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: EIELSON FIELD, AK **COOP ID: 502707**

Climate Division: AK 8 **NWS Call Sign:** **Elevation: 547 Feet** **Lat: 64˚40N** **Lon: 147˚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	-1.1	-17.0	-9.1	49	1981	15	19.4	1981	-64	1971	23	-31.8	1971	2298	0	.0	.0	.0	28.7	30.9	25.6
Feb	7.0	-13.3	-3.2	50	1980	11	15.0	1997	-57	1968	4	-24.9	1979	1910	0	.0	.0	@	25.7	28.2	21.5
Mar	24.4	-.9	11.8	56	1998	20	26.3	1981	-50	1956	1	-4.9	1972	1653	0	.0	.0	.5	21.8	30.8	16.6
Apr	42.8	20.8	31.8	74	1979	30	41.4	1993	-26	1950	3	18.8	1972	996	0	.0	.1	9.0	6.1	26.2	2.7
May	59.5	37.9	48.7	88	1960	24	54.7	1990	4+	1964	10	41.7	1992	505	0	.0	3.5	27.1	.1	6.1	.0
Jun	69.3	48.7	59.0	93	1969	15	62.9	1997	27+	1997	2	54.9	1978	195	15	.2	14.4	29.9	.0	.1	.0
Jul	71.7	51.9	61.8	92+	1993	15	66.4	1993	34	1999	1	56.7	1981	122	24	@	20.0	31.0	.0	.0	.0
Aug	65.5	46.8	56.2	91	1994	5	60.5	1977	22	1984	29	51.9	2000	282	9	.1	9.7	30.3	.0	.6	.0
Sep	54.1	35.5	44.8	82	1957	5	50.6	1995	5+	1992	27	32.5	1992	607	0	.0	1.2	20.9	.4	9.7	.0
Oct	30.5	16.2	23.4	68	1969	13	32.7	1979	-36	1975	31	11.3	1996	1290	0	.0	.0	2.1	17.4	28.6	4.1
Nov	9.7	-5.3	2.2	50+	1976	13	20.3	1979	-45	1990	30	-10.3	1975	1885	0	.0	.0	.1	27.7	29.8	19.9
Dec	1.8	-13.7	-6.0	48	1985	24	7.0	1985	-61	1961	28	-28.5	1980	2202	0	.0	.0	.0	29.6	31.0	25.3
Ann	36.3	17.3	26.8	93	Jun 1969	15	66.4	Jul 1993	-64	Jan 1971	23	-31.8	Jan 1971	13945	48	.3	48.9	150.9	157.5	222.0	115.7

\+ 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/normals/usnormals.html

(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

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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	.40	.30	1.18	1957	19	1.53	1977	.03	1998
Feb	.30	.18	.75	1966	11	1.18	1996	.00+	2000
Mar	.31	.23	.80	1963	24	1.32	1991	.01	1987
Apr	.21	.13	.61	1963	15	.91	1992	.00+	1991
May	.68	.58	.98	2000	24	1.92	2000	.02	1975
Jun	1.72	1.46	1.48	1989	24	4.12	1988	.33	1971
Jul	2.26	2.17	2.07	1967	24	4.21	1981	.56	1993
Aug	2.28	2.17	3.61	1967	12	5.13	2000	.68	1994
Sep	1.31	1.02	1.29	1954	16	3.71	1985	.18	1979
Oct	.92	.72	1.04	1996	12	3.41	1971	.22	1998
Nov	.63	.59	.74	1970	27	1.33	1994	.00	1983
Dec	.52	.32	.90	1984	17	3.00	1984	.04+	2000
Ann	11.54	11.29	3.61	Aug 1967	12	5.13	Aug 2000	.00+	Feb 2000

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	6.4	1.2	.0	.0
Feb	4.5	1.0	.1	.0
Mar	5.1	1.0	.0	.0
Apr	3.5	.6	.0	.0
May	6.3	2.2	.2	.0
Jun	10.6	4.8	.9	.1
Jul	13.2	6.8	1.2	.0
Aug	13.3	6.8	1.2	.1
Sep	10.7	4.0	.3	.0
Oct	11.0	3.2	.1	.0
Nov	9.1	2.3	.0	.0
Dec	7.7	1.5	.1	.0
Ann	101.4	35.4	4.1	.2

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	.06	.09	.15	.21	.27	.33	.40	.49	.61	.80	.99
Feb	.00	.00	.02	.07	.12	.18	.26	.36	.50	.75	1.00
Mar	.02	.04	.07	.11	.16	.22	.28	.37	.49	.70	.90
Apr	.00	.00	.03	.06	.09	.13	.18	.25	.35	.51	.67
May	.05	.10	.19	.28	.39	.51	.65	.83	1.08	1.50	1.91
Jun	.37	.52	.78	1.01	1.24	1.48	1.76	2.09	2.53	3.24	3.90
Jul	.87	1.08	1.38	1.63	1.86	2.10	2.36	2.67	3.05	3.64	4.18
Aug	.77	.98	1.30	1.57	1.82	2.09	2.38	2.72	3.15	3.83	4.45
Sep	.25	.36	.56	.73	.92	1.11	1.33	1.60	1.95	2.53	3.07
Oct	.20	.28	.42	.54	.66	.80	.94	1.12	1.35	1.72	2.07
Nov	.10	.18	.29	.37	.46	.55	.65	.77	.93	1.17	1.40
Dec	.03	.05	.11	.18	.26	.36	.47	.62	.83	1.19	1.56
Ann	7.79	8.50	9.42	10.12	10.75	11.36	11.99	12.69	13.54	14.79	15.87

\+ 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

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	8.9	7.4	15	13
Feb	6.8	5.3	16	14
Mar	6.4	5.6	15	15
Apr	3.1	1.1	5	4
May	1.2	.0	#	0
Jun	#	.0	0	0
Jul	.0	.0	0	0
Aug	#	.0	0	0
Sep	2.2	.4	#	0
Oct	13.3	11.8	2	2
Nov	14.0	12.2	8	7
Dec	10.1	8.1	12	11
Ann	66.0	51.9	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	10.5	1991	28	22.5	1991	42	1991	1	37	1991
Feb	10.9	1996	18	26.0	1996	35	1991	26	34	1991
Mar	5.5	1991	23	22.9	1991	39	1991	25	35	1991
Apr	13.9	1992	9	27.9	1992	35	1991	2	22	1985
May	8.4	1992	8	17.4	1992	6+	1992	8	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	13.8	1992	13	35.0	1992	10	1992	20	4	1992
Oct	7.4	1974	17	39.4	1971	13	1974	18	6	1974
Nov	9.3	1990	5	46.8	1990	24	1994	22	18	1994
Dec	12.9	1990	28	38.9	1984	33	1984	26	22	1974
Ann	13.9	Apr 1992	9	46.8	Nov 1990	42	Jan 1991	1	37	Jan 1991

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	7.6	2.5	.7	.3	@
Feb	6.5	2.1	.4	.2	@
Mar	6.0	2.0	.5	.1	.0
Apr	2.8	1.0	.2	.1	@
May	.6	.4	.1	.1	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	1.2	.5	.2	.1	@
Oct	10.5	4.6	1.1	.2	.0
Nov	10.1	4.7	1.3	.3	.0
Dec	8.4	3.1	.7	.3	.1
Ann	53.7	20.9	5.2	1.7	.1

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	28.0	27.8	27.7	21.7
Feb	27.0	26.3	25.6	21.3
Mar	27.3	26.1	24.6	22.1
Apr	13.4	11.0	9.7	7.4
May	.4	.1	.1	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	1.0	.6	.6	.1
Oct	16.8	12.4	7.6	1.7
Nov	26.2	24.8	19.3	9.2
Dec	27.7	27.4	26.5	15.6
Ann	167.8	156.5	141.7	99.1

+ 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

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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	6/14	6/09	6/05	6/02	5/30	5/27	5/24	5/20	5/15
32	5/26	5/22	5/19	5/17	5/15	5/12	5/10	5/07	5/03
28	5/17	5/13	5/10	5/07	5/05	5/02	4/29	4/26	4/22
24	5/05	5/01	4/28	4/25	4/23	4/21	4/19	4/16	4/12
20	4/29	4/25	4/22	4/20	4/18	4/15	4/13	4/10	4/06
16	4/24	4/21	4/18	4/16	4/14	4/12	4/09	4/07	4/03

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	8/17	8/21	8/23	8/25	8/27	8/29	8/31	9/03	9/06
32	8/25	8/28	8/31	9/02	9/04	9/06	9/09	9/11	9/15
28	8/30	9/05	9/08	9/12	9/15	9/18	9/22	9/26	10/01
24	9/14	9/19	9/22	9/25	9/28	9/30	10/03	10/07	10/11
20	9/23	9/27	9/30	10/02	10/04	10/07	10/09	10/12	10/16
16	9/28	10/02	10/05	10/07	10/09	10/12	10/14	10/17	10/21

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	109	102	97	93	89	85	80	75	68
32	128	122	118	115	112	109	105	101	96
28	154	147	142	137	133	128	124	119	111
24	178	170	165	161	157	153	148	143	136
20	184	179	175	172	169	166	163	159	154
16	196	190	185	181	178	174	171	166	160

***** 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	2298	1910	1653	996	505	195	122	282	607	1290	1885	2202	13945
60	2143	1770	1498	849	357	91	39	158	463	1135	1735	2047	12285
57	2050	1686	1405	764	273	48	13	102	380	1042	1645	1954	11362
55	1988	1630	1343	707	223	29	6	73	328	980	1585	1892	10784
50	1833	1490	1188	571	123	5	0	25	215	826	1435	1737	9448
32	1301	1012	669	199	5	0	0	0	16	338	913	1179	5632

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	26	27	39	192	523	810	925	750	400	71	18	0	3781
55	0	0	0	11	28	148	218	109	22	0	0	0	536
57	0	0	0	7	16	108	163	77	14	0	0	0	385
60	0	0	0	3	6	60	96	39	6	0	0	0	210
65	0	0	0	0	0	15	24	9	0	0	0	0	48
70	0	0	0	0	0	2	3	0	0	0	0	0	5

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	35	290	580	686	512	190	9	0	0	0	0	0	35	325	905	1591	2103	2293	2302	2302	2302
45	0	0	0	10	157	431	531	358	92	1	0	0	0	0	0	10	167	598	1129	1487	1579	1580	1580	1580
50	0	0	0	0	67	282	376	216	28	0	0	0	0	0	0	0	67	349	725	941	969	969	969	969
55	0	0	0	0	19	149	226	101	3	0	0	0	0	0	0	0	19	168	394	495	498	498	498	498
60	0	0	0	0	2	62	100	30	0	0	0	0	0	0	0	0	2	64	164	194	194	194	194	194
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	0	0	28	170	321	388	263	105	2	0	0	0	0	0	28	198	519	907	1170	1275	1277	1277	1277

(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.
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