

Climatology of the United States

No. 20

1971-2000

Station: PORT ALSWORTH, AK

COOP ID: 507570

Climate Division: AK 6

NWS Call Sign:

Elevation: 260 Feet

Lat: 60° 12N

Lon: 154° 18W

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	22.6	6.7	14.7	54+	1963	21	37.5	1977	-53	1973	15	-7.0	1971	1576	0	.0	.0	.2	17.6	27.7	11.5
Feb	25.2	7.0	16.1	54	1982	3	34.7	1977	-50+	1969	5	-2.0	1990	1369	0	.0	.0	.4	15.7	25.0	12.0
Mar	33.6	14.2	23.9	56	1970	1	36.7	1981	-50	1966	17	4.9	1972	1273	0	.0	.0	.5	10.7	27.1	7.8
Apr	43.7	26.1	34.9	64+	1995	30	41.8	1993	-18	1972	8	22.3	1972	903	0	.0	.0	7.6	2.8	23.4	1.6
May	54.8	36.8	45.8	81+	1997	26	50.7	1981	13+	1967	7	40.0	1971	596	0	.0	1.2	25.1	@	11.0	.0
Jun	63.4	44.5	54.0	86	1969	14	58.0	1997	20	1975	12	48.8	1975	331	0	.0	5.6	29.7	.0	1.7	.0
Jul	67.1	49.4	58.3	86+	1987	28	62.6	1997	25+	1974	11	55.4	1971	211	1	.0	11.7	31.0	.0	.3	.0
Aug	64.5	47.9	56.2	86	1968	6	59.2	1997	22	1966	5	53.2	1998	274	0	.0	7.3	30.9	.0	.7	.0
Sep	55.1	40.7	47.9	75	1963	8	52.3	1995	13	1983	26	39.7	1992	514	0	.0	.3	25.9	.0	5.4	.0
Oct	40.8	28.1	34.5	66	1963	3	41.1	1979	-7	1975	31	27.9	1982	948	0	.0	.0	4.5	4.5	21.2	.3
Nov	30.5	17.2	23.9	55	1986	2	34.7	2000	-24	1990	30	14.6	1977	1234	0	.0	.0	.6	14.3	25.6	4.0
Dec	25.0	10.2	17.6	53	1961	10	34.8	1985	-48	1968	3	1.1	1980	1469	0	.0	.0	@	17.4	27.0	10.3
Ann	43.9	27.4	35.7	86+	Jul 1987	28	62.6	Jul 1997	-53	Jan 1973	15	-7.0	Jan 1971	10698	1	.0	26.1	156.4	83.0	196.1	47.5

+ 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: 1960-2001

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

038-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: PORT ALSWORTH, AK

COOP ID: 507570

Climate Division: AK 6

NWS Call Sign:

Elevation: 260 Feet Lat: 60°12N

Lon: 154°18W

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	.79	.71	.90	1961	20	2.18	2000	.18	1983	8.5	2.7	.1	.0	.18	.25	.37	.47	.58	.69	.81	.96	1.15	1.46	1.75
Feb	.58	.44	.82	1981	6	2.46	1981	.04	1982	5.6	2.0	.1	.0	.07	.11	.19	.28	.36	.46	.57	.71	.89	1.20	1.50
Mar	.65	.51	.68	1973	8	2.28	1985	.00	1986	6.5	2.5	.1	.0	.04	.10	.21	.30	.40	.51	.64	.80	1.01	1.36	1.70
Apr	.48	.35	1.48	1977	21	2.99	1977	.03	1973	5.5	1.6	.1	.0	.03	.06	.11	.18	.25	.34	.45	.58	.77	1.09	1.41
May	.48	.32	1.16	1977	18	2.17	1977	.05	1994	5.0	1.7	.1	.0	.04	.07	.14	.21	.28	.36	.46	.59	.76	1.05	1.34
Jun	.92	.66	1.36	1982	6	3.23	1982	.02	1991	6.0	2.3	.3	.1	.04	.09	.20	.32	.46	.63	.83	1.10	1.48	2.12	2.77
Jul	1.40	1.23	1.06	1969	28	3.58	1982	.10	1997	8.7	4.4	.4	.0	.19	.31	.51	.70	.91	1.13	1.39	1.71	2.14	2.85	3.53
Aug	2.06	1.37	2.40	1967	13	9.80	1971	.44	1990	10.1	5.4	1.1	.2	.30	.47	.77	1.05	1.35	1.68	2.05	2.51	3.13	4.14	5.11
Sep	2.09	1.71	2.50	1961	10	5.17	1985	.42	1991	10.2	6.4	1.0	.1	.41	.59	.90	1.18	1.47	1.78	2.13	2.55	3.11	4.00	4.85
Oct	1.37	1.22	1.85	1961	2	3.79	1983	.14	1995	9.2	4.5	.4	.1	.21	.33	.53	.71	.91	1.12	1.37	1.67	2.07	2.73	3.36
Nov	1.25	1.13	1.60	1983	29	4.60	1979	.10	1975	10.2	3.7	.3	.1	.13	.22	.39	.57	.75	.96	1.21	1.52	1.94	2.64	3.32
Dec	1.08	.84	1.40	2001	26	4.02	1971	.07	1980	10.3	3.3	.3	.0	.17	.26	.42	.57	.72	.89	1.08	1.31	1.63	2.13	2.62
Ann	13.15	12.78	2.50	Sep 1961	10	9.80	Aug 1971	.00	Mar 1986	95.8	40.5	4.3	.6	6.03	7.18	8.78	10.07	11.28	12.48	13.78	15.25	17.11	19.92	22.45

+ 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: 1960-2001

(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

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Federal Building
151 Patton Avenue
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Station: PORT ALSWORTH, AK

COOP ID: 507570

Climate Division: AK 6

NWS Call Sign:

Elevation: 260 Feet

Lat: 60° 12N

Lon: 154° 18W

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	13.0	13.5	5	4	16.0	1972	6	28.3	2000	26	2000	22	21	2000	6.8	5.4	1.4	.4	.1	22.4	17.7	13.9	7.4
Feb	9.4	7.0	5	2	14.0	1972	1	47.0	1996	38	1990	27	26	1990	4.7	3.8	1.0	.3	.1	17.5	13.0	10.8	8.2
Mar	10.6	9.5	4	2	10.0	1994	26	39.5	1985	36	1990	8	24	1990	5.5	4.5	1.4	.3	@	18.7	12.8	9.3	4.4
Apr	5.1	3.0	1	0	6.0+	1987	16	26.0	1999	24	1972	15	19	1972	3.0	2.2	.5	.2	.0	6.8	4.9	3.5	1.8
May	.2	.0	#	0	1.5+	1984	4	2.5	1984	1	1984	4	0	0	.3	.1	.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	#	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	4.1	3.0	#	0	9.0	1982	28	22.0	1982	11	1982	28	3	1999	2.6	1.8	.3	.1	.0	3.9	1.1	.8	.1
Nov	13.7	11.0	2	2	19.0	1990	25	49.0	1994	28+	1994	21	18	1994	7.1	5.6	1.7	.4	.1	14.7	9.0	5.3	1.6
Dec	17.3	14.5	6	4	15.0	1971	17	72.1	1971	37	1990	12	26+	1994	7.4	6.0	1.8	.8	.2	21.6	16.1	12.1	7.8
Ann	73.4	61.5	N/A	N/A	19.0	Nov 1990	25	72.1	Dec 1971	38	Feb 1990	27	26+	Dec 1994	37.4	29.4	8.1	2.5	.5	105.6	74.6	55.7	31.3

+ 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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NWS Call Sign:

Elevation: 260 Feet

Lat: 60° 12N

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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	7/20	7/10	7/03	6/27	6/21	6/15	6/09	6/01	5/22
32	7/02	6/22	6/14	6/08	6/02	5/28	5/21	5/14	5/04
28	6/11	6/02	5/26	5/20	5/15	5/10	5/04	4/27	4/18
24	5/26	5/18	5/11	5/06	5/01	4/26	4/21	4/14	4/06
20	5/13	5/06	4/30	4/26	4/22	4/18	4/13	4/08	4/01
16	5/03	4/26	4/21	4/16	4/12	4/08	4/04	3/30	3/23
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	8/12	8/16	8/19	8/21	8/23	8/26	8/28	8/31	9/04
32	8/21	8/27	9/01	9/04	9/08	9/12	9/15	9/20	9/26
28	9/06	9/11	9/15	9/19	9/22	9/25	9/28	10/02	10/07
24	9/19	9/24	9/27	10/01	10/04	10/06	10/10	10/13	10/18
20	9/26	10/01	10/04	10/07	10/10	10/12	10/15	10/18	10/23
16	9/30	10/06	10/10	10/14	10/18	10/21	10/25	10/29	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	100	87	78	70	63	56	48	39	26
32	138	124	114	105	97	89	80	70	56
28	168	154	145	136	129	121	113	103	90
24	188	176	168	161	155	148	141	133	122
20	196	187	181	175	170	165	159	153	144
16	217	207	200	193	188	182	175	168	158

* 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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Lat: 60°12N

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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	1576	1369	1273	903	596	331	211	274	514	948	1234	1469	10698
60	1430	1239	1119	753	441	190	80	130	365	793	1084	1322	8946
57	1342	1162	1036	663	350	119	32	66	281	700	994	1234	7979
55	1285	1108	977	611	294	81	13	37	229	638	934	1176	7383
50	1143	978	832	472	166	21	0	5	121	485	785	1032	6040
32	691	559	390	120	4	0	0	0	1	83	306	567	2721

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	152	114	140	208	431	659	813	750	478	158	62	121	4086
55	33	19	14	8	7	50	113	74	15	0	0	17	350
57	28	16	11	0	2	27	70	41	7	0	0	13	215
60	23	10	0	0	0	9	25	11	2	0	0	8	88
65	0	0	0	0	0	0	1	0	0	0	0	0	1
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	1	1	0	21	173	398	542	479	236	35	6	0	1	2	2	23	196	594	1136	1615	1851	1886	1892	1892
45	0	0	0	1	66	251	387	325	115	7	0	0	0	0	0	1	67	318	705	1030	1145	1152	1152	1152
50	0	0	0	0	15	117	232	177	32	0	0	0	0	0	0	0	15	132	364	541	573	573	573	573
55	0	0	0	0	0	34	97	65	1	0	0	0	0	0	0	0	0	34	131	196	197	197	197	197
60	0	0	0	0	0	3	22	9	0	0	0	0	0	0	0	0	0	3	25	34	34	34	34	34
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	10	98	221	288	250	100	4	0	0	0	0	0	10	108	329	617	867	967	971	971	971

(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