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: 058157

Lon: 104°03W

Station: TACONY 10 SE, CO

Climate Division: CO 1 NWS Call Sign:

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 100 90 50 32 32 0 45.1 14.3 29.7 76+ 1997 31 39.8 1986 -27 1963 12 17.3 1979 1094 0 .0 .0 12.1 5.6 30.6 3.4 Jan 50.9 19.1 35.0 78 1986 26 41.5 +2000 -23 1996 3 25.0 1989 840 0 .0 .0 16.5 3.3 26.9 1.5 Feb Mar 58.9 25.7 42.3 85 1971 26 48.1 1986 -18 1960 3 37.8 1984 704 0 .0 .0 24.5 .8 25.0 .2 33.5 57.2 2 44.3 1983 3 Apr 67.3 50.4 93+ 1992 30 1981 1 1975 440 .0 .1 27.7 13.0 .0 May 75.8 43.9 59.9 100 1996 18 65.1 1996 23 1967 1 54.5 1995 192 33 (a) 1.7 30.6 .0 1.7 .0 74.2 35+ 87.3 52.8 70.1 107 +1990 29 1981 1970 8 65.4 1995 25 175 1.8 12.9 30.0 .0 .0 .0 Jun Jul 91.9 58.2 75.1 107 3 78.6 43 1994 8 71.8 1990 0 311 3.2 20.5 31.0 0. 1969 1980 .0 .0 3 89.0 56.7 72.9 106 +1969 8 76.8 1983 40 1993 31 69.6 1992 247 .8 16.3 31.0 .0 .0 .0 Aug 7 79 Sep 81.7 47.9 64.8 102 1971 68.6 1998 24 +1985 29 61.7 1993 72 .2 6.0 29.8 .0 1.0 0. 5 29 48.5 1984 372 Oct 70.3 35.8 53.1 91+2000 3 56.3 1973 1991 1 .0 .2 29.7 .2 9.9 .0 54.9 23.4 39.2 82+ 1980 6 46.5 1999 -13 1955 16 32.0 1972 777 0 .0 .0 19.2 1.8 .4 Nov 26.1 Dec 46.6 16.2 31.4 77 1980 17 39.8 1980 -28 1990 22 20.5 1983 1042 0 .0 .0 12.6 4.5 30.3 2.6 Jun Jul Dec Jan 68.3 35.6 52.0 107 +1990 29 78.6 1980 -28 1990 22 17.3 1979 5568 842 6.0 57.7 294.7 164.5 8.1 16.4 Ann

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

Issue Date: February 2004 098-A

(1) From the 1971-2000 Monthly Normals

Elevation: 4,960 Feet Lat: 38°24N

- (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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COOP ID: 058157

Station: TACONY 10 SE, CO

Climate Division: CO 1 NWS Call Sign: Elevation: 4,960 Feet Lat: 38°24N Lon: 104°03W

										Pı	recipi	tation	(incl	nes)										
	Me	Precipitation Totals Means/ Medians(1) Extremes										ays (3	5)	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										
	Medi	ans(1)				Extreme	•			Daily Precipitation				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	.21	.18	.70	2001	16	.52	1979	.00	1995	2.9	.6	.0	.0	.01	.03	.06	.09	.13	.16	.20	.26	.33	.45	.57
Feb	.18	.09	.76	1987	15	1.38	1987	.00+	1992	2.1	.6	@	.0	.00	.00	.00	.03	.06	.10	.15	.22	.31	.47	.62
Mar	.54	.43	1.52	1990	6	2.59	1990	.03	1975	4.6	1.5	.2	@	.05	.08	.15	.23	.31	.40	.51	.65	.84	1.17	1.48
Apr	1.00	.90	2.18	1997	24	2.90	1980	.04	1981	5.6	2.5	.7	.2	.11	.18	.32	.46	.61	.78	.98	1.23	1.56	2.12	2.67
May	1.61	1.44	1.60	1963	16	3.39	1987	.47	1986	8.1	4.1	1.1	.1	.41	.56	.79	1.00	1.21	1.42	1.66	1.95	2.32	2.91	3.46
Jun	1.42	1.31	2.10	1979	24	4.43	1995	.10	1981	6.5	3.4	.7	.2	.15	.26	.46	.66	.87	1.11	1.39	1.73	2.21	2.99	3.75
Jul	1.99	1.79	2.30	2000	17	3.97	1984	.59	1983	8.3	4.2	1.0	.4	.54	.73	1.02	1.27	1.52	1.78	2.06	2.40	2.84	3.53	4.18
Aug	2.25	2.06	1.98+	1965	19	4.66	1994	.41	1971	8.3	4.9	1.4	.5	.55	.76	1.09	1.38	1.67	1.97	2.31	2.72	3.25	4.09	4.87
Sep	.93	.82	1.63	2001	17	2.88	1972	.07	1975	4.8	2.2	.5	.2	.09	.16	.28	.41	.56	.71	.90	1.14	1.46	1.99	2.52
Oct	.65	.46	1.40	1997	12	1.96	1997	.00	1988	3.5	1.6	.4	.1	.02	.06	.14	.23	.34	.46	.60	.79	1.05	1.49	1.92
Nov	.35	.25	.72	1957	2	1.26	1991	.00+	1995	3.0	1.2	.1	.0	.00	.00	.06	.12	.18	.25	.33	.44	.58	.83	1.07
Dec	.24	.20	.57	1979	22	1.13	1979	.00+	1995	2.6	.9	@	.0	.00	.00	.04	.08	.12	.17	.23	.30	.40	.57	.74
Ann	11.37	11.44	2.30	Jul 2000	17	4.66	Aug 1994	.00+	Dec 1995	60.3	27.7	6.1	1.7	7.14	7.92	8.94	9.73	10.44	11.13	11.86	12.67	13.67	15.13	16.41

⁺ 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 serially complete daily data

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COOP ID: 058157

Station: TACONY 10 SE, CO

Climate Division: CO 1 NWS Call Sign: Elevation: 4,960 Feet Lat: 38°24N Lon: 104°03W

										Snov	w (inc	hes)													
						Sn	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (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	4.3	3.5	1	1	8.0	1990	19	10.5+	1988	8	1990	19	4	1988	3.4	1.3	.4	.1	.0	7.2	3.8	.7	.0		
Feb	3.1	2.7	#	#	5.8	1990	20	8.7	1988	5	1990	20	1	1993	2.8	1.0	.2	@	.0	2.2	.6	@	.0		
Mar	5.0	5.3	#	#	10.0	1974	10	11.0	1974	7	1972	28	1	1998	2.8	1.5	.6	.2	@	1.2	.4	.1	.0		
Apr	3.8	2.0	#	#	11.0	1974	13	23.0	1994	8	1974	13	1	1994	1.4	1.0	.5	.2	@	.6	.2	.1	.0		
May	.8	.0	#	0	12.0	1990	3	12.0	1990	6	1990	3	#+	1990	.2	.1	.1	.1	@	.1	@	@	.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	#	1996	19	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Sep	.3	.0	#	0	3.2	1971	18	3.2	1971	2	1984	28	#+	1984	.2	.1	@	.0	.0	@	.0	.0	.0		
Oct	1.3	.0	#	0	7.0	1972	31	9.4	1991	8	1991	31	#+	1996	.6	.3	.2	.1	.0	.2	.1	.1	.0		
Nov	4.7	3.2	#	#	11.5	1985	14	17.1	1972	11	1985	14	2	1997	2.5	1.3	.5	.3	.1	3.2	1.2	.4	.1		
Dec	4.6	5.0	1	1	6.5	1991	31	13.7	1979	9	1979	28	3	1978	3.0	1.4	.7	.2	.0	6.6	2.4	.6	.0		
Ann	27.9	21.7	N/A	N/A	12.0	May 1990	3	23.0	Apr 1994	11	Nov 1985	14	4	Jan 1988	16.9	8.0	3.2	1.2	.1	21.3	8.7	2.0	.1		

⁺ 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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Climate Division: CO 1

NWS Call Sign:

Elevation: 4,960 Feet Lat: 38°24N Lon: 104°03W

				Freez	e 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(*)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	5/25	5/21	5/18	5/15	5/13	5/10	5/08	5/05	5/01							
32	5/19	5/14	5/11	5/09	5/06	5/04	5/01	4/28	4/24							
28	5/04	4/30	4/27	4/25	4/22	4/20	4/18	4/15	4/11							
24	4/22	4/19	4/17	4/15	4/13	4/11	4/09	4/06	4/03							
20	4/20	4/15	4/12	4/09	4/06	4/03	3/31	3/28	3/23							
16	4/11	4/04	3/30	3/25	3/21	3/17	3/13	3/08	3/01							
			Fal	l Freeze Da	tes (Month/D	ay)										
Tomp (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	9/14	9/18	9/21	9/23	9/25	9/28	9/30	10/03	10/06							
32	9/20	9/24	9/27	9/30	10/02	10/04	10/07	10/10	10/14							
28	9/26	10/01	10/05	10/08	10/11	10/14	10/17	10/20	10/25							
24	10/08	10/13	10/17	10/20	10/23	10/26	10/30	11/03	11/08							
20	10/20	10/24	10/27	10/30	11/02	11/04	11/07	11/11	11/15							
16	10/26	10/31	11/04	11/07	11/10	11/13	11/17	11/21	11/26							
				Freeze F	ree Period											
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	j.								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	154	147	143	139	135	131	127	122	116							
32	168	161	156	152	148	144	140	135	128							
28	187	181	177	174	171	168	164	160	155							
24	211	205	200	196	193	189	186	181	175							
20	226	220	216	212	209	206	202	198	193							
16	262	252	245	239	233	228	222	214	205							

^{*} 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	1094	840	704	440	192	25	0	3	79	372	777	1042	5568		
60	939	700	549	301	95	5	0	0	23	225	627	887	4351		
57	846	616	456	226	56	1	0	0	8	151	539	794	3693		
55	784	560	395	182	37	0	0	0	3	110	482	732	3285		
50	632	427	253	94	10	0	0	0	0	43	347	579	2385		
32	188	77	7	0	0	0	0	0	0	0	49	147	468		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	117	161	327	552	864	1141	1334	1267	984	652	262	128	7789
55	0	0	2	44	188	451	621	554	297	49	6	0	2212
57	0	0	1	29	145	392	559	492	241	28	3	0	1890
60	0	0	0	13	91	306	466	399	167	9	0	0	1451
65	0	0	0	3	33	175	311	247	72	1	0	0	842
70	0	0	0	0	7	78	163	114	21	0	0	0	383

	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 Se												Sep	Oct	Nov	Dec									
40	23	53	153	334	623	904	1089	1025	752	415	106	29	23	76	229	563	1186	2090	3179	4204	4956	5371	5477	5506
45	2	19	69	214	470	754	934	870	602	277	44	5	2	21	90	304	774	1528	2462	3332	3934	4211	4255	4260
50	0	0	25	112	326	604	779	715	453	157	12	0	0	0	25	137	463	1067	1846	2561	3014	3171	3183	3183
55	0	0	3	44	195	455	624	560	316	67	0	0	0	0	3	47	242	697	1321	1881	2197	2264	2264	2264
60	0	0	0	12	89	311	469	405	189	20	0	0	0	0	0	12	101	412	881	1286	1475	1495	1495	1495
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	50	92	169	273	408	561	683	648	481	320	123	56	50	142	311	584	992	1553	2236	2884	3365	3685	3808	3864

(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 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 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.

- 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. Snow Climatology
 - 2. 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

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