

Climatology of the United States

No. 20

1971-2000

Station: SELMA, AL

COOP ID: 017366

Climate Division: AL 6

NWS Call Sign:

Elevation: 147 Feet Lat: 32°25N Lon: 87°01W

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	57.0	36.9	47.0	83+	1950	30	57.4	1974	0	1985	21	36.5	1977	569	0	.0	.0	24.9	.3	10.1	@
Feb	61.3	39.6	50.5	85	1962	27	56.6	1990	9	1951	3	41.4	1978	407	1	.0	.0	24.4	.2	7.0	.0
Mar	69.3	45.7	57.5	90	1936	25	62.6	1997	18	1980	4	52.1	1971	252	20	.0	.0	30.2	.0	2.2	.0
Apr	76.0	50.9	63.5	93+	1987	22	67.2	1999	29	1940	13	59.6	1983	91	44	.0	.4	29.9	.0	.1	.0
May	83.4	60.1	71.8	100	1953	27	75.5	2000	40	1944	7	66.5	1976	12	221	.0	5.1	31.0	.0	.0	.0
Jun	89.4	67.7	78.6	108	1954	28	82.7	1981	42	1984	1	74.8	1974	0	407	.4	17.5	30.0	.0	.0	.0
Jul	91.9	71.1	81.5	107+	1980	14	84.4	1986	57	1967	15	78.0	1975	0	511	.8	24.2	31.0	.0	.0	.0
Aug	91.5	70.4	81.0	105+	1954	30	84.1	1999	57+	1992	30	76.6	1984	0	495	.9	22.7	31.0	.0	.0	.0
Sep	87.0	65.3	76.2	105	1954	6	80.3	1980	40	1967	30	72.6	1974	3	338	.1	12.3	30.0	.0	.0	.0
Oct	78.1	53.4	65.8	100+	1954	6	72.2	1984	27	1952	30	60.0	1976	86	108	.0	1.1	31.0	.0	.0	.0
Nov	68.3	44.0	56.2	91	1933	3	62.7	1985	13	1950	25	47.4	1976	284	19	.0	.0	29.3	.0	3.3	.0
Dec	60.0	38.4	49.2	85+	1951	6	59.3	1984	5	1962	13	40.2	1989	502	12	.0	.0	26.1	.2	10.4	.0
Ann	76.1	53.6	64.9	108	Jun 1954	28	84.4	Jul 1986	0	Jan 1985	21	36.5	Jan 1977	2206	2176	2.2	83.3	348.8	.7	33.1	@

+ 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: 1930-2001

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

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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: SELMA, AL

COOP ID: 017366

Climate Division: AL 6

NWS Call Sign:

Elevation: 147 Feet Lat: 32°25N

Lon: 87°01W

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	5.64	5.09	4.20	1932	6	12.24	1972	1.07	1986	10.6	8.1	3.8	2.0	1.96	2.49	3.27	3.92	4.54	5.19	5.89	6.70	7.75	9.37	10.86	
Feb	4.87	4.86	5.31	1982	3	9.97	1982	1.54	2000	8.3	6.7	3.5	1.7	1.62	2.08	2.75	3.33	3.88	4.45	5.07	5.80	6.74	8.19	9.53	
Mar	6.67	5.38	9.75	1990	16	14.06	1973	1.07	1985	9.2	7.4	3.9	2.3	1.75	2.38	3.34	4.20	5.03	5.91	6.89	8.05	9.57	11.95	14.18	
Apr	4.33	3.62	8.74	1938	8	10.02	1973	.22	1986	6.5	5.2	3.2	1.7	.96	1.37	2.00	2.57	3.15	3.76	4.44	5.26	6.34	8.06	9.68	
May	3.71	4.23	3.40	1957	4	9.01	1991	.10	1977	7.7	6.0	2.6	1.2	.29	.54	1.03	1.54	2.10	2.75	3.53	4.51	5.87	8.14	10.38	
Jun	4.13	3.38	3.65	1991	25	10.32	1989	.34	1988	8.3	6.5	3.1	1.2	.82	1.20	1.80	2.36	2.92	3.52	4.20	5.03	6.11	7.85	9.51	
Jul	4.28	4.12	3.96	1994	7	8.45	1994	1.11	2000	9.8	7.4	3.1	1.1	1.55	1.96	2.54	3.02	3.49	3.96	4.47	5.07	5.84	7.02	8.10	
Aug	3.72	3.30	5.35	1939	15	8.84	1984	.71	1990	7.3	5.6	2.6	1.2	1.10	1.46	1.99	2.44	2.89	3.35	3.86	4.46	5.23	6.45	7.57	
Sep	3.87	3.28	6.15	1998	29	10.96	1998	.35	1990	6.8	5.0	2.3	1.1	.51	.82	1.37	1.91	2.48	3.11	3.83	4.73	5.93	7.91	9.83	
Oct	2.59	2.07	6.09	1995	5	9.24	1995	.06	2000	5.0	3.8	1.8	.7	.23	.41	.75	1.11	1.51	1.95	2.49	3.15	4.07	5.60	7.11	
Nov	4.32	3.66	3.62	1948	27	10.44	1986	.53	1981	7.9	6.3	3.0	1.2	.98	1.39	2.02	2.59	3.16	3.76	4.43	5.24	6.30	7.99	9.58	
Dec	4.72	4.25	7.08	1961	10	9.97	1983	1.29	1980	8.9	6.7	3.4	1.4	1.69	2.14	2.78	3.32	3.83	4.36	4.93	5.60	6.45	7.76	8.97	
Ann	52.85	52.50	9.75	Mar 1990	16	14.06	Mar 1973	.06	Oct 2000	96.3	74.7	36.3	16.8	37.33	40.33	44.17	47.08	49.68	52.19	54.78	57.64	61.12	66.17	70.54	

+ 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: 1930-2001

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

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NWS Call Sign:

Elevation: 147 Feet

Lat: 32°25N

Lon: 87°01W

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	.3	.0	0	0	4.0	1977	31	5.8	1977	0	0	0	0	0	.2	.1	@	.0	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1989	23	#+	1989	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	.1	.0	0	0	2.0	1987	3	2.0	1987	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	#	1993	22	#+	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.4	.0	N/A	N/A	4.0	Jan 1977	31	5.8	Jan 1977	0	0	0	0	0	.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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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	4/13	4/07	4/03	3/31	3/27	3/24	3/21	3/16	3/11
32	3/26	3/19	3/15	3/11	3/07	3/04	2/28	2/23	2/17
28	3/14	3/06	2/28	2/23	2/19	2/15	2/10	2/04	1/27
24	3/05	2/24	2/17	2/11	2/06	2/01	1/26	1/19	1/10
20	2/23	2/13	2/06	1/30	1/24	1/17	1/07	0/00	0/00
16	2/06	1/27	1/19	1/09	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	10/22	10/27	10/31	11/04	11/07	11/10	11/13	11/17	11/23
32	11/03	11/08	11/12	11/15	11/18	11/21	11/24	11/28	12/03
28	11/13	11/21	11/27	12/02	12/06	12/11	12/16	12/22	12/30
24	11/21	12/03	12/12	12/20	12/27	1/03	1/10	1/19	1/31
20	12/11	12/23	1/01	1/09	1/16	1/25	2/06	0/00	0/00
16	12/23	1/05	1/16	1/29	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	248	240	234	228	224	219	214	208	199
32	280	272	266	260	255	250	245	239	230
28	318	309	301	295	290	284	278	271	261
24	>365	356	336	325	317	309	301	292	280
20	>365	>365	>365	>365	>365	351	339	327	313
16	>365	>365	>365	>365	>365	>365	>365	>365	341

* 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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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	569	407	252	91	12	0	0	0	3	86	284	502	2206
60	428	278	141	26	1	0	0	0	0	32	172	365	1443
57	351	207	91	9	0	0	0	0	0	15	120	292	1085
55	304	166	64	4	0	0	0	0	0	8	90	249	885
50	205	86	21	0	0	0	0	0	0	1	38	160	511
32	18	0	0	0	0	0	0	0	0	0	0	10	28

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	483	518	791	943	1232	1397	1534	1518	1325	1046	725	543	12055
55	55	39	142	257	519	707	821	805	635	341	125	69	4515
57	40	24	107	202	457	647	759	743	575	285	94	50	3983
60	25	11	64	130	365	557	666	650	485	210	56	30	3249
65	0	1	20	44	221	407	511	495	338	108	19	12	2176
70	0	0	4	8	107	259	356	340	202	43	4	0	1323

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	283	351	586	750	1022	1184	1309	1290	1102	820	510	327	283	634	1220	1970	2992	4176	5485	6775	7877	8697	9207	9534
45	174	237	435	600	867	1034	1154	1135	952	665	367	207	174	411	846	1446	2313	3347	4501	5636	6588	7253	7620	7827
50	86	137	299	452	712	884	999	980	802	510	241	116	86	223	522	974	1686	2570	3569	4549	5351	5861	6102	6218
55	47	68	181	309	557	734	844	825	652	360	141	63	47	115	296	605	1162	1896	2740	3565	4217	4577	4718	4781
60	18	27	88	181	403	584	689	670	502	221	69	31	18	45	133	314	717	1301	1990	2660	3162	3383	3452	3483
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	163	213	368	484	695	816	899	892	757	539	321	198	163	376	744	1228	1923	2739	3638	4530	5287	5826	6147	6345

(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