Jan 1972	11	-1.5	Jan 1971	10638	0	.0	24.7	158.5	97.5	202.2	31.7

+ 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: May 2005

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1971-2001

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

003-A

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## No. 20

### 1971-2000

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**Station: ANDERSON LAKE, AK**

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**Climate Division: AK 5**

**NWS Call Sign:**

**Elevation: 495 Feet Lat: 61°37N**

**Lon: 149°20W**

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	.78	.72	.87	1986	4	2.26	1993	.00+	1982	5.5	2.8	.2	.0	.00	.07	.21	.33	.46	.60	.77	.97	1.24	1.69	2.13
Feb	.80	.71	1.24	1992	28	2.62	1996	.15	1994	4.9	2.7	.2	.0	.14	.21	.33	.44	.55	.67	.81	.97	1.20	1.56	1.90
Mar	.87	.77	3.62	1995	17	4.55	1995	.00+	1998	5.1	2.6	.3	.0	.00	.07	.21	.35	.49	.66	.85	1.08	1.41	1.95	2.47
Apr	.43	.33	1.23	1975	17	1.49	1975	.00	1976	3.5	1.5	.1	.0	.01	.04	.10	.16	.23	.31	.40	.52	.69	.96	1.24
May	1.01	.63	1.39	1997	31	6.59	1980	.00+	1982	4.9	2.5	.3	.0	.00	.05	.20	.35	.52	.71	.95	1.24	1.65	2.34	3.03
Jun	1.77	1.83	1.12	1995	23	3.36	1978	.26	1986	8.1	4.6	.9	.0	.49	.66	.92	1.14	1.36	1.59	1.84	2.14	2.52	3.13	3.70
Jul	2.77	2.40	2.55	1977	1	6.62	1979	.29	1973	10.6	6.8	1.5	.3	.58	.84	1.24	1.61	1.99	2.38	2.83	3.37	4.08	5.21	6.29
Aug	3.18	2.70	1.94	1999	13	6.45	1973	.36	1978	13.0	8.4	1.8	.4	.77	1.06	1.53	1.94	2.35	2.78	3.27	3.85	4.60	5.80	6.93
Sep	3.17	2.68	1.70	1972	8	8.83	1972	.98	1973	12.5	7.3	2.0	.4	.94	1.24	1.69	2.08	2.46	2.86	3.29	3.81	4.47	5.51	6.47
Oct	1.94	1.74	3.03	1977	14	5.02	1987	.22	1975	7.1	4.4	1.0	.2	.38	.55	.84	1.10	1.36	1.65	1.97	2.36	2.87	3.70	4.48
Nov	1.30	1.47	1.47	1979	11	3.27	1979	.00	1975	6.1	3.8	.8	.1	.04	.14	.33	.51	.72	.96	1.24	1.60	2.09	2.91	3.72
Dec	1.33	1.23	1.12	1999	21	4.11	1990	.00	1995	7.8	4.2	.7	.0	.10	.24	.45	.64	.85	1.07	1.32	1.64	2.06	2.74	3.41
Ann	19.35	18.45	3.62	Mar 1995	17	8.83	Sep 1972	.00+	Mar 1998	89.1	51.6	9.8	1.4	13.84	14.91	16.28	17.31	18.23	19.12	20.04	21.05	22.28	24.06	25.60

+ 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: 1971-2001

(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: ANDERSON LAKE, AK

COOP ID: 500302

Climate Division: AK 5

NWS Call Sign:

Elevation: 495 Feet

Lat: 61°37N

Lon: 149°20W

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	9.1	6.7	9	10	10.0	2000	25	28.8	1993	29+	1991	11	23	1991	4.7	2.6	1.1	.4	@	23.8	23.0	19.5	15.7
Feb	8.5	6.6	12	12	16.5	1992	28	30.5	1990	39	1990	28	28	1990	3.8	2.0	.8	.3	.1	23.8	23.2	21.8	14.2
Mar	8.6	7.8	10	11	10.2	1986	26	22.0	1979	38	1990	1	29	1990	4.0	2.6	1.0	.4	@	23.7	21.9	20.6	14.5
Apr	2.5	1.8	3	2	5.0	1977	11	16.0	1977	25	1979	3	15	1979	1.8	.7	.3	.1	.0	10.6	9.1	7.9	4.4
May	#	.0	#	0	.7	1992	15	.7	1992	1	1992	15	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	.1	.0	#	0	1.7	1983	24	1.7	1983	2	1983	24	0	0	@	@	.0	.0	.0	@	.0	.0	.0
Oct	4.6	3.1	#	0	9.0	1976	26	16.3	1971	11	1976	28	3+	1996	2.6	1.5	.5	.2	.0	5.5	2.9	1.9	.1
Nov	10.1	6.9	3	2	13.4	1989	19	31.4	1994	23	1989	19	13	1994	5.1	3.2	1.1	.5	@	17.5	11.4	6.2	2.9
Dec	15.3	13.1	8	9	13.0	1989	16	35.0	1978	31+	1994	23	23	1994	6.8	4.0	1.7	.7	.1	24.5	19.4	17.2	11.8
Ann	58.8	46.0	N/A	N/A	16.5	Feb 1992	28	35.0	Dec 1978	39	Feb 1990	28	29	Mar 1990	28.8	16.6	6.5	2.6	.2	129.4	110.9	95.1	63.6

+ 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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## No. 20 1971-2000

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**COOP ID: 500302**

**Climate Division: AK 5**

**NWS Call Sign:**

**Elevation: 495 Feet**

**Lat: 61° 37N**

**Lon: 149° 20W**

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	7/02	6/25	6/20	6/16	6/12	6/08	6/04	5/30	5/23
32	6/17	6/11	6/06	6/02	5/30	5/26	5/22	5/18	5/11
28	5/25	5/19	5/15	5/11	5/07	5/04	4/30	4/26	4/20
24	5/11	5/04	4/29	4/25	4/21	4/17	4/12	4/07	3/31
20	4/27	4/21	4/17	4/13	4/10	4/07	4/03	3/30	3/24
16	4/26	4/18	4/12	4/07	4/02	3/29	3/24	3/18	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	8/11	8/16	8/21	8/24	8/27	8/30	9/03	9/07	9/13
32	8/25	8/31	9/05	9/09	9/13	9/17	9/21	9/26	10/02
28	9/07	9/13	9/18	9/22	9/25	9/29	10/03	10/07	10/13
24	9/19	9/24	9/28	10/01	10/05	10/08	10/11	10/15	10/20
20	10/01	10/06	10/09	10/12	10/15	10/18	10/20	10/24	10/28
16	10/09	10/13	10/17	10/19	10/22	10/24	10/27	10/30	11/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	104	94	87	81	75	69	63	56	46
32	134	124	117	111	106	100	94	87	78
28	171	160	153	146	140	134	127	120	109
24	195	185	178	172	166	161	155	148	138
20	212	204	197	192	187	182	177	171	162
16	232	221	214	208	202	196	189	182	172

\* 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](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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1971-2000**

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**NWS Call Sign:**

**Elevation: 495 Feet    Lat: 61°37N    Lon: 149°20W**

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	1510	1267	1200	860	582	352	254	328	552	973	1299	1461	10638
60	1355	1127	1045	710	427	205	115	179	402	818	1149	1306	8838
57	1271	1043	952	620	337	127	57	104	317	725	1059	1213	7825
55	1213	987	890	562	280	85	29	66	262	663	999	1151	7187
50	1068	856	736	423	155	20	3	13	146	514	849	996	5779
32	591	417	272	77	3	0	0	0	2	116	373	486	2337

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	104	74	95	207	444	638	769	696	441	167	64	48	3747
55	13	0	0	2	8	34	84	49	11	0	0	0	201
57	9	0	0	0	3	16	50	24	5	0	0	0	107
60	0	0	0	0	0	3	16	6	1	0	0	0	26
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	38	220	421	538	469	232	31	0	0	0	0	0	38	258	679	1217	1686	1918	1949	1949	1949
45	0	0	0	2	96	271	383	314	108	5	0	0	0	0	0	2	98	369	752	1066	1174	1179	1179	1179
50	0	0	0	0	32	135	231	167	26	0	0	0	0	0	0	0	32	167	398	565	591	591	591	591
55	0	0	0	0	2	41	92	55	0	0	0	0	0	0	0	0	2	43	135	190	190	190	190	190
60	0	0	0	0	0	3	18	7	0	0	0	0	0	0	0	0	0	3	21	28	28	28	28	28
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	17	125	225	275	233	98	7	0	0	0	0	0	17	142	367	642	875	973	980	980	980

(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/normals/usnormals.html](http://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](http://www.ncdc.noaa.gov/normals.html)

U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normals/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)