

Climatography of the United States No. 20

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

Station: FERNANDINA BEACH, FL

1971-2000

COOP ID: 082944

Climate Division: FL 2

NWS Call Sign:

Elevation: 13 Feet

Lat: 30°40N

Lon: 81°28W

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	62.7	44.5	53.6	88	1972	13	67.2	1974	4	1985	21	43.4	1977	390	22	.0	.0	28.3	@	4.1	.0
Feb	65.1	46.6	55.9	91	1962	24	62.8	1990	20	1996	5	45.5	1978	274	17	.0	.0	26.5	.1	2.6	.0
Mar	70.8	52.4	61.6	92+	1967	12	67.4	1997	22	1980	3	56.7	1996	160	55	.0	.0	30.6	.0	.4	.0
Apr	76.3	58.0	67.2	94+	1989	27	70.7	1991	37+	1987	4	63.2	1993	37	102	.0	.6	30.0	.0	.0	.0
May	82.5	65.8	74.2	100	1962	21	77.7	1991	40	1982	10	70.9	1992	1	284	.0	2.8	31.0	.0	.0	.0
Jun	87.2	72.1	79.7	104	1950	26	84.5	1998	51+	1977	10	76.2	1997	0	439	.2	9.6	30.0	.0	.0	.0
Jul	89.8	74.8	82.3	102+	1986	20	85.3	1989	63	1984	2	80.2	1994	0	537	.5	15.4	31.0	.0	.0	.0
Aug	88.4	75.0	81.7	102	1951	8	84.0	1987	61	1982	30	79.4	1996	0	518	.2	10.8	31.0	.0	.0	.0
Sep	85.3	73.0	79.2	99+	1988	18	81.6	1973	52	1981	19	77.0	1976	0	424	.0	4.1	30.0	.0	.0	.0
Oct	78.3	64.6	71.5	96	1951	7	76.6	1985	39+	1968	30	66.1	1987	23	223	.0	.5	31.0	.0	.0	.0
Nov	71.6	55.5	63.6	93	1961	1	70.6	1985	24+	1970	24	55.1	1976	133	90	.0	.0	29.9	.0	.3	.0
Dec	64.6	47.5	56.1	85+	1978	4	63.8	1971	12	1983	25	48.0	1989	303	25	.0	.0	29.5	@	2.4	.0
Ann	76.9	60.8	68.9	104	Jun 1950	26	85.3	Jul 1989	4	Jan 1985	21	43.4	Jan 1977	1321	2736	.9	43.8	358.8	.1	9.8	.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/normals/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

023-A

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Lon: 81°28W

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	3.82	3.32	2.82	1991	19	9.38	1991	.81	1974	9.7	6.5	2.9	1.1	1.00	1.36	1.92	2.40	2.88	3.38	3.94	4.61	5.47	6.83	8.11
Feb	3.17	2.66	4.00	1970	3	10.09	1998	1.18+	1991	8.1	5.5	2.0	.7	.86	1.16	1.62	2.02	2.41	2.82	3.28	3.81	4.51	5.61	6.64
Mar	4.01	3.60	6.46	1984	27	9.21	1984	.27	1999	8.3	5.9	2.7	1.3	.87	1.24	1.83	2.36	2.89	3.46	4.11	4.87	5.89	7.50	9.03
Apr	2.91	2.69	3.58	1958	10	5.82	1991	.23	1987	6.4	4.5	1.9	1.1	.63	.89	1.32	1.71	2.10	2.51	2.97	3.53	4.27	5.45	6.56
May	2.87	2.27	4.72	1959	21	8.44	1976	.10	1987	7.1	4.8	2.0	.7	.30	.52	.91	1.31	1.74	2.23	2.79	3.50	4.46	6.06	7.62
Jun	5.30	5.37	6.44	1962	29	10.77	1995	1.24	1990	11.8	8.0	3.3	1.4	1.72	2.22	2.96	3.59	4.20	4.83	5.52	6.32	7.36	8.97	10.46
Jul	5.80	5.74	5.57	1953	26	13.35	1982	1.43	2000	12.0	9.0	3.9	1.9	2.05	2.60	3.39	4.06	4.69	5.34	6.06	6.88	7.94	9.58	11.08
Aug	5.34	4.52	8.86	1968	28	20.10	1995	2.17	1994	12.6	8.7	3.4	1.6	1.71	2.22	2.97	3.60	4.22	4.86	5.56	6.38	7.43	9.07	10.59
Sep	7.73	6.39	8.25	1950	6	23.82	1979	2.30	1991	13.0	8.8	4.9	2.5	1.85	2.58	3.71	4.71	5.71	6.77	7.96	9.36	11.21	14.14	16.89
Oct	4.22	3.68	6.72	1996	7	13.19	1994	.41	1984	8.9	5.1	2.1	1.2	.31	.58	1.12	1.70	2.35	3.09	3.99	5.12	6.70	9.35	11.97
Nov	2.49	2.34	22.02	1969	1	5.38	1987	.44	1989	7.2	4.1	1.5	.7	.45	.68	1.04	1.38	1.72	2.10	2.52	3.04	3.72	4.82	5.87
Dec	2.73	2.08	3.96	1997	14	12.33	1997	.04	1987	8.9	4.6	1.6	.7	.15	.30	.63	1.00	1.42	1.92	2.52	3.30	4.39	6.24	8.10
Ann	50.39	49.69	22.02	Nov 1969	1	23.82	Sep 1979	.04	Dec 1987	114.0	75.5	32.2	14.9	34.64	37.65	41.52	44.48	47.11	49.66	52.31	55.24	58.81	64.00	68.51

+ 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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Station: FERNANDINA BEACH, FL

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Climate Division: FL 2

NWS Call Sign:

Elevation: 13 Feet

Lat: 30°40N

Lon: 81°28W

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	31	#	1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1977	16	#	1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.3	1986	1	.3	1986	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	.3	Mar 1986	1	.3	Mar 1986	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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No. 20 1971-2000

Station: FERNANDINA BEACH, FL

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Climate Division: FL 2

NWS Call Sign:

Elevation: 13 Feet

Lat: 30° 40N

Lon: 81° 28W

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	3/19	3/12	3/07	3/02	2/26	2/22	2/18	2/13	2/06
32	3/11	3/02	2/23	2/18	2/12	2/07	2/01	1/26	1/17
28	3/01	2/17	2/09	2/01	1/25	1/17	1/08	12/25	0/00
24	1/31	1/17	1/01	0/00	0/00	0/00	0/00	0/00	0/00
20	1/20	1/05	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	11/10	11/18	11/24	11/30	12/05	12/09	12/15	12/21	12/29
32	11/22	12/03	12/11	12/18	12/24	12/31	1/07	1/15	1/26
28	12/04	12/17	12/26	1/03	1/11	1/20	1/30	2/14	0/00
24	12/25	1/09	1/26	0/00	0/00	0/00	0/00	0/00	0/00
20	1/09	1/24	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	308	299	292	286	280	275	269	262	253
32	>365	342	327	317	308	300	292	282	270
28	>365	>365	>365	>365	352	333	321	310	297
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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Station: FERNANDINA BEACH, FL

COOP ID: 082944

Climate Division: FL 2 NWS Call Sign: Elevation: 13 Feet Lat: 30°40N Lon: 81°28W

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	390	274	160	37	1	0	0	0	0	23	133	303	1321
60	275	168	78	7	0	0	0	0	0	6	64	190	788
57	219	120	44	2	0	0	0	0	0	2	36	137	560
55	186	92	28	1	0	0	0	0	0	1	24	107	439
50	111	38	8	0	0	0	0	0	0	0	7	47	211
32	6	0	0	0	0	0	0	0	0	0	0	0	6

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	676	667	918	1055	1306	1429	1560	1541	1414	1223	947	745	13481
55	143	115	233	366	593	739	847	828	724	511	281	139	5519
57	114	87	187	307	531	679	785	766	664	450	233	108	4911
60	77	51	129	222	438	589	692	673	574	360	171	67	4043
65	22	17	55	102	284	439	537	518	424	223	90	25	2736
70	17	5	17	28	144	290	382	363	275	113	36	8	1678

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	434	465	675	819	1061	1192	1303	1282	1166	967	702	498	434	899	1574	2393	3454	4646	5949	7231	8397	9364	10066	10564
45	292	330	521	669	906	1042	1148	1127	1016	812	553	356	292	622	1143	1812	2718	3760	4908	6035	7051	7863	8416	8772
50	179	210	372	520	751	892	993	972	866	657	403	229	179	389	761	1281	2032	2924	3917	4889	5755	6412	6815	7044
55	94	113	238	371	596	742	838	817	716	502	270	132	94	207	445	816	1412	2154	2992	3809	4525	5027	5297	5429
60	43	50	129	231	441	592	683	662	566	352	155	64	43	93	222	453	894	1486	2169	2831	3397	3749	3904	3968
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	242	262	406	526	737	849	929	929	848	659	430	282	242	504	910	1436	2173	3022	3951	4880	5728	6387	6817	7099

(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