

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: DEMOPOLIS LOCK AND DAM, AL

1971-2000

COOP ID: 012245

Climate Division: AL 6

NWS Call Sign:

Elevation: 100 Feet

Lat: 32° 31N

Lon: 87° 53W

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	55.4	33.2	44.3	81+	1957	30	55.1	1974	-2	1985	22	33.8	1977	648	0	.0	.0	21.5	.9	16.1	.1
Feb	60.1	36.2	48.2	85+	1996	24	55.8	1990	6+	1996	6	38.8	1978	472	0	.0	.0	22.3	.4	11.1	.0
Mar	68.5	43.0	55.8	89+	1995	24	61.7	1997	16+	1996	9	50.5	1996	304	17	.0	.0	29.4	@	4.3	.0
Apr	75.6	49.5	62.6	93	1955	20	69.2	1999	25+	1987	2	58.3	1983	122	49	.0	.3	30.0	.0	.6	.0
May	82.7	58.4	70.6	99	1955	6	75.1	2000	40+	2001	22	65.5	1976	22	193	.0	3.6	31.0	.0	.0	.0
Jun	88.9	65.5	77.2	104	1954	29	82.4	1998	42	1984	1	73.2	1974	0	366	.3	14.7	30.0	.0	.0	.0
Jul	91.5	69.2	80.4	105+	1980	15	83.4	1980	56+	1967	16	75.4	1996	0	476	.8	21.6	31.0	.0	.0	.0
Aug	91.1	68.4	79.8	105+	1954	29	82.9	2000	53	1986	30	75.7	1996	0	456	.6	20.7	31.0	.0	.0	.0
Sep	86.2	63.0	74.6	103	1951	1	80.2	1980	38	1967	30	69.4	1996	9	297	.1	10.7	30.0	.0	.0	.0
Oct	77.0	50.1	63.6	100	1954	7	69.4	1984	24	1952	30	57.6	1987	128	83	.0	.6	30.9	.0	.6	.0
Nov	67.0	41.3	54.2	86+	2000	1	60.5	1978	17+	1970	25	46.5	1976	336	10	.0	.0	28.6	.0	6.4	.0
Dec	58.4	35.2	46.8	82+	1998	8	56.5	1971	4	1989	24	38.6	2000	572	7	.0	.0	24.0	.5	14.5	.0
Ann	75.2	51.1	63.2	105+	Jul 1980	15	83.4	Jul 1980	-2	Jan 1985	22	33.8	Jan 1977	2613	1954	1.8	72.2	339.7	1.8	53.6	.1

+ 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: 1951-2001

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

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NWS Call Sign:

Elevation: 100 Feet Lat: 32°31N

Lon: 87°53W

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	6.20	5.58	4.16	1972	10	13.05	1972	1.49	1981	11.8	8.5	3.9	1.9	2.14	2.73	3.58	4.30	4.99	5.70	6.48	7.38	8.53	10.32	11.97
Feb	4.85	4.71	4.05	1983	2	9.99	1990	1.50	2000	9.1	6.5	3.5	1.6	1.65	2.11	2.78	3.35	3.90	4.46	5.07	5.78	6.70	8.11	9.42
Mar	6.44	5.63	4.11	1976	31	13.95	1976	1.88	1986	10.2	7.5	4.2	2.5	1.98	2.60	3.51	4.29	5.05	5.84	6.70	7.72	9.03	11.08	12.97
Apr	4.92	4.45	6.21	1974	13	10.56	1983	.34	1987	8.3	6.0	3.2	1.7	.97	1.42	2.14	2.81	3.48	4.20	5.01	5.99	7.29	9.38	11.36
May	4.60	3.95	3.70	1986	19	12.99	1991	.96	1996	9.2	6.8	3.0	1.5	1.02	1.44	2.11	2.72	3.33	3.98	4.71	5.58	6.73	8.55	10.28
Jun	3.63	3.03	3.04	1963	22	11.40	1989	.00	1988	8.6	6.3	2.5	.9	.59	1.08	1.70	2.20	2.70	3.21	3.78	4.46	5.34	6.74	8.04
Jul	4.98	5.11	4.00	1953	8	10.37	1988	.85	1983	10.5	7.9	3.0	1.3	1.20	1.66	2.39	3.04	3.68	4.36	5.13	6.03	7.22	9.10	10.87
Aug	3.51	3.49	3.06	1968	12	8.24	1984	1.01	2000	8.0	5.6	2.4	1.0	.99	1.32	1.82	2.26	2.69	3.14	3.64	4.23	4.99	6.19	7.30
Sep	3.79	3.51	4.81	1969	20	8.81	1974	.54	1984	7.4	5.5	2.7	1.3	1.02	1.38	1.93	2.41	2.88	3.38	3.92	4.57	5.42	6.74	7.98
Oct	3.47	3.12	5.22	1984	22	11.32	1984	.05	1987	6.4	4.2	1.9	1.2	.26	.48	.92	1.40	1.93	2.55	3.28	4.21	5.50	7.68	9.83
Nov	4.71	4.07	3.62	1991	22	11.06	1986	.30	1981	9.0	6.5	3.2	1.7	1.07	1.51	2.20	2.82	3.44	4.09	4.83	5.71	6.86	8.70	10.43
Dec	4.64	4.53	4.58	1968	22	7.56	1983	.83	1980	10.3	6.8	3.5	1.2	1.82	2.25	2.86	3.37	3.85	4.33	4.86	5.47	6.24	7.42	8.50
Ann	55.74	54.60	6.21	Apr 1974	13	13.95	Mar 1976	.00	Jun 1988	108.8	78.1	37.0	17.8	42.70	45.30	48.59	51.06	53.24	55.33	57.47	59.83	62.66	66.74	70.24

+ 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: 1951-2001

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

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Climate Division: AL 6

NWS Call Sign:

Elevation: 100 Feet

Lat: 32°31N

Lon: 87°53W

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	.1	.0	0	0	1.7	1977	31	2.1	1977	0	0	0	0	0	.1	.1	.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	.2	.0	0	0	3.5	1993	13	3.5	1993	0	0	0	0	0	.1	.1	.1	.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	.3	.0	N/A	N/A	3.5	Mar 1993	13	3.5	Mar 1993	0	0	0	0	0	.2	.2	.1	.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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NWS Call Sign:

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Lat: 32°31N

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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	4/18	4/12	4/08	4/05	4/02	3/29	3/26	3/22	3/16
32	4/06	3/31	3/26	3/22	3/19	3/15	3/11	3/07	2/28
28	3/24	3/17	3/11	3/06	3/02	2/25	2/21	2/15	2/07
24	3/14	3/04	2/26	2/20	2/14	2/09	2/03	1/27	1/17
20	3/02	2/20	2/13	2/07	2/01	1/26	1/19	1/09	0/00
16	2/20	2/10	2/03	1/27	1/19	1/09	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	10/11	10/16	10/20	10/23	10/26	10/29	11/02	11/06	11/11
32	10/24	10/30	11/04	11/08	11/12	11/16	11/20	11/25	12/01
28	11/02	11/09	11/15	11/19	11/23	11/28	12/02	12/08	12/15
24	11/16	11/24	11/30	12/05	12/10	12/14	12/19	12/25	1/03
20	12/01	12/13	12/22	12/29	1/05	1/13	1/22	2/03	0/00
16	12/13	12/25	1/04	1/13	1/23	2/04	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	226	219	215	211	207	203	200	195	189
32	265	255	249	243	237	232	226	220	210
28	299	288	279	272	266	259	253	244	233
24	339	320	309	301	294	287	279	271	259
20	>365	>365	>365	346	332	322	313	304	292
16	>365	>365	>365	>365	>365	>365	341	323	305

* 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

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Climate Division: AL 6 NWS Call Sign: Elevation: 100 Feet Lat: 32°31N Lon: 87°53W

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	648	472	304	122	22	0	0	0	9	128	336	572	2613
60	503	341	185	49	4	0	0	0	1	58	211	428	1780
57	421	266	129	23	1	0	0	0	0	31	151	348	1370
55	369	221	98	13	0	0	0	0	0	19	117	299	1136
50	256	128	40	2	0	0	0	0	0	4	52	197	679
32	29	3	0	0	0	0	0	0	0	0	0	15	47

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	410	455	737	917	1195	1356	1499	1479	1279	978	665	473	11443
55	37	29	122	240	482	666	786	766	589	284	91	44	4136
57	27	18	91	190	420	606	724	704	529	234	65	31	3639
60	16	9	54	126	330	516	631	611	440	167	35	18	2953
65	0	0	17	49	193	366	476	456	297	83	10	7	1954
70	0	0	4	12	90	223	321	302	173	32	1	0	1158

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	211	289	509	686	958	1130	1262	1243	1050	743	441	267	211	500	1009	1695	2653	3783	5045	6288	7338	8081	8522	8789
45	124	182	368	537	803	980	1107	1088	900	588	309	163	124	306	674	1211	2014	2994	4101	5189	6089	6677	6986	7149
50	63	103	238	391	648	830	952	933	750	434	194	93	63	166	404	795	1443	2273	3225	4158	4908	5342	5536	5629
55	29	54	136	256	493	680	797	778	600	293	108	50	29	83	219	475	968	1648	2445	3223	3823	4116	4224	4274
60	8	21	64	143	340	530	642	623	451	171	52	23	8	29	93	236	576	1106	1748	2371	2822	2993	3045	3068
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	136	187	321	442	639	767	860	846	712	487	287	173	136	323	644	1086	1725	2492	3352	4198	4910	5397	5684	5857

(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