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: 426123

Lon: 110°03W

Station: NEOLA, UT

Climate Division: UT 6

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 30.9 8.6 19.8 55 1959 18 29.4 2000 -27 1974 3 5.8 1973 1403 0 .0 .0 .3 16.8 30.9 7.0 Jan 37.2 13.5 25.4 63 1981 25 35.6 1995 -26 1989 7 12.0 1973 1110 0 .0 .0 2.6 7.7 28.0 3.8 Feb Mar 49.1 24.3 36.7 72 1986 29 43.0 1986 -17 1962 29.7 1973 879 0 .0 .0 15.3 1.0 27.7 .1 83 2 1975 Apr 59.0 31.3 45.2 1992 27 51.5 1992 1975 2 39.2 596 0 .0 .0 25.2 (a) 17.5 0. May 68.0 40.0 54.0 87+ 1968 30 58.5 1992 18 1972 1 49.5 1995 345 3 .0 .0 30.5 .0 4.4 .0 48.0 29 58.1 78.1 63.1 96 1990 27 67.7 1977 1963 5 1975 120 61 .0 1.0 30.0 .0 .4 .0 Jun Jul 84.3 54.3 69.3 97 2001 5 73.4 +34 1982 6 64.5 1993 20 153 4.2 31.0 2000 .0 .0 .0 .0 1975 82.5 53.0 67.8 95+ 1979 5 72.0 2000 32 1968 23 64.6 29 114 .0 1.9 31.0 .0 .0 .0 Aug 13 13 202 Sep 73.7 44.3 59.0 92 1990 64.4 1990 1965 18 54.4 1971 21 .0 .1 29.9 .0 2.0 .0 54.1 1984 Oct 60.6 33.4 47.0 81 1963 1 1988 0 1971 30 41.6 558 0 .0 .0 27.4 .3 13.2 @ 43.5 21.0 32.3 1978 3 38.4 1999 1976 28 24.9 1971 983 0 .0 .0 8.7 3.5 28.4 .3 Nov 66+ -6 Dec 32.8 11.1 22.0 59 1995 2 32.0 1980 -26 1990 22 8.9 1978 1335 0 .0 .0 .7 13.8 31.0 4.2 Jul Jul Jan Jan

31.9

45.1

58.3

Ann

97

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

5

73.4 +

2000

-27

1974

3

5.8

1973

7580

352

Issue Date: February 2004 074-A

2001

(1) From the 1971-2000 Monthly Normals

7.2

.0

Elevation: 5,950 Feet Lat: 40°25N

(2) Derived from station's available digital record: 1956-2001

232.6

43.1

183.5

15.4

(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: 426123

Station: NEOLA, UT

Climate Division: UT 6 NWS Call Sign: Elevation: 5,950 Feet Lat: 40°25N Lon: 110°03W

										Pı	recipi	tation	(incl	nes)										
		Precipitation Totals Means/ Medians(1) Extremes									lean N of D	ays (3	5)	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)						•	•					These values were determined from the incomplete gamma distribution										
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	.57	.54	1.08	1962	20	2.16	1980	.00	1972	4.4	2.1	.1	.0	.02	.06	.14	.22	.31	.41	.54	.70	.91	1.28	1.64
Feb	.54	.50	.65	1980	18	1.23	1980	.00+	1988	4.1	2.4	.2	.0	.00	.06	.16	.24	.33	.43	.54	.67	.85	1.15	1.44
Mar	.64	.61	.96	1979	29	1.77	1975	.00+	1999	4.2	2.4	.2	.0	.00	.00	.09	.21	.33	.46	.62	.81	1.08	1.51	1.95
Apr	.81	.68	1.08	1973	18	2.64	1999	.00+	1992	4.4	2.6	.3	@	.00	.00	.18	.32	.46	.62	.80	1.02	1.32	1.82	2.30
May	1.17	.97	1.42	1996	23	3.92	1995	.00	1974	6.2	3.6	.5	.1	.19	.35	.55	.71	.87	1.04	1.22	1.44	1.73	2.18	2.60
Jun	.67	.37	1.12	1975	18	2.88	1998	.00+	1981	3.4	1.9	.3	@	.00	.00	.12	.23	.35	.48	.64	.84	1.10	1.56	2.01
Jul	.75	.58	1.10	1985	22	2.51	1987	.05	2000	4.8	2.5	.2	@	.08	.14	.24	.35	.46	.58	.73	.91	1.16	1.57	1.97
Aug	.84	.82	1.15	1995	11	2.68	1997	.02	1996	5.1	2.6	.3	@	.11	.18	.30	.42	.54	.67	.83	1.02	1.28	1.71	2.12
Sep	1.10	1.06	1.12	1999	2	2.63	1997	.00	1987	5.0	3.3	.5	.1	.04	.12	.27	.43	.61	.81	1.05	1.35	1.77	2.46	3.15
Oct	1.19	1.11	1.73	1994	3	3.82	1994	.00+	1999	4.8	3.3	.8	.1	.00	.15	.37	.56	.75	.96	1.20	1.48	1.87	2.50	3.10
Nov	.60	.56	1.39	1957	3	2.22	1978	.00+	1995	3.5	2.0	.2	.0	.00	.00	.11	.21	.32	.44	.58	.75	.99	1.39	1.79
Dec	.42	.33	.61	1964	24	1.61	1971	.00	1989	3.5	1.8	.0	.0	.01	.04	.10	.16	.23	.31	.40	.51	.68	.94	1.21
Ann	9.30	9.56	1.73	Oct 1994	3	3.92	May 1995	.00+	Oct 1999	53.4	30.5	3.6	.3	5.75	6.40	7.26	7.92	8.51	9.10	9.71	10.39	11.23	12.46	13.54

⁺ 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: 1956-2001

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

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COOP ID: 426123

Station: NEOLA, UT

Climate Division: UT 6 NWS Call Sign: Elevation: 5,950 Feet Lat: 40°25N Lon: 110°03W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (1)	ı	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	7.0	5.0	4	4	7.0	1973	19	28.0	1980	27	1979	31	21	1979	2.7	2.3	.6	.1	.0	-9.9	-9.9	-9.9	-9.9		
Feb	4.5	1.5	5	3	9.0	1989	3	17.0	1989	27	1979	7	19	1979	1.8	1.5	.5	.1	.0	-9.9	-9.9	-9.9	-9.9		
Mar	1.9	.3	1	#	4.0	2000	20	7.0+	1988	19	1993	5	9	1993	1.0	.8	.2	.0	.0	1.6	1.3	1.1	.9		
Apr	1.0	.0	#	0	9.0	1976	26	9.0	1976	6	1976	26	#+	1999	.5	.4	.1	@	.0	.1	.1	.1	.0		
May	.1	.0	0	0	2.5	1988	1	2.5	1988	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	1.1	.0	#	0	8.0	1971	28	15.0	1971	12	1971	29	1	1991	.3	.3	.2	@	.0	.1	.1	.1	.1		
Nov	2.4	.0	1	#	6.0	1983	21	12.0	1983	16	1973	3	7	1978	.6	.6	.2	.1	.0	1.2	.3	.0	.0		
Dec	5.5	4.5	2	1	6.0	1972	9	22.0	1972	20	1978	23	12	1978	1.7	1.6	.6	.2	.0	5.0	3.2	1.5	.0		
Ann	23.5	11.3	N/A	N/A	9.0+	Feb 1989	3	28.0	Jan 1980	27+	Feb 1979	7	21	Jan 1979	8.6	7.5	2.4	.5	.0	-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 6 NWS Call Sign:

VS Call Sign: Elevation: 5,950 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((*)								
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	6/22	6/16	6/12	6/08	6/05	6/01	5/29	5/24	5/18							
32	6/11	6/05	5/31	5/27	5/23	5/20	5/16	5/11	5/04							
28	5/24	5/19	5/14	5/11	5/07	5/04	4/30	4/26	4/20							
24	5/06	5/01	4/27	4/24	4/21	4/18	4/15	4/11	4/06							
20	4/27	4/21	4/17	4/13	4/10	4/06	4/03	3/29	3/23							
16	4/15	4/08	4/02	3/29	3/25	3/21	3/16	3/11	3/04							
1			Fal	l Freeze Da	tes (Month/D	ay)			•							
T (E)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	9/03	9/08	9/12	9/15	9/18	9/21	9/24	9/28	10/03							
32	9/12	9/17	9/21	9/24	9/27	9/30	10/03	10/06	10/11							
28	9/21	9/28	10/02	10/06	10/09	10/13	10/17	10/21	10/27							
24	10/02	10/08	10/13	10/17	10/20	10/24	10/28	11/02	11/08							
20	10/18	10/22	10/25	10/28	10/30	11/02	11/05	11/08	11/12							
16	10/27	10/31	11/04	11/06	11/09	11/11	11/14	11/17	11/21							
<u> </u>			l	Freeze F	ree Period		l	J								
Tomar (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)									
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	125	118	113	109	104	100	96	91	84							
32	152	143	137	131	126	121	115	109	99							
28	181	172	165	160	154	149	143	136	127							
24	206	198	192	187	182	177	172	166	157							
20	226	218	212	208	203	198	193	188	179							
16	251	243	237	233	228	224	219	213	205							

^{*} 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 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1403	1110	879	596	345	120	20	29	202	558	983	1335	7580		
60	1248	970	724	451	207	49	3	4	100	405	833	1180	6174		
57	1155	886	631	369	139	23	0	1	58	318	743	1087	5410		
55	1093	830	570	316	102	13	0	0	38	263	683	1025	4933		
50	941	699	424	202	39	2	0	0	9	146	533	870	3865		
32	445	280	65	10	0	0	0	0	0	2	113	357	1272		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	66	94	209	405	681	931	1156	1108	809	467	120	45	6091
55	0	0	1	20	70	254	443	395	156	15	0	0	1354
57	0	0	0	13	45	204	381	334	116	8	0	0	1101
60	0	0	0	6	20	140	291	244	69	2	0	0	772
65	0	0	0	0	3	61	153	114	21	0	0	0	352
70	0	0	0	0	0	18	58	33	3	0	0	0	112

	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	0	2	53	199	445	700	921	872	576	251	20	0	0	2	55	254	699	1399	2320	3192	3768	4019	4039	4039
45	0	0	13	100	299	550	766	717	431	136	2	0	0	0	13	113	412	962	1728	2445	2876	3012	3014	3014
50	0	0	0	40	172	402	611	562	287	52	0	0	0	0	0	40	212	614	1225	1787	2074	2126	2126	2126
55	0	0	0	10	74	262	456	407	163	13	0	0	0	0	0	10	84	346	802	1209	1372	1385	1385	1385
60	0 0 0 0 0 18 140 304 255 72 0 0 0									0	0	0	0	18	158	462	717	789	789	789	789			
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0	6	56	158	296	455	599	563	376	189	26	0	0	6	62	220	516	971	1570	2133	2509	2698	2724	2724

(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