

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: LITCHFIELD PARK, AZ

1971-2000

COOP ID: 024977

Climate Division: AZ 6

NWS Call Sign:

Elevation: 1,030 Feet Lat: 33° 30N

Lon: 112° 22W

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	67.0	37.4	52.2	89+	1971	20	56.7	1981	16	1950	5	47.8	1979	397	0	.0	.0	30.8	.0	6.6	.0
Feb	72.3	40.6	56.5	93	1930	16	61.4	1991	22+	1990	16	52.2	1998	244	5	.0	.1	27.9	@	2.1	.0
Mar	77.3	44.8	61.1	100	1988	27	68.1	1972	22+	1971	3	54.4	1973	172	49	@	2.9	31.0	.0	.4	.0
Apr	86.2	50.7	68.5	105+	1992	29	75.9	1989	27	1938	1	61.7	1975	61	165	1.8	12.8	30.0	.0	@	.0
May	95.3	59.4	77.4	115	1984	28	84.5	1997	36	1975	6	72.5	1977	6	389	10.7	25.3	31.0	.0	.0	.0
Jun	105.2	68.3	86.8	125	1990	26	90.8	1981	49+	1955	2	82.4	1991	0	651	25.1	29.4	30.0	.0	.0	.0
Jul	107.6	75.4	91.5	125	1995	29	95.3	1996	57	1943	3	88.3	1987	0	821	29.9	30.9	31.0	.0	.0	.0
Aug	105.8	74.4	90.1	120	1998	29	94.1	1994	50+	1917	20	86.5	1990	0	778	28.6	30.8	31.0	.0	.0	.0
Sep	100.8	67.3	84.1	116	1995	1	88.6	1995	44	1920	27	77.9	1985	0	571	20.0	29.0	30.0	.0	.0	.0
Oct	89.9	54.7	72.3	109	1980	2	77.6	1988	31	1971	31	66.8	1971	24	251	5.0	17.8	31.0	.0	.1	.0
Nov	76.1	42.8	59.5	98	1921	3	64.9	1995	22	1976	29	54.5	2000	189	23	.0	1.0	30.0	.0	1.2	.0
Dec	67.2	36.7	52.0	89	1950	10	58.1	1980	20+	1978	9	48.1	1987	404	0	.0	.0	30.8	.0	6.7	.0
Ann	87.6	54.4	71.0	125+	Jul 1995	29	95.3	Jul 1996	16	Jan 1950	5	47.8	Jan 1979	1497	3703	121.1	180.0	364.5	@	17.1	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1917-2000

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

051-A

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Station: LITCHFIELD PARK, AZ

COOP ID: 024977

Climate Division: AZ 6

NWS Call Sign:

Elevation: 1,030 Feet Lat: 33°30N

Lon: 112°22W

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	.96	.67	1.79	1954	20	6.14	1993	.00+	1976	4.1	2.3	.5	.1	.00	.01	.08	.19	.33	.52	.77	1.10	1.60	2.49	3.40
Feb	1.13	.95	2.10	1988	3	4.24	1998	.00+	1989	3.8	2.3	.9	.3	.00	.00	.14	.33	.54	.78	1.06	1.41	1.91	2.72	3.53
Mar	1.10	.93	1.81	1978	2	4.05	1978	.00+	1989	3.9	2.3	.8	.1	.00	.00	.13	.31	.51	.74	1.01	1.36	1.85	2.65	3.46
Apr	.30	.08	1.03	1999	2	1.36	1999	.00+	1996	1.7	.7	.1	@	.00	.00	.00	.01	.05	.12	.21	.34	.52	.86	1.20
May	.12	.01	1.24	1930	5	1.42	1992	.00+	2000	1.0	.4	.0	.0	.00	.00	.00	.00	.00	.00	.02	.07	.18	.39	.64
Jun	.05	.00	.67	1925	29	.50	1990	.00+	1998	.3	.2	@	.0	.00	.00	.00	.00	.00	.00	.00	.00	.07	.18	.30
Jul	.71	.42	1.73	1919	12	4.10	1984	.00+	1993	3.3	1.9	.5	.1	.00	.00	.06	.16	.28	.43	.61	.85	1.20	1.78	2.38
Aug	.95	.94	2.36	1951	3	2.68	1990	.00	1975	3.5	1.9	.5	.2	.01	.04	.14	.26	.40	.59	.82	1.13	1.57	2.35	3.14
Sep	.93	.59	3.36	1983	29	4.27	1983	.00+	1993	2.9	1.6	.7	.3	.00	.00	.10	.25	.42	.61	.85	1.15	1.57	2.27	2.97
Oct	.71	.55	1.78	1976	23	3.29	1972	.00+	1999	3.0	1.7	.5	.2	.00	.00	.08	.18	.30	.44	.62	.85	1.19	1.76	2.35
Nov	.69	.45	2.65	1923	10	2.77	1982	.00+	1999	2.6	1.5	.4	.1	.00	.00	.00	.15	.30	.46	.64	.87	1.19	1.73	2.24
Dec	.97	.46	1.76	1967	15	4.20	1984	.00+	1996	3.2	1.7	.7	.2	.00	.00	.02	.11	.24	.43	.69	1.07	1.63	2.66	3.75
Ann	8.62	8.18	3.36	Sep 1983	29	6.14	Jan 1993	.00+	May 2000	33.3	18.5	5.6	1.6	3.09	3.90	5.07	6.06	6.99	7.95	9.00	10.21	11.76	14.16	16.36

+ 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: 1917-2000

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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: LITCHFIELD PARK, AZ

COOP ID: 024977

Climate Division: AZ 6

NWS Call Sign:

Elevation: 1,030 Feet

Lat: 33°30N

Lon: 112°22W

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	.0	0	0	.0	0	0	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	.0	0	0	.0	0	0	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: LITCHFIELD PARK, AZ

COOP ID: 024977

Climate Division: AZ 6

NWS Call Sign:

Elevation: 1,030 Feet

Lat: 33°30N

Lon: 112°22W

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	4/12	3/31	3/23	3/16	3/10	3/03	2/24	2/16	2/04
32	3/13	3/03	2/24	2/18	2/12	2/07	2/01	1/25	1/15
28	2/16	2/04	1/26	1/18	1/10	1/01	12/22	12/02	0/00
24	1/27	1/12	12/31	12/17	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	11/01	11/07	11/11	11/15	11/18	11/21	11/25	11/29	12/04
32	11/15	11/21	11/24	11/28	12/01	12/04	12/07	12/11	12/17
28	11/28	12/08	12/16	12/23	12/30	1/06	1/16	0/00	0/00
24	12/14	12/25	1/04	1/17	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	297	282	271	261	253	244	234	224	208
32	323	312	304	297	291	285	278	270	259
28	>365	>365	>365	>365	358	338	326	315	301
24	>365	>365	>365	>365	>365	>365	>365	358	331
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: LITCHFIELD PARK, AZ

COOP ID: 024977

Climate Division: AZ 6 NWS Call Sign: Elevation: 1,030 Feet Lat: 33° 30N Lon: 112° 22W

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	397	244	172	61	6	0	0	0	0	24	189	404	1497
60	247	127	85	21	1	0	0	0	0	5	88	255	829
57	165	75	47	10	0	0	0	0	0	2	47	173	519
55	118	48	29	5	0	0	0	0	0	0	29	127	356
50	38	10	8	0	0	0	0	0	0	0	5	45	106
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	626	685	900	1094	1406	1641	1844	1801	1561	1250	823	619	14250
55	31	89	216	410	693	951	1131	1088	871	537	162	34	6213
57	15	61	172	354	631	891	1069	1026	811	477	121	18	5646
60	5	28	117	276	539	801	976	933	721	387	71	6	4860
65	0	5	49	165	389	651	821	778	571	251	23	0	3703
70	0	0	15	84	253	501	666	623	422	141	4	0	2709

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	407	507	690	884	1182	1410	1616	1572	1343	1018	599	395	407	914	1604	2488	3670	5080	6696	8268	9611	10629	11228	11623
45	255	366	535	734	1027	1260	1461	1417	1193	863	450	248	255	621	1156	1890	2917	4177	5638	7055	8248	9111	9561	9809
50	121	225	380	584	872	1110	1306	1262	1043	708	302	119	121	346	726	1310	2182	3292	4598	5860	6903	7611	7913	8032
55	41	111	236	438	717	960	1151	1107	893	554	176	34	41	152	388	826	1543	2503	3654	4761	5654	6208	6384	6418
60	3	39	116	297	562	810	996	952	743	405	75	0	3	42	158	455	1017	1827	2823	3775	4518	4923	4998	4998
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	285	346	446	553	709	819	957	949	810	631	406	280	285	631	1077	1630	2339	3158	4115	5064	5874	6505	6911	7191

(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