

# Climatology of the United States

No. 20

1971-2000

Station: ALYESKA, AK

COOP ID: 500243

Climate Division: AK 5

NWS Call Sign:

Elevation: 250 Feet Lat: 60° 58N Lon: 149° 08W

## 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	26.6	14.2	20.4	50	1995	3	37.2	1977	-30	1989	29	1.6	1971	1382	0	.0	.0	@	17.5	28.5	6.8
Feb	29.1	15.2	22.2	53	1970	7	35.7	1977	-24+	1999	5	7.6	1979	1200	0	.0	.0	@	15.1	25.9	4.8
Mar	36.0	19.4	27.7	57	1970	12	35.6	1981	-18	1971	7	16.6	1972	1157	0	.0	.0	.1	9.2	29.2	2.1
Apr	44.1	27.4	35.8	60+	1994	25	39.2	1990	-2	1985	2	27.9	1972	878	0	.0	.0	4.0	1.3	23.8	.1
May	53.1	35.5	44.3	74+	1996	14	49.0	1981	23	1971	15	38.9	1971	642	0	.0	.4	20.1	.0	6.2	.0
Jun	61.5	42.9	52.2	83	1967	17	55.8	1997	31	1978	7	47.9	1971	384	0	.0	3.7	28.8	.0	.2	.0
Jul	65.5	47.8	56.7	88	1972	7	60.0	1997	32	1967	26	54.0	1971	258	0	.0	6.8	30.9	.0	.0	.0
Aug	63.3	46.2	54.8	84	1968	7	57.8	1978	31	1984	29	52.0	1973	317	0	.0	4.1	30.9	.0	.1	.0
Sep	55.3	39.5	47.4	75	1999	3	52.3	1995	17+	1992	24	39.3	1992	528	0	.0	.1	24.1	.0	3.9	.0
Oct	42.4	29.2	35.8	57+	2001	5	41.9	1979	2	1985	31	27.1	1996	905	0	.0	.0	2.5	3.2	21.1	.0
Nov	32.4	20.2	26.3	51	1969	1	36.9	1976	-15	1968	30	14.2	1990	1162	0	.0	.0	.1	14.3	26.9	1.3
Dec	28.6	16.4	22.5	50+	1985	26	33.0	1985	-18+	1980	18	3.6	1980	1317	0	.0	.0	@	17.4	28.5	3.5
Ann	44.8	29.5	37.2	88	Jul 1972	7	60.0	Jul 1997	-30	Jan 1989	29	1.6	Jan 1971	10130	0	.0	15.1	141.5	78.0	194.3	18.6

+ 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: 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

001-A

# Climatology 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: ALYESKA, AK**

**COOP ID: 500243**

**Climate Division: AK 5**

**NWS Call Sign:**

**Elevation: 250 Feet Lat: 60°58N**

**Lon: 149°08W**

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	7.32	5.57	4.24	2001	15	28.34	1981	.75	1982	17.5	12.3	4.9	2.6	.91	1.49	2.52	3.54	4.62	5.82	7.22	8.94	11.28	15.12	18.84
Feb	5.17	4.95	3.00	1971	8	15.35	1980	.21	1979	13.9	10.1	3.2	1.3	.69	1.11	1.85	2.57	3.33	4.16	5.13	6.32	7.93	10.56	13.10
Mar	4.50	3.59	4.90	1995	17	11.39	1981	.87	1983	13.6	9.8	2.9	.9	.82	1.22	1.88	2.49	3.12	3.79	4.56	5.48	6.71	8.69	10.58
Apr	5.40	4.83	3.25	1976	27	13.92	1988	.78	1981	14.1	9.5	3.5	1.3	1.17	1.67	2.46	3.18	3.90	4.67	5.53	6.56	7.93	10.10	12.15
May	3.40	2.40	2.50	1971	13	12.18	1971	.64	1981	13.5	7.0	2.6	.9	.39	.66	1.13	1.61	2.11	2.67	3.33	4.15	5.26	7.10	8.88
Jun	2.22	2.21	1.68	2000	8	7.15	1987	.71	1976	10.0	5.9	1.2	.4	.60	.81	1.13	1.41	1.69	1.98	2.30	2.68	3.18	3.96	4.69
Jul	2.34	2.01	1.60	1981	15	5.15	1981	.57	1973	12.3	6.8	1.4	.2	.69	.92	1.25	1.54	1.82	2.11	2.44	2.81	3.30	4.07	4.78
Aug	4.31	4.25	3.04	2001	29	11.05	1981	1.22	1987	14.9	10.1	2.9	.8	1.35	1.76	2.36	2.88	3.39	3.91	4.48	5.16	6.02	7.37	8.62
Sep	8.18	8.66	5.00	1967	17	15.15	1995	1.00	1981	17.5	12.5	5.7	2.0	2.85	3.62	4.75	5.69	6.60	7.53	8.55	9.73	11.25	13.59	15.75
Oct	7.55	6.86	6.95	1970	31	19.46	1980	1.68	1997	17.2	12.7	4.9	1.9	2.10	2.82	3.91	4.86	5.78	6.75	7.82	9.09	10.74	13.32	15.73
Nov	6.50	5.35	3.68	1979	29	20.25	1976	.45	1975	15.9	10.8	4.2	1.7	.86	1.39	2.32	3.22	4.17	5.22	6.44	7.94	9.97	13.29	16.50
Dec	7.61	6.69	5.30	2001	26	16.54	1986	.49	1972	19.4	14.1	5.7	2.4	1.45	2.13	3.24	4.27	5.32	6.45	7.73	9.27	11.32	14.61	17.74
Ann	64.50	67.62	6.95	Oct 1970	31	28.34	Jan 1981	.21	Feb 1979	179.8	121.6	43.1	16.4	37.64	42.45	48.83	53.81	58.33	62.78	67.46	72.71	79.18	88.77	97.24

+ 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

# 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](http://www.ncdc.noaa.gov)

**Station: ALYESKA, AK**

**COOP ID: 500243**

**Climate Division: AK 5**

**NWS Call Sign:**

**Elevation: 250 Feet**

**Lat: 60°58N**

**Lon: 149°08W**

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	31.3	23.0	25	25	26.0	2000	27	126.5	2000	74	2000	31	49	1989	9.8	8.1	4.1	1.8	.5	27.5	26.7	25.8	23.5
Feb	29.5	21.8	31	30	29.0	2000	1	70.0	1992	89	2000	2	53+	1999	7.2	6.1	3.4	2.0	.5	24.5	23.8	23.6	23.0
Mar	30.8	25.5	34	32	23.0	1995	17	88.1	1999	79	1999	19	70	1999	7.5	6.4	3.6	2.1	.7	28.1	28.0	27.2	26.0
Apr	12.2	8.5	26	22	12.0	1976	3	49.0	1971	70	1999	11	59	1999	4.2	3.5	1.8	.7	@	24.7	24.0	23.2	22.1
May	.2	.0	2	0	3.0	1985	14	3.0	1985	42+	1999	1	16	1999	.1	.1	@	.0	.0	3.9	3.8	3.5	2.7
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
Oct	12.4	6.5	1	1	22.0	1996	13	57.0	1999	32+	1999	28	11	1996	3.3	2.6	1.3	.6	.2	6.0	3.4	2.5	1.6
Nov	27.3	26.5	7	5	29.0	1987	13	77.0	1994	35	1994	21	22	1994	7.4	5.9	3.1	1.9	.5	18.5	14.6	11.9	8.8
Dec	45.9	31.5	20	18	31.0	1996	1	129.0	1991	57+	1998	16	45	1987	11.1	9.3	5.3	3.2	1.1	25.6	24.9	23.6	19.4
Ann	189.6	143.3	N/A	N/A	31.0	Dec 1996	1	129.0	Dec 1991	89	Feb 2000	2	70	Mar 1999	50.6	42.0	22.6	12.3	3.5	158.8	149.2	141.3	127.1

+ 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

Complete documentation available from:

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

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: ALYESKA, AK**

**COOP ID: 500243**

**Climate Division: AK 5**

**NWS Call Sign:**

**Elevation: 250 Feet**

**Lat: 60° 58N**

**Lon: 149° 08W**

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	6/19	6/13	6/10	6/07	6/04	6/01	5/28	5/25	5/19
32	6/02	5/29	5/25	5/22	5/19	5/17	5/14	5/10	5/05
28	5/11	5/07	5/04	5/01	4/28	4/26	4/23	4/19	4/15
24	4/29	4/25	4/22	4/19	4/16	4/13	4/11	4/07	4/03
20	4/21	4/17	4/13	4/10	4/07	4/04	4/01	3/29	3/24
16	4/20	4/13	4/09	4/05	4/01	3/28	3/24	3/20	3/13
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	8/22	8/28	9/01	9/05	9/08	9/12	9/15	9/20	9/26
32	9/11	9/15	9/18	9/21	9/24	9/26	9/29	10/02	10/06
28	9/17	9/22	9/25	9/28	10/01	10/04	10/07	10/10	10/15
24	10/01	10/05	10/09	10/12	10/15	10/18	10/21	10/24	10/29
20	10/09	10/14	10/17	10/20	10/23	10/25	10/28	11/01	11/05
16	10/17	10/22	10/27	10/30	11/03	11/06	11/10	11/14	11/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	120	112	106	101	96	91	86	80	72
32	147	140	135	130	126	122	118	113	106
28	175	168	163	159	155	151	147	142	135
24	202	195	189	185	181	177	173	167	160
20	218	211	206	202	198	194	190	185	178
16	243	234	227	221	215	209	203	196	187

\* 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)

**Climatology  
of the United States  
No. 20  
1971-2000**

**Station: ALYESKA, AK**

**COOP ID: 500243**

**Climate Division: AK 5      NWS Call Sign:      Elevation: 250 Feet    Lat: 60°58N    Lon: 149°08W**

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	1382	1200	1157	878	642	384	258	317	528	905	1162	1317	10130
60	1233	1060	1002	728	487	238	122	170	379	750	1012	1162	8343
57	1147	976	909	638	394	159	64	98	293	657	922	1069	7326
55	1089	923	847	578	334	114	35	61	239	595	862	1008	6685
50	945	793	693	429	196	37	5	11	126	442	720	859	5256
32	491	367	228	50	2	0	0	0	1	67	272	381	1859

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	132	91	94	162	383	606	765	706	463	185	100	87	3774
55	17	3	0	0	2	30	88	55	11	0	0	0	206
57	13	0	0	0	1	15	54	29	5	0	0	0	117
60	6	0	0	0	0	4	19	8	1	0	0	0	38
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	8	143	366	510	455	224	22	0	0	0	0	0	8	151	517	1027	1482	1706	1728	1728	1728
45	0	0	0	0	44	218	355	301	100	1	0	0	0	0	0	0	44	262	617	918	1018	1019	1019	1019
50	0	0	0	0	8	93	200	154	25	0	0	0	0	0	0	0	8	101	301	455	480	480	480	480
55	0	0	0	0	0	23	74	44	0	0	0	0	0	0	0	0	0	23	97	141	141	141	141	141
60	0	0	0	0	0	1	13	2	0	0	0	0	0	0	0	0	0	1	14	16	16	16	16	16
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	4	66	174	242	211	83	0	0	0	0	0	0	4	70	244	486	697	780	780	780	780

(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)