

PUBLISH DATE: MARCH 31, 2024

**EASTERN NORTH CAROLINA
MONTHLY CLIMATE REPORT**

FEBRUARY 2024

**WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC**

National Weather Service

NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

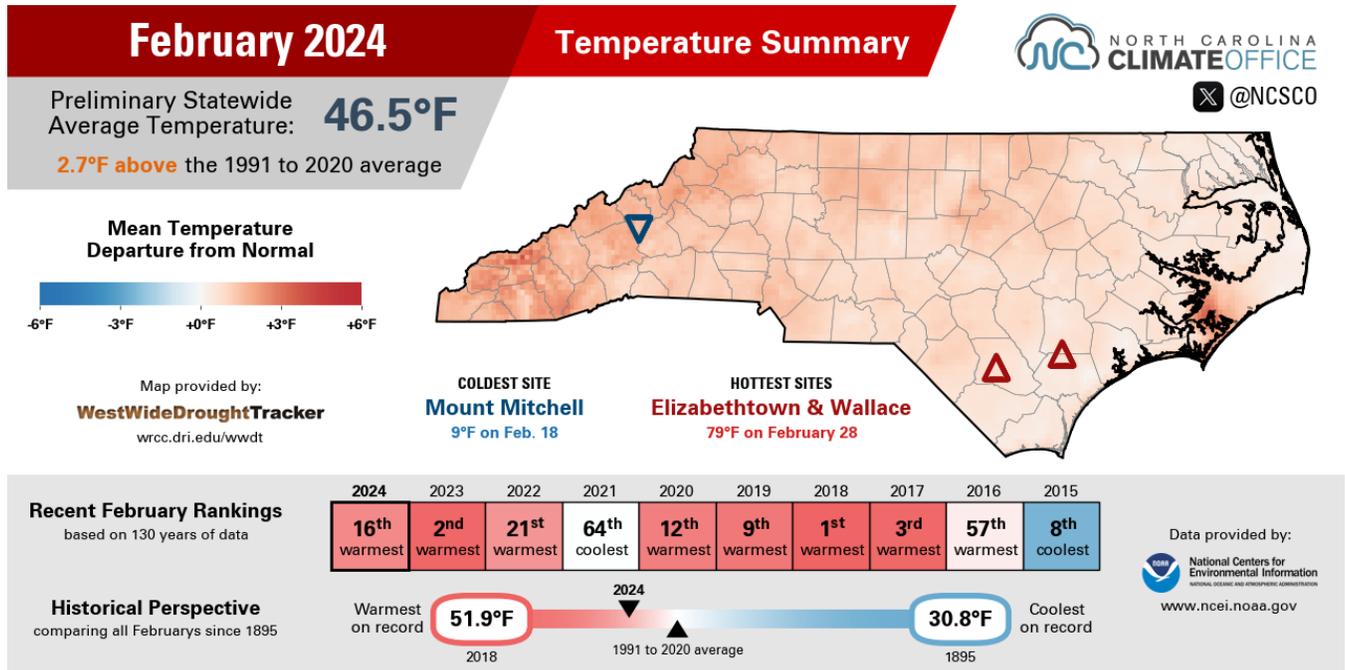
Warm and dry weather persisted across eastern North Carolina in February, generally in line with the rest of the state. Temperatures ran around 3 degrees above average area-wide compared to 1991-2020 normals with only modest variation through the month. Although no new records were set, Wallace was once again the warmest spot in the state reaching a high of 79°F on February 28th. The area's average temperature for February was 48.6°F.

This February was the 10th driest across North Carolina since records began in 1895, and eastern NC followed the trend. Eight of our fifteen counties saw this month rank among their top ten driest; Hyde County experienced its 6th driest. Areawide precipitation averaged 1.36", or about 25-50% of the average. Drought conditions expanded considerably as moderate drought took hold across the Northern Outer Banks and along Highway 64, extending down the inner coastal plain.

The March 2024 report will be published around April 30th, 2024.

TEMPERATURES

After a near-average start, temperatures across North Carolina were above normal in February. The average temperature for the month was 46.5°F, or 2.7°F above the 1991-2020 average. This was the 16th warmest February since records began in 1895, with 130 years of data.



February 2024 Temperature Summary | Source: NC State Climate Office

Across Eastern North Carolina, temperatures were near to slightly below the statewide average and about 4 degrees above the 20th-century average. Since their respective records began, February 2024 was the 21st warmest at New Bern and the 50th warmest at Cape Hatteras. Additional observations can be found in Appendix A.

MHX Select Site Temperature Statistics: February 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	59.7	43.4	51.6	48.2	3.4
Hatteras (KHSE)	54.2	42.1	48.2	49.1	-1.0

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	60.9	39.3	50.1	47.1	3.0

Normals are based on a period from 1990-2020.

County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

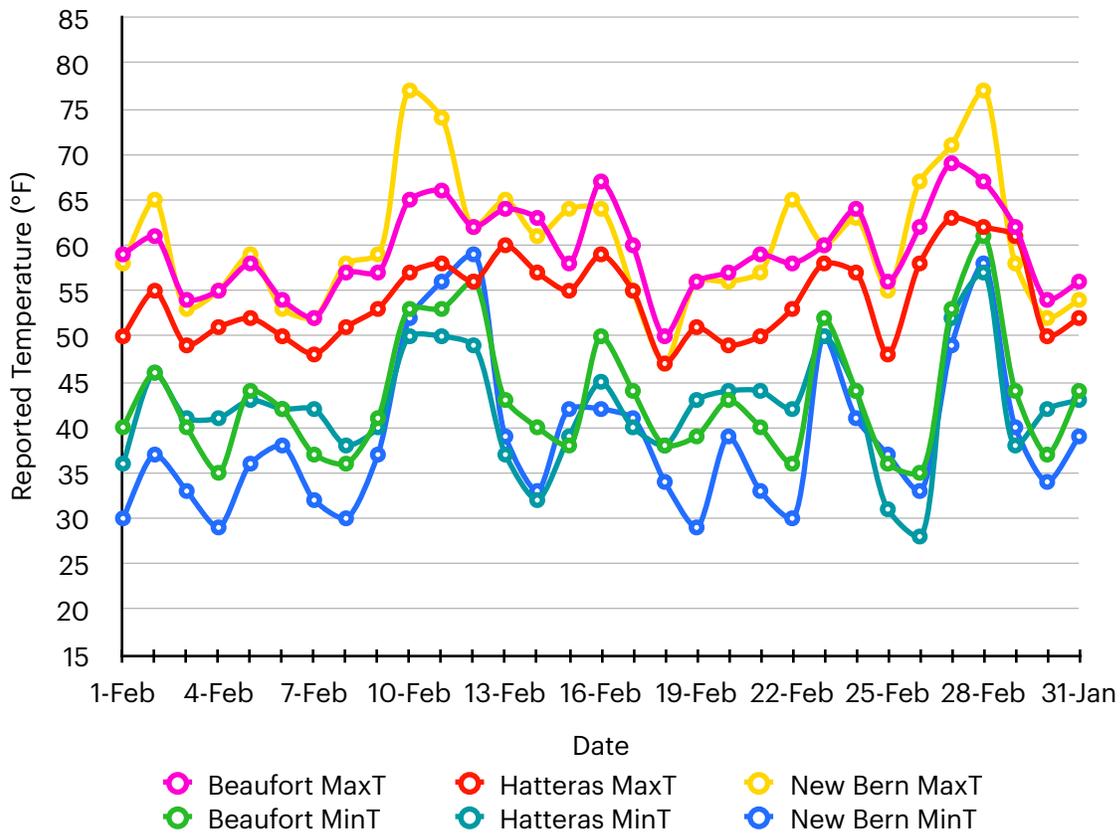
County	Avg. Temperature (°F)	Mean (°F)	Departure (°F)	Rank
Beaufort	48.8	44.4	4.4	21 W
Carteret	49.6	45.9	3.7	27 W
Craven	49.5	45.0	4.5	17 W
Dare	47.3	44.1	3.2	29 W
Duplin	49.0	45.0	4.0	21 W
Greene	48.4	43.7	4.7	17 W
Hyde	48.2	44.9	3.3	32 W
Jones	49.4	44.9	4.5	17 W
Lenoir	48.9	44.3	4.6	16 W
Martin	47.8	42.9	4.9	16 W
Onslow	49.8	45.8	4.0	21 W
Pamlico	49.4	45.4	4.0	25 W
Pitt	48.4	43.7	4.7	16 W
Tyrrell	47.4	43.8	3.6	29 W
Washington	47.3	43.3	4.0	25 W
Area Average	48.6	44.5	4.1	

Means are based on a period from 1901-2000. For rankings, "C" designates coldest and "W" designates warmest.

Temperatures in February did not vary as much as the previous month, generally hovering within 3 degrees of average through the month. The warmest period, per analysis from the National Centers for Environmental Information (NCEI), was the first two weeks of the month as unusually warm temperatures gripped the northern Plains and Midwest. Across most of eastern North Carolina, temperatures were between 3-6 degrees above average for the same period. No new temperature records were set at the official climate sites this month.

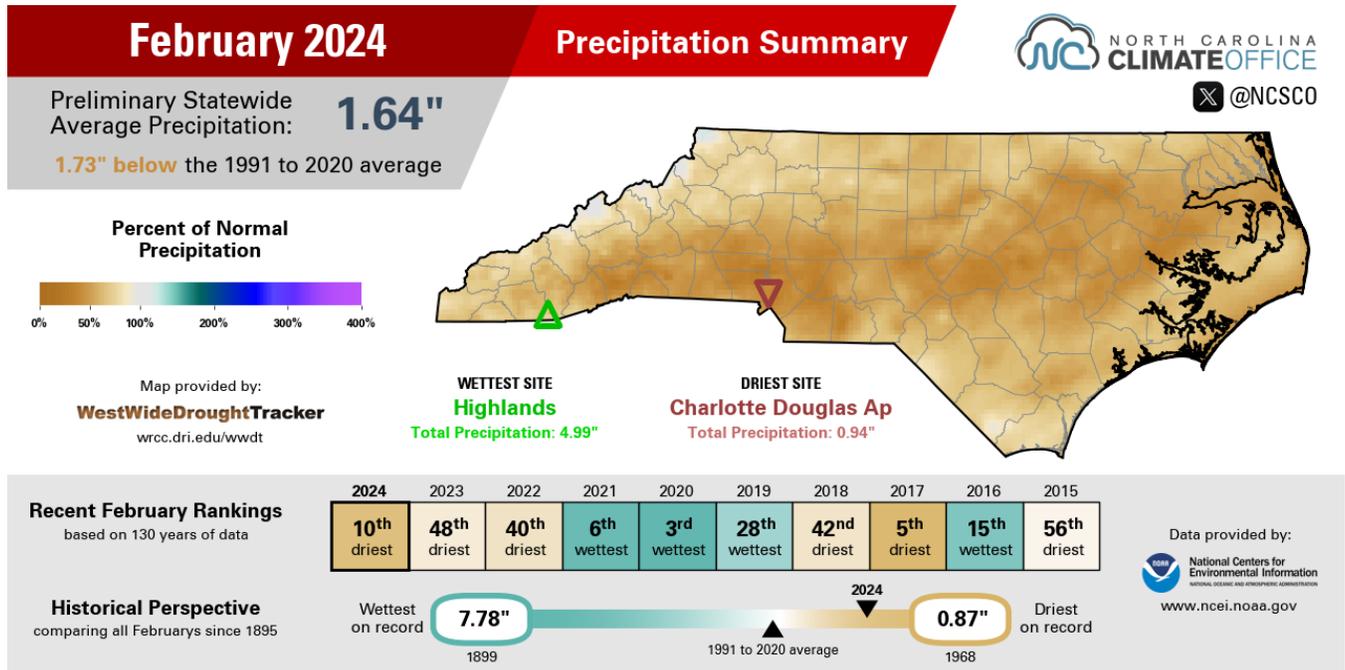
Wallace in Duplin County, along with Elizabethtown, was once again the warmest location in the state, recording a high of 79°F on Feb 28th.

Daily Maximum and Minimum Temperatures



PRECIPITATION

Analysis conducted by the North Carolina State Climate Office revealed a widespread dearth of precipitation in February. Statewide, precipitation averaged 1.64", or 1.73" below the 30-year average. This was the 10th driest February for the state since records began in 1895.



February 2024 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina was slightly drier than the rest of North Carolina. New Bern recorded its 7th driest February, while Cape Hatteras recorded its 13th driest. Eight of the CWA counties saw a top ten driest February since tracking began in 1895.

MHX Select Site Precipitation Statistics: February 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	1.41	3.33	-1.92
Hatteras (KHSE)	1.44	4.34	-2.9
New Bern (KEWN)	1.65	3.32	-1.67

County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

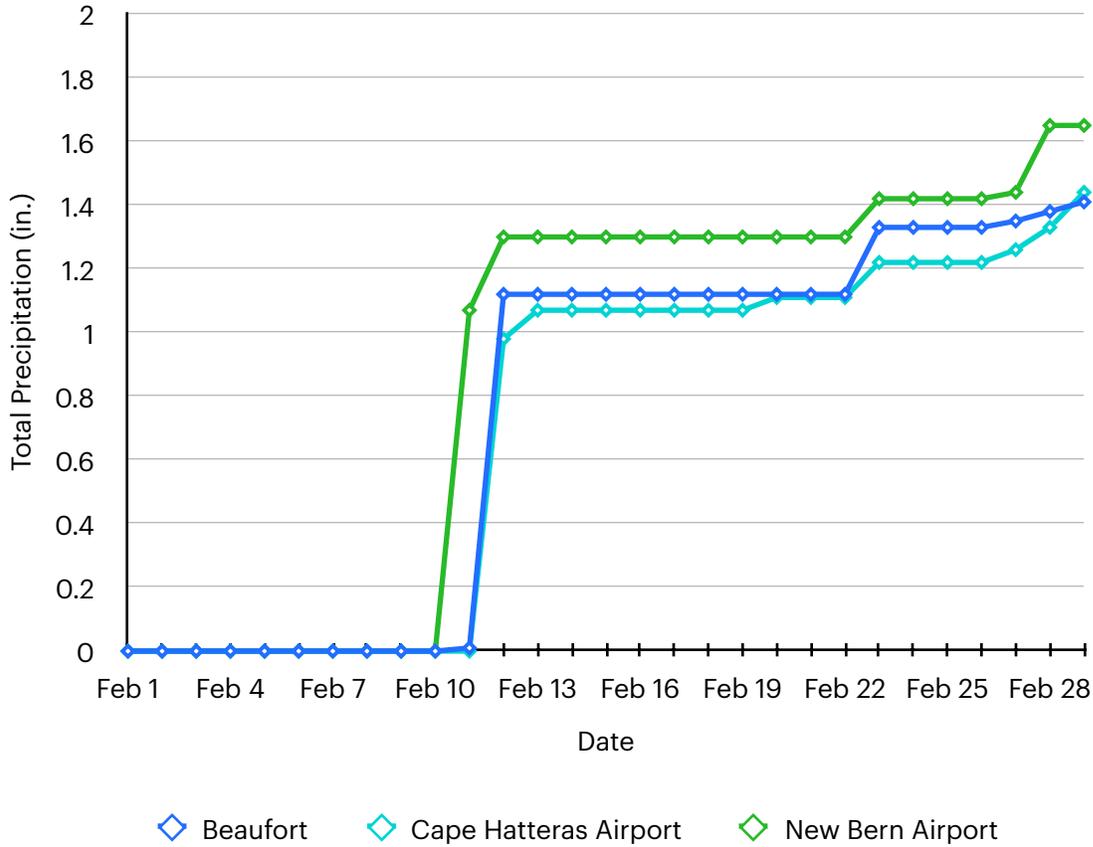
County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	1.31	3.72	-2.41	7 D
Carteret	1.52	4.00	-2.48	10 D
Craven	1.50	3.83	-2.33	11 D
Dare	1.31	3.85	-2.54	7 D
Duplin	1.33	3.61	-2.28	12 D
Greene	1.28	3.67	-2.39	12 D
Hyde	1.27	3.83	-2.56	6 D
Jones	1.41	3.80	-2.39	11 D
Lenoir	1.34	3.66	-2.32	14 D
Martin	1.23	3.69	-2.46	10 D
Onslow	1.32	3.84	-2.52	8 D
Pamlico	1.58	3.82	-2.24	12 D
Pitt	1.47	3.71	-2.24	13 D
Tyrrell	1.28	3.77	-2.49	7 D
Washington	1.23	3.72	-2.49	7 D
Area Average	1.36	3.77	-2.41	

Means are based on a period from 1901-2000. For rankings, “W” designates wettest and “D” designates driest.

The majority of rainfall across the region fell on February 11th and 12th as a cold front approached the Carolinas and stalled. The heaviest rainfall was focused along the coast, with daily totals of up to 1.5” near New Bern. At the airport, there were only five days of measurable precipitation, not including two trace observations. At Hatteras, there were seven measurable days not including three trace observations. Overall, precipitation

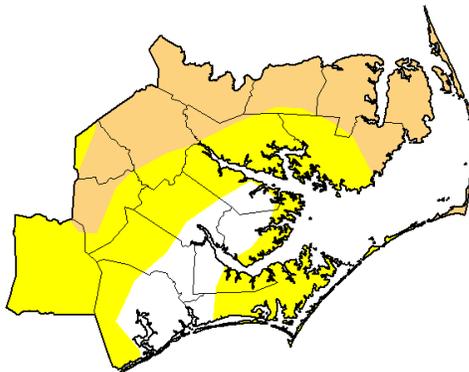
across eastern North Carolina was much below average—between 25% and 50% of normal.

Monthly Accumulated Precipitation



Drought conditions expanded across eastern North Carolina in February. Abnormally dry conditions developed across most areas, with moderate drought taking hold along and north of Highway 64, extending into Lenoir County. Seasonal outlooks call for drought conditions are expected to improve through spring.

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



February 27, 2024
(Released Thursday, Feb. 29, 2024)
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.43	84.57	35.37	0.00	0.00	0.00
Last Week 02-20-2024	16.84	83.16	0.00	0.00	0.00	0.00
3 Months Ago 11-28-2023	66.53	33.47	2.56	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	96.09	3.91	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 02-28-2023	63.07	36.93	0.00	0.00	0.00	0.00

Intensity:
 None (White) D2 Severe Drought (Red)
 D0 Abnormally Dry (Yellow) D3 Extreme Drought (Dark Red)
 D1 Moderate Drought (Orange) D4 Exceptional Drought (Black)

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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NCEI/NOAA



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=mxh>

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 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	59.4	37.7	48.6	45.9	2.7
Kinston	59.8	37.0	48.4	48.4	0.0
Williamston	58.9	37.7	48.3	45.2	3.1
Plymouth	59.1	38.0	48.6	46.3	2.3
Bayboro	60.4	38.4	49.4	46.3	3.1
Manteo	54.2	38.8	46.5	44.9	1.6

Normals are based on a period from 1990-2020. Sites in red have missing data.

Maximum and Minimum Monthly Temperatures: February 2024

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	69	Feb 27	35	Feb 4, 26
Hatteras (KHSE)	63	Feb 27	28	Feb 26
New Bern (KEWN)	77	Feb 10, 28	29	Feb 4, 19
Greenville	76	Feb 28	28	Feb 4, 8-9
Kinston	76	Feb 11	27	Feb 8
Williamston	75	Feb 11	30	Feb 8
Plymouth	74	Feb 11, 28	28	Feb 4, 8, 22
Bayboro	75	Feb 11, 29	30	Feb 4-5, 8-9
Manteo	69	Feb 29	33	Feb 19, 22

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: February 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Greenville	2.59	3.35	-0.76
Kinston	1.09	3.20	-2.11
Williamston	1.16	3.22	-2.06
Plymouth	1.46	3.40	-1.94
Bayboro	1.94	3.53	-1.59

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: February 2024

Site	County	Amount (in.)
Pantego 0.4 WSW	Beaufort	1.50
Morehead City 6.0 WNW	Carteret	2.26
Newport 1.0 N	Carteret	2.16
Cape Carteret 1.5 NE	Carteret	2.15
Newport 0.2 SW	Carteret	2.14
Newport 2.5 W	Carteret	2.06
Cedar Point 0.7 NNE	Carteret	1.98
Beaufort 12.1 N	Carteret	1.95
Cedar Point 0.4 WSW	Carteret	1.95
Newport 1.7 SSE	Carteret	1.94
Newport 2.3 SE	Carteret	1.93

Site	County	Amount (in.)
Swansboro 3.7 NNE	Carteret	1.88
Morehead City 2.9 WNW	Carteret	1.86
Pine Knoll Shores 1.4 E	Carteret	1.84
Emerald Isle 2.3 WSW	Carteret	1.75
Beaufort 5.3 N	Carteret	1.74
Pine Knoll Shores 0.3 E	Carteret	1.74
Beaufort 3.8 N	Carteret	1.72
Cedar Island 0.3 SSE	Carteret	1.60
Morehead City 0.6 NW	Carteret	1.59
Beaufort 0.5 W	Carteret	1.42
New Bern 1.3 NNE	Craven	2.16
Trent Woods 1.0 NNE	Craven	2.05
Trent Woods 1.2 ENE	Craven	2.03
Trent Woods 1.3 SSE	Craven	1.97
Havelock 1.9 SSE	Craven	1.89
New Bern 3.8 S	Craven	1.86
New Bern 7.3 ESE	Craven	1.82
Brice Creek 0.9 WNW	Craven	1.71
Bridgeton 0.3 SSE	Craven	1.60
Rodanthe 1.0 SSE	Dare	1.64
Manteo 2.98 NW	Dare	1.18
Southern Shores 1.9 NNW	Dare	1.15
Southern Shores 0.5 NNE	Dare	1.12

Site	County	Amount (in.)
Wallace 14.8 E	Duplin	1.92
Rose Hill 0.1 NNW	Duplin	1.88
Albertson 1.2 WNW	Duplin	1.32
Ayden 6.5 WNW	Greene	1.18
SQ Tower	Hyde	1.97
Englehard 0.8 NW	Hyde	1.70
Ocracoke 0.6 SW	Hyde	1.54
Ocracoke 0.2 ESE	Hyde	1.49
Pink Hill 2.5 NE	Lenoir	1.52
Kinston 5.1 WNW	Lenoir	1.19
Kinston 4.4 WNW	Lenoir	1.12
Williamston 8.9 SSE	Martin	1.11
Jamesville 6.1 SW	Martin	0.85
Sneads Ferry 3.3 SW	Onslow	2.66
Sneads Ferry 1.2 SSW	Onslow	2.31
Holly Ridge 3.7 E	Onslow	2.23
Hubert 4.9 SE	Onslow	2.08
Swansboro 2.8 WSW	Onslow	2.02
Jacksonville 1.0 NW	Onslow	1.97
Holly Ridge 9.0 ENE	Onslow	1.97
Jacksonville 2.4 NNE	Onslow	1.73
Jacksonville 5.4 WSW	Onslow	1.72
Oriental 2.1 WSW	Pamlico	2.15

Site	County	Amount (in.)
Oriental 4.3 NNW	Pamlico	1.87
Merritt 1.5 WSW	Pamlico	1.83
Oriental 1.9 WSW	Pamlico	1.72
Lowland 0.2 SE	Pamlico	1.70
Oriental 5.2 NE	Pamlico	1.46
Fountain 0.1 NE	Pitt	1.38
Winterville 1.0 ENE	Pitt	1.32
Greenville 5.7 NW	Pitt	1.18
Greenville 5.0 SE	Pitt	1.15
Greenville 4.4 SSE	Pitt	1.15
Winterville 3.5 W	Pitt	1.12
Greenville 2.8 ESE	Pitt	1.09
Greenville 7.1 SSE	Pitt	1.09
Columbia 0.8 NNE	Tyrell	1.33
Roper 2.4 NE	Washington	1.34

CoCoRaHS inclusion in this table is based on a complete 29-day liquid precipitation record. Thank you to all observers!