U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: VERO BEACH MUNI ARPT, FL **COOP ID: 089214**

Climate Division: FL 4 **NWS Call Sign: VRB** **Elevation: 24 Feet** **Lat: 27˚39N** **Lon: 80˚25W**

Temperature (˚F)

Month	Mean (1)			Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
	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	73.3	52.7	63.0	88+	1991	31	70.7	1974	21	1985	22	53.9	1981	161	84	.0	.0	30.9	.0	.6	.0
Feb	74.1	53.6	63.9	89+	2001	28	70.8	1997	28	1989	24	56.3	1978	114	83	.0	.0	28.2	.0	.3	.0
Mar	77.6	57.8	67.7	92	1962	15	74.0	1997	32+	1986	3	64.1	1971	48	132	.0	.3	31.0	.0	.1	.0
Apr	81.4	61.6	71.5	94+	1999	11	75.4	1991	36	1987	5	66.7	1987	8	202	.0	.9	30.0	.0	.0	.0
May	85.2	67.2	76.2	99	2000	29	79.6	1995	47	1999	1	73.9	1999	0	347	.0	2.8	31.0	.0	.0	.0
Jun	89.0	71.8	80.4	100	1950	27	83.5	1998	57	1984	1	78.0	1976	0	462	.0	10.9	30.0	.0	.0	.0
Jul	90.4	73.0	81.7	99	1998	1	83.4	1997	67+	1989	9	80.1	1974	0	517	.0	18.0	31.0	.0	.0	.0
Aug	90.2	72.9	81.6	98+	1999	2	82.8	1995	64	1984	28	80.3	1973	0	513	.0	18.1	31.0	.0	.0	.0
Sep	88.7	72.7	80.7	97	1996	17	82.5	1996	64+	1997	8	79.4	1971	0	471	.0	10.6	30.0	.0	.0	.0
Oct	84.3	68.5	76.4	94+	1989	2	80.4	1985	46	1989	21	73.4	1977	0	354	.0	1.7	31.0	.0	.0	.0
Nov	79.1	61.9	70.5	92	1992	5	76.8	1986	33	1950	26	66.8	1981	18	183	.0	.1	30.0	.0	.0	.0
Dec	74.7	54.7	64.7	87	1991	3	70.0	1971	23	1989	24	58.1	1989	101	92	.0	.0	30.9	.0	.4	.0
Ann	82.3	64.0	73.2	100	Jun 1950	27	83.5	Jun 1998	21	Jan 1985	22	53.9	Jan 1981	450	3440	.0	63.4	365.0	.0	1.4	.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/normals/usnormals.html

(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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: VERO BEACH MUNI ARPT, FL **COOP ID: 089214**

Climate Division: FL 4 **NWS Call Sign: VRB** **Elevation: 24 Feet** **Lat: 27˚39N** **Lon: 80˚25W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	2.89	2.49	8.82	1957	21	8.91	1993	.77	1981
Feb	2.45	2.25	2.54	1991	2	6.91	1998	.32	1985
Mar	4.20	3.81	6.80	1993	21	12.78	1993	.54	1999
Apr	2.88	2.06	4.13	1951	7	10.45	1997	.03	1986
May	3.80	3.94	2.67	1990	27	8.87	1976	.36	2000
Jun	6.03	5.40	4.10	1959	18	20.73	1992	.30	1998
Jul	6.53	6.05	4.21	2000	8	11.55	2000	1.78	1992
Aug	6.04	5.25	3.73	1991	21	11.63	1998	1.73	1996
Sep	6.84	6.78	7.19	1963	24	12.95	1979	1.67	1988
Oct	5.04	4.76	6.65	1956	15	12.37	1986	1.63	1988
Nov	3.04	2.49	4.82	1994	15	11.76	1984	.34	1989
Dec	2.19	2.14	2.58	1994	21	5.94	1994	.21	1987
Ann	51.93	50.13	8.82	Jan 1957	21	20.73	Jun 1992	.03	Apr 1986

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	10.2	4.5	1.7	.7
Feb	9.7	5.2	1.7	.6
Mar	8.6	4.9	2.2	.8
Apr	7.7	4.6	1.5	.6
May	11.0	6.6	2.8	1.3
Jun	16.6	10.8	4.6	1.8
Jul	9.2	6.8	2.5	1.2
Aug	17.4	10.3	3.9	1.4
Sep	18.8	10.6	3.6	1.2
Oct	14.7	8.1	2.3	1.0
Nov	10.9	5.6	1.5	.8
Dec	9.7	4.4	1.3	.3
Ann	144.5	82.4	29.6	11.7

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.90	1.17	1.58	1.93	2.27	2.62	3.00	3.45	4.04	4.95	5.79
Feb	.64	.87	1.22	1.54	1.84	2.17	2.53	2.96	3.51	4.39	5.21
Mar	.90	1.29	1.91	2.46	3.03	3.62	4.30	5.10	6.17	7.87	9.47
Apr	.22	.41	.78	1.18	1.62	2.13	2.74	3.50	4.57	6.36	8.13
May	.98	1.34	1.89	2.38	2.86	3.36	3.92	4.59	5.45	6.82	8.10
Jun	1.52	2.09	2.97	3.74	4.51	5.32	6.22	7.29	8.69	10.90	12.98
Jul	2.73	3.32	4.16	4.84	5.49	6.14	6.85	7.66	8.68	10.24	11.66
Aug	2.50	3.05	3.83	4.47	5.07	5.68	6.33	7.09	8.05	9.51	10.84
Sep	3.00	3.62	4.47	5.17	5.82	6.47	7.18	7.98	9.00	10.55	11.95
Oct	1.42	1.90	2.62	3.25	3.87	4.51	5.22	6.06	7.15	8.86	10.45
Nov	.46	.71	1.15	1.57	2.01	2.49	3.04	3.71	4.62	6.09	7.51
Dec	.37	.56	.88	1.18	1.49	1.82	2.21	2.67	3.30	4.30	5.27
Ann	40.07	42.44	45.44	47.68	49.66	51.56	53.50	55.64	58.21	61.90	65.06

+ 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

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: VERO BEACH MUNI ARPT, FL **COOP ID: 089214**

Climate Division: FL 4 **NWS Call Sign: VRB** **Elevation: 24 Feet** **Lat: 27°39N** **Lon: 80°25W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	0	.0	0	0	.0	0	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	.0	N/A	N/A	.0	0	0	.0	0	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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: VERO BEACH MUNI ARPT, FL **COOP ID: 089214**

Climate Division: FL 4 **NWS Call Sign: VRB** **Elevation: 24 Feet** **Lat: 27˚39N** **Lon: 80˚25W**

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	3/17	3/03	2/22	2/13	2/04	1/26	1/16	12/30	0/00
32	2/21	2/09	1/29	1/19	1/04	0/00	0/00	0/00	0/00
28	2/03	1/13	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	12/11	12/21	12/29	1/05	1/11	1/18	1/27	2/08	0/00
32	12/25	1/08	1/20	2/01	2/18	0/00	0/00	0/00	0/00
28	1/10	2/06	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	328	318	309	301	290
32	>365	>365	>365	>365	>365	>365	>365	331	317
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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: VERO BEACH MUNI ARPT, FL **COOP ID: 089214**

Climate Division: FL 4 **NWS Call Sign: VRB** **Elevation: 24 Feet** **Lat: 27˚39N** **Lon: 80˚25W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	161	114	48	8	0	0	0	0	0	0	18	101	450
60	90	51	12	0	0	0	0	0	0	0	3	38	194
57	55	27	4	0	0	0	0	0	0	0	0	18	104
55	38	17	2	0	0	0	0	0	0	0	0	11	68
50	15	4	0	0	0	0	0	0	0	0	0	2	21
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	961	892	1107	1184	1370	1452	1540	1536	1461	1377	1155	1013	15048
55	286	265	396	494	657	762	827	823	771	664	465	311	6721
57	240	219	336	434	595	702	765	761	711	602	405	257	6027
60	182	159	251	344	502	612	672	668	621	509	318	183	5021
65	84	83	132	202	347	462	517	513	471	354	183	92	3440
70	46	30	52	88	195	312	362	358	321	204	82	31	2081

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	725	706	880	950	1135	1222	1302	1302	1234	1147	928	789	725	1431	2311	3261	4396	5618	6920	8222	9456	10603	11531	12320
45	571	561	725	800	980	1072	1147	1147	1084	992	778	635	571	1132	1857	2657	3637	4709	5856	7003	8087	9079	9857	10492
50	421	422	572	650	825	922	992	992	934	837	628	487	421	843	1415	2065	2890	3812	4804	5796	6730	7567	8195	8682
55	287	292	421	500	670	772	837	837	784	682	478	345	287	579	1000	1500	2170	2942	3779	4616	5400	6082	6560	6905
60	171	172	276	352	515	622	682	682	634	527	333	214	171	343	619	971	1486	2108	2790	3472	4106	4633	4966	5180
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	458	454	580	647	817	873	928	930	894	826	633	510	458	912	1492	2139	2956	3829	4757	5687	6581	7407	8040	8550

(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.
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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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