Attachments

56% of fatal crashes involved only one vehicle, compared to 28% of both injury crashes and property-damage-only crashes.

Photographer: Frank Staples
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GM installs 'black box' on its autos

Device offers potential for safety gains, privacy disputes

ASSOCIATED PRESS

WASHINGTON, June 1 — General Motors Corp. has a device in many of its new cars that functions like the black box recorder in airplanes: It collects data as a car crashes. Doctors and government officials say that information can help them better understand how the human body tolerates car crashes. It could then be applied to construct safer cars, improve the treatment of crash victims and write government auto safety standards that would better protect crash victims.

COMPLETE STORY

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The data includes THE EXISTENCE OF THE SO-CALLED auto black box system also is raising sensitive privacy

- the speed of the car, whether the driver was wearing a seat belt, when an air bag deployed and whether the driver used the brakes.

questions about whether such information can be used in litigation.

The most sophisticated version of GM's device, known formally as a sensing and diagnostic module, is in hundreds of thousands of GM cars from the 1999 model year, GM says. It is part of the air bag sensing system on the 1999 Buick Century, Park Avenue and Regal, the Cadillac Eldorado, DeVille and SeVille, the Chevrolet Camaro and Corvette and the Pontiac Firebird.

The module will be in almost all GM vehicles within the next few years, the company says.

The module stores information in the instants before a car sensor identifies a crash and fires the air bags. The data includes the speed of the car, whether the driver was wearing a seat belt, when an air bag deployed and whether the driver used the brakes. It can also determine whether a warning light was illuminated on the dashboard telling an owner to service an air bag.

GM has quietly installed different versions of the sensing system on some cars throughout the 1990s, but the modules have become more sophisticated over time. Their existence became public in a paper written by GM and government engineers and presented at a conference last month.

Up until now, government crash investigators could only take an educated guess at the speed of a car involved in an accident based on evidence at the crash scene.

"Technology allowing vehicle safety researchers to collect objective data would open the door to a new generation of understanding," the paper said.

GM is currently the only automaker that makes such data and the tools to recover it available to researchers, the paper said.

Bob Lange, director of engineering safety for GM, said he wanted to use the information to better understand the injuries of people of all ages in crashes so that autos could be designed to "reduce the likelihood of injuries."

GM has been using the technology on Indy race cars since 1992 and it has led to better crash protection for drivers, Lange said.

"There's an incredible opportunity to improve safety," said Dr. Jeffrey Augenstein of the Crash Injury Research and Engineering Network. Augenstein said if doctors know more about crashes, they can target their treatment of patients, in some cases including checks for serious injuries they might have missed.

John Hinch, a research engineer at the National Highway Traffic Safety Administration and one of the authors of the paper, said he saw "lots of potential" in using the module's data. GM hopes to have laptops available so government crash investigators can download data independently of the company by the end of the year.

Live Vote RESULTS

Is the automobile "black box" a good idea?

* 2996 responses

Yes 71%

No 29%

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Survey results tallied every 60 seconds. Live Votes reflect respondents' views and are not scientifically valid surveys.

"If we can understand crashes better, we can have better sensors (in automobiles), better air bags," Hinch said. "NHTSA can build better (safety) rules and have better information for consumers."

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Insurers also seem to favor so-called black boxes for cars, in part because it would help them determine who is at fault in accidents. But they say courts will first have to sort through how such devices could be used in litigation and whether they are reliable if contradicted by eyewitness accounts.

Norman Jolly, an attorney who has litigated auto cases, said he has already seen auto companies try to use air bag deployment information stored on a car computer chip as a defense in lawsuits.

He believes companies will not be able to keep such information private. "They're going to know if your case has merit, and vice versa," Jolly said.

Ford Motor Co. said a more limited version of the module was on all its 1999 vehicles, but the company is unable to retrieve the data for customers.

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Frank Staples is an amateur photographer residing in Southern Pines, Moore County, North Carolina. He is an independent small business owner and a volunteer fire fighter.

For more than a decade, Frank has been taking pictures of crashes and fires. His photos are often published in the local newspaper, *The Pilot*.

The photos included in this research project were taken within a thirty-mile radius of Southern Pines over a period of ten years. Frank graciously contributes them (as an advocate of highway safety) and permits their publication and distribution solely within the guidelines of this research project.

Conclusion

Nearly 39% of the persons who were killed in traffic crashes in 1997 died in alcohol-related crashes.

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Photo Credits

All states, the District of Columbia, and Puerto Rico have laws requiring children of certain ages to be restrained in child safety seats.

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Resources

Collision with another motor vehicle in transport was the most common first harmful event for fatal, injury, and property-damage-only crashes.

Photographer: Frank Staples
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NON-PERSONAL IDENTIFIERS

SEX _____

AGE _____

YRS DRIVING _____

OF CRASHES AS OCCUPANT _____

OF CRASHES AS DRIVER _____

PERCENTAGE OF SEAT BELT USAGE _____

WAS SEATBELT USED DURING CRASH? _____

WERE YOU INJURED BY BELT? _____

WERE YOU INJURED BY AIRBAG? _____

DO YOU TRUST AIRBAG? _____

COUNTY _____

TRANSPORTATION RECORDER PERCEPTIONS

POSITIVE	NEGATIVE
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)
6)	6)
7)	7)
8)	8)
9)	9)
10)	10)

Approximately one hundred people were involved in this research project. Throughout the research, it has been my objective to create a dialogue in an area usually lacking consensus – automobile safety. Dialogue is two or more people talking about the same issue in a rational manner. This is not as simple as it sounds. At times, our discussions were heated, with zealots on opposing sides, each trying to persuade one another of the truth, logic, and virtue of their views and the falsity, irrationality, and downright evil of the others'. Many students were experts at employing vague, emotion-laden terms. Few had the ability to define these terms when challenged. However, once students understood that they would be held responsible for everything said in a public forum, they developed a conviction that they could and would learn from the other side. Obviously, this stopped none from clinging to their cherished viewpoints, but more than a few widened their views to include new knowledge. Their original thinking was enriched and this in turn enhanced their public understanding. By voicing themselves in a public forum – a community college classroom – they all gained from the experience.

Some of the vital issues and critical questions of the group concerned a general mistrust for the government, the automobile industry, and technological change. An even deeper concern was the fear that personal liberties and privacy would be encroached. One of the interesting footnotes to this research project was the discovery of a local amateur photographer who was willing to contribute pictures.

It was a challenging task to define the issue at the outset with enough specificity to make sure that both sides would be talking about the same area of controversy. This was in fact so difficult that after several failed attempts, it became clear that the group's most valuable contribution would be in citing the positives and negatives. Several students wanted to complete half the assignment and were dismayed when told they would receive partial credit. This forced everyone to see both sides and thus created the elusive "dialogue on automobile safety," which is perhaps the overall value of this research study.

Professor T. Kowalick, Southern Pines, North Carolina, August 1999