

Climatography of the United States

No. 20

1971-2000

Station: STUART, VA

COOP ID: 448170

Climate Division: VA 3

NWS Call Sign:

Elevation: 1,375 Feet Lat: 36° 38N

Lon: 80° 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	44.5	25.9	35.2	75	1997	4	44.0	1974	-17	1966	30	21.6	1977	925	0	.0	.0	10.5	3.9	22.8	.4
Feb	48.7	27.8	38.3	80+	2000	27	45.0	1976	0+	1996	6	28.9	1978	749	0	.0	.0	14.1	2.2	19.3	.1
Mar	57.4	34.8	46.1	88	1968	21	51.7	2000	2	1993	16	38.6	1971	587	0	.0	.0	24.3	.2	11.8	.0
Apr	67.2	42.8	55.0	95	1960	26	60.0	1981	18	1985	10	50.5	1973	306	4	.0	.2	28.9	.0	3.4	.0
May	74.9	51.8	63.4	98	1965	27	68.6	1982	30+	1973	18	59.4	1973	120	68	.0	.6	30.9	.0	.2	.0
Jun	81.6	59.7	70.7	100+	1969	29	75.5	1986	40	1978	15	64.1	1974	22	191	.0	3.4	30.0	.0	.0	.0
Jul	85.4	63.9	74.7	99+	1990	11	78.8	1986	48	1962	27	70.4	1971	4	304	.0	8.1	31.0	.0	.0	.0
Aug	83.9	62.7	73.3	100+	1983	21	77.1	1995	48	1979	17	68.5	1971	4	261	.1	5.4	31.0	.0	.0	.0
Sep	77.7	56.6	67.2	95+	1983	11	72.7	1998	35	1983	25	63.3	1974	44	107	.0	1.6	30.0	.0	.0	.0
Oct	67.9	44.7	56.3	93	1991	5	66.0	1984	24+	1988	12	48.4	1988	302	31	.0	@	30.3	.0	2.3	.0
Nov	58.0	36.6	47.3	81+	1999	1	55.4	1985	8	1970	25	39.9	1976	533	1	.0	.0	24.1	.1	10.2	.0
Dec	48.3	29.0	38.7	77+	2001	5	46.8	1971	-3	1983	25	27.6	1989	817	0	.0	.0	14.8	1.4	19.3	.1
Ann	66.3	44.7	55.5	100+	Aug 1983	21	78.8	Jul 1986	-17	Jan 1966	30	21.6	Jan 1977	4413	967	.1	19.3	299.9	7.8	89.3	.6

+ 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: 1960-2001

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

054-A

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: STUART, VA

COOP ID: 448170

Climate Division: VA 3

NWS Call Sign:

Elevation: 1,375 Feet Lat: 36°38N

Lon: 80°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	4.03	3.91	2.45	1992	4	7.62	1979	.68	1981	10.1	7.2	2.8	1.1	1.32	1.70	2.26	2.74	3.20	3.67	4.20	4.81	5.59	6.81	7.93
Feb	3.48	3.40	2.79	1973	2	6.06	1982	.59	1978	9.0	6.6	2.3	.8	1.19	1.52	2.00	2.41	2.80	3.20	3.63	4.14	4.80	5.81	6.75
Mar	4.59	4.14	3.20	1963	12	11.09	1975	1.02	1985	10.4	7.4	3.1	1.3	1.41	1.85	2.50	3.05	3.59	4.16	4.77	5.50	6.43	7.89	9.24
Apr	4.52	4.15	4.36	1974	4	10.29	1987	1.00	1995	10.4	7.0	2.6	1.3	1.44	1.86	2.50	3.04	3.57	4.11	4.70	5.40	6.30	7.70	8.99
May	5.02	5.33	2.35+	1985	23	10.21	1975	1.17	1997	12.5	8.5	3.8	1.6	1.77	2.24	2.93	3.51	4.06	4.62	5.24	5.96	6.88	8.29	9.60
Jun	4.47	4.27	3.98	1972	21	9.64	1989	.46	1990	10.8	7.6	3.0	1.2	1.33	1.76	2.39	2.94	3.47	4.03	4.64	5.36	6.29	7.74	9.10
Jul	5.16	4.88	3.76	1978	3	15.68	1994	1.54	1983	12.3	8.4	3.4	1.6	1.44	1.93	2.68	3.32	3.95	4.61	5.35	6.21	7.33	9.09	10.73
Aug	4.39	3.82	7.15	1985	18	13.16	1985	.38	1983	10.8	7.3	2.7	1.0	.97	1.38	2.02	2.60	3.18	3.80	4.50	5.33	6.43	8.18	9.83
Sep	4.74	4.17	5.76	1979	22	14.72	1979	.87	1984	9.4	6.2	3.0	1.3	.78	1.19	1.88	2.53	3.21	3.94	4.77	5.79	7.15	9.35	11.45
Oct	3.79	2.88	3.70	1970	30	12.60	1976	.00	2000	8.1	5.5	2.7	1.0	.44	.91	1.55	2.09	2.64	3.22	3.88	4.67	5.71	7.39	8.97
Nov	3.58	3.25	3.37	1985	4	8.14	1985	.94	1981	8.6	5.6	2.5	.8	1.10	1.44	1.94	2.38	2.80	3.24	3.72	4.29	5.02	6.16	7.22
Dec	3.58	3.44	2.48	1996	1	9.33	1973	.41	1980	10.1	6.5	2.5	1.2	.80	1.13	1.66	2.13	2.60	3.11	3.67	4.35	5.24	6.65	7.99
Ann	51.35	51.30	7.15	Aug 1985	18	15.68	Jul 1994	.00	Oct 2000	122.5	83.8	34.4	14.2	37.28	40.02	43.53	46.18	48.53	50.79	53.13	55.71	58.83	63.34	67.24

+ 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: 1960-2001

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

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

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: STUART, VA

COOP ID: 448170

Climate Division: VA 3

NWS Call Sign:

Elevation: 1,375 Feet

Lat: 36°38N

Lon: 80°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	4.0	.5	#	0	13.5	1987	23	25.8	1987	15	1987	26	2	1987	1.4	1.0	.6	.2	@	.5	.4	.3	.3
Feb	2.8	1.0	#	0	10.0	1983	11	18.5	1983	4	1972	18	#+	1997	1.1	.9	.5	.2	.1	.4	.1	.0	.0
Mar	1.4	.0	#	0	10.0	1981	23	10.8	1981	1	1973	21	#+	1998	.5	.3	.3	.1	@	.1	.0	.0	.0
Apr	.2	.0	#	0	2.5	1983	18	2.5+	1992	3	1992	5	#	1992	.1	.1	.0	.0	.0	.1	.1	.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	.3	.0	#	0	4.0	1971	24	4.0	1971	2	1971	24	#	1971	.2	.1	@	.0	.0	.1	.0	.0	.0
Dec	1.4	.0	#	0	7.0	1993	21	7.0	1993	7	1993	21	1	1993	.5	.4	.2	.2	.0	.7	.5	.2	.0
Ann	10.1	1.5	N/A	N/A	13.5	Jan 1987	23	25.8	Jan 1987	15	Jan 1987	26	2	Jan 1987	3.8	2.8	1.6	.7	.1	1.9	1.1	.5	.3

+ 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:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Climatography of the United States

No. 20 1971-2000

Station: STUART, VA

COOP ID: 448170

Climate Division: VA 3

NWS Call Sign:

Elevation: 1,375 Feet

Lat: 36°38N

Lon: 80°15W

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	5/14	5/09	5/05	5/02	4/29	4/27	4/24	4/20	4/15
32	5/06	4/30	4/26	4/22	4/18	4/15	4/11	4/07	4/01
28	4/18	4/12	4/08	4/04	3/31	3/28	3/24	3/20	3/14
24	4/06	3/30	3/25	3/20	3/16	3/12	3/07	3/02	2/23
20	3/26	3/18	3/13	3/08	3/04	2/28	2/23	2/18	2/10
16	3/10	3/02	2/24	2/20	2/15	2/11	2/06	2/01	1/24
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	9/28	10/03	10/07	10/11	10/14	10/17	10/21	10/25	10/31
32	10/08	10/14	10/18	10/22	10/25	10/29	11/01	11/05	11/11
28	10/18	10/25	10/30	11/03	11/07	11/11	11/15	11/20	11/27
24	10/29	11/06	11/12	11/17	11/22	11/26	12/01	12/07	12/15
20	11/13	11/21	11/26	12/01	12/06	12/10	12/15	12/20	12/28
16	11/26	12/05	12/12	12/17	12/22	12/28	1/02	1/09	1/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	188	181	176	171	167	163	158	153	146
32	210	203	198	193	189	185	181	175	168
28	245	237	230	225	220	215	209	203	194
24	282	271	263	256	250	244	237	229	218
20	303	294	287	281	276	271	265	258	249
16	343	327	319	312	306	300	294	286	276

* 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:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

**Climatography
of the United States**
No. 20
1971-2000

Station: STUART, VA

COOP ID: 448170

Climate Division: VA 3

NWS Call Sign:

Elevation: 1,375 Feet Lat: 36° 38N Lon: 80° 15W

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	925	749	587	306	120	22	4	4	44	302	533	817	4413
60	770	609	437	176	48	4	0	0	12	192	390	662	3300
57	685	526	352	115	23	1	0	0	5	140	309	576	2732
55	626	475	297	82	13	0	0	0	2	110	259	517	2381
50	484	346	182	27	2	0	0	0	0	53	153	377	1624
32	124	51	7	0	0	0	0	0	0	0	3	61	246

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	222	226	443	689	971	1159	1323	1280	1053	753	461	268	8848
55	11	6	20	80	271	469	610	567	365	150	27	10	2586
57	8	1	13	53	219	410	548	505	308	117	17	7	2206
60	0	0	5	25	151	323	455	412	225	77	7	0	1680
65	0	0	0	4	68	191	304	261	107	31	1	0	967
70	0	0	0	0	21	92	167	129	32	10	0	0	451

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	68	112	264	485	744	938	1094	1062	835	528	267	111	68	180	444	929	1673	2611	3705	4767	5602	6130	6397	6508
45	30	58	159	341	589	788	939	907	685	377	163	54	30	88	247	588	1177	1965	2904	3811	4496	4873	5036	5090
50	6	21	81	219	437	638	784	752	535	243	87	26	6	27	108	327	764	1402	2186	2938	3473	3716	3803	3829
55	0	6	34	120	294	488	629	597	387	136	36	5	0	6	40	160	454	942	1571	2168	2555	2691	2727	2732
60	0	1	9	57	169	339	474	442	249	60	7	0	0	1	10	67	236	575	1049	1491	1740	1800	1807	1807
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	41	71	167	300	467	628	748	722	541	321	159	63	41	112	279	579	1046	1674	2422	3144	3685	4006	4165	4228

(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