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: CORTEZ, CO 1971-2000 COOP ID: 051886

Climate Division: CO 2 NWS Call Sign: Elevation: 6,153 Feet Lat: 37°21N Lon: 108°36W

									r	Гетр	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 65		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	40.8	12.3	26.6	63	1994	21	34.4	1999	-27+	1963	13	18.2	1979	1193	0	.0	.0	4.3	4.7	30.7	4.3
Feb	45.7	18.1	31.9	78	1943	17	39.9	1995	-31	1933	8	24.4	1974	927	0	.0	.0	8.7	2.1	27.5	1.3
Mar	53.4	24.3	38.9	76+	1997	22	45.2	1999	-15	1935	6	34.4	1977	811	0	.0	.0	20.2	.2	27.2	.1
Apr	61.7	29.4	45.6	88	1932	18	51.0	2000	6	1945	4	39.9	1973	584	0	.0	.0	25.9	.0	19.2	.0
May	71.7	37.3	54.5	95	1932	17	60.5	2000	17	1967	1	50.0	1975	333	6	.0	.1	30.5	.0	5.5	.0
Jun	83.3	45.5	64.4	100	1954	22	68.9	2000	27+	1939	18	59.6	1975	92	74	.0	4.9	30.0	.0	.4	.0
Jul	88.2	53.3	70.8	101	1971	13	74.6	1998	37+	1995	5	67.6	1992	6	185	.1	12.1	31.0	.0	.0	.0
Aug	85.9	52.3	69.1	99	1962	15	74.1	2000	36+	1968	24	66.0	1975	19	146	.0	6.3	31.0	.0	.0	.0
Sep	78.5	43.8	61.2	96	1995	2	66.8	1998	23	1930	26	56.5	1973	150	34	.0	.8	30.0	.0	1.5	.0
Oct	66.6	32.7	49.7	86	1943	7	54.3	1988	12	1929	29	43.9	1984	477	1	.0	.0	29.0	.0	13.9	.0
Nov	51.6	22.3	37.0	72+	1980	11	43.0	1999	-14	1931	24	31.3	1979	841	0	.0	.0	16.9	1.0	27.3	.2
Dec	42.4	14.5	28.5	65	1999	1	36.8	1980	-22	1978	8	21.2	1978	1135	0	.0	.0	5.8	3.9	30.2	2.0
Ann	64.2	32.2	48.2	101	Jul 1971	13	74.6	Jul 1998	-31	Feb 1933	8	18.2	Jan 1979	6568	446	.1	24.2	263.3	11.9	183.4	7.9

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 027-A

[@] 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: 1929-2001

⁽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: 051886

Station: CORTEZ, CO

Climate Division: CO 2 NWS Call Sign: Elevation: 6,153 Feet Lat: 37°21N Lon: 108°36W

										Pı	recipi	tation	(incl	nes)										
			P	recip	itatio	on Total	S			M	lean N of D	Numb Oays (3		Proba	ability th		nonthly/	annual j	precipita ated am		ll be equ		less tha	ın the
		ans/				Extremes	3			D	aily Pre	cipitatio	n		Th		•		•	vs Probal incomplet	•		on	
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	1.01	.72	1.02	1943	18	3.19	1980	.00	1972	6.7	3.9	.2	.0	.07	.17	.33	.48	.63	.81	1.00	1.24	1.57	2.11	2.62
Feb	.95	.79	.93	1937	14	3.22	1980	.00	1972	6.2	3.3	.3	.0	.11	.23	.39	.53	.66	.81	.97	1.17	1.43	1.84	2.24
Mar	1.37	1.19	1.50	1995	6	4.60	1995	.00	1997	7.3	4.3	.6	.1	.02	.10	.26	.45	.67	.92	1.24	1.65	2.23	3.22	4.21
Apr	.90	.83	1.26	1952	28	2.47	1986	.00	1991	5.7	2.8	.2	@	.04	.11	.24	.37	.51	.68	.87	1.11	1.44	1.99	2.52
May	1.01	.92	1.19	1957	8	3.70	1992	.00	1974	6.5	3.4	.4	.0	.06	.15	.30	.45	.61	.78	.99	1.24	1.58	2.15	2.70
Jun	.43	.29	1.33	1949	18	1.80	1988	.00+	1980	3.3	1.3	.2	@	.00	.00	.05	.11	.19	.27	.38	.52	.72	1.05	1.39
Jul	1.23	1.16	1.36	1957	26	2.42	1998	.00	1993	7.7	3.9	.5	@	.13	.28	.49	.67	.85	1.04	1.25	1.52	1.86	2.42	2.95
Aug	1.37	1.32	1.82	1955	14	3.30	1971	.26	1985	8.4	3.6	.7	.1	.31	.44	.64	.82	1.00	1.19	1.41	1.66	2.00	2.54	3.05
Sep	1.31	1.24	1.96	1941	22	3.36	1986	.00	1979	7.0	3.7	.6	.1	.18	.35	.57	.75	.94	1.13	1.35	1.61	1.95	2.49	3.00
Oct	1.55	1.27	1.65	1941	13	6.56	1972	.00	1999	6.0	3.9	.8	.2	.06	.19	.42	.65	.89	1.17	1.50	1.90	2.46	3.40	4.31
Nov	1.18	.92	1.62	1964	16	2.78	1985	.00	1989	5.9	3.2	.6	.1	.10	.24	.43	.60	.78	.97	1.19	1.45	1.81	2.38	2.93
Dec	.90	.59	1.17	1954	11	2.98	1978	.00	1989	5.6	2.8	.3	@	.04	.11	.25	.38	.52	.68	.87	1.11	1.44	1.98	2.51
Ann	13.21	13.51	1.96	Sep 1941	22	6.56	Oct 1972	.00+	Oct 1999	76.3	40.1	5.4	.6	8.04	8.97	10.21	11.17	12.03	12.88	13.77	14.77	15.99	17.80	19.38

⁺ 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: 1929-2001

⁽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

Station: CORTEZ, CO

Climate Division: CO 2 NWS Call Sign:

Elevation: 6,153 Feet Lat: 37°21N

COOP ID: 051886

										Snov	w (incl	nes)											
						Sno	ow To	tals									Mea	n Nu	nber	of Day	ys (1)		
	Mean	s/Medi	ians (1)	1					Extre	mes (2)						-	ow Fa					Depth esholo	
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	5.3	4.0	2	2	7.0	1979	13	10.5+	1988	15	1979	31	13	1979	3.5	2.6	.9	.1	.0	-9.9	-9.9	-9.9	-9.9
Feb	5.5	3.5	2	#	6.0	1985	4	14.5	1979	19	1979	5	13	1979	2.4	1.6	.6	.1	.0	2.6	.8	.0	.0
Mar	3.3	1.6	#	#	4.0	1998	7	9.7	2000	8	1979	6	4	1987	1.4	.9	.2	.0	.0	.6	.1	.0	.0
Apr	1.5	.0	#	0	4.0	1971	19	6.2	1998	3	1998	2	#+	2000	1.1	.5	.1	.0	.0	.4	.1	.0	.0
May	.0	.0	0	0	.2	1999	2	.3	1999	0	0	0	0	0	.1	.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	.4	.0	#	0	3.2	1997	25	6.2	1997	3	1997	25	#+	2000	.2	.1	.1	.0	.0	.1	.1	.0	.0
Nov	3.3	2.7	#	#	6.0	1987	26	10.5	1985	7	1985	21	2	1979	1.1	.8	.3	.1	.0	1.1	.5	.1	.0
Dec	4.7	3.5	1	#	6.0	1987	13	17.5	1971	11	1971	16	5	1971	2.4	1.3	.3	.2	.0	2.1	.5	.1	.0
Ann	24.0	15.3	N/A	N/A	7.0	Jan 1979	13	17.5	Dec 1971	19	Feb 1979	5	13+	Feb 1979	12.2	7.8	2.5	.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

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: 051886

Station: CORTEZ, CO Climate Division: CO 2

NWS Call Sign:

Elevation: 6,153 Feet

Lat: 37°21N Lon: 108°36W

				Freez	ze Data				
			Spri	ng Freeze D	ates (Month/	/Day)			
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated((*)	
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/23	6/18	6/14	6/11	6/08	6/05	6/02	5/29	5/24
32	6/11	6/06	6/02	5/29	5/26	5/23	5/20	5/16	5/11
28	5/23	5/18	5/15	5/12	5/10	5/07	5/04	5/01	4/26
24	5/09	5/04	4/30	4/27	4/23	4/20	4/17	4/13	4/08
20	5/01	4/24	4/19	4/15	4/11	4/07	4/03	3/29	3/22
16	4/21	4/12	4/06	4/01	3/27	3/23	3/17	3/11	3/03
			Fal	ll Freeze Da	tes (Month/D	Day)			
Temp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ning Aug 1) t	han indicate	ed(*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/09	9/13	9/16	9/19	9/21	9/24	9/26	9/29	10/03
32	9/16	9/21	9/24	9/27	9/30	10/02	10/05	10/08	10/13
28	9/26	10/01	10/05	10/08	10/11	10/14	10/17	10/21	10/26
24	10/07	10/12	10/15	10/18	10/21	10/24	10/27	10/31	11/05
20	10/21	10/26	10/29	11/01	11/03	11/06	11/08	11/12	11/16
16	10/27	11/01	11/05	11/07	11/10	11/13	11/16	11/19	11/24
		•		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	124	117	112	108	105	101	97	92	86
32	144	137	133	129	125	122	118	113	107
28	177	169	163	158	154	149	144	139	131
24	203	195	189	185	180	176	171	165	158
20	232	223	216	211	206	200	195	188	179
16	259	248	240	233	227	221	214	206	195

^{*} 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:

Derived from 1971-2000 serially complete daily data

Complete do

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: CORTEZ, CO

COOP ID: 051886

Climate Division: CO 2 Elevation: 6,153 Feet Lat: 37°21N Lon: 108°36W **NWS Call Sign:**

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1193	927	811	584	333	92	6	19	150	477	841	1135	6568
60	1038	787	656	434	200	33	0	2	65	328	691	980	5214
57	945	703	563	348	135	15	0	0	33	245	601	887	4475
55	883	647	501	293	99	8	0	0	19	196	541	825	4012
50	728	507	354	171	37	1	0	0	3	96	393	670	2960
32	240	107	27	2	0	0	0	0	0	0	38	182	596

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	70	104	239	408	696	972	1202	1150	874	547	187	70	6519
55	0	0	0	9	82	290	489	437	203	29	0	0	1539
57	0	0	0	4	56	237	427	375	157	17	0	0	1273
60	0	0	0	1	28	165	334	284	98	6	0	0	916
65	0	0	0	0	6	74	185	146	34	1	0	0	446
70	0	0	0	0	0	22	67	50	7	0	0	0	146

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (N	(Ionthly)								Growi	ng Degre	e Units (Accumu	lated Mo	nthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40														15	93	306	772	1521	2488	3408	4052	4370	4431	4434
45	0 0 24 109 316 599 812 765 494 189 15												0	0	24	133	449	1048	1860	2625	3119	3308	3323	3323
50	0 0 1 39 187 450 657 610 345 87 0												0	0	1	40	227	677	1334	1944	2289	2376	2376	2376
55	0	0	0	10	83	306	502	455	209	24	0	0	0	0	0	10	93	399	901	1356	1565	1589	1589	1589
60	0	0	0	0	23	173	348	300	97	2	0	0	0	0	0	0	23	196	544	844	941	943	943	943
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	1/86 5 29 96 190 339 495 619 589 435 257 76 10												5	34	130	320	659	1154	1773	2362	2797	3054	3130	3140

(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