



COVER CLIMATE

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Climate Uncovered: Media Fail to Connect Hurricane Florence to Climate Change

One of the clearest and most devastating impacts of climate change has been the intensification of the harm from hurricanes like Florence—and Harvey before it.

Four days before Hurricane Florence made landfall in North Carolina, evacuation orders for 1 million people were ordered, and coastal communities from South Carolina to Maryland began to brace for a storm that forecasters were warning would be “[life-threatening](#)” with the potential of “[catastrophic](#)” flooding—“[a storm of a lifetime.](#)”

But even as forecasters and the media used the most demonstrative terms to describe the storm, not mincing words about its force and potential consequences, most failed to name one of the underlying causes—the only one over which humans some control: climate change.

From September 9 through September 16, only 7.5 percent of pieces in the top 50 newspapers that discussed Hurricane Florence mentioned climate change. Only 4.3 percent of major broadcast segments on the storm mentioned it.

The storm, which rapidly intensified from a Category 1 to a Category 4, was expected to stall for as many as six days near the U.S. coastline, bringing potentially deadly storm surges and extreme precipitation to North Carolina and South Carolina, similar to when Hurricane Harvey dumped climate-fueled historic rainfall on Texas. This projected stalling is consistent with a trend that scientists now attribute to the impact of climate change on steering patterns in the jet stream.

Also [contributing to danger](#) from the storm were higher sea levels, which worsen storm surge, unusually warm air, which increases rainfall, and unusually warm seas, which contribute to storm intensity.

How Did Climate Change Contribute to the Damage from Hurricane Florence

Attribution studies of the impact of climate change on Hurricane Harvey were not completed until months after the floodwaters had receded. In the case of Florence, journalists and news outlets received the first information about attribution before the storm even made landfall.

On September 12, a day before Florence reached the coast, the Climate Extremes Modeling Group at Stony Brook University released the first study to assess “[how much human induced climate change has altered the anticipated rainfall, intensity and size of the storm.](#)” The group found that because of the human interference in the climate system, rainfall would be increased by over 50 percent in the heaviest-precipitating parts of the storm, the storm would remain at higher intensity for longer, and the storm would be approximately 80 km larger in diameter at landfall.

The release of this study appears to have had little to no impact on reporting, aside from a small handful of reports of the study itself:¹ From September 9 to 12, when the study was released, only 8 percent of pieces on Florence in the top 50 newspapers mentioned climate change. After the study was released, the rate of climate mentions dropped to 7.3 percent for the remainder of the period analyzed, through September 16.

On September 14, the National Hurricane Center downgraded Florence from a hurricane to a tropical storm. The unprecedented storm claimed at least 32 lives and wrought inland flooding, power outages and potential mudslides that will keep the region in a state of emergency for days to come. This is what climate chaos looks like.

The U.S. Media Failed to Communicate the Role of Climate Change in Hurricane Florence

In light of this tragedy and destruction, and its relationship to human-caused climate change, the media have an obligation to draw the connection explicitly so that the public learns why hurricanes are growing more damaging and how we can fix the problem. Outlets should report on the contributing factors and consult and quote climate experts to help communicate about the problem and solutions.

This review demonstrates that too few outlets are meeting this obligation. Collectively, the top 50 U.S. newspapers by circulation ran 861 pieces mentioning Florence from September 9 through September 16, and only 65 (7.5 percent) also mentioned climate change or global warming. *The New York Times* was the leader in absolute numbers, with 15 pieces connecting the two topics in the eight-day period. Notably, 19 of the papers failed to mention climate change at all when reporting on Hurricane Florence. Three did not report on Florence at all. For the full numbers, see Table 1 below.

Table 1: Number and rate of climate mentions in pieces on Hurricane Florence in the top 50 newspapers, alphabetically by newspaper

Newspaper	Number of Pieces Mentioning Climate	Total Pieces Mentioning Florence	Percent (%)
The Arizona Republic	0	19	0.00%
Arkansas Democrat-Gazette	1	30	3.30%
Atlanta Journal-Constitution	0	28	0.00%
The Baltimore Sun	1	25	4.00%
The Boston Globe	1	21	4.80%
The Buffalo News	1	15	6.70%
Chicago Sun-Times	2	10	20.00%
Chicago Tribune	0	34	0.00%

¹ John Schwartz & Richard Fausset, “North Carolina Chose To Ignore Storm Data As Coastal Areas Grew,” *The New York Times*, Sept. 13, 2018; Jessica Schladebeck & Kate Feldman, “Slow-mo Monster: Thousands Flee as Florence Hits N.C. at Just 5 mph, Massive Floods Feared,” *New York Daily News*, Sept. 14, 2018; Michael Dobie, “We’re All Taking a Direct Hit and Not All of Us Are Responding to Record Temps, Fires out West and Now Florence,” *Newsday*, Sept. 16, 2018.

The Enquirer (Cincinnati)	1	12	8.30%
The Plain Dealer	1	5	20.00%
The Columbus Dispatch	0	3	0.00%
Dallas Morning News	1	7	14.30%
The Denver Post	1	12	8.30%
Detroit Free Press	0	2	0.00%
East Bay Times	0	0	*
Honolulu Star-Advertiser	1	4	25.00%
Houston Chronicle	3	44	6.80%
Indianapolis Star	1	18	5.60%
Kansas City Star	0	3	0.00%
Las Vegas Review-Journal	0	2	0.00%
Los Angeles Times	3	25	12.00%
The Mercury News	0	0	*
Miami Herald	0	21	0.00%
Milwaukee Journal Sentinel	0	4	0.00%
Daily News (New York)	1	11	9.10%
New York Post	0	17	0.00%
The New York Times	15	75	20.00%
Newsday	2	25	8.00%
The Oklahoman	0	9	0.00%
Omaha World-Herald	0	1	0.00%
The Orange County Register	0	0	*
The Oregonian	0	3	0.00%
Orlando Sentinel	0	37	0.00%
Philadelphia Inquirer	6	32	18.80%
Pittsburgh Post-Gazette	1	12	8.30%
The Sacramento Bee	1	2	50.00%
The San Diego Union-Tribune	3	20	15.00%
San Francisco Chronicle	1	8	12.50%
The Seattle Times	0	4	0.00%
St. Louis Post-Dispatch	2	21	9.50%
St. Paul Pioneer Press	0	17	0.00%
Star Tribune	3	5	60.00%
The Star-Ledger	0	4	0.00%
Sun Sentinel	0	17	0.00%
Tampa Bay Times	3	34	8.80%
The Times Picayune	0	1	0.00%
USA Today	3	19	15.80%
The Virginian-Pilot	1	72	1.40%
The Wall Street Journal	1	22	4.50%

The Washington Post	4	49	8.20%
Totals	65	861	7.50%

Of 461 major broadcast transcripts from ABC, CBS, CNN, Fox News Network, MSNBC and NBC during this period, only 20 pieces (4.3 percent), also mentioned climate change. ABC is the sole network that failed to mention climate change at all in connection with Florence. All five of Fox News Network’s mentions of climate change were segments denying the relationship between the storm and climate change. In absolute terms, CNN was the best performing network with 10 segments connecting Florence and climate. See Table 2 below for more detail.

Table 2: Number and rate of climate mentions in pieces on Hurricane Florence in six major broadcast networks, alphabetically by network

Broadcast Network	Number of Pieces Mentioning Climate	Total Pieces Mentioning Florence	Percent (%)
ABC	0	7	0.00%
CBS	1	63	1.60%
CNN	10	243	4.10%
FOX	5	51	9.80%
MSNBC	3	24	12.50%
NBC	1	73	1.40%
Totals	20	461	4.30%

Conclusion

It is critical that the media provide context for extreme events like the unprecedented hurricane that spurred catastrophic flooding in the Carolinas and claimed at least 32 lives. When outlets fail to connect these events to global warming, audiences are left uninformed that climate change is already here, impacting millions of Americans, and will rapidly worsen if we don’t act quickly. And they are missing yet another opportunity for serious discussion about not the severity and urgency of the climate threat to the U.S., but also the existence of excellent, popular solutions.

Methodology

For this analysis, we used Westlaw and LexisNexis to search print newspapers for iterations of the terms “Florence” and “hurricane,” “tropical storm,” or “tropical depression,” then searched for those terms and either “climate change” or “global warming.” We examined the top 50 U.S. newspapers by circulation² and six major broadcast networks (ABC, CBS, CNN, Fox News Network, MSNBC and NBC) in Westlaw.

² The newspapers are: *The Arizona Republic*, *Arkansas Democrat-Gazette*, *Atlanta Journal-Constitution*, *The Baltimore Sun*, *The Boston Globe*, *The Buffalo News*, *Chicago Sun-Times*, *Chicago Tribune*, *The Enquirer (Cincinnati)*, *The Plain Dealer*, *The Columbus Dispatch*, *Dallas Morning News*, *The Denver Post*, *Detroit Free Press*, *East Bay Times*, *Honolulu Star-Advertiser*, *Houston Chronicle*, *Indianapolis Star*, *Kansas City Star*, *Las Vegas Review-Journal*, *Los Angeles Times*, *The Mercury News*, *Miami Herald*, *Milwaukee Journal Sentinel*, *Daily News (New York)*, *New York Post*, *The New York Times*, *Newsday*, *The Oklahoman*, *Omaha World-Herald*, *The Orange County Register*, *The Oregonian*, *Orlando Sentinel*, *Philadelphia Inquirer*,

We counted a piece as discussing Hurricane Florence or climate if it merely mentioned the relevant search terms. For the newspapers, we excluded obvious letters to the editors that had the word “letters” in the title. We also removed false positives from the tallies for broadcast transcripts. These occur when one of the search terms appears in the same transcript as “climate change” or “global warming,” but in a different, unrelated segment.

The period covered by this analysis is September 9 through September 16.

Pittsburgh Post-Gazette , The Sacramento Bee , The San Diego Union-Tribune , San Francisco Chronicle , The Seattle Times , St. Louis Post-Dispatch , St. Paul Pioneer Press , Star Tribune , The Star-Ledger , Sun Sentinel , Tampa Bay Times , The Times Picayune , USA Today , The Virginian-Pilot , The Wall Street Journal , The Washington Post.