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: 426135

Lon: 111°50W

Station: NEPHI, UT

Climate Division: UT 4 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 40.2 17.6 28.9 68 1953 13 37.0 2000 -18 1949 29 20.6 1984 1120 0 .0 .0 4.3 6.2 29.4 2.5 Jan 46.0 21.5 33.8 74 1986 26 41.3 1992 -20+1989 6 24.9 1984 874 0 .0 .0 9.7 2.0 25.4 .7 Feb Mar 55.6 28.6 42.1 80 +1986 27 48.5 1986 0 1971 2 36.0 1976 711 0 .0 .0 21.9 .4 22.4 @ 34.3 14 3 1975 Apr 64.2 49.3 91 1987 25 56.8 1992 1945 40.5 480 6 .0. @ 26.4 .0 14.0 .0 May 73.6 42.1 57.9 96+ 1951 28 62.6 1992 20 1990 9 51.1 1975 246 24 .0 .5 30.5 .0 3.4 .0 1970 73.2 28 .2 Jun 85.2 50.0 67.6 110 26 1986 1976 14 61.8 1998 64 142 .4 10.8 30.0 .0 .0 Jul 92.2 57.0 74.6 27 77.9 38+ 1983 11 70.3 1993 2 299 1.9 22.4 31.0 0. 106 +1960 1989 .0 .0 1978 3 90.4 56.0 73.2 109 1958 8 76.0 1986 35 1943 31 69.5 258 .9 18.3 31.0 .0 .0 .0 Aug 23 95 Sep 81.1 47.7 64.4 106 1950 4 70.4 1990 1965 18 59.7 1971 76 .0 4.2 29.9 .0 1.1 .0 31 46.5 1984 Oct 67.9 37.0 52.5 93 1989 13 59.9 1988 12 1972 395 6 .0 (a) 28.8 .1 10.2 .0 27.1 39.4 79 1953 3 48.8 1999 -4 1955 16 30.7 2000 768 0 .0 16.3 1.2 23.3 Nov 51.7 .0 .1 Dec 40.8 18.4 29.6 70 1995 1 36.5 1980 -21 1990 23 23.3 +1990 1098 0 .0 .0 5.4 5.8 29.3 1.5

36.4

65.7

Ann

51.1

110

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

26

77.9

Jul

1989

-21

Dec

1990

23

20.6

Jan

1984

5856

811

Issue Date: February 2004 075-A

Jun

1970

(1) From the 1971-2000 Monthly Normals

56.2

3.2

Elevation: 5,125 Feet Lat: 39°43N

(2) Derived from station's available digital record: 1941-2001

265.2

15.7

158.7

4.8

(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: 426135

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Climate Division: UT 4

Elevation: 5,125 Feet Lat: 39°43N Lon: 111°50W

										Pı	recipit	tation	(incl	ies)										
	Precipitation Totals Means/ Medians(1) Extremes									Mean Number of Days (3) Daily Precipitation				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 These values were determined from the incomplete gamma distribution										n 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	1.36	1.23	1.12	1997	3	3.59	1997	.19	1977	7.8	4.6	.5	@	.25	.37	.57	.75	.94	1.15	1.38	1.66	2.03	2.63	3.21
Feb	1.36	1.14	1.11	1986	13	3.07	2000	.23	1972	8.5	4.6	.4	.1	.30	.43	.63	.81	.99	1.18	1.39	1.65	1.99	2.53	3.04
Mar	1.76	1.67	1.53	1944	21	4.00	1978	.14	1997	9.5	5.5	.7	.0	.32	.48	.74	.98	1.22	1.49	1.79	2.15	2.63	3.41	4.15
Apr	1.57	1.38	1.40	1986	2	3.47	1999	.14	1992	8.7	5.0	.6	.1	.27	.40	.63	.85	1.07	1.31	1.58	1.91	2.36	3.08	3.76
May	1.57	1.31	1.48	1999	3	4.29	1981	.23	1974	8.7	4.8	.6	.1	.34	.48	.71	.92	1.13	1.35	1.61	1.91	2.31	2.95	3.55
Jun	.82	.65	1.82	1943	1	4.04	1998	.00+	1979	4.3	2.4	.4	.1	.00	.02	.10	.21	.34	.50	.70	.97	1.36	2.03	2.71
Jul	.85	.63	1.85	1943	21	3.72	1985	.00+	2000	5.5	2.5	.2	.1	.00	.10	.25	.39	.52	.67	.85	1.06	1.34	1.81	2.26
Aug	1.00	.92	1.36	1965	18	3.10	1983	.00	1985	6.8	3.0	.4	.1	.16	.30	.47	.60	.74	.88	1.04	1.22	1.47	1.85	2.21
Sep	1.16	.99	1.50	1978	18	6.02	1982	.00	1974	5.6	2.9	.6	.1	.04	.12	.28	.45	.64	.85	1.10	1.42	1.87	2.62	3.36
Oct	1.55	1.46	1.75	1979	20	4.32	1994	.05	1995	7.0	4.2	.9	.1	.21	.33	.55	.77	1.00	1.25	1.54	1.90	2.38	3.18	3.94
Nov	1.41	1.24	1.24	1996	22	3.60	1978	.13	1999	8.1	4.2	.7	@	.29	.41	.62	.81	1.00	1.20	1.43	1.71	2.08	2.66	3.22
Dec	1.13	1.07	1.45	1951	30	3.58	1983	.11	1976	7.2	4.0	.3	.0	.22	.32	.48	.64	.79	.96	1.15	1.38	1.68	2.17	2.63
Ann	15.54	15.41	1.85	Jul 1943	21	6.02	Sep 1982	.00+	Jul 2000	87.7	47.7	6.3	.8	9.37	10.49	11.97	13.11	14.15	15.17	16.23	17.42	18.89	21.06	22.96

⁺ Also occurred on an earlier date(s)

1943

1982

2000

NWS Call Sign:

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: 1941-2001

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

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COOP ID: 426135

Station: NEPHI, UT

Climate Division: UT 4 NWS Call Sign:

Elevation: 5,125 Feet Lat: 39°43N Lon: 111°50W

										Snov	w (incl	hes)													
						Sn	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (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	13.1	11.5	3	1	13.0	1997	13	38.3	1993	22	1993	11	12+	1993	4.7	4.2	1.9	.6	.1	15.9	12.3	7.9	3.3		
Feb	9.3	7.0	2	1	9.0	1990	18	31.0	1990	12	1996	1	8	1993	4.0	3.5	1.6	.4	.0	10.4	6.7	3.7	.2		
Mar	7.1	6.5	#	#	10.0	1988	10	23.0	1988	12	1988	11	3	1971	2.9	2.6	.9	.5	@	3.2	1.8	.4	.1		
Apr	3.8	2.0	#	0	9.0	1991	11	15.0	1991	7	1973	2	1	1973	1.2	1.0	.4	.2	.0	.5	.2	.1	.0		
May	1.1	.0	#	0	13.1	1975	20	16.1	1975	13	1975	20	1	1975	.2	.2	.2	.1	@	.2	.1	@	@		
Jun	.0	.0	0	0	1.0	1990	1	1.0	1990	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	1.1	.0	#	0	5.0	1991	28	7.2	1991	4	1971	30	#+	2000	.6	.5	.2	@	.0	.2	@	.0	.0		
Nov	7.1	4.2	1	#	8.0	1985	12	26.0	1983	10	1983	29	3	1983	2.9	2.7	.9	.4	.0	3.8	2.3	1.0	.2		
Dec	10.9	9.9	2	1	9.0	1987	30	30.5	1982	13	1992	16	5	1992	3.8	3.5	1.8	.6	.0	11.0	6.9	3.0	.6		
Ann	53.5	41.1	N/A	N/A	13.1	May 1975	20	38.3	Jan 1993	22	Jan 1993	11	12+	Jan 1993	20.3	18.2	7.9	2.8	.1	45.2	30.3	16.1	4.4		

⁺ 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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NWS Call Sign:

Elevation: 5,125 Feet

				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	6/18	6/12	6/08	6/04	6/01	5/28	5/25	5/21	5/15							
32	6/02	5/28	5/23	5/20	5/16	5/13	5/10	5/05	4/29							
28	5/21	5/14	5/10	5/06	5/02	4/29	4/25	4/20	4/14							
24	5/03	4/26	4/21	4/17	4/13	4/09	4/05	4/01	3/25							
20	4/23	4/13	4/06	3/31	3/25	3/19	3/13	3/05	2/23							
16	4/05	3/27	3/20	3/15	3/10	3/04	2/27	2/20	2/11							
		•	Fal	l Freeze Da	tes (Month/D	ay)										
Temp (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	9/14	9/17	9/20	9/22	9/24	9/26	9/28	9/30	10/04							
32	9/17	9/21	9/25	9/27	9/30	10/02	10/05	10/08	10/12							
28	9/27	10/03	10/07	10/11	10/14	10/17	10/21	10/25	10/31							
24	10/15	10/20	10/23	10/25	10/28	10/30	11/02	11/05	11/09							
20	10/25	10/29	11/02	11/04	11/07	11/10	11/13	11/16	11/20							
16	10/31	11/05	11/09	11/12	11/15	11/18	11/21	11/25	11/30							
		•		Freeze F	ree Period											
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)									
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	135	128	123	118	114	110	106	101	94							
32	156	149	144	140	135	131	127	122	115							
28	191	182	175	169	164	158	153	146	137							
24	223	214	207	202	197	191	186	179	171							
20	260	249	240	233	227	220	213	204	193							
16	281	270	262	256	250	244	237	229	219							

^{*} 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	1120	874	711	480	246	64	2	3	95	395	768	1098	5856		
60	965	734	556	344	138	22	0	0	36	259	619	943	4616		
57	872	650	466	270	89	10	0	0	17	190	532	850	3946		
55	810	594	406	227	64	6	0	0	9	150	475	788	3529		
50	657	461	269	137	23	0	0	0	1	74	341	633	2596		
32	200	99	15	4	0	0	0	0	0	1	43	160	522		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	103	149	327	520	802	1068	1320	1278	971	634	265	86	7523
55	0	0	6	53	153	383	607	565	290	71	7	0	2135
57	0	0	3	36	116	328	545	503	238	49	4	0	1822
60	0	0	1	20	71	250	452	410	167	25	1	0	1397
65	0	0	0	6	24	142	299	258	76	6	0	0	811
70	0	0	0	0	5	65	157	123	24	0	0	0	374

										Gro	wing]	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	Oct	Nov	Dec			
40	4	41	135	295	550	830	1074	1027	724	386	101	10	4	45	180	475	1025	1855	2929	3956	4680	5066	5167	5177		
45	0	11	59	175	400	680	919	872	577	252	38	1	0	11	70	245	645	1325	2244	3116	3693	3945	3983	3984		
50	0	1	16	89	264	530	764	717	427	139	13	0	0	1	17	106	370	900	1664	2381	2808	2947	2960	2960		
55	0	0	1	37	147	385	609	562	289	60	0	0	0	0	1	38	185	570	1179	1741	2030	2090	2090	2090		
60	0 0 0 8 66 250 455 407 166 13 0 0									0	0	0	0	8	74	324	779	1186	1352	1365	1365	1365				
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)				
50/86	5	37	119	224	375	530	668	654	480	292	89	13	5	42	161	385	760	1290	1958	2612	3092	3384	3473	3486		

(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