

PUBLISH DATE: OCTOBER 18, 2025

EASTERN NORTH CAROLINA
MONTHLY CLIMATE REPORT

AUGUST 2025

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

National Weather Service
NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

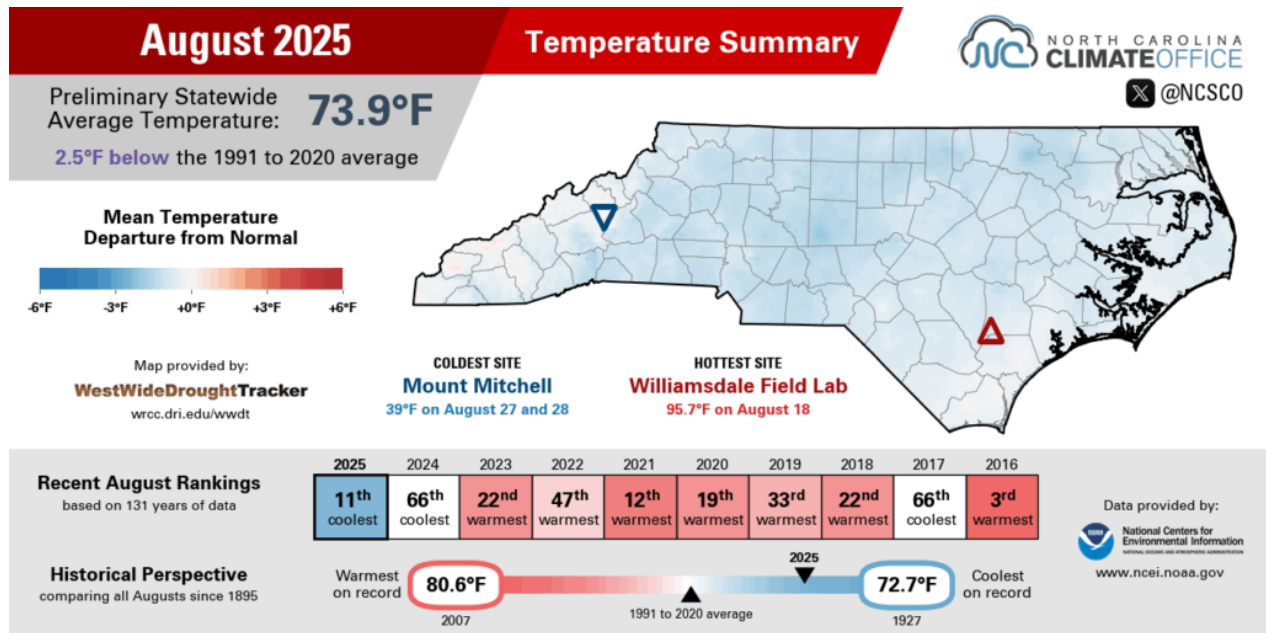
August finally snapped the extended period of above-average temperatures across eastern North Carolina and saw near-normal precipitation, although its distribution was highly uneven. A train of waves and lows migrating along a stalled offshore frontal boundary brought multiple rounds of heavy rain to central and southern portions of the forecast area for the first half of the month, while along and north of Highway 264 rain was difficult to come by. All of eastern NC struggled to see meaningful precipitation during the second half of the month. Hurricane Erin passed too far east to offer any rainfall (although it did not spare the Outer Banks from significant swell and overwash issues). The northern Outer Banks saw a flipped script from July - after recording over a foot of rain the month prior, the same rain gauge outside of Manteo recorded less than 2 inches of rain. Jockey Ridge was the driest spot in the state, recording a mere 0.90" of rain. With average precipitation around 95% of average area wide but considerable deficits across the Albemarle Peninsula and northern Outer Banks, abnormal dryness expanded to nearly 75% of the region by the beginning of September.

Temperatures sank below average statewide in August and did not spare eastern North Carolina. The average temperature was 73.9°F, or 2.5°F below the 1991-2020 normal. 5 counties experienced amongst their top 10 coolest Augusts on record. Below average temperatures does not mean that there were no hot days, however – the Williamsdale Field Lab in Wallace recorded the state's highest temperature of the month at 95.7° on August 18th.

For more information on impacts and observations from Hurricane Erin across eastern North Carolina, please view our Post Tropical Cyclone Report at <https://www.weather.gov/mhx/TropicalEventSummary>.

TEMPERATURES

After months of above average temperatures, August snapped that streak in impressive fashion according to the North Carolina State Climate Office. The average temperature statewide for the month was 73.9°F or 2.5°F below the 1991-2020 average. This was the 11th coolest August statewide since records began in 1895, with 131 years of data.



August 2025 Temperature Summary | Source: NC State Climate Office

Eastern North Carolina temperature anomalies were on par compared to the rest of the state, with temperatures across our 15 counties 2.5°F below the 1991-2020 average. 5 counties experienced among their top 10 coolest Augusts on record. Since their respective records began, August 2025 was the 27th coolest for Cape Hatteras and 9th coolest for New Bern.

MX Select Site Temperature Statistics: August 2025

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	83.6	71.2	77.4	79.5	-2.1
Hatteras (KHSE)	82.7	72.4	77.6	80.7	-3.1
New Bern (KEWN)	85.0	69.1	77.1	78.9	-1.9

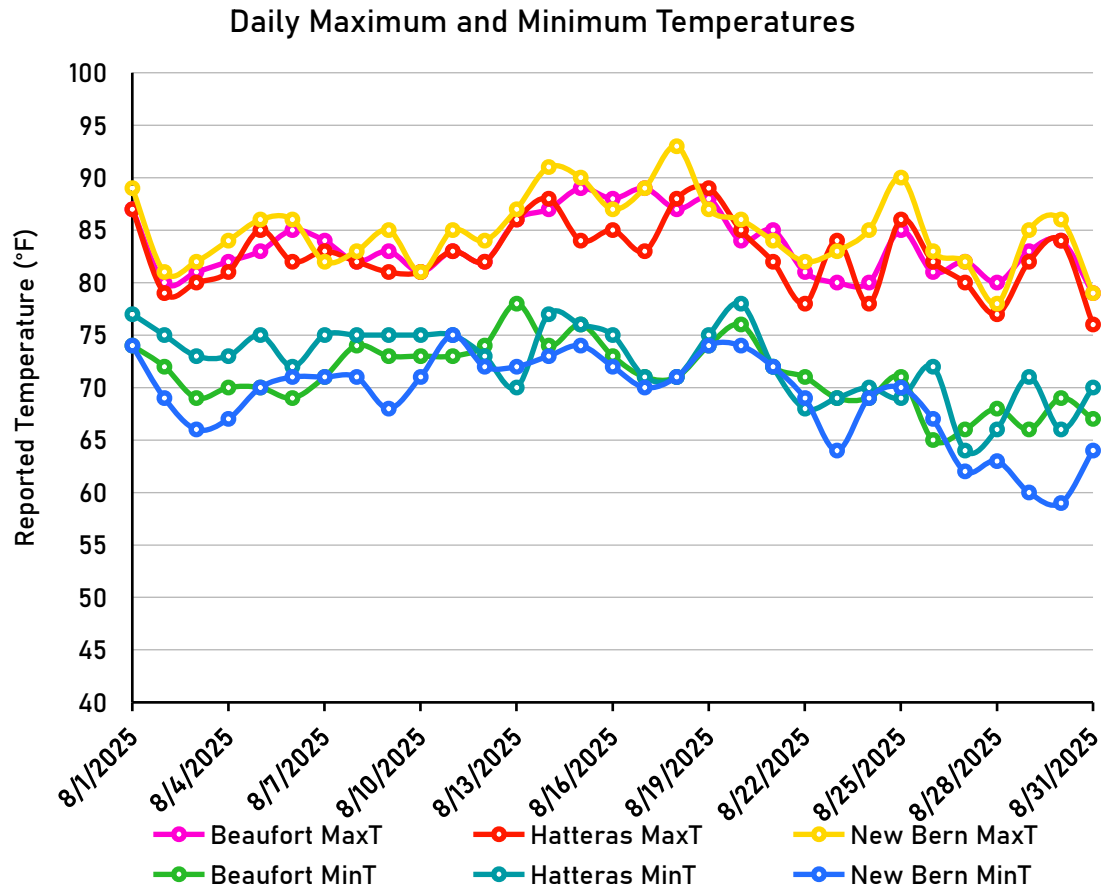
Normals are based on a period from 1990-2020.

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	76.1	78.6	-2.5	13 C
Carteret	76.9	79.3	-2.4	8 C
Craven	76.2	78.6	-2.4	11 C
Dare	76.3	78.8	-2.5	12 C
Duplin	75.8	78.1	-2.3	11 C
Greene	75.3	78.2	-2.9	4 C
Hyde	76.5	79.1	-2.6	10 C
Jones	75.8	78.2	-2.4	10 C
Lenoir	75.5	78.2	-2.7	6 C
Martin	75.3	77.8	-2.5	13 C
Onslow	76.3	78.5	-2.2	12 C
Pamlico	76.8	79.1	-2.3	9 C
Pitt	75.5	78.1	-2.6	6 C
Tyrrell	76.1	78.6	-2.5	15 C
Washington	75.6	78.1	-2.5	18 C
Area Average	76.0	78.5	-2.5	

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

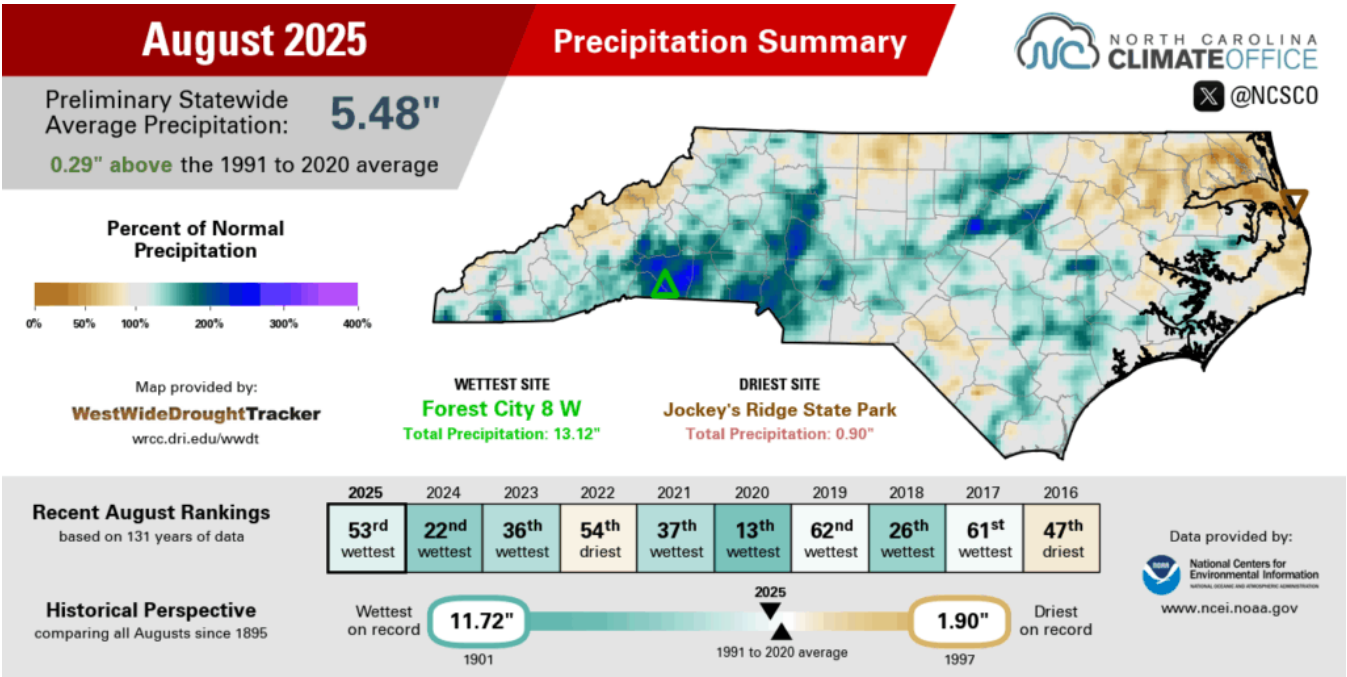
The upper air pattern in August was highly dynamic across the eastern United States but averaged out to near-normal heights for the period. This belies two distinct periods of below average temperatures across the Carolinas and mid-Atlantic, according to analysis from NCEI. The first, focused in the first third of the month, saw anomalies of around 3-6 degrees below average. The second occurred in the fourth week of August as the deepest troughing of the month developed over the northeastern and mid-Atlantic. Once again, temperatures in the Carolinas fell to 3-6 degrees below average. **New Bern** recorded a low of 59° on August 30th, the first time in 86 days that site recorded a sub-60° low.



No temperature records were set by any of the primary climate sites in the month of August.

PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation was 5.48” for August, or 0.29” inches above average. This was the 53rd wettest August since records began in 1895.



August 2025 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina saw more average precipitation than the state but still came in below average, although precipitation patterns were highly variable owing to convective patterns. Cape Hatteras recorded its 61st wettest July, while New Bern experienced its 20th wettest. The average accumulation across the MHX forecast area was 6.11”, or 0.28” below the 1991-2020 average. Due to a rain gauge failure, precipitation reports for New Bern were provided by the official backup site in Perrytown, NC for all of August.

MHX Select Site Precipitation Statistics: August 2025

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	7.71	7.29	0.42
Hatteras (KHSE)	5.92	6.73	-0.81
New Bern (KEWN)	9.44	6.81	2.63

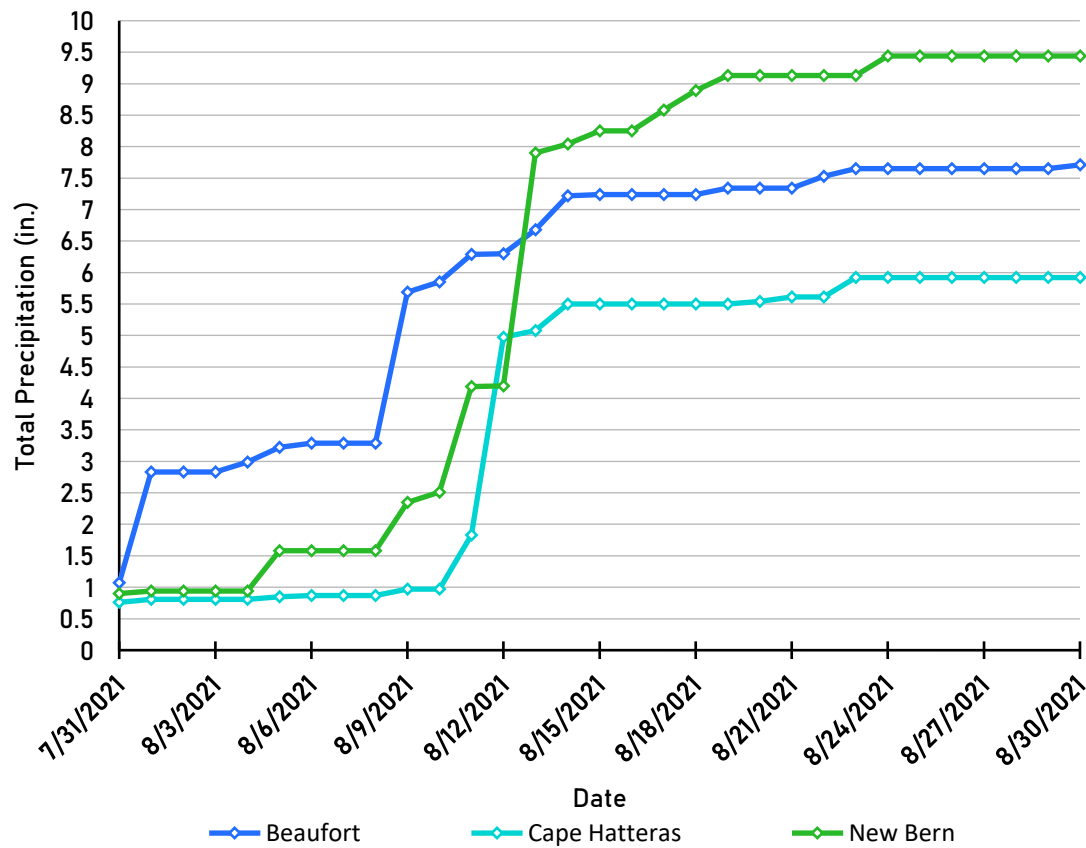
County-averaged statistics are presented in the following table. **Mean and departure calculations are based on the 1991-2020 climate normals.** Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	6.41	6.40	0.01	54 W
Carteret	7.65	7.46	0.19	49 W
Craven	7.40	6.81	0.59	45 W
Dare	4.80	5.87	-1.07	53 D
Duplin	5.82	6.04	-0.22	60 W
Greene	4.71	5.98	-1.27	57 D
Hyde	6.12	6.40	-0.28	62 W
Jones	7.12	6.66	0.46	45 W
Lenoir	5.53	6.31	-0.78	66 W
Martin	4.54	5.69	-1.15	51 D
Onslow	7.02	6.97	0.05	51 W
Pamlico	8.37	7.06	1.31	34 W
Pitt	4.87	5.88	-1.01	62 D
Tyrrell	5.27	6.12	-0.85	57 D
Washington	6.00	6.21	-0.21	58 W
Area Average	6.11	6.39	-0.28	

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

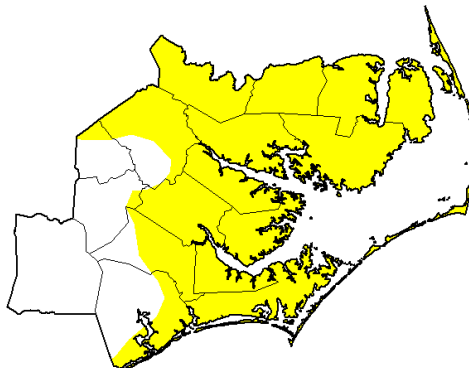
The first half of August across eastern North Carolina was the wettest as the surface pattern remained largely stagnant with a stalled frontal boundary and coastal trough lingering off the southeastern coast for several days. Several waves of low pressure developed along the boundary, bringing periods of significant rainfall. After mid-August, precipitation became much harder to come by. The only hurricane of the season, Erin, passed far enough east of the area to spare any appreciable rainfall. Overall, precipitation across eastern NC was between 90-100% of normal – lower to the north.

Monthly Accumulated Precipitation



Drought conditions expanded across eastern North Carolina, especially across the Albemarle Peninsula where precipitation deficits were largest. Around 72% of the forecast area was abnormally dry by the turn of the month – up from 11% a month prior.

U.S. Drought Monitor
Newport/Morehead
City, NC WFO



September 2, 2025
 (Released Thursday, Sep. 4, 2025)
 Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	27.57	72.43	0.00	0.00	0.00	0.00
Last Week 08-26-2025	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 06-03-2025	71.24	28.76	14.15	0.00	0.00	0.00
Start of Calendar Year 01-01-2025	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 09-03-2024	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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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 Western Regional Climate Center



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=akg>

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: August 2025

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	85.0	67.9	76.5	79.0	-2.6
Kinston	84.9	67.4	76.2	79.2	-3.1
Williamston	84.8	66.5	75.7	78.4	-2.8
Plymouth	83.9	67.7	75.8	78.3	-2.5
Bayboro	85.6	68.6	77.1	77.9	-0.8
Manteo	82.9	73.2	78.1	78.2	-0.1

Normals are based on a period from 1991-2020.

Maximum and Minimum Monthly Temperatures: August 2025

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	89	Aug 15, 17	65	Aug 26
Hatteras (KHSE)	89	Aug 19	64	Aug 27
New Bern (KEWN)	93	Aug 18	59	Aug 30
Greenville	91	Aug 17-18	59	Aug 23, 27-28
Kinston	91	Aug 26	58	Aug 27-28, 30
Williamston	92	Aug 1	57	Aug 30-31
Plymouth	90	Aug 1	57	Aug 29-30
Bayboro	93	Aug 19	58	Aug 30-31
Manteo	90	Aug 1, 15	62	Aug 8, 28

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: August 2025

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Greenville	6.30	6.01	0.29
Kinston	4.83	6.36	-1.53
Williamston	3.80	5.70	-1.90
Plymouth	9.23	6.60	2.63
Bayboro	10.88	7.85	3.03

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: August 2025

Site	County	Amount (in.)
Pantego 0.4 WSW	Beaufort	7.16
Beaufort 3.8 N	Carteret	8.76
Newport 7.1 ENE	Carteret	8.16
Beaufort 0.5 W	Carteret	7.96
Emerald Isle 0.4 SW	Carteret	7.55
Newport 1.7 SSE	Carteret	6.87
Ocean 0.5 S	Carteret	6.85
Morehead City 2.9 WNW	Carteret	6.58
Beaufort 5.3 N	Carteret	6.52
Morehead City 0.6 NW	Carteret	6.48
Pine Knoll Shores 1.4 E	Carteret	6.44

CoCoRaHS Monthly Accumulated Precipitation: August 2025

Site	County	Amount (in.)
Newport 0.2 SW	Carteret	6.29
Cedar Point 0.7 NNE	Carteret	6.04
Cedar Point 0.9 WSW	Carteret	5.94
Newport 2.5 W	Carteret	5.73
Newport 1.0 N	Carteret	5.69
Swansboro 3.7 NNE	Carteret	5.28
Swansboro 2.7 NE	Carteret	5.16
Stella 2.5 SE	Carteret	4.87
Trent Woods 1.0 NNE	Craven	11.56
Brice Creek 0.9 WNW	Craven	10.11
Trent Woods 1.3 SSE	Craven	9.54
New Bern 3.8 S	Craven	8.14
New Bern 7.3 ESE	Craven	7.74
New Bern 5.3 SW	Craven	7.60
Bridgeton 0.3 SSE	Craven	6.85
New Bern 1.3 NNE	Craven	5.42
Rodanthe 1.0 SSE	Dare	4.21
Southern Shores 0.5 NNE	Dare	4.05
Southern Shores 1.9 NNW	Dare	3.65
Duck 0.3 ENE	Dare	2.25
Kill Devil Hills 0.9 NW	Dare	1.82

CoCoRaHS Monthly Accumulated Precipitation: August 2025

Site	County	Amount (in.)
Manteo 2.8 NW	Dare	1.52
Kill Devil Hills 2.6 NNW	Dare	0.83
Faison 3.3 SSE	Duplin	8.16
Mount Olive 2.4 SW	Duplin	7.59
Rose Hill 0.1 NNW	Duplin	7.55
Ayden 6.5 WNW	Greene	8.34
SQ Tower	Hyde	7.00
Ocracoke 0.6 SW	Hyde	5.17
Ocracoke 0.2 ESE	Hyde	4.45
Kinston 3.7 WNW	Lenior	9.71
Kinston 4.4 WNW	Lenior	9.36
Pink Hill 2.5 NE	Lenior	8.95
Kinston 3.1 W	Lenior	8.79
Kinston 5.1 WNW	Lenior	8.44
Kinston 4.7 ESE	Lenior	3.87
Jamesville 6.1 SW	Martin	5.59
Jacksonville 2.4 NNE	Onslow	8.83
Holly Ridge 3.7 E	Onslow	8.31
Hubert 4.9 SE	Onslow	7.15
Swansboro 2.8 WSW	Onslow	6.33
Lowland 0.2 SE	Pamlico	11.53

CoCoRaHS Monthly Accumulated Precipitation: August 2025

Site	County	Amount (in.)
Merritt 1.5 WSW	Pamlico	9.30
Oriental 4.3 NNW	Pamlico	7.84
Greenville 7.1 SSE	Pitt	8.51
Winterville 3.5 W	Pitt	8.43
Greenville 4.6 W	Pitt	8.00
Farmville 0.8 ESE	Pitt	6.15
Greenville 5.0 SE	Pitt	6.03
Winterville 2.5 NNW	Pitt	5.67
Greenville 2.8 S	Pitt	5.34
Greenville 5.7 NW	Pitt	5.17
Fountain 0.1 NE	Pitt	3.08
Columbia 0.8 NNE	Tyrrell	7.59

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