

# Climatography of the United States

No. 20

1971-2000

Station: LAKE ALFRED EXP STN, FL

COOP ID: 084707

Climate Division: FL 4

NWS Call Sign:

Elevation: 138 Feet

Lat: 28°06N

Lon: 81°43W

## 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	72.4	47.2	59.8	88+	1991	31	70.0	1974	19+	1985	22	49.9	1981	237	61	.0	.0	30.6	.0	2.7	.0
Feb	74.4	49.0	61.7	96	1932	19	67.9	1975	21	1943	15	53.3	1978	152	59	.0	.0	28.0	@	1.3	.0
Mar	79.0	54.1	66.6	95	1935	25	72.5	1997	24	1980	3	62.3	1983	73	120	.0	.6	30.9	.0	.2	.0
Apr	83.5	58.0	70.8	96+	1999	25	75.4	1991	31	1944	6	65.5	1987	15	186	.0	4.1	30.0	.0	.0	.0
May	88.7	64.2	76.5	101	1945	31	80.5	1995	44	1945	6	73.8	1982	0	355	@	14.0	31.0	.0	.0	.0
Jun	91.6	70.0	80.8	104	1998	20	84.7	1998	50	1984	1	78.4+	1984	0	474	.4	22.4	30.0	.0	.0	.0
Jul	92.8	71.7	82.3	103+	1998	4	83.9	1992	60	1927	1	80.4	1974	0	535	.2	27.2	31.0	.0	.0	.0
Aug	92.8	71.6	82.2	101	1995	16	83.6	1980	59	1936	31	80.6	1973	0	533	.1	27.1	31.0	.0	.0	.0
Sep	90.8	69.8	80.3	99+	1933	18	82.1	1995	54	1981	20	77.5	1999	0	459	.0	21.3	30.0	.0	.0	.0
Oct	85.8	63.0	74.4	96+	1941	9	78.9	1985	38	1989	21	69.7	1987	5	296	.0	6.4	31.0	.0	.0	.0
Nov	79.7	56.4	68.1	90+	1996	7	75.1	1986	25	1940	16	63.3	1976	49	140	.0	.2	30.0	.0	.1	.0
Dec	73.7	49.5	61.6	89+	1931	31	67.9	1971	16	1962	13	53.8	1989	170	65	.0	.0	30.6	.0	1.7	.0
Ann	83.8	60.4	72.1	104	Jun 1998	20	84.7	Jun 1998	16	Dec 1962	13	49.9	Jan 1981	701	3283	.7	123.3	364.1	@	6.0	.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](http://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: 1905-2000

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

040-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: LAKE ALFRED EXP STN, FL**

**COOP ID: 084707**

**Climate Division: FL 4**

**NWS Call Sign:**

**Elevation: 138 Feet**

**Lat: 28°06N**

**Lon: 81°43W**

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	2.52	1.91	3.90	1996	2	7.59	1994	.21	1990	7.5	4.3	1.6	.6	.30	.50	.86	1.21	1.58	1.99	2.48	3.07	3.89	5.22	6.52
Feb	2.75	2.12	3.22	1971	8	9.20	1998	.05	1989	7.1	4.5	1.6	.9	.32	.54	.92	1.30	1.71	2.17	2.70	3.36	4.25	5.72	7.16
Mar	3.43	2.51	4.27	1960	16	9.57	1987	.78	2000	7.0	4.9	2.3	1.1	.72	1.04	1.54	2.00	2.46	2.95	3.50	4.17	5.05	6.45	7.78
Apr	1.99	1.39	3.90	1941	3	6.80	1992	.01	1981	5.7	3.3	1.3	.5	.16	.29	.56	.83	1.13	1.48	1.90	2.42	3.14	4.36	5.55
May	4.12	3.30	4.10	1982	31	13.93	1979	.34	2000	8.1	5.5	2.6	1.3	.74	1.11	1.71	2.27	2.85	3.47	4.17	5.03	6.16	8.00	9.75
Jun	6.88	6.63	9.75	1945	24	12.76	1994	1.59	1998	13.3	9.6	4.5	2.1	1.89	2.54	3.53	4.40	5.25	6.14	7.12	8.28	9.80	12.18	14.39
Jul	7.11	6.51	3.82	1948	30	13.10	1991	2.91	1999	16.1	11.3	4.4	2.1	3.10	3.73	4.62	5.35	6.03	6.72	7.45	8.30	9.36	10.98	12.44
Aug	7.43	7.34	7.08	1928	9	13.26	1995	2.82	1980	16.1	11.1	4.6	2.3	3.15	3.83	4.77	5.54	6.27	7.00	7.79	8.70	9.84	11.59	13.17
Sep	6.53	6.85	10.20	1933	5	13.58	1979	.55	1972	13.4	9.1	4.3	2.0	1.70	2.32	3.27	4.10	4.92	5.78	6.74	7.88	9.36	11.70	13.89
Oct	2.96	2.77	7.50	1944	19	8.14	1995	.32	1974	8.0	4.2	1.9	.9	.37	.60	1.02	1.43	1.87	2.36	2.92	3.62	4.57	6.12	7.63
Nov	2.29	1.62	4.90	1951	16	7.83	1987	.16	1991	6.5	3.4	1.3	.7	.19	.34	.64	.96	1.31	1.71	2.19	2.79	3.62	5.02	6.39
Dec	2.28	1.62	3.00	1925	1	13.19	1997	.21	1991	7.0	3.8	1.7	.6	.16	.31	.60	.91	1.26	1.67	2.15	2.77	3.63	5.08	6.52
Ann	50.29	48.48	10.20	Sep 1933	5	13.93	May 1979	.01	Apr 1981	115.8	75.0	32.1	15.1	36.84	39.48	42.83	45.37	47.61	49.78	52.01	54.47	57.44	61.74	65.44

+ 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: 1905-2000

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

Complete documentation available from:  
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**NWS Call Sign:**

**Elevation: 138 Feet**

**Lat: 28°06N**

**Lon: 81°43W**

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	0	.8	1977	19	.8	1977	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	.8	Jan 1977	19	.8	Jan 1977	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

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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	3/26	3/16	3/10	3/04	2/27	2/22	2/16	2/10	2/01
32	3/05	2/24	2/17	2/11	2/06	2/01	1/26	1/18	1/07
28	2/18	2/06	1/28	1/19	1/08	12/21	0/00	0/00	0/00
24	1/26	1/05	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	11/17	11/26	12/02	12/08	12/13	12/18	12/23	12/30	1/08
32	11/30	12/11	12/20	12/27	1/03	1/10	1/18	1/27	2/10
28	12/16	12/27	1/06	1/15	1/25	2/12	0/00	0/00	0/00
24	1/06	1/29	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	322	309	300	293	286	280	273	265	253
32	>365	>365	345	331	322	314	307	298	287
28	>365	>365	>365	>365	>365	>365	>365	327	314
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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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	237	152	73	15	0	0	0	0	0	5	49	170	701
60	156	79	23	2	0	0	0	0	0	0	14	90	364
57	112	46	10	0	0	0	0	0	0	0	5	53	226
55	86	31	5	0	0	0	0	0	0	0	2	36	160
50	40	10	0	0	0	0	0	0	0	0	0	12	62
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	861	832	1071	1161	1378	1464	1558	1556	1449	1314	1082	918	14644
55	234	218	363	471	665	774	845	843	759	601	394	241	6408
57	198	178	306	411	603	714	783	781	699	539	337	196	5745
60	149	127	226	323	510	624	690	688	609	446	255	140	4787
65	61	59	120	186	355	474	535	533	459	296	140	65	3283
70	37	20	48	82	206	324	380	378	309	161	61	23	2029

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	625	643	832	933	1140	1232	1320	1314	1220	1076	851	685	625	1268	2100	3033	4173	5405	6725	8039	9259	10335	11186	11871
45	473	498	677	783	985	1082	1165	1159	1070	921	701	535	473	971	1648	2431	3416	4498	5663	6822	7892	8813	9514	10049
50	339	361	525	633	830	932	1010	1004	920	766	551	395	339	700	1225	1858	2688	3620	4630	5634	6554	7320	7871	8266
55	216	243	378	483	675	782	855	849	770	611	405	261	216	459	837	1320	1995	2777	3632	4481	5251	5862	6267	6528
60	122	139	245	334	520	632	700	694	620	456	270	153	122	261	506	840	1360	1992	2692	3386	4006	4462	4732	4885
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	402	417	550	621	778	847	898	901	842	741	569	442	402	819	1369	1990	2768	3615	4513	5414	6256	6997	7566	8008

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)