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EASTERN NORTH CAROLINA MONTHLY CLIMATE REPORT

JANUARY 2024

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

National Weather Service

NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

Eastern North Carolina ran on the warm and drier side to kick off the new year, in stark contrast with the state as a whole. Temperatures across eastern NC generally ran about 2-3 degrees above average, much of that driven by a surge of warmth at month's end as multiple spots climbed into the 80s and New Bern tied a record high. Wallace was the warmest location in the state, reaching a high of 84°F on January 26th. The area's average temperature for January was 46.1°F.

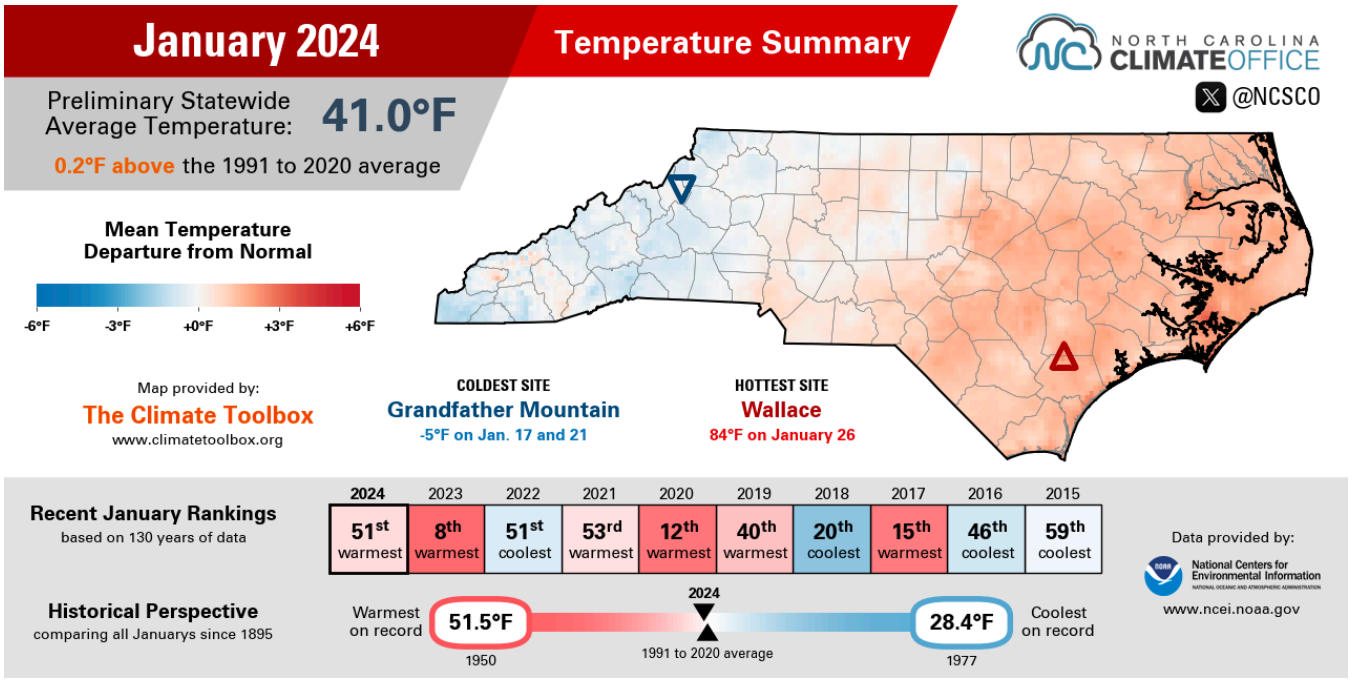
The biggest event of the month was a powerful cold front that blasted across eastern NC on January 9th and 10th, the same feature responsible for record-breaking cold across the central and northern Plains. The front brought severe weather, spawning three tornadoes and significant wind gusts, including a few over 100 mph. The storm also brought widespread rainfall of over an inch to the area. January ended up on the dry side, with precipitation amounts sitting at around 50-75% of normal. Despite this, our area remained largely drought-free, with abnormal dryness confined to the Northern Outer Banks and mainland Dare County.

For a summary of the January storm, please see our event review at: https://www.weather.gov/mhx/JanuaryWindSevere2024

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

TEMPERATURES

Temperatures across North Carolina began 2024 near average statewide. The average temperature for the month was 41.0°F, or a mere 0.2°F above the 1991-2020 average. This was the 51st warmest January since records began in 1895, with 130 years of data.



January 2024 Temperature Summary | Source: NC State Climate Office

Across Eastern North Carolina, temperatures were well above the statewide average and nearly 3 degrees above the 20th-century average. Since their respective records began, January 2024 was the 27th warmest at New Bern and the 38th warmest at Cape Hatteras. Additional observations can be found in Appendix A.

MHX Select Site Temperature Statistics: January 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	58.8	40.6	49.7	46.2	*3.5*
Hatteras (KHSE)	55.3	41.7	48.5	48.0	*0.5*

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	58.5	35.3	46.9	44.5	*2.4*

Normals are based on a period from 1990-2020.

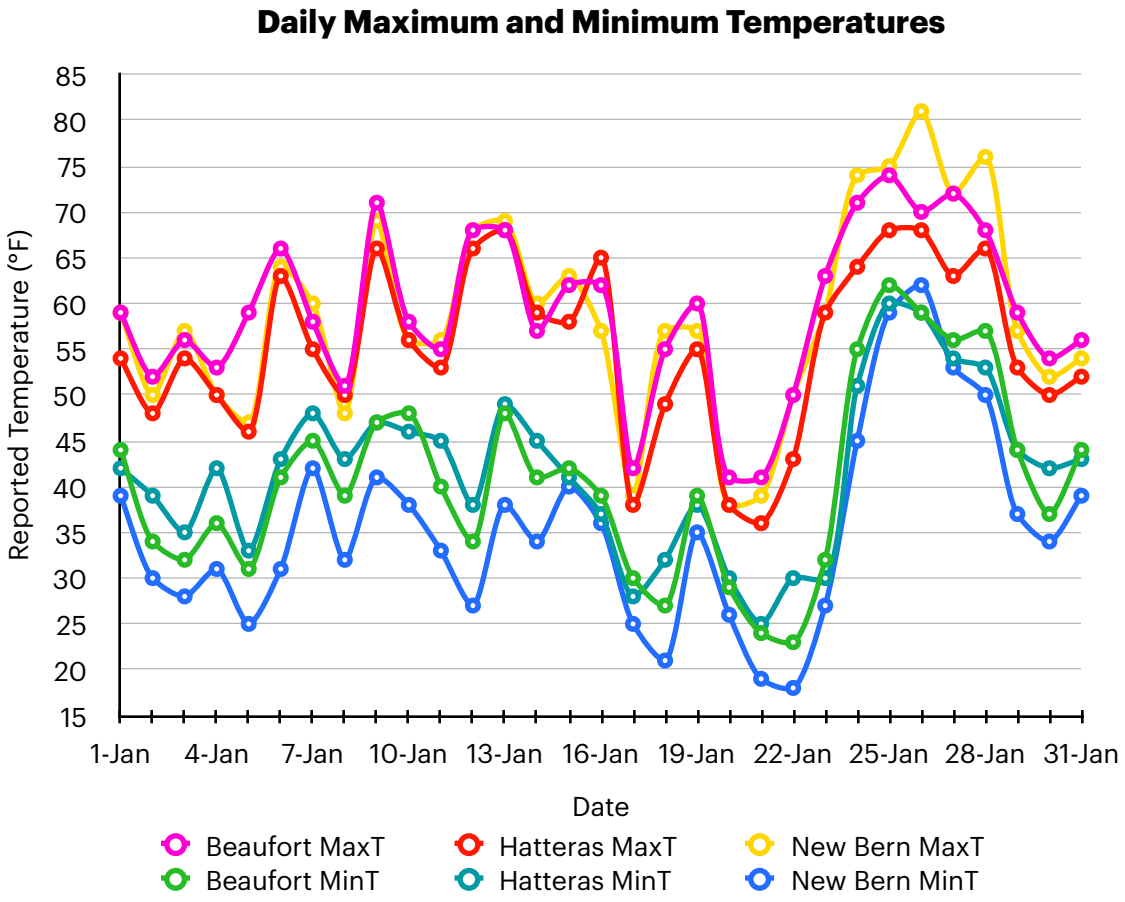
County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Temperature (°F)	Mean (°F)	Departure (°F)	Rank
Beaufort	46.1	43.1	**3.0**	34 W
Carteret	47.6	45.3	**2.3**	37 W
Craven	46.6	43.7	**2.9**	33 W
Dare	46.3	43.5	**2.8**	33 W
Duplin	45.5	43.3	**2.2**	38 W
Greene	45.0	42.0	**3.0**	33 W
Hyde	46.7	44.1	**2.6**	34 W
Jones	46.4	43.4	**3.0**	33 W
Lenoir	45.6	42.6	**3.0**	34 W
Martin	44.8	41.3	**3.5**	30 W
Onslow	47.1	44.4	**2.7**	35 W
Pamlico	46.8	44.5	**2.3**	37 W
Pitt	45.3	42.0	**3.3**	30 W
Tyrrell	45.8	42.7	**3.1**	33 W
Washington	45.2	41.9	**3.3**	32 W
Area Average	**46.1**	**43.2**	**2.9**	

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

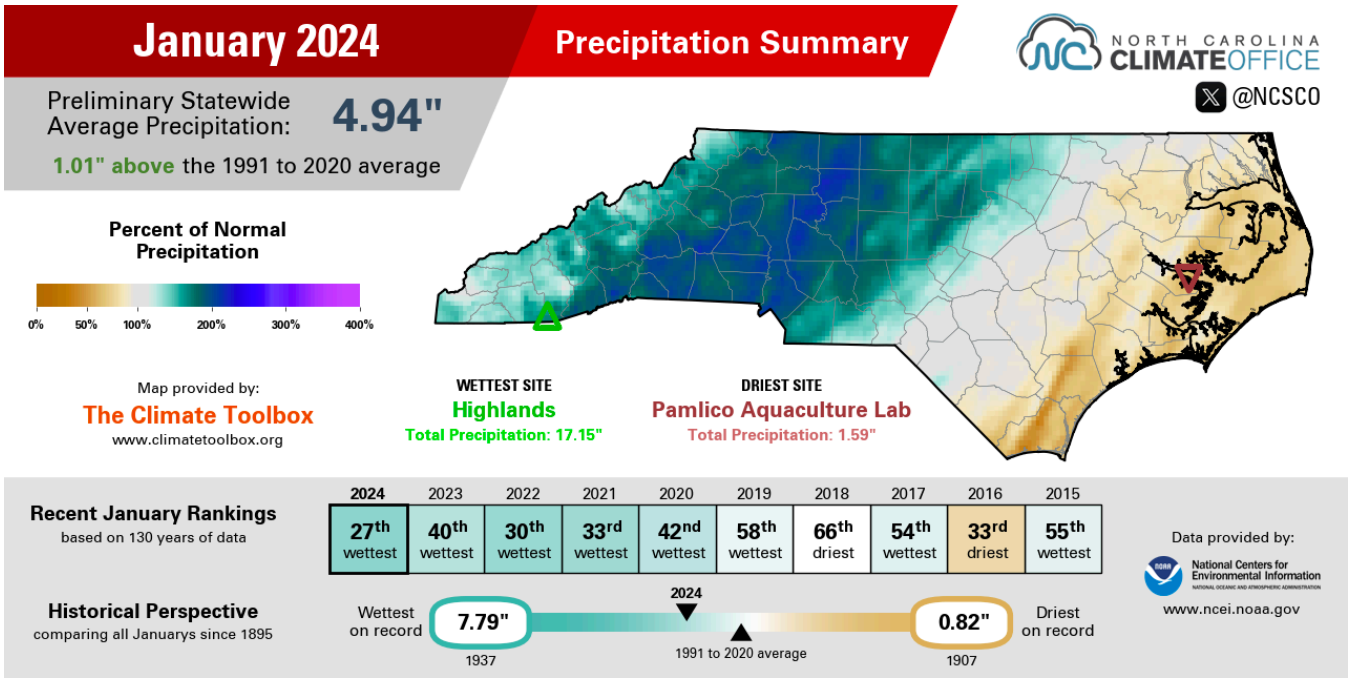
Temperatures in January saw sizable day-to-day swings for the first two-thirds of the month but generally hovered around average. Temperatures in mid-January fell modestly as the Carolinas sat on the edge of a record-breaking cold air outbreak that gripped much of the central and northern Plains. The end of January saw strong mid-level ridging, leading to well-above-average temperatures (6-9°F) per analysis from the National Centers for Environmental Information (NCEI). **New Bern** hit 81°F on Jan 26th, tying the old record set in 1950.

Wallace in Duplin County was the warmest location in the state, recording a high of 84°F on Jan 26th.



PRECIPITATION

Analysis conducted by the North Carolina State Climate Office showed a split in precipitation regimes across the state in January. Statewide, precipitation averaged 4.94", or 1.61" above the 30-year average. This was the 27th wettest January for the state since records began in 1895.



January 2024 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina was considerably drier than the rest of North Carolina. New Bern recorded its 24th driest January, while Cape Hatteras recorded its 23rd driest. The **Pamlico Aquaculture Lab** was the driest spot in the state, only recording 1.59" of rainfall.

MHX Select Site Precipitation Statistics: January 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	2.84	4.17	*-1.33*
Hatteras (KHSE)	2.27	4.91	*-2.64*
New Bern (KEWN)	2.47	3.89	*-1.42*

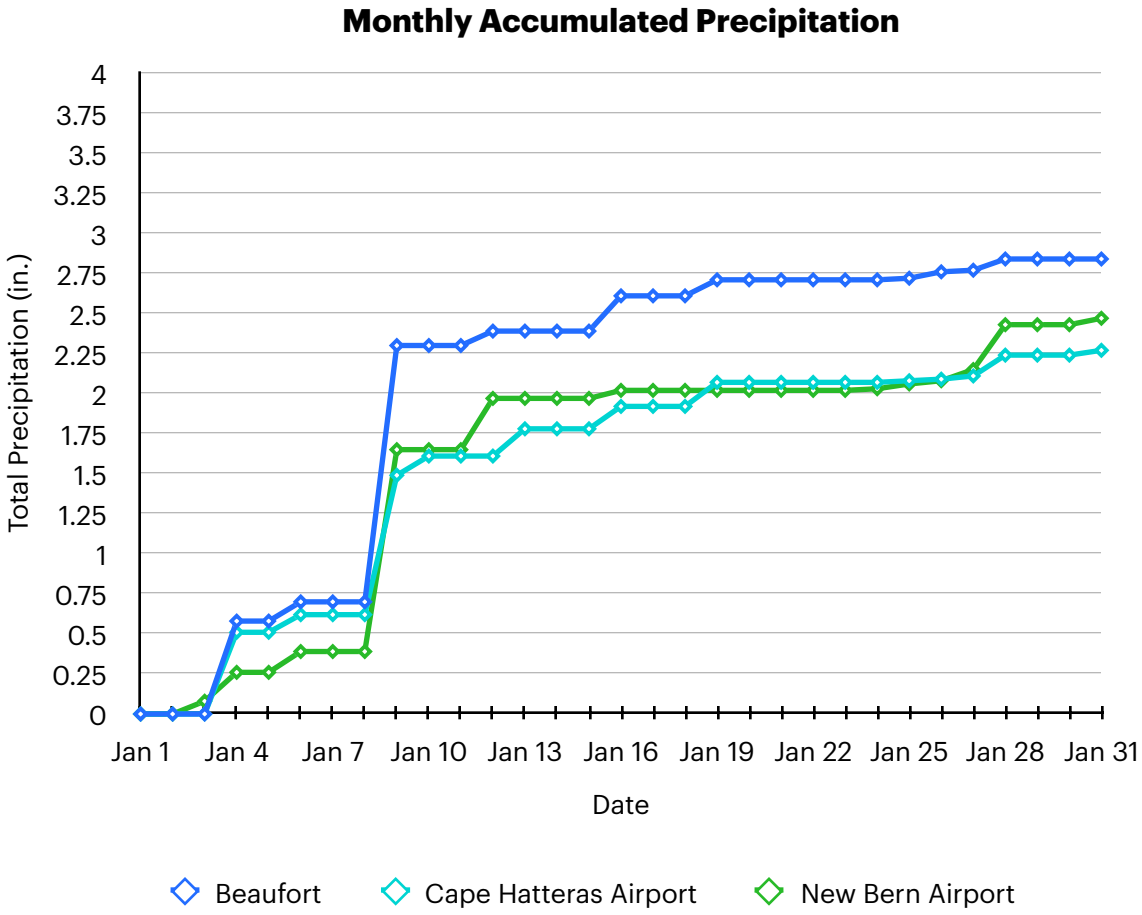
County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	2.78	3.89	**-1.11**	37 D
Carteret	2.66	4.13	**-1.47**	35 D
Craven	2.59	3.92	**-1.33**	32 D
Dare	2.95	4.03	**-1.08**	40 D
Duplin	2.62	3.74	**-1.12**	36 D
Greene	2.90	3.73	**-0.83**	46 D
Hyde	2.99	4.00	**-1.01**	42 D
Jones	2.53	3.89	**-1.36**	33 D
Lenoir	2.73	3.77	**-1.04**	37 D
Martin	2.83	3.76	**-0.93**	39 D
Onslow	2.41	3.92	**-1.51**	27 D
Pamlico	2.65	4.00	**-1.35**	34 D
Pitt	2.83	3.77	**-0.94**	41 D
Tyrrell	3.40	4.01	**-0.61**	56 D
Washington	3.40	3.94	**-0.54**	55 D
Area Average	**2.82**	**3.90**	**-1.08**	

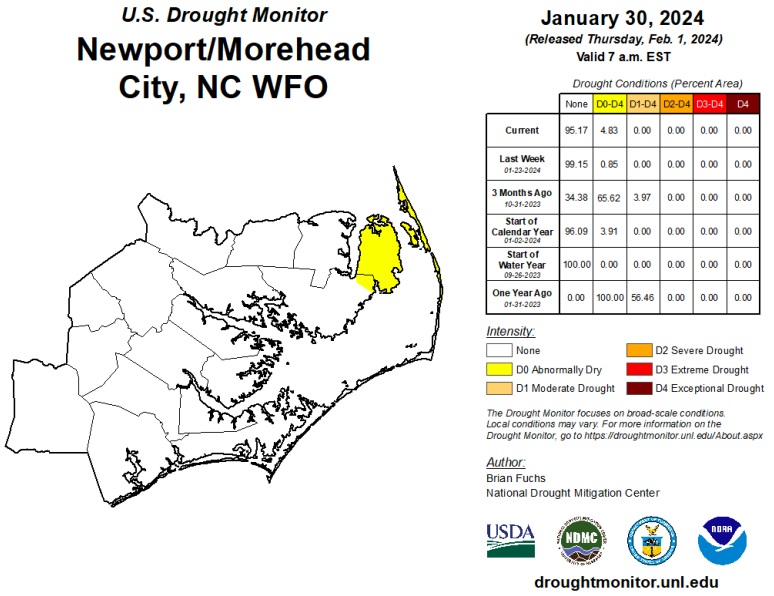
Means are based on a period from 1901-2000. For rankings, “W” designates wettest and “D” designates driest.

The bulk of January’s precipitation fell on January 9th as a powerful coastal low lifted across the Carolinas and into New England, bringing a widespread 1-1.5” of rain to the area. Behind this storm, rainfall was hard to come by. At **New Bern,** the wettest day after the 1.26” that fell on the 9th (breaking the daily record of 1.13” set in 1964) was a mere 0.32” on the 12th. The city saw 15 days of measurable precipitation, but only 5 of those

days saw precipitation totals exceeding 0.10”. Overall, precipitation across eastern North Carolina was below average - between 50-75% of normal.



Despite the death of rainfall, drought conditions changed little across eastern NC in January. Analysis conducted the final week of January showed only abnormally dry conditions across the northern Outer Banks and mainland Dare County.



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=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: January 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	56.4	35.1	45.8	43.1	*2.7*
Kinston	56.9	33.8	45.4	45.7	*-0.4*
Williamston	54.9	34.2	44.6	42.5	*2.1*
Plymouth	57.2	35.4	46.3	43.8	*2.5*
Bayboro	58.8	35.4	47.1	44.6	*2.5*
Manteo	55.0	37.4	46.2	43.1	*3.1*

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

Maximum and Minimum Monthly Temperatures: January 2024

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	74	Jan 25	23	Jan 22
Hatteras (KHSE)	68	Jan 13, 25-26	25	Jan 21
New Bern (KEWN)	81	Jan 26	18	Jan 22
Greenville	78	Jan 26	20	Jan 21-22
Kinston	80	Jan 27	18	Jan 21
Williamston	72	Jan 25	19	Jan 21
Plymouth	78	Jan 26	18	Jan 21-22
Bayboro	78	Jan 27	23	Jan 22-23
Manteo	66	Jan 27, 30	21	Jan 17

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: January 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Greenville	3.11	3.91	*-0.8*
Kinston	2.67	3.74	*-1.07*
Williamston	2.84	3.69	*-0.85*
Plymouth	4.11	3.95	*0.16*
Bayboro	2.62	4.01	*-1.39*

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: January 2024

Site	County	Amount (in.)
Pantego 0.4 WSW	Beaufort	1.48
Pine Knoll Shores 1.4 E	Carteret	3.64
Pine Knoll Shores 0.3 NE	Carteret	3.57
Morehead City 2.9 WNW	Carteret	3.38
Beaufort 3.8 N	Carteret	3.23
Beaufort 12.1 N	Carteret	3.20
Beaufort 0.5 W	Carteret	3.12
Beaufort 5.3 N	Carteret	3.09
Swansboro 3.7 NNE	Carteret	2.76
Morehead City 0.6 NW	Carteret	2.72
Cape Carteret 1.5 NE	Carteret	2.20

Site	County	Amount (in.)
Newport 2.3 SE	Carteret	2.12
Cedar Point 0.7 NNE	Carteret	2.07
Cape Carteret 1.0 NNW	Carteret	2.01
Newport 2.5 W	Carteret	1.95
Cape Carteret 0.8 NE	Carteret	1.95
Newport 1.0 N	Carteret	1.79
Cedar Island 0.3 SSE	Carteret	1.26
Trent Woods 1.3 SSE	Craven	2.68
New Bern 3.8 S	Craven	2.65
Trent Woods 1.0 NNE	Craven	2.51
Trent Woods 0.9 WNW	Craven	2.49
New Bern 1.3 NNE	Craven	2.16
Brice Creek 0.9 WNW	Craven	2.16
Trent Woods 1.2 ENE	Craven	2.02
Bridgeton 0.3 SSE	Craven	1.86
New Bern 5.2 SE	Craven	1.75
Rodanthe 1.0 SSE	Dare	2.90
Southern Shores 1.9 NNW	Dare	2.73
Southern Shores 0.5 NNE	Dare	2.46
Manteo 2.8 NW	Dare	2.25
Rose Hill 0.1 NNW	Duplin	2.94
Englehard 0.8 NW	Hyde	2.40
Ocracoke 0.6 SW	Hyde	2.17

Site	County	Amount (in.)
Kinston 4.4 WNW	Lenoir	3.05
Kinston 5.1 WNW	Lenoir	2.90
Kinston 7.0 SW	Lenoir	2.69
Pink Hill 2.5 NE	Lenoir	2.39
Kinston 1.2 NW	Lenoir	2.00
Williamston 8.9 SSE	Martin	3.46
Jamesville 6.1 SW	Martin	2.77
Hubert 4.9 SE	Onslow	2.58
Swansboro 2.8 WSW	Onslow	2.57
Holly Ridge 9.0 ENE	Onslow	2.56
Jacksonville 1.0 NW	Onslow	2.54
Sneads Ferry 1.2 SSW	Onslow	1.56
Merritt 1.5 WSW	Pamlico	2.39
Oriental 2.1 WSW	Pamlico	2.36
Oriental 1.9 WSW	Pamlico	2.26
Oriental 4.3 NNW	Pamlico	2.17
Lowland 0.2 SE	Pamlico	2.07
Fountain 0.1 NE	Pitt	2.71
Winterville 3.5 W	Pitt	2.52
Greenville 7.1 SSE	Pitt	2.51
Greenville 5.0 SE	Pitt	2.03
Greenville 2.8 ESE	Pitt	1.98

Site	County	Amount (in.)
Columbia 0.8 NNE	Tyrell	2.26

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