

PUBLISH DATE: JULY 13, 2022

**EASTERN NORTH CAROLINA
MONTHLY CLIMATE REPORT**

**JUNE
2022**

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

National Weather Service

NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

June 2022 did our area no favors for drought mitigation as the state of North Carolina set its second driest June ever and many counties across eastern portions of the state placed in the top 10 driest for the month. As is typical during the summer, convective activity exaggerated accumulation differences - areas in Duplin and Onslow counties managed to pick up over half a foot of rain. Drought conditions expanded slightly across the region. Temperatures were within a degree of average, although a notable cool spell late in the month set a few records.

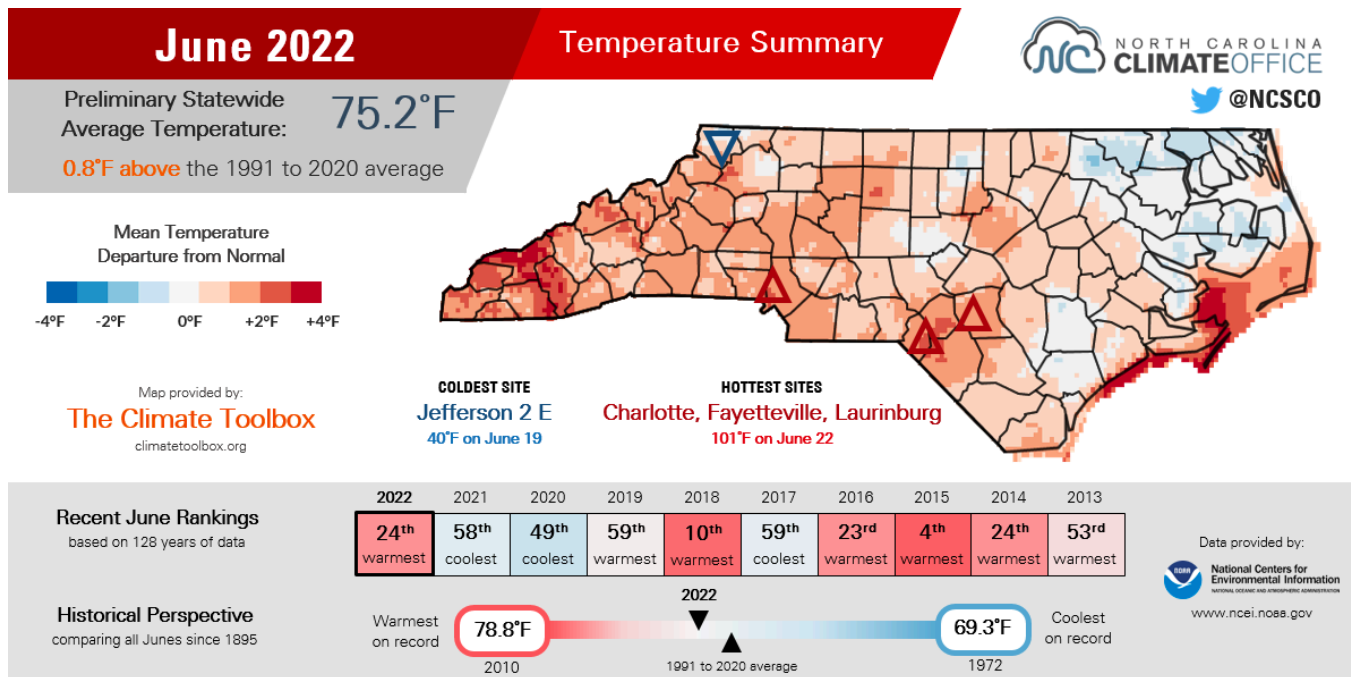
The Atlantic Basin was quiet for our area in June. The only storm was Tropical Storm Alex, which impacted Florida before quickly lifting out towards Bermuda. Other than a few days of enhanced rip currents, it brought no impacts to our area.

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

The July 2022 report will be published around August 15th, 2022.

TEMPERATURES

Summer started off on a slightly warmer than average note, according to an analysis by the North Carolina State Climate Office. The average temperature statewide for June was 75.2°F or 0.8°F above the 1991-2020 average. This was the 24th warmest June statewide since records began in 1895, with 128 years of data.



June 2022 Temperature Summary from the NC State Climate Office

Eastern North Carolina saw a mixed bag of anomalies for the month but was generally similar to or cooler than the rest of the state. The three primary climate sites in the Morehead City CWA were within a degree of average. Additional observations can be found in Appendix A.

MHX Select Site Temperature Statistics: June 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	85.3	71.0	78.2	77.3	0.9
Hatteras (KHSE)	84.9	71.8	78.4	77.5	0.9

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	87.6	67.1	77.4	77.0	0.4

Normals are based on a period from 1990-2020.

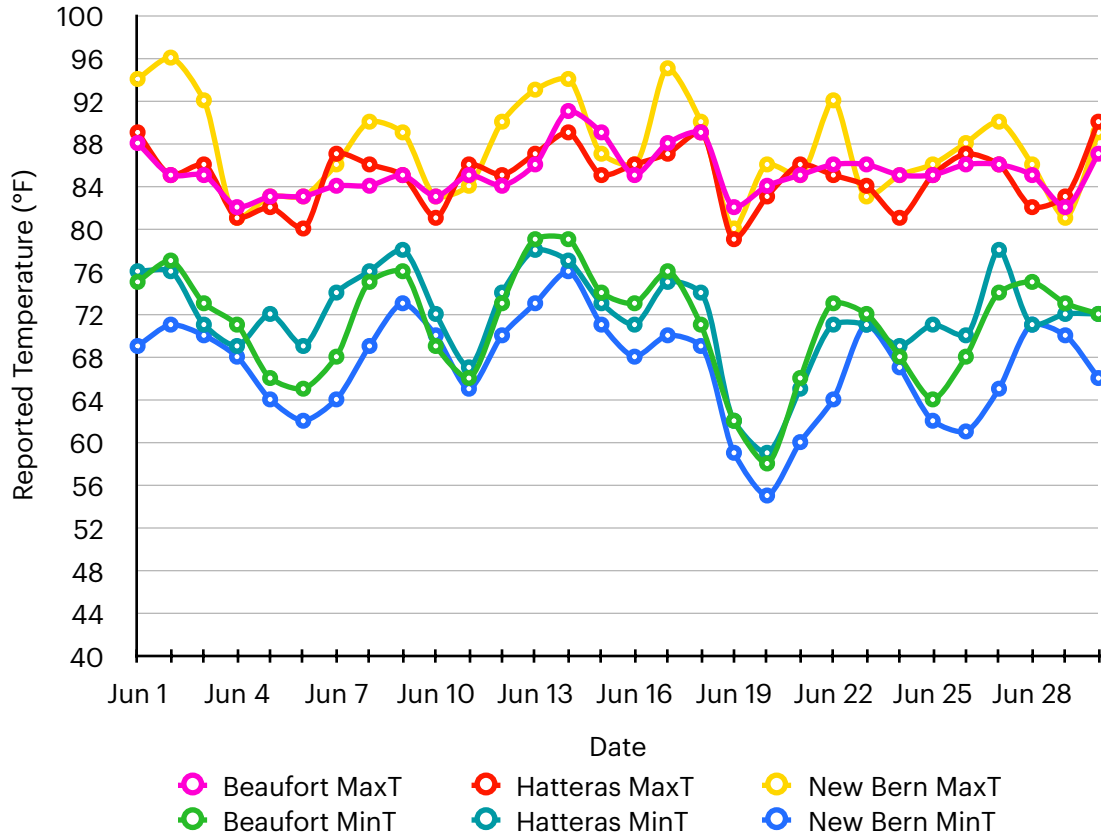
County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Temperature (°F)	Mean (°F)	Departure (°F)	Rank
Beaufort	76.4	75.5	0.9	52 W
Carteret	76.4	75.9	0.5	64 W
Craven	76.3	75.3	1	51 W
Dare	75.8	74.9	0.9	48 W
Duplin	76.9	75.4	1.5	27 W
Greene	76.7	75.5	1.2	44 W
Hyde	76.4	75.7	0.7	61 W
Jones	76.1	75.1	1	47 W
Lenoir	76.7	75.4	1.3	42 W
Martin	76.0	74.8	1.2	40 W
Onslow	76.4	75.4	1	45 W
Pamlico	76.5	76.0	0.5	60 C
Pitt	76.3	75.4	0.9	52 W
Tyrrell	75.8	75.0	0.8	55 W
Washington	75.7	74.8	0.9	55 W
Area Average	76.3	75.3	1.0	

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

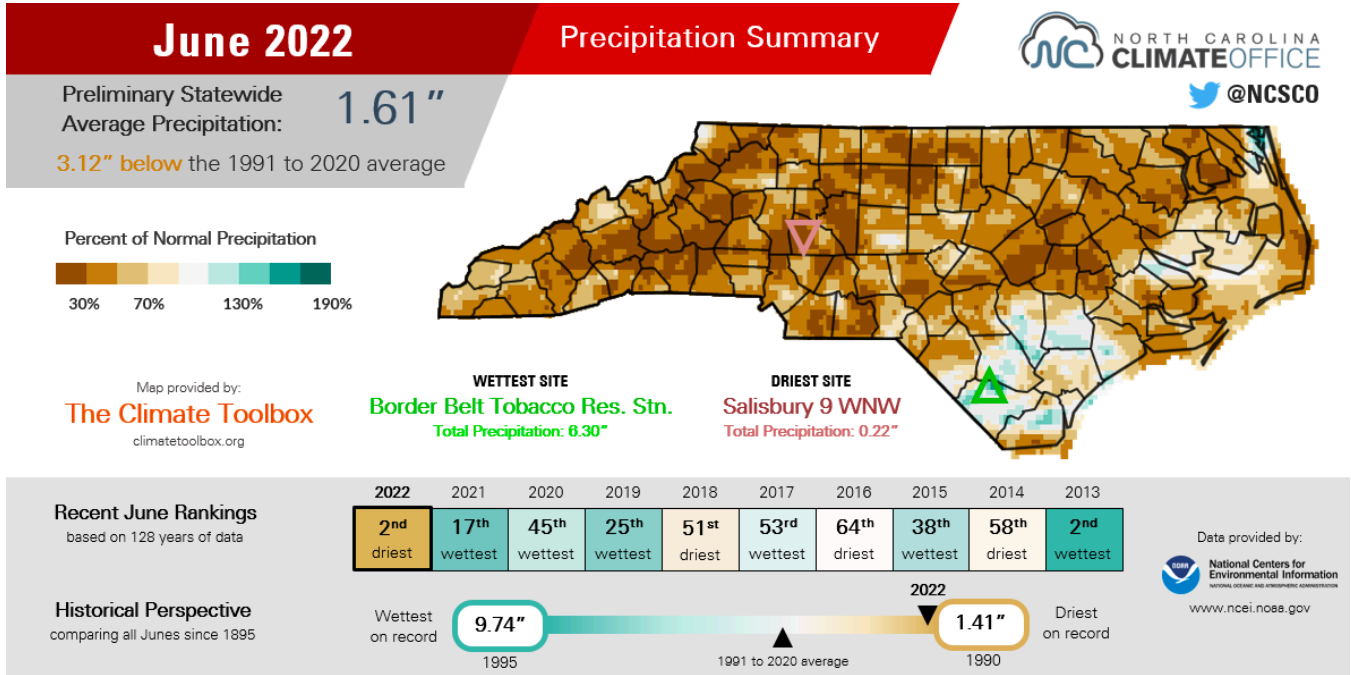
Area-wide, temperatures were around 1 degree above average, with the cooler spots generally around the Albemarle-Pamlico Peninsula. Of note was a pronounced cool spell on June 20th as an unseasonably dry airmass worked its way across the Carolinas. **New Bern** set a record low of 55 degrees that day - the average last date that temperature is observed as a low is June 1st.

Daily Maximum and Minimum Temperatures



PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation was a dismal 1.61" for June or about 3.12" inches below average. This ended up being the **second driest June** for the state since records began in 1895.



June 2022 Precipitation Summary from the NC State Climate Office

In general, eastern North Carolina was marginally wetter than the rest of the state but the spread of reports was considerable, owing to localized convective development. Areas around the Pamlico and Pungo Rivers, and more-so Onslow and Duplin County saw the most rainfall.

MHX Select Site Precipitation Statistics: June 2022

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	1.96	4.06	-2.1
Hatteras (KHSE)	2.15	4.41	-2.26
New Bern (KEWN)	2.23	4.60	-2.37

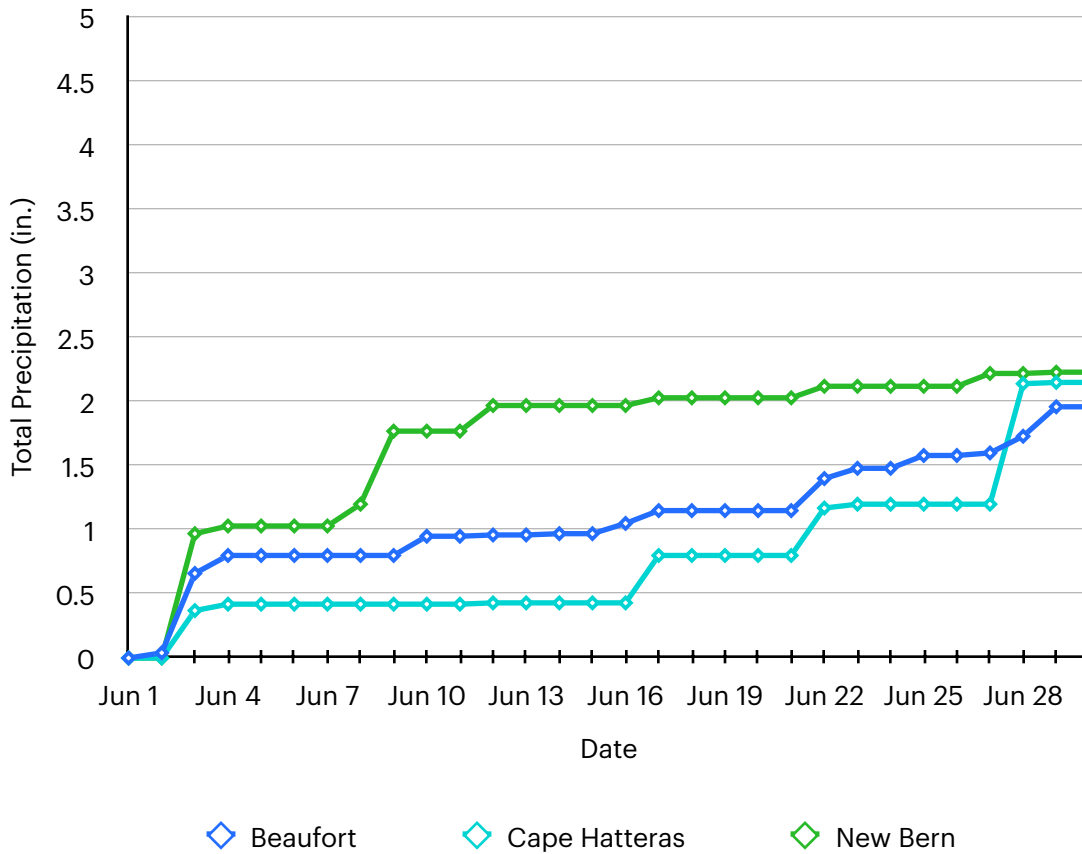
County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	2.14	5.03	-2.89	8 D
Carteret	1.87	4.91	-3.04	5 D
Craven	1.92	5.13	-3.21	6 D
Dare	2.32	4.65	-2.33	15 D
Duplin	2.32	5.04	-2.72	7 D
Greene	1.43	4.81	-3.38	5 D
Hyde	2.43	4.83	-2.4	15 D
Jones	2.10	5.21	-3.11	8 D
Lenoir	1.62	5.02	-3.4	6 D
Martin	2.09	4.83	-2.74	6 D
Onslow	2.78	5.30	-2.52	12 D
Pamlico	1.84	5.03	-3.19	6 D
Pitt	1.76	4.93	-3.17	6 D
Tyrrell	2.21	4.76	-2.55	8 D
Washington	2.22	4.86	-2.64	9 D
Area Average	2.07	4.96	-2.89	

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

The most rainfall across the entire area fell on June 3rd ahead of a passing cold front which eventually stalled just off the coast. Most areas picked up a minimum of a half to three quarters inch although accumulations of 3+ inches were reported across southern Duplin and southern Onslow counties. Otherwise, locales were highly dependent on convective development and coverage.

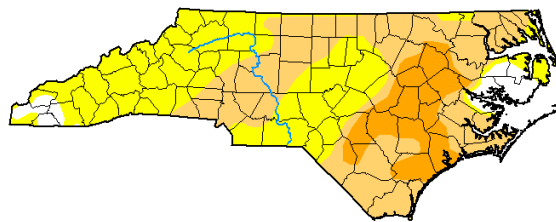
Monthly Accumulated Precipitation



Drought conditions worsened across much of the state, although the smallest changes were across eastern North Carolina. Drought conditions returned to all but the Albemarle-Pamlico Peninsula, and Severe Drought expanded slightly across the coastal plain. Seasonal drought outlooks call for drought improvement and/or removal for much of the area through September.

U.S. Drought Monitor North Carolina

July 5, 2022
(Released Thursday, Jul. 7, 2022)
Valid 8 a.m. EDT



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 <http://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=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: June 2022

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	88.0	66.3	77.2	77.3	-0.2
Kinston	89.0	66.6	77.8	77.7	0.1
Williamston	86.9	65.8	76.4	76.3	0.1
Plymouth	81.0	60.4	70.7	69.1	1.6
Bayboro	85.9	63.1	74.5	75.7	-1.2
Manteo	83.2	68.5	75.9	75.5	0.4

Normals are based on a period from 1990-2020.

Maximum and Minimum Monthly Temperatures: June 2022

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	91	Jun 14	58	Jun 20
Hatteras (KHSE)	90	Jun 30	59	Jun 20
New Bern (KEWN)	96	Jun 2	55	Jun 20
Greenville	99	Jun 17	54	Jun 20
Kinston	98	Jun 18	53	Jun 20
Williamston	96	Jun 18	54	Jun 20
Plymouth	94	Jun 2, Jun 18	52	Jun 20
Bayboro	95	Jun 18	50	Jun 20
Manteo	95	Jun 18	52	Jun 20-22, Jun 25

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: June 2022

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Bayboro	1.64	5.40	-3.76
Greenville	1.73	4.36	-2.63
Kinston	1.55	5.53	-3.98
Plymouth	2.60	5.42	-2.82
Williamston	2.58	5.13	-2.55

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: June 2022

Site	County	Amount (in.)
Bath 6.6 ESE	Beaufort	5.73
Bath 1.6 SSE	Beaufort	5.50
Pantego 0.4 WSW	Beaufort	4.63
Harkers Island 3.2 NE	Carteret	3.32
Beaufort 15.1 N	Carteret	3.11
Beaufort 5.3 N	Carteret	2.55
Swansboro 3.7 NNE	Carteret	2.32
Pine Knoll Shores 1.4 E	Carteret	2.21
Pine Knoll Shores 0.3 NE	Carteret	2.14
Morehead City 0.6 NW	Carteret	2.04
Beaufort 3.8 N	Carteret	2.03

Site	County	Amount (in.)
Morehead City 5.7 W	Carteret	2.00
Beaufort 0.5 W	Carteret	1.99
Beaufort 3.4 NNW	Carteret	1.99
Atlantic Beach 0.6 W	Carteret	1.88
Newport 1.7 SSE	Carteret	1.86
Swansboro 2.7 NE	Carteret	1.84
Cedar Point 0.4 WSW	Carteret	1.80
Newport 10.3 SW	Carteret	1.70
Morehead City 2.9 WNW	Carteret	1.65
Cape Carteret 1.0 NNW	Carteret	1.61
Cedar Point 0.9 WSW	Carteret	1.56
Indian Beach 0.0 W	Carteret	1.48
Newport 0.2 SW	Carteret	1.43
Cedar Island 0.3 SSE	Carteret	1.38
Morehead City 6.0 WNW	Carteret	1.37
Newport 1.0 N	Carteret	1.33
Trent Woods 1.2 ENE	Craven	2.92
New Bern 5.3 SW	Craven	2.39
New Bern 4.2 S	Craven	2.32
Trent Woods 0.9 WNW	Craven	2.28
New Bern 3.8 S	Craven	2.12
Trent Woods 1.3 SSE	Craven	1.86
New Bern 1.3 NNE	Craven	1.37

Site	County	Amount (in.)
Manteo 2.8 NW	Dare	2.58
Rodanthe 1.0 SSE	Dare	2.22
Buxton 0.3 ENE	Dare	2.17
Southern Shores 0.5 NNE	Dare	1.72
Wallace 14.8 E	Duplin	7.42
Rose Hill 0.1 NNW	Duplin	6.71
Mount Olive 2.4 SW	Duplin	3.57
Albertson 1.2 WNW	Duplin	3.08
Mount Olive 6.0 SE	Duplin	1.47
Ayden 6.5 WNW	Greene	1.85
SQ Tower	Hyde	5.66
Kinston 5.1 WNW	Lenoir	2.20
Kinston 3.7 WNW	Lenoir	2.19
Kinston 7.0 SW	Lenoir	1.96
Kinston 1.2 NW	Lenoir	1.71
Kinston 4.4 WNW	Lenoir	1.36
Jamesville 6.1 SW	Martin	1.63
Williamston 8.9 SSE	Martin	0.65
Holly Ridge 9.0 ENE	Onslow	8.25
Jacksonville 5.4 WSW	Onslow	7.95
Sneads Ferry 1.2 SSW	Onslow	6.67
Jacksonville 1.0 NW	Onslow	4.76
Sneads Ferry 3.3 SW	Onslow	4.70

Site	County	Amount (in.)
Swansboro 3.3 NW	Onslow	2.54
Swansboro 2.8 WSW	Onslow	1.99
Hubert 4.9 SE	Onslow	1.95
Oriental 4.3 NNW	Pamlico	2.72
Merritt 1.5 WSW	Pamlico	2.57
Lowland 0.2 SE	Pamlico	1.88
Greenville 5.0 SE	Pitt	3.24
Greenville 2.0 SE	Pitt	2.94
Winterville 3.5 W	Pitt	2.42
Greenville 2.8 ESE	Pitt	2.40
Winterville 2.8 WNW	Pitt	2.26
Greenville 4.6 W	Pitt	1.95
Fountain 0.1 NE	Pitt	1.33
Columbia 0.8 NNE	Tyrrell	2.91
Roper 2.4 NE	Washington	3.45

CoCoRaHS inclusion in this table is based on a complete 30-day liquid precipitation record. Thank you to all observers!