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EASTERN NORTH CAROLINA MONTHLY CLIMATE REPORT

MAY 2022

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

National Weather Service

NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

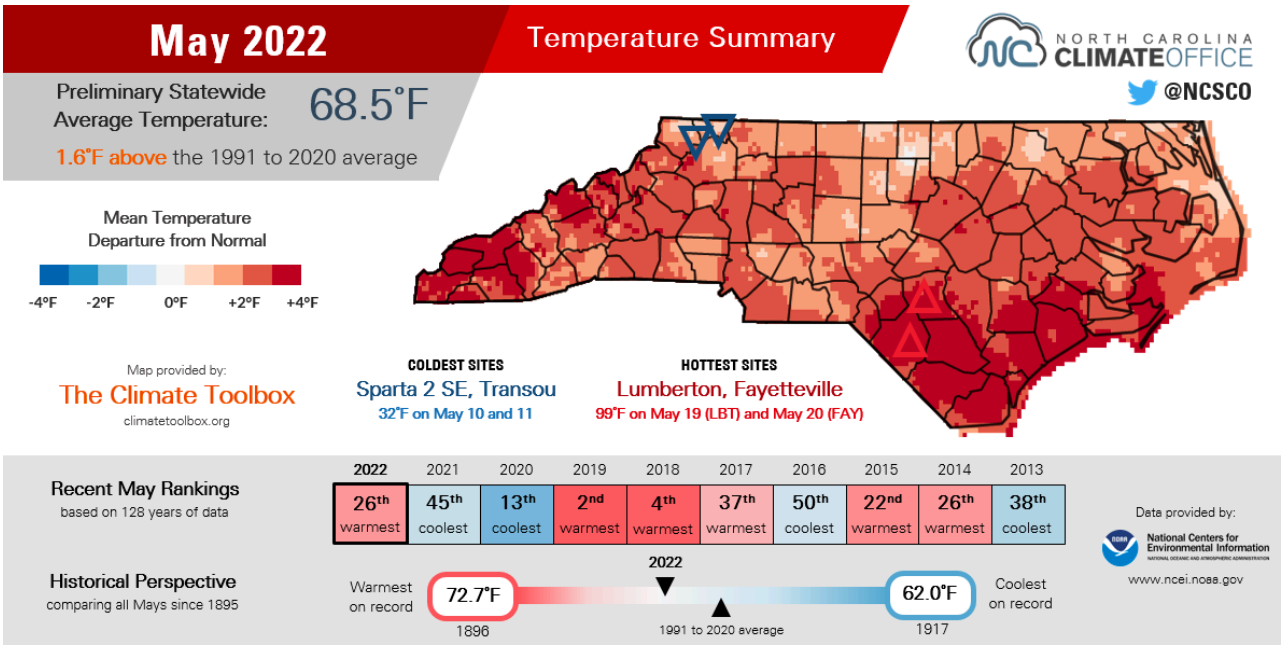
May 2022 marked a warm end to spring for eastern North Carolina but highly variable precipitation. Temperatures across the region averaged between 1-3 degrees above average, with spots south and west of U.S Highway 70 seeing the largest warm anomalies. This lined up well with precipitation anomalies, where those same areas were the driest for the month while spots along the Inner Banks and Albemarle Sound saw beneficial at-or-above-average precipitation, with convection bringing highly localized extremes. Drought conditions were wiped out for much of the region from New Bern northeast to the Albemarle Peninsula, but severe drought continued to plague the inner coastal plain.

With storms came pockets of severe weather, with the most notable event being a brief EF-1 tornado outside of New Bern. Along the coast, prolonged rough seas associated with an offshore low precluded the first king tide cycle of the year, bringing several days of coastal flooding in the middle of the month.

CPC outlooks slightly favor above-average temperatures for the month of June (between 40-50%) and above-average precipitation (33-40%). Drought conditions are expected to improve into summer, although seasonal drought outlooks continue to suggest some level of drought will still be present at summer's end, particularly for the coastal plain.

TEMPERATURES

Meteorological spring closed on a warm note for the region, according to an analysis by the North Carolina State Climate Office. The average temperature statewide for May was 68.5°F or 1.6°F above the 1991-2020 average. This was the 26th warmest May statewide since records began in 1895, with 138 years of data.



May 2022 Temperature Summary from the NC State Climate Office

Eastern North Carolina, following trends for the past several months, was slightly warmer than the statewide average. The three primary climate sites in the Morehead City CWA were 1-3 degrees above average for the month. Additional observations can be found in Appendix A.

MHX Select Site Temperature Statistics: May 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	78.1	66.3	72.2	70.1	*2.1*
Hatteras (KHSE)	76.5	65.3	70.9	69.7	*1.2*

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	81.8	63.2	72.5	69.5	*3.0*

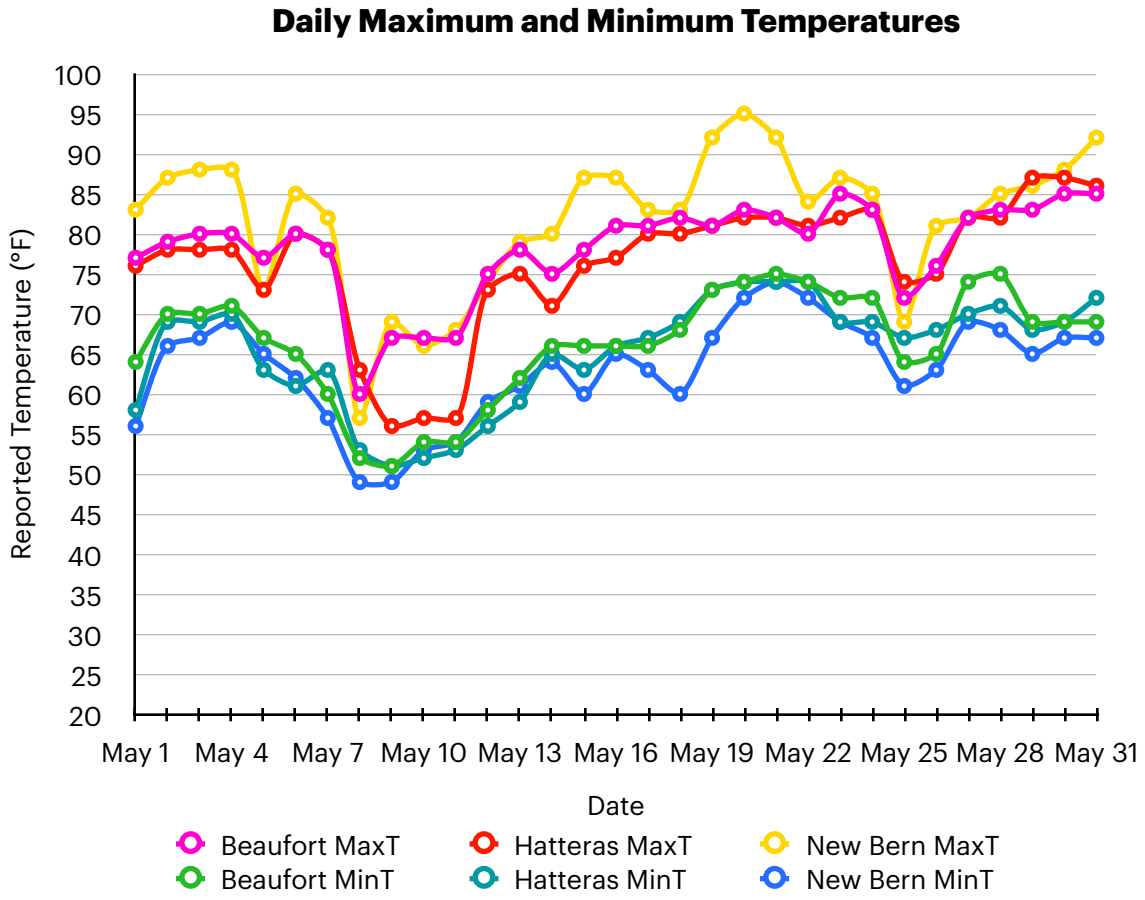
Normals are based on a period from 1990-2020.

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	70.7	68.5	**2.2**	23 W
Carteret	70.8	69.0	**1.8**	24 W
Craven	70.7	68.5	**2.2**	23 W
Dare	69.5	67.4	**2.1**	24 W
Duplin	71.3	68.5	**2.8**	17 W
Greene	70.8	68.5	**2.3**	23 W
Hyde	70.4	68.6	**1.8**	27 W
Jones	70.6	68.3	**2.3**	19 W
Lenoir	70.7	68.5	**2.2**	23 W
Martin	70.2	67.7	**2.5**	22 W
Onslow	71.6	68.6	**3**	15 W
Pamlico	70.8	69.0	**1.8**	25 W
Pitt	70.7	68.4	**2.3**	24 W
Tyrrell	70.0	67.7	**2.3**	22 W
Washington	70.2	67.6	**2.6**	19 W
Area Average	**70.6**	**68.3**	**2.3**	

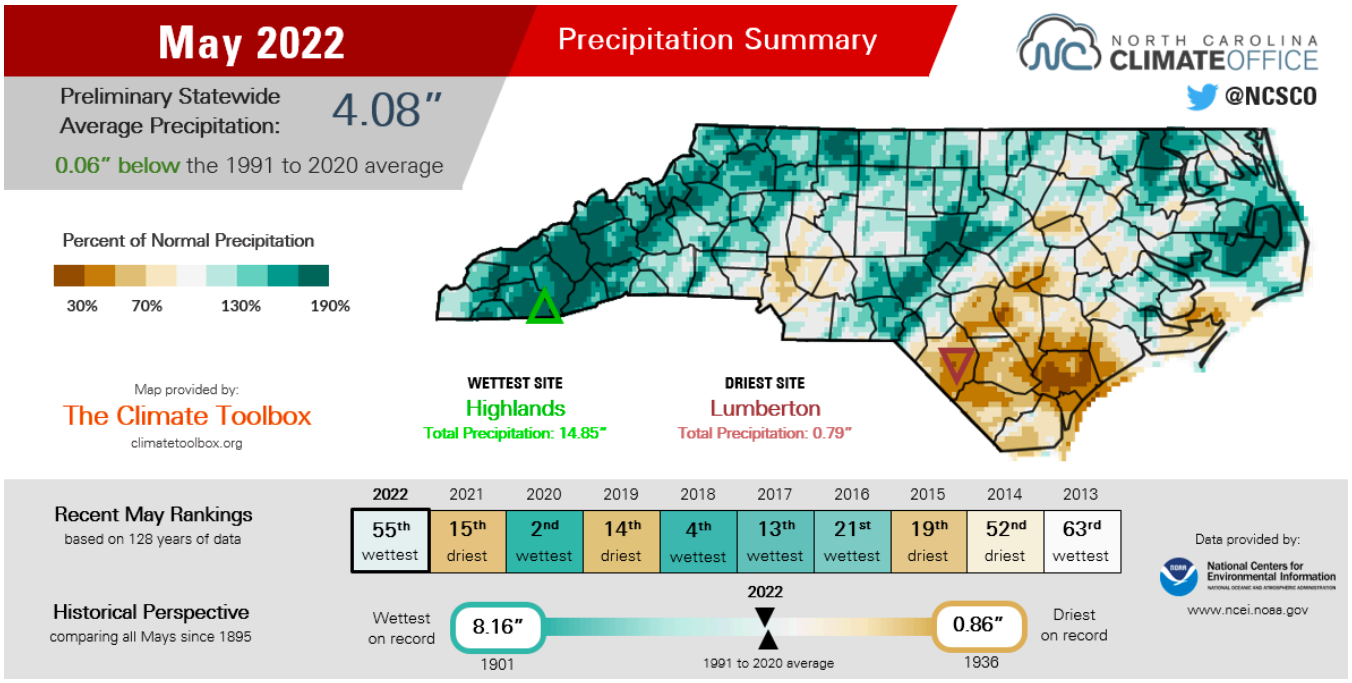
Means are based on a period from 1901-2000. For rankings, “C” designates coldest and “W” designates warmest.

Area-wide, temperatures were 2.5 degrees above average, with the warmest spots in eastern North Carolina south and west of US Highway 70. Despite the trend, many spots across our forecast area were slow to record their first 90° day - New Bern crossed the benchmark on the 19th, or 16 days after the average date of May 3rd.



PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation of 4.08" for May or about 0.06" inches below average. As is typical in convective seasons, rainfall distribution was hardly uniform. This was the 55th wettest month for the state since records began in 1895.



May 2022 Precipitation Summary from the NC State Climate Office

For the second month in a row, precipitation spread across eastern North Carolina was considerable but roughly correlated well with temperature trends. The driest spots were across the south and west, in line with the warmest spots, while the wettest locations were across the Albemarle Peninsula and northern Outer Banks.

MHX Select Site Precipitation Statistics: May 2022

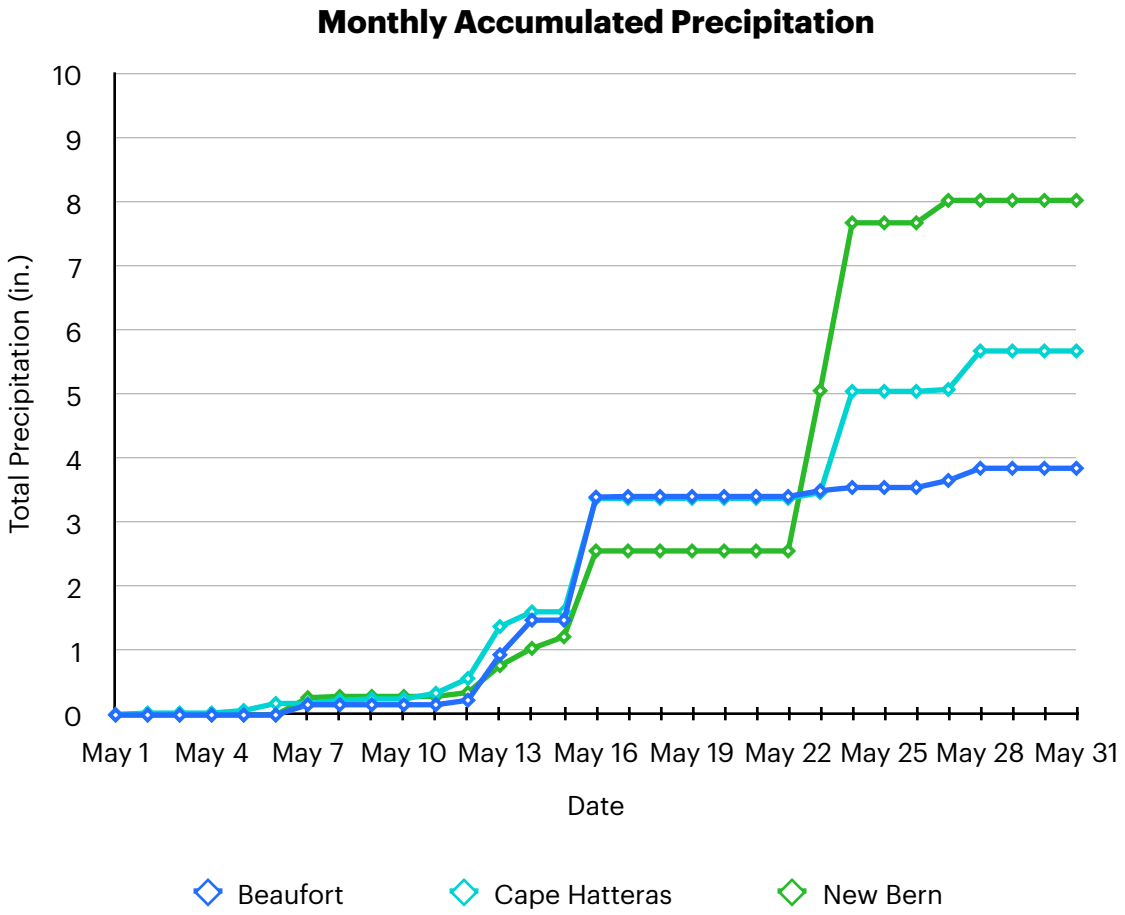
Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	3.85	3.94	*-0.09*
Hatteras (KHSE)	5.68	4.37	*1.31*
New Bern (KEWN)	8.03	4.25	*3.78*

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).

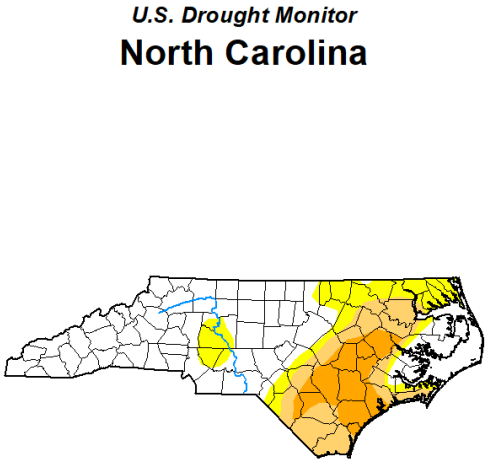
County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	4.08	3.99	**0.09**	56 W
Carteret	3.58	4.09	**-0.51**	57 D
Craven	4.12	4.11	**0.01**	56 W
Dare	4.14	3.69	**0.45**	45 W
Duplin	3.36	4.21	**-0.85**	46 D
Greene	3.92	3.97	**-0.05**	62 D
Hyde	3.76	3.94	**-0.18**	64 W
Jones	3.89	4.17	**-0.28**	59 D
Lenoir	3.89	4.12	**-0.23**	57 D
Martin	3.98	3.88	**0.1**	63 W
Onslow	2.88	4.24	**-1.36**	36 D
Pamlico	4.05	4.12	**-0.07**	57 W
Pitt	4.09	3.87	**0.22**	48 W
Tyrrell	3.83	3.86	**-0.03**	58 W
Washington	3.75	3.96	**-0.21**	64 D
Area Average	**3.82**	**4.01**	**-0.19**	

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

All areas generally benefited from scattered showers associated with a low offshore that migrated westward and came ashore near Wilmington on the evening of May 12th. From there, we were mainly dependent on convective development and coverage. Many areas saw another round of rainfall on May 22-23 ahead of an approaching cold front - New Bern saw two back-to-back days of 24-hour totals exceeding 2 inches.



Drought conditions were wiped out for much of the Inner Banks and Albemarle Peninsula region through May and improved somewhat across Martin County. D2 (Severe) drought continues across the inner coastal plain and expanded further into Onslow County. Drought is likely to remain through June although its severity is forecast to diminish.



June 7, 2022
(Released Thursday, Jun. 9, 2022)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	56.23	43.77	28.15	12.43	0.00	0.00
Last Week 05-31-2022	60.56	39.44	25.77	11.52	0.00	0.00
3 Months Ago 03-08-2022	33.55	66.45	20.21	0.00	0.00	0.00
Start of Calendar Year 01-04-2022	2.84	97.16	60.20	2.76	0.00	0.00
Start of Water Year 09-28-2021	91.27	8.73	0.00	0.00	0.00	0.00
One Year Ago 06-08-2021	27.06	72.94	26.24	1.17	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/.

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: May 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	81.4	61.8	71.6	69.6	*2.0*
Kinston	81.9	62.3	72.1	70.7	*1.4*
Williamston	80.6	60.5	70.6	68.5	*2.1*
Plymouth	81.0	60.4	70.7	69.1	*1.6*
Bayboro	79.8	61.6	70.7	68.5	*2.2*
Manteo	75.3	61.7	68.5	67.4	*1.1*

Normals are based on a period from 1990-2020.

Maximum and Minimum Monthly Temperatures: May 2022

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	85	May 23, 30-31	51	May 9
Hatteras (KHSE)	87	May 29-30	51	May 9
New Bern (KEWN)	95	May 20	49	May 8-9
Greenville	95	May 20	46	May 9
Kinston	96	May 21	45	May 9
Williamston	95	May 21	49	May 8-9
Plymouth	94	May 21	48	May 9
Bayboro	93	May 21	50	May 9
Manteo	89	May 20-22	48	May 9

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: May 2022

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Bayboro	4.35	4.36	*-0.01*
Greenville	4.50	4.04	*0.46*
Kinston	3.58	3.92	*-0.34*
Manteo	5.86	3.52	*2.34*
Plymouth	4.35	4.14	*0.21*
Williamston	4.23	3.69	*0.54*

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: May 2022

Site	County	Amount (in.)
Bath 1.6 SSE	Beaufort	4.85
Bath 6.6 ESE	Beaufort	7.02
Pantego 0.4 WSW	Beaufort	4.70
Washington 1.0 SSW	Beaufort	4.45
Beaufort 0.5 W	Carteret	3.92
Beaufort 12.2 N	Carteret	1.93
Beaufort 15.1 N	Carteret	2.21
Beaufort 5.3 N	Carteret	3.37
Cape Carteret 1.0 NNW	Carteret	3.36
Cape Carteret 1.5 NE	Carteret	3.27

Site	County	Amount (in.)
Cedar Island 0.3 SSE	Carteret	2.03
Cedar Point 0.9 WSW	Carteret	4.50
Emerald Isle 0.2 ENE	Carteret	4.12
Emerald Isle 2.3 WSW	Carteret	3.76
Harkers Island 3.2 NE	Carteret	4.60
Morehead City 0.6 NW	Carteret	2.96
Morehead City 2.9 WNW	Carteret	3.29
Morehead City 6.0 WNW	Carteret	3.01
Newport 0.2 SW	Carteret	3.86
Newport 1.0 N	Carteret	4.64
Newport 10.3 SW	Carteret	4.25
Pine Knoll Shores 1.4 E	Carteret	3.68
Stella 2.5 SE	Carteret	3.45
Swansboro 2.7 NE	Carteret	3.33
Swansboro 3.7 NNE	Carteret	4.58
Havelock 1.9 SSE	Craven	2.82
New Bern 1.3 NNE	Craven	4.69
New Bern 2.6 SW	Craven	6.79
New Bern 3.8 S	Craven	6.96
New Bern 5.2 SE	Craven	7.86
New Bern 5.3 SW	Craven	5.82
New Bern 8.8 W	Craven	3.53
Trent Woods 1.2 ENE	Craven	7.31

Site	County	Amount (in.)
Trent Woods 1.0 NNE	Craven	7.12
Buxton 0.3 ENE	Dare	5.88
Manteo 2.8 NW	Dare	7.55
Rodanthe 1.0 SSE	Dare	3.85
Southern Shores 0.5 NNE	Dare	5.03
Albertson 1.2 WNW	Duplin	3.06
Mount Olive 2.4 SW	Duplin	3.36
Rose Hill 0.1 NNW	Duplin	2.11
Wallace 14.8 E	Duplin	1.13
Ayden 6.5 WNW	Greene	3.97
Engelhard 0.8 NW	Hyde	8.45
Ocracoke 0.2 ESE	Hyde	3.38
SQ Tower	Hyde	5.65
Kinston 1.2 NW	Lenoir	2.70
Kinston 3.7 WNW	Lenoir	5.59
Kinston 4.4 WNW	Lenoir	5.30
Kinston 5.1 WNW	Lenoir	4.82
Kinston 7.0 SW	Lenoir	3.69
Jamesville 6.1 SW	Martin	3.85
Robersonville 0.0 NNW	Martin	3.80
Williamston 8.9 SSE	Martin	4.62
Holly Ridge 9.0 ENE	Onslow	2.60
Hubert 4.9 SE	Onslow	4.09

Site	County	Amount (in.)
Jacksonville 1.0 NW	Onslow	3.46
Jacksonville 5.4 WSW	Onslow	2.79
Sneads Ferry 1.2 SSW	Onslow	2.04
Sneads Ferry 3.3 SW	Onslow	2.18
Swansboro 1.4 N	Onslow	4.70
Swansboro 2.8 WSW	Onslow	4.26
Lowland 0.2 SE	Pamlico	3.69
Merritt 1.5 WSW	Pamlico	3.50
Oriental 1.9 WSW	Pamlico	1.76
Oriental 2.1 WSW	Pamlico	2.04
Oriental 4.3 NNW	Pamlico	3.49
Greenville 2.0 SE	Pitt	3.25
Greenville 2.8 ESE	Pitt	3.24
Greenville 4.6 W	Pitt	4.87
Greenville 5.0 SE	Pitt	3.35
Greenville 7.1 SSE	Pitt	3.73
Winterville 1.0 ENE	Pitt	3.72
Winterville 2.5 NNW	Pitt	4.18
Winterville 3.5 W	Pitt	3.71
Columbia 0.8 NNE	Tyrrell	5.16

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