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: 422057

Lon: 111°32W

Station: DEER CREEK DAM, UT

Climate Division: UT 5 NWS Call Sign:

									ŗ	Гетре	eratui	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base T	Days (1) emp 65		Mean	Numb	er of I	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	33.0	9.0	21.0	58	1987	28	30.7	2000	-33	1949	29	11.4	1979	1364	0	.0	.0	1.5	13.9	30.1	8.2
Feb	38.0	11.0	24.5	67	1963	6	34.1	2000	-39	1989	7	12.7	1985	1135	0	.0	.0	3.1	7.0	27.5	5.9
Mar	48.0	21.3	34.7	73	1986	29	42.0	1986	-23	1964	8	29.1	1984	942	0	.0	.0	12.7	1.3	29.1	.8
Apr	57.4	28.2	42.8	81	1949	24	48.4	1992	4	1954	1	36.8	1975	665	0	.0	.0	22.6	.0	22.2	.0
May	66.5	35.4	51.0	89	1954	21	55.4	1992	16	1972	1	45.9	1975	436	0	.0	.0	29.5	.0	10.1	.0
Jun	76.8	41.5	59.2	99	1954	24	64.0	1988	26	1954	2	54.5	1998	195	19	.0	2.2	30.0	.0	1.8	.0
Jul	84.5	47.4	66.0	99+	1954	12	69.1	1989	30	1950	31	60.7	1993	48	76	.0	7.6	31.0	.0	.0	.0
Aug	83.4	46.2	64.8	98	1958	13	68.2	2000	28+	1962	31	60.8	1975	69	62	.0	4.8	31.0	.0	.3	.0
Sep	74.1	38.7	56.4	96+	1950	1	62.0	1990	19+	1958	25	52.2	1971	265	6	.0	.4	29.7	.0	6.3	.0
Oct	62.4	30.0	46.2	86	1957	1	51.6	1988	8	1972	31	40.9	1984	582	0	.0	.0	27.2	.2	22.6	.0
Nov	46.7	21.9	34.3	72+	1980	6	40.2	1999	-11	1955	16	26.8	1994	921	0	.0	.0	12.5	2.7	28.1	.2
Dec	35.9	13.8	24.9	64	1995	2	31.8	1980	-30+	1990	23	16.8	1990	1244	0	.0	.0	2.7	10.1	30.0	2.8
Ann	58.9	28.7	43.8	99+	Jul 1954	12	69.1	Jul 1989	-39	Feb 1989	7	11.4	Jan 1979	7866	163	.0	15.0	233.5	35.2	208.1	17.9

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 024-A

(1) From the 1971-2000 Monthly Normals

Elevation: 5,270 Feet Lat: 40°24N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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Climate Division: UT 5 NWS Call Sign: Elevation: 5,270 Feet Lat: 40°24N Lon: 111°32W

										Pı	recipi	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	n Total						ays (3)	Proba	ability th		nonthly/	annual j	precipita ated am	ount			less tha	n the
	Medi	ans(1)				Extremes	•			ս	aily Pre	стриацю	n		Th	ese value	s were det	ermined	from the i	incomplet	te gamma	distributi	on	
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	3.12	2.25	4.52	1997	26	13.71	1980	.32	1992	9.9	6.5	1.7	.6	.28	.49	.91	1.34	1.82	2.36	3.00	3.80	4.91	6.76	8.57
Feb	2.86	2.41	5.08	1963	1	11.39	1986	.09	1988	9.0	5.7	1.9	.6	.34	.56	.96	1.36	1.78	2.26	2.81	3.49	4.42	5.95	7.44
Mar	2.42	2.12	2.88	1982	12	7.14	1982	.19	1997	9.1	5.3	1.5	.4	.37	.58	.93	1.26	1.61	1.99	2.42	2.96	3.67	4.84	5.95
Apr	1.76	1.75	1.48	1973	18	3.71	1978	.05	1987	8.6	5.1	.9	.2	.33	.49	.74	.98	1.23	1.49	1.78	2.14	2.62	3.38	4.11
May	1.92	1.73	1.73+	1966	11	5.40	1995	.13	1972	9.3	5.5	1.0	.1	.28	.44	.71	.98	1.26	1.56	1.91	2.34	2.92	3.86	4.77
Jun	1.01	.89	1.81	1984	7	3.52	1984	.03+	1979	4.8	2.7	.5	.1	.06	.12	.24	.38	.54	.72	.94	1.22	1.62	2.29	2.96
Jul	.91	.78	1.19	1987	22	3.24	1983	.00	1978	5.1	2.5	.5	.1	.03	.10	.23	.36	.51	.67	.87	1.12	1.46	2.04	2.60
Aug	1.12	1.14	1.06	1953	2	2.69	1991	.04	1985	6.2	3.4	.5	.0	.14	.22	.38	.54	.71	.89	1.10	1.37	1.73	2.33	2.90
Sep	1.58	1.37	1.86	1989	18	6.93	1982	.00	1974	6.4	4.0	.9	.3	.09	.24	.49	.72	.97	1.24	1.56	1.95	2.49	3.37	4.22
Oct	2.09	1.71	2.44	1979	20	5.11	1981	.07	1978	7.2	4.3	1.3	.4	.25	.42	.71	1.00	1.31	1.66	2.06	2.55	3.22	4.33	5.40
Nov	2.30	1.76	2.71	1950	19	8.28	1985	.02	1976	8.3	5.2	1.3	.4	.18	.33	.63	.95	1.30	1.70	2.19	2.80	3.64	5.06	6.46
Dec	2.32	2.05	2.02	1965	30	6.71	1996	.02	1976	9.1	5.2	1.4	.4	.17	.31	.61	.93	1.29	1.70	2.19	2.82	3.69	5.15	6.60
Ann	23.41	23.71	5.08	Feb 1963	1	13.71	Jan 1980	.00+	Jul 1978	93.0	55.4	13.4	3.6	12.89	14.73	17.19	19.14	20.91	22.67	24.52	26.61	29.20	33.06	36.49

⁺ 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: 1948-2001

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

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Station: DEER CREEK DAM, UT

Climate Division: UT 5 NWS Call Sign: Elevation: 5,270 Feet Lat: 40°24N Lon: 111°32W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
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	21.4	14.9	9	8	20.0	1993	10	84.7	1993	37	1993	9	22	1993	6.9	6.2	3.2	1.8	.3	24.2	21.1	15.7	8.1
Feb	14.9	10.0	11	12	15.0	1978	10	40.0	1993	35	1979	24	23	1984	4.8	4.5	2.1	.9	.2	-9.9	-9.9	-9.9	-9.9
Mar	7.2	6.3	4	2	8.0	1976	2	19.0	1982	30	1978	5	15	1978	2.8	2.5	.7	.3	.0	9.7	7.2	5.8	3.4
Apr	1.5	.0	#	0	4.0	1976	16	14.0	1976	4	1999	8	#+	1999	.7	.6	.3	.0	.0	.3	.1	.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	.3	.0	#	0	8.0	1984	17	8.0	1984	9	1984	19	1	1984	.1	.1	.1	@	.0	.2	.2	.1	.0
Nov	11.0	7.5	2	1	10.0	1975	28	30.5	1978	18+	1978	14	7	1978	3.2	2.5	1.3	.6	.1	6.8	5.1	4.0	1.1
Dec	11.5	12.8	4	3	14.0	1992	18	22.1	1977	28	1983	26	16	1983	4.5	3.9	2.1	1.1	.1	15.8	14.2	10.7	2.9
Ann	67.8	51.5	N/A	N/A	20.0	Jan 1993	10	84.7	Jan 1993	37	Jan 1993	9	23	Feb 1984	23.0	20.3	9.8	4.7	.7	-9.9	-9.9	-9.9	-9.9

⁺ 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: UT 5 NWS Call Sign:

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Tomn (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	7/09	7/03	6/29	6/25	6/22	6/18	6/15	6/10	6/04
32	6/23	6/17	6/13	6/10	6/07	6/03	5/31	5/27	5/21
28	6/03	5/28	5/24	5/20	5/16	5/13	5/09	5/04	4/28
24	5/14	5/09	5/05	5/01	4/28	4/25	4/21	4/17	4/12
20	5/08	4/30	4/24	4/19	4/14	4/10	4/05	3/30	3/22
16	4/19	4/11	4/06	4/01	3/28	3/24	3/19	3/14	3/06
			Fal	l Freeze Da	tes (Month/D	ay)		-	
Tomp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/10	8/17	8/22	8/26	8/31	9/04	9/08	9/13	9/20
32	8/31	9/05	9/09	9/12	9/14	9/17	9/20	9/24	9/28
28	9/18	9/21	9/24	9/26	9/28	9/30	10/03	10/05	10/09
24	9/26	10/01	10/06	10/09	10/13	10/16	10/20	10/24	10/30
20	10/14	10/18	10/21	10/24	10/26	10/29	10/31	11/04	11/08
16	10/24	10/28	11/01	11/04	11/07	11/09	11/12	11/16	11/21
		•	•	Freeze F	ree Period			•	•
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	97	87	80	75	69	64	58	51	42
32	122	114	109	104	99	94	90	84	76
28	154	147	142	138	134	130	126	121	114
24	195	186	179	173	167	161	155	148	139
20	221	212	205	200	194	189	184	177	168
				1	1				

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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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

Complete do

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Complete documentation available from:

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Elevation: 5,270 Feet

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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1364	1135	942	665	436	195	48	69	265	582	921	1244	7866
60	1209	995	787	515	286	93	8	16	142	428	771	1089	6339
57	1116	911	694	427	204	51	2	5	85	337	681	996	5509
55	1054	855	632	370	155	31	0	2	57	278	621	934	4989
50	901	719	481	236	65	6	0	0	14	151	472	779	3824
32	407	291	86	8	0	0	0	0	0	1	76	268	1137

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	66	80	168	333	587	814	1052	1016	731	442	146	46	5481
55	0	0	0	4	30	155	339	305	98	6	0	0	937
57	0	0	0	1	16	115	278	246	67	2	0	0	725
60	0	0	0	0	5	67	192	164	33	0	0	0	461
65	0	0	0	0	0	19	76	62	6	0	0	0	163
70	0	0	0	0	0	3	15	12	0	0	0	0	30

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (M	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	nthly)			
	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	2	37	147	360	593	819	779	497	225	38	2	0	2	39	186	546	1139	1958	2737	3234	3459	3497	3499
45	0 0 4 67 222 443 664 624 352 112 6											0	0	0	4	71	293	736	1400	2024	2376	2488	2494	2494
50	0 0 0 19 113 299 510 469 217 33 0											0	0	0	0	19	132	431	941	1410	1627	1660	1660	1660
55	0	0	0	0	39	172	355	317	104	3	0	0	0	0	0	0	39	211	566	883	987	990	990	990
60	0	0	0	0	4	72	207	173	32	0	0	0	0	0	0	0	4	76	283	456	488	488	488	488
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•	
50/86	6 0 12 55 148 280 417 543 531 378 222 57											3	0	12	67	215	495	912	1455	1986	2364	2586	2643	2646

(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