

# Climatology of the United States No. 20

Station: TALKEETNA AP, AK

1971-2000

COOP ID: 508976

Climate Division: AK 5

NWS Call Sign: TKA

Elevation: 345 Feet

Lat: 62° 19N

Lon: 150° 06W

## 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	19.6	2.3	11.0	45+	2001	19	28.7	1981	-48+	1972	11	-7.4	1971	1676	0	.0	.0	.0	25.2	30.9	13.4
Feb	25.7	5.0	15.4	51	1991	27	29.5	1997	-45	1999	4	-4.1	1990	1391	0	.0	.0	.1	19.0	28.1	11.0
Mar	34.0	11.1	22.6	54	1997	26	33.0	1984	-43	1956	1	9.8	1972	1317	0	.0	.0	.5	12.0	30.7	7.3
Apr	44.6	23.9	34.3	69	1958	27	38.9	1995	-16+	1986	1	24.2	1985	923	0	.0	.0	8.1	1.7	27.2	.9
May	56.7	34.9	45.8	82	1958	31	50.0	1981	9	1964	9	40.2	1971	596	0	.0	1.9	25.8	.0	11.5	.0
Jun	65.4	45.1	55.3	91+	1969	14	59.3	1990	30+	1985	2	52.3	1972	293	1	.0	9.6	29.5	.0	.2	.0
Jul	67.9	49.9	58.9	90	1956	14	63.1	1997	35+	1965	2	56.3	1981	193	4	.0	12.6	31.0	.0	.0	.0
Aug	64.6	46.5	55.6	85+	1977	21	59.2	1977	25	1974	23	52.1	1973	294	0	.0	8.0	30.9	.0	.4	.0
Sep	55.1	37.3	46.2	78	1957	5	52.5	1995	11	1992	26	37.3	1992	563	0	.0	.6	24.1	.0	7.3	.0
Oct	39.1	23.6	31.4	68	1954	1	37.4	1979	-21	1956	31	23.0	1982	1043	0	.0	.0	2.9	5.9	25.1	1.3
Nov	25.6	9.4	17.5	50	1981	10	28.0	1976	-41	1956	17	4.7	1990	1425	0	.0	.0	@	21.8	29.4	8.6
Dec	21.2	4.8	13.0	54	1996	24	25.3	1985	-53	1961	28	-4.2	1980	1613	0	.0	.0	@	25.9	30.8	12.2
Ann	43.3	24.5	33.9	91+	Jun 1969	14	63.1	Jul 1997	-53	Dec 1961	28	-7.4	Jan 1971	11327	5	.0	32.7	152.9	111.5	221.6	54.7

+ 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: 1949-2001

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

043-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: TALKEETNA AP, AK**

**COOP ID: 508976**

**Climate Division: AK 5**

**NWS Call Sign: TKA**

**Elevation: 345 Feet Lat: 62°19N**

**Lon: 150°06W**

#### 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	1.45	1.18	1.56	1990	16	4.20	1993	.00	1974	9.3	4.3	.7	.0	.09	.23	.46	.67	.90	1.14	1.43	1.79	2.27	3.06	3.83	
Feb	1.28	.92	1.65	1962	20	4.31	1990	.00	1979	8.0	3.4	.6	.1	.13	.28	.50	.68	.87	1.07	1.30	1.58	1.94	2.53	3.09	
Mar	1.26	.92	1.81	1963	7	3.94	1990	.06	1987	9.0	3.9	.3	.1	.12	.21	.38	.55	.74	.96	1.21	1.53	1.97	2.70	3.41	
Apr	1.22	.90	2.50	1966	17	4.51	1977	.12	1981	7.8	3.4	.6	.1	.12	.21	.38	.55	.73	.94	1.18	1.48	1.90	2.59	3.26	
May	1.64	1.35	1.17	1952	4	3.86	1998	.38	1974	12.1	5.6	.4	.0	.54	.70	.93	1.12	1.31	1.50	1.71	1.96	2.28	2.78	3.23	
Jun	2.41	2.23	1.58	1955	11	5.73	1980	.49	1991	13.5	6.2	1.4	.2	.70	.93	1.27	1.57	1.86	2.16	2.50	2.89	3.40	4.20	4.95	
Jul	3.24	3.02	2.12	1981	10	8.74	1981	1.08	1977	15.3	8.6	1.9	.2	.97	1.28	1.74	2.14	2.52	2.92	3.37	3.88	4.56	5.60	6.58	
Aug	4.53	4.43	2.47	1999	12	8.53	1989	1.02	1978	17.1	9.9	2.9	.8	1.50	1.93	2.56	3.10	3.61	4.14	4.72	5.40	6.28	7.63	8.88	
Sep	4.35	3.43	2.33	1985	14	10.22	1990	1.51	1973	16.7	9.7	2.6	.8	1.27	1.68	2.30	2.84	3.36	3.91	4.51	5.22	6.14	7.58	8.91	
Oct	3.06	2.63	3.79	1986	10	9.98	1986	1.03	1998	13.0	8.0	1.5	.3	.97	1.27	1.69	2.06	2.42	2.78	3.19	3.66	4.27	5.21	6.09	
Nov	1.78	1.37	1.69	1964	18	7.04	1979	.07	1975	10.7	5.0	.9	.2	.11	.21	.43	.67	.95	1.27	1.66	2.16	2.85	4.03	5.21	
Dec	1.96	1.68	2.16	1967	29	6.16	1990	.18	1995	12.0	5.7	1.0	.2	.25	.40	.68	.95	1.24	1.56	1.94	2.40	3.02	4.05	5.04	
Ann	28.18	26.23	3.79	Oct 1986	10	10.22	Sep 1990	.00+	Feb 1979	144.5	73.7	14.8	3.0	19.30	20.99	23.17	24.84	26.32	27.76	29.26	30.91	32.92	35.85	38.40	

+ 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: 1949-2001

(3) Derived from 1971-2000 daily data

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Elevation: 345 Feet

Lat: 62° 19N

Lon: 150° 06W

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	17.9	14.3	21	22	19.7	1990	16	45.2	1991	53	1990	22	39	1991	7.8	4.6	2.0	.9	.4	27.2	26.0	25.1	23.4
Feb	17.0	11.6	27	27	19.5	1996	10	59.2	1990	63	1990	27	47+	1993	7.0	4.0	1.9	1.2	.3	25.5	25.5	25.1	23.2
Mar	17.4	15.1	28	28	16.6	1990	1	49.7	1976	79	1990	7	58	1990	7.8	4.3	1.8	.8	.2	27.8	27.8	26.9	26.4
Apr	8.8	5.1	19	19	12.5	1972	12	24.8	1983	51	1990	1	38	1972	4.4	2.8	1.0	.4	@	26.7	25.4	24.1	20.1
May	.8	.0	1	0	5.1	1986	10	9.4	1985	33	1972	1	10+	1985	.4	.3	.1	@	.0	4.5	3.8	3.2	2.0
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	.5	.0	#	0	5.1	1992	30	6.8	1992	1	1972	28	0	0	.3	.2	@	@	.0	@	.0	.0	.0
Oct	12.8	13.4	1	1	14.5	1996	30	29.1	1996	11+	1997	31	6	1973	5.0	3.3	1.6	.7	.2	8.3	5.1	2.3	.6
Nov	19.5	21.2	8	8	13.2	1992	22	45.0	1974	23	1996	6	19	1982	8.9	4.8	2.2	1.2	.2	23.7	22.8	17.7	7.2
Dec	21.7	19.6	15	16	14.3	1991	14	73.8	1990	46	1978	21	36	1978	9.2	5.3	2.6	1.4	.1	25.8	24.2	23.9	17.7
Ann	116.4	100.3	N/A	N/A	19.7	Jan 1990	16	73.8	Dec 1990	79	Mar 1990	7	58	Mar 1990	50.8	29.6	13.2	6.6	1.4	169.5	160.6	148.3	120.6

+ 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

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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	6/20	6/15	6/12	6/09	6/06	6/04	6/01	5/28	5/24
32	6/03	5/31	5/28	5/26	5/24	5/22	5/20	5/18	5/15
28	5/21	5/18	5/15	5/13	5/10	5/08	5/06	5/03	4/29
24	5/11	5/06	5/03	5/01	4/28	4/25	4/23	4/19	4/15
20	4/30	4/26	4/24	4/21	4/19	4/17	4/15	4/12	4/08
16	4/22	4/18	4/16	4/13	4/11	4/09	4/07	4/04	3/31
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	8/16	8/20	8/23	8/25	8/28	8/30	9/01	9/04	9/08
32	8/24	8/29	9/02	9/06	9/09	9/12	9/15	9/19	9/24
28	9/08	9/13	9/17	9/20	9/23	9/26	9/29	10/03	10/08
24	9/16	9/21	9/24	9/26	9/29	10/01	10/04	10/07	10/11
20	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/25
16	10/05	10/09	10/12	10/15	10/17	10/20	10/22	10/25	10/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	101	95	90	86	82	78	74	69	62
32	126	119	114	110	107	103	99	94	88
28	157	149	144	139	135	130	126	120	113
24	173	166	161	157	153	149	145	140	133
20	195	187	182	178	173	169	165	159	152
16	207	201	196	192	188	185	181	176	170

\* 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	1676	1391	1317	923	596	293	193	294	563	1043	1425	1613	11327
60	1521	1251	1162	773	441	158	73	153	415	888	1275	1458	9568
57	1428	1167	1069	683	350	95	28	89	329	795	1185	1365	8583
55	1366	1111	1007	623	293	62	12	56	275	733	1125	1303	7966
50	1225	973	852	477	167	15	0	12	160	579	975	1148	6583
32	725	519	357	93	3	0	0	0	3	145	487	621	2953

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	72	52	64	160	430	698	834	729	430	126	52	31	3678
55	0	0	0	0	7	70	132	73	12	0	0	0	294
57	0	0	0	0	3	43	87	43	6	0	0	0	182
60	0	0	0	0	0	16	38	15	2	0	0	0	71
65	0	0	0	0	0	1	4	0	0	0	0	0	5
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	11	199	468	597	493	212	13	0	0	0	0	0	11	210	678	1275	1768	1980	1993	1993	1993
45	0	0	0	0	84	319	442	339	94	0	0	0	0	0	0	0	84	403	845	1184	1278	1278	1278	1278
50	0	0	0	0	28	177	287	187	20	0	0	0	0	0	0	0	28	205	492	679	699	699	699	699
55	0	0	0	0	3	70	140	65	0	0	0	0	0	0	0	0	3	73	213	278	278	278	278	278
60	0	0	0	0	0	13	42	13	0	0	0	0	0	0	0	0	0	13	55	68	68	68	68	68
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	12	122	247	308	249	97	2	0	0	0	0	0	12	134	381	689	938	1035	1037	1037	1037

(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:  
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## 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)