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# EASTERN NORTH CAROLINA MONTHLY CLIMATE REPORT

# JUNE 2025

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

# National Weather Service
## NEWPORT/MOREHEAD CITY, NC

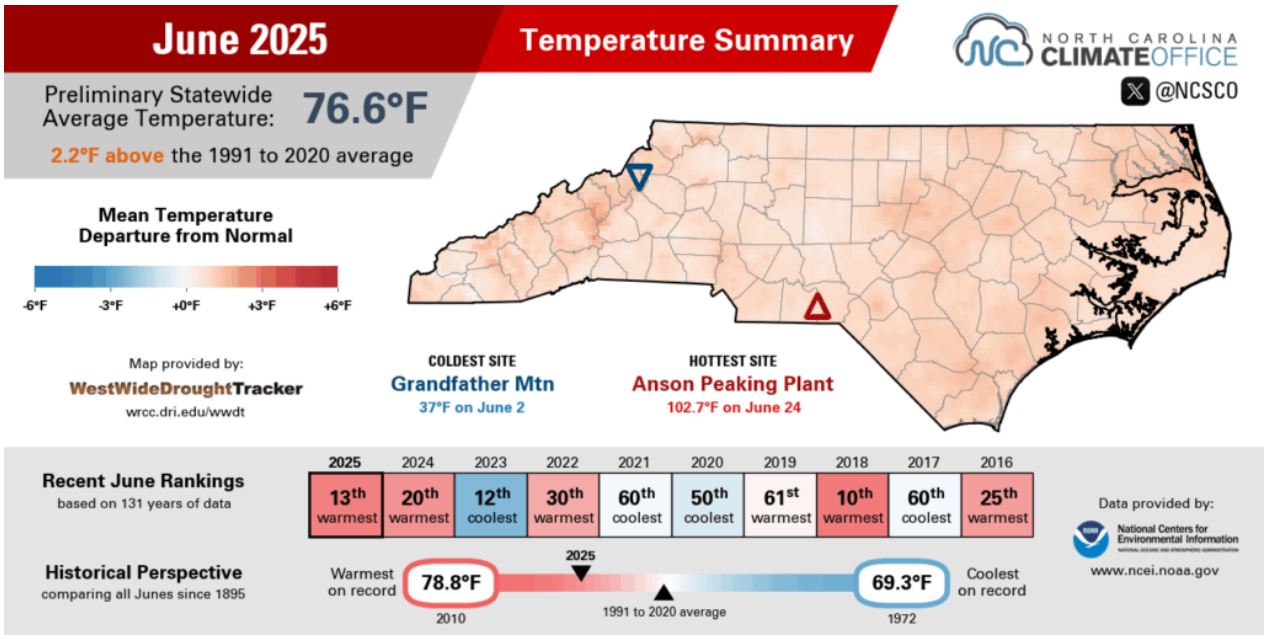
# MONTHLY SUMMARY

June in eastern North Carolina continued the prolonged streak of above average temperatures, and was complimented by above-normal rainfall. The precipitation pattern in June was highly variable owing to the hit-and-miss nature of convection. Where it did rain, it poured – torrential downpours in Greenville on July 15th-16th brought multiple reports of flash flooding. Overall, precipitation across the region was 1.5" above the 1991-2020 normal, or about 130% of average. The heavy rainfall further eroded the drought, and by the beginning of July no part of the forecast area was experiencing abnormally dry conditions.

Temperatures remained above average in July, and were warmer than the rest of the state. The average temperature was 79.3°F, or 2.8°F above the 1991-2020 normal. This was about 3 degrees higher than the rest of the state, and all 15 counties in the forecast area experienced among their top 10 warmest Junes on record. Cape Hatteras tied multiple high temperature records in the last week of June as the mercury there climbed into the low to mid 90s.

# TEMPERATURES

Above average temperatures extended into yet another month across North Carolina, according to the North Carolina State Climate Office. The average temperature statewide for June was 76.6°F or 2.2°F above the 1991-2020 average. This was the 13th warmest May statewide since records began in 1895, with 131 years of data.




June 2025 Temperature Summary | Source: NC State Climate Office

Eastern North Carolina temperature anomalies were warmer compared to the rest of the state, with temperatures across our 15 counties 2.8°F above the 1991-2020 average. Since their respective records began, June 2025 was the 6th warmest for Cape Hatteras and 7th warmest for New Bern. **Temperature data at Beaufort from June 14-16 was augmented with the official backup site in Morehead City.**

**MHX Select Site Temperature Statistics: June 2025**

| Site | Avg. High (°F) | Avg. Low (°F) | Avg. Temp (°F) | Normal (°F) | Departure (°F) |
|---|---|---|---|---|---|
| **Beaufort (KMRH)** | 84.6 | 74.5 | 79.6 | 77.3 | 2.3 |
| **Hatteras (KHSE)** | 84.0 | 73.0 | 78.5 | 77.5 | 1.0 |
| **New Bern (KEWN)** | 89.1 | 70.9 | 80.0 | 77.0 | 3.0 |

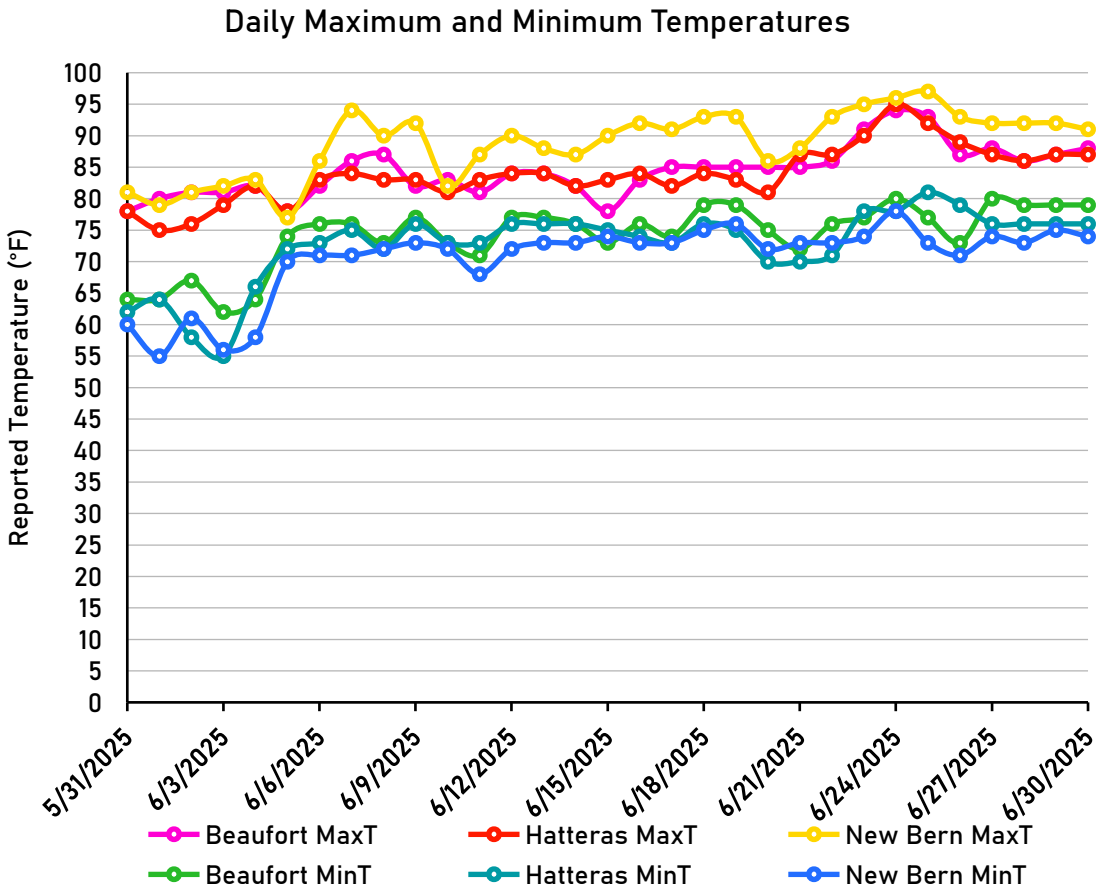
Normals are based on a period from 1990-2020.

County-averaged statistics are presented in the following table. **Mean and departure calculations are based on the 1991-2020 climate normals.** Data courtesy of the National Centers for Environmental Information (NCEI).

| County | Avg. Temperature (°F) | Mean (°F) | Departure (°F) | Rank |
|---|---|---|---|---|
| **Beaufort** | 79.6 | 76.6 | 3.0 | 6 W |
| **Carteret** | 80.0 | 77.0 | 3.0 | 3 W |
| **Craven** | 79.6 | 76.6 | 3.0 | 5 W |
| **Dare** | 78.7 | 76.0 | 2.7 | 6 W |
| **Duplin** | 79.0 | 76.3 | 2.7 | 8 W |
| **Greene** | 79.0 | 76.5 | 2.5 | 7 W |
| **Hyde** | 79.4 | 76.8 | 2.6 | 8 W |
| **Jones** | 79.3 | 76.3 | 3.0 | 5 W |
| **Lenoir** | 79.2 | 76.5 | 2.7 | 7 W |
| **Martin** | 78.6 | 75.8 | 2.8 | 6 W |
| **Onslow** | 79.6 | 76.5 | 3.1 | 4 W |
| **Pamlico** | 80.2 | 77.0 | 3.2 | 5 W |
| **Pitt** | 79.1 | 76.4 | 2.7 | 6 W |
| **Tyrrell** | 79.0 | 76.1 | 2.9 | 6 W |
| **Washington** | 78.8 | 76.0 | 2.8 | 8 W |
| **Area Average** | 79.3 | 76.4 | 2.8 | |

Means are based on a period from 1991-2020. For rankings, “C” designates coldest and “W” designates warmest.

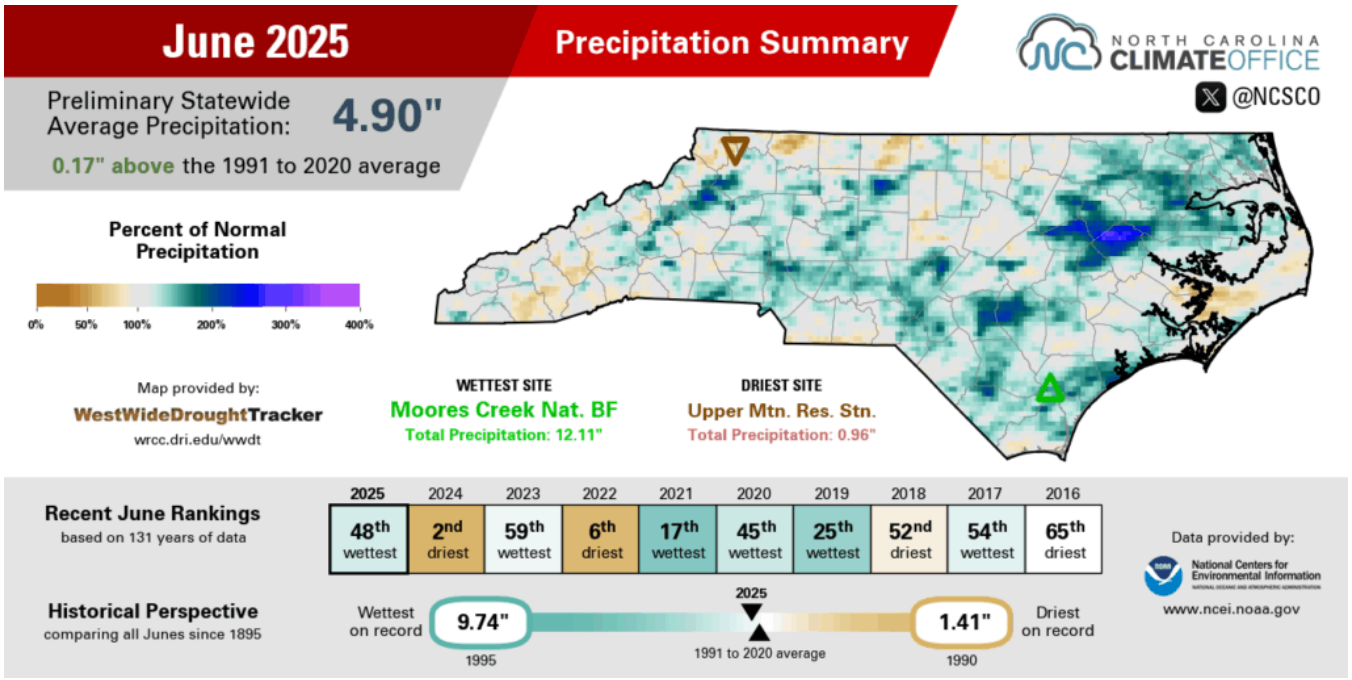
The upper air pattern across the United States in June was highly progressive, with multiple periods of ridging and troughing moving across the country. On a monthly scale, upper level heights were modestly above average across much of the east coast with temperature anomalies following the same trend. The coolest period was the first week of June, although anomalies were less than 3 degrees below normal. For the rest of the month, temperatures rose to 3-6 degrees above average.




Cape Hatteras tied two high temperature records in June: the 23rd (90, ties the record set in 2018) and the 24th (95, ties the record set in 1944). All 15 of our forecast area counties' average temperatures were among their top 10 warmest on record, per NCEI.

# PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation was 4.90” for June, or a mere 0.17” inches above average. This was the 48th wettest June since records began in 1895, and considerably wetter than June last year.




June 2025 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina was wetter on average than the rest of the state, although like in May precipitation amounts were highly variable owing to convective patterns. Pitt County saw substantial rainfall mid-month which lead to a flash flooding event in Greenville. Cape Hatteras recorded its 61st driest June, while New Bern experienced its 11th wettest. The average accumulation across the MHX forecast area was 6.47”, or 1.50” above the 1991-2020 average.

**MHX Select Site Precipitation Statistics: June 2025**

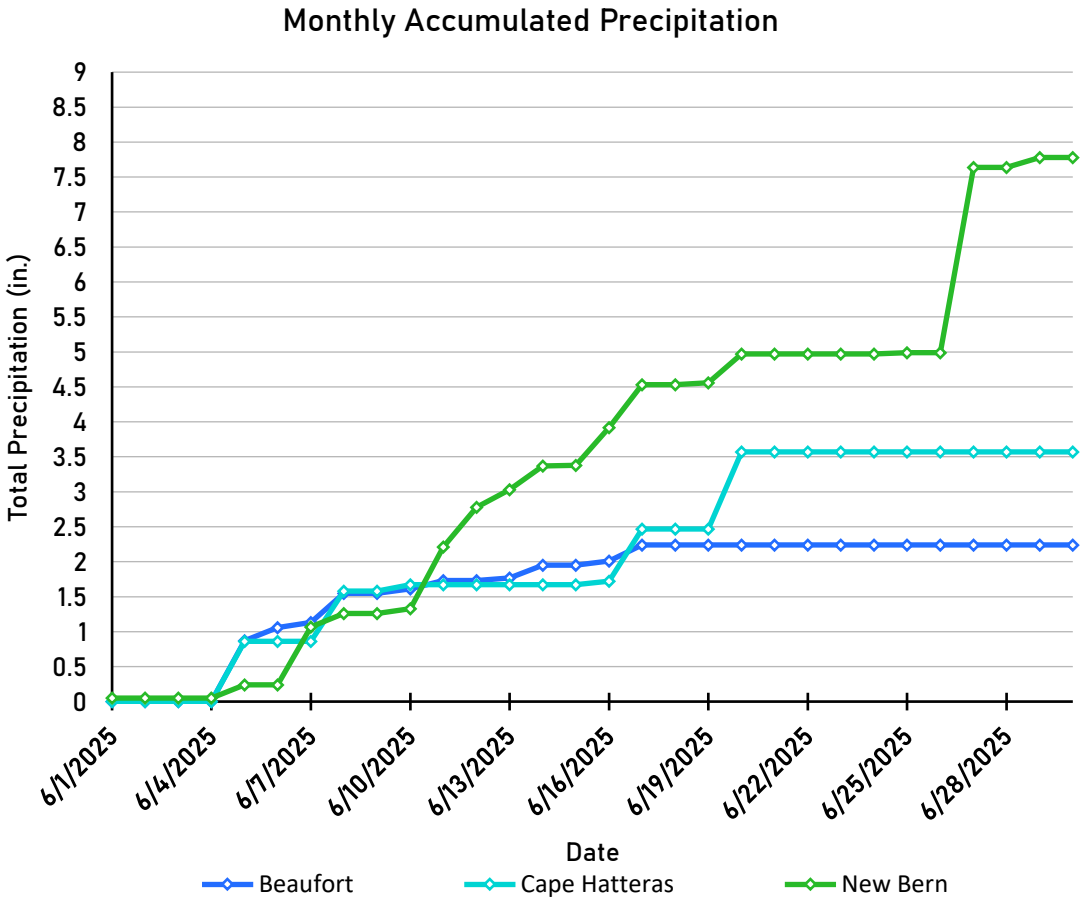
| Site | Total Precipitation (in.) | Normal (in.) | Departure (in.) |
|---|---|---|---|
| **Beaufort (KMRH)** | 2.24 | 4.06 | -1.82 |
| **Hatteras (KHSE)** | 3.57 | 4.41 | -0.84 |
| **New Bern (KEWN)** | 7.78 | 4.60 | 3.18 |

County-averaged statistics are presented in the following table. Mean and departure calculations are based on the 1991-2020 climate normals. Data courtesy of the National Centers for Environmental Information (NCEI).

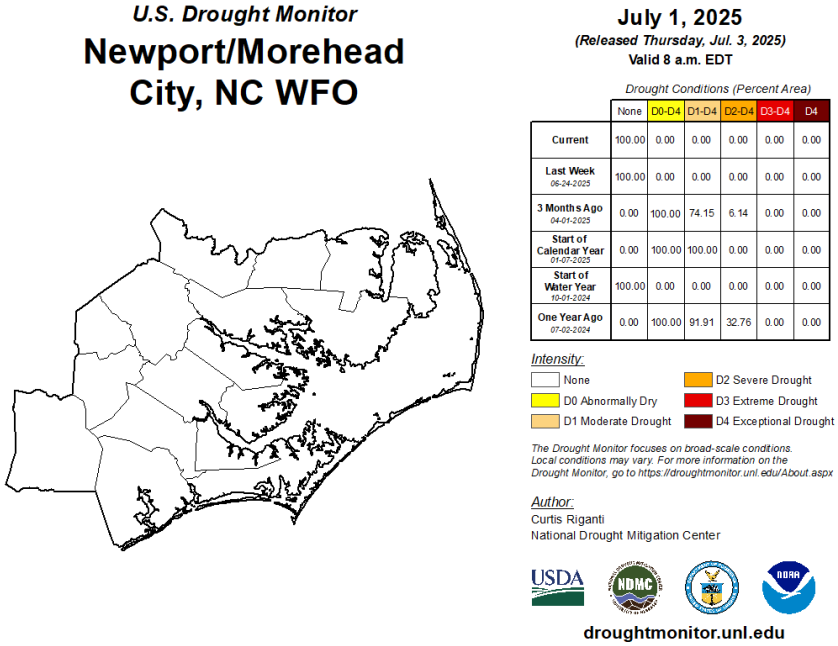
| County | Avg. Accum. (in.) | Mean (in.) | Departure (in.) | Rank |
|---|---|---|---|---|
| **Beaufort** | 6.27 | 5.06 | 1.21 | 52 W |
| **Carteret** | 5.57 | 4.98 | 0.59 | 43 W |
| **Craven** | 6.87 | 5.06 | 1.81 | 23 W |
| **Dare** | 5.81 | 4.59 | 1.22 | 33 W |
| **Duplin** | 6.36 | 5.29 | 1.07 | 30 W |
| **Greene** | 7.29 | 4.70 | 2.59 | 14 W |
| **Hyde** | 5.46 | 4.84 | 0.62 | 48 W |
| **Jones** | 7.29 | 5.24 | 2.05 | 20 W |
| **Lenoir** | 7.70 | 5.03 | 2.67 | 13 W |
| **Martin** | 6.28 | 4.83 | 1.45 | 27 W |
| **Onslow** | 6.43 | 5.50 | 0.93 | 34 W |
| **Pamlico** | 5.28 | 4.94 | 0.34 | 54 W |
| **Pitt** | 7.45 | 4.76 | 2.69 | 16 W |
| **Tyrrell** | 6.50 | 4.76 | 1.74 | 23 W |
| **Washington** | 6.46 | 4.97 | 1.49 | 28 W |
| **Area Average** | 6.47 | 4.97 | 1.50 | |

Means are based on a period from 1991-2020. For rankings, "W" designates wettest and "D" designates driest.

The bulk of precipitation across eastern North Carolina fell in convective episodes. The first half of the month was generally wetter than the back half, especially for areas along the immediate coast which are generally left on the dry side of sea and sound breezes. Overall, precipitation was roughly 130% of 1991-2020 normals for eastern North Carolina. No daily rainfall records were set at Cape Hatteras or New Bern in June.




June's rainfall continued to eat away at drought conditions across eastern North Carolina. By the beginning of July, all of the forecast area was free of any level of drought per analysis from the U.S. Drought Monitor.



# ADDITIONAL CLIMATE RESOURCES

For a look at climate on the national scale, as well as statistics from a CONUS-wide to county and city level, please visit the **National Centers for Environmental Information** at https://www.ncei.noaa.gov/. Additional maps and data, as well as teaching materials and a climate resiliency toolkit, can be found at **NOAA's** https://www.climate.gov.

For additional drought information, including a wealth of maps of data focused on topics such as agriculture, fire, and water supply, please visit **NOAA's National Integrated Drought Information System (NIDIS)** at https://www.drought.gov.

For climate statistics and real time observations across the state of North Carolina, please visit the **North Carolina State Climate Office** at https://climate.ncsu.edu/.

For climate forecasts and outlooks, visit the **Climate Prediction Center** at https://www.cpc.ncep.noaa.gov/.

For community-based precipitation observations from across the United States, visit **CoCoRaHS** at https://www.cocorahs.org/.

For climate statistics relevant to various regions of North Carolina, please visit the following climate pages:

**Eastern (WFO Morehead City):** https://www.weather.gov/wrh/climate?wfo=mhx

**Southeastern (WFO Wilmington):** https://www.weather.gov/wrh/climate?wfo=ilm

**Northeastern (WFO Wakefield, VA):** https://www.weather.gov/wrh/climate?wfo=akq

**Central (WFO Raleigh):** https://www.weather.gov/wrh/climate?wfo=rah

**Northwestern (WFO Blacksburg, VA):** https://www.weather.gov/wrh/climate?wfo=rnk

**Southwestern (WFO Greer, SC):** https://www.weather.gov/wrh/climate?wfo=gsp

**Cherokee and Clay Co. (WFO Knoxville, TN):** https://www.weather.gov/wrh/climate?wfo=mrx

# APPENDIX A: ADDITIONAL TEMPERATURE DATA

### Cooperative Observation Site Temperature Statistics: June 2025

| Site | Avg. High (°F) | Avg. Low (°F) | Avg. Temp (°F) | Normal (°F) | Departure (°F) |
|---|---|---|---|---|---|
| **Greenville** | 89.4 | 70.6 | 80.0 | 77.3 | 2.7 |
| **Kinston** | 88.7 | 70.6 | 79.7 | 77.7 | 2.0 |
| **Williamston** | 88.1 | 69.9 | 79.0 | 76.3 | 2.7 |
| **Plymouth** | 88.2 | 69.2 | 78.7 | 76.5 | 2.2 |
| **Bayboro** | 88.2 | 69.9 | 79.1 | 75.7 | 3.4 |
| **Manteo** | 85.5 | 73.8 | 79.7 | 75.5 | 4.2 |

Normals are based on a period from 1991-2020.

### Maximum and Minimum Monthly Temperatures: June 2025

| Site | Max High (°F) | Date Observed | Min Low (°F) | Date Observed |
|---|---|---|---|---|
| **Beaufort (KMRH)** | 94 | Jun 24 | 62 | Jun 3 |
| **Hatteras (KHSE)** | 95 | Jun 24 | 55 | Jun 3 |
| **New Bern (KEWN)** | 97 | Jun 25 | 55 | Jun 1 |
| **Greenville** | 99 | Jun 24-25 | 51 | Jun 1 |
| **Kinston** | 99 | Jun 26 | 53 | Jun 1 |
| **Williamston** | 98 | Jun 25-26 | 53 | Jun 1 |
| **Plymouth** | 97 | Jun 24-25 | 52 | Jun 1-3 |
| **Bayboro** | 98 | Jun 26 | 56 | Jun 1-2, 4-5 |
| **Manteo** | 97 | Jun 26 | 55 | Jun 3 |

# APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: June 2025

| Site | Total Precipitation (in.) | Normal (in.) | Departure (in.) |
|---|---|---|---|
| Greenville | 10.57 | 4.36 | 6.21 |
| Kinston | 4.83 | 5.53 | -0.70 |
| Williamston | 8.47 | 5.13 | 3.34 |
| Plymouth | 6.72 | 5.42 | 1.30 |
| Bayboro | 4.35 | 5.40 | -1.05 |

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: June 2025

| Site | County | Amount (in.) |
|---|---|---|
| Pantego 0.4 WSW | Beaufort | 5.14 |
| Aurora 4.8 NE | Beaufort | 4.95 |
| Cape Carteret 1.5 NE | Carteret | 7.84 |
| Swansboro 3.7 NNE | Carteret | 6.82 |
| Cedar Point 0.7 NNE | Carteret | 6.42 |
| Cedar Point 0.4 WSW | Carteret | 6.11 |
| Swansboro 2.7 NE | Carteret | 6.07 |
| Newport 1.0 N | Carteret | 5.29 |
| Emerald Isle 2.3 WSW | Carteret | 4.81 |
| Beaufort 3.4 NNW | Carteret | 4.60 |
| Beaufort 12.1 N | Carteret | 4.57 |

CoCoRaHS Monthly Accumulated Precipitation: June 2025

| Site | County | Amount (in.) |
|---|---|---|
| Morehead City 2.9 WNW | Carteret | 4.42 |
| Newport 1.7 SSE | Carteret | 4.32 |
| Newport 2.3 SE | Carteret | 4.31 |
| Newport 0.2 SW | Carteret | 4.20 |
| Beaufort 3.8 N | Carteret | 3.91 |
| Morehead City 0.6 NW | Carteret | 3.90 |
| Beaufort 5.3 N | Carteret | 3.89 |
| Pine Knoll Shores 0.3 NE | Carteret | 3.58 |
| Pine Knoll Shores 1.4 E | Carteret | 3.52 |
| Beaufort 0.5 W | Carteret | 2.92 |
| Trent Woods 1.2 ENE | Craven | 9.38 |
| Trent Woods 1.0 NNE | Craven | 7.50 |
| New Bern 3.8 S | Craven | 6.89 |
| Trent Woods 1.3 SSE | Craven | 6.79 |
| New Bern 7.3 ESE | Craven | 5.69 |
| New Bern 1.3 NNE | Craven | 5.64 |
| Manteo 2.8 NW | Dare | 5.28 |
| Southern Shores 0.5 NNE | Dare | 3.99 |
| Kill Devil Hills 0.9 NW | Dare | 3.60 |
| Duck 0.7 SSE | Dare | 3.52 |
| Rodanthe 1.0 SSE | Dare | 3.20 |

CoCoRaHS Monthly Accumulated Precipitation: June 2025

| Site | County | Amount (in.) |
|---|---|---|
| Mount Olive 2.4 SW | Duplin | 6.24 |
| Wallace 14.8 E | Duplin | 5.91 |
| Ayden 6.5 WNW | Greene | 7.81 |
| SQ Tower | Hyde | 5.78 |
| Ocracoke 0.6 SW | Hyde | 4.15 |
| EngeLhard 0.8 W | Hyde | 4.05 |
| Ocracoke 0.2 ESE | Hyde | 4.01 |
| Kinston 4.4 WNW | Lenoir | 6.05 |
| Kinston 5.1 WNW | Lenoir | 5.43 |
| Kinston 4.6 ESE | Lenoir | 4.77 |
| Kinston 7.0 SW | Lenoir | 4.49 |
| Pink Hill 2.5 NE | Lenoir | 3.73 |
| Williamston 8.9 SSE | Martin | 7.54 |
| Jamesville 6.1 SW | Martin | 6.48 |
| Sneads Ferry 3.3 SW | Onslow | 10.79 |
| Jacksonville 5.4 WSW | Onslow | 7.70 |
| Swansboro 2.8 WSW | Onslow | 7.08 |
| Hubert 4.9 SE | Onslow | 6.59 |
| Jacksonville 2.4 NNE | Onslow | 4.88 |
| Grantsboro 4.6 SSW | Pamlico | 7.31 |
| Merritt 1.5 WSW | Pamlico | 5.74 |

## CoCoRaHS Monthly Accumulated Precipitation: June 2025

| Site | County | Amount (in.) |
|---|---|---|
| **Oriental 4.3 NNW** | Pamlico | 5.14 |
| **Oriental 1.7 WNW** | Pamlico | 4.15 |
| **Greenville 2.8 ESE** | Pitt | 10.63 |
| **Greenville 4.6 W** | Pitt | 10.12 |
| **Greenville 1.4 ESE** | Pitt | 9.63 |
| **Fountain 0.1 NE** | Pitt | 9.30 |
| **Greenville 5.0 SE** | Pitt | 6.08 |
| **Winterville 3.5 W** | Pitt | 5.43 |
| **Greenville 7.1 SSE** | Pitt | 4.57 |

CoCoRaHS inclusion in this table is based on a complete 31-day liquid precipitation record. Thank you to all observers!