

Crash Data Go To Court

Technology could be key in the trial of a man charged with vehicular homicide.

By Sherri M. Owens | Orlando Sentinel Staff Writer Posted January 1, 2005

TAVARES -- Traffic experts used to rely on math equations and skid marks to tell whether a motorist was driving recklessly before a crash.

But new technology is changing the way traffic cases are tried in court.

Many vehicles now come equipped with devices similar to the flight-data recorders, popularly called "black boxes," found aboard airplanes. The automobile devices provide computer-produced charts and graphs that, when properly interpreted, can supply detailed information about what a driver was doing seconds before a collision.

The technology has helped prosecutors win a conviction in a Florida courtroom at least once, in Broward County last year.

Lake County prosecutors plan to use the technology in an upcoming case. This time, the debate is not about the science but the reliability of the analysts who interpret the data.

Marquel J. Reed, 25, is charged with vehicular homicide in the death of a passenger in a 2002 car accident.

A key question will be how fast Reed was traveling when he lost control of his rented Chevrolet Impala, causing it to flip several times. Lucas W. Scott, 18, of Leesburg, died two days after the accident.

Calculations taken from measurements of skid marks and other physical evidence at the scene indicate Reed, also of Leesburg, was traveling 60 to 62 mph in a 45 mph zone, said John Spivey, the Tavares lawyer defending him.

Computerized data, however, say he was going about 100 mph, Spivey said.

"That's a big difference," he said, particularly when the state is trying to prove recklessness.

As Spivey and Assistant State Attorney Walter Forgie prepare for the March trial, the conflicting data could pit old-fashioned mathematical measurements against modern, computerized calculations.

The technology is installed in various automobile makes, including General Motors and Ford.

It gathers pre-crash and crash data that are kept in the vehicle's air-bag module, which can be downloaded to a computer, according to the Web site for Vetronix, the company that made the device in Reed's Impala.

The amount of information available depends on the vehicle's make, model and year.

"Anytime something is new, the courts have to address it to ensure fairness to those involved," Forgie said. "If the technology is going to be questioned by the defense attorney, we're not trying to show that one method is better than another but that both are acceptable."

The traditional way of determining a vehicle's speed involves measuring skid marks and calculating the amount of friction on the roadway.

But when those calculations are put against the numbers produced by the computer, "I would say trust the black box," Florida Highway Patrol Cpl. Raymond Koenig said. "It takes meticulous measurements."

That's not to say that the more traditional ways of measuring speed are wrong, but Koenig said that when investigators reconstruct an accident, they always do so to the benefit of the violator.

"We give him every benefit of the doubt," he said. "From our point of view, if the speed limit is 55 and the skid mark said he was going 72 then hit a tree, I don't care that much whether he was going 72 or 86. I have enough already to show that he's speeding."

Spivey, the defense lawyer, said a jury might think otherwise.

The difference between his client speeding at 62 mph and speeding at 100 mph could be the difference between up to 15 years in prison and, possibly, freedom.

The higher speed might convey recklessness to some jurors and make them inclined to find the defendant guilty of a more severe crime.

Forgie said the numbers could be different because the calculations were taken at different points -- when the air bag deployed versus one split-second before impact, for instance.

Regardless, Spivey said, the information the technology produces is only as good as the person who interprets it.

In the Reed case, he wants the state to provide experts to testify about the qualifications of the people who interpret the data.

"They need to have all the information, the witnesses, the chain of custody, someone from the software company in California. It's going to be a tremendously difficult procedure for the State Attorney's Office to go through," Spivey said.

Without all of that, he will argue against the computer data being admitted.

Such data have been used in court before, including in a Broward County case that resulted in a conviction against a man who killed a teenage girl in a 2002 drunken-driving crash. Prosecutor Michael Horowitz said at the time that Edwin Matos' conviction hinged largely on data from the technology. The device indicated Matos was going 114 mph in the five seconds before the crash.

Spivey doesn't dispute the science behind the system, but he wants to ensure the results are appropriately interpreted.

Don Gilman, spokesman for Vetronix, agreed that such assurances are necessary.

"The data itself is just raw data," he said.

Determining whether the computerized crash data are more reliable than the physical evidence, he said, "depends on how qualified the expert is."