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: 422696

Lon: 112°05W

Station: FAIRFIELD, UT

Climate Division: UT 3 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 38.4 12.4 25.4 63 1987 27 33.3 1998 -29+ 1960 4 16.8 1984 1228 0 .0 .0 3.1 8.5 29.9 6.0 Jan 44.4 17.1 30.8 70 1972 28 38.9 1995 -36 1989 6 20.5 1984 959 0 .0 .0 7.5 2.9 26.7 2.8 Feb Mar 54.0 25.2 39.6 77 1986 28 45.1 1986 -11 1966 4 33.9 1984 789 0 .0 .0 19.7 .3 25.9 .1 52.2 1975 Apr 62.5 29.6 46.1 85+ 1992 26 1992 10 +1959 16 39.1 570 0 .0 .0 25.8 .0 19.3 0. May 72.0 37.0 54.5 91+ 1951 27 59.5 1992 16 1967 3 50.7 1995 328 4 .0 .2 30.6 .0 8.3 .0 82.5 44.0 1954 23 17 27 58.4 5.4 Jun 63.3 99+ 67.8 1988 1959 1993 110 57 .0 30.0 .0 1.4 .0 Jul 89.3 50.9 70.1 2000 31 73.0 32 1987 19 64.5 1993 11 .2 15.0 31.0 @ 0. 101 +1989 168 .0 1975 25 87.9 49.2 68.6 100 +1994 4 72.2 1994 27 1962 31 65.4 136 .1 11.8 31.0 .0 .3 .0 Aug Sep 79.2 39.9 59.6 97 2000 16 65.3 1990 16 1956 23 55.2 1971 190 26 .0 2.2 30.0 .0 6.2 0. 30 43.9 1984 Oct 66.5 29.7 48.1 88+ 1979 1 53.8 1988 4 1971 523 0 .0 .0 28.2 .1 21.1 .0 21.0 35.8 78 1950 6 40.9 1981 -20 1955 16 28.7 2000 876 0 .0 .0 15.0 1.5 26.9 .7 Nov 50.6 Dec 40.0 13.2 26.6 70 1995 1 32.8 1977 -29 1990 23 18.9 1990 1190 0 .0 .0 4.5 6.7 30.1 3.8 Jul Jul Feb Jan 63.9 30.8 47.4 101 +2000 31 73.0 1989 -36 1989 6 16.8 1984 6799 391 .3 34.6 256.4 20.0 196.1 13.4 Ann

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

Issue Date: February 2004 036-A

(1) From the 1971-2000 Monthly Normals

Elevation: 4,880 Feet Lat: 40°16N

- (2) Derived from station's available digital record: 1950-2001
- (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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										Pı	ecipit	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	on Total						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										
	Medi	ans(1)				Extremes	3			Daily Precipitation				These values were determined from the incomplete gamma distribution										ļ
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	1.15	1.09	.85+	1952	24	2.92	1997	.25	1994	8.3	3.8	.3	.0	.36	.46	.63	.77	.90	1.04	1.19	1.37	1.61	1.97	2.30
Feb	1.17	.98	1.03	1980	18	3.29	1980	.06	1988	7.5	3.9	.4	@	.12	.21	.37	.53	.71	.91	1.14	1.43	1.83	2.49	3.14
Mar	1.19	1.06	1.31	1978	3	3.86	1978	.17	1972	9.6	3.8	.3	.1	.28	.39	.56	.72	.88	1.04	1.23	1.45	1.74	2.20	2.63
Apr	1.16	1.05	1.01	1984	1	2.69	1999	.07	1992	9.1	3.9	.4	@	.22	.33	.50	.66	.82	.99	1.18	1.42	1.73	2.23	2.70
May	1.29	.99	2.00	1991	15	3.41	1991	.02	1974	9.1	3.8	.5	.1	.15	.25	.43	.61	.80	1.01	1.26	1.57	1.99	2.69	3.37
Jun	.72	.54	.98	1975	7	2.90	1975	.00	1994	5.0	2.2	.2	.0	.01	.05	.14	.24	.36	.49	.66	.87	1.18	1.69	2.21
Jul	1.09	.83	1.50	1985	12	5.23	1985	.04	1978	6.1	2.7	.5	.1	.06	.13	.26	.41	.57	.77	1.01	1.31	1.74	2.46	3.19
Aug	1.09	.61	1.26	1977	5	4.77	1983	.03	1974	7.5	3.1	.5	.1	.07	.13	.27	.41	.58	.78	1.02	1.32	1.74	2.47	3.18
Sep	1.06	.79	1.13	1991	7	5.29	1982	.00	1979	6.0	2.6	.5	.1	.05	.13	.29	.44	.61	.80	1.03	1.30	1.69	2.32	2.95
Oct	1.31	1.36	1.55	1979	20	3.02	1981	.00	1999	7.3	3.7	.5	.1	.07	.20	.40	.59	.80	1.02	1.29	1.61	2.05	2.78	3.49
Nov	1.04	1.00	1.03	1996	22	2.70	1973	.10	1976	8.0	3.3	.4	@	.15	.23	.38	.52	.68	.84	1.03	1.27	1.59	2.10	2.60
Dec	.84	.57	.77	1951	29	3.08	1983	.05	1976	7.2	2.9	.2	.0	.10	.16	.28	.39	.52	.66	.82	1.02	1.29	1.75	2.19
Ann	13.11	13.50	2.00	May 1991	15	5.29	Sep 1982	.00+	Oct 1999	90.7	39.7	4.7	.6	7.28	8.30	9.67	10.75	11.73	12.70	13.72	14.88	16.30	18.43	20.32

⁺ 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: 1950-2001

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

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										Snov	w (incl	hes)												
						Sno	ow To	tals							Mean Number of Days (1)									
	Means/Medians (1)					Extremes (2)											Snow Fall >= Thresholds						n ds	
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	10.2	9.5	4	3	12.0	1980	29	29.8	1993	17	1993	13	12	1993	5.1	4.0	1.3	.4	@	16.1	11.4	8.2	3.0	
Feb	6.2	5.5	4	2	6.0	1982	3	17.0	1990	16	1984	17	13	1993	3.5	2.7	.8	.3	.0	10.6	8.6	7.1	3.3	
Mar	4.3	3.0	1	#	6.0	1980	24	13.0	1980	13	1993	3	7	1984	3.0	2.1	.5	.1	.0	3.5	2.6	1.6	.6	
Apr	2.1	1.0	#	0	6.0	1984	1	20.0	1984	6	1984	1	#+	1999	1.3	.9	.3	.1	.0	.2	.1	@	.0	
May	.2	.0	#	0	1.0	1975	21	2.0	1983	2	1975	20	#+	1999	.2	.1	.0	.0	.0	.0	.0	.0	.0	
Jun	.0	.0	#	0	.0	0	0	.0	0	#	1998	11	#	1998	.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	.5	1978	18	.5	1978	#+	2000	21	#+	2000	.1	.0	.0	.0	.0	.0	.0	.0	.0	
Oct	1.1	.0	#	0	4.0	1972	29	6.0+	1984	4	1972	29	1	1971	.6	.5	.1	.0	.0	.3	.1	.0	.0	
Nov	4.5	2.0	1	#	10.0	1983	20	18.0	1983	8	1983	21	2	1994	2.6	2.0	.4	.1	@	4.0	2.0	.6	.0	
Dec	7.7	6.3	2	2	8.0	1971	3	32.0	1983	15	1983	28	7	1971	4.5	3.4	.7	.2	.0	13.3	6.2	2.3	.5	
Ann	36.3	27.3	N/A	N/A	12.0	Jan 1980	29	32.0	Dec 1983	17	Jan 1993	13	13	Feb 1993	20.9	15.7	4.1	1.2	@	48.0	31.0	19.8	7.4	

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

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[@] 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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NWS Call Sign:

				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	an indicated(*)							
Temp (I')	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	7/09	7/03	6/29	6/25	6/22	6/19	6/15	6/11	6/05						
32	6/26	6/20	6/15	6/11	6/07	6/04	5/31	5/26	5/20						
28	6/08	6/01	5/27	5/23	5/20	5/16	5/12	5/07	5/01						
24	5/20	5/14	5/10	5/06	5/03	4/29	4/26	4/21	4/15						
20	5/05	4/29	4/25	4/21	4/18	4/14	4/10	4/06	3/31						
16	4/23	4/14	4/07	4/01	3/27	3/21	3/16	3/09	2/27						
•			Fal	l Freeze Da	tes (Month/D	ay)	1	•	•						
Tomm (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	8/12	8/19	8/25	8/29	9/02	9/06	9/11	9/16	9/23						
32	8/25	8/31	9/05	9/08	9/12	9/15	9/19	9/23	9/29						
28	9/11	9/15	9/18	9/21	9/24	9/26	9/29	10/02	10/06						
24	9/19	9/24	9/28	10/01	10/04	10/07	10/11	10/14	10/20						
20	10/02	10/07	10/11	10/14	10/17	10/20	10/23	10/27	11/02						
16	10/19	10/24	10/27	10/30	11/02	11/05	11/08	11/12	11/17						
		•		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	99	90	83	77	72	66	60	53	44						
32	121	113	106	101	96	91	85	79	70						
28	147	140	134	130	126	122	118	113	106						
24	177	169	163	158	154	149	145	139	131						
20	206	197	192	186	182	177	172	166	158						
16	250	240	232	226	220	214	207	200	189						

^{*} 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						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1228	959	789	570	328	110	11	25	190	523	876	1190	6799		
60	1073	819	634	424	193	41	1	4	91	370	726	1035	5411		
57	980	735	541	341	128	18	0	1	51	281	636	942	4654		
55	918	679	479	288	93	10	0	0	32	225	576	880	4180		
50	768	546	332	173	33	1	0	0	7	110	429	725	3124		
32	295	154	21	4	0	0	0	0	0	0	60	217	751		

Base	Cooling Degree Days (1)													
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann	
32	90	119	256	424	699	937	1180	1134	826	500	175	51	6391	
55	0	0	0	18	78	257	467	421	168	12	0	0	1421	
57	0	0	0	11	51	205	405	359	127	5	0	0	1163	
60	0	0	0	4	24	138	313	269	77	1	0	0	826	
65	0	0	0	0	4	57	168	136	26	0	0	0	391	
70	0	0	0	0	0	15	61	45	5	0	0	0	126	

	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												Sep	Oct	Nov	Dec									
40	0	15	82	208	450	696	933	888	592	272	49	4	0	15	97	305	755	1451	2384	3272	3864	4136	4185	4189
45	0	0	27	104	302	546	778	733	443	151	14	0	0	0	27	131	433	979	1757	2490	2933	3084	3098	3098
50	0	0	3	43	173	398	623	578	301	65	0	0	0	0	3	46	219	617	1240	1818	2119	2184	2184	2184
55	0	0	0	12	82	255	468	423	176	14	0	0	0	0	0	12	94	349	817	1240	1416	1430	1430	1430
60	0	0	0	0	21	139	315	269	78	0	0	0	0	0	0	0	21	160	475	744	822	822	822	822
Base		•	•	Gro	wing De	gree Unit	s for Co	rn (Mont	thly)		•				Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	1	24	94	193	342	474	598	578	442	268	73	8	1	25	119	312	654	1128	1726	2304	2746	3014	3087	3095

(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.

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