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

COOP ID: 504766

Lon: 156°39W

Station: KING SALMON AP, AK

Climate Division: AK 6 NWS Call Sign: AKN

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 90 70 50 32 32 0 22.8 8.0 15.4 53 1963 27 33.8 1977 -48 1989 28 -3.2 1971 1538 0 .0 .0 @ 17.6 27.6 10.8 Jan 23.8 7.4 15.6 57 1991 27 30.3 +2000 -41+1993 1 -1.9 1984 1384 0 .0 .0 .3 15.9 25.6 11.1 Feb Mar 32.0 15.1 23.5 55 1996 28 36.6 1984 -42 1971 13 1.5 1972 1286 0 .0 .0 .5 11.9 27.1 6.3 24.9 21.2 1985 Apr 41.3 33.1 65 1958 28 41.0 1993 -19 1956 6 957 0 .0 0. 5.3 4.3 24.2 1.0 May 52.1 34.8 43.5 80 1997 25 48.3 1993 13+ 1965 4 37.8 1971 667 0 .0 .7 19.3 .1 10.6 .0 42.2 1997 54.4 2.3 59.5 50.9 83 28 1983 29+1999 4 46.8 1972 425 0 .0 28.1 .0 .4 .0 Jun Jul 63.8 47.5 55.7 85 1971 11 59.8 33+ 1993 52.1 1982 290 6.1 30.8 1997 0 .0 .0 .0 .0 62.2 47.4 54.8 84 1968 5 57.6 1987 25 1984 31 51.4 1980 317 0 .0 4.2 30.9 .0 .3 .0 Aug 3 15 Sep 54.9 40.3 47.6 74 1974 52.5 1995 1983 26 41.0 1992 521 0 .0 .2 25.9 .0 5.5 .0 40.5 4 -12 25 27.3 1985 Oct 26.0 33.3 62 1967 39.5 1979 1983 984 0 .0 .0 4.9 5.6 21.5 .8 30.5 15.9 23.2 32.8 2000 -28 1988 22 12.6 1975 1254 0 .0 .0 .2 14.5 25.3 5.7 Nov 56 1986 1 Dec 25.1 9.3 17.2 48+ 1998 18 34.5 1985 -38 2001 19 1.6 1999 1481 0 .0 .0 .0 16.9 27.8 10.5 Jul Jul Jan Jan 42.4 26.6 34.5 85 1971 11 59.8 1997 -48 1989 28 -3.2 1971 11104 0 .0 13.5 146.2 86.8 195.9 46.2 Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: May 2005 027-A

(1) From the 1971-2000 Monthly Normals

Elevation: 49 Feet Lat: 58°41N

- (2) Derived from station's available digital record: 1955-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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Station: KING SALMON AP, AK

Climate Division: AK 6 NWS Call Sign: AKN Elevation: 49 Feet Lat: 58°41N Lon: 156°39W

										Pı	recipit	tation	(incl	nes)										
		Precipitation Totals Means/ Medians(1) Extremes									ean N of D	ays (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	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	1.03	.95	1.05	1987	8	2.38	1987	.25	1997	11.3	3.8	.1	.0	.33	.42	.57	.69	.81	.93	1.07	1.23	1.43	1.75	2.05
Feb	.72	.65	1.28	1969	24	2.26	1981	.11	1973	8.6	2.3	.2	.0	.13	.20	.30	.40	.50	.61	.73	.87	1.07	1.38	1.68
Mar	.79	.65	.83	1970	29	1.99	1977	.13	1997	9.8	2.7	.1	.0	.10	.16	.27	.38	.50	.63	.78	.96	1.21	1.62	2.02
Apr	.94	.87	1.21	1963	20	2.65	1975	.19	1992	11.2	3.5	.1	.0	.26	.34	.48	.60	.72	.84	.97	1.13	1.34	1.67	1.97
May	1.35	1.27	.98	1977	17	3.05	1998	.46	1979	12.8	4.6	.2	.0	.52	.64	.82	.97	1.11	1.26	1.41	1.59	1.82	2.17	2.49
Jun	1.70	1.61	.84	1999	7	3.04	1982	.50	1993	14.0	5.9	.3	.0	.74	.90	1.11	1.28	1.44	1.61	1.78	1.98	2.23	2.62	2.97
Jul	2.15	2.00	1.11	1988	12	5.08	1990	.74	1975	14.7	6.3	1.0	.1	.84	1.04	1.32	1.56	1.78	2.01	2.25	2.53	2.89	3.44	3.95
Aug	2.89	2.98	1.59	1994	3	4.73+	1995	1.05	1975	16.3	8.5	1.5	.1	1.53	1.76	2.08	2.33	2.56	2.79	3.03	3.31	3.65	4.16	4.61
Sep	2.81	2.69	1.67	1960	1	5.90	1989	.89	1984	16.9	8.0	1.1	.2	1.12	1.38	1.75	2.05	2.34	2.63	2.94	3.30	3.76	4.47	5.11
Oct	2.10	2.26	1.32	1958	14	3.96	1998	.03	1997	13.2	6.3	.8	.0	.50	.70	1.01	1.28	1.55	1.84	2.16	2.54	3.04	3.83	4.57
Nov	1.54	1.40	1.37	1985	9	3.35	1985	.13	1995	12.6	4.8	.4	.0	.36	.50	.73	.93	1.13	1.34	1.58	1.87	2.24	2.84	3.40
Dec	1.39	1.25	1.15	1984	1	3.65	1978	.14	1995	12.9	4.3	.3	.0	.31	.44	.64	.83	1.01	1.20	1.42	1.68	2.03	2.57	3.09
Ann	19.41	19.50	1.67	Sep 1960	1	5.90	Sep 1989	.03	Oct 1997	154.3	61.0	6.1	.4	14.16	15.19	16.49	17.48	18.35	19.19	20.06	21.01	22.17	23.85	25.29

⁺ Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] 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: 1955-2001

⁽³⁾ Derived from 1971-2000 daily data

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Climate Division: AK 6 NWS Call Sign: AKN Elevation: 49 Feet Lat: 58°41N Lon: 156°39W

										Snov	w (incl	hes)													
						Sno	ow To	tals									Mea	n Nui	mber	of Day	ys (1)				
	Mean	s/Medi	ians (1)	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	7.9	7.9	2	1	17.8	1993	26	26.9	1993	20	2000	17	15	2000	7.4	2.8	.4	.2	@	13.9	8.7	5.4	1.3		
Feb	4.8	4.4	2	1	5.7	1977	21	14.7	1971	16	2000	1	9	1975	6.0	1.6	.2	@	.0	14.1	8.6	5.1	.9		
Mar	5.7	4.6	2	1	11.0	1981	6	19.0	1977	15	1990	1	12	1975	7.1	2.2	.2	.1	@	13.6	7.5	5.7	2.2		
Apr	4.2	3.7	#	0	7.2	1999	10	11.5	1975	10+	1977	1	5	1975	5.6	1.6	.1	@	.0	4.9	1.5	.6	.2		
May	.8	.2	#	0	3.8	1985	12	6.1	1985	3	1985	12	0	0	1.4	.2	@	.0	.0	.1	@	.0	.0		
Jun	.1	.0	0	0	1.2	1972	2	1.3	1972	0	0	0	0	0	.1	@	.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	.4	1981	29	.5	1981	1	1981	29	0	0	.1	.0	.0	.0	.0	@	.0	.0	.0		
Oct	3.0	2.0	#	0	8.7	1983	21	15.7	1990	8	1998	25	1+	1998	2.8	1.1	.2	.1	.0	2.2	.5	.2	.0		
Nov	5.8	5.2	#	0	5.0	1979	16	15.6	1994	7	1988	30	5	1988	6.7	2.1	.3	@	.0	9.0	3.0	1.1	.0		
Dec	8.1	7.9	1	1	6.0	1993	9	23.7	1993	10+	1993	15	5	1993	8.0	2.6	.6	.1	.0	16.0	8.1	3.0	.1		
Ann	40.4	35.9	N/A	N/A	17.8	Jan 1993	26	26.9	Jan 1993	20	Jan 2000	17	15	Jan 2000	45.2	14.2	2.0	.5	@	73.8	37.9	21.1	4.7		

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

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] 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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Elevation: Lat: 58°41N **NWS Call Sign: AKN** 49 Feet Lon: 156°39W

				Freez	ze Data						
			Spri	ng Freeze D	ates (Month/	(Day)					
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)			
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	7/11	7/05	6/30	6/26	6/23	6/19	6/16	6/11	6/05		
32	6/13	6/08	6/04	6/01	5/29	5/26	5/23	5/19	5/14		
28	5/26	5/20	5/16	5/13	5/10	5/07	5/04	4/30	4/24		
24	5/10	5/06	5/02	4/29	4/27	4/24	4/21	4/17	4/13		
20	5/04	4/29	4/25	4/22	4/19	4/16	4/12	4/08	4/03		
16	4/26	4/21	4/17	4/14	4/11	4/08	4/05	4/01	3/27		
1		•	Fal	l Freeze Da	tes (Month/D	ay)	1	1	•		
Probability of earlier date in fall (beginning Aug 1) than indicated(*)											
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	8/11	8/17	8/22	8/25	8/29	9/01	9/05	9/09	9/15		
32	8/23	8/29	9/03	9/07	9/10	9/14	9/18	9/22	9/29		
28	9/06	9/11	9/15	9/19	9/22	9/25	9/28	10/02	10/08		
24	9/20	9/24	9/26	9/28	9/30	10/03	10/05	10/07	10/11		
20	9/28	10/02	10/04	10/06	10/08	10/10	10/12	10/15	10/18		
16	10/02	10/06	10/08	10/10	10/12	10/14	10/17	10/19	10/23		
•		-	1	Freeze F	ree Period	•			•		
Tomas (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)				
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	94	85	78	72	66	60	54	47	38		
32	131	122	115	109	103	98	92	85	76		
28	159	151	144	139	134	129	124	117	109		
24	174	168	164	160	156	153	149	144	138		
20	192	185	180	176	172	168	164	158	151		
16	203	196	192	187	184	180	176	171	165		

^{*} 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.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1538	1384	1286	957	667	425	290	317	521	984	1254	1481	11104		
60	1383	1244	1134	807	512	276	143	169	372	829	1104	1326	9299		
57	1305	1173	1051	721	420	194	74	97	286	736	1014	1242	8313		
55	1246	1119	992	667	363	144	42	61	233	674	954	1184	7679		
50	1100	987	848	527	226	55	5	11	122	521	805	1039	6246		
32	629	560	412	158	10	0	0	0	1	102	322	567	2761		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	115	100	150	191	366	566	733	706	470	141	59	110	3707
55	18	15	17	9	6	20	62	54	12	0	0	14	227
57	16	13	14	4	1	9	33	28	5	0	0	10	133
60	0	0	4	0	0	2	8	8	1	0	0	0	23
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	14	138	328	486	458	239	33	3	0	0	0	0	14	152	480	966	1424	1663	1696	1699	1699
45	0	0	0	0	46	182	331	305	118	5	0	0	0	0	0	0	46	228	559	864	982	987	987	987
50	0	0	0	0	9	71	181	154	34	0	0	0	0	0	0	0	9	80	261	415	449	449	449	449
55	0	0	0	0	0	10	59	47	1	0	0	0	0	0	0	0	0	10	69	116	117	117	117	117
60	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	5	8	8	8	8	8
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0	0	0	6	70	152	230	205	91	4	0	0	0	0	0	6	76	228	458	663	754	758	758	758

(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

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

- 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