

**NARRATIVE
NONFICTION**
reads like fiction—
but it's all true

the EVIL SW

DARK

On May 22, 2011, a massive tornado struck the city of Joplin, Missouri. This is the story of two boys and a storm chaser who were caught in the tornado's deadly grip. BY LAUREN TARSHIS



**AS YOU READ,
THINK ABOUT:**

How did the tornado affect the people of Joplin?

The Joplin
tornado just
before it began
its attack on
the city

Whirling DANNESSES

It was Sunday, May 22, 2011. Before the day was over, much of the city of Joplin, Missouri, would be in ruins. One hundred fifty-eight people would be dead and more than one thousand injured.

But earlier that day, what Ethan and Bennett Satterlee were thinking about was a birthday party.



It was Bennett's 11th birthday, and both boys were excited for an afternoon pool party at their grandparents' house. That morning after church, their mom, Shannon, had baked Bennett's favorite vanilla cake. Bennett and seven-year-old Ethan had taken heaping spoonfuls of leftover vanilla icing into the yard, where they had devoured the sticky dessert with strawberries plucked from the family's garden. As

the brothers laughed under a hazy blue sky, neither had any idea that their city would soon be hit by one of the deadliest tornadoes in U.S. history.

Meanwhile, 230 miles away in Norman, Oklahoma, storm chaser Jeff Piotrowski was worried. For more than 35 years, Piotrowski had been studying supercell thunderstorms—violent storms that sometimes unleash tornadoes. Over the past few days, Piotrowski had been tracking an enormous storm system making its way east toward Kansas and Missouri. He could see that conditions were shaping up for dangerous tornadoes.

But exactly when would they strike? And where?

THE UNITED STATES OF TORNADOES

Tornadoes have struck everywhere on Earth except Antarctica. But the United States is by far the most tornado-prone country in the world. Every year, more than 1,000 tornadoes touch down in the U.S. In fact, tornadoes have been recorded in every state. The biggest tornadoes tend to occur in an area known as Tornado Alley (see map at right).



Tornado Mysteries

Today, meteorologists can predict many kinds of weather with incredible accuracy. They can tell you a week in advance whether your soccer game could be rained out or if you'll need snow boots for recess.

Tornadoes, however, remain stubbornly mysterious. They almost always form inside supercells. Yet only 20 percent of supercells produce tornadoes, and it's difficult to predict which storms will unleash twisters and which will fizzle out.

Once a tornado has formed within the **roiling** clouds of a supercell, it cannot be seen, even by the most powerful radar. Like secretive monsters coming to

life inside dark caves, tornadoes remain hidden until they roar out of the storm clouds to devour everything in their paths.

Piotrowski and other forecasters believed that a tornado was most likely going to strike in eastern Kansas, near the border with Missouri. By 11 a.m., Piotrowski and his wife, Kathryn, were in their Chevy Avalanche truck, hoping to catch up with the storm by late afternoon.

Some storm chasers are mainly after the thrill, racing after violent weather in hopes of capturing it in awesome videos that they will post on YouTube. Others, like Piotrowski, are working to **unravel** the secrets of tornadoes. These men and women often provide



early warnings that tornadoes are coming, which helps save lives.

While chasing storms over the years, Piotrowski has witnessed more than 850 tornado strikes. But he could not have imagined the horror that was about to strike in Joplin.

False Alarms

Like most people in Joplin, the Satterlees heard that severe thunderstorms were predicted for later that day. It was disappointing news; they'd have to move the party from poolside into their house. Weather forecasts said

tornadoes were possible, but this was not unusual. Tornado alerts are common in Joplin. The city has 28 tornado sirens, which sound frequently in the spring.

As of that Sunday, the city had not been hit by a major tornado in nearly four decades. After years of false alarms, most people ignored the sirens and were unconcerned when Sunday's weather forecast for Joplin worsened. Stores were packed with shoppers. Playgrounds rang with kids' shrieks and laughs. Bennett and Ethan headed to their grandparents' for a pre-party swim.

By 4:30 p.m., Bennett had returned home, and his relatives were arriving for the party. Guests nibbled on chips and salsa as they waited for Ethan to



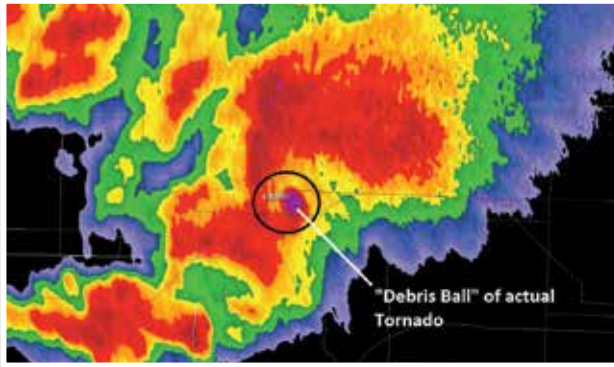
JIM McMAHON/MAPMAN™ (MAP); THE WICHITA EAGLE/AP IMAGES (JEFF PIOTROWSKI)



SHATTERED CITY

A tornado cannot be detected by weather radar. What can be seen on a radar image is a *tornadic debris signature* (TDS): the chunks of houses and cars and trees sucked up by a twister and thrown thousands of feet into the sky.

The image above shows the radar map minutes after the tornado struck Joplin. The pink area shows the TDS. At the time, weather forecasters stared at this image with shock and horror, knowing that they were seeing evidence that Joplin had been shattered.



arrive with his cousin Wyatt, Uncle Frank, and Aunt Sana.

At 5:11, Joplin's tornado sirens rang out. Looking out the window, the Satterlees saw nothing but pouring rain.

Another false alarm, it seemed.

Still, Bennett's mom sent the kids to the basement and turned on the TV to monitor weather reports. She called Uncle Frank. "We're getting close," he promised.

Impossible to See

The Piotrowskis arrived in Joplin a few minutes after the first sirens went off. Studying storm data on the laptop in his truck, Jeff Piotrowski was convinced that a tornado strike was **imminent**. As he drove through the city's historic downtown, all seemed calm. Then he spotted it: a gigantic gray cloud moving in from the west.

It was an enormous tornado. And it was getting bigger by the second.

What made this tornado

especially dangerous was that it was "rain-wrapped," or hidden behind a curtain of rain clouds. Piotrowski called 911, alerting authorities that a monster tornado was rushing toward southern Joplin. He spotted a police officer sitting in a parked patrol car. Piotrowski stopped his truck and leaped out.

"That's a dangerous tornado!" he shouted, pointing up at the approaching gray cloud. "Get the sirens going! Get the sirens going!"

By then, meteorologists throughout the region had realized that Joplin was in grave danger. At 5:31 p.m., the sirens sounded again. It was extremely unusual for the sirens to go off twice in such a short period of time. Most people understood

THE PATH OF DESTRUCTION

The Joplin tornado destroyed more than 7,500 buildings, including the homes above.

that something was different. This was no false alarm.

Vicious Attack

Around the city, people rushed

for shelter. The lucky ones made it to safety down in basements. Others crammed into closets or bathrooms away from windows and exterior walls. People also sought safety in stores like Walmart and Home Depot. At fast-food restaurants, managers herded customers into walk-in refrigerators with strong metal walls. The Satterlees and their guests ran into their basement storage room, a concrete-walled space that doubled as their tornado shelter.

Around 5:35 p.m., the tornado, still gaining strength, began its vicious attack on the city. The monstrous twister was now a **staggering** three quarters of a mile wide. Its 200-mile-per-hour winds **pulverized** brick buildings, reduced houses to piles of splintered wood and shattered glass, and hurled cars and trucks thousands of feet. Walmart, Home Depot, and dozens of other stores and restaurants collapsed. Six schools, including Joplin High School, were destroyed.

From their basement shelter, the Satterlees and their guests could hear deafening crashes and thuds above them, the heartbreaking sounds of their home being ripped apart. But it wasn't the house they were thinking about. It was Ethan, Wyatt, Frank, and Sana. They were somewhere outside, caught in the evil swirling darkness.

Healing a City

The Piotrowskis drove alongside the tornado, swerving to avoid flying **debris**, fallen telephone poles, and sizzling electrical wires. They passed collapsed buildings and smashed cars until they came upon a neighborhood that had been utterly **decimated**. What was once a street of tidy houses was now an endless sea of mangled ruins. They pulled over to help people who were trapped and hurt.

Around the same time, the Satterlees emerged from their storage room to discover rain pouring through the roof, from which entire chunks had been ripped away. Walls had collapsed. Furniture was smashed. Outside, their neighbors' houses had been

torn apart. Frank's truck was nowhere to be seen.

Minutes crept by. The family prayed for the safety of their missing relatives. Ethan's parents and other adults headed into their neighborhood to search for people in need of help.

By then, the tornado had finally finished with Joplin, leaving behind a trail of rubble 13 miles long. More than 1,000 people were injured. Neighbors helped neighbors, tearing through piles of wreckage with their bare hands to reach those who were trapped. Teenage boys turned their trucks into ambulances.

"I knew we had witnessed one of the deadliest tornadoes in modern times," Piotrowski says.



BEFORE AND AFTER

Left: Bennett and Ethan's parents watch as their house, which was severely damaged by the tornado, is torn down. Below: The family today, outside their rebuilt home. From left: Bennett, now 15; Shannon; Barrett; Carolyn, 8; and Ethan, now 11.



POEM

This beautiful poem was written about a photograph that the poet found in the wreckage of the Joplin tornado.

“Joey, 4th grade, 1992”

BY LAURA DIMMIT

He’s been on the fridge since it happened,
sneaking glances from underneath the cat
magnet at our dinners, coffee habits, arguments.

We posted him on the database of items found,
hoping that someone would recognize his messy
hair, Batman t-shirt, blue eyes, but no one
answered the post or claimed him.

Somewhere a childhood photo album is not
quite complete, or a grandmother’s mantelpiece;
an uncle’s wallet. One afternoon I got restless,
flipped through my old yearbooks, trying to find him,
looking to see how he might have aged: did he lose
the chubby cheeks? dye his hair? how long
did he have to wear braces? But he’s too young
to have passed me in the halls, the picture just
a stranger, a small reminder of the whirling aftermath
when Joplin was clutching at scraps: everything displaced,
even this poor kid who doesn’t even know he’s lost.

And it was.

The tornado, America’s
deadliest in 60 years, killed 158
people. For the Satterlees, though,
the day did not end in tragedy.

After an agonizing 30 minutes,
Uncle Frank’s truck finally
appeared. The back window was
shattered. The metal was dented
and battered. But Frank, Sana,
Ethan, and Wyatt were all safe.

Ethan knows he will likely never
forget the terrifying moments
when the tornado gripped the
truck, when the window was
smashed and glass sprayed over
him, when he feared he might
never see his family again.

Yet four years later, sharing
their stories from that day, the
Satterlee boys do not dwell on
their frightening memories or all
that the family lost. Instead, they
speak of the power of their faith,
the strength of their community,
and the generosity of the
thousands of people from around
the country who came to help heal
their wounded city. They recall
how in the years since, their entire
family has gone to other disaster
areas to help people as others
helped them.

Looking back on his 11th
birthday, Bennett knows
he received the greatest gift
imaginable: “My family survived
the tornado.” ●



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WRITING CONTEST

The article and poem are about the same event: a devastating tornado that struck the city of Joplin. Think about the details that the author and poet each include. In what way do these details give you a sense of how the tornado affected the people of Joplin? Send your response to **JOPLIN CONTEST**. Five winners will get a copy of *Eye of the Storm* by Kate Messner.



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