# 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

Station: BLUFF, UT 1971-2000 COOP ID: 420788

Climate Division: UT 7 NWS Call Sign: Elevation: 4,355 Feet Lat: 37°17N Lon: 109°34W

									7	Гетре	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	Ť		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	42.5	17.1	29.8	69	1950	23	36.8	1980	-22	1963	13	18.5	1973	1091	0	.0	.0	7.6	4.6	29.3	1.7
Feb	51.3	23.0	37.2	76+	1986	25	44.2	1995	-13	1933	8	28.6	1974	780	0	.0	.0	17.2	.8	24.8	.2
Mar	61.6	30.0	45.8	85	1971	26	49.9	1989	9	1965	4	41.9	1977	596	0	.0	.0	29.2	.0	19.5	.0
Apr	70.3	36.3	53.3	94	1943	30	59.5	2000	18	1945	4	46.9	1983	356	6	.0	.1	29.6	.0	10.3	.0
May	79.4	44.8	62.1	101	2000	29	69.2	2000	23	1967	2	58.0	1975	143	54	.1	2.9	31.0	.0	1.3	.0
Jun	90.0	51.4	70.7	106+	1936	20	76.6	2000	33	1980	2	65.8	1975	23	194	2.7	18.7	30.0	.0	.0	.0
Jul	94.5	59.7	77.1	108+	1931	23	82.7	1998	40	1970	1	73.6	1979	0	375	7.3	27.5	31.0	.0	.0	.0
Aug	91.8	58.8	75.3	106	1938	1	81.5	2000	37	1980	21	70.9	1979	3	323	2.3	24.4	31.0	.0	.0	.0
Sep	83.9	48.7	66.3	100+	1945	5	72.0	1998	25+	1971	19	62.0	1973	65	104	.1	7.9	30.0	.0	.8	.0
Oct	70.5	35.5	53.0	91+	1980	1	57.3	1988	10	1980	24	49.3	1984	375	3	.0	.2	30.7	.0	12.2	.0
Nov	54.6	25.0	39.8	82	1942	3	42.7	1973	-2	1976	28	35.3	1979	755	0	.0	.0	22.3	.0	24.8	@
Dec	44.0	17.3	30.7	69	1948	4	36.4	1980	-22	1990	24	20.1	1990	1065	0	.0	.0	8.0	2.3	29.8	1.2
Ann	69.5	37.3	53.4	108+	Jul 1931	23	82.7	Jul 1998	-22+	Dec 1990	24	18.5	Jan 1973	5252	1059	12.5	81.7	297.6	7.7	152.8	3.1

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 010-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1928-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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**COOP ID: 420788** 

Station: BLUFF, UT

**Climate Division: UT 7** 

NWS Call Sign: Elevation: 4,355 Feet Lat: 37°17N Lon: 109°34W

										Pı	recipi	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	on Total						ays (3	)	Proba	ability th		nonthly/	annual j	precipita ated am	ount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	8			և	aily Pre	cipitatio	n		Th	ese value	s were det	ermined	from the	incomplet	te gamma	distributi	ion	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	.85	.66	1.03	1978	15	3.41	1993	.00+	1976	4.5	2.8	.4	@	.00	.00	.11	.24	.39	.56	.77	1.04	1.41	2.05	2.70
Feb	.67	.47	.80	1939	4	2.49	1980	.00+	1984	3.9	2.4	.2	.0	.00	.03	.12	.22	.33	.46	.62	.82	1.11	1.59	2.06
Mar	.65	.46	.90	1945	1	2.17	1973	.00+	1999	3.8	2.2	.1	.0	.00	.00	.06	.18	.31	.45	.62	.83	1.11	1.58	2.06
Apr	.49	.38	.87	1988	16	1.55	1997	.00+	1998	3.0	1.6	.2	.0	.00	.00	.00	.18	.29	.40	.51	.65	.83	1.12	1.39
May	.53	.50	.70	1980	7	2.43	1992	.00+	2000	3.1	2.0	.2	.0	.00	.00	.09	.19	.29	.40	.52	.67	.88	1.20	1.53
Jun	.21	.11	.98	1950	22	.92	1983	.00+	2000	1.5	.7	.1	.0	.00	.00	.00	.00	.00	.08	.16	.26	.38	.60	.81
Jul	.76	.50	3.60	1966	29	3.12	1986	.00+	1993	3.7	2.1	.3	@	.00	.06	.18	.29	.42	.56	.73	.94	1.22	1.70	2.16
Aug	.73	.46	3.50	2001	14	3.14	1999	.00	1985	4.1	2.4	.5	.0	.01	.04	.11	.21	.32	.46	.63	.86	1.19	1.77	2.35
Sep	.63	.45	2.80	1947	27	2.23	1997	.00	1979	3.5	2.0	.4	@	.03	.09	.19	.28	.38	.49	.62	.78	.99	1.35	1.70
Oct	1.08	.86	1.30	1969	3	6.35	1972	.00+	1999	3.9	3.1	.4	.1	.00	.00	.25	.43	.62	.83	1.07	1.36	1.75	2.41	3.04
Nov	.75	.70	.95	1947	19	2.77	1987	.00+	1999	3.7	2.7	.2	.0	.00	.08	.21	.33	.46	.59	.75	.93	1.19	1.61	2.01
Dec	.62	.45	.90+	1948	23	2.16	1978	.00+	1989	3.3	1.7	.3	.0	.00	.01	.08	.16	.26	.38	.54	.74	1.03	1.53	2.05
Ann	7.97	7.25	3.60	Jul 1966	29	6.35	Oct 1972	.00+	Jun 2000	42.0	25.7	3.3	.1	4.16	4.81	5.69	6.39	7.03	7.66	8.34	9.10	10.05	11.48	12.74

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1928-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 420788** 

Station: BLUFF, UT

Climate Division: UT 7 NWS Call Sign: Eleva

Elevation: 4,355 Feet Lat: 37°17N Lon: 109°34W

										Snov	w (inc	hes)											
						Sno	ow To	tals									Mea	ın Nu	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ians (1)	)					Extre	mes (2)							ow Fa				Snow = Thr	_	
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	4.5	2.8	1	#	10.0	1991	4	21.0	1974	13	1991	5	5	1991	1.7	1.5	.7	.1	@	3.7	2.2	.4	.1
Feb	2.1	.0	#	0	4.0	1982	4	17.0	1982	4	1991	2	1	1991	.8	.8	.3	.0	.0	1.2	.5	.0	.0
Mar	.1	.0	#	0	2.0	1975	27	2.0	1975	2	1998	7	#+	1998	@	@	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	#	0	.8	1999	1	.8	1999	#	1999	4	#	1999	@	.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	.5	.0	#	0	4.0	1994	19	4.0	1994	3	1994	19	#+	1998	.3	.2	@	.0	.0	.1	.1	.0	.0
Dec	2.6	.2	#	0	9.0	1990	20	19.0	1992	7	1990	29	3	1992	1.3	.9	.4	.1	.0	2.3	1.9	1.1	.0
Ann	9.8	3.0	N/A	N/A	10.0	Jan 1991	4	21.0	Jan 1974	13	Jan 1991	5	5	Jan 1991	4.1	3.4	1.4	.2	@	7.3	4.7	1.5	.1

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 420788** 

Lon: 109°34W

Lat: 37°17N

Station: BLUFF, UT **Climate Division: UT 7** 

**NWS Call Sign:** 

Elevation: 4,355 Feet

				Freez	e Data									
			Spri	ng Freeze D	ates (Month/	(Day)								
Probability of later date in spring (thru Jul 31) than indicated(*)   10   20   30   40   50   60   70   80   90     32   5/22   5/15   5/11   5/07   5/03   4/29   4/25   4/20   4/14     28   5/13   5/05   4/30   4/25   4/21   4/16   4/12   4/06   3/30     24   4/24   4/18   4/13   4/10   4/06   4/02   3/30   3/25   3/19     20   4/13   4/03   3/26   3/20   3/15   3/09   3/03   2/23   2/13     16   3/20   3/11   3/05   2/27   2/22   2/17   2/12   2/05   1/27     Temp (F)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	6/11	6/04	5/30	5/26	5/22	5/18	5/14	5/10	5/03					
32	5/22	5/15	5/11	5/07	5/03	4/29	4/25	4/20	4/14					
28	5/13	5/05	4/30	4/25	4/21	4/16	4/12	4/06	3/30					
24	4/24	4/18	4/13	4/10	4/06	4/02	3/30	3/25	3/19					
20	4/13	4/03	3/26	3/20	3/15	3/09	3/03	2/23	2/13					
16	3/20	3/11	3/05	2/27	2/22	2/17	2/12	2/05	1/27					
			Fal	l Freeze Da	tes (Month/D	ay)								
Tomp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ning Aug 1) t	than indicate	ed(*)						
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	9/13	9/17	9/20	9/22	9/25	9/27	9/29	10/02	10/06					
32	9/22	9/25	9/28	9/30	10/02	10/04	10/06	10/08	10/12					
28	9/28	10/03	10/07	10/10	10/13	10/16	10/20	10/24	10/29					
24	10/16	10/21	10/24	10/27	10/30	11/01	11/04	11/08	11/12					
20	10/24	10/29	11/01	11/04	11/06	11/09	11/12	11/15	11/20					
16	11/02	11/09	11/13	11/18	11/21	11/25	11/29	12/04	12/11					
			•	Freeze F	ree Period	•								
Tomm (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)						
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	145	138	133	129	125	120	116	111	104					
32	176	167	161	156	151	146	141	135	127					
28	203	193	186	180	175	169	163	156	146					
24	232	223	216	211	206	201	196	189	181					
20	272	259	251	243	236	229	221	213	200					
16	303	292	284	278	271	265	258	251	240					

<sup>\*</sup> 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.

Complete documentation available from:

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Station: BLUFF, UT

COOP ID: 420788

Climate Division: UT 7 NWS Call Sign: Elevation: 4,355 Feet Lat: 37°17N Lon: 109°34W

	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	1091	780	596	356	143	23	0	3	65	375	755	1065	5252		
60	936	640	441	225	63	5	0	0	20	234	605	910	4079		
57	843	556	351	159	33	1	0	0	7	161	515	817	3443		
55	781	500	293	122	20	0	0	0	3	119	455	755	3048		
50	636	366	165	52	4	0	0	0	0	44	306	601	2174		
32	204	47	1	0	0	0	0	0	0	0	9	151	412		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	135	192	429	640	934	1161	1397	1343	1029	651	244	109	8264
55	0	0	7	72	241	471	684	630	342	57	0	0	2504
57	0	0	3	49	192	412	622	568	286	37	0	0	2169
60	0	0	1	25	129	325	529	475	208	17	0	0	1709
65	0	0	0	6	54	194	375	323	104	3	0	0	1059
70	0	0	0	0	15	94	228	186	39	0	0	0	562

										Gro	wing ]	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan   Feb   Mar   Apr   May   Jun   Jul   Aug   Sep   Oct   Nov   Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	6	54	215	419	705	939	1176	1121	814	430	86	4	6	60	275	694	1399	2338	3514	4635	5449	5879	5965	5969
45	0 13 102 277 550 789 1021 966 664 286 29												0	13	115	392	942	1731	2752	3718	4382	4668	4697	4697
50	0 0 34 157 395 639 866 811 514 154 4												0	0	34	191	586	1225	2091	2902	3416	3570	3574	3574
55	0	0	5	66	251	489	711	656	365	62	0	0	0	0	5	71	322	811	1522	2178	2543	2605	2605	2605
60	0 0 0 20 133 341 556 501 228 15 0										0	0	0	0	20	153	494	1050	1551	1779	1794	1794	1794	
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)	•		
50/86	<b>50/86</b> 14 73 200 325 482 583 722 704 538 343 107 16												14	87	287	612	1094	1677	2399	3103	3641	3984	4091	4107

(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