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What Made the Texas Floods So Devastating?

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At least five people died in their cars after flash floods in Houston on Monday



by **Simmons Shah**

REPORTER

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t least 90 people have died and more than a dozen are missing after devastating flash floods hit central Texas over the 4th of July weekend. Search and rescue

operations are still underway as more rain is expected to hit the battered region in the coming days.

A number of conditions came together to cause the deadly floods, experts say. “[The storm was] fueled by warm and moist air combined with the leftovers of Tropical Storm Baryl on very interesting geography,” says Slobodan Simonovic, professor emeritus at the

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What caused the flash floods?

The floods were triggered in part by the remnants of Tropical Storm Barry, which made landfall in Mexico at the end of last month.

“When you have a tropical cyclone, the system dies, but that system still puts lots of water vapor in the atmosphere,” says Aiguo Dai, professor of atmospheric and environmental sciences at the University of Albany, SUNY. “The moisture stays in the air and travels with the winds, and in this case, it looks like some of the water vapor from that remnant moved into [central] Texas.”

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It’s not uncommon for this to happen. Barry is the 20th tropical cyclone or remnant to cause over 15 inches of rain across interior Texas since 1913, according to the [National Weather Service](#). Last fall, the remnants of Hurricane Helene led to devastating floods across the Appalachian region. In 2021, flash floods from the remnants of Hurricane Ida killed dozens of people in four states.

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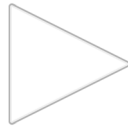
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Texas Hill Country, where much of the flooding took place this time, is often referred to as “flash flood alley.” It’s home to steep terrain and a lack of vegetation that creates a perfect storm for waters to rise quickly.

“In a mountainous, [sloping] terrain, the water can run very fast from the upper drainage area into a river basin and create a very fast rising river in a few hours,” says Dai.

“Downstream, people may not notice there’s an intense storm upstream.”

Many Question If Weather Service Was Operating at It...



How is climate change impacting flash floods?

Climate change will only make events like this more common. “The transformation of increased temperature into heavier and more [frequent] precipitation, it's very simple proof that with continuous warming we will be facing more and more events like this,” says Simonovic.

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Read more: [What We Know About the Victims of the Texas Flooding](#)

Tropical storms and hurricanes are only going to become more intense with climate change, as rising ocean temperatures intensifies evaporation, making the air wetter and leading to stronger and more destructive storms.

Simonovic says that it's imperative that we begin to acknowledge that the realities of climate change are already here—and better plan to adapt to it. “Things are changing, but also things changed. Losing 80 lives in Texas in the middle of 2025, it's really hard to accept. We have to be prepared, and prevent this from occurring more often.”