U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: KITOI BAY, AK **COOP ID: 504812**

Climate Division: AK 2 **NWS Call Sign:** **Elevation: 15 Feet** **Lat: 58˚11N** **Lon: 152˚21W**

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	33.7	22.4	28.1	50	1973	10	36.9	1977	-20	1989	28	18.1	1971	1145	0	.0	.0	@	10.6	24.9	.9
Feb	34.4	22.2	28.3	54+	1997	17	37.8	1997	-6	1999	6	19.6	1999	1027	0	.0	.0	@	8.0	22.5	.7
Mar	38.6	24.2	31.4	56	1996	5	38.6	1998	-6+	1972	11	20.7	1972	1027	0	.0	.0	.5	3.9	24.5	.4
Apr	43.1	29.0	36.1	62	1965	15	39.8	1998	2	1985	12	29.0	1972	869	0	.0	.0	3.0	.7	19.1	.0
May	49.6	35.3	42.5	78	1968	12	48.6	1997	19	1965	3	36.2	1971	700	0	.0	.4	12.6	.0	7.1	.0
Jun	55.7	42.1	48.9	87	1997	27	53.5	1997	28	1973	7	44.2	1972	484	0	.0	1.6	24.9	.0	.3	.0
Jul	60.8	47.1	54.0	82+	1989	2	57.4	1979	35	1966	17	51.4	1978	343	0	.0	4.1	30.5	.0	.0	.0
Aug	62.3	47.4	54.9	83+	1994	9	57.0	1997	32	1994	28	52.0	1992	315	0	.0	4.5	30.8	.0	@	.0
Sep	55.8	41.9	48.9	71	1996	3	52.3+	1997	25+	1992	26	45.5	1992	485	0	.0	.1	27.9	.0	1.7	.0
Oct	45.8	32.6	39.2	65	1969	3	42.8	1979	10	1996	24	35.1	1985	801	0	.0	.0	6.7	.6	15.1	.0
Nov	37.9	26.5	32.2	61	1972	28	39.5	2000	5	1963	26	25.0	1975	984	0	.0	.0	.5	5.4	22.9	.0
Dec	34.5	22.8	28.7	56	2000	20	36.9	2000	-12	1964	10	21.6	1979	1126	0	.0	.0	.1	10.4	25.9	.2
Ann	46.0	32.8	39.4	87	Jun 1997	27	57.4	Jul 1979	-20	Jan 1989	28	18.1	Jan 1971	9306	0	.0	10.7	137.5	39.6	164.0	2.2

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1954-2001

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

Issue Date: May 2005

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	6.85	5.96	3.00	1974	16	15.93	1981	2.18	2000
Feb	5.06	4.70	1.98	1982	2	9.99	1977	.69	1979
Mar	4.55	4.11	1.62	1998	17	9.23	1981	.57	1972
Apr	5.46	5.31	1.74	1996	4	9.82	1991	1.39	1972
May	5.76	5.53	2.17	1975	25	13.02	1971	1.81	1996
Jun	4.66	4.54	2.42	1969	8	13.28	1987	1.13	1997
Jul	3.72	3.46	3.30	1971	19	8.22	1971	1.32	1977
Aug	5.16	4.36	2.96	1972	21	11.30	1972	1.32	1994
Sep	6.88	7.14	2.75	1980	12	12.32	1995	1.45	1992
Oct	6.63	6.03	3.35	1957	22	12.14	1994	2.17	1982
Nov	5.82	5.17	2.44	1983	29	13.00	1983	1.01	1973
Dec	6.61	5.88	2.84	1985	11	17.41	1985	1.44	1974
Ann	67.16	66.50	3.35	Oct 1957	22	17.41	Dec 1985	.57	Mar 1972

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	19.6	13.4	4.8	1.5
Feb	17.2	11.4	3.1	.9
Mar	17.4	11.2	2.9	.5
Apr	19.0	13.1	4.0	.4
May	19.3	13.9	3.7	.7
Jun	16.3	10.2	3.4	.8
Jul	14.8	8.8	2.1	.6
Aug	15.0	9.9	3.8	1.2
Sep	17.9	12.2	5.1	1.6
Oct	18.4	11.7	5.3	1.6
Nov	17.6	11.5	4.0	1.1
Dec	19.2	13.8	4.8	1.4
Ann	211.7	141.1	47.0	12.3

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	2.10	2.76	3.73	4.56	5.37	6.20	7.12	8.21	9.60	11.78	13.80
Feb	1.63	2.11	2.82	3.42	4.01	4.61	5.27	6.05	7.04	8.59	10.03
Mar	1.26	1.69	2.35	2.92	3.48	4.06	4.71	5.48	6.47	8.04	9.49
Apr	2.54	3.01	3.67	4.21	4.70	5.20	5.73	6.33	7.10	8.25	9.28
May	1.91	2.45	3.25	3.93	4.59	5.27	6.01	6.87	7.98	9.71	11.30
Jun	1.61	2.05	2.69	3.23	3.75	4.28	4.86	5.54	6.41	7.75	8.98
Jul	1.40	1.74	2.24	2.66	3.05	3.46	3.90	4.40	5.05	6.05	6.96
Aug	1.62	2.11	2.83	3.46	4.06	4.69	5.37	6.18	7.21	8.83	10.33
Sep	2.95	3.57	4.44	5.15	5.82	6.49	7.21	8.04	9.09	10.68	12.12
Oct	2.79	3.40	4.24	4.93	5.59	6.24	6.95	7.77	8.80	10.38	11.80
Nov	1.58	2.13	2.97	3.71	4.43	5.19	6.03	7.02	8.32	10.35	12.25
Dec	1.71	2.33	3.29	4.14	4.97	5.85	6.83	7.99	9.50	11.89	14.13
Ann	52.67	55.59	59.26	62.01	64.43	66.74	69.11	71.70	74.82	79.30	83.12

\+ 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: 1954-2001
(3) Derived from 1971-2000 daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	12.5	9.2	3	2	11.0	1997	27	33.0	1972	23	1975	15	10	2000	7.3	4.0	1.5	.6	@	17.0	11.2	8.2	2.9
Feb	12.9	12.9	3	3	11.3	1972	14	35.8	1972	22	1972	15	13+	1990	6.9	4.2	1.5	.4	.1	15.6	11.5	8.3	4.2
Mar	8.5	5.4	3	1	15.0	1971	14	56.1	1971	29	1971	14	19	1972	4.4	2.8	1.0	.3	.1	12.0	8.8	6.7	4.5
Apr	3.9	.0	2	0	9.7	1982	19	27.2	1971	33	1971	16	19	1971	1.9	1.3	.5	.2	.0	6.0	4.7	4.0	2.8
May	.2	.0	#	0	2.5	1986	11	2.5	1986	12	1972	1	2+	1972	.1	.1	.0	.0	.0	.9	.5	.4	.1
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	1.0	.0	#	0	9.0	1985	29	12.1	1985	10	1985	29	2	1983	.6	.2	.1	.1	.0	1.0	.5	.3	@
Nov	5.7	4.3	#	0	12.0	1991	19	22.4	1991	13	1991	23	5	1989	3.9	2.1	.6	.2	@	5.8	3.7	2.8	.5
Dec	14.7	11.6	3	2	14.0	1988	3	42.5	1996	25	1988	4	12	1990	7.1	4.1	1.8	.8	.2	16.2	12.0	8.8	3.9
Ann	59.4	43.4	N/A	N/A	15.0	Mar 1971	14	56.1	Mar 1971	33	Apr 1971	16	19+	Mar 1972	32.2	18.8	7.0	2.6	.4	74.5	52.9	39.5	18.9

+ 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	6/21	6/16	6/12	6/09	6/06	6/04	6/01	5/28	5/23
32	6/03	5/29	5/25	5/21	5/18	5/15	5/12	5/08	5/02
28	5/23	5/15	5/10	5/05	5/01	4/26	4/22	4/16	4/09
24	5/03	4/25	4/19	4/14	4/09	4/05	3/31	3/25	3/17
20	4/24	4/16	4/10	4/05	3/31	3/26	3/21	3/15	3/07
16	4/21	4/09	3/31	3/23	3/16	3/09	3/02	2/21	2/09

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	8/29	9/04	9/08	9/12	9/15	9/18	9/22	9/26	10/02
32	9/15	9/19	9/22	9/25	9/27	9/30	10/03	10/06	10/10
28	9/27	10/01	10/05	10/07	10/10	10/13	10/16	10/19	10/24
24	10/16	10/21	10/24	10/27	10/30	11/02	11/05	11/09	11/14
20	10/24	10/30	11/04	11/08	11/11	11/15	11/18	11/23	11/29
16	10/27	11/07	11/15	11/21	11/27	12/03	12/10	12/18	12/28

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	123	115	109	104	100	95	90	84	76
32	152	145	140	136	131	127	123	118	110
28	190	180	173	167	162	156	150	143	134
24	232	222	215	209	203	198	191	184	174
20	256	245	237	230	224	218	211	203	192
16	309	291	277	266	255	244	233	220	201

***** 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)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1145	1027	1027	869	700	484	343	315	485	801	984	1126	9306
60	990	887	887	719	545	334	191	165	335	646	834	971	7504
57	897	803	794	629	453	250	110	90	248	553	744	878	6449
55	835	747	732	569	392	197	69	53	192	491	684	816	5777
50	689	607	581	420	251	92	11	7	81	337	534	661	4271
32	238	189	150	42	6	0	0	0	0	8	96	197	926

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	115	86	131	162	329	506	680	708	505	230	102	94	3648
55	0	0	0	0	2	13	36	48	8	0	0	0	107
57	0	0	0	0	0	6	15	22	3	0	0	0	46
60	0	0	0	0	0	0	3	5	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	10	112	285	447	470	281	58	8	0	0	0	0	10	122	407	854	1324	1605	1663	1671	1671
45	0	0	0	0	30	145	292	315	142	10	0	0	0	0	0	0	30	175	467	782	924	934	934	934
50	0	0	0	0	7	48	143	163	38	0	0	0	0	0	0	0	7	55	198	361	399	399	399	399
55	0	0	0	0	0	6	42	47	0	0	0	0	0	0	0	0	0	6	48	95	95	95	95	95
60	0	0	0	0	0	1	6	6	0	0	0	0	0	0	0	0	0	1	7	13	13	13	13	13
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	0	0	3	42	103	181	206	98	8	0	0	0	0	0	3	45	148	329	535	633	641	641	641

(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.
Compete 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 are 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

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

c. Snow Tables
1. Cooperative Summary of the Day

d. Freeze Data Table
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