

RESEARCH BRIEF

CLIMATE DATA ANALYSIS

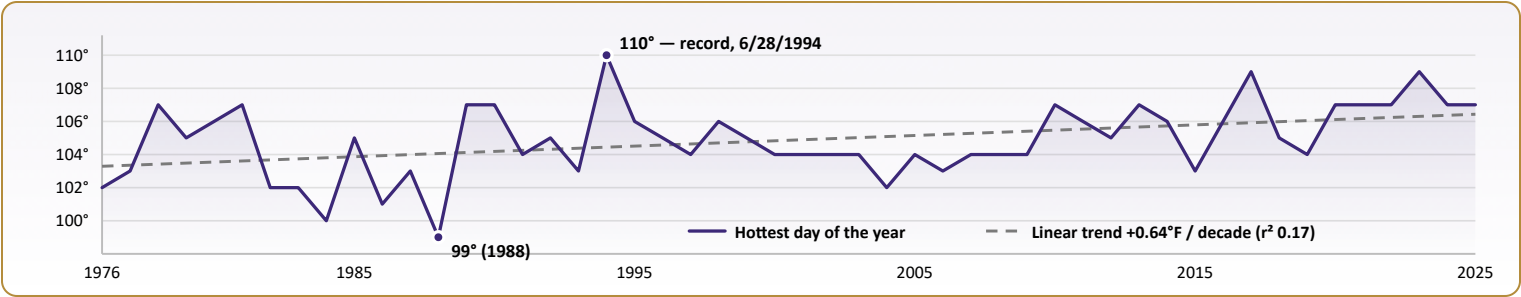
Las Cruces Peak Temperatures, 1976–2025

The hottest day of the year averages **104.9°F**, and the record **110°F** has stood since June 28, 1994. Ordinary days have warmed measurably over these 50 years — the yearly peak has not.

LOCATION	PERIOD	METRIC	SOURCE
Las Cruces, NM (NMSU)	1976–2025 (50 yrs)	Hottest day each year	NOAA / RCC-ACIS ¹

104.9°F AVERAGE ANNUAL PEAK	110°F RECORD — 6/28/1994	99°F LOWEST PEAK — 1988	27 of 50 YEARS REACHING 105°F+
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HOTTEST TEMPERATURE RECORDED EACH YEAR



YEAR-BY-YEAR PEAK (°F)

1976	102	1977	103	1978	107	1979	105	1980	106	1981	107	1982	102	1983	102	1984	100	1985	105
1986	101	1987	103	1988	99	1989	107	1990	107	1991	104	1992	105	1993	103	1994	110	1995	106
1996	105	1997	104	1998	106	1999	105	2000	104	2001	104	2002	104	2003	104	2004	102	2005	104
2006	103	2007	104	2008	104	2009	104	2010	107	2011	106	2012	105	2013	107	2014	106	2015	103
2016	106	2017	109	2018	105	2019	104	2020	107	2021	107	2022	107	2023	109	2024	107	2025	107

FINDINGS

- **The record has stood 31 years.** 110°F on 6/28/1994 is still the highest reading; the next hottest, 109°F, came in 2017 and 2023.
- **Swing dominates, not trend.** The slope is +0.64°F per decade but explains just 17% of the variation (r^2 0.17). Over the same years the *average* daily high rose +0.73°F per decade at r^2 0.53 — a far clearer signal.
- **Extreme-heat frequency is near flat:** 13 years hit 105°F+ in 1976–2000, versus 14 in 2001–2025.
- **What has changed is consistency.** Every year from 2020 through 2025 reached at least 107°F — a six-year run, and the only stretch of three or more consecutive years at that level anywhere in the 50-year record.

Scope note. Readings are from the NMSU cooperative station in Las Cruces (elev. 3,886 ft), about two miles from the 88005 centroid — the nearest station with a continuous 50-year daily record. Each value is the highest single-day maximum that calendar year. 1997 is missing 30 days of observation, so its 104°F may understate. Data as published, unadjusted.

CLIMATE DATA ANALYSIS

Las Cruces Annual Rainfall, 1976–2025

Rainfall averages **9.11"** a year and has fallen roughly **15%** between the first and second halves of the record. The **two driest years in 50** are **2024 and 2023** — consecutive.

9.11"

50-YEAR ANNUAL MEAN

3.64"

DRIEST — 2024

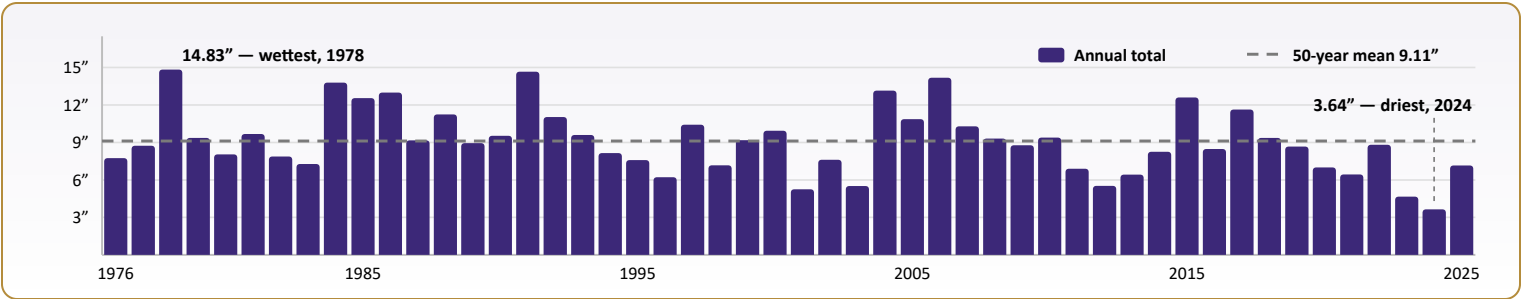
14.83"

WETTEST — 1978

-1.43"

2001–25 VS 1976–2000

TOTAL RAINFALL BY YEAR



YEAR-BY-YEAR TOTAL (INCHES)

1976	7.74	1977	8.74	1978	14.83	1979	9.37	1980	8.05	1981	9.68	1982	7.87	1983	7.28	1984	13.79	1985	12.55
1986	13.00	1987	9.17	1988	11.24	1989	8.94	1990	9.53	1991	14.66	1992	11.03	1993	9.60	1994	8.15	1995	7.59
1996	6.21	1997	10.42	1998	7.17	1999	9.18	2000	9.94	2001	5.25	2002	7.62	2003	5.51	2004	13.15	2005	10.86
2006	14.18	2007	10.29	2008	9.31	2009	8.77	2010	9.39	2011	6.89	2012	5.52	2013	6.42	2014	8.26	2015	12.60
2016	8.48	2017	11.64	2018	9.36	2019	8.67	2020	7.00	2021	6.44	2022	8.82	2023	4.66	2024	3.64	2025	7.16

FINDINGS

- **The record's two driest years are the two most recent complete ones** — 3.64" in 2024 and 4.66" in 2023, against a 9.11" average. No other back-to-back pair in the record comes close.
- **The second half is meaningfully drier:** 9.83" average for 1976–2000 versus 8.40" for 2001–2025 — down 1.43", roughly 15%.
- **As with temperature, the slope understates it.** The fitted trend is -0.63" per decade at r² 0.12; year-to-year swing is large, so the shift reads more clearly in period averages than in the line.
- **Taken with page 1:** typical days are hotter and water is scarcer, while the single hottest day of the year has not moved. The averages are shifting; the extreme is not.

Scope note. Same station and period as page 1. Values are annual sums of daily precipitation as published by RCC-ACIS. 1997 is missing 30 days of observation, so its 10.42" understates that year. No adjustment or infilling has been applied.

SOURCE

1. NOAA Regional Climate Centers, *Applied Climate Information System (RCC-ACIS)* — station USC00298535 "State University," Las Cruces, New Mexico. Daily maximum temperature and daily precipitation, 1976–2025. Accessed 8/4/2026.
<https://data.rcc-acis.org> — StnData; elems maxt (yearly reduce max) and pcpn (yearly reduce sum)