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: 100375

Station: ARCO, ID

Climate Division: ID 9

NWS Call Sign:

Elevation: 5,325 Feet Lat: 43°38N Lon: 113°18W

									,	Гетр	eratu	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Min Mean Highest Daily(2) Year Day Month(1)			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	29.5	4.8	17.2	52	1962	7	23.9	1998	-35+	1985	31	9.5	1985	1484	0	.0	.0	.0	19.6	30.9	10.4
Feb	35.5	9.6	22.6	59	1991	20	33.1	1992	-31	1996	3	7.8	1985	1189	0	.0	.0	.9	9.6	28.0	6.4
Mar	45.7	20.7	33.2	71	1966	31	41.4	1992	-19+	1960	2	22.1	1985	987	0	.0	.0	9.4	1.9	29.8	1.0
Apr	58.1	28.8	43.5	86+	1992	29	50.4	1987	5	1978	22	35.3	1975	648	0	.0	.0	23.3	.0	21.4	.0
May	67.0	36.6	51.8	90+	1986	31	58.6	1992	11	1972	1	47.9	1977	409	1	.0	@	30.2	.0	8.8	.0
Jun	76.6	43.4	60.0	97+	1988	24	65.7	1988	21	1954	5	55.4	1993	185	35	.0	1.9	29.9	.0	1.3	.0
Jul	84.6	48.4	66.5	102+	1960	21	72.4	1998	29	1986	5	58.0	1993	72	118	@	8.2	31.0	.0	.2	.0
Aug	83.2	47.0	65.1	100+	1961	4	70.0	1971	25	1992	25	60.2	1993	89	91	.0	5.9	31.0	.0	.6	.0
Sep	73.6	38.0	55.8	96	1950	5	62.9	1998	15	1985	29	49.3	1985	294	17	.0	.5	29.8	.0	6.9	.0
Oct	61.1	29.0	45.1	83+	1988	1	52.3	1988	8+	1984	30	40.2	1984	619	0	.0	.0	26.8	.1	20.8	.0
Nov	41.9	17.6	29.8	69	1953	3	37.8	1999	-21	1977	21	21.6	1994	1058	0	.0	.0	6.9	5.1	28.9	1.8
Dec	30.4	6.2	18.3	59	1976	17	26.7	1995	-45	1983	23	8.6	1983	1448	0	.0	.0	.3	16.7	30.8	7.5
Ann	57.3	27.5	42.4	102+	Jul 1960	21	72.4	Jul 1998	-45	Dec 1983	23	7.8	Feb 1985	8482	262	@	16.5	219.5	53.0	208.4	27.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 005-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

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

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										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total					ean N of D	ays (3	3)	Proba	ability th		nonthly/	annual j	precipita ated an	babilit ation will nount vs Probal	ll be equ		less tha	ın the
	Medi	ans(1)				Extreme	•				any 110	стриано	11		Th	ese value	s were de	termined	from the	incomplet	e gamma	distribut	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	.82	.79	1.05	1968	10	2.42	1996	.00+	1991	6.9	3.0	.3	.0	.00	.00	.34	.48	.61	.74	.88	1.05	1.25	1.58	1.89
Feb	1.05	.84	2.44	1985	8	3.55	1986	.02	1997	5.6	2.9	.3	.1	.06	.12	.24	.38	.54	.73	.97	1.27	1.68	2.40	3.11
Mar	.86	.67	1.20	1985	27	2.58	1982	.00	1993	5.5	2.5	.3	@	.03	.09	.21	.33	.47	.62	.81	1.05	1.38	1.94	2.48
Apr	.75	.65	1.64	1981	20	2.40	1975	.00+	1992	5.9	2.5	.2	.1	.00	.09	.23	.35	.47	.60	.76	.94	1.19	1.59	1.99
May	1.32	1.19	1.89	1962	15	3.27	1980	.19	1973	8.5	4.1	.5	@	.25	.37	.57	.74	.93	1.12	1.34	1.61	1.96	2.53	3.07
Jun	.90	.71	1.25	1993	6	3.07	1984	.00+	1996	6.8	3.0	.3	.1	.00	.00	.20	.35	.51	.68	.88	1.14	1.47	2.03	2.58
Jul	.83	.50	1.40	1997	2	3.39	1985	.00	1994	4.4	1.9	.5	.1	.01	.04	.13	.24	.37	.52	.72	.99	1.36	2.02	2.68
Aug	.78	.49	1.57	1980	19	2.42	1984	.00+	1996	4.9	2.1	.3	.2	.00	.02	.11	.21	.34	.49	.68	.93	1.29	1.90	2.52
Sep	.70	.55	1.31	1968	20	2.23	1985	.00+	1999	4.0	1.7	.3	.1	.00	.00	.06	.17	.29	.44	.62	.85	1.19	1.75	2.32
Oct	.63	.57	.93	1964	30	1.58	1982	.00+	1988	4.6	2.0	.1	.0	.00	.00	.11	.23	.34	.47	.62	.80	1.05	1.44	1.83
Nov	.80	.69	.93	1970	30	2.59	1983	.00+	1999	6.5	2.8	.1	.0	.00	.00	.23	.37	.51	.65	.82	1.02	1.28	1.70	2.11
Dec	.81	.80	1.26	1982	21	1.77	1974	.02	1976	5.7	2.9	.3	@	.08	.14	.25	.36	.49	.62	.79	.99	1.27	1.74	2.19
Ann	10.25	9.20	2.44	Feb 1985	8	3.55	Feb 1986	.00+	Nov 1999	69.3	31.4	3.5	.7	5.97	6.74	7.76	8.55	9.27	9.98	10.72	11.56	12.59	14.12	15.47

⁺ 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: 1948-2001

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

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Climate Division: ID 9 NWS Call Sign: Elevation: 5,325 Feet Lat: 43°38N Lon: 113°18W

										Snov	v (incl	hes)											
						Sno	ow To	tals									Mea	n Nui	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	6.2	6.0	4	#	8.0	1980	12	18.0	1978	22	1971	12	15	1971	3.2	2.0	.8	.3	.0	-9.9	-9.9	-9.9	-9.9
Feb	4.4	2.0	2	#	8.0	1978	9	21.0	1975	14	1971	3	9	1971	2.0	1.5	.5	.1	.0	-9.9	-9.9	-9.9	-9.9
Mar	2.6	.3	1	0	12.0	1985	27	12.0	1985	19	1973	1	6	1973	1.1	.6	.3	.2	.0	-9.9	-9.9	-9.9	-9.9
Apr	.4	.0	#	0	5.0	1973	1	5.0	1973	10	1973	1	10	1973	.3	.1	.1	.1	.0	-9.9	-9.9	-9.9	-9.9
May	.3	.0	0	0	6.5	1979	9	6.5	1979	0	0	0	0	0	.1	.1	@	@	.0	.0	.0	.0	.0
Jun	#	.0	0	0	#	1973	17	#	1973	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#	1974	11	#	1974	.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	.3	1971	30	.3	1971	#	1971	30	#	1971	@	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.4	.0	#	0	5.5	1991	27	5.5	1991	#+	1996	29	#+	1996	.2	.1	.1	.1	.0	.0	.0	.0	.0
Nov	4.1	4.0	#	0	5.0	1977	22	11.0	1977	6	1973	5	1	1994	1.6	1.2	.5	.1	.0	-9.9	-9.9	-9.9	-9.9
Dec	9.7	8.7	1	#	8.0	1985	8	22.5	1992	14	1982	23	6	1982	3.1	2.3	1.1	.3	.0	-9.9	-9.9	-9.9	-9.9
Ann	28.1	21.0	N/A	N/A	12.0	Mar 1985	27	22.5	Dec 1992	22	Jan 1971	12	15	Jan 1971	11.6	7.9	3.4	1.2	.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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				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((*)	
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	7/16	7/09	7/05	7/01	6/27	6/24	6/20	6/15	6/09
32	6/30	6/24	6/19	6/15	6/11	6/07	6/03	5/29	5/23
28	6/07	5/31	5/27	5/23	5/19	5/15	5/11	5/07	4/30
24	5/23	5/17	5/13	5/10	5/07	5/03	4/30	4/26	4/20
20	5/09	5/03	4/29	4/25	4/22	4/19	4/15	4/11	4/06
16	4/25	4/18	4/13	4/09	4/05	3/31	3/27	3/22	3/15
			Fal	ll Freeze Da	tes (Month/D	Day)			
Tomp (F)		Pro	bability of ea	arlier date ii	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/12	8/18	8/23	8/26	8/30	9/03	9/06	9/11	9/17
32	8/21	8/27	8/31	9/03	9/07	9/10	9/13	9/18	9/23
28	9/01	9/07	9/11	9/14	9/18	9/21	9/25	9/29	10/05
24	9/14	9/20	9/24	9/28	10/02	10/05	10/09	10/13	10/19
20	9/26	10/02	10/06	10/10	10/13	10/17	10/21	10/25	10/31
16	10/10	10/16	10/20	10/24	10/27	10/31	11/03	11/08	11/14
		•		Freeze F	ree Period		•		1
Tomp (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	89	80	73	68	63	58	53	46	37
32	111	103	97	92	87	82	77	71	63
28	147	138	131	126	121	116	111	104	95
24	174	165	158	152	147	142	136	130	121
20	200	191	184	179	174	168	163	157	148
16	234	224	217	211	205	199	193	186	175

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1484	1189	987	648	409	185	72	89	294	619	1058	1448	8482
60	1329	1049	832	498	263	92	22	31	179	465	908	1293	6961
57	1236	965	739	415	184	52	10	14	124	375	818	1200	6132
55	1174	909	678	359	140	33	5	7	93	317	758	1138	5611
50	1019	769	534	234	57	8	0	1	37	189	608	983	4439
32	477	319	137	15	0	0	0	0	0	4	161	455	1568

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	16	55	173	357	614	840	1069	1026	713	408	94	30	5395
55	0	0	2	11	41	183	361	320	116	9	0	0	1043
57	0	0	0	7	24	143	304	265	86	4	0	0	833
60	0	0	0	0	9	92	223	189	52	1	0	0	566
65	0	0	0	0	1	35	118	91	17	0	0	0	262
70	0	0	0	0	0	9	46	30	4	0	0	0	89

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	0	1	16	149	380	612	841	796	492	200	7	0	0	1	17	166	546	1158	1999	2795	3287	3487	3494	3494
45												0	0	0	0	72	311	773	1459	2100	2448	2548	2548	2548
50	0 0 0 0 23 128 319 531 486 221 35 0											0	0	0	0	23	151	470	1001	1487	1708	1743	1743	1743
55	0	0	0	5	54	189	377	333	109	11	0	0	0	0	0	5	59	248	625	958	1067	1078	1078	1078
60	0	0	0	0	17	89	232	194	41	0	0	0	0	0	0	0	17	106	338	532	573	573	573	573
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	50/86 0 1 29 138 275 412 544 532 370 191 21 0												0	1	30	168	443	855	1399	1931	2301	2492	2513	2513

(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