

Climatography of the United States

No. 20

1971-2000

Station: LUFKIN ANGELINA CO AP, TX

COOP ID: 415424

Climate Division: TX 4

NWS Call Sign: LFK

Elevation: 288 Feet Lat: 31° 14N Lon: 94° 45W

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	59.2	37.9	48.6	86	1911	30	55.1	1975	-2	1930	18	37.8	1978	521	4	.0	.0	23.8	.3	11.0	.0
Feb	64.5	41.2	52.9	92+	1996	22	59.3	1976	-2	1951	2	41.7	1978	350	10	.0	.1	24.7	.3	5.9	.0
Mar	71.8	47.8	59.8	97	1946	31	66.1	1974	16+	1943	4	54.7	1978	190	29	.0	.1	30.4	.0	2.3	.0
Apr	78.1	54.2	66.2	98	1936	13	70.9	1981	30+	1987	4	61.1	1983	64	98	.0	.7	30.0	.0	.2	.0
May	84.4	63.0	73.7	99+	1998	31	79.9	1996	39	1909	2	70.3	1976	7	276	.0	5.6	31.0	.0	.0	.0
Jun	90.0	69.4	79.7	106	1936	21	85.0	1998	50	1984	1	77.2	1974	0	441	.4	18.3	30.0	.0	.0	.0
Jul	93.5	71.7	82.6	108+	1934	18	87.8	1998	56	1907	5	80.5	1972	0	546	2.0	26.9	31.0	.0	.0	.0
Aug	93.6	70.8	82.2	110	1909	19	85.5	1999	52+	1920	6	78.0	1992	0	533	2.1	26.2	31.0	.0	.0	.0
Sep	88.5	66.0	77.3	110	2000	4	81.4	1998	36	1920	30	73.2	1974	1	369	.3	15.6	30.0	.0	.0	.0
Oct	80.1	55.3	67.7	100	1938	1	71.6	1971	25+	1993	31	60.0	1976	49	132	.0	2.5	31.0	.0	.2	.0
Nov	69.2	46.1	57.7	90	1917	10	64.9	1973	15	1911	30	50.6	1976	252	32	.0	.0	28.8	.0	3.3	.0
Dec	61.3	39.2	50.3	89	1910	4	59.9	1984	2	1989	23	41.6	1989	466	10	.0	.0	26.0	.3	9.7	.0
Ann	77.9	55.2	66.6	110+	Sep 2000	4	87.8	Jul 1998	-2+	Feb 1951	2	37.8	Jan 1978	1900	2480	4.8	96.0	347.7	.9	32.6	.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: 1906-2001

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

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No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: LUFKIN ANGELINA CO AP, TX

COOP ID: 415424

Climate Division: TX 4

NWS Call Sign: LFK

Elevation: 288 Feet Lat: 31°14N

Lon: 94°45W

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	4.45	3.17	7.44	1929	5	13.16	1974	.25	1971	10.4	6.3	2.7	1.4	.57	.93	1.56	2.18	2.83	3.56	4.40	5.44	6.84	9.15	11.38
Feb	3.17	2.30	5.31	1910	2	9.91	1994	.30	1996	7.7	5.1	2.1	.8	.51	.78	1.24	1.68	2.13	2.62	3.18	3.86	4.78	6.26	7.69
Mar	3.53	3.73	4.13	1995	7	9.50	1995	.43	1986	9.5	5.6	2.1	1.0	.79	1.11	1.63	2.10	2.56	3.06	3.62	4.28	5.16	6.56	7.88
Apr	3.13	2.94	4.96	1968	8	6.81	1995	.33	1983	7.2	4.5	2.2	1.0	.55	.83	1.29	1.71	2.15	2.63	3.17	3.82	4.70	6.11	7.45
May	5.29	4.84	7.06	1990	31	12.14	1990	.01	1998	9.8	6.8	3.4	1.7	.67	1.09	1.84	2.58	3.36	4.22	5.23	6.47	8.14	10.90	13.57
Jun	4.18	3.32	5.18	1989	27	14.02	1989	.38	1985	9.0	6.3	2.7	1.1	.59	.93	1.53	2.11	2.72	3.39	4.16	5.10	6.38	8.47	10.48
Jul	2.60	2.47	5.75	1933	24	6.11	1991	.00	1986	7.8	4.8	1.7	.8	.19	.47	.88	1.27	1.66	2.10	2.60	3.21	4.04	5.38	6.67
Aug	3.08	2.75	5.30	1915	17	8.50	1991	.17	1999	7.4	4.8	1.9	1.0	.32	.55	.97	1.40	1.86	2.38	2.99	3.76	4.80	6.53	8.22
Sep	4.08	3.66	6.19	1965	22	10.97	1974	.66	1994	8.2	5.0	2.5	1.2	1.00	1.38	1.97	2.50	3.03	3.58	4.20	4.94	5.90	7.43	8.86
Oct	4.13	2.96	7.47	1994	16	15.54	1994	.42	2000	7.3	5.0	2.3	1.1	.42	.72	1.28	1.86	2.48	3.18	4.01	5.04	6.45	8.80	11.09
Nov	4.54	3.48	6.19	1940	25	15.97	2000	.66	1999	8.2	5.8	2.7	1.6	.84	1.24	1.91	2.52	3.15	3.83	4.60	5.54	6.78	8.77	10.67
Dec	4.44	4.48	4.40	1934	3	8.69	1994	.61	1980	9.8	6.0	3.0	1.6	1.26	1.68	2.32	2.87	3.41	3.98	4.60	5.34	6.30	7.81	9.21
Ann	46.62	47.49	7.47	Oct 1994	16	15.97	Nov 2000	.00	Jul 1986	102.3	66.0	29.3	14.3	29.25	32.45	36.64	39.88	42.80	45.66	48.63	51.96	56.04	62.04	67.29

+ 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: 1906-2001

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Climate Division: TX 4

NWS Call Sign: LFK

Elevation: 288 Feet

Lat: 31°14N

Lon: 94°45W

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	.4	.0	#	0	6.0	1973	11	7.5	1973	3+	1973	12	#	1985	.2	.2	@	@	.0	.2	.1	.0	.0
Feb	.1	.0	#	0	1.0	1980	2	1.0+	1985	1	1985	2	#	1985	.1	.1	.0	.0	.0	@	.0	.0	.0
Mar	#	.0	0	0	#	1989	5	#+	1989	#	1989	5	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	#	1996	.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	#	1992	4	#+	1992	#	1976	29	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	0	0	#	1996	16	#+	1996	#+	1990	31	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.5	.0	N/A	N/A	6.0	Jan 1973	11	7.5	Jan 1973	3+	Jan 1973	12	#+	May 1996	.3	.3	@	@	.0	.2	.1	.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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NWS Call Sign: LFK

Elevation: 288 Feet

Lat: 31° 14N

Lon: 94° 45W

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	4/16	4/09	4/04	3/31	3/27	3/23	3/19	3/14	3/07
32	4/03	3/27	3/21	3/17	3/13	3/08	3/04	2/27	2/19
28	3/18	3/09	3/03	2/25	2/20	2/15	2/10	2/03	1/25
24	3/06	2/23	2/16	2/09	2/03	1/27	1/20	1/11	12/25
20	2/19	2/08	1/31	1/24	1/17	1/10	1/01	12/15	0/00
16	1/26	1/14	1/03	12/17	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	10/19	10/26	10/30	11/03	11/07	11/11	11/15	11/19	11/26
32	10/29	11/04	11/08	11/12	11/15	11/18	11/22	11/26	12/02
28	11/06	11/14	11/20	11/25	11/30	12/05	12/10	12/16	12/25
24	11/22	11/30	12/05	12/10	12/15	12/20	12/25	1/01	1/14
20	12/11	12/19	12/25	12/31	1/05	1/11	1/19	0/00	0/00
16	12/22	1/05	1/19	2/08	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	254	244	236	230	224	218	212	205	194
32	272	263	257	252	247	242	236	230	222
28	314	303	295	288	282	276	269	261	250
24	>365	349	331	321	313	306	299	291	280
20	>365	>365	>365	>365	356	342	331	321	309
16	>365	>365	>365	>365	>365	>365	>365	>365	354

* 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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Climate Division: TX 4 NWS Call Sign: LFK Elevation: 288 Feet Lat: 31°14N Lon: 94°45W

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	521	350	190	64	7	0	0	0	1	49	252	466	1900
60	382	230	94	17	1	0	0	0	0	14	152	327	1217
57	307	171	54	6	0	0	0	0	0	5	105	255	903
55	262	138	34	3	0	0	0	0	0	3	79	212	731
50	170	70	9	0	0	0	0	0	0	0	33	126	408
32	11	0	0	0	0	0	0	0	0	0	0	3	14

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	524	583	862	1025	1293	1431	1569	1556	1358	1106	770	570	12647
55	62	77	183	337	580	741	856	843	668	396	159	66	4968
57	45	54	141	281	518	681	794	781	608	336	125	47	4411
60	27	29	88	202	425	591	701	688	518	252	81	26	3628
65	4	10	29	98	276	441	546	533	369	132	32	10	2480
70	0	0	7	34	148	292	391	378	227	50	10	0	1537

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	307	404	629	798	1059	1205	1334	1322	1132	872	540	350	307	711	1340	2138	3197	4402	5736	7058	8190	9062	9602	9952
45	198	277	478	648	904	1055	1179	1167	982	717	403	226	198	475	953	1601	2505	3560	4739	5906	6888	7605	8008	8234
50	116	178	335	498	749	905	1024	1012	832	562	273	135	116	294	629	1127	1876	2781	3805	4817	5649	6211	6484	6619
55	61	98	215	355	595	755	869	857	682	410	173	72	61	159	374	729	1324	2079	2948	3805	4487	4897	5070	5142
60	27	47	114	223	440	605	714	702	532	271	92	36	27	74	188	411	851	1456	2170	2872	3404	3675	3767	3803
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	193	253	401	524	732	839	908	895	771	576	345	223	193	446	847	1371	2103	2942	3850	4745	5516	6092	6437	6660

(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