

Climatography of the United States

No. 20

1971-2000

Station: ST PETERSBURG, FL

COOP ID: 087886

Climate Division: FL 4

NWS Call Sign: SPG

Elevation: 8 Feet

Lat: 27°46N

Lon: 82°38W

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	69.3	54.0	61.7	88	1984	25	70.6	1974	27	1985	21	52.7	1981	196	93	.0	.0	30.8	.0	.4	.0
Feb	70.7	55.2	63.0	90+	1975	23	68.7	1990	28	1996	5	54.4	1978	126	68	.0	.1	28.2	.0	.1	.0
Mar	75.2	59.7	67.5	89	1949	24	73.4	1997	34+	1996	9	62.4	1996	58	134	.0	.0	31.0	.0	.0	.0
Apr	80.0	64.6	72.3	93	1999	24	76.6	1991	45	1950	7	68.1	1987	6	226	.0	.3	30.0	.0	.0	.0
May	85.8	70.8	78.3	96+	1975	26	81.3	1995	55	1999	1	75.4	1992	0	411	.0	4.6	31.0	.0	.0	.0
Jun	89.2	75.2	82.2	99	1985	5	85.0	1998	61	1972	7	79.6	1974	0	516	.0	15.6	30.0	.0	.0	.0
Jul	90.2	76.6	83.4	100	1995	5	84.8	1992	66	1954	4	80.8	1974	0	571	@	21.9	31.0	.0	.0	.0
Aug	89.9	76.8	83.4	99	1986	23	85.0	1980	66+	1957	24	81.7	1974	0	569	.0	20.8	31.0	.0	.0	.0
Sep	88.2	75.8	82.0	97+	2000	23	83.4	1986	61	1981	19	80.0	1994	0	510	.0	13.1	30.0	.0	.0	.0
Oct	83.0	70.0	76.5	96	1954	5	81.2	1985	47	1957	28	73.0	1987	1	357	.0	1.7	31.0	.0	.0	.0
Nov	76.6	62.9	69.8	89	1972	5	76.5	1986	35+	1970	24	64.4	1976	35	177	.0	.0	30.0	.0	.0	.0
Dec	71.1	56.3	63.7	88+	1985	11	70.9	1971	22	1962	13	57.1	1989	126	86	.0	.0	30.8	.0	.3	.0
Ann	80.8	66.5	73.7	100	Jul 1995	5	85.0+	Jun 1998	22	Dec 1962	13	52.7	Jan 1981	548	3718	@	78.1	364.8	.0	.8	.0

+ 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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Climatology 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: ST PETERSBURG, FL

COOP ID: 087886

Climate Division: FL 4

NWS Call Sign: SPG

Elevation: 8 Feet

Lat: 27°46N

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Precipitation (inches)

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	2.76	2.59	4.07	1996	1	6.37	1996	.16	1976	6.3	4.6	1.9	.7	.36	.58	.97	1.36	1.76	2.21	2.73	3.37	4.24	5.66	7.04
Feb	2.87	2.21	4.10	1958	26	12.71	1998	.10	1999	6.1	4.2	1.9	.8	.21	.40	.76	1.16	1.60	2.10	2.71	3.48	4.55	6.35	8.13
Mar	3.29	2.57	3.94	1998	19	11.79	1987	.58	1977	6.1	4.6	2.2	1.0	.52	.80	1.28	1.73	2.20	2.71	3.30	4.01	4.97	6.53	8.02
Apr	1.92	1.17	5.08	1997	26	9.73	1997	.00	1981	4.2	2.6	1.3	.5	.01	.08	.27	.51	.81	1.18	1.65	2.27	3.17	4.75	6.37
May	2.80	2.10	7.65	1979	8	9.21	1979	.00	2000	5.0	3.4	1.6	.8	.13	.38	.80	1.21	1.65	2.14	2.72	3.44	4.43	6.06	7.65
Jun	6.09	5.08	9.14	1974	26	23.00	1974	.90	1979	10.3	7.7	3.7	1.6	1.33	1.89	2.78	3.59	4.40	5.26	6.24	7.40	8.93	11.38	13.69
Jul	6.72	7.02	6.72	1960	29	16.86	2000	2.09	1996	13.5	10.3	4.5	1.9	2.48	3.11	4.01	4.77	5.49	6.23	7.03	7.96	9.15	10.98	12.65
Aug	8.26	7.37	5.55	1949	12	17.75	1995	3.01	1984	14.2	11.2	5.7	2.8	3.28	4.04	5.12	6.02	6.86	7.72	8.65	9.72	11.08	13.16	15.06
Sep	7.59	6.72	8.31	2001	14	25.51	1988	1.48	1972	12.0	9.1	4.3	2.3	2.29	3.02	4.09	5.02	5.93	6.86	7.89	9.11	10.68	13.12	15.39
Oct	2.64	1.75	3.39	1958	31	17.63	1986	.09	2000	5.9	3.9	1.6	.7	.10	.23	.52	.86	1.26	1.75	2.36	3.15	4.28	6.23	8.19
Nov	2.04	1.56	4.40	1963	10	6.94	1988	.10	1978	5.0	3.3	1.2	.6	.17	.31	.57	.86	1.17	1.52	1.95	2.48	3.22	4.46	5.68
Dec	2.60	1.53	4.24	1997	27	14.62	1997	.07	1984	5.5	3.9	1.7	.6	.13	.27	.57	.92	1.32	1.79	2.38	3.13	4.19	6.00	7.81
Ann	49.58	47.59	9.14	Jun 1974	26	25.51	Sep 1988	.00+	May 2000	94.1	68.8	31.6	14.3	33.98	36.96	40.80	43.72	46.34	48.87	51.50	54.41	57.95	63.11	67.59

+ 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

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

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Station: ST PETERSBURG, FL

COOP ID: 087886

Climate Division: FL 4

NWS Call Sign: SPG

Elevation: 8 Feet

Lat: 27°46N

Lon: 82°38W

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	#	.0	0	0	#	1977	19	#	1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	#	.0	N/A	N/A	#	Jan 1977	19	#	Jan 1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0

+ 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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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	2/14	2/03	1/25	1/15	1/04	0/00	0/00	0/00	0/00
32	1/27	1/18	1/10	12/28	0/00	0/00	0/00	0/00	0/00
28	12/29	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
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	12/19	12/30	1/07	1/16	1/26	0/00	0/00	0/00	0/00
32	1/03	1/13	1/24	0/00	0/00	0/00	0/00	0/00	0/00
28	1/25	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	>365	>365	>365	>365	>365	>365	>365	350	325
32	>365	>365	>365	>365	>365	>365	>365	>365	365
28	>365	>365	>365	>365	>365	>365	>365	>365	>365
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

* 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:

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Climate Division: FL 4 NWS Call Sign: SPG Elevation: 8 Feet Lat: 27° 46N Lon: 82° 38W

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	196	126	58	6	0	0	0	0	0	1	35	126	548
60	116	59	17	0	0	0	0	0	0	0	9	56	257
57	75	31	7	0	0	0	0	0	0	0	3	29	145
55	54	20	3	0	0	0	0	0	0	0	1	18	96
50	22	5	0	0	0	0	0	0	0	0	0	4	31
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	919	866	1099	1210	1434	1506	1594	1592	1500	1379	1132	982	15213
55	260	242	390	520	721	816	881	879	810	666	443	288	6916
57	219	197	331	460	659	756	819	817	750	604	385	237	6234
60	167	141	248	370	566	666	726	724	660	511	301	170	5250
65	93	68	134	226	411	516	571	569	510	357	177	86	3718
70	40	23	56	106	257	366	416	414	360	211	86	30	2365

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	704	693	888	992	1207	1282	1361	1356	1269	1149	911	762	704	1397	2285	3277	4484	5766	7127	8483	9752	10901	11812	12574
45	549	548	733	842	1052	1132	1206	1201	1119	994	761	608	549	1097	1830	2672	3724	4856	6062	7263	8382	9376	10137	10745
50	397	406	579	692	897	982	1051	1046	969	839	611	456	397	803	1382	2074	2971	3953	5004	6050	7019	7858	8469	8925
55	262	276	425	542	742	832	896	891	819	684	462	311	262	538	963	1505	2247	3079	3975	4866	5685	6369	6831	7142
60	149	157	279	392	587	682	741	736	669	529	320	183	149	306	585	977	1564	2246	2987	3723	4392	4921	5241	5424
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	418	425	581	690	876	926	978	976	924	826	613	467	418	843	1424	2114	2990	3916	4894	5870	6794	7620	8233	8700

(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