

April 2025 Central NC Climate Summary

By Phillip Badgett and James Danco

Raleigh has its warmest April on record.

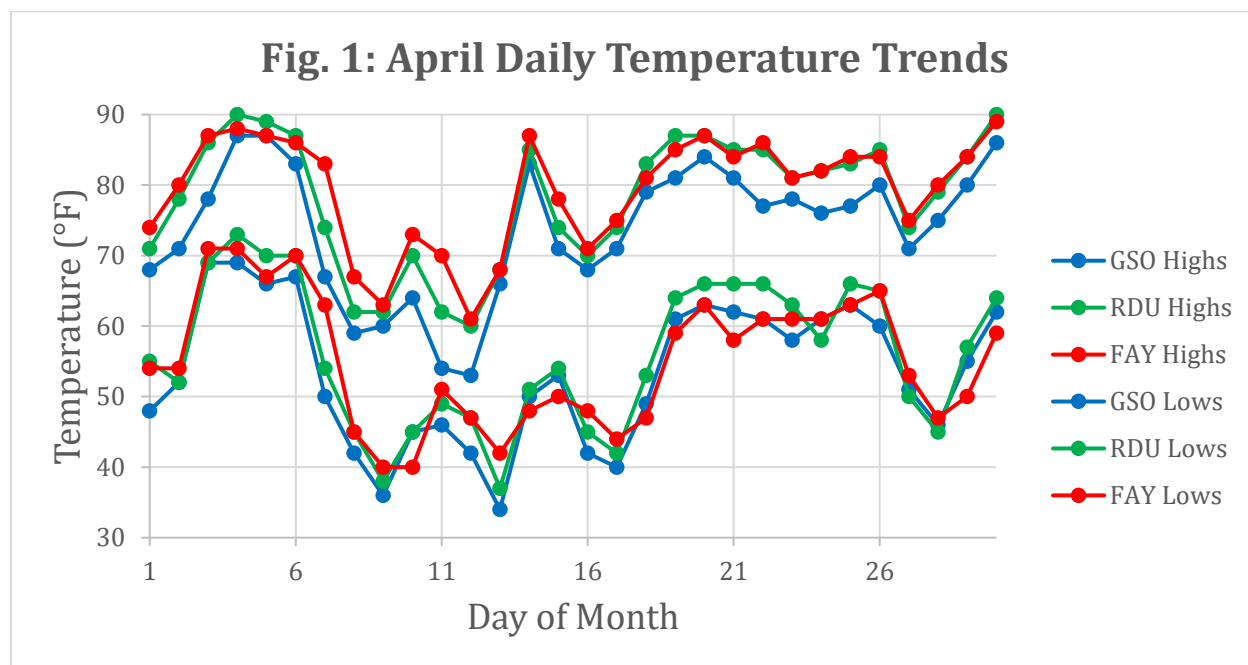
The overall long-term warming of the region continued to pop in April as temperatures achieved all-time record levels. According to the National Environmental Information (NCEI), the preliminary NC statewide average temperature was 63.0°F in April 2025. This made it the 2nd-warmest April for NC since records began in 1895. Raleigh (RDU) topped the list this month with the warmest April since records began in 1887, averaging an incredible 67.1°F. This obliterated the old record warmest April on record of 66.5°F by 0.6°F set in 2017. Not to be left out, both Greensboro and Fayetteville recorded their 2nd-warmest April temperatures on record, with records going back to 1903 and 1910 respectively. Greensboro averaged 63.6°F, and the warmest April on record in Greensboro is 63.9°F which was recorded in 2017. Fayetteville averaged 67.2°F, and only 2017 brought a warmer April which averaged 68.9°F. There were numerous daily records for all three of our main climate sites, highlighted by four daily record high temperatures and 13 record high minimum temperatures set or tied in April 2025. Raleigh even recorded an all-time record high minimum temperature for April of 73°F on the 4th. A list of all the records can be found at the end of this report. The monthly average temperatures and their departures from normal at the three climate sites are depicted in Table 1.

Table 1: Monthly Temperature Statistics

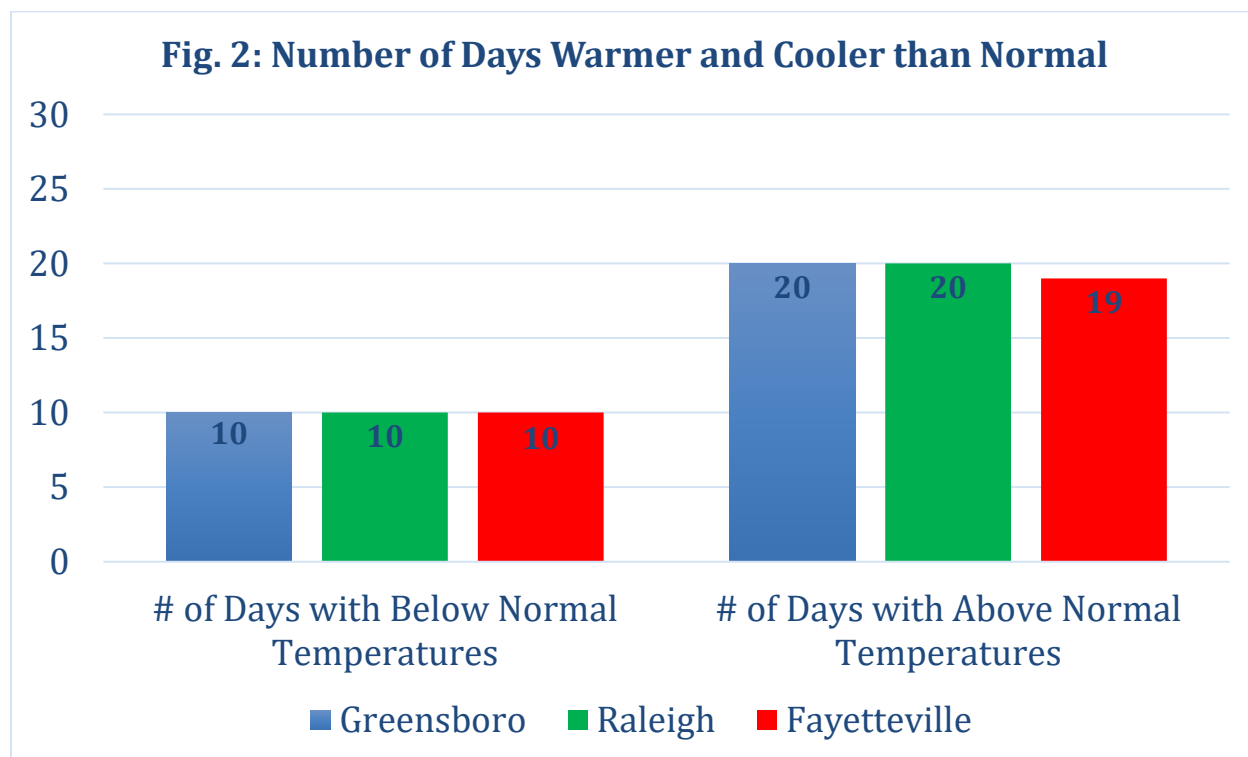
Site	Avg High Temp (°F)	Avg Low Temp (°F)	Avg Temp (°F)	Departure From Normal (°F)	Maximum Temperature (°F)	Minimum temperature (°F)
Greensboro (GSO)	73.8	53.4	63.6	+4.2	87 on 4/4 and 4/5	34 on 4/13
Raleigh-Durham (RDU)	78.2	56.0	67.1	+6.3	90 on 4/4 and 4/30	37 on 4/13
Fayetteville (FAY)	79.3	55.1	67.2	+4.4	89 on 4/30	40 on 4/9 and 4/10

The time series of daily temperature for April at Greensboro, Raleigh, and Fayetteville is in Figure 1. The month started quite warm with highs getting close to 90°F, when normal highs are in the upper-60s to lower-70s. Raleigh reached 90°F on April 4 which was its 5th-earliest 90+°F day on record and the earliest since 1990, according to the NC Climate Office. A brief cooldown ensued for the second week of April, but then as high pressure set up off the coast, the warmth

returned and stayed for the second half of the month. Raleigh had nine consecutive days with highs at least 80°F from April 18-26, the 4th-longest April streak of 80°F days and the longest since 1985, according to the NC Climate Office.



As shown in Figure 2, about two-thirds of the days in April were warmer than normal at the three climate sites.

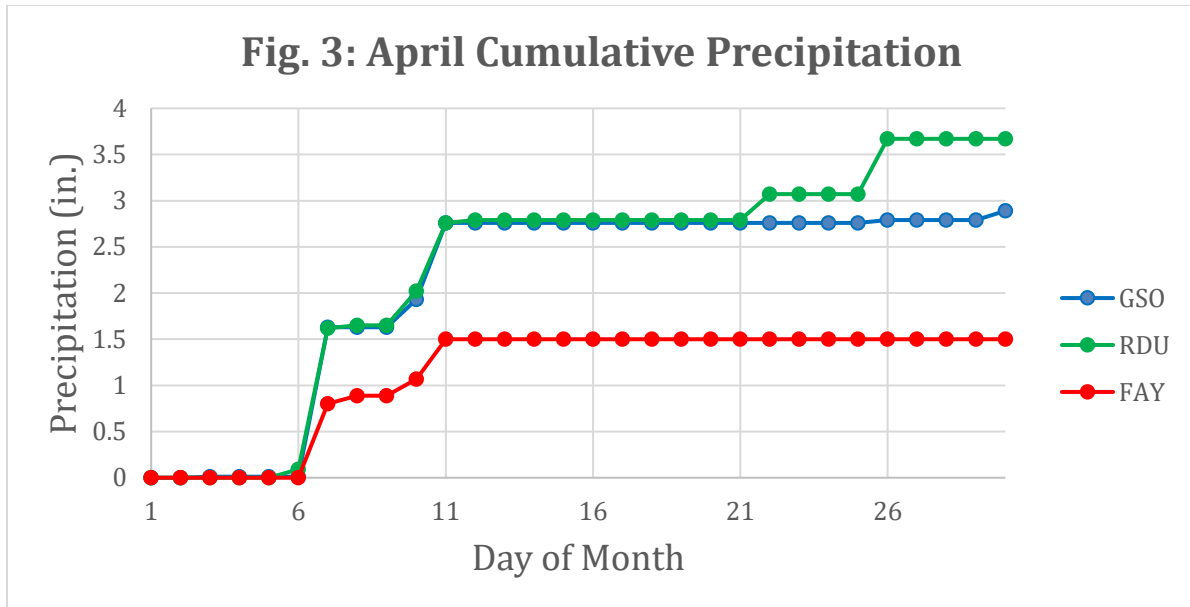


There were April showers that accompanied all the warm weather. However, high pressure kept cold fronts and severe weather away, which is unusual for April. According to the NC Climate Office, this was only the second April in eight years that had no tornadoes across the entire state. In the end, many areas underachieved in the rainfall department, which continued the overall drier than normal theme this spring. According to NCEI, the preliminary NC statewide average rainfall for the month was 3.02 inches. This ranked as the 42nd-driest April in 131 years. The rainfall results for central NC were a bit more mixed with some areas near normal, though most were drier than normal. Raleigh totaled 3.67 inches of rainfall, which was 0.14 inches above average. However, Greensboro and Fayetteville both had rainfall deficits of around 1 to 2 inches. Fayetteville had its 15th-driest April on record. The April 2025 monthly precipitation totals are found in Table 2.

Table 2: Monthly Precipitation Statistics

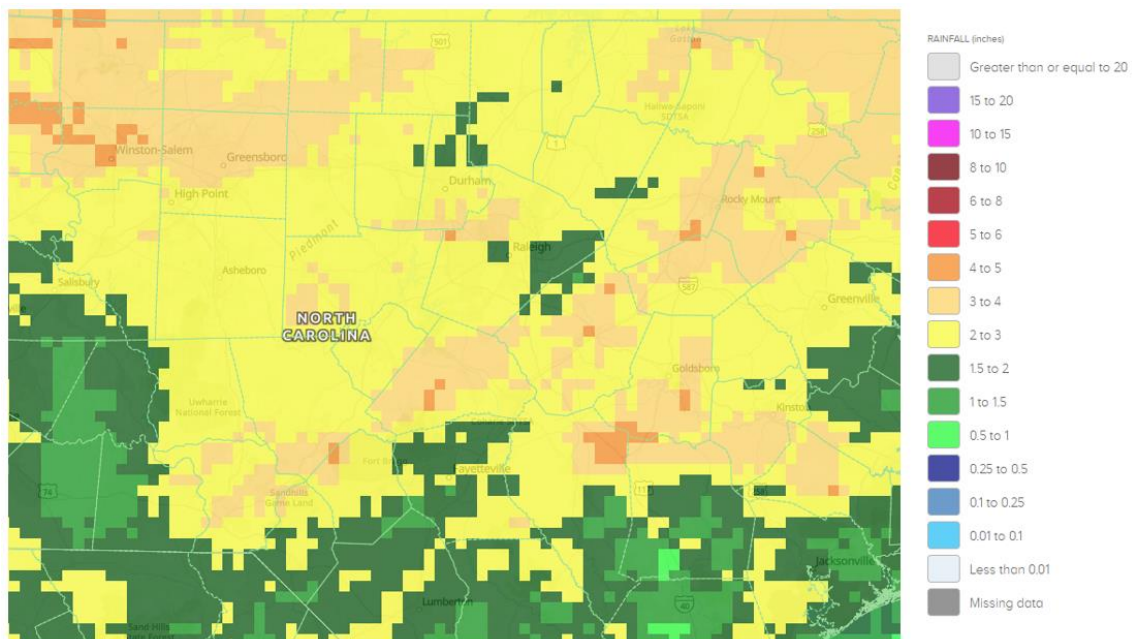
Site	Total precipitation (in.)	Departure from Normal (in.)	Max Daily Precipitation (in.)
Greensboro (GSO)	2.89	-0.89	1.62 on 4/7
Raleigh-Durham (RDU)	3.67	+0.14	1.53 on 4/7
Fayetteville (FAY)	1.50	-1.65	0.80 on 4/7

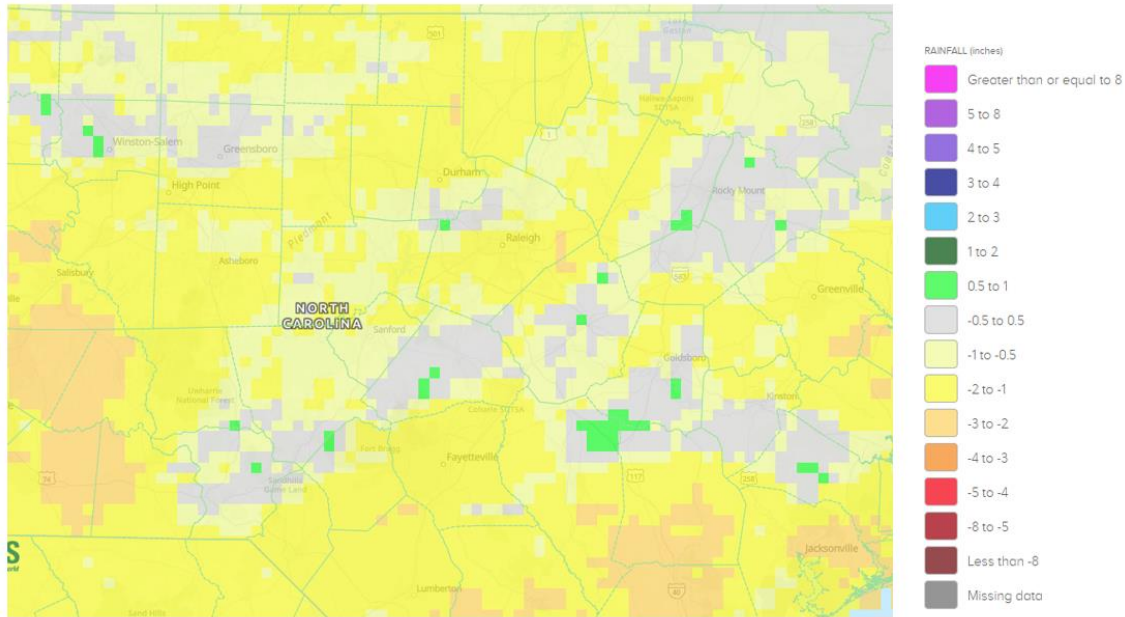
The cumulative precipitation at the three climate sites for the month of April is shown in Figure 3. The latter part of the month was especially dry. While Raleigh received some rain on the 22nd and 26th, Greensboro only received 0.13 inches of rain from April 12-30, and Fayetteville only received a trace during this entire 19-day range.



As displayed by Figure 4, the final monthly rainfall totals across central NC were mostly in the 2 to 4 inch range, with some isolated lower and higher amounts. While some isolated spots were near normal, most of central NC was anywhere from 0.5 to 2 inches drier than normal.

Fig. 4: Radar-Estimated Monthly Precipitation (top) and Precipitation Departure from Normal (bottom)





Some of the local cooperative station rainfall reports from around the region in April 2025 included: Sparta 4.16 inches (-1.20), North Wilkesboro 3.21 inches (-1.51), Albemarle 1.69 inches (-1.95), Burlington 2.18 inches (-1.65), Mount Airy 3.47 inches (-0.82), Danbury 4.66 inches (+0.73), Reidsville 2.45 inches (-1.58), Cary 2.69 inches (-1.03), Raleigh (NCSU) 2.49 inches (-1.14), Roxboro 2.08 inches (-2.21), Apex 1.70 inches (-1.93), Louisburg 3.42 inches (-0.08), Laurinburg 2.46 inches (-0.49), Hamlet 3.31 inches (+0.14), Rocky Mount 4.31 inches (+0.73), and Clinton 2.65 inches (-0.76).

The US Drought Monitor for NC was mostly unchanged across central NC from the beginning to the end of April, as shown in Figure 5. There was some elimination of dry conditions around Raleigh and Roanoke Rapids, and an elimination of drought in far western NC. There were also some improvements noted into the Triad and Southern Pines areas. However, conditions worsened a category east of Interstate 95 along the Coastal Area extending from Whiteville and Jacksonville to Plymouth. These areas are now in a Severe Drought (D2).

Fig. 5: US Drought Monitor for NC on April 1 (top) and April 29 (bottom)

U.S. Drought Monitor North Carolina



April 1, 2025
(Released Thursday, Apr. 3, 2025)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	5.14	94.86	69.21	1.34	0.00	0.00
Last Week (3-25-2025)	5.14	94.86	61.04	1.34	0.00	0.00
3 Months Ago (12-01-2024)	11.26	88.74	34.43	0.00	0.00	0.00
Start of Calendar Year (01-01-2025)	11.26	88.74	48.84	0.00	0.00	0.00
Start of Water Year (10-01-2024)	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago (04-03-2024)	88.52	11.48	1.27	0.00	0.00	0.00

Intensity:
None D0 Abnormally Dry D1 Moderate Drought D2 Severe Drought D3 Extreme Drought D4 Exceptional Drought

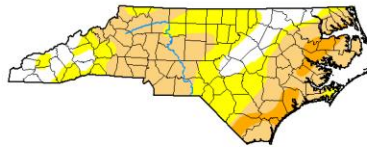
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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U.S. Drought Monitor North Carolina



April 29, 2025
(Released Thursday, May 1, 2025)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.97	84.03	52.72	7.37	0.00	0.00
Last Week (04-22-2025)	12.37	87.63	45.16	6.05	0.00	0.00
3 Months Ago (01-30-2025)	0.11	99.89	86.21	8.38	0.00	0.00
Start of Calendar Year (01-01-2025)	11.26	88.74	48.84	0.00	0.00	0.00
Start of Water Year (10-01-2024)	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago (04-30-2024)	39.10	60.90	0.00	0.00	0.00	0.00

Intensity:
None D0 Abnormally Dry D1 Moderate Drought D2 Severe Drought D3 Extreme Drought D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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Other notes:

Number of days with high temperatures at 90°F or above:

Greensboro: 0

Raleigh: 2

Fayetteville: 0

Number of days with low temperatures at 32°F or below:

Greensboro: 0

Raleigh: 0

Fayetteville: 0

Days with thunderstorms:

Greensboro: 3

Raleigh: 2

Fayetteville: 2

Days with dense fog (visibility of ¼ mile or less):

Greensboro: 0

Raleigh: 0

Fayetteville: 0

Strongest wind gusts and direction:

Greensboro: W (270 degrees) at 43 mph on April 15

Raleigh: SW (230 degrees) at 43 mph on April 7, and W (270 degrees) at 43 mph on April 26

Fayetteville SW (240 degrees) 59 mph on April 7

Monthly records:**Greensboro:**

April 2025 was the 2nd-warmest April on record, averaging 63.6°F. The warmest April on record was in 2017, averaging 63.9°F.

Raleigh:

April 2025 was the warmest April on record, averaging 67.1°F. The 2nd-warmest April on record was in 2017, averaging 66.5°F.

An all-time monthly record high minimum temperature of 73°F was set on April 4. This broke the previous all-time April record of 72°F set on April 29, 2017.

Fayetteville:

April 2025 was the 2nd-warmest April on record, averaging 67.2°F. The warmest April on record was in 2017, averaging 68.9°F.

April 2025 was the 15th-driest April on record, with a monthly precipitation total of 1.50 inches.

Daily records:

Greensboro:

A record high minimum temperature of 69°F was set on April 3. This broke the old record of 64°F set in 1946.

A record high temperature of 87°F was set on April 4. This broke the old record of 86°F set in 1934.

A record high minimum temperature of 69°F was set on April 4. This broke the old record of 62°F set in 1999.

A record high temperature of 87°F was tied on April 5. This record was previously set in 1942.

A record high minimum temperature of 66°F was set at on April 5. This broke the old record of 60°F last set in 2003.

A record high minimum temperature of 67°F was set on April 6. This broke the old record of 65°F last set in 2023.

Raleigh:

A record high minimum temperature of 69°F was set on April 3. This broke the old record of 62°F set in 2000.

A record high temperature of 90°F was set on April 4. This broke the old record of 88°F set in 1934.

A record high minimum temperature of 70°F was set on April 5. This broke the old record of 64°F set in 2010.

A record high minimum temperature of 70°F was set on April 6. This broke the old record of 69°F set in 2023.

A record high minimum temperature of 66°F was tied on April 22. This record was previously set in 1909.

A record high temperature of 90°F was tied on April 30. This record was previously set in 1906.

Fayetteville:

A record high minimum temperature of 71°F was set on April 3. This broke the old record of 65°F set in 1977.

A record high minimum temperature of 71°F was set on April 4. This broke the old record of 63°F set in 2017.

A record high minimum temperature of 67°F was set on April 5. This broke the old record of 64°F set in 2008.

A record high minimum temperature of 70°F was set on April 6. This broke the old record of 69°F set in 2023.