

**PUBLISH DATE: NOVEMBER 23, 2022**

**EASTERN NORTH CAROLINA  
MONTHLY CLIMATE REPORT**

# **OCTOBER 2022**

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

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# National Weather Service

## NEWPORT/MOREHEAD CITY, NC

# MONTHLY SUMMARY

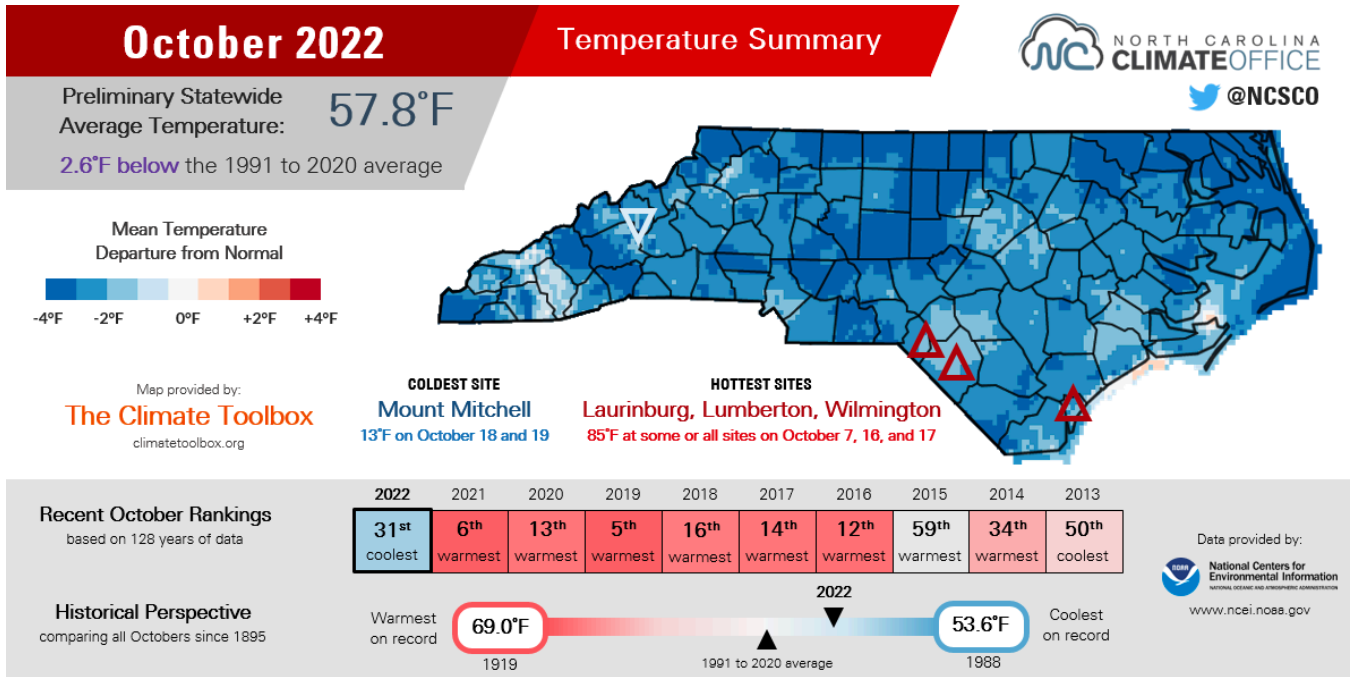
**C**onditions turned abruptly cooler in October across eastern North Carolina but remained persistently dry with well below normal precipitation. Temperatures came in about 2-4 degrees below average for the period, a notable switch from past Octobers which saw persistently above average warmth over the past 6 years. Most areas recorded their first 30s around Oct 19-20.

After Hurricane Ian's exit at the beginning of the month, most of the region struggled to pick up more than a couple inches of rainfall and many spots couldn't even muster an inch. New Bern recorded a mere 0.56" of precipitation in October, its 7th driest on record. Drought conditions managed to redevelop across southwestern portions of the forecast area, and abnormal dryness remains in place across much of eastern North Carolina. Seasonal outlooks call for slight chances of above average temperatures and below average precipitation through the winter season, likely exacerbating existing dry conditions.

**The November 2022 report will be published around December 20th, 2022.**

# TEMPERATURES

The weather across North Carolina turned abruptly cooler last month, based on analysis from the NC State Climate Office. The average temperature statewide for October was 57.8°F or 2.6°F below the 1991-2020 average. This was the 31st coolest October statewide since records began in 1895, with 128 years of data.



October 2022 Temperature Summary from the NC State Climate Office

Eastern North Carolina temperatures were similar to the statewide average. Temperatures at the three primary climate sites in the forecast area were between 2 to 4 degrees below normal. Additional observations can be found in Appendix A.

## MHX Select Site Temperature Statistics: October 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	71.5	56.6	64.1	66.0	-2.0
Hatteras (KHSE)	69.5	58.2	63.9	68.2	-4.4

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	72.2	51.9	62.1	64.2	-2.2

Normals are based on a period from 1990-2020.

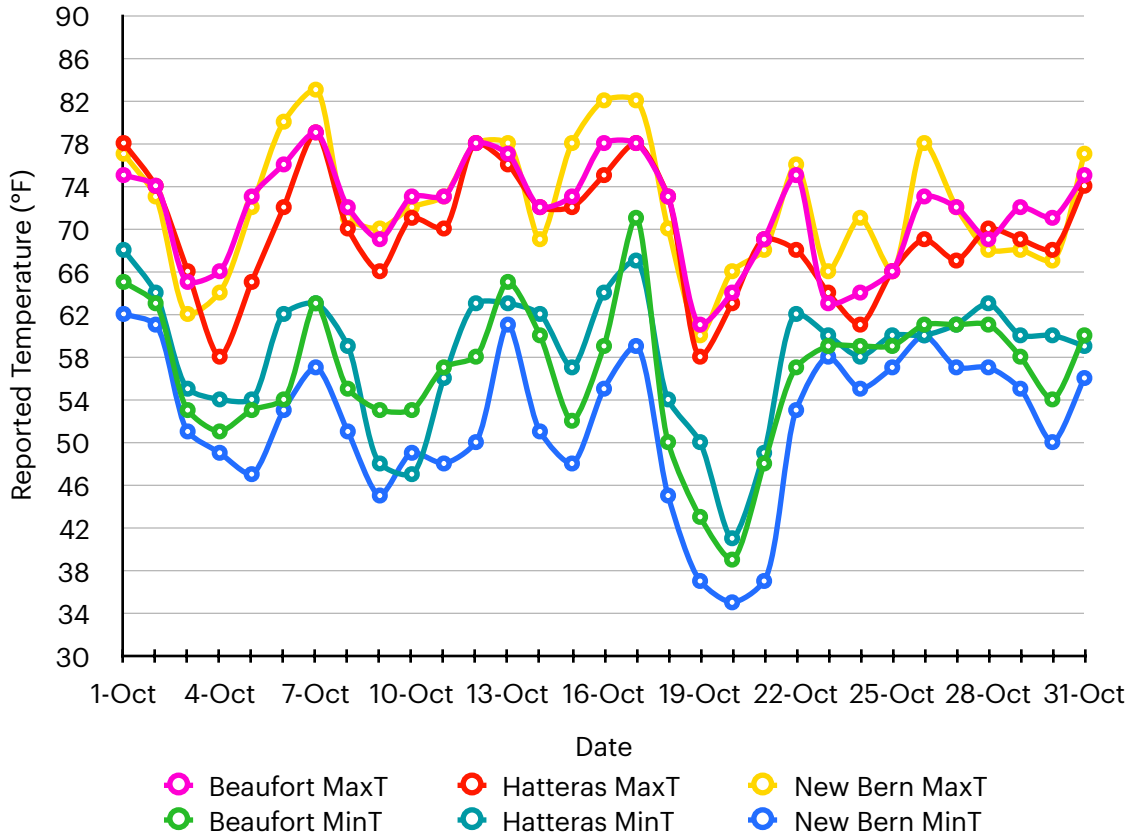
County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Temperature (°F)	Mean (°F)	Departure (°F)	Rank
Beaufort	60.7	62.5	-1.8	29 C
Carteret	62.8	64.7	-1.9	27 C
Craven	61.0	62.8	-1.8	31 C
Dare	62.0	64.0	-2.0	21 C
Duplin	60.3	62.0	-1.7	32 C
Greene	59.4	61.5	-2.1	22 C
Hyde	61.5	63.8	-2.3	21 C
Jones	60.4	62.2	-1.8	29 C
Lenoir	59.4	61.8	-2.4	20 C
Martin	59.6	61.0	-1.4	36 C
Onslow	61.4	63.0	-1.6	34 C
Pamlico	61.7	63.8	-2.1	25 C
Pitt	59.8	61.7	-1.9	29 C
Tyrrell	61.1	62.7	-1.6	31 C
Washington	60.4	61.6	-1.2	36 C
<b>Area Average</b>	<b>60.8</b>	<b>62.6</b>	<b>-1.8</b>	

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

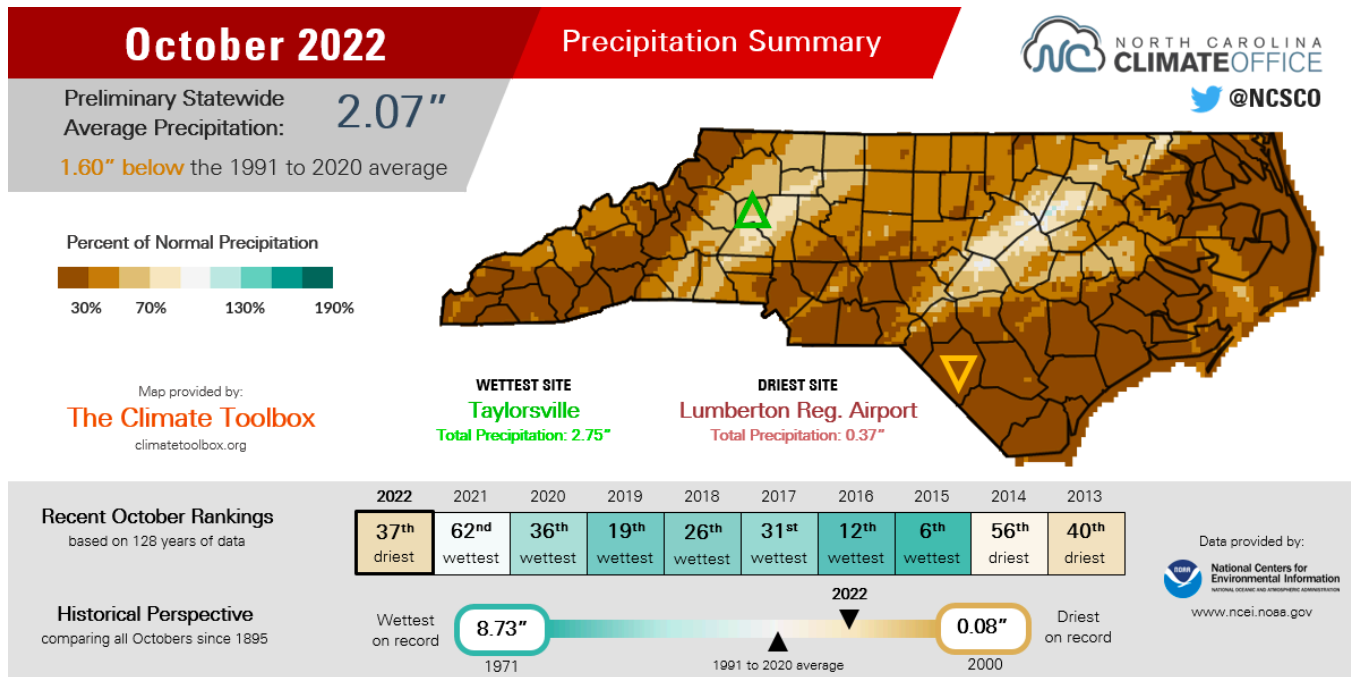
The coolest airmass of the month entered the region on October 19th and lingered for a few days, keeping highs in the low 60s and pushing many lows into the 30s for the first time of the season. New Bern recorded its first sub-40 degree day on October 19, roughly a week ahead of the average first occurrence of October 25.

**Daily Maximum and Minimum Temperatures**



# PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated below average precipitation statewide, sitting at 2.07” for October, or about 1.60” inches below average. This was the 37th driest October for the state since records began in 1895.



October 2022 Precipitation Summary from the NC State Climate Office

Eastern North Carolina was much drier than the statewide average, although portions of the coastal plain fared slightly better than spots along the coast. Monthly precipitation deficits of between 2 to nearly 6 inches were the norm across the region.

## MHX Select Site Precipitation Statistics: October 2022

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	1.21	4.14	-2.93
Hatteras (KHSE)	1.38	5.59	-4.21
New Bern (KEWN)	0.56	3.56	-3

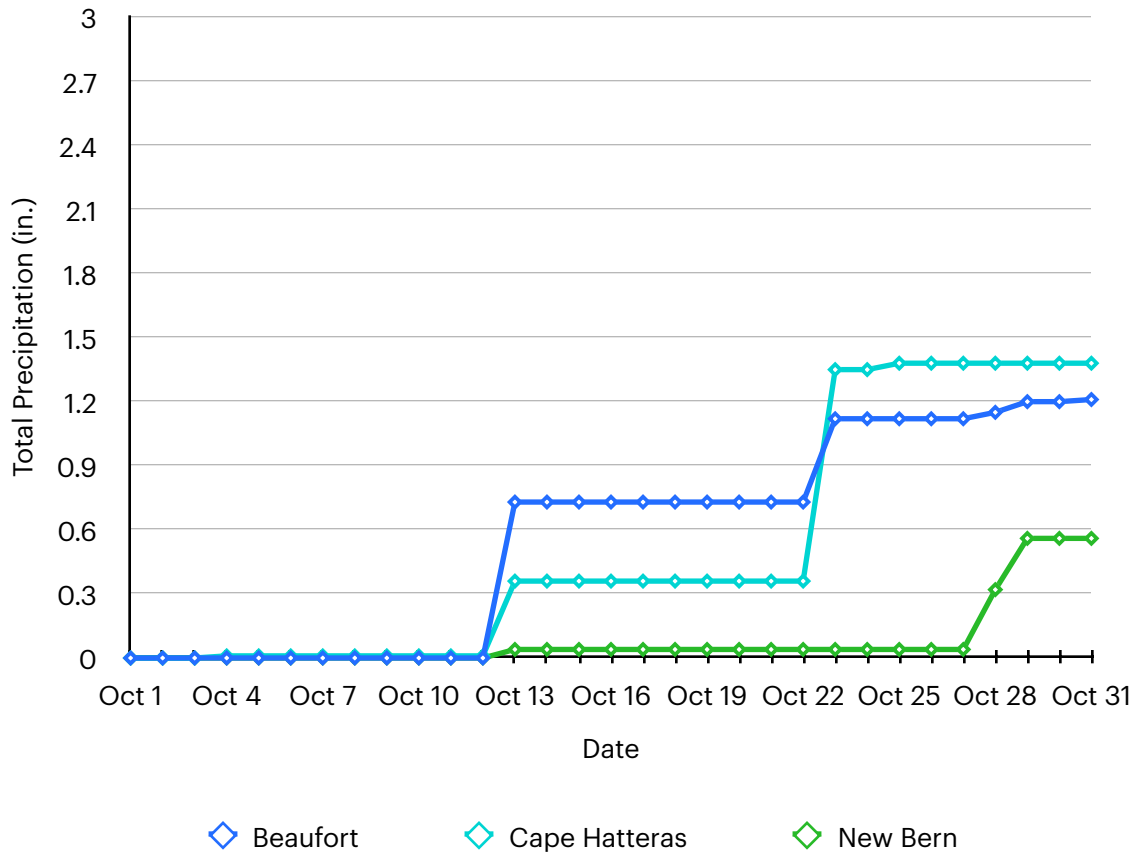
County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	2.54	3.22	-0.68	57 D
Carteret	1.89	3.73	-1.84	29 D
Craven	1.86	3.22	-1.36	33 D
Dare	2.31	3.66	-1.35	41 D
Duplin	1.89	2.88	-0.99	45 D
Greene	1.88	2.87	-0.99	40 D
Hyde	2.22	3.50	-1.28	41 D
Jones	1.74	3.09	-1.35	33 D
Lenoir	2.33	2.87	-0.54	61 D
Martin	3.06	3.02	0.04	53 W
Onslow	1.18	3.19	-2.01	21 D
Pamlico	2.88	3.46	-0.58	61 D
Pitt	1.97	2.95	-0.98	45 D
Tyrrell	2.10	3.37	-1.27	40 D
Washington	2.39	3.19	-0.8	54 D
<b>Area Average</b>	<b>2.15</b>	<b>3.21</b>	<b>-1.07</b>	

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

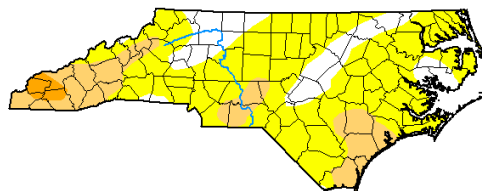
Many sites, including most CoCoRaHS stations mentioned in this document, reported considerable rainfall totals on October 1st owing to the impacts of Hurricane Ian. Outside of this event, all but a few sites picked up less than 2 inches of rainfall across the forecast area. Several spots, particularly along the Crystal Coast into Duplin County, did not pick up a full inch. New Bern recorded 0.56 inches, its 7th driest October on record.

### Monthly Accumulated Precipitation



With the considerable dryness, abnormal dryness returned to nearly all of eastern North Carolina by the end of October. The worst deficits were across Duplin and western Onslow counties, where D1 Moderate Drought conditions were declared. Drought conditions are expected to either develop or persist further through the winter season.

### U.S. Drought Monitor North Carolina



**November 1, 2022**  
(Released Thursday, Nov. 3, 2022)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	16.29	83.71	19.46	1.79	0.00	0.00
<b>Last Week</b> 10-25-2022	52.48	47.52	11.22	0.51	0.00	0.00
<b>3 Months Ago</b> 08-02-2022	53.93	46.07	1.63	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-04-2022	2.84	97.16	60.20	2.76	0.00	0.00
<b>Start of Water Year</b> 09-30-2021	38.94	61.06	15.04	0.00	0.00	0.00
<b>One Year Ago</b> 11-03-2021	37.76	62.24	22.77	0.00	0.00	0.00

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

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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National Drought Mitigation Center





## 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: October 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	72.1	49.8	61.0	63.0	-2.1
Kinston	71.8	49.5	60.7	64.6	-4.0
Williamston	70.3	49.0	59.7	62.6	-3.0
Plymouth	71.6	51.3	61.5	63.5	-2.1
Bayboro	71.2	50.7	61.0	63.1	-2.2
Manteo	68.3	55.7	62.0	64.8	-2.8

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

### Maximum and Minimum Monthly Temperatures: October 2022

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	79	Oct 7	39	Oct 20
Hatteras (KHSE)	79	Oct 7	41	Oct 20
New Bern (KEWN)	83	Oct 7	35	Oct 20
Greenville	82	Oct 7-8	34	Oct 19, 21
Kinston	83	Oct 8	33	Oct 20
Williamston	82	Oct 8	33	Oct 20
Plymouth	81	Oct 7	33	Oct 20
Bayboro	83	Oct 8	35	Oct 20, 21
Manteo	80	Oct 8	41	Oct 20

## APPENDIX B: ADDITIONAL PRECIPITATION DATA

### Cooperative Observation Site Precipitation Statistics: October 2022

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Bayboro	5.89	4.19	1.7
Greenville	0.89	3.57	-2.68
Kinston	3.23	3.56	-0.33
Plymouth	2.27	4.14	-1.87
Williamston	1.87	6.92	-5.05

Sites in red have missing data in their record.

### CoCoRaHS Monthly Accumulated Precipitation: October 2022

Site	County	Amount (in.)
Pantego 0.4 WSW	Beaufort	5.34
Bath 1.6 SSE	Beaufort	3.68
Williston 0.9 SW	Carteret	7.03
Beaufort 3.8 N	Carteret	6.78
Beaufort 12.1 N	Carteret	6.64
Beaufort 15.1 N	Carteret	6.59
Beaufort 5.3 N	Carteret	6.56
Beaufort 0.5 W	Carteret	4.98
Newport 2.5 W	Carteret	4.62
Cedar Point 0.9 WSW	Carteret	3.73
Pine Knoll Shores 1.4 E	Carteret	3.71

Site	County	Amount (in.)
Swansboro 3.7 NNE	Carteret	3.63
Morehead City 0.6 NW	Carteret	3.62
Newport 1.0 N	Carteret	3.57
Newport 0.2 SW	Carteret	3.47
Newport 1.7 SSE	Carteret	3.42
Pine Knoll Shores 0.3 NE	Carteret	3.41
Morehead City 2.9 WNW	Carteret	3.33
Morehead City 5.7 W	Carteret	3.29
Cape Carteret 1.0 NNW	Carteret	3.20
Emerald Isle 2.3 WSW	Carteret	2.99
Indian Beach 0.0 W	Carteret	2.92
Ocean 0.5 S	Carteret	2.90
Morehead City 6.0 WNW	Carteret	1.64
Havelock 1.9 SSE	Craven	3.55
Trent Woods 1.3 SSE	Craven	3.51
New Bern 5.2 SE	Craven	3.30
New Bern 4.2 S	Craven	3.18
New Bern 1.3 NNE	Craven	2.95
James City 2.0 S	Craven	1.66
Southern Shores 0.5 NNE	Dare	6.14
Duck 0.7 SSE	Dare	4.69
Buxton 0.3 ENE	Dare	3.80
Rodanthe 1.0 SSE	Dare	3.61

Site	County	Amount (in.)
Manteo 2.8 W	Dare	3.57
Albertson 1.2 WNW	Duplin	4.16
Mount Olive 6.0 SE	Duplin	3.59
Wallace 14.8 E	Duplin	2.85
Mount Olive 2.4 SW	Duplin	2.84
Rose Hill 0.1 NNW	Duplin	2.46
Hookerton 0.5 ESE	Greene	4.12
Ayden 6.5 WNW	Greene	3.01
SQ Tower	Hyde	5.47
Ocracoke 0.2 ESE	Hyde	3.22
Pink Hill 2.5 NE	Lenoir	4.06
Kinston 7.0 SW	Lenoir	3.60
Kinston 1.2 NW	Lenoir	3.60
Kinston 4.4 WNW	Lenoir	3.34
Kinston 5.1 WNW	Lenoir	3.24
Williamston 8.9 SSE	Martin	5.63
Jamesville 6.1 SW	Martin	4.32
Swansboro 3.3 NW	Onslow	3.19
Jacksonville 2.4 NNE	Onslow	3.18
Jacksonville 5.4 WSW	Onslow	2.57
Swansboro 2.8 WSW	Onslow	2.55
Sneads Ferry 1.2 SSW	Onslow	2.23
Holly Ridge 9.0 ENE	Onslow	2.21

Site	County	Amount (in.)
<b>Sneads Ferry 3.3 SW</b>	Onslow	2.07
<b>Merritt 1.5 WSW</b>	Pamlico	6.37
<b>Oriental 4.3 NNW</b>	Pamlico	5.65
<b>Oriental 1.9 WSW</b>	Pamlico	5.61
<b>Lowland 0.2 SE</b>	Pamlico	4.95
<b>Oriental 5.2 NE</b>	Pamlico	4.85
<b>Greenville 7.1 SSE</b>	Pitt	4.81
<b>Greenville 5.0 SE</b>	Pitt	4.53
<b>Winterville 1.0 ENE</b>	Pitt	4.42
<b>Winterville 2.5 NNW</b>	Pitt	3.87
<b>Winterville 3.5 W</b>	Pitt	3.79
<b>Greenville 4.6 W</b>	Pitt	3.57
<b>Greenville 5.7 NW</b>	Pitt	3.42
<b>Fountain 0.1 NE</b>	Pitt	2.91
<b>Winterville 2.8 WNW</b>	Pitt	2.06
<b>Columbia 0.8 NNE</b>	Tyrrell	7.10

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