

Climatography of the United States

No. 20

1971-2000

Station: JUNEAU INTL AP, AK

COOP ID: 504100

Climate Division: AK 1

NWS Call Sign: JNU

Elevation: 12 Feet

Lat: 58° 21N

Lon: 134° 35W

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	30.6	20.7	25.7	57	1958	6	37.6	1981	-22	1972	12	13.0	1971	1219	0	.0	.0	.1	14.8	24.1	3.0
Feb	34.3	23.5	28.9	57	1992	27	40.1	1977	-22	1968	2	11.0	1979	1010	0	.0	.0	.2	8.7	21.6	1.1
Mar	39.5	27.8	33.7	61	1998	21	39.6	1984	-15	1972	7	24.7	1974	973	0	.0	.0	.7	3.1	20.6	.4
Apr	48.1	33.4	40.8	72	1995	27	44.4	1993	6	1963	5	34.6	1972	728	0	.0	.1	11.2	@	12.0	.0
May	55.7	40.1	47.9	79	1964	29	52.1+	1993	25+	1972	1	43.5	1971	529	0	.0	1.3	25.2	.0	1.7	.0
Jun	61.6	46.1	53.9	86	1969	13	56.6	1997	31+	1971	3	50.2	1974	335	0	.0	4.7	29.4	.0	@	.0
Jul	64.3	49.2	56.8	90	1975	7	60.1	1989	36	1950	8	53.5	1974	257	0	@	7.2	31.0	.0	.0	.0
Aug	63.1	48.3	55.7	83+	1999	2	59.3	1994	31	1969	24	51.8	1973	288	0	.0	5.9	31.0	.0	.0	.0
Sep	56.1	43.8	50.0	73	1996	3	53.8	1995	23+	1972	26	46.8	1992	453	0	.0	.3	28.2	.0	1.2	.0
Oct	46.9	37.7	42.3	61+	1987	1	45.8	1993	11	1984	30	38.5	1971	704	0	.0	.0	8.8	.3	6.8	.0
Nov	37.6	28.9	33.3	56	1949	2	40.9	1976	-5	1966	21	22.3	1985	953	0	.0	.0	.6	5.8	17.5	@
Dec	33.0	24.4	28.7	54	1999	23	36.7	1997	-21	1949	31	18.9	1983	1125	0	.0	.0	.1	11.5	22.2	1.3
Ann	47.6	35.3	41.5	90	Jul 1975	7	60.1	Jul 1989	-22+	Jan 1972	12	11.0	Feb 1979	8574	0	@	19.5	166.5	44.2	127.7	5.8

+ 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: 1949-2001

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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	4.81	4.13	2.11	1966	15	10.13	1985	1.71	1978	19.4	12.2	2.6	.6	1.67	2.12	2.78	3.34	3.88	4.42	5.02	5.72	6.62	8.00	9.28	
Feb	4.02	3.51	2.71	1993	26	8.43	1996	.07	1989	16.2	10.1	2.1	.5	.67	1.02	1.61	2.16	2.73	3.34	4.05	4.91	6.06	7.92	9.69	
Mar	3.51	3.56	1.74	1992	10	6.50	1994	.59	1983	18.8	11.5	1.1	.2	1.23	1.56	2.04	2.44	2.83	3.23	3.66	4.17	4.81	5.81	6.73	
Apr	2.96	2.48	1.95	1991	11	7.48	1999	.87	1989	17.5	8.9	1.2	.2	1.09	1.37	1.77	2.10	2.42	2.75	3.10	3.51	4.03	4.84	5.58	
May	3.48	3.26	2.15	1992	3	9.20	1992	1.56	1977	17.1	9.8	1.5	.3	1.46	1.77	2.22	2.58	2.93	3.27	3.65	4.08	4.63	5.46	6.21	
Jun	3.36	3.25	2.26	1996	30	6.22	1996	1.10	1989	15.9	8.8	2.0	.3	1.53	1.82	2.23	2.57	2.88	3.19	3.52	3.90	4.39	5.11	5.77	
Jul	4.14	4.04	2.39	2001	22	10.36	1997	1.15	1972	16.7	10.3	2.5	.5	1.58	1.97	2.52	2.98	3.41	3.85	4.33	4.89	5.60	6.69	7.68	
Aug	5.37	5.57	2.52	1974	23	9.60	1991	.56	1979	18.1	12.0	3.5	.9	1.94	2.45	3.17	3.78	4.37	4.96	5.61	6.37	7.33	8.82	10.18	
Sep	7.54	7.27	3.35	1996	25	15.14	1991	2.40	1986	21.1	15.5	5.3	1.4	3.26	3.94	4.89	5.66	6.39	7.12	7.91	8.81	9.95	11.69	13.26	
Oct	8.30	7.91	3.47	1998	20	15.25	1974	3.55	1975	23.9	17.7	6.1	1.4	4.19	4.88	5.83	6.58	7.27	7.96	8.70	9.53	10.57	12.13	13.53	
Nov	5.43	5.46	3.18	1988	29	11.06	1993	1.15	1983	20.3	13.2	3.1	.9	1.62	2.13	2.90	3.57	4.22	4.90	5.64	6.51	7.65	9.42	11.06	
Dec	5.41	5.39	2.67	1999	27	13.61	1997	.49	1983	20.9	12.8	3.2	.7	1.40	1.91	2.69	3.39	4.07	4.79	5.59	6.53	7.77	9.72	11.54	
Ann	58.33	57.28	3.47	Oct 1998	20	15.25	Oct 1974	.07	Feb 1989	225.9	142.8	34.2	7.9	40.21	43.68	48.14	51.54	54.58	57.52	60.56	63.94	68.04	74.02	79.20	

+ 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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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	25.4	28.8	5	5	16.5+	1975	12	64.3	1982	32	1982	31	19	1972	9.8	6.5	3.0	1.8	.3	18.8	14.1	11.6	6.9
Feb	16.2	15.6	6	2	18.9	1993	3	37.2	1990	35	1982	22	28	1972	7.1	4.3	2.0	.9	.1	14.8	12.0	10.3	6.6
Mar	10.1	6.9	3	1	15.7	1971	6	42.7	1971	40	1972	10	21	1972	5.9	2.8	1.0	.4	.1	11.7	9.0	6.5	3.3
Apr	1.0	.2	#	0	3.3	1975	20	10.3	1972	9	1972	1	3	1972	1.4	.3	@	.0	.0	1.5	.9	.5	.0
May	#	.0	0	0	#	1971	8	.0	0	0	0	0	0	0	.0	.0	.0	.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	1.1	.0	#	0	5.3	1991	29	6.9	1971	5	1991	30	0	0	.7	.3	.1	.1	.0	.3	.2	.1	.0
Nov	11.7	4.6	1	0	17.1	1994	23	66.4	1994	21	1990	30	8	1975	4.9	2.9	1.3	.7	.1	5.6	3.7	3.0	.6
Dec	18.6	16.9	3	1	13.4	1980	7	45.8	1991	32	1975	15	18	1990	9.3	4.7	2.2	1.0	.3	13.4	9.1	7.0	2.6
Ann	84.1	73.0	N/A	N/A	18.9	Feb 1993	3	66.4	Nov 1994	40	Mar 1972	10	28	Feb 1972	39.1	21.8	9.6	4.9	.9	66.1	49.0	39.0	20.0

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-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	6/12	6/06	6/02	5/29	5/25	5/21	5/17	5/13	5/07
32	5/24	5/18	5/14	5/11	5/08	5/05	5/02	4/28	4/22
28	5/05	4/27	4/22	4/18	4/14	4/09	4/05	3/31	3/24
24	4/16	4/09	4/04	3/31	3/27	3/23	3/18	3/13	3/06
20	4/09	3/31	3/24	3/19	3/13	3/08	3/02	2/24	2/14
16	3/30	3/20	3/13	3/07	3/02	2/25	2/19	2/12	2/02
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	8/31	9/06	9/11	9/15	9/18	9/22	9/26	9/30	10/07
32	9/15	9/22	9/26	9/30	10/04	10/07	10/11	10/16	10/22
28	9/25	10/03	10/08	10/12	10/16	10/21	10/25	10/30	11/07
24	10/12	10/20	10/27	11/01	11/06	11/11	11/16	11/22	12/01
20	10/26	11/03	11/09	11/13	11/18	11/22	11/27	12/03	12/11
16	11/01	11/10	11/16	11/22	11/27	12/02	12/07	12/13	12/22
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	135	128	121	116	110	103	96	86
32	176	166	159	153	148	143	137	130	120
28	216	205	198	191	185	179	173	165	154
24	262	248	239	231	223	216	208	198	185
20	283	271	263	256	249	242	235	226	215
16	305	293	284	276	269	262	254	245	232

* 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)

Base	Heating Degree Days (1)												
	Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
65	1219	1010	973	728	529	335	257	288	453	704	953	1125	8574
60	1064	870	818	578	375	191	117	147	303	549	803	970	6785
57	975	786	725	488	286	115	59	82	216	456	713	877	5778
55	918	735	663	428	229	77	30	50	162	394	653	815	5154
50	774	604	510	281	112	17	3	8	57	243	514	671	3794
32	333	221	93	5	0	0	0	0	0	6	130	234	1022

Base	Cooling Degree Days (1)												
	Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
32	137	135	142	268	494	655	766	735	537	325	168	131	4493
55	9	6	0	0	10	42	83	71	9	0	0	0	230
57	4	0	0	0	4	20	50	42	4	0	0	0	124
60	0	0	0	0	0	5	15	13	0	0	0	0	33
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	2	71	255	425	527	496	308	114	13	3	0	0	2	73	328	753	1280	1776	2084	2198	2211	2214
45	0	0	0	13	115	275	372	341	163	26	0	0	0	0	0	13	128	403	775	1116	1279	1305	1305	1305
50	0	0	0	0	32	131	218	189	49	1	0	0	0	0	0	0	32	163	381	570	619	620	620	620
55	0	0	0	0	5	44	79	62	0	0	0	0	0	0	0	0	5	49	128	190	190	190	190	190
60	0	0	0	0	0	8	23	10	0	0	0	0	0	0	0	0	0	8	31	41	41	41	41	41
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	27	106	188	242	223	104	10	0	0	0	0	0	27	133	321	563	786	890	900	900	900

(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/normal/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