PUBLISH DATE: MARCH 27, 2025

EASTERN NORTH CAROLINA
MONTHLY CLIMATE REPORT

FEBRUARY 2025

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

National Weather Service
NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

Warmer than average conditions returned to eastern NC in February, but drier weather persisted especially across the southern half of the forecast area. The bulk of precipitation fell in the middle of the month, but upper air patterns persistently favored heavier amounts largely north of Highway 70. Counties to the north recorded above-average precipitation compared to the 30-year average, and drought conditions here abated. Conversely, drought worsened to the south especially along the Crystal Coast. Overall precipitation ranged from near normal across the north of 25-75% to the south – around 3" on average.

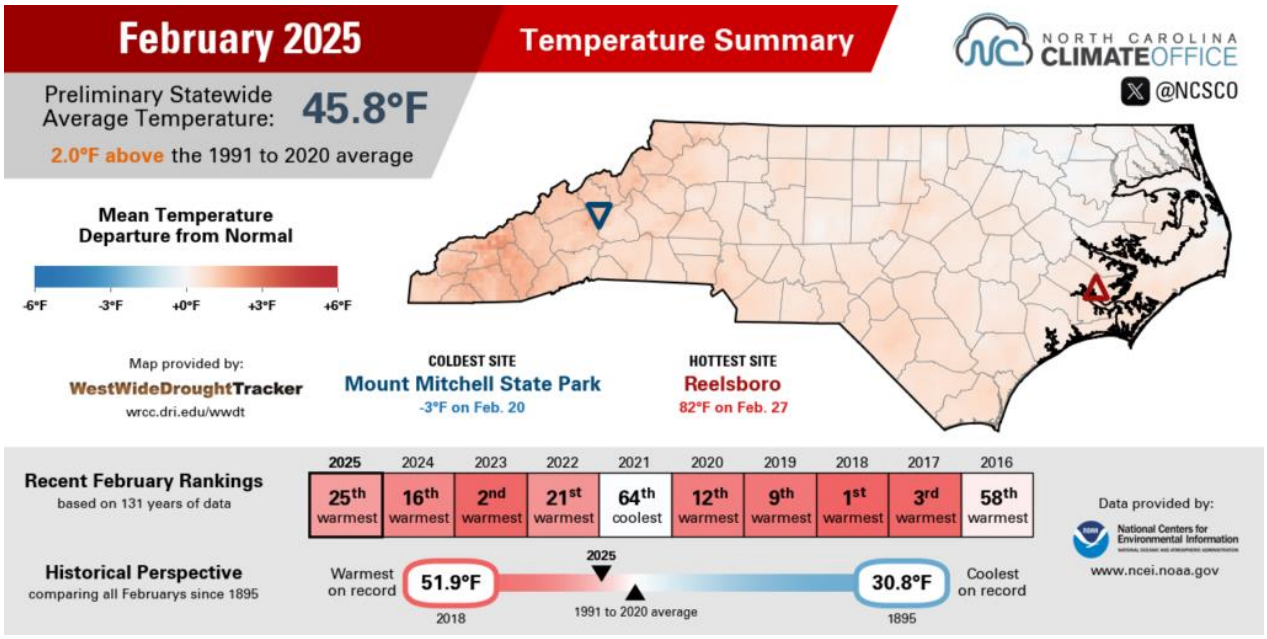
The first week of February remained persistently above-average across the Carolinas before another arctic blast impacted the central United States and spilled over the Carolinas, laying the groundwork for a late season winter weather event on Feb 19-20 which spread a combination of snow, freezing rain, and sleet across eastern NC. The average temperature across the region was 48.4°F, or 1.9°F above the 1991-2020 climatological normal.

County average temperature and precipitation anomalies will be based on the 1991-2020 normals instead of the 20th century average.

A summary of the Feb 19-20 snowstorm can be found on our Significant Event Review page.

TEMPERATURES

Temperatures rebounded slightly across North Carolina after a frigid January according to the North Carolina State Climate Office. The average temperature statewide for February was 45.8°F or 2.0°F above the 1991-2020 average. This was the 25th warmest February statewide since records began in 1895, with 131 years of data.



February 2025 Temperature Summary | Source: NC State Climate Office

Eastern North Carolina experienced similar anomalies compared to the rest of the state, with temperatures across our 15 counties 1.9°F above the 1991-2020 average. Since their respective records began, February 2025 was the 26th warmest for Cape Hatteras and 24th warmest for New Bern. Additional observations can be found in Appendix A.

MHX Select Site Temperature Statistics: February 2025

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	59.0	42.4	50.7	48.2	2.5
Hatteras (KHSE)	57.0	41.9	49.5	49.1	0.4
New Bern (KEWN)	60.3	37.7	49.0	47.1	1.9

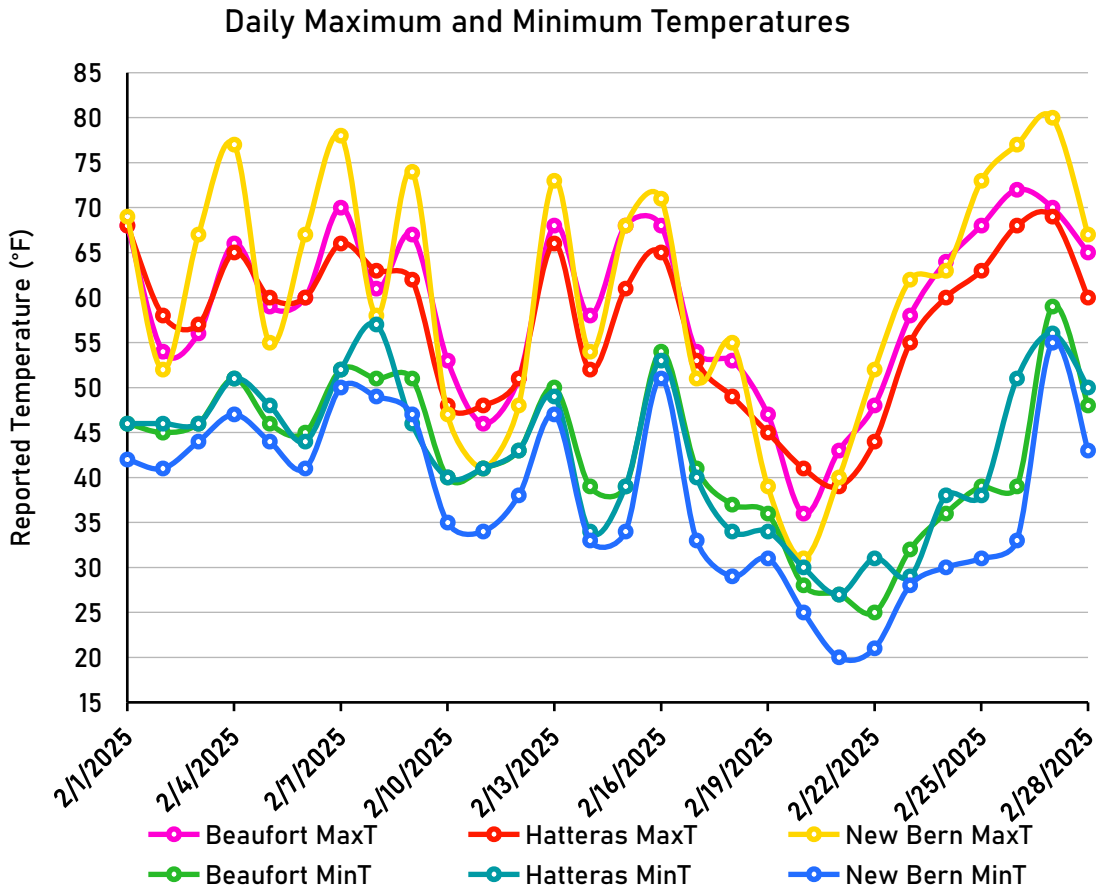
Normals are based on a period from 1990-2020.

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	48.8	46.6	2.2	21 W
Carteret	50.3	48.0	2.3	21 W
Craven	49.0	47.1	1.9	24 W
Dare	47.2	45.6	1.6	29 W
Duplin	48.3	46.6	1.7	30 W
Greene	47.4	45.7	1.7	30 W
Hyde	49.0	46.9	2.1	22 W
Jones	48.6	46.8	1.8	28 W
Lenoir	47.6	46.3	1.3	34 W
Martin	47.2	45.0	2.2	22 W
Onslow	49.3	47.4	1.9	28 W
Pamlico	50.0	47.6	2.4	18 W
Pitt	47.5	45.7	1.8	27 W
Tyrrell	47.4	45.6	1.8	29 W
Washington	47.7	45.4	2.3	21 W
Area Average	48.4	46.4	1.9	

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

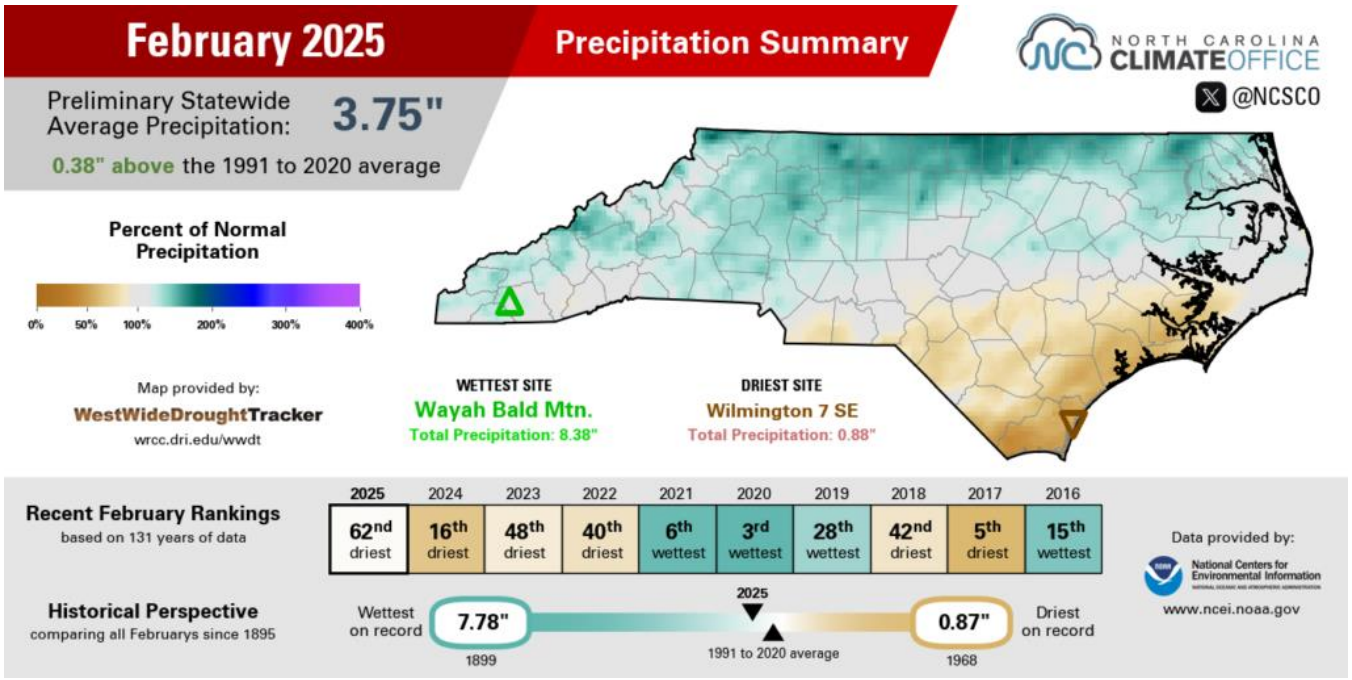
The highest temperature anomalies occurred between Feb 1-9 as anomalously strong ridging persisted over much of the southern United States. Temperatures across the Carolinas, per analysis from the National Centers for Environmental Information (NCEI) reached as high as 12 degrees above average during this time period. The coldest period followed from Feb 10-22 as strong troughing developed over the central CONUS. The coldest temperatures were focused over the Plains, but the Carolinas still saw anomalies of 6 degrees below average with the coldest air focused with the late-season winter storm. Temps began to return to near-normal by the end of the month.



No temperature records were set at New Bern and Cape Hatteras in February. Reelsboro, in Pamlico County, saw the warmest temperature in the state for February reaching a high of 82°F on February 27th.

PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation was 3.75” for February, or 0.38” inches above average. This ended up being the 62nd driest February for the state since records began in 1895.



February 2025 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina was a bit drier than the rest of the state, but areas south of Highway 70 were significantly drier than locations to the north. Cape Hatteras recorded its 67th driest February, while New Bern experienced its 12th driest. The average accumulation across the MHX forecast area was 3.04”, or 0.34” below the 1991-2020 average.

MHX Select Site Precipitation Statistics: February 2025

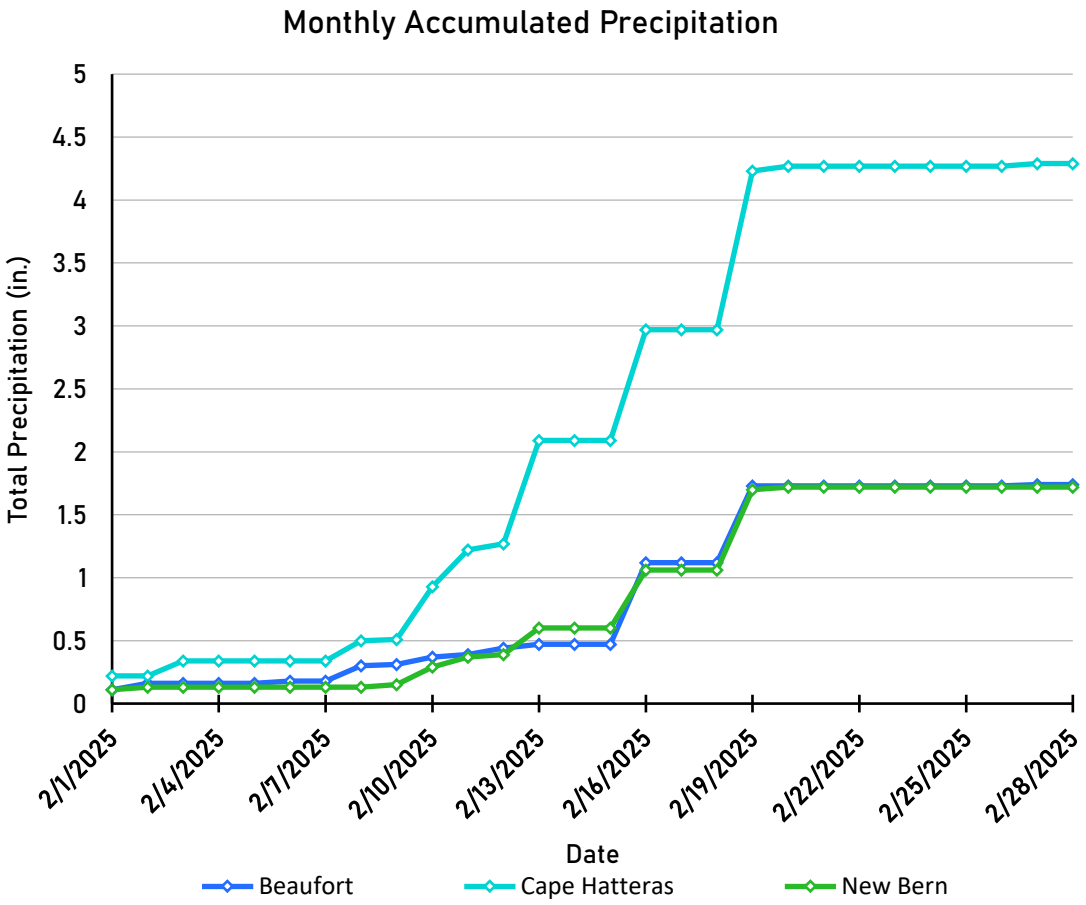
Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	1.74	3.33	-1.59
Hatteras (KHSE)	4.29	4.34	-0.05
New Bern (KEWN)	1.72	3.32	-1.60

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).

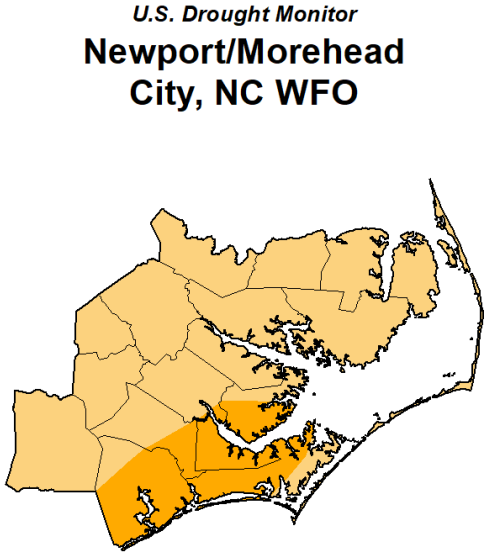
County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	3.33	3.37	-0.04	59 D
Carteret	2.27	3.63	-1.36	35 D
Craven	2.42	3.44	-1.02	36 D
Dare	3.61	3.41	0.20	65 D
Duplin	2.30	3.34	-1.04	38 D
Greene	3.61	3.21	0.40	62 D
Hyde	3.21	3.45	-0.24	55 D
Jones	2.30	3.43	-1.13	34 D
Lenoir	2.87	3.28	-0.41	51 D
Martin	4.25	3.24	1.01	48 W
Onslow	1.90	3.52	-1.62	26 D
Pamlico	2.28	3.51	-1.23	33 D
Pitt	4.02	3.27	0.75	56 W
Tyrrell	3.61	3.27	0.34	64 D
Washington	3.57	3.29	0.28	62 D
Area Average	3.04	3.38	-0.34	

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

February in eastern North Carolina was bookended by two pronounced dry periods, with the bulk of precipitation falling between Feb 10-22 per analysis from NCEI. The upper air pattern continuously favored the heaviest precipitation to fall north of Highway 70, and almost all counties north of there saw above-average precipitation in comparison to the 1991-2020 average. The most notable weather event was a late winter storm on Feb 19-20 which spread snow across our far north and freezing rain and sleet farther south. Overall, precipitation across eastern NC ranged from near normal north to 25-75% of normal south.



The heavier precipitation to the north helped modestly alleviate drought conditions, but across the south and especially along the Crystal Coast drought conditions continued to worsen. 19.6% of the forecast area was in Severe (D2) drought by the end of February, down from 45.8% 4 weeks prior.



February 25, 2025
(Released Thursday, Feb. 27, 2025)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	19.60	0.00	0.00
Last Week 02-18-2025	0.00	100.00	100.00	19.60	0.00	0.00
3 Months Ago 11-26-2024	0.00	100.00	89.23	0.00	0.00	0.00
Start of Calendar Year 01-07-2025	0.00	100.00	100.00	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 02-27-2024	15.43	84.57	35.37	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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droughtmonitor.unl.edu

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: February 2025

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	57.5	36.3	46.9	45.9	1.0
Kinston	59.0	35.8	47.4	48.4	-1.0
Williamston	57.8	35.8	46.8	45.2	1.6
Plymouth	61.3	36.8	49.1	46.3	2.8
Bayboro	61.9	39.5	50.7	46.3	4.4
Manteo	--	--	--	--	--

Normals are based on a period from 1990-2020.

Maximum and Minimum Monthly Temperatures: February 2025

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	72	Feb 26	25	Feb 22
Hatteras (KHSE)	69	Feb 27	27	Feb 21
New Bern (KEWN)	80	Feb 27	20	Feb 21
Greenville	77	Feb 27	20	Feb 22
Kinston	77	Feb 28	18	Feb 21
Williamston	76	Feb 28	18	Feb 21
Plymouth	76	Feb 27	20	Feb 21
Bayboro	80	Feb 28	26	Feb 22-23
Manteo	--	--	--	--

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: February 2025

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Greenville	4.93	3.35	1.58
Kinston	2.37	3.20	-0.83
Williamston	4.89	3.22	1.67
Plymouth	3.54	3.40	0.14
Bayboro	1.71	3.53	-1.82

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: February 2025

Site	County	Amount (in.)
Pantego 0.4 WSW	Beaufort	4.26
Swansboro 3.7 NNE	Carteret	1.78
Swansboro 2.7 NE	Carteret	1.69
Cedar Point 0.7 NNE	Carteret	1.63
Cape Carteret 1.5 NE	Carteret	1.87
Ocean 0.5 S	Carteret	1.66
Indian Beach 0.0 W	Carteret	1.65
Pine Knoll Shores 0.3 NE	Carteret	1.74
Newport 1.0 N	Carteret	2.17
Newport 0.2 SW	Carteret	2.00
Newport 1.7 SSE	Carteret	2.17

CoCoRaHS Monthly Accumulated Precipitation: February 2025

Site	County	Amount (in.)
Morehead City 6.0 WNW	Carteret	1.84
Morehead City 2.9 WNW	Carteret	2.04
Morehead City 0.6 NW	Carteret	1.87
Newport 7.1 ENE	Carteret	2.08
Beaufort 5.3 N	Carteret	1.93
Beaufort 3.8 N	Carteret	2.48
Beaufort 3.4 NNW	Carteret	1.40
Beaufort 0.5 W	Carteret	2.29
Beaufort 12.1 N	Carteret	2.32
New Bern 1.3 NNE	Craven	2.29
Bridgeton 0.3 SSE	Craven	1.93
New Bern 7.3 ESE	Craven	1.99
New Bern 5.3 SW	Craven	2.00
Trent Woods 1.3 WNW	Craven	1.86
Trent Woods 1.0 NNE	Craven	2.17
New Bern 2.9 SSE	Craven	1.80
Brice Creek 0.9 WNW	Craven	1.78
Trent Woods 1.3 SSE	Craven	2.16
New Bern 3.8 S	Craven	2.17
Southern Shores 1.9 NNW	Dare	3.28
Southern Shores 0.5 NNE	Dare	3.88

CoCoRaHS Monthly Accumulated Precipitation: February 2025

Site	County	Amount (in.)
Manteo 2.8 NW	Dare	3.79
Rodanthe 1.0 SSE	Dare	4.42
Buxton 0.3 ENE	Dare	3.62
Kenansville 1.1 SW	Duplin	1.83
Rose Hill 0.1 NNW	Duplin	2.55
Wallace 14.8 E	Duplin	1.92
Snow Hill 3.1 NNE	Greene	3.78
Ayden 6.5 WNW	Greene	3.83
SQ Tower	Hyde	3.17
Engelhard 0.8 NW	Hyde	3.76
Ocracoke 0.6 SW	Hyde	3.24
Ocracoke 0.2 ESE	Hyde	3.17
Kinston 5.1 WNW	Lenoir	2.80
Kinston 4.4 WNW	Lenoir	2.82
Kinston 1.2 NW	Lenoir	1.88
Kinston 4.6 ESE	Lenoir	2.66
Kinston 7.0 SW	Lenoir	2.72
Pink Hill 2.5 NE	Lenoir	1.95
Jacksonville 4.5 NW	Onslow	1.49
Jacksonville 5.4 WSW	Onslow	1.83
Jacksonville 3.3 W	Onslow	1.61

CoCoRaHS Monthly Accumulated Precipitation: February 2025

Site	County	Amount (in.)
Jacksonville 1.0 NW	Onslow	2.05
Jacksonville 2.4 NNE	Onslow	1.90
Holly Ridge 3.7 E	Onslow	1.86
Sneads Ferry 3.3 SW	Onslow	1.27
Hubert 4.9 SE	Onslow	1.66
Swansboro 2.8 WSW	Onslow	1.60
Lowland 0.2 SE	Pamlico	2.84
Grantsboro 4.6 SSW	Pamlico	1.78
Oriental 4.3 NNW	Pamlico	1.64
Oriental 5.2 NE	Pamlico	1.70
Oriental 1.7 WNW	Pamlico	1.57
Oriental 2.1 WSW	Pamlico	1.59
Winterville 3.5 W	Pitt	3.97
Greenville 1.4 ESE	Pitt	3.33
Greenville 2.8 ESE	Pitt	3.62
Greenville 4.4 SSE	Pitt	3.58
Greenville 5.0 SE	Pitt	3.80
Greenville 7.1 SSE	Pitt	3.48
Columbia 0.8 NNE	Tyrrell	4.18

CoCoRaHS inclusion in this table is based on a complete 28-day liquid precipitation record. Thank you to all observers!