

Climatology of the United States

No. 20

1971-2000

Station: STORRS, CT

COOP ID: 068138

Climate Division: CT 2

NWS Call Sign:

Elevation: 650 Feet Lat: 41°48N Lon: 72°15W

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	33.7	17.2	25.5	68	1906	21	34.2	1990	-19	1948	19	16.9	1977	1227	0	.0	.0	2.8	13.8	28.8	2.6
Feb	36.0	19.3	27.7	69+	1954	16	34.5	1998	-20	1934	9	17.5	1979	1047	0	.0	.0	3.0	10.7	25.9	1.2
Mar	44.8	27.8	36.3	83	1945	29	41.6	1973	-6	1948	6	30.2	1984	890	0	.0	.0	9.0	3.3	23.1	.0
Apr	55.8	37.1	46.5	90+	1976	20	50.5	1976	10	1954	4	41.4	1972	557	0	.0	.1	22.1	.1	8.8	.0
May	67.3	46.8	57.1	92+	1911	22	61.4	1991	25+	1900	11	53.4+	1997	254	7	.0	.1	30.4	.0	.4	.0
Jun	75.0	55.4	65.2	95+	1919	3	68.4	1999	35+	1907	1	61.6	1985	60	66	.0	.4	30.0	.0	.0	.0
Jul	79.6	60.9	70.3	101	1919	6	74.3	1994	32	1909	2	67.3	2000	5	167	.0	1.3	31.0	.0	.0	.0
Aug	77.9	59.3	68.6	97	1949	10	71.6	1988	37	1940	25	65.5	1986	15	127	.0	.5	31.0	.0	.0	.0
Sep	70.7	51.7	61.2	97	1953	2	65.5	1983	26	1941	30	57.6	1975	136	22	.0	.3	30.0	.0	.1	.0
Oct	60.5	41.1	50.8	89	1908	18	55.9	1971	16	1925	31	46.0	1974	442	1	.0	.0	28.2	.0	4.4	.0
Nov	49.4	33.3	41.4	82	1950	2	46.3	1975	1	1938	26	37.0	1976	709	0	.0	.0	14.4	1.0	14.7	.0
Dec	38.5	23.2	30.9	73	1998	8	37.6	1998	-17+	1917	30	16.8	1989	1059	0	.0	.0	4.6	8.3	26.5	.5
Ann	57.4	39.4	48.5	101	Jul 1919	6	74.3	Jul 1994	-20	Feb 1934	9	16.8	Dec 1989	6401	390	.0	2.7	236.5	37.2	132.7	4.3

+ 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: 1888-2001

(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: STORRS, CT

COOP ID: 068138

Climate Division: CT 2

NWS Call Sign:

Elevation: 650 Feet Lat: 41°48N

Lon: 72°15W

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	4.61	4.51	3.65	1978	26	13.79	1979	.64	1981	10.6	7.0	3.1	1.3	1.01	1.44	2.11	2.72	3.34	3.99	4.72	5.60	6.76	8.60	10.34	
Feb	3.66	3.44	2.90	1900	13	7.89	1981	.56	1987	8.8	6.3	2.3	1.0	1.22	1.57	2.08	2.51	2.92	3.35	3.82	4.36	5.07	6.15	7.16	
Mar	4.45	4.05	3.39	1936	18	9.50	1980	.55	1981	10.2	6.9	3.2	1.4	1.61	2.03	2.63	3.14	3.62	4.11	4.65	5.27	6.07	7.30	8.43	
Apr	4.36	4.06	3.08	1923	28	10.94	1983	1.50	1985	10.5	7.2	2.8	1.2	1.45	1.86	2.47	2.98	3.48	3.99	4.55	5.20	6.04	7.35	8.55	
May	4.00	3.92	4.92	1940	31	9.21	1984	.93	1993	11.5	7.8	2.7	1.1	1.44	1.82	2.36	2.82	3.25	3.70	4.18	4.75	5.47	6.58	7.60	
Jun	3.93	3.05	4.26	1903	21	12.79	1982	.13	1999	11.1	7.2	2.2	1.1	.63	.97	1.54	2.08	2.64	3.25	3.95	4.80	5.94	7.78	9.55	
Jul	4.41	4.06	4.67	1965	18	8.96	1980	1.36	1987	10.2	7.0	3.2	1.2	1.78	2.18	2.76	3.23	3.68	4.13	4.62	5.19	5.91	7.01	8.01	
Aug	4.25	3.34	5.69	1955	19	9.99	1989	.47	1984	9.3	6.3	3.0	1.1	1.03	1.43	2.05	2.60	3.15	3.73	4.37	5.14	6.15	7.74	9.23	
Sep	4.42	3.95	6.21	1938	21	9.95	1975	.90	1986	9.2	6.6	3.0	1.4	1.12	1.54	2.18	2.75	3.31	3.90	4.56	5.35	6.37	7.99	9.50	
Oct	4.64	4.40	5.48	1990	14	10.70	1990	.99	1994	9.1	6.0	2.8	1.6	1.55	1.99	2.63	3.18	3.70	4.25	4.84	5.53	6.42	7.80	9.08	
Nov	4.58	4.73	4.50	1927	3	9.24	1988	.78	1976	9.7	7.0	3.2	1.6	1.56	2.00	2.63	3.16	3.68	4.20	4.78	5.45	6.31	7.64	8.87	
Dec	4.33	4.09	3.13	1888	17	9.97	1973	1.11	1980	10.4	7.4	3.0	1.2	1.18	1.58	2.21	2.76	3.29	3.85	4.48	5.21	6.17	7.68	9.08	
Ann	51.64	50.95	6.21	Sep 1938	21	13.79	Jan 1979	.13	Jun 1999	120.6	82.7	34.5	15.2	40.82	43.00	45.75	47.80	49.60	51.33	53.09	55.02	57.34	60.66	63.50	

+ 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: 1888-2001

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

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Station: STORRS, CT

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Climate Division: CT 2

NWS Call Sign:

Elevation: 650 Feet

Lat: 41°48N

Lon: 72°15W

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	7.4	7.0	2	#	7.5	1976	22	14.0	1974	16	1978	25	8	1994	3.6	2.8	1.2	.5	.0	-9.9	-9.9	-9.9	-9.9
Feb	7.6	5.9	2	#	13.0	1983	12	23.0	1983	14	1994	14	8	1994	3.4	2.5	.9	.4	.1	-9.9	-9.9	-9.9	-9.9
Mar	4.8	2.1	#	0	8.0	1978	17	14.5	1996	9	1994	4	2	1994	1.8	1.6	.6	.3	.0	3.5	1.7	.9	.0
Apr	1.7	.0	0	0	12.5	1996	10	15.0	1996	13	1996	10	1	1996	.4	.3	.2	.1	.1	.2	.1	.1	.1
May	.1	.0	#	0	2.0	1977	10	3.0	1977	2	1977	10	#	1977	.1	.1	.0	.0	.0	.1	.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	.2	.0	#	0	4.5	1979	10	4.5	1979	5	1979	10	#	1979	@	@	@	.0	.0	.2	.1	.1	.0
Nov	1.9	1.0	#	0	6.0	1987	12	6.5	1978	6	1980	18	1	1980	.8	.7	.3	.1	.0	.9	.4	.1	.0
Dec	7.2	7.0	1	#	9.0	1989	16	17.5	1976	11	1996	9	2	1997	2.6	2.2	1.0	.3	.0	5.6	3.2	1.6	.4
Ann	30.9	23.0	N/A	N/A	13.0	Feb 1983	12	23.0	Feb 1983	16	Jan 1978	25	8+	Feb 1994	12.7	10.2	4.2	1.7	.2	-9.9	-9.9	-9.9	-9.9

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

@ 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

Complete documentation available from:

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Lat: 41° 48N

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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	5/23	5/18	5/14	5/10	5/07	5/04	5/01	4/27	4/21
32	5/09	5/04	5/01	4/28	4/25	4/22	4/20	4/16	4/12
28	4/27	4/22	4/18	4/15	4/12	4/09	4/06	4/03	3/29
24	4/10	4/06	4/03	3/31	3/29	3/26	3/24	3/21	3/16
20	4/06	4/01	3/28	3/25	3/22	3/20	3/17	3/13	3/08
16	3/30	3/24	3/20	3/16	3/12	3/09	3/05	2/28	2/22
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	9/20	9/24	9/27	9/29	10/02	10/04	10/06	10/09	10/13
32	9/29	10/05	10/09	10/13	10/16	10/19	10/23	10/27	11/02
28	10/11	10/17	10/21	10/25	10/28	11/01	11/04	11/09	11/15
24	10/25	11/01	11/06	11/10	11/14	11/18	11/22	11/26	12/03
20	11/11	11/16	11/20	11/23	11/26	11/29	12/02	12/06	12/11
16	11/23	11/28	12/02	12/05	12/08	12/11	12/14	12/17	12/23
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	163	157	153	150	147	143	140	136	131
32	198	189	183	178	173	168	163	157	148
28	223	214	208	203	198	193	188	182	174
24	253	245	239	234	229	224	219	213	205
20	270	262	257	252	248	244	239	234	226
16	297	287	281	275	270	265	259	252	243

* 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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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	1227	1047	890	557	254	60	5	15	136	442	709	1059	6401
60	1072	907	735	408	130	13	0	1	50	295	559	904	5074
57	979	823	642	320	76	3	0	0	23	217	469	811	4363
55	917	767	580	265	49	1	0	0	12	171	410	749	3921
50	762	627	427	143	11	0	0	0	2	80	271	599	2922
32	268	189	48	1	0	0	0	0	0	0	12	167	685

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	63	67	181	433	776	996	1185	1135	875	582	293	131	6717
55	0	0	0	7	112	308	472	422	197	40	1	0	1559
57	0	0	0	3	76	250	410	360	148	24	0	0	1271
60	0	0	0	1	38	169	317	268	85	9	0	0	887
65	0	0	0	0	7	66	167	127	22	1	0	0	390
70	0	0	0	0	0	14	54	35	2	0	0	0	105

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	13	13	65	221	536	767	951	900	645	355	133	33	13	26	91	312	848	1615	2566	3466	4111	4466	4599	4632
45	0	0	28	120	383	617	796	745	495	218	64	9	0	0	28	148	531	1148	1944	2689	3184	3402	3466	3475
50	0	0	7	56	239	468	641	590	348	121	24	1	0	0	7	63	302	770	1411	2001	2349	2470	2494	2495
55	0	0	3	25	125	319	486	435	216	52	6	0	0	0	3	28	153	472	958	1393	1609	1661	1667	1667
60	0	0	0	8	56	189	332	283	112	14	0	0	0	0	0	8	64	253	585	868	980	994	994	994
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	6	39	120	298	479	638	592	379	188	60	13	1	7	46	166	464	943	1581	2173	2552	2740	2800	2813

(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/normals/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