

Climatology of the United States

No. 20

1971-2000

Station: MONTGOMERY DANNELLY AP, AL

COOP ID: 015550

Climate Division: AL 6

NWS Call Sign: MGM

Elevation: 202 Feet

Lat: 32° 18N

Lon: 86° 24W

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	57.6	35.5	46.6	83	1949	11	58.2	1974	0	1985	21	35.1	1977	568	2	.0	.0	24.0	.2	13.1	@
Feb	62.4	38.6	50.5	85	1962	13	55.9	1990	10+	1996	5	42.6	1978	415	4	.0	.0	24.0	.2	7.9	.0
Mar	70.5	45.4	57.9	89+	1995	22	63.4	1997	17	1993	14	52.9	1996	250	24	.0	.0	30.2	.0	2.2	.0
Apr	77.5	51.2	64.3	91+	1988	5	68.6	1981	28	1987	1	60.6	1993	98	73	.0	.3	29.9	.0	.1	.0
May	84.6	60.1	72.3	98	1953	27	76.1	2000	40	1971	4	66.3	1976	9	225	.0	4.0	31.0	.0	.0	.0
Jun	90.6	67.3	78.9	105	1954	28	83.2	1981	49+	1984	1	75.7	1997	0	415	.3	17.0	30.0	.0	.0	.0
Jul	92.7	70.9	81.8	105+	1952	25	84.7	1986	60	1950	1	79.7	1971	0	519	1.3	23.0	31.0	.0	.0	.0
Aug	92.2	70.1	81.2	104+	1983	24	84.7	1990	56	1992	29	78.3	1974	0	502	1.2	22.4	31.0	.0	.0	.0
Sep	87.7	64.9	76.3	101+	1980	10	80.2	1980	39	1967	30	72.4	1974	3	350	.1	12.6	30.0	.0	.0	.0
Oct	78.7	52.2	65.4	100	1954	6	73.3	1984	26	1952	30	58.9	1976	84	106	.0	1.4	30.9	.0	.2	.0
Nov	68.7	43.5	56.1	87+	1986	8	63.8	1985	13	1950	25	47.1	1976	278	23	.0	.0	29.1	.0	4.1	.0
Dec	60.3	37.6	49.0	85	1982	2	58.3	1984	5+	1983	25	40.8	2000	489	9	.0	.0	26.1	.3	10.1	.0
Ann	77.0	53.1	65.0	105+	Jun 1954	28	84.7+	Aug 1990	0	Jan 1985	21	35.1	Jan 1977	2194	2252	2.9	80.7	347.2	.7	37.7	@

+ 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: 1948-2001

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

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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	5.04	5.04	4.16	1965	23	10.16	1990	1.12	1986	10.9	7.9	3.6	1.4	1.77	2.25	2.94	3.52	4.07	4.64	5.26	5.99	6.91	8.34	9.65	
Feb	5.45	5.81	5.54	1961	24	9.87	1982	1.11	1999	8.8	6.4	3.5	2.0	1.68	2.19	2.97	3.63	4.27	4.94	5.67	6.53	7.64	9.37	10.98	
Mar	6.39	6.10	7.89	1990	16	12.40	1990	1.75	1997	9.7	7.3	4.4	2.1	2.14	2.75	3.63	4.38	5.11	5.85	6.66	7.61	8.83	10.72	12.46	
Apr	4.38	3.75	4.54	1964	8	11.50	1983	.52	1986	8.0	5.3	3.0	1.5	.83	1.22	1.86	2.45	3.06	3.70	4.44	5.33	6.51	8.41	10.22	
May	4.14	3.74	5.23	1978	9	12.01	1978	.68	1995	8.6	5.7	2.8	1.4	.96	1.34	1.95	2.49	3.04	3.61	4.25	5.02	6.03	7.63	9.14	
Jun	4.13	3.12	3.91	1957	28	14.44	1989	.33	1979	9.5	6.4	2.8	1.1	.76	1.13	1.73	2.29	2.86	3.48	4.18	5.03	6.16	7.97	9.70	
Jul	5.31	5.26	3.84	1973	14	9.99	1988	1.69	2000	12.0	8.7	3.5	1.7	1.90	2.40	3.12	3.73	4.31	4.90	5.55	6.30	7.27	8.76	10.12	
Aug	3.63	3.21	5.38	1984	2	10.43	1984	.73	1997	8.6	5.3	2.3	1.2	.92	1.26	1.79	2.26	2.72	3.21	3.75	4.39	5.24	6.57	7.81	
Sep	4.22	4.05	8.72	1953	26	9.47	1998	.81	1984	7.9	5.4	2.4	1.3	.94	1.33	1.95	2.50	3.06	3.66	4.32	5.12	6.17	7.85	9.42	
Oct	2.58	2.80	4.02	1964	4	7.60	1995	.01	1978	5.9	3.8	1.9	.8	.18	.34	.66	1.01	1.41	1.87	2.42	3.13	4.11	5.76	7.40	
Nov	4.53	4.06	8.16	1948	26	10.18	1986	.51	1981	8.4	5.9	3.3	1.6	1.08	1.50	2.17	2.76	3.34	3.96	4.66	5.49	6.57	8.30	9.92	
Dec	4.97	4.62	3.92	1992	16	9.18	1989	1.39	1980	9.8	7.3	3.5	1.6	2.12	2.56	3.19	3.71	4.19	4.68	5.21	5.81	6.57	7.74	8.79	
Ann	54.77	52.98	8.72	Sep 1953	26	14.44	Jun 1989	.01	Oct 1978	108.1	75.4	37.0	17.7	39.30	42.31	46.15	49.06	51.65	54.14	56.72	59.56	63.01	68.01	72.32	

+ 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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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	3.0	1977	18	6.0	1977	3+	1977	31	#	1977	.2	.1	@	.0	.0	.1	.1	.0	.0
Feb	.1	.0	#	0	3.1	1973	9	3.1	1973	2	1973	10	#	1973	.0	.0	@	.0	.0	@	.0	.0	.0
Mar	.2	.0	#	0	3.8	1993	13	3.8	1993	4	1993	13	#	1993	.0	.0	@	.0	.0	.1	.1	.0	.0
Apr	.0	.0	#	0	.8	1987	3	.8	1987	1	1987	3	#	1987	.0	.0	.0	.0	.0	@	.0	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1993	.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	#	1993	31	#	1993	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	.1	.0	#	0	1.5	1996	18	1.5	1996	1	1993	22	#	1993	.0	.0	.0	.0	.0	@	.0	.0	.0
Ann	.7	.0	N/A	N/A	3.8	Mar 1993	13	6.0	Jan 1977	4	Mar 1993	13	#+	Dec 1993	.2	.1	@	.0	.0	.2	.2	.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	4/19	4/13	4/08	4/04	3/31	3/28	3/24	3/19	3/12
32	3/26	3/21	3/17	3/14	3/11	3/08	3/05	3/01	2/24
28	3/15	3/08	3/03	2/27	2/23	2/19	2/15	2/10	2/03
24	3/05	2/26	2/20	2/16	2/12	2/08	2/03	1/29	1/22
20	2/24	2/14	2/06	1/31	1/25	1/18	1/10	12/29	0/00
16	1/31	1/21	1/11	12/30	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	10/15	10/21	10/26	10/30	11/02	11/05	11/09	11/14	11/20
32	10/27	11/02	11/06	11/09	11/12	11/16	11/19	11/23	11/29
28	11/12	11/18	11/23	11/27	12/01	12/04	12/08	12/13	12/20
24	11/19	11/29	12/07	12/13	12/19	12/25	1/01	1/08	1/18
20	12/11	12/23	1/02	1/09	1/17	1/25	2/04	2/19	0/00
16	12/25	1/05	1/15	1/28	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	241	232	226	220	215	210	204	198	188
32	268	260	255	250	246	241	236	231	223
28	310	300	292	286	280	274	268	260	250
24	344	328	319	313	307	301	294	287	278
20	>365	>365	>365	>365	>365	344	331	318	303
16	>365	>365	>365	>365	>365	>365	>365	>365	351

* 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	568	415	250	98	9	0	0	0	3	84	278	489	2194
60	440	275	137	28	1	0	0	0	0	44	182	371	1478
57	361	203	88	11	0	0	0	0	0	24	131	297	1115
55	313	160	62	5	0	0	0	0	0	15	101	253	909
50	213	79	20	0	0	0	0	0	0	4	45	163	524
32	20	0	0	0	0	0	0	0	0	0	0	10	30

Cooling Degree Days (1)

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	467	522	801	963	1243	1405	1545	1527	1335	1045	733	541	12127
55	36	56	157	283	530	715	832	814	645	339	135	60	4602
57	24	39	120	232	468	655	770	752	585	283	105	44	4077
60	13	22	73	162	376	565	677	659	495	208	66	26	3342
65	2	4	24	73	225	415	519	502	350	106	23	9	2252
70	0	0	4	19	105	266	367	349	211	39	5	2	1367

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	261	338	564	731	1004	1172	1304	1288	1102	808	505	323	261	599	1163	1894	2898	4070	5374	6662	7764	8572	9077	9400
45	154	218	415	581	849	1022	1149	1133	952	653	363	205	154	372	787	1368	2217	3239	4388	5521	6473	7126	7489	7694
50	84	128	274	433	694	872	994	978	802	498	237	121	84	212	486	919	1613	2485	3479	4457	5259	5757	5994	6115
55	39	63	164	291	539	722	839	823	652	347	142	66	39	102	266	557	1096	1818	2657	3480	4132	4479	4621	4687
60	13	24	79	168	385	572	684	668	502	213	74	27	13	37	116	284	669	1241	1925	2593	3095	3308	3382	3409
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	158	210	349	470	680	810	899	888	755	533	323	198	158	368	717	1187	1867	2677	3576	4464	5219	5752	6075	6273

(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

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 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/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