Climatography 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: LAS VEGAS MUNICIPAL AP, NM 1971-2000 COOP ID: 294856

Climate Division: NM 2 NWS Call Sign: LVS Elevation: 6,866 Feet Lat: 35°39N Lon: 105°09W

									r	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes				Days (1) emp 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	45.9	19.1	32.5	72+	1990	10	39.8	2000	-26	1963	12	24.6	1979	1008	0	.0	.0	12.9	3.7	29.1	1.1
Feb	49.4	22.2	35.8	74	1972	28	43.3	2000	-21	1951	1	31.3	1982	817	0	.0	.0	16.4	2.2	25.4	.6
Mar	55.6	26.9	41.3	81	1971	26	47.2	1989	-16	1948	11	36.6	1973	737	0	.0	.0	22.5	.7	24.4	@
Apr	62.6	32.7	47.7	85	1965	22	52.6	2000	0	1983	5	37.9	1973	521	1	.0	.0	26.4	.3	14.4	@
May	70.9	40.9	55.9	95	2000	30	63.9	1996	17	1976	1	51.4	1983	296	15	.0	.2	30.6	.0	2.9	.0
Jun	80.6	49.3	65.0	99+	1981	21	70.0	1990	32+	1955	10	61.2	1983	74	72	.0	3.7	30.0	.0	.0	.0
Jul	83.0	53.4	68.2	98	1980	16	71.5	1980	37	1972	9	65.6	1972	15	114	.0	3.9	31.0	.0	.0	.0
Aug	80.7	52.3	66.5	94+	1986	20	70.8	2000	39	1998	16	63.2	1971	42	90	.0	1.2	31.0	.0	.0	.0
Sep	74.9	46.4	60.7	91+	1983	5	65.6	2000	23	1970	26	56.2	1974	159	29	.0	.2	29.6	.0	.6	.0
Oct	66.2	36.5	51.4	86+	1999	2	54.5	1995	3	1993	30	44.6	1984	425	1	.0	.0	28.9	.1	9.2	.0
Nov	53.9	26.2	40.1	80	1978	8	48.6	1999	-12	1957	22	31.6	1972	748	0	.0	.0	19.8	1.0	23.0	.2
Dec	46.6	19.8	33.2	73	1980	17	40.2	1980	-14	1990	23	27.9	1974	986	0	.0	.0	13.3	3.5	28.7	1.0
Ann	64.2	35.5	49.9	99+	Jun 1981	21	71.5	Jul 1980	-26	Jan 1963	12	24.6	Jan 1979	5828	322	.0	9.2	292.4	11.5	157.7	2.9

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 055-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽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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Station: LAS VEGAS MUNICIPAL AP, NM

Climate Division: NM 2 NWS Call Sign: LVS Elevation: 6,866 Feet Lat: 35°39N Lon: 105°09W

										Pı	recipi	tation	(incl	nes)													
			P	recip	itatio	on Total	s			M	ean N	Numbo Pays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount													
		ans/ ans(1)				Extremes	s			D	aily Pre	cipitatio	n	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	.38	.36	.85	1990	19	1.28	1990	.00	1998	4.2	1.3	@	.0	.02	.06	.12	.18	.24	.30	.38	.47	.59	.80	1.00			
Feb	.36	.13	1.09	1986	5	1.82	1986	.00+	2000	3.6	1.1	.1	@	.00	.00	.02	.07	.12	.19	.29	.42	.61	.96	1.31			
Mar	.77	.55	2.05	1985	12	3.58	1985	.02	1972	4.5	2.5	.3	.1	.05	.09	.19	.29	.41	.55	.72	.93	1.23	1.74	2.25			
Apr	1.00	.70	3.00	1985	27	4.88	1985	.00	1972	5.0	2.5	.4	.2	.01	.06	.18	.31	.47	.66	.89	1.20	1.63	2.38	3.13			
May	1.84	1.79	1.72	1979	20	3.94	1987	.00	1998	7.4	4.3	1.3	.3	.08	.24	.51	.78	1.07	1.40	1.78	2.27	2.93	4.02	5.09			
Jun	2.17	2.47	2.41	1948	2	4.80	1984	.02	1998	8.6	4.7	1.4	.5	.24	.40	.70	1.00	1.33	1.69	2.12	2.65	3.37	4.56	5.73			
Jul	3.29	3.10	2.66	1993	12	7.97	1972	.57	1980	12.0	6.9	2.0	.6	1.00	1.32	1.78	2.19	2.58	2.98	3.43	3.95	4.62	5.68	6.65			
Aug	3.62	3.19	3.56	1961	11	7.95	1981	.86	1980	12.7	7.5	2.6	.6	1.24	1.58	2.08	2.50	2.91	3.32	3.78	4.31	4.99	6.04	7.01			
Sep	2.12	2.03	2.04	1997	21	5.59	1997	.41	1992	8.2	4.5	1.4	.3	.50	.70	1.01	1.29	1.56	1.86	2.18	2.57	3.09	3.90	4.66			
Oct	1.24	.70	2.47	1954	6	4.47	1998	.00+	1995	5.1	2.9	.8	.1	.00	.02	.13	.28	.48	.72	1.04	1.46	2.07	3.14	4.25			
Nov	.79	.56	1.89	1977	7	3.86	1978	.00	1989	4.5	1.8	.4	.1	.01	.05	.13	.24	.36	.51	.70	.94	1.29	1.89	2.50			
Dec	.52	.26	.95	1978	6	2.12	1984	.00+	1981	4.1	1.6	.2	.0	.00	.00	.07	.15	.24	.35	.48	.64	.87	1.25	1.64			
Ann	18.10	18.55	3.56	Aug 1961	11	7.97	Jul 1972	.00+	Feb 2000	79.9	41.6	10.9	2.8	11.60	12.81	14.39	15.60	16.69	17.76	18.87	20.11	21.62	23.84	25.79			

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] 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

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

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COOP ID: 294856

Station: LAS VEGAS MUNICIPAL AP, NM

Climate Division: NM 2 NWS Call Sign: LVS Elevation: 6,866 Feet Lat: 35°39N Lon: 105°09W

										Snov	w (incl	hes)														
						Sno	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ians (1))					Extre	mes (2)				ow Fa	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	6.5	5.0	1	1	11.0	1990	18	17.7	1990	19	1990	20	5	1987	3.4	1.9	.9	.3	@	10.3	5.2	2.2	.2			
Feb	4.3	1.3	1	1	14.0	1987	19	17.5	1997	13	1986	10	4	1983	2.9	1.3	.5	.3	@	5.1	2.6	1.4	.3			
Mar	7.2	3.8	#	1	15.8	1973	29	40.9	1973	9	1984	4	2	1985	3.4	2.2	.8	.3	.1	3.0	1.3	.5	.0			
Apr	3.0	1.8	#	0	9.0	1973	7	13.2	1995	12	1973	8	3	1973	1.7	1.0	.4	.2	.0	1.9	.9	.4	.2			
May	.9	.0	#	0	10.4	1978	2	13.4	1978	10	1978	3	1	1978	.4	.2	.1	@	@	.2	.1	.1	@			
Jun	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1978	.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	1.2	1971	18	1.2	1971	1	1971	18	#	1971	.0	.0	.0	.0	.0	@	.0	.0	.0			
Oct	1.6	.0	#	0	12.4	1996	27	19.2	1984	8+	1996	27	1+	1996	.7	.5	.3	.1	@	.8	.4	.3	.0			
Nov	4.2	3.2	#	0	9.7	1974	3	14.9	1986	8	1980	25	1+	1991	1.9	1.1	.4	.2	.0	3.0	1.1	.4	.0			
Dec	6.9	4.4	1	1	11.0	1971	1	24.5	1997	11	1987	25	3+	1997	3.4	2.2	.8	.3	@	8.6	4.2	1.8	.3			
Ann	34.6	19.5	N/A	N/A	15.8	Mar 1973	29	40.9	Mar 1973	19	Jan 1990	20	5	Jan 1987	17.8	10.4	4.2	1.7	.1	32.9	15.8	7.1	1.0			

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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COOP ID: 294856

Lon: 105°09W

Lat: 35°39N

Elevation: 6.866 Feet

Station: LAS VEGAS MUNICIPAL AP, NM

Climate Division: NM 2 NWS Call Sign: LVS

Freeze Data **Spring Freeze Dates (Month/Day)** Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 6/04 5/30 5/27 5/24 5/21 5/18 5/15 5/12 5/07 32 5/23 5/19 5/15 5/13 5/10 5/07 5/05 5/01 4/27 28 5/15 5/11 5/07 5/05 5/02 4/29 4/27 4/24 4/19 4/23 4/02 24 5/07 5/01 4/27 4/19 4/16 4/12 4/08 20 4/22 4/17 4/13 4/09 4/06 4/03 3/30 3/26 3/20 4/07 16 4/14 4/02 3/28 3/24 3/20 3/15 3/10 3/03 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .60 .70 .10 .80 .90 36 9/18 9/22 9/24 9/26 9/28 9/30 10/02 10/04 10/07 32 9/24 9/27 9/30 10/03 10/05 10/07 10/09 10/12 10/16 10/19 10/25 28 10/04 10/08 10/11 10/14 10/17 10/22 10/30 24 10/11 10/16 10/20 10/23 10/26 10/29 11/02 11/05 11/11 20 10/17 10/23 10/28 11/01 11/04 11/08 11/12 11/16 11/23 11/13 11/16 11/24 16 10/29 11/04 11/09 11/20 11/28 12/05 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 149 142 137 133 129 125 121 36 116 109 32 161 156 151 147 143 139 134 168 126 28 184 178 174 170 167 155 149 163 160 24 212 204 198 194 189 185 180 175 167 237 228 222 20 217 212 207 201 195 186 254 16 264 248 242 237 231 225 219 209

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 do

Complete documentation available from:

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: NM 2 NWS Call Sign: LVS Elevation: 6,866 Feet Lat: 35°39N Lon: 105°09W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1008	817	737	521	296	74	15	42	159	425	748	986	5828		
60	853	677	582	378	176	22	0	7	69	279	598	831	4472		
57	760	593	489	298	120	8	0	2	35	200	513	738	3756		
55	698	537	429	249	90	4	0	0	20	154	456	676	3313		
50	545	401	285	146	36	0	0	0	3	70	323	522	2331		
32	118	51	12	2	0	0	0	0	0	0	38	93	314		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	132	158	299	472	742	988	1122	1070	861	599	281	130	6854		
55	0	0	2	29	118	302	409	358	190	40	8	0	1456		
57	0	0	1	18	87	246	347	297	145	23	5	0	1169		
60	0	0	0	8	50	170	254	209	90	9	0	0	790		
65	0	0	0	1	15	72	114	90	29	1	0	0	322		
70	0	0	0	0	2	18	28	21	6	0	0	0	75		

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 J												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
40	30	61	129	270	514	766	894	839	636	373	120	41	30	91	220	490	1004	1770	2664	3503	4139	4512	4632	4673					
45	5	18	54	160	364	616	739	684	488	235	56	9	5	23	77	237	601	1217	1956	2640	3128	3363	3419	3428					
50	0	1	18	72	221	467	584	529	341	121	18	0	0	1	19	91	312	779	1363	1892	2233	2354	2372	2372					
55	0	0	0	21	105	319	429	374	207	43	1	0	0	0	0	21	126	445	874	1248	1455	1498	1499	1499					
60	0	0	0	0	35	181	274	223	95	11	0	0	0	0	0	0	35	216	490	713	808	819	819	819					
Base		Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)															
50/86	44	72	129	214	341	485	568	532	399	270	117	51	44	116	245	459	800	1285	1853	2385	2784	3054	3171	3222					

(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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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