Lightning Prediction Saves Lives

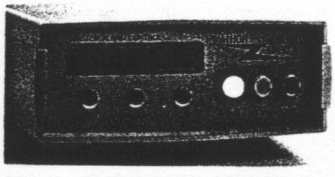
BY STEVEN K. MEYER

A LITTLE MORE THAN ONE year ago, a tragic accident occurred on a soccer field at Northeast Park in the Park Ridge Recreation and Park District. After a short rain delay in the game, the skies started clearing and a referee decided to resume play. A rogue lightening bolt—some called it a "bolt out of the blue"—struck a young man named John Scott Wade. CPR and quick medical attention couldn't save him.

Four groups, the Park Ridge Recreation and Park District, Youth Baseball, Indian Scouts and the Park Ridge Rotary Club formed a committee in an effort to minimize lightening-related injuries. Research on available lightning detection and prediction systems led them to a system used at the Atlanta Olympic Games and on golf courses nationwide.

Citywide Protection

Committee members quickly concurred that the Thor Guard system was the best solution for Park Ridge. The system consists of sensors that measure electrostatic charges at ground level and in the air. Lightning is created within the earth's invisible electrostatic atmosphere. The charges, which are invisible to the naked eye, always build prior to lightning occurrences. When conditions indicate that lightning is probable, a signal is sent to horns which sound an eight-to-12-minute warning to clear the area and seek shelter. Ninety-seven percent of the time when the alarm system is activated, lightning is visible within 15 to 30 minutes. Other times lightning is extremely probable. An all-clear signal announces when it's safe to return to the area.



Master Alarm Control (MAC)

Although the company had never taken on a project of this magnitude, Park Ridge agreed to be the first to test a citywide lightning prediction system covering all parks, schools and playing fields.

Decisions and Dollars

Matters of zones, times of operation, testing, noise levels and installation procedures needed to be worked out. The special projects technician for the parks department became the district liaison and worked on coordinating installation.

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The system would cover 18 park and school sites in three zones. The committee decided the system should be operational from 8 a.m. to 11 p.m. on a daily basis from April to November, with horns and systems to be tested monthly during the operational period.

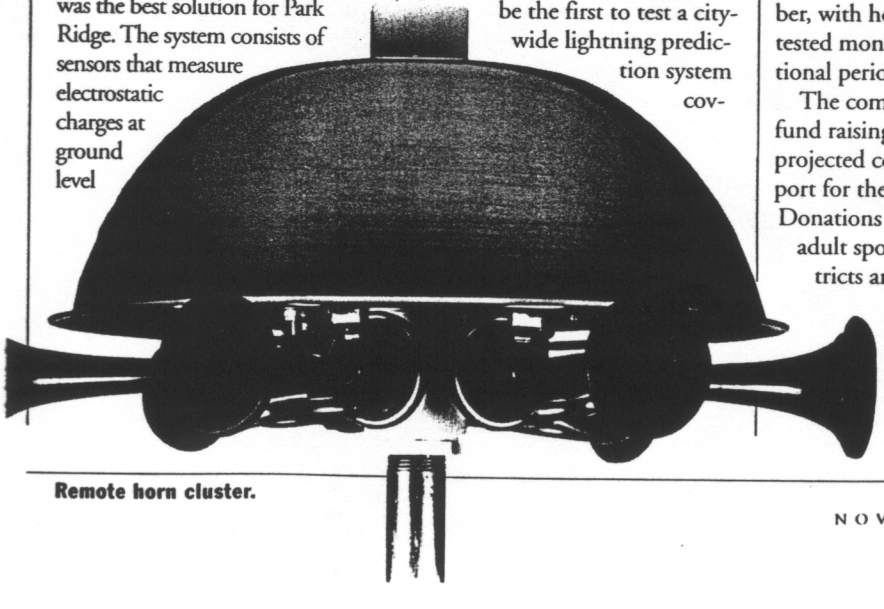
The committee also began fund raising efforts to cover the projected cost of $55,000. Support for the system was citywide. Donations came from youth and adult sports teams, school districts and PTOs, service organizations, local hospitals, the United Way and the city itself.

Instant Benefits

One year after the deadly bolt struck John Scott Wade, the new system was installed and dedicated in his memory. Ironically, less than two hours after the dedication of the system, on June 20 of this year, the warning alarm was activated at Hinkley Park, interrupting organized baseball and volleyball games. Baseball officials and park district staff cleared the fields and courts as instructed. Ten minutes later, lightning stuck the middle of the baseball diamond, knocking out a light pole and an irrigation system. One boy who cleared the baseball diamond said he felt the lightning from where he sought shelter.

Had the warning signal not been activated, had the system not been operational, would there have been another tragic event? Three people were injured and one killed by lightning that night in the Chicago area. Thankfully, due to the foresight and planning of the committee and the generous donations from the community, no one in Park Ridge was injured. ◆

Steven K. Meyer is director of the Park Ridge Recreation and Park District in Park Ridge, Ill.



Remote horn cluster.

PHOTOS: THOR GUARD

FOR ONE HUNDRED AND FIFTY YEARS

Chicago Tribune

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Northwest Sports Final
50c Newsstand

Park Ridge already thankful for lightning predictors

By Wilma Randle
TRIBUNE STAFF WRITER

The youth baseball teams were warming up and a couple of volleyball games were under way at Park Ridge's Hinkley Park when a loud alarm sounded.

The children scattered to shelter, only to see lightning strike a baseball diamond.

"There were sparks. It blew out the scoreboard, and it knocked two people off their feet," said Garry Abezetian, Park Ridge's youth baseball commissioner, who was there that night several weeks ago to watch his daughter play baseball. "Luckily, no one was hurt."

A year ago in another city park, lightning killed John Scott Wade, a 20-year-old college student, as he refereed a youth soccer match at Northeast Park.

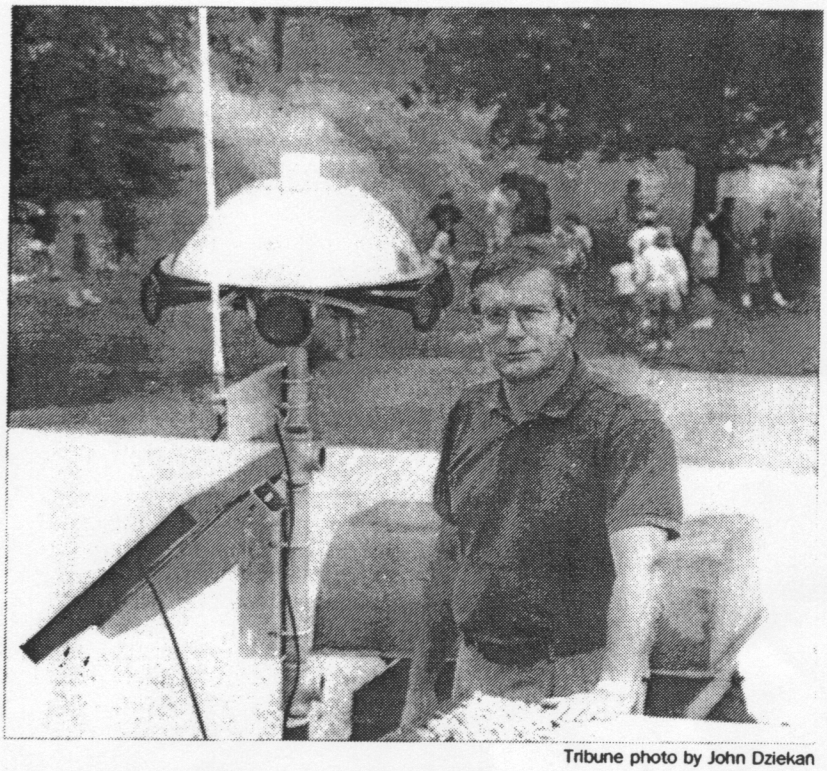
In the year since Wade's death, the Park Ridge Park District has installed new lightning predictors throughout the city's 18 parks. The local Rotary Club, the youth baseball league and Indian Guides groups raised $50,000 to cover the cost of the new equipment.

Though other parks and golf courses have similar systems, Park Ridge is the first community in the country to install the devices throughout its park system, said Steve Meyer, the city's park director.

"This is a prediction system," he said. "There are warning systems out there, but the problem is they detect lightning activity as it strikes, and that could be too late."

Park Ridge's system tracks storm activity. Using electronic sensors, it measures static electricity in the atmosphere. When conditions that could trigger lightning are present, the device emits a long blast that sounds like an air horn.

The alarm gives people in the park a 10- to 15-minute warning that lightning could strike, allowing them to take cover.



Tribune photo by John Dziekan

Steve Meyer, director of the Park Ridge Park District, stands next to a lightning predictor that has been installed on top of a building in Main Park. All 18 of the city's parks now have the devices.

Once the storm has moved on, three short blasts signal an all-clear.

"If it had taken us 20 years to pay for this thing, it paid for itself that night," said Abezetian, referring to the lightning strike in Hinkley Park.

"It all happened so quickly. It wasn't even raining when the alarm went off. At 7:20 p.m., the horns on the system went off. We cleared the fields and got the kids into a building," Abezetian said.

Eerily, the lightning hit about an hour after a dedication ceremony had been held in Northeast Park honoring Wade's memory.

The lightning predictors are made by Thor Guard, a Florida-based company. They are the same equipment used at all the outdoor events at last year's Summer Olympic Games, said Bob Dugan, Thor Guard's executive vice president. The devices also are used on the Professional Golf Association tour.

"In some professional golf tournaments, you can get as many as 50,000 people on a golf course, and you want as much warning as possible to get people to safety," said Stewart Williams, a meteorologist for the PGA.

"More cities and parks are looking to install this kind of system," he said.

But not many can afford the price of the new equipment, said Betsy Kutska, executive director of the Park District Risk Management Agency, a Wheaton-based agency that specializes in insurance services for parks and recreation organizations.

What Park Ridge has done isn't typical for most park districts, she said.

OVER PLEASE

"Most park districts have severe weather policies and procedures for outdoor activities; some even have tornado warning alarm systems," she said. "Park Ridge went that extra step. The community responded after that unfortunate accident with the soccer official."

Wade's death touched a lot of people in Park Ridge. Many people knew him and his family.

His death struck a nerve, too, because he was so young and he was doing something so common for kids in the area—playing sports in a local park, said Gary Camarano, who volunteers with the city youth soccer program.

"If the community hadn't pulled together, we couldn't have afforded this new system," said Joyce Christensen, former president of the Park Ridge Rotary.

Seeing the system work at Hinkley Park made the effort worthwhile, Abezetian said.

Before the lightning predictors were installed, he said, the policy of the youth baseball program was to clear the fields if anyone saw lightning. That's still the rule.

But now, even under a clear sky, "if the horns go off, no matter what, you clear the fields and wait for the all-clear signal," he said.

The local effort that raised the money to pay for the lightning predictors has yielded another benefit, Abezetian said.

A number of Park Ridge organizations have joined together to form a community service council that will work to address other community needs.

Nationwide, it's estimated that about 150 people are killed and 250 others are injured annually by lightning strikes.

But that's more people than are killed or injured by either tornadoes or hurricanes.

In Illinois, about 10 people a year are killed by lightning strikes.

Last year, Susan Intravaia of Park Ridge was struck by lightning in the same park on the same night that Wade was killed. She was there watching her son play soccer. She suffered minor burns on her hand and arm.

It's taken her 11-year-old son, Jason, who was playing on Wade's team, nearly a year to get over what happened, she said. He's only recently started playing soccer again.

"For a long time after the accident, he refused to play sports but he's doing well now," she said.

She said she's glad the parks have installed the new lightning predictors. But she said she doesn't wonder what would have happened had the devices been in place last year.

"My idea is you can't go back," she said. "Would this system have made a difference last year? You don't know."