

Climatography of the United States

No. 20

1971-2000

Station: AIKEN 4 NE, SC

COOP ID: 380074

Climate Division: SC 5

NWS Call Sign:

Elevation: 400 Feet

Lat: 33°36N

Lon: 81°41W

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 >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	57.7	33.4	45.6	82	1985	1	58.4	1974	-4	1985	21	37.0	1977	611	0	.0	.0	24.6	.2	15.2	@
Feb	62.7	35.8	49.3	88	1989	16	56.6	1990	9+	1995	9	41.3	1978	442	1	.0	.0	24.3	.2	12.0	.0
Mar	70.7	42.7	56.7	88+	1995	24	63.0	1997	14	1993	15	50.9	1981	283	24	.0	.0	30.2	@	5.9	.0
Apr	78.6	48.7	63.7	99	1986	28	68.3	1999	21	1987	4	58.0	1983	94	54	.0	1.6	30.0	.0	1.6	.0
May	85.1	57.5	71.3	101+	2000	27	75.6	2000	34+	1989	8	68.0	1997	17	212	.1	7.8	30.8	.0	.0	.0
Jun	90.9	65.8	78.4	108	1954	27	82.9	1998	42	1988	5	74.1	1972	0	400	1.8	18.3	30.0	.0	.0	.0
Jul	93.7	69.6	81.7	108	1986	21	86.1	1986	51	1988	7	78.0	1975	0	517	4.5	25.0	31.0	.0	.0	.0
Aug	91.7	68.5	80.1	109	1983	22	84.1	1987	52	1982	30	77.0	1981	0	469	1.7	21.5	31.0	.0	.0	.0
Sep	87.0	62.4	74.7	100+	1999	6	78.3	1980	37	1990	25	70.7	1981	3	295	@	10.7	30.0	.0	.0	.0
Oct	78.1	50.1	64.1	99	1954	5	70.6	1984	25+	2001	29	57.9+	1988	116	88	.0	.6	31.0	.0	1.3	.0
Nov	69.3	41.5	55.4	88	1961	2	64.2	1985	11	1950	25	49.8	1976	305	17	.0	.0	29.6	.0	7.0	.0
Dec	60.6	34.7	47.7	83	1956	13	57.2	1971	4+	1983	26	40.1	2000	542	4	.0	.0	26.3	.1	14.0	.0
Ann	77.2	50.9	64.1	109	Aug 1983	22	86.1	Jul 1986	-4	Jan 1985	21	37.0	Jan 1977	2413	2081	8.1	85.5	348.8	.5	57.0	@

+ 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: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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

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No. 20
1971-2000**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AIKEN 4 NE, SC

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Climate Division: SC 5

NWS Call Sign:

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Lon: 81°41W

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	5.38	4.77	3.50	1993	8	10.37	1993	1.08	1981	9.7	8.4	4.2	1.5	1.86	2.37	3.11	3.73	4.33	4.94	5.61	6.39	7.39	8.94	10.36
Feb	4.31	4.11	3.85	1994	24	8.82	1979	1.01	1978	7.6	6.3	3.0	1.6	1.21	1.62	2.24	2.78	3.31	3.86	4.47	5.19	6.13	7.60	8.98
Mar	5.34	4.59	3.75	1960	30	14.45	1980	1.07	1985	8.3	7.1	3.7	1.9	1.49	1.99	2.76	3.43	4.09	4.77	5.53	6.43	7.60	9.43	11.13
Apr	3.28	3.01	9.68	1969	16	9.49	1983	.69	1972	6.7	5.7	2.3	.9	.76	1.06	1.54	1.98	2.41	2.86	3.37	3.98	4.78	6.06	7.26
May	3.94	4.08	4.10	1998	8	8.01	1979	.35	2000	7.5	5.9	2.8	1.1	.85	1.21	1.79	2.31	2.84	3.40	4.03	4.79	5.79	7.38	8.89
Jun	5.45	5.25	4.10	1995	6	12.73	1973	.47	1993	8.7	7.4	3.7	1.9	1.50	2.01	2.80	3.49	4.16	4.86	5.64	6.56	7.76	9.65	11.40
Jul	4.96	4.55	3.62	1993	24	11.75	1984	.00	1980	9.7	8.2	3.8	1.5	1.42	2.13	2.92	3.53	4.10	4.67	5.28	5.99	6.89	8.26	9.52
Aug	5.28	4.84	4.48	1967	24	11.18	1992	.81	1980	9.2	7.9	3.1	1.5	1.59	2.09	2.84	3.49	4.12	4.77	5.49	6.33	7.42	9.13	10.71
Sep	4.24	4.19	4.79	1998	4	8.00	1993	.60	1991	7.0	6.0	2.7	1.3	.85	1.24	1.86	2.43	3.01	3.62	4.32	5.16	6.27	8.05	9.74
Oct	3.19	2.39	4.00+	1990	13	12.70	1990	.01	2000	5.5	4.7	2.0	1.0	.14	.30	.66	1.08	1.57	2.16	2.88	3.83	5.17	7.47	9.79
Nov	3.25	2.67	3.52	1985	22	11.51	1985	.74	1998	6.8	5.4	2.0	.9	.68	.98	1.46	1.89	2.33	2.79	3.32	3.95	4.78	6.10	7.36
Dec	3.81	3.04	2.90	1970	16	7.58	1981	.82	1988	8.4	6.7	2.8	1.0	1.15	1.52	2.06	2.52	2.98	3.45	3.97	4.57	5.36	6.59	7.73
Ann	52.43	53.01	9.68	Apr 1969	16	14.45	Mar 1980	.00	Jul 1980	95.1	79.7	36.1	16.1	40.49	42.88	45.90	48.16	50.16	52.07	54.03	56.18	58.77	62.49	65.68

+ 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: 1948-2001

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

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Lon: 81°41W

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	.4	.0	#	0	4.0	1992	19	4.0	1992	3+	2000	25	#+	2000	.2	.2	.1	.0	.0	.0	.0	.0	.0
Feb	1.0	.0	#	0	15.0	1973	10	15.0	1973	4	1979	19	#	1979	.2	.2	.1	.1	.1	.1	@	.0	.0
Mar	.0	.0	#	0	.5	1980	2	.5	1980	1	1980	3	#	1980	.1	.0	.0	.0	.0	.1	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.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	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	#	0	.0	0	0	.0	0	3	1993	23	#	1993	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	1.4	.0	N/A	N/A	15.0	Feb 1973	10	15.0	Feb 1973	4	Feb 1979	19	#+	Jan 2000	.5	.4	.2	.1	.1	.2	@	.0	.0

+ 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	5/05	4/29	4/25	4/21	4/18	4/14	4/11	4/06	4/01
32	4/20	4/15	4/11	4/08	4/05	4/02	3/30	3/27	3/22
28	4/04	3/28	3/22	3/18	3/14	3/10	3/05	2/28	2/21
24	3/27	3/19	3/13	3/08	3/03	2/26	2/21	2/15	2/06
20	3/07	2/27	2/22	2/17	2/13	2/08	2/03	1/29	1/21
16	2/26	2/16	2/09	2/02	1/27	1/20	1/11	12/25	0/00
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	10/05	10/09	10/12	10/15	10/17	10/20	10/22	10/26	10/30
32	10/12	10/18	10/23	10/27	10/31	11/03	11/07	11/12	11/19
28	10/25	10/31	11/04	11/08	11/12	11/15	11/19	11/24	11/30
24	11/09	11/16	11/21	11/25	11/29	12/03	12/07	12/12	12/19
20	11/22	11/30	12/06	12/11	12/16	12/21	12/26	1/01	1/09
16	12/08	12/19	12/27	1/03	1/10	1/17	1/27	2/13	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	203	196	190	186	182	178	173	168	161
32	232	224	218	212	208	203	198	192	183
28	272	262	254	248	242	236	230	223	213
24	303	292	284	277	271	264	257	249	238
20	338	323	315	308	303	297	291	285	275
16	>365	>365	>365	>365	342	328	319	309	298

* 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	Ann
65	611	442	283	94	17	0	0	0	3	116	305	542	2413
60	466	313	172	31	2	0	0	0	0	51	189	399	1623
57	386	242	120	12	0	0	0	0	0	27	134	319	1240
55	336	199	91	6	0	0	0	0	0	17	103	270	1022
50	229	114	38	1	0	0	0	0	0	4	44	170	600
32	22	2	0	0	0	0	0	0	0	0	0	8	32

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	443	485	765	950	1218	1390	1540	1492	1282	995	702	493	11755
55	43	38	142	266	505	700	827	779	592	299	115	42	4348
57	31	25	110	212	443	640	765	717	532	247	86	28	3836
60	19	12	68	141	352	550	672	624	442	178	51	16	3125
65	0	1	24	54	212	400	517	469	295	88	17	4	2081
70	0	0	7	12	104	256	362	314	160	32	4	0	1251

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	228	305	524	711	973	1158	1300	1252	1050	752	468	279	228	533	1057	1768	2741	3899	5199	6451	7501	8253	8721	9000
45	133	197	379	561	818	1008	1145	1097	900	597	333	170	133	330	709	1270	2088	3096	4241	5338	6238	6835	7168	7338
50	68	108	246	416	663	858	990	942	750	443	207	92	68	176	422	838	1501	2359	3349	4291	5041	5484	5691	5783
55	27	56	140	276	511	708	835	787	600	298	116	42	27	83	223	499	1010	1718	2553	3340	3940	4238	4354	4396
60	5	18	65	159	362	558	680	632	450	174	52	16	5	23	88	247	609	1167	1847	2479	2929	3103	3155	3171
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	154	212	351	471	645	775	866	852	712	504	320	194	154	366	717	1188	1833	2608	3474	4326	5038	5542	5862	6056

(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/normal/usnormals.html
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from 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 difference 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf