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: 426357

Lon: 112°20W

Station: OAK CITY, 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 38.6 20.6 29.6 68 1997 31 39.0 1997 -25 1937 23 19.5 1984 1096 0 .0 .0 5.2 7.2 27.8 1.6 Jan .5 45.1 25.2 35.2 75 1954 24 43.1 1995 -23 1933 10 26.0 1984 836 0 .0 .0 10.7 2.6 23.0 Feb Mar 54.3 31.9 43.1 78 1986 28 48.8 1989 1 1971 2 36.4 1976 679 0 .0 .0 22.8 .2 18.9 0. 37.2 42.5 1975 Apr 62.2 49.7 87 1977 24 57.5 1992 11 1929 10 467 6 .0 .0 27.2 .0 10.9 .0 May 72.7 45.8 59.3 95 1984 28 64.7 1997 22 +1961 5 53.3 1975 223 46 .0 .9 30.6 .0 1.9 .0 55.5 1971 75.0 30+ 15 62.2 12.3 Jun 84.7 70.1 105 +21 1994 1976 1995 53 206 .9 30.0 .0 .1 0. Jul 92.4 63.9 78.2 1931 22 81.8 42+ 1938 5 73.2 1993 409 4.9 25.9 31.0 108 +1988 .0 .0 .0 1987 2 90.5 62.1 76.3 105 1979 3 80.2 1997 35 1960 23 72.5 352 2.9 22.2 31.0 .0 .0 .0 Aug 23 71 Sep 80.5 52.5 66.5 100 +1977 6 72.1 1990 1965 18 61.0 1986 121 .1 6.2 30.0 .0 .5 .0 47.3 1984 357 Oct 66.8 41.1 54.0 94 1950 13 62.1 1988 6 1971 30 13 .0 .1 29.4 .1 6.0 .0 49.9 29.1 39.5 78 1934 6 47.5 1999 -4 1931 24 31.5 1994 765 0 .0 .0 17.3 1.2 21.0 .0 Nov Dec 39.6 20.5 30.1 68+ 1980 27 38.1 1996 -25 1932 13 21.4 1990 1084 0 .0 .0 6.5 6.4 28.4 1.3 Jul Jul Jan Jan

40.5

52.6

64.8

Ann

108 +

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

22

81.8

1988

-25+

1937

23

19.5

1984

5634

1153

Issue Date: February 2004 077-A

1931

67.6

8.8

Elevation: 5,070 Feet Lat: 39°23N

271.7

17.7

138.5

3.4

⁺ Also occurred on an earlier date(s)

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

⁽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

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: 426357

Station: OAK CITY, UT

Climate Division: UT 4 NWS Call Sign: Elevation: 5,070 Feet Lat: 39°23N Lon: 112°20W

										Pı	recipi	tation	(incl	nes)										
	Mea	ans/	P	recipi	itatio	on Total						ays (3)	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)				Extremes	•			Daily Precipitation				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	1.24	.99	1.16	1954	25	3.60	1993	.21	1972	6.2	3.8	.6	.0	.30	.42	.60	.76	.92	1.09	1.28	1.50	1.80	2.26	2.70
Feb	1.23	1.07	1.10	1959	12	2.92	2000	.10	1972	6.8	4.2	.4	@	.19	.30	.48	.65	.82	1.01	1.23	1.50	1.86	2.44	2.99
Mar	1.55	1.61	1.28	1938	21	3.39	1980	.00	1997	7.5	4.6	.9	.1	.12	.29	.54	.77	1.00	1.26	1.56	1.92	2.41	3.20	3.95
Apr	1.54	1.37	1.95	1953	28	3.09	1999	.09	1992	6.4	4.2	1.0	.1	.27	.41	.63	.84	1.06	1.29	1.56	1.88	2.31	3.01	3.67
May	1.58	1.48	2.88	1975	20	4.25	1975	.12	1974	6.4	4.2	.8	.2	.30	.44	.68	.89	1.11	1.34	1.61	1.93	2.35	3.03	3.68
Jun	.79	.48	1.61	1999	3	2.97	1998	.00+	1996	3.6	2.2	.3	.1	.00	.00	.05	.19	.34	.52	.72	.98	1.35	1.95	2.57
Jul	.50	.30	2.27	1929	27	2.44	1984	.00	2000	3.4	1.5	.2	.0	.02	.06	.13	.20	.28	.37	.48	.61	.80	1.11	1.42
Aug	.77	.66	1.35	1947	10	2.24	1997	.00+	1996	4.1	2.4	.4	.1	.00	.00	.21	.35	.48	.62	.78	.97	1.23	1.64	2.05
Sep	1.07	.82	1.61	1965	5	5.01	1982	.00+	1979	4.4	3.1	.6	.1	.00	.13	.33	.50	.67	.86	1.08	1.33	1.68	2.26	2.81
Oct	1.60	1.38	2.00	1946	27	4.07	1981	.00	1995	5.3	3.7	1.0	.3	.20	.41	.68	.91	1.14	1.38	1.65	1.98	2.41	3.09	3.74
Nov	1.28	1.24	1.39	1996	22	3.37	1994	.15	1999	5.3	3.5	.7	.1	.24	.35	.54	.71	.89	1.08	1.30	1.56	1.91	2.48	3.01
Dec	1.06	1.02	1.37	1966	6	2.92	1972	.05	1976	5.4	3.2	.4	.0	.15	.24	.39	.53	.69	.86	1.05	1.29	1.61	2.14	2.65
Ann	14.21	14.07	2.88	May 1975	20	5.01	Sep 1982	.00+	Jul 2000	64.8	40.6	7.3	1.1	8.28	9.34	10.75	11.85	12.84	13.83	14.86	16.02	17.45	19.57	21.44

⁺ 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: 1928-2001

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

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: 426357

Station: OAK CITY, UT

Climate Division: UT 4 NWS Call Sign:

Elevation: 5,070 Feet Lat: 39°23N Lon: 112°20W

										Snov	w (incl	nes)													
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)				
	Mean	s/Medi	ans (1)	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	9.5	8.1	3	2	10.0	1980	28	21.5	1979	19	1988	20	13	1988	4.5	3.9	1.2	.5	@	10.4	6.1	3.3	.1		
Feb	5.7	4.0	1	1	8.0	1979	22	17.5	1979	12+	1990	14	7	1988	3.1	2.7	.9	.4	.0	9.1	5.8	2.8	.5		
Mar	7.3	7.0	#	#	16.0	1988	16	21.0+	1988	10	1988	16	3	1973	3.3	2.8	.9	.3	@	2.0	.8	.3	@		
Apr	4.0	3.8	#	#	10.0	1983	12	10.0+	1991	8	1983	12	#+	1999	1.6	1.5	.5	.2	@	.8	.4	.1	.0		
May	1.3	.0	#	0	19.0	1975	20	25.0	1975	15	1975	20	1	1975	.4	.3	.2	.1	@	.1	@	@	@		
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	.1	.0	0	0	2.5	1971	30	2.5	1971	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0		
Oct	2.0	.0	#	0	11.5	1971	28	24.5	1971	18	1971	29	2	1971	.6	.6	.2	.1	@	.4	.2	.2	.1		
Nov	6.4	4.8	1	#	10.0	1978	25	18.1	1978	14	1983	21	4	1983	2.4	2.3	.8	.4	@	2.9	1.8	.6	.1		
Dec	8.2	6.5	2	1	10.0	1987	23	27.0	1988	15	1972	9	8	1972	3.3	3.0	1.0	.4	@	9.1	3.8	1.8	.4		
Ann	44.5	34.2	N/A	N/A	19.0	May 1975	20	27.0	Dec 1988	19	Jan 1988	20	13	Jan 1988	19.2	17.1	5.7	2.4	@	34.8	18.9	9.1	1.2		

⁺ 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

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: 426357

Lon: 112°20W

Lat: 39°23N

Station: OAK CITY, UT

Climate Division: UT 4

NWS Call Sign:

				Freez	e Data				
			Sprii	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	6/11	6/05	6/01	5/28	5/24	5/21	5/17	5/13	5/07
32	6/04	5/28	5/22	5/18	5/14	5/10	5/06	4/30	4/23
28	5/15	5/08	5/03	4/28	4/24	4/20	4/15	4/10	4/03
24	4/26	4/18	4/12	4/06	4/01	3/28	3/22	3/16	3/08
20	4/09	3/31	3/25	3/19	3/14	3/09	3/04	2/26	2/17
16	3/26	3/17	3/12	3/07	3/02	2/26	2/21	2/15	2/07
		•	Fal	l Freeze Da	tes (Month/D	ay)		•	
Temp (F) Probability of earlier date in fall (beginning Aug 1) than indicated(*)									
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/16	9/20	9/24	9/27	9/29	10/02	10/05	10/08	10/12
32	9/22	9/28	10/02	10/06	10/10	10/13	10/17	10/22	10/28
28	10/13	10/17	10/20	10/23	10/25	10/28	10/30	11/02	11/07
24	10/20	10/25	10/28	10/30	11/02	11/04	11/07	11/10	11/14
20	10/29	11/03	11/06	11/09	11/12	11/15	11/18	11/21	11/26
16	11/06	11/11	11/15	11/19	11/22	11/25	11/28	12/02	12/08
·				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	151	143	137	132	127	122	117	112	104
32	175	166	159	154	148	143	137	130	121
28	210	201	194	189	184	178	173	166	157
24	244	234	226	220	214	208	201	193	183
20	272	262	254	248	242	236	230	222	212
16	295	284	276	270	264	258	251	244	233

^{*} 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. Derived from 1971-2000 serially complete daily data

Complete documentation available from:

Elevation: 5,070 Feet

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: 426357

Station: OAK CITY, UT

Climate Division: UT 4 NWS Call Sign: Elevation: 5,070 Feet Lat: 39°23N Lon: 112°20W

	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	1096	836	679	467	223	53	1	2	71	357	765	1084	5634		
60	941	696	526	331	127	19	0	0	26	232	616	929	4443		
57	848	612	437	258	83	9	0	0	12	169	529	836	3793		
55	790	556	381	216	60	6	0	0	7	133	472	774	3395		
50	646	426	249	128	22	0	0	0	1	66	339	623	2500		
32	223	85	14	3	0	0	0	0	0	0	45	181	551		

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	149	173	358	533	846	1144	1431	1374	1040	680	270	120	8118
55	4	0	12	55	193	459	718	661	356	99	7	0	2564
57	0	0	6	38	154	403	656	599	301	73	4	0	2234
60	0	0	2	21	104	323	563	506	225	43	1	0	1788
65	0	0	0	6	46	206	409	352	121	13	0	0	1153
70	0	0	0	0	16	116	259	207	51	3	0	0	652

	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	20	56	163	320	617	925	1205	1152	824	463	116	22	20	76	239	559	1176	2101	3306	4458	5282	5745	5861	5883
45	0	16	77	201	465	775	1050	997	674	322	53	5	0	16	93	294	759	1534	2584	3581	4255	4577	4630	4635
50	0	2	28	107	321	626	895	842	526	202	15	0	0	2	30	137	458	1084	1979	2821	3347	3549	3564	3564
55	0	1	4	44	200	477	740	687	381	106	1	0	0	1	5	49	249	726	1466	2153	2534	2640	2641	2641
60	0	0	0	18	105	336	585	532	249	41	0	0	0	0	0	18	123	459	1044	1576	1825	1866	1866	1866
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	10	42	117	220	402	598	770	735	541	310	89	16	10	52	169	389	791	1389	2159	2894	3435	3745	3834	3850

(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