

# Despite false claims, no technology exists to create massive hurricanes, experts say

BY MARY HELEN MOORE  
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You may have read the falsehoods spread on social media suggesting people, not nature, created Hurricane Helene.

Though people do have the means to encourage rainfall on a small scale, no technology exists that would allow anyone to create a hurricane, experts say.

That's because hurricanes require massive amounts of energy to form, explained Chip Konrad, a University of North Carolina professor whose research focuses on the science of extreme weather.

"They're very strong, and they occur over a very broad area, and there's just a tremendous amount of energy that's required to create them and also to maintain them," Konrad said.

Helene originated from a thunderstorm in the western Caribbean first observed on Sept. 23, according to NASA. Its first recorded coordinates are around 1,500 miles from North Carolina, and the National Hurricane Center tracked the storm continuously.

When Helene made landfall Sept. 26, tropical storm-force winds extended more than 300 miles from its center. That's approximately the distance from Raleigh to Cherokee.

The National Oceanic and Atmospheric Administration's research division says no weather modification technology could produce or steer such a storm.

"Hurricanes Helene and Milton, like all hurricanes, formed on their own due to the right conditions of sea surface temperature and upper atmospheric winds," NOAA spokesman Monica Allen said in an email.

It takes months of heat over spring and summer to warm the Atlantic Ocean and Gulf of Mexico enough to create powerful hurricanes, said Konrad, who also directs NOAA's Southeast Regional Climate Center.

"That energy gradually builds up, and that's what it requires to get a hurricane," he said. "Think about how big the oceans are. And it takes a long time in the natural world."

## CONSPIRACY THEORIES SPREAD AFTER HURRICANE HELENE

U.S. Rep. Marjorie Taylor Greene, a Republican from Georgia, has amplified conspiracy theories on social media that suggest the hurricanes that have hit the Southeast this year are tools of voter suppression ahead of the 2024 election.

"Yes they can control the weather. It's ridiculous for anyone to lie and say it can't be done," Greene wrote Oct. 3.

Democratic President Joe Biden dismissed the idea Oct. 9 as "beyond ridiculous."

Greene followed up Oct. 8 with a link to NOAA's records of attempts at weather modification. The agency has tracked 1,026 such attempts since 1972.

The most common reasons listed on the site are increasing rain and snowfall by cloud seeding, "usually for the purpose of increasing the local water supply," according to NOAA.

That's typically done out west, not in the less drought-prone Southeast, Konrad said, and could never produce rainfall on the scale brought by Helene.

"The thing about cloud seeding is it can only be effective at a local scale.

So, you could make it rain, maybe, a little bit more in one place, but you can't make it rain over a broad area," Konrad said.

Helene brought more than 10 inches of rain to much of Western North Carolina, but large areas saw 18 inches from the tropical storm and the rain that fell the two days before. The N.C. State Climate Office's highest measurement for Sept. 25 to Sept. 27 was more than 31 inches at Busick, in Yancey County.

The U.S. government did experiments decades ago that aimed to weaken hurricanes, not strengthen or create them, according to NOAA records.

In 1947, military scientists working with General Electric on Project Cirrus dumped crushed dry ice into a hurricane after it had passed over Florida into the Atlantic, according to NOAA. Instead of weakening, the storm

strengthened and veered into southern Georgia.

Experts were unsure if the swerve was caused by the scientists, but the public was outraged and the efforts were abandoned.

From 1962 to 1983, the government used silver iodide to weaken storms further from land under Project Stormfury. The results were inconclusive, according to an account published in the American Meteorological Society in 1985.

"Since then NOAA has done no weather modification," Allen said.

"The primary concern about altering weather is that you could make things worse, such as the case of using nuclear bombs on hurricanes — a common recommendation NOAA receives from the public."

*NC Reality Check is an NC&O series holding those in power accountable and shining a light on public issues that affect the Triangle or North Carolina. Have a suggestion for a future story? Email realitycheck@newsobserver.com*

## After Helene, Western NC NPR station did more than report news. It opened doors for others

BY MARY RAMSEY  
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Blue Ridge Public Radio has provided not just for its own staff — but for journalists from across North Carolina and the country — as reporters descended on Asheville after Helene's hit.

Western North Carolina's National Public Radio affiliate remains on the air amid ongoing power and water outages in Asheville, where the station is based. Staff are working extended shifts and have expanded the station's services since the storm hit to bring critical news to a wider audience.

The station also opened the doors to its downtown Asheville office to journalists from other news outlets who need a safe place and a stable internet connection to file their own stories about the devastation. Outside reporters, photographers and editors simply ring the building's doorbell, and they're greeted by BPR staff and ushered to whatever workspace is currently available.

"We're a little sub-community," said Laura Lee, BPR's news director. "... And like many communities, you sort of band together and open your doors in whatever ways you can."

### OPENING THE DOORS

The station ran on a generator initially when power went out, Lee said. But with a central location, the building got power and internet back relatively quickly. That was particularly beneficial to journalists traveling to the area still afflicted by hundreds of thousands of power outages.

"It just seemed to make sense to extend that benefit to other media," Lee said.

The open-door policy has brought in "a blend of familiar faces and new people," Lee said. Other local news organizations such as Asheville Watchdog have been frequent visitors, and other guests have included The Charlotte Observer and The New York Times.

The program is "a natural extension" of collegiality among North Carolina media, Lee said.

"This isn't to say we're

not competitive with each other — of course we are in some circumstances. But I think generally, there's just more of a collaborative spirit in journalism now," she said.

### HELENE NEWS

The first days after Helene hit were "pretty nerve-wracking," Lee said, as she and other leadership tried to track the staff's whereabouts. It took about 24 hours to reach one reporter, and almost 72 hours to make contact with another.

"We're feeling good now in terms of being able to account for each other every day and sort of working around some of the communication barriers that we had before," she said Tuesday.

Coverage has focused on the most vital information and updates across the station's typical 14-county coverage area and beyond. The station has regularly carried live updates from officials. For some still without power or internet access, the radio is their only source of news about where to get water, food and other essential aid.

"It just became apparent how valuable and how critical that was for people who were completely blocked off from other access to other information," Lee said.

The station also

launched a text-only version of its website at [text.bpr.org](http://text.bpr.org), making it easier for folks with slow or limited internet access to load articles. BPR also expanded its Spanish-language coverage.

### WHAT'S NEXT FOR BLUE RIDGE PUBLIC RADIO?

"It's really hard," Lee said, to know what comes next for BPR as the station and the community move out from the immediate aftermath of Helene.

"Even though we're not, you know, a day or two out of the storm, we are still without water. The vast majority of Asheville is still without power. So in some ways, it doesn't feel like we have hit a recovery place yet," Lee said.

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The Pigeon River damaged or destroyed the eastbound lanes of Interstate 40 in several places after the remnants of Hurricane Helene dropped historic amounts of rain on Western North Carolina. This photo was taken about four miles from the Tennessee line.

## Work begins to restore I-40 through the NC mountains, but timetable still uncertain

BY RICHARD STRADLING  
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The N.C. Department of Transportation has hired contractors to stabilize the surviving two lanes of Interstate 40 through the Pigeon River Gorge but says no decision has been made about what to do with them.

It also says there's still no timetable for reopening the highway that connects North Carolina with Tennessee.

The eastbound lanes of I-40 washed out in several places on both sides of the state line. During a visit to the gorge on Monday, Tennessee Gov. Bill Lee told reporters that work had begun to convert the westbound lanes to two-way traffic while long-term repairs are made.

"We'll have the road moving in another week or so," Lee said.

But NCDOT says the North Carolina side isn't ready. Contractors arrived Tuesday to begin a process called "soil nailing," essentially driving reinforced steel bars up to 20

feet long into the side of the gorge under the road to keep it from eroding further.

That work will take a few months, said NCDOT spokesman David Uchiyama. In the meantime, NCDOT and the Federal Highway Administration will determine the best use of the westbound lanes as plans for major repairs come together, Uchiyama said.

"This temporary shoring operation will save the remainder of westbound lanes in sections where eastbound lanes slid into the river gorge," he said.

"Around the time this operation concludes, plans for a larger complex and complete repair will be in progress."

The \$10 million shoring contract has incentives if the contractors — Wright Brothers Construction of Charleston, Tennessee, and Colorado-based GeoStabilization International — can finish the work by Jan. 4.

Engineers are still trying to figure out how to restore the land that once supported the eastbound lanes of I-40.

to spokesman Mark Nagi.

TDOT hopes to finish the conversion by the end of next week, though drivers won't be able to go beyond the North Carolina state line.

Speaking with reporters, Gov. Lee called the Pigeon River Gorge section of I-40 "incredibly important." More than 26,000 drivers a day normally use what is the busiest route between the two states.

Meanwhile, an alternate route, Interstate 26, remains closed after floodwaters knocked down twin spans that carried the highway over the Nolichucky River in Erwin, about 40 miles from the North Carolina line. Nagi says there's no timeline set for rebuilding the bridges and reopening the highway.

For now, NCDOT advises drivers wishing to go west toward Tennessee to take either I-77 north to I-81 near Wytheville, Virginia, toward Knoxville or take U.S. 74 west toward Chattanooga.

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