## 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: 425582** 

Lon: 109°52W

**Station: MEXICAN HAT, UT** 

**Climate Division: UT 7** 

**NWS Call Sign:** 

Temperature (°F)

Elevation: 4,130 Feet Lat: 37°09N

									ŗ	Гетр	eratui	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	•		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	44.5	19.9	32.2	69	1971	31	37.8	1999	-17	1963	13	20.2	1973	1017	0	.0	.0	10.6	3.3	29.4	.5
Feb	52.4	25.2	38.8	78	1954	26	46.0	1995	-8	1982	6	30.6	1974	734	0	.0	.0	18.3	.7	24.4	.2
Mar	61.9	31.6	46.8	84	1971	26	51.5	1972	9	1971	1	40.9	1977	566	0	.0	.0	28.6	.0	16.9	.0
Apr	70.6	38.7	54.7	93	2000	28	61.1	1992	11	1977	4	49.3	1975	320	9	.0	.2	29.6	.0	5.6	.0
May	80.8	48.3	64.6	104	1951	26	69.2	1996	27	1989	31	59.6	1975	95	80	.1	4.9	31.0	.0	.1	.0
Jun	92.5	57.5	75.0	109	1954	22	80.4	1994	38	1988	1	70.7	1975	6	306	5.2	21.3	30.0	.0	.0	.0
Jul	97.4	65.3	81.4	110	1971	13	84.9	1994	50+	1997	2	78.4	1987	0	508	13.0	29.0	31.0	.0	.0	.0
Aug	94.5	63.4	79.0	107	1969	9	83.9	2000	46+	1968	23	74.6	1989	0	433	6.7	26.2	31.0	.0	.0	.0
Sep	86.1	53.3	69.7	103+	1948	2	73.7	1990	29	1978	22	66.0	1988	26	167	.5	11.7	30.0	.0	.1	.0
Oct	72.8	39.8	56.3	94+	1957	1	60.6	1992	19+	1975	25	51.0	1982	281	12	.0	.6	30.8	.0	4.4	.0
Nov	56.8	28.7	42.8	82	1950	1	46.2	1995	8	1976	28	38.4	1979	667	0	.0	.0	24.1	@	22.3	.0
Dec	45.7	20.4	33.1	68	1999	2	39.2	1980	-16	1990	24	20.9	1992	991	0	.0	.0	11.8	2.3	29.5	1.1
Ann	71.3	41.0	56.2	110	Jul 1971	13	84.9	Jul 1994	-17	Jan 1963	13	20.2	Jan 1973	4703	1515	25.5	93.9	306.8	6.3	132.7	1.8

<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 064-A

- (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

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

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Station: MEXICAN HAT, UT COOP ID: 425582

Climate Division: UT 7 NWS Call Sign: Elevation: 4,130 Feet Lat: 37°09N Lon: 109°52W

										Pı	recipi	tation	(incl	nes)										
	Mea Medi		P	recipi	itatio	on Total  Extremes					ean N of D	ays (3	)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipita ated am	babilit ation will nount vs Probal	ll be equ	els		ın the
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	.61	.42	.57+	1991	4	2.38	1993	.00+	1976	5.1	2.3	.1	.0	.00	.00	.09	.19	.29	.41	.56	.75	1.01	1.46	1.90
Feb	.49	.29	.66	1993	21	2.46	1993	.00	1972	4.8	1.6	.1	.0	.01	.03	.08	.14	.22	.31	.43	.58	.80	1.18	1.56
Mar	.55	.46	.87	1995	6	1.74	1973	.00+	1999	5.6	1.7	.2	.0	.00	.00	.03	.13	.24	.36	.50	.69	.95	1.38	1.82
Apr	.45	.39	.71	1988	16	1.36	1980	.00+	1991	3.9	1.7	.1	.0	.00	.00	.07	.15	.23	.32	.43	.56	.75	1.04	1.33
May	.50	.37	.82	1995	17	1.76	1995	.00+	1977	4.3	1.6	@	.0	.00	.00	.10	.19	.27	.37	.49	.63	.82	1.15	1.46
Jun	.19	.07	1.10	2001	27	1.08	1973	.00+	1998	2.1	.6	@	.0	.00	.00	.00	.01	.04	.08	.13	.21	.32	.52	.74
Jul	.61	.36	1.26	1952	6	1.77	1986	.00+	1994	4.8	1.8	.2	.0	.00	.01	.08	.16	.25	.37	.53	.73	1.01	1.51	2.02
Aug	.61	.58	1.13	1967	9	1.53	1971	.00	1985	5.7	2.0	@	.0	.03	.08	.17	.26	.35	.46	.59	.75	.96	1.32	1.67
Sep	.66	.64	.94	1965	18	1.71	1985	.01	1979	4.8	2.3	.2	.0	.07	.13	.22	.31	.41	.52	.65	.81	1.02	1.38	1.73
Oct	.99	.81	1.26	1972	19	6.20	1972	.00+	1999	4.7	2.6	.5	.1	.00	.00	.22	.39	.57	.76	.98	1.25	1.61	2.22	2.81
Nov	.53	.43	.86	1965	23	1.62	1987	.00	1989	4.5	1.9	.2	.0	.02	.06	.13	.21	.29	.39	.50	.65	.86	1.20	1.54
Dec	.49	.19	.75	1971	13	1.63	1978	.00+	1989	4.0	1.5	.2	.0	.00	.01	.06	.12	.19	.29	.41	.57	.81	1.22	1.64
Ann	6.68+	6.62+	1.26+	Oct 1972	19	6.20	Oct 1972	.00+	Oct 1999	54.3	21.6	1.8	.1	3.86	4.36	5.03	5.55	6.02	6.49	6.98	7.53	8.21	9.22	10.11

<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: 1948-2001

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

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**COOP ID: 425582** 

**Station: MEXICAN HAT, UT** 

Climate Division: UT 7 NWS Call Sign: Elevation: 4,130 Feet Lat: 37°09N Lon: 109°52W

										Snov	w (incl	hes)											
		Median         Mean         Median         Snow Fall         Snow Depth         Snow Depth         Snow Depth           .6         #         0         2.5         1987         16         4.5         1987         4         1991         4         #+         20           .0         0         0         4.0         1982         4         10.0         1982         0         0         0         0           .0         0         0         #         1989         4         #         1989         0         0         0         0           .0         #         0         1.0         1983         5         1.0         1983         #         1999         2         #         199           .0         0         0         0         0         0         0         0         0         0         0															Mea	n Nui	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	1.2	.6	#	0	2.5	1987	16	4.5	1987	4	1991	4	#+	2000	.6	.4	.0	.0	.0	.0	.0	.0	.0
Feb	1.0	.0	0	0	4.0	1982	4	10.0	1982	0	0	0	0	0	.5	.4	.1	.0	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1989	4	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.1	.0	#	0	1.0	1983	5	1.0	1983	#	1999	2	#	1999	.1	.1	.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	.2	.0	#	0	1.0	1979	24	1.5	1994	#	1985	21	#	1985	.2	.1	.0	.0	.0	.0	.0	.0	.0
Dec	1.9	.0	#	0	6.0	1987	14	14.6	1992	9	1992	13	2	1992	.9	.5	.2	.1	.0	.1	.0	.0	.0
Ann	4.4	.6	N/A	N/A	6.0	Dec 1987	14	14.6	Dec 1992	9	Dec 1992	13	2	Dec 1992	2.3	1.5	.3	.1	.0	.1	.0	.0	.0

<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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Lon: 109°52W

Lat: 37°09N

Elevation: 4,130 Feet

Station: MEXICAN HAT, UT

**Climate Division: UT 7 NWS Call Sign:** 

				Freez	e Data								
			Spri	ng Freeze D	ates (Month/	Day)							
Freeze Date   Spring Freeze Dates   Month/Day													
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	5/20	5/13	5/08	5/04	5/01	4/27	4/23	4/18	4/11				
32	5/06	4/30	4/25	4/22	4/18	4/15	4/11	4/06	3/31				
28	4/26	4/19	4/14	4/10	4/05	4/01	3/28	3/23	3/16				
24	4/17	4/07	3/30	3/24	3/18	3/12	3/06	2/27	2/16				
20	3/30	3/19	3/11	3/04	2/25	2/18	2/11	2/03	1/23				
16	3/10	2/26	2/18	2/11	2/04	1/28	1/21	1/13	1/01				
<b>.</b>			Fal	l Freeze Da	tes (Month/D	ay)							
Tomar (E)		Pro	bability of ea	rlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)					
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	9/24	9/30	10/03	10/07	10/10	10/13	10/16	10/20	10/25				
32	10/07	10/12	10/16	10/19	10/22	10/25	10/28	11/01	11/06				
28	10/21	10/25	10/28	10/30	11/02	11/04	11/07	11/10	11/14				
24	10/30	11/04	11/07	11/10	11/13	11/16	11/19	11/23	11/28				
20	11/10	11/15	11/19	11/22	11/25	11/28	12/01	12/05	12/10				
16	11/17	11/25	11/30	12/05	12/09	12/13	12/18	12/23	12/31				
<u></u>		J		Freeze F	ree Period	l .		J	-U				
Town (F)			<b>Probability</b>	of longer th	an indicated	freeze free p	eriod (Days)	1					
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	188	179	172	167	161	156	150	144	134				
32	213	204	197	192	186	181	175	168	159				
28	233	225	219	214	209	205	200	194	186				
24	273	261	253	246	239	233	226	218	206				
20	312	298	288	280	272	265	256	247	233				
16	347	332	322	313	306	298	290	281	269				

<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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	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	1017	734	566	320	95	6	0	0	26	281	667	991	4703		
60	862	594	413	195	35	0	0	0	5	158	517	836	3615		
57	769	510	326	135	16	0	0	0	1	100	428	743	3028		
55	707	454	271	102	8	0	0	0	0	70	368	681	2661		
50	564	324	154	41	1	0	0	0	0	21	226	536	1867		
32	158	32	1	0	0	0	0	0	0	0	5	133	329		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	164	223	459	679	1008	1290	1531	1456	1131	754	328	165	9188
55	0	0	16	91	303	600	818	743	441	111	1	0	3124
57	0	0	9	64	249	540	756	681	382	80	0	0	2761
60	0	0	3	34	175	451	663	588	296	44	0	0	2254
65	0	0	0	9	80	306	508	433	167	12	0	0	1515
70	0	0	0	1	27	179	353	284	73	2	0	0	919

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	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	9	68	237	455	773	1065	1296	1221	904	527	142	12	9	77	314	769	1542	2607	3903	5124	6028	6555	6697	6709
45													0	19	137	449	1067	1982	3123	4189	4943	5321	5378	5378
50													0	0	45	231	695	1460	2446	3357	3961	4199	4213	4213
55	0	0	11	94	317	615	831	756	455	127	0	0	0	0	11	105	422	1037	1868	2624	3079	3206	3206	3206
60	0	0	0	32	189	465	676	601	314	47	0	0	0	0	0	32	221	686	1362	1963	2277	2324	2324	2324
Base	Base Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	<b>0/86</b> 26 81 198 320 495 657 802 771 578 371 130 30												26	107	305	625	1120	1777	2579	3350	3928	4299	4429	4459

(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