

## **GM cars to collect crash data**

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By Tom Lankard

AUSTIN, Texas -- General Motors Corp. plans to introduce in the 1999 model year a crash data recording system the company predicts will be akin to "black box" flight recorder on aircraft.

"We can basically reconstruct the accident, just like the airlines can," Cadillac spokesman Chuck Harrington said at a recent new car preview.

"That's a little boastful," said Kyle Johnson, GM's spokesman on legal and safety issues, "but it's essentially correct."

GM will be the first automaker with such a sophisticated system, installed on nine of its 1999 model cars. The system is designed to help the automaker "better understand crashes and injury causation," Johnson said.

GM and some other carmakers already have on-board systems recording crash data. Those systems rely on crash impact to turn on the recorder, so they collect only post-crash information. The new GM system, which the company calls its "advanced event data recorder," also saves data from the final few seconds before the crash.

According to a GM document, being able to gather information from earlier in a crash will give researchers "fresh insight into how drivers are reacting to hazards and interacting with their vehicles."

Johnson said the additional data will allow "a more refined and less expensive" crash reconstruction process.

For example, he said, sometimes police working a crash scene today "are guessing at what happened." This can include such factors as how fast a vehicle was traveling just before the crash. But with the more detailed data, "you don't have to guess what happened."

The 1999 model year cars getting the new system are the Buick Century, Park Avenue and Regal; the Cadillac Eldorado, Deville and Seville; the Chevrolet Camaro and Corvette; and the Pontiac Firebird.

These cars are first in line for the new system solely because they also were first in line for the latest generation electrical system, which has the capacity to handle the extra data load. According to GM's current plans, by 2004 all the carmaker's North American cars, light trucks and sport utility vehicles will have the advanced event data recorder.

GM's 1998 model year vehicles use the air bag sensing and diagnostic module (SDM) to, at the moment of impact, record the state of readiness of the air bag, when it deployed and whether the driver's seat belt was buckled.

The "advanced" system being introduced in the 1999 model year adds vehicle speed, engine speed, throttle position and brake use during the 5 seconds preceding the crash, all collected at 1-second intervals. Conceptually, this is similar to the endless-loop, recording tapes airline black boxes use.

As with airline black boxes, data the SDM records are preserved even if the car's battery is disconnected or the SDM is unplugged, whether by the force of the crash or by emergency workers at a crash scene.

Many other automakers have existing on-board systems capturing much of the same, basic data as GM's current SDMs. But while some are developing systems similar to GM's 1999 SDM, none were willing to admit having plans to introduce the systems on their vehicles.

Toyota Motor Sales U.S.A. Inc. for instance, is evaluating an endless-loop-like recording system in its advanced safety vehicle program, according to spokesman John Hanson. In addition to the usual basics, that system will record vehicle speed, steering wheel angle and braking before and after impact.

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