

Climatography of the United States

No. 20

1971-2000

Station: TRINIDAD AP, CO

COOP ID: 058434

Climate Division: CO 1

NWS Call Sign: TAD

Elevation: 5,746 Feet Lat: 37° 16N

Lon: 104° 20W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of 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	46.4	17.1	31.8	80	1997	1	39.8	1986	-32+	1963	12	22.3	1979	1032	0	.0	.0	14.3	4.5	29.9	2.2
Feb	51.1	20.5	35.8	82	1979	13	43.3	2000	-24	1982	5	27.6	1989	818	0	.0	.0	16.9	3.0	26.0	1.5
Mar	57.7	26.7	42.2	85	1971	26	47.0	1989	-10+	1965	20	36.8	1984	706	0	.0	.0	23.7	1.0	23.8	.1
Apr	65.2	34.1	49.7	91	1989	21	57.3	1981	3+	1997	13	42.9	1973	464	3	.0	.1	26.4	.3	12.5	.0
May	74.4	43.6	59.0	98	2000	30	64.7	1996	22	1991	1	54.0	1995	211	24	.0	1.0	30.1	.0	1.9	.0
Jun	85.0	52.9	69.0	103+	1994	26	73.3	1990	35+	1976	15	64.4	1995	30	149	.5	9.5	29.9	.0	.0	.0
Jul	89.1	58.3	73.7	103	1973	1	77.7	1980	43+	1994	8	70.4	1990	1	270	.4	15.6	31.0	.0	.0	.0
Aug	86.5	57.0	71.8	104	2000	16	75.2	1983	43+	1972	25	68.8	1993	6	214	.1	10.3	31.0	.0	.0	.0
Sep	79.2	49.0	64.1	100	1995	5	69.4	1998	23	1984	29	60.3	1971	97	69	@	3.2	29.6	.0	.8	.0
Oct	68.7	37.2	53.0	89+	2000	3	56.1	1975	1	1993	30	47.8	1984	374	1	.0	.0	29.1	.2	8.2	.0
Nov	54.9	25.2	40.1	81+	1980	10	48.2	1999	-17	1976	27	31.4	1992	750	0	.0	.0	20.1	1.5	24.1	.4
Dec	46.5	17.6	32.1	81	1980	17	41.7	1980	-19	1990	23	20.7	1983	1023	0	.0	.0	14.2	4.4	29.4	2.1
Ann	67.1	36.6	51.9	104	Aug 2000	16	77.7	Jul 1980	-32+	Jan 1963	12	20.7	Dec 1983	5512	730	1.0	39.7	296.3	14.9	156.6	6.3

+ Also occurred on an earlier date(s)

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

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

Issue Date: February 2004

(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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No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: TRINIDAD AP, CO

COOP ID: 058434

Climate Division: CO 1

NWS Call Sign: TAD

Elevation: 5,746 Feet Lat: 37°16N

Lon: 104°20W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels 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	.41	.38	.60	1966	2	1.03	1987	.06+	1984	4.8	1.4	.0	.0	.07	.10	.16	.22	.28	.34	.41	.50	.62	.81	.99
Feb	.45	.40	.63	1977	25	1.27	1990	.03	1976	4.0	1.6	.1	.0	.04	.07	.13	.19	.26	.33	.43	.54	.70	.97	1.24
Mar	.94	.78	.95	1984	18	2.58	2000	.08	1985	6.6	3.1	.3	.0	.17	.26	.40	.53	.66	.80	.96	1.15	1.41	1.82	2.22
Apr	1.05	.78	1.67	1998	26	4.21	1999	.15	1978	6.7	3.0	.3	.1	.13	.21	.36	.51	.66	.84	1.04	1.29	1.62	2.18	2.72
May	1.80	1.45	2.69	1955	18	4.88	1979	.21	1984	8.1	4.5	.9	.2	.34	.50	.76	1.01	1.25	1.52	1.83	2.19	2.68	3.47	4.21
Jun	1.38	1.13	1.76	1982	18	3.96	1978	.17	1980	6.7	3.6	.7	.2	.22	.34	.54	.73	.93	1.14	1.38	1.68	2.08	2.73	3.35
Jul	2.23	1.67	4.52	1981	3	6.55	1981	.35	1987	9.3	5.0	1.3	.4	.40	.60	.92	1.23	1.54	1.88	2.26	2.72	3.34	4.33	5.28
Aug	2.24	1.91	2.56	1997	5	4.95	1997	.20	1973	9.7	5.3	1.3	.3	.40	.60	.93	1.23	1.54	1.88	2.26	2.73	3.35	4.34	5.29
Sep	1.27	1.21	1.77	1980	9	2.97	1982	.00	1992	6.3	3.2	.8	.2	.15	.30	.51	.70	.88	1.08	1.30	1.57	1.92	2.49	3.02
Oct	.87	.67	1.44	1972	31	2.83	1998	.00	1995	4.2	2.2	.5	.1	.05	.13	.27	.39	.53	.68	.85	1.07	1.36	1.84	2.30
Nov	.84	.75	.98	1990	2	2.37	1992	.07	2000	5.1	2.8	.4	.0	.12	.19	.31	.42	.54	.68	.83	1.02	1.28	1.70	2.10
Dec	.54	.42	.77	1961	9	1.81	1973	.11	1977	5.1	2.0	.1	.0	.14	.19	.27	.33	.40	.48	.56	.65	.78	.97	1.16
Ann	14.02	14.25	4.52	Jul 1981	3	6.55	Jul 1981	.00+	Oct 1995	76.6	37.7	6.7	1.5	9.15	10.06	11.25	12.15	12.97	13.76	14.59	15.51	16.63	18.28	19.71

+ Also occurred on an earlier date(s)

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

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

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Climate Division: CO 1

NWS Call Sign: TAD

Elevation: 5,746 Feet

Lat: 37°16N

Lon: 104°20W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (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	4.7	4.2	1	1	6.4	1990	18	13.2	1990	12	1990	20	3	1974	4.3	1.6	.4	.1	.0	9.2	3.6	.9	@
Feb	4.8	4.1	#	1	8.3	1977	25	15.3	1990	10	1990	21	2+	1991	3.7	1.9	.4	.1	.0	5.2	1.8	.3	@
Mar	8.0	6.7	#	1	9.0	1984	18	23.4	2000	8+	2000	31	1+	1994	5.0	2.9	.7	.3	.0	3.3	.9	.2	.0
Apr	4.7	3.0	#	1	10.0	1980	24	20.6	1980	9	2000	1	1+	2000	3.1	1.6	.5	.1	@	2.1	.9	.3	.0
May	2.0	.0	#	0	10.9	1990	2	12.4	1978	9	1990	3	#	2000	.8	.6	.2	.1	@	.3	.2	@	.0
Jun	#	.0	#	0	#	1975	10	#	1975	#	1975	10	#	1993	.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	.7	.0	#	0	4.5	1984	28	6.6	1985	3	1985	29	#	1996	.3	.2	.1	.0	.0	.2	@	.0	.0
Oct	4.0	2.2	#	0	18.1	1972	31	18.9	1972	11	1997	26	1+	1997	1.5	1.0	.5	.2	.1	1.1	.6	.3	.1
Nov	7.6	6.3	1	0	8.3	1990	2	23.9	1992	16	1972	1	3	1992	4.1	2.8	.8	.3	.0	5.1	2.8	1.3	.1
Dec	5.8	5.0	1	1	6.8	1979	27	19.2	1973	7+	1992	18	4	1992	4.6	2.2	.5	.1	.0	10.1	4.6	1.7	.0
Ann	42.3	31.5	N/A	N/A	18.1	Oct 1972	31	23.9	Nov 1992	16	Nov 1972	1	4	Dec 1992	27.4	14.8	4.1	1.3	.1	36.6	15.4	5.0	.2

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-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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Elevation: 5,746 Feet

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/02	5/27	5/23	5/20	5/17	5/13	5/10	5/06	5/01
32	5/18	5/14	5/11	5/08	5/06	5/04	5/01	4/29	4/25
28	5/05	5/01	4/28	4/25	4/23	4/20	4/18	4/15	4/10
24	4/30	4/25	4/21	4/18	4/15	4/12	4/09	4/05	3/31
20	4/20	4/15	4/10	4/07	4/04	3/31	3/28	3/24	3/18
16	4/17	4/09	4/03	3/29	3/24	3/19	3/14	3/08	2/28
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/16	9/20	9/23	9/25	9/27	9/29	10/02	10/04	10/08
32	9/20	9/24	9/28	9/30	10/03	10/06	10/09	10/12	10/17
28	9/30	10/06	10/10	10/14	10/17	10/20	10/24	10/28	11/03
24	10/10	10/15	10/19	10/23	10/26	10/29	11/01	11/05	11/11
20	10/22	10/27	10/31	11/03	11/06	11/09	11/12	11/15	11/20
16	10/28	11/02	11/05	11/09	11/12	11/14	11/18	11/21	11/26
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	151	145	140	137	133	129	125	121	114
32	169	162	157	153	149	145	141	136	130
28	198	191	185	181	176	172	167	162	155
24	214	207	202	197	193	189	184	179	172
20	238	230	225	220	215	211	206	201	193
16	258	249	243	237	232	226	221	214	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.

Derived from 1971-2000 serially complete daily data

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Elevation: 5,746 Feet Lat: 37°16N Lon: 104°20W

Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1032	818	706	464	211	30	1	6	97	374	750	1023	5512
60	877	678	551	326	108	6	0	0	34	228	600	868	4276
57	784	594	459	251	65	2	0	0	14	155	515	775	3614
55	722	538	398	206	44	0	0	0	7	113	459	713	3200
50	567	401	256	115	13	0	0	0	0	44	327	563	2286
32	128	53	6	0	0	0	0	0	0	0	45	142	374

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	119	160	324	529	836	1109	1293	1232	962	650	286	142	7642
55	0	0	2	45	167	419	580	519	279	50	10	0	2071
57	0	0	1	29	126	361	518	457	226	30	5	0	1753
60	0	0	0	15	76	275	425	364	156	11	0	0	1322
65	0	0	0	3	24	149	270	214	69	1	0	0	730
70	0	0	0	0	4	61	129	90	21	0	0	0	305

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	35	75	167	325	595	871	1051	993	736	434	139	46	35	110	277	602	1197	2068	3119	4112	4848	5282	5421	5467
45	10	27	81	210	444	722	896	838	588	297	72	15	10	37	118	328	772	1494	2390	3228	3816	4113	4185	4200
50	0	3	33	115	302	574	741	683	444	174	28	1	0	3	36	151	453	1027	1768	2451	2895	3069	3097	3098
55	0	0	3	48	178	427	586	528	307	82	4	0	0	0	3	51	229	656	1242	1770	2077	2159	2163	2163
60	0	0	0	14	81	283	432	374	179	26	0	0	0	0	0	14	95	378	810	1184	1363	1389	1389	1389
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	62	98	168	256	389	551	680	644	476	315	140	64	62	160	328	584	973	1524	2204	2848	3324	3639	3779	3843

(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

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

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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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