

MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

2200

2005 SENATE JUDICIARY

SB 2200

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2200

Senate Judiciary Committee

Conference Committee

Hearing Date January 24 , 2005

Tape Number	Side A	Side B	Meter #
1	X		0.0 - 5809
Committee Clerk Signature <i>Maria L. Solberg</i>			

Minutes: Relating to recording devices on motor vehicles.

Senator John (Jack) T. Traynor, Chairman called the Judiciary committee to order. All Senators were present. The hearing opened with the following testimony:

Testimony In Support of the Bill:

Sen Holmberg, Dist # 17, Introduced bill and gave testimony (Att #1). California Law has found that it is too difficult to have the devises disconnected. Discussion of Federal law suits using the information from the "black box" in criminal charges with fatalities. This information has been used in collaboration with other information. Currently there is a lack of expertness in the retrieval of information. Currently it takes an expert to retrieve information with a physical cable hookup to the "black box". The closest facility to do this is in Chanhassen, MN Sen. Holmberg stated that this bill is for the future. Keeping legislation proactive. I have a 2005 vehicle and I do not any knowledge if my vehicle has a black box. I can not find it in the owners manual anyway.

The question was put out on what foreign cars are doing, no one was aware of there process either.

Bob Lamp - ND Auto Dealers Assoc., (meter 1900) Gave Testimony - Att. #2 The committee discussed with Mr. Lamp the "diagnostic" testing, that also monitors many of the same things the "black box" does and how it interrelates with the black box for technology **Mr. Lamp** stated that the auto dealership did not put the device in and does not think it should become their liability. **Sen. Trenbeath** and **Senator Syverson** discussed that as there roll, they must take some responsibility i.e. informed consent sheet... Also was discussed was that the devises presently are in different levels from very crude to very sophisticated (On-Star). **Sen. Trenbeath** stated that (meter 3485) we would need to do a true "privacy" bill that would delete even the courts access to the information. **Sen Holmberg** told of a car rental case, where the person was on vacation and when they turned the vehicle back in they had to pay some speeding fines reported on the "on-star" like system. Senators wonted information on all makes of vehicles systems but only had Ford and Chevrolet. **Sen. Traynor** asked if devises recorded other information, like the temperature outside the vehicle. No they did not think so.

Testimony in Opposition of the Bill:

Patrick Ward - Attorney, Zuger Kirmis & Smith- (meter 4200) Gave Testimony as a representation of State Farm Insurance - Attachment #4 Insurance companies have a "duty of cooperation agreement" clients can sign. **Senator Hacker** questioned the insurance companies targeting the "good" and "bad" drivers and reflecting it on their rates. **Sen. Nelson** stated that if this becomes a privacy issue than State Farm could have the insured sign a waiver to disclose the information. **Senator Syverson** talked about the difference of a written consent before an event

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Senate Judiciary Committee

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verses after. **Senator Syverson** also questioned (meter 5252) if an insurance company acquired (buys back) a vehicle after an accident, ("totaled out"), who owns the information of the previous owner?

Senator John (Jack) T. Traynor, Chairman closed the Hearing

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2200

Senate Judiciary Committee

Conference Committee

Hearing Date February 7, 2005

Tape Number	Side A	Side B	Meter #
1	X		1200 - 5200
Committee Clerk Signature <i>Maria L Solberg</i>			

Minutes: Relating to recording devices on motor vehicles.

Senator John (Jack) T. Traynor, Chairman called the Judiciary committee to order. All Senators were present. The hearing opened with the following committee work:

Sen. Traynor stated that we need to remove the part of the bill that allows for the device to be disconnect-due to mechanical errors, it could not be done.

Sen. Trenbeath (meter 1728) stated that page 1 line 17-19 deleted and on page 2, lines 7-28 I suggest that lines 10-15, delete. My concern is the insurance companies. This being said we should be replacing it with direct language; information retrieved from box should not be used for criminal/civil liability. After all the intent of the box is covered in lines 14-28, diagnostic purposes. Accident reconstruction would be under civil/criminal liability. There is a question on rather this information is reliable and should be used in court/legal purposes. It was not designed for this purpose. Discussed the difference between an aircraft recorder and a vehicles black box.

Sen. Trenbeath stated that how badly do you involuntarily want "big brother" riding with you. I

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Senate Judiciary Committee

Bill/Resolution Number SB 2200

Hearing Date February 7, 2005

t is not the original intent of the device to function as this. Its function is in C & D. The auto dealers objected to lines 5-7, page 3, liability of dealer. (meter 2346) The prime objective of the sponsor was to disconnect and we can not do this without affecting the function on the car, but by using the above language we can still reach his intent. Group discussed that this is first generation "stuff" we do not know what it could encompass; i.e. On-star systems. What happens if a vehicle is sold does the new owner own the information? Discussed placing a disclosure in the owners manual.

Sen. Trenbeath made the motion to amend bill with "SDM" deleting several lines and adding new #4, Senator Syverson seconded the motion. All were in favor, motion passes.

Sen. Trenbeath made the motion to do pass the bill as amended and **Senator Triplett** seconded the amendment. All were in favor, motion passes.

Carrier: **Sen. Trenbeath**

Senator John (Jack) T. Traynor, Chairman closed the Hearing

Date: 2/7/05

Roll Call Vote #: 1

2005 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2200

Senate Judiciary Committee

Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Amend - Do Pass *System Data Module*
delet pg 1, 13-24, pg 2, 1-6, 10-13
pg 3, 5-7

Motion Made By Sen Trenbeath Seconded By Sen Syverson

Senators	Yes	No	Senators	Sen. Nelson	Yes	No
Sen. Traynor	✓		Sen. Nelson		✓	
Senator Syverson	✓		Senator Triplett		✓	
Senator Hacker	✓					
Sen. Trenbeath	✓					

Total (Yes) _____ 6 No _____ 0

Absent _____ 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2200: Judiciary Committee (Sen. Traynor, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends DO PASS (6 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SB 2200 was placed on the Sixth order on the calendar.

Page 1, line 9, replace "an event" with "a systems" and remove "recorder"

Page 1, line 10, remove "or sensing and diagnostic"

Page 1, line 12, after "device" insert a period

Page 1, remove lines 13 through 18

Page 1, line 19, remove "Any contract provision to the contrary is void." and replace "recording" with "systems data module"

Page 1, line 20, remove the first "device" and remove "and does"

Page 1, line 21, remove "any of the following" and replace "after an accident:" with a period

Page 1, remove lines 22 through 24

Page 2, remove lines 1 through 6

Page 2, line 7, remove "described in subsection 1 which is"

Page 2, remove lines 10 through 13

Page 2, line 14, replace "c." with "a."

Page 2, line 26, replace "d." with "b."

Page 3, line 5, replace "A violation of this section by a motor vehicle dealer is grounds for action on the" with "Data recorded on a recording device is not admissible evidence in any court proceeding."

Page 3, remove lines 6 and 7

Renumber accordingly

2005 HOUSE TRANSPORTATION

SB 2200

2005 HOUSE STANDING COMMITTEE MINUTES

BILL NO. SB 2200

House Transportation Committee

Conference Committee

Hearing Date March 3, 2005

Tape Number	Side A	Side B	Meter #
1	X		0.7-52.7
		X	4.5-42.6
Committee Clerk Signature <i>D. Louis Hoffmeier</i>			

Minutes:

Acting Chairman Hawken opened the hearing on SB2200 A Bill for an Act to create and enact a new section to chapter 51-07 of the North Dakota Century Code, relating to recording devices on motor vehicles; to provide a penalty; and to provide for application.

Senator Holmberg:(.8) (See attached testimony #1)

Rep. Iverson(8.6) Is this standard equipment. It isn't like an option.

Senator Holmberg: They are in the front of the vehicle on the dash.

Rep. Ruby(9.2) Can this be downloaded without even knowing it or does it have the vehicle someplace to do this.

Senator Holmberg: A service like on star can gather some data because it is GPS oriented. On this it is there. It is in the vehicle. We thought, you bought it, you used it, the information is yours.

Rep. Weiler(10.3) Is there anything on the federal level that could possibly be coming?

Senator Holmberg: Look at the testimony. There is a company out of California that manufactures cable that are used to hook up to the black box to download that data. There is the person who sent me the pictures of the black box runs an auto body shop in Grand Forks and he said some folks from Minneapolis said they can physically remove the black box from the vehicle that they were working on. I noticed when I looked at one company from California, there were a number of different cables. I liken it to cell phones that you can't use any plug in for a cell phone. The manufacturer have their own different areas of standardization there.

Rep. Schmidt(11.5) This thing doesn't record conversations, does it?

Senator Holmberg: Not at this time.

Rep. Schmidt:It wouldn't stop an accident from happening would it? They claim talking on cell phones cause accidents. So this black box wouldn't know whether the accident was caused by a cell phone or not.

Senator Trenbeath:(12.2) Senator Holmberg explained the bill very well. It is just a cleanup bill to limit the use to analysis the performance of the vehicle.

Rep. Owens(14,2) (See handout #2) Information is on the bill. A GPS device tracks vehicle locations and interpolates speed, acceleration, and deceleration by calculation changes in location over time. A micro processor decides when an accident has happened and sends a distress signal over a standard signal. (Describes an accident going to the grocery store) The black box in each of the cars could tell your insurance agent what happened. This is telematics. Telematics is electronic communications system that collects and supplies information about and to a vehicle and driver. Part of the intelligent transportation system focus of US DOT that begin in 1990 includes the Intelligent Vehicle Initiative and development of a vehicle infrastructure designed to

connect vehicles and infrastructure with the outside world. On Star is the most widely known system.

Rep. Weiler What is the percent of vehicles now that the devices are on. Is there any information out on that?

Rep. Owens Yes, you have one. Cadillac was the first to have On Star.

Rep. Weisz: On the newest boxes that are out, what data are they recording now?

Rep. Owens They are doing it on some commercial vehicles fleets. The boxes have been installed on the new vehicles and some have been on the market. I can not answer your questions specifically as to you and I going out and searching the car dealers. It is literally changing annually.

Rep. Thorpe(21.5) Can you get these things so advanced that it might cover on what we are trying to do earlier with a breatherlizer or interlock devices. It could sense and individual who has consumer too much alcohol and not start.

Rep. Owens That is a possibility. On Star has a neat little satellite on their car, but it is not satellite communications, it is sailor communications. The satellite represents GPS, it has nothing to do with communications when you are talking back and forth to their organization is strictly sailor so imagine you get out and have no cell coverage, even On Star doesn't cover.

Rep. Thorpe Still thinking that maybe could be used later on in this respect, like for the breathalyzer.

Rep. Owens(23.1) It could be. Now we are recording every time they breath into a breath analyzer, not even let them drive. That is getting into privacy and we don't want to go there. I am as hard core against DUI as anyone in this room, but privacy is a big thing to me as well.

Does not feel the interlock would work.

Rep. Meyer: Are black boxes a standard issue or all different.

Rep. Owens (25.1) Every manufacturer build their own and have their own engineering design.

They are very similar in operation and data collection. It is to check usually what is going wrong with your car engine.

Acting Chairman Hawken: Are there others to testify in support of SB2200? Is there opposition to SB 2200?

Tom Kelsch: (See attached testimony #3) I am here testifying here on behalf of General Motors. (See attached amendment) Went over the testimony and attached amendments and explained them.

Rep. Ruby(37.8) People that wrote this bill are trying to address the exact reasons the information not to be gathered. For instance #2 in exceptions on the authority of administrative authority, why did they put subsection 4 in their bill. I understand that you would think in case of an accident that is going to prove you innocent by doing the things right you definitely would authorize the use of it. #5, if you are also using the service such as On-star you are already giving them the permission through your purchase agreement contract in number 1. Number five is pretty broad and could mean any deployment of an air bag or if there is any other way in the future to determine the crash. I would assume every fender bender does not get reported or called in. I am concerned about those two exceptions.

Tom Kelsch:(39.6) The engrossed version of SB2200 under #4 saying the data is not admissible in a court proceedings. That means if you want to have it admitted or not you could not be admissible whether you wanted it or not. Even if the data showed you were in the right and did

everything right, you could not have that used. That is why we took out that subsection 4 and added in #1 in our proposed amendment. The two exceptions are A that deals with diagnostic so your mechanic could use it for safety of the vehicle and B is for the diagnostic so the mechanic could use it for repairing your motor. The original bill had all of 1-4 and my proposed amendment. It didn't have 5, which is the On-star type of exception for data retrieval for facilitating a response for an accident. Under this exception they are saying that is not an exception they are saying that is not an exception to one of the rules.

Rep. Ruby(42.9) Under #2 that is broad enough so officers can pull you over for the possibility that they believe you are doing something illegal to see if there is a DUI there. There are situations where, if you could record the data of seat belts usage, I think there is going to be a time where they will be able to get that information and get a court order to see if people are using their seat belts. There could be a lot of other information that they believe is their information.

Tom Kelsch:(44.3) They have different rules for stopping the vehicle than actually searching the vehicle. They could pull you over for some kind of violation and they could look into the car to see if you have alcohol in there or a gun or something like that. If they have to search the vehicle, they are going to need a search warrant to do that. So you have protection against unreasonable search and seizure. The police officer is not going to go and download it on to a computer. There certainly may be cases to find out or get a court order and you are in a car accident and the other person claims he was going the speed limit. If he has got that black box in there he might want to ask the court for a court order to get that to tell how fast he was going? Is that a bad thing. That is up to the court.

Rep. Ruby Concerned about the privacy but understands now it is for maintenance purposes for your vehicle.

Tom Kelsch: It is only recording the last 8 seconds before a crash to provide information for the crash itself.

Rep. Ruby(48.4) I have trucks that record a huge amount of information on the operation of the engine so I wasn't sure what this records. It does give us this information for long periods of time and gives us engine information.

Tom Kelsch: My understanding that for diagnostics of the engine they have more information.

Rep. Iverson Are these federal mandated to be in your cars?

Tom Kelsch: As far as I know, they are not mandated. There could be a possibility in the future.

Rep. Iverson(49.9) Is there any way I can say I don't want this data recorder in my car?

Tom Kelsch:(50.3) I believe you could get one that hasn't got one in there now. But as they get required to be in all cars you may not have that option. It is hard to disconnect them due to the air bags.

Rep. Iverson If they are not a federal law, why would it create a liability issue for me by not having a recorder in my car?

Tom Kelsch: It is hooked to the system and if you disconnect the black box, you could later get in an accident and have disconnected it could be a potential liability.

Rep. Price:(52.6) If we take out the non admissible evidence in number 4 in the current bill and we also take out #2.

Tape 1, Side B (4.5)

Tom Kelsch:(4.6) You are saying, if you take out #2 so the courts couldn't order it, but you could consent. Take out #4 so you could consent to it then as I would understand it you would personally you would have control over your car and you could decide to put it into court if you wanted to, but the court couldn't force the other driver to do that.

Rep. Price (5.0) I the judge over ruled no it is admissible you absolutely could.

Tom Kelsch: If you aren't prohibiting the court to do it I suppose they could do it. If you don't prohibit the court they could do it.

Rep. Owens(5.5) #C 3 which talks about the vin #, it says the last four digits deleted. What do the last four digits say in a vin #?

Tom Kelsch: I believe it is to prevent them from knowing it was my vehicle that I purchased. Those last four digits show it was my vehicle that I purchased.

Rep. Weisz: Your section having to do with who has control of the box where the information goes with the vehicle. If I sold the vehicle I would no longer control that information, it would go with the vehicle. What if I don't want to give up my right to my information upon sale of the vehicle?

Tom Kelsch: Say you were in an accident, then you sold your car to the junk yard or whatever. One, you could say you did not want to give up that information and I am going to take that black box out and there maybe some way to take the box out or go in and erase it. As the owner of the vehicle you would have the legal authority to do either of those things before you sold your vehicle.

Rep. Weisz: (7.4) Can I electronically erase the information?

Tom Kelsch: That is getting beyond my area of expertise. I will get that information to you tomorrow or Monday.

Patrick Ward:(See attached testimony #4) I would recommend just deleting paragraph #4 from the engrossed bill and leave it up to the courts. What I understand about these black boxes is they record the data for only a six or eight second interval and at the time of a crash that is severe enough to set off your air bags in the car, it locks that data in there. Once that data is locked in there, it can be retrieved either by the manufacturer and take a computer and plug into the box and get the information. The other way, some manufacturers you actually have to remove the box and mail it into the manufacturer and retrieve the data there. This is very vital crash data that is being recorded. My understanding is, once it is locked in, it has to be downloaded. I have a couple letters from the insurance institute for highway safety about this issue and there are a few things in there that I think might be relative information as well. An estimated 65-90% of all 2004 model vehicles already have these types of boxes. The Insurance Institute for Highway Safety and the National Highway Traffic Safety Institute are trying to get together on is standardizing information that is kept in these boxes. The boxes right now, the manufacturers do their own things. The boxes were put in to gather data for crashes and how people react and what the car is doing. As far as the privacy act goes currently down the road these boxes could record more data for other purposes. The following things at least be recorded prior to the crash: seat belt use, Throttle position, whether the driver was braking and whether the anti lock feature was activated, speed of the vehicle at the time this was activated and during the crash they would like it to record for an additional several seconds on longitudinal and lateral vehicle acceleration with the 1000 data point Delta V. Delta V is the reduction in speed. Also the Delta T, which is

the time period it takes to have that deceleration take place. Time of air bag deployment also. This is the data that most of these manufacturers record and they want to record in the future. Discussed car accidents and investigations.

Rep. Delmore(18.7) It is interesting to hear you speak of the technology and we have gone a long ways. Right now they record from 6 to 8 seconds. What is to prevent, with what we know about technology and how it changes not to do many of the things Rep. Ruby has already asked you about?

Patrick Ward: That is certainly a possibility down the road. It probably would be better to address it then. There are computers on cars now that do all the diagnostic information. It is only to record crash data.

Rep. Delmore(19.7) You would be comfortable in a court of law with two little black boxes giving you all the information to what happens in a given accident. You think there is enough in the 6-8 seconds that can clearly say who was at fault. There is a reason we do other investigations into an accident.

Patrick Ward: I don't mean to give the impression that we would throw out all the other information and use just the black box. Over time we are going to test this system and see how it works. All I am saying is this is a very useful tool.

Rep. Weiler: (21.3) Did you present any of this on the senate side?

Patrick Ward: Yes, I did. I would have been better off if I had not said anything over there.

Rep. Weiler So after all this information they still wanted this 16 & 17 in on page 2? If there is an accident and you get two black boxes and one vehicle was speeding from behind and one vehicle got hit up front that never applied the brakes and was going the correct speed so it is

pretty easy to determine which vehicle was at fault, then you also take in the testimony of the two drivers and one driver that is in the front car that is telling the truth and has all the evidence and you have the one driver in the back that is not telling the truth; you have got three out of four to determine which one is truly at fault and which ones are lying. I don't see a problem.

Patrick Ward:(22.6) When you have that kind of evidence stacked up you try to settle that case. If we have reliable data we will be able to settle more cases out of court.

Rep. Weiler If I am on the correct side of the law I am going to want all the information I can get to help my case.

Rep. Thorpe(25.1) You have had a change to go over the proposed amendments. Would you still be opposing this bill if the committee sees fit to attach these amendments?

Patrick Ward: We would support those amendments.

Rep. RubyI can understand the need to identify the information whether the driving was breaking or accelerating or using seat belts. However, on line 15 on page 2 it talks about use for medical research and the human bodies reaction to motor vehicle accidents. How does it collect any of that data and how is that useful necessarily in an accident. I imagine that data is already being collected from the injury accident reports. That shouldn't be included in information collected by a data recorder.

Patrick Ward:I think what that is referring to is collected for broader research purposes. This is national computer collection on car crashes to improve vehicles. They just get the information from the box so it does speed up the information process.

Rep. Ruby How is this information going to be viewed by the insurance companies. If they are not using seat belts, is it going to result in higher premiums?

Patrick Ward: It is a possibility.

Rep. Bernstein Seems to me last session, if the seat belt wasn't fastened they couldn't use that as a reason to shift blame to another individual. That was two years ago, but seems to me we had to address that issue.

Rep. Delmore Does the technology, like for an error on the air bags going off. Does it take that into consideration?

Patrick Ward: (30.2) That was the older version of the air bags as I understand it.

Paula Grosineer: ND Trail Lawyers. Liability questions rest with the dealer; the manufacturer of the automobile who might end up disconnecting the box or even allowing for it being disconnected. Manufacturers have a responsibility to sell the safest product available. Ford Motor used a seat belt design that was known to fail. They knew there were safer seat belts available, yet they continued to install those faulty seat belts. (Described the seat belt and the related accidents).

Rep. Iverson What does this have to do with recording devices?

Paula Grosineer: If they know there is a safety technology and they are now installing that in these upper end model vehicles and someone would end up in an accident where this technology has been deactivated and would end up in court that there maybe found that there is liability on the side of the manufacturer for not following through with the safest design possible. The driving force to developing this technology was to make vehicles safer and following it. There are cases already in court where a limo driver drove into another vehicle. The black box was able to show that he had intentionally accelerated at the point when the light turned yellow.

Dale Haake: While NoDak Mutual is in opposition to SB2200 we are in favor of the amendments as proposed by Mr. Kelsch. He said that the recording device recorded the truth and that is what I would like you to focus on. This information is used to identify responsibility in an accident.

Rep. Delmore(37.8) I am not sure people always lie in an accident. Going back and trying to figure out how fast I was going and other things. I am not sure that everything is telling a lie. I think accidents just happen and I am not sure that it is always telling a lie.

Dale Haake: In accidents a great many things happen. We are talking about perception and all that is going on in an accident, but this information is one of the elements of telling what in fact did happen.

Rep. Weisz: You made the comment on search and seizure and currently we have at least two units in this state of NDT's that the law enforcement have that can pull this data down immediately. Under your perception, within a crash, and investigating the accident at the time, can you pull that information off the black box legally? Would that be considered search and seizure, would the accident allow them?

Tom Kelsch: My understand is that that would not fall within the search and seizure laws since it is not in plain view so it would require the consent of the owner or a court order and some probably cause. If a crime was committed they probably could get a court order.

Acting Chairman Hawken: Any further testimony on SB 200. If not we will close the hearing
(42.6)

2005 HOUSE STANDING COMMITTEE MINUTES

BILL NO. SB 2200

House Transportation Committee

Conference Committee

Hearing Date March 17, 2005

Tape Number	Side A	Side B	Meter #
2	X		30.1-53.0
2		X	4.3-30.0
Committee Clerk Signature <i>De Lou H. Shumet</i>			

Minutes:

Chairman Weisz reopened SB 2200. I asked Colonel Klipfel to come and testify since he could not be here when we had the hearing.

Colonel Bryan Klipfel:(30.5) See attached testimony #1)

Chairman Weisz Of the 24 that were by consent; we any of them done right at the crash scene or at a later time?

Colonel Klipfel: Not of them are at a later time when they are pulled away from the accident scene and then they are down loaded.

Chairman Weisz The one you had a court order on do you remember that.

Colonel Klipfel: The reason we would get a court order; first, if the registered owner or no one was around. Either that person got injured or killed. Also, if we felt there was information that would help the investigation and the owner wouldn't give us the information.

Rep. Delmore(37.5) You say you have been able to do this for seventeen months? Do you need a court order for each of these down loads?

Colonel Klipfel: When you are in an accident we ask the owner of the vehicle and you say yes, then we will take the information. If you say no and we feel it is needed for the investigation, then we will go through the process of getting a search warrant and a court order just like any other evidence that we obtain.

Rep. Delmore Have you ever been turned down by the courts in getting one of these?

Colonel Klipfel: We haven't at this time. You have to have a list of reasons to get a court order. There is a process and you have to meet certain requirements to get that court order.

Rep. Delmore Do you think this information should be available for every accident whether there is injury or not? Is this necessary information to prove your case?

Colonel Klipfel: We use it for injury or fatality accidents. Normally you can get the information from a routine investigation.

Rep. Bernstein When you ask an individual if you can go and retrieve the information from this box; do you have them sign a consent form? The reason I ask if it would be very easy if it was incriminating that I didn't give him permission to do it?

Colonel Klipfel: We have a form we have available that they can sign off. We have in car video's so we have documentation if they refuse to sign the forms anyway.

Rep. Ruby(41.1) The times you would get a court order. Has there been allot of instances?

Colonel Klipfel: We only had one time where we had to get a court order. I can't remember what the reason for it was. Probably that the owner of the vehicle was killed or injured and we could not get consent from them.

Chairman Weisz We have a bill in front of us with several proposed amendments.

Rep. Weiler: Any recording of this advice is not admissible evidence in any court proceedings.

Do your amendments reverse that?

Tom Kelsch: Yes, they would. They would allow you to use this recording in a court proceeding or an individual by court order. Discussed the proposed amendments.

Rep. Delmore Would you see this being used in every accident or do you see it being used only in serious injury or death.

Tom Kelsch: I may depend on what you mean by serious injury.

Rep. Delmore What is the cost of retrieving data information?

Tom Kelsch: There probably is some cost; and we download it with our own equipment so there is little added costs.

Chairman Weisz What is the rationale of A-F?

Tom Kelsch: From the manufacturer we had some concerns with the engrossed version from the senate where it talks about system data module but doesn't define what that is. Too broad of a definition for the device? Clarified the information we are getting and the definition of the black box. It would be nice to define the EDR device and who the owner is.

Rep. Kelsch (52.7) Remind me what the purpose of F is?

Tape done (53.0)

Tape 2, Side B

Tom Kelsch: That is defining what it is. That is like an On Star provision and we also have the provision in there under 5 and also covered under 3 of the engrossed version too that would allow you to get that information.

Rep. Kelsch On Star is when you are in an accident an On Star knows that you are in an accident and they deploy medical services out to you immediately.

Tom Kelsch: Yes, that is what happens. If your air bag deploys, if you are within the signal range they would send help and call you.

Chairman Weisz Did you suggest these amendments to the senate side?

Tom Kelsch: No, I didn't. I was not hired by General Motors until after the hearing over there so this is the first change I have had to discuss the bill before you.

Rep. Kelsch: This is a hog house because the engrossed version has a number of changes from the original version. To make it clearer reading I put it in this format so that you could read it easier. If you prefer I could put it in an appropriate format.

Chairman Weisz Is it your concern that under the engrossed bill do they have some concerns they won't be able to do the On Star part of it as far as a crash? Is your language to play it safe or do they really think there is some issue with the current language that would prohibit them from uplifting that information.

Tom Kelsch: I think the version General Motors is proposing is approved by the Association of Automobile Manufacturers. I think in reading in the engrossed version on page 2, section 3 I think that would cover an On Star because it does talk about an action concerning their central communication system, if you have subscription service.

Rep. Delmore(7.3) Do you think that your bill opens up the use of the black box more than the amendments that Senator Holmberg is offering?

Tom Kelsch: Just comparing the two. Much discussion about the amendments and wording.

Data record and owner are the two main things in my proposed amendment.

Chairman Weisz Does General Motors currently disclose the information or what kind of information do you to on your own?

Rep. Kelsch I did read the information and it is disclosed in the contract.

Rep. Vigesaa Was that disclosure part of the On Star agreement?

Rep. Kelsch: Yes.

Tom Kelsch:In our proposed amendments we took out the dealer notifying them. Thought it would be better to be in the manual than the dealer.

Rep. Dosch(10.8) Have you explored the constitutionality of this? I don't have a problem if you have consent from the owner to retrieve the information and use it in crash investigations or whatever, but where does constitutionality about self incrimination come into play because this is personal property. You are taking a device that can track you. What is the next step? If we are going to allow a simple court order to obtain this; what is the next step. We can have a data recording device in everyone's house?

Tom Kelsch: It takes a search warrant. A police officer couldn't just say, well we think Rep. Dosch is driving too fast so lets go get the search warrant and lets check to see if there is anything. As I understand from General Motors; they don't keep track of your speed unless there is a crash and it will read the last 6 seconds of what was happening before that crash. So there is an event that is there. For law enforcement they would need a search warrant to do it. If it was a civil suite you would have to get a court order and you would have to say it is relative in this case so under the privacy protection you might have to waive it by a lawsuit?

Rep. Weiler(12.8) If I get in a vehicle accident is there some way that the court or the authorities can impound my vehicle to examine it and try to get some evidence to who may be at fault?

Rep. Dosch's concern are about the personal property that your getting, this black box, they do it already and they take your car and examine it. The car is being impounded.

Tom Kelsch: They do it now. They do a number of different tests and they would still being those type of tests in addition to the information on the EDR.

Rep. Iverson(14.4) What is the capacity of the ERD?

Tom Kelsch: It is just a little computer chip, but I imagine they have a large capacity.

Rep. Owens(14.8) On Star is actually multiple pieces. In his amendment under C 5 you could basically call that clause the may day clause because that bill strictly was may day operations in vehicles and it is showing up in fleet vehicles and snow plows and mainly in GM cars, but Ford tried to start it a similar project. The purpose of the may day system is nothing more than that golden hour after an accident. Getting people out to you if you are involved in an accident and immediate notification. It has nothing to do with how fast you were going or any thing like that. Just whether or not the air bags went off or there is something wrong with the car. They could capture that data. It is not hard to swap out the memory chip for a 5 GB chip and all of a sudden have four days worth of data or two months worth of data.

Rep. Iverson These devices are not mandatory? Then why are they designed not to be removed if you don't want them in your car?

Tom Kelsch: I think from the manufacturers point of view is that these are safety devices can help improve the safety on how cars are designed. Information they can get to make the cars safer. Some point down the road they will be mandatory on cars.

Chairman Weisz Main concern with your amendments is the second page under C in reality the person that recorded the data loses that data. The person that recorded the data loses it when

they sell their car. Would you have an objection to changing to say at the time the data is recorded?

Tom Kelsch: (19.2) The language is similar between the engrossed and our proposed amendment. Our concern at the time the data is recorded is that person may not be around for whatever reason.

Chairman Weisz(19.7) There are two ways to get the data otherwise. When you get a court order the data is his regardless of who owns the vehicle. He now has given up his rights to control the data because he lost rights when the car left, either to the insurance company or another buyer. He may not want to give consent.

Tom Kelsch: You have a couple options. You could take it out or you could use a magnet and erase it just like you would erase a hard disc on your computer.

Chairman Weisz What if the vehicle is still operational. You can't remove the black box since the vehicle won't work. The concern is who controls that data; who knows what is on it. Today everyone is aware the only data that going to be hard on their is that 6 seconds before the crash. Sounds like there is not a problem getting a court order to get the data or getting consent, Again, it becomes an issue of who owns that data.

Tom Kelsch: From General Motors prospective they want to deal with the current owner of the vehicle. Not trying to find someone who use to own it. According to GM when there is an event the EDR can store up to two different events when there is an air bag deployment. If they occur within 5 seconds of one another. Once they have been deployed you would be replacing the air bags and EDR.

Tom Kelsch: Who is the owner to give consent is a question. It doesn't define who the owner is. It just says can not be retrieved from other than the owner except for these exceptions. With Holmberg's proposed amendment it talked about the data being retrieved by the registered owner of the vehicle which is similar with either bill totally addresses your concern. Our proposed amendment defines who the owner is.

Rep. Weiler If I get in an accident and it is bad, but I can still drive away. As I am driving away that 8 seconds that was on there is now gone? It is a repeating process so it is the last 8 seconds, right?

Tom Kelsch: It is my understanding if it is a significant event where the airbags go off; then it writes it and it won't write anymore. Otherwise it is rewriting every 8 seconds, but when you have the air bags go off it writes it and won't rewrite it at all.

Rep. Bernstein Colonel, we have a pretty serious down in SD. Was an EDR involved in it and does the EDR say; or just confirmed the obvious?

Colonel Klipfel: (28.4) His vehicle pulled out from an intersection and got broad sided by a motorcycle and the motorcyclist got killed. I don't believe there was airbag deployment so there was no specific data on that.

Chairman Weisz Should we hold this? We have till tomorrow to kick this out so we will hold this for today. We can incorporate these amendments and meet on that tomorrow.

Done(30.0)

2005 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2200

House Transportation Committee

Conference Committee

Hearing Date March 18, 2005

Tape Number	Side A	Side B	Meter #
1		X	0.3-18.0
Committee Clerk Signature <i>De Loren D. Shumak</i>			

Minutes:

Chairman Weisz reopened the hearing on SB2200.

Rep. Kelsch(1.3) There was a little bit of concern with Tom's bill yesterday. It kind of looked like a hog house. He went through and redrafted his amendments to fit into the engrossed bill that was sent over from the senate. The bill is adding in the definition of what an event data recorder is. 2. It is making sure that the definition is correct. This is the section that we have had a problem with it. Chairman Weisz was going to ask it go into a conference committee so that it meets all the concerns that our chairman has. Also, in the middle there in A where the last four digits are deleted. Again to give more privacy to the owner so that if those numbers are deleted it is not traceable that you were the owner of the vehicle. In D that was the On Star language we had talked about yesterday. The definition of owner is in there. Making sure that D is in there in the second page. It covers the fact that someone else was driving your vehicle and the On Star

location device came on. This gives a little more protection to you if someone else is involved in a car accident and the On Star goes off.

Rep. Ruby(3.5) Aren't we talking about two different things. You have this that records the information, but the On Star is a cellular thing that sends it out. I don't know if those black boxes, when we are talking about them, sends out information to a central location. The way some of this is worded is sounds like we have On Star and the black box mixed up.

Chairman Weisz(4.1) Yes the black box itself doesn't transmit the information, but it is recording this information. The On Star is accessing it. When you have the 6 seconds it is froze it is constantly monitoring your condition or whatever even an engine light. When the black box records an air bag was triggered; then it automatically tells On Star to call and relays the information.

Rep. Ruby(5.4) These are the exemptions to the customer giving authorization so with that service he gives the authorization. So with that service he gives that authorization so with that service he gives the authorization so if we put an exemption here there wouldn't have to be any authorization. When you sign up for that service you are authorizing that information be used.

Chairman Weisz(5.5) We are looking at more than today with this legislation. I would argue currently right now there is not a big issue with the black boxes invading your privacy very much. Tomorrow or next year that may not be the case since there are new capabilities.

Rep. Owens D would provide the option for the future for this EDR for the direct short range communication system along the highways where there is communication back and forth for the mayday system I was talking about and is being pushed by USDA and Federal Highway for the soul purpose of that golden hour for people who aren't on subscription services.

Rep. Dosch The application date was 2006, and this is back to 2005 on this bill.

Rep. Kelsch I think that is because that is what is on the engrossed bill that came over from the senate.

Chairman Weisz On the proposed amendment handed out yesterday and the one I am reading on the engrossed. On the second page under C 1 as far as when the data could be accessed. I don't see that there is in the amendment where you could give consent for them to use your information. I don't see that unless it is somewhere else.

Rep. Dosch(7.9) I think page 2 #2 is where it is.

Rep. Delmore Did we want the emergency clause on there?

Rep. Dosch:With the emergency clause because it requires some disclosure by the manufacturer they would be in violating right away.

Rep. Meyer Would you explain the penalty provisions. I can't see where it is.

Chairman Weisz It says to provide a penalty. LC will make sure it mess's. It is section 15.15.

Motion Made by Rep. Kelsch Seconded By Rep. Owens Do Pass on the proposed amendment.

Discussion:

Chairman Weisz: Just so everyone is clear. These are the amendments. The ones that were just handed out. There is a penalty and LC will reference the correct sections; it is under 51-07 which has a penalty section so they will reference the proper section. If you violate 51-07 there is a penalty. They will reconcile the differences. Not sure what the penalty will be.

Voice vote carried Rep. Iverson and Rep. Ruby opposed it.

Chairman Weisz (13.1) We have an amended bill in front of us. Is there any further amendments?

Rep. Thorpe When Rep. Kelsch went over the new amendment, I thought she mentioned the chairman had a concern.

Chairman Weisz My concern was if a vehicle was totaled out, the insurance company owns it. I don't have the ability to give consent anymore or not under that section. The insurance company decides if they want to release that information, under section 2. I am comfortable having this end up in a conference committee and maybe the committee can come up with some answers.

Motion Made by Rep. Kelsch Seconded by Rep. Weiler to further amend and add the emergency clause.

Rep. Dosch(15.0) The problem by doing that is that you are not allowing the dealers enough time to get their forms in order. This could be in affect in a couple of weeks from now and that would put them in violation of this.

Voice vote failed. Rep. Kelsh yes; balance opposed.

Motion Made By Rep. Kelsh Seconded By Rep. Delmore

Do Pass As Amended

Further Discussion:

Rep. Iverson(16.1) I am going to oppose the bill because I think it is big brother slipping into your personal life and I don't think we should until it is federally mandated.

Rep. Ruby I have to agree with Rep. Iverson. I think the intent of the bill was to lock up the information for the customer; or owner of the information and now we have a bill that gives many different reasons why and how it can be used. So I am going to oppose the amended bill.

9 Yes 4 No 2 Absent Carrier: Rep. Owens

(18.0).

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2200

Page 2, after line 8, insert:

"c. The data is retrieved by a law enforcement officer for the purpose of accident reconstruction or the investigation of a violation of the law.

d. The data is retrieved upon order of a court or the written consent of the registered owner of the vehicle."

Page 2, line 17, after "proceeding" insert "except by stipulation of the parties to the proceeding or by order of the court"

Renumber accordingly

Prepared
by
AG's
office

Ray

add emergency clause

Date: 3-18-05
 Roll Call Vote #:

2005 HOUSE STANDING COMMITTEE ROLL CALL VOTES
 BILL/RESOLUTION NO. SB 2200

House Transportation Committee

Check here for Conference Committee

Legislative Council Amendment Number 502.56.0301.0700

Action Taken Do Pass As Amended

Motion Made By Rep. Kilack Seconded By Rep. Delmore

Representatives	Yes	No	Representatives	Yes	No
Rep. Weisz - Chairman	✓		Rep. Delmore	✓	
Rep. Hawken - Vice Chair.	<i>abs</i>		Rep. Meyer	✓	
Rep. Bernstein		✓	Rep. Schmidt	✓	
Rep. Dosch	✓		Rep. Thorpe	✓	
Rep. Iverson		✓			
Rep. Kelsch	✓				
Rep. Owens	✓				
Rep. Price	<i>abs</i>				
Rep. Ruby		✓			
Rep. Vigasaa		✓			
Rep. Weiler	✓				

Total (Yes) 9 No 4

Absent 2

Floor Assignment Rep. Owens

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2200, as engrossed: Transportation Committee (Rep. Weisz, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends DO PASS (9 YEAS, 4 NAYS, 2 ABSENT AND NOT VOTING). Engrossed SB 2200 was placed on the Sixth order on the calendar.

Page 1, line 2, remove "to provide a penalty;"

Page 1, line 7, remove "- Penalty"

Page 1, line 9, replace "a systems data module" with "an event data recorder"

Page 1, line 13, replace "systems data module" with "an event data recorder" and replace "device" with "feature"

Page 1, line 14, after "vehicle" insert "and does any of the following" and replace the period with "after a crash:

- a. Records the speed of the vehicle and the direction the motor vehicle is traveling.
- b. Records vehicle location data.
- c. Records steering performance.
- d. Records brake performance including whether brakes were applied before an accident.
- e. Records the driver's safety belt status.
- f. Has the ability to transmit information concerning an accident in which the vehicle has been involved to a central communications system when an accident occurs."

Page 1, line 15, replace "a recording device" with "an event data recorder"

Page 1, line 16, remove "registered" and after "vehicle" insert "at the time the data is accessed, or through consent by the owner's agent or legal representative"

Page 1, line 22, after "number" insert ", with the last four digits deleted,"

Page 2, after line 8, insert:

- "c. Upon authority of a court or other judicial or administrative authority having jurisdiction.
3. "Owner" means a person having all the incidents of ownership, including the legal title of a vehicle regardless of whether the person lends, rents, or creates a security interest in the vehicle; a person entitled to the possession of a vehicle as the purchaser under a security agreement; or the person entitled to possession of the vehicle as lessee pursuant to a written lease agreement, if the agreement at inception is for a period in excess of three months.
4. A person, including a service or data processor operating on behalf of the person, authorized to download or otherwise retrieve data from an event data recorder pursuant to subdivision a of subsection 2 may not release

that data except for the purposes of motor vehicle safety and medical communities to advance motor vehicle safety, security, or traffic management; or to a data processor solely for the purposes permitted by this subsection, and only if the identity of the owner or driver of the vehicle is not disclosed."

Page 2, line 9, replace "3." with "5."

Page 2, line 10, replace "the listing of where the motor vehicle travels" with "vehicle location data"

Page 2, line 13, after "the" insert "terms and conditions of the" and remove "agreement"

Page 2, remove lines 16 and 17

Renumber accordingly

2005 SENATE JUDICIARY

CONFERENCE COMMITTEE

SB 2200

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2200

Senate Judiciary Committee

X Conference Committee

Hearing Date April 4, 2005

Tape Number	Side A	Side B	Meter #
1	X		1-2215
Committee Clerk Signature <i>Jay Hays</i>			

Minutes:

Chairman Trenbeath called the conference committee to order to discuss SB 2200. All members were present: Senators Hacker & Nelson , Representatives R. Kelsch, Owens, & Delmore.

Representative Owens explained the amendments from the original bill. The amendments restricted the use of the data from black boxes. A lot of the information is commonly referred to as "may day" services, it was in an effort to increase the response time. The amendments specified the owner of the data and restrict the use of the data based on the consent of the owner. The court could issue a court order if the information inside was valuable.

Representative Kelsch- It changed the definition when it came over from the Senate. It was previously a systems data module, and now is an event data recorder. She read her Envoy owner's manual, on the section of the event data recorder, which included the capabilities of the system.

Senator Trenbeath- In the House version, where did the definition of "owner" come from?

Representative Kelsch- It came from General Motors, its their standard definition of owner.

Senator Trenbeath- In my opinion, the event data recorders are there for the owner and manufacturer. I don't think they ought to be available to the insurer for the purposes of blame setting. I'm unsure if the definition of owner, would include the insurer after the crash event.

Representative Owens- My concern is if the insurance company purchases the car after being totaled, then they are the owner and can access the data.

Representative Kelsch- One of my concerns is if it reads "owner of the motor vehicle at the time the data was recorded," now if the car is sold and goes to Minnesota, which state's laws apply? We could possibly enact a law to prevent insurance companies from obtaining the information.

Senator Trenbeath- My understanding is that Minnesota laws would apply at that point.

Representative Owens- There are only 5 seconds of data recorded, and the information is constantly being reviewed. It is a memory chip that is magnetic, similar to a hard drive.

Representative Kelsch- When there is an accident and the air bags are deployed, the air bags need to be replaced. At the same time the event data recorder can be replaced as well. If you were in a car accident, you would want to use that information, especially if you weren't at fault.

Senator Trenbeath- There could be conflicting information from either side, if brought to court because of an accident.

Representative Delmore- In cases of fatalities, the highway patrol already has access to these black boxes.

Representative Owens- It is interesting that the data from these recorders could be used in court for a person's defense or complaint.

Senator Trenbeath requested to meet with Representatives Kelsch and Owens to discuss the definition of owner and who can access the information.

Representative Kelsch- The highway patrol testified before our committee, and they have used that information in 25 cases, the owner gave them permission in 24 of the cases.

Senator Nelson- There has been problems with the name of this device in previous sessions.

Representative Owens- In the near future, there will be an Intelligent Vehicle Initiative which will be taking place for the driver to retrieve important data on road conditions and the vehicle. Right now, the black box is focused on crash data, but in the future there will be a lot more.

Chairman Trenbeath closed the conference committee meeting on SB 2200. No action was taken.

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2200

Senate Judiciary Committee

Conference Committee

Hearing Date April 6, 2005

Tape Number	Side A	Side B	Meter #
1	X		1-359
Committee Clerk Signature 			

Minutes:

Chairman Trenbeath called the conference committee to order. All members were present with the exception of Senator Nelson.

Chairman Trenbeath distributed amendments presented by Representative Owens. See attached amendments (50256.0302).

Representative Owens- We made three changes: ownership at the time of recording vs access, the adjustment of the legal use as far as stipulated by the court order, and the dual restriction on insurance companies which prohibits them from using the date for rate setting purposes.

Action taken:

Representative Kelsch moved that the House recede from the House amendments, and further amend the bill with amendments (50256.0302). Seconded by Representative Delmore. The vote was 5-0-1. The motion passes.

Chairman Trenbeath closed the conference committee on SB 2200.

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2200

That the House recede from its amendments as printed on pages 973 and 974 of the Senate Journal and pages 1220 and 1221 of the House Journal and that Engrossed Senate Bill No. 2200 be amended as follows:

Page 1, line 2, remove "to provide a penalty;"

Page 1, line 7, remove "- Penalty"

Page 1, line 9, replace "a systems data module" with "an event data recorder"

Page 1, line 10, replace "that fact" with "by model year 2007 the presence, capacity, and capabilities of the event data recorder"

Page 1, line 13, replace "systems data module" with "an event data recorder" and replace "device" with "feature"

Page 1, line 14, after "vehicle" insert "and does any of the following" and replace the period with ":

- a. Records the speed of the vehicle and the direction the motor vehicle is traveling.
- b. Records vehicle location data.
- c. Records steering performance.
- d. Records brake performance, including whether brakes were applied before an accident.
- e. Records the driver's safety belt status.
- f. Has the ability to transmit information concerning an accident in which the vehicle has been involved to a central communications system when an accident occurs."

Page 1, line 15, replace "a recording device" with "an event data recorder"

Page 1, line 16, remove "registered" and after "vehicle" insert "at the time the data is recorded, or through consent by the owner's agent or legal representative"

Page 1, line 22, after "number" insert ", with the last four digits deleted,"

Page 2, after line 8, insert:

- "c. By stipulation of the parties to the proceeding or by order of the court.
3. "Owner" means a person having all the incidents of ownership, including the legal title of a vehicle regardless of whether the person lends, rents, or creates a security interest in the vehicle; a person entitled to the possession of a vehicle as the purchaser under a security agreement; or

the person entitled to possession of the vehicle as lessee pursuant to a written lease agreement, if the agreement at inception is for a period in excess of three months.

4. A person, including a service or data processor operating on behalf of the person, authorized to download or otherwise retrieve data from an event data recorder pursuant to subdivision a of subsection 2 may not release that data except for the purposes of motor vehicle safety and medical communities to advance motor vehicle safety, security, or traffic management; or to a data processor solely for the purposes permitted by this subsection and only if the identity of the owner or driver of the vehicle is not disclosed."

Page 2, line 9, replace "3." with "5."

Page 2, line 10, replace "the listing of where the motor vehicle travels" with "vehicle location data"

Page 2, line 13, after "the" insert "terms and conditions of the" and remove "agreement"

Page 2, ^{replace} ~~remove~~ lines 16 and 17 with:

Page 2, after line 17, insert:

- "6. An insurer may not require as a condition of insurability consent of the owner for access to data that may be stored within an event data recorder and may not use data retrieved with the owners consent before or after an accident for the purpose of rate assessment."

Renumber accordingly

Date: 4-6-05

Roll Call Vote #: 1

2005 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2200

Senate Judiciary Conference Committee Committee

Check here for Conference Committee

Legislative Council Amendment Number 50256, 0302

Action Taken House recede from House Amendments, be furthered amended

Motion Made By Kelsch Seconded By Delmore

Senators	Yes	No	Representatives	Yes	No
Sen. Trenbeath <i>chair</i>	X		Rep. Kelsch	X	
Senator Hacker	X		Rep. Owens	X	
Sen. Nelson			Rep. Delmore	X	

Total (Yes) 5 No 0

Absent 1 0

Floor Assignment Senator Rep.

If the vote is on an amendment, briefly indicate intent:

REPORT OF CONFERENCE COMMITTEE

SB 2200, as engrossed: Your conference committee (Sens. Trenbeath, Hacker, Nelson and Reps. R. Kelsch, Owens, Delmore) recommends that the **HOUSE RECEDE** from the House amendments on SJ pages 973-974, adopt amendments as follows, and place SB 2200 on the Seventh order:

That the House recede from its amendments as printed on pages 973 and 974 of the Senate Journal and pages 1220 and 1221 of the House Journal and that Engrossed Senate Bill No. 2200 be amended as follows:

Page 1, line 2, remove "to provide a penalty;"

Page 1, line 7, remove "- Penalty"

Page 1, line 9, replace "a systems data module" with "an event data recorder"

Page 1, line 10, replace "that fact" with "by model year 2007 the presence, capacity, and capabilities of the event data recorder"

Page 1, line 13, replace "systems data module" with "an event data recorder" and replace "device" with "feature"

Page 1, line 14, after "vehicle" insert "and does any of the following" and replace the period with ":

- a. Records the speed of the vehicle and the direction the motor vehicle is traveling.
- b. Records vehicle location data.
- c. Records steering performance.
- d. Records brake performance, including whether brakes were applied before an accident.
- e. Records the driver's safety belt status.
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Page 1, line 22, after "number" insert ", with the last four digits deleted,"

Page 2, after line 8, insert:

- "c. By stipulation of the parties to the proceeding or by order of the court.
3. "Owner" means a person having all the incidents of ownership, including the legal title of a vehicle regardless of whether the person lends, rents, or creates a security interest in the vehicle; a person entitled to the possession of a vehicle as the purchaser under a security agreement; or the person entitled to possession of the vehicle as lessee pursuant to a

written lease agreement, if the agreement at inception is for a period in excess of three months.

4. A person, including a service or data processor operating on behalf of the person, authorized to download or otherwise retrieve data from an event data recorder pursuant to subdivision a of subsection 2 may not release that data except for the purposes of motor vehicle safety and medical communities to advance motor vehicle safety, security, or traffic management; or to a data processor solely for the purposes permitted by this subsection and only if the identity of the owner or driver of the vehicle is not disclosed."

Page 2, line 9, replace "3." with "5."

Page 2, line 10, replace "the listing of where the motor vehicle travels" with "vehicle location data"

Page 2, line 13, after "the" insert "terms and conditions of the" and remove "agreement"

Page 2, replace lines 16 and 17 with:

- "6. An insurer may not require as a condition of insurability consent of the owner for access to data that may be stored within an event data recorder and may not use data retrieved with the owners consent before or after an accident for the purpose of rate assessment."

Renumber accordingly

Engrossed SB 2200 was placed on the Seventh order of business on the calendar.

2005 TESTIMONY

SB 2200

SB 2200.. The black box bill.

Senator Holmberg

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated..4th Amendment, U.S. Constitution

What is the tipping point? The point at which citizens will take a stand against the increasing loss of our privacy. When you go to the mall, pump gas, buy a candy bar, or go on a stroll in many of our cities, SMILE, you are probably on candid camera.

We are reaching the stage where the only areas of privacy left are our homes and in our cars.

Oh. Did I say cars? Maybe once, but maybe no longer.

When I bought my new car I got more than I bargained and paid for. With the car, I got big brother riding shotgun.

My own personal "BIG BROTHER" is actually an unannounced **Electronic Data Recorder, or Event Data Recorder (EDR)** the more socially acceptable terms for a black box and much less inflammatory than, "spyware."

Since the early 1980's and even before, electronic devices in cars have monitored the deployment of air bags. Now, they're saving much more data, and that data is very useful to auto designers to design safer vehicles. Alan Adler, manager of product-safety communications at General Motors in Warren, Mich says, "The main purpose of the EDR is to get data after a crash to help us understand how the airbags worked. The privacy of our customers is very important to us, but [the device] doesn't record anything that isn't true."

So far most of the devices record the last five to eight seconds of readings before a crash, similar to flight-data recorders in airplanes.

Today's devices can record such information as :

Vehicle Speed, Engine speed, Percent throttle , Drivers and passengers seat belt usage, Brakes, Whether or not seat belt warning light was on, Changes in forward velocity 150 milliseconds after an event starts, Time from start till airbags begin sequence of deployment.

The problem is that most people don't realize these devices are in their vehicle, that the information recorded may be used against them, and there's no sort of regulation about who owns that information. That's the reason I'm standing here before you today as prime sponsor of SB 2200.

Jay Stanley, director of communications for the Technology and Liberty Project states that this is another example of where technology has outstripped the law and certain assumptions of how the world works, Installing black boxes with five seconds worth of memory was as simple as adding a memory chip to existing computer systems in cars. Increasing the memory to several months' worth of data would not be difficult at all he continues. If a manufacturer decided tomorrow to track three months of data instead of five seconds, there's nothing that would make them have to tell anybody. Unknown to us they might add a GPS or remote satellite component to the mix.

Who do "they" think the information would be used by?

More importantly.... Who do **you** think “they” might be?

Well, Ford Motor Company in its owners manual states who “They” think “they” might be...

“This information may be used by Ford service and repair facilities, law enforcement or government agencies, or others who may assert a right or obtain your consent to know such information.” Why not AND obtain your consent?

Ford Motor Company started to put such a disclaimer in light-vehicle owners manuals starting in 2001. General Motors has been including a disclaimer for a number of years, while they’ve been quietly including what amounts to third-generation recorders in their vehicles for several years.

The National Highway Traffic Safety Administration has federal authority in this area. It proposes that the recorders become standard equipment starting in 2009 models, retain at least the last eight seconds of data before a crash, and include added data from electronic stability control and anti lock braking systems.

My problem is that the boxes collect all kinds of data about driving habits, and can be easily altered to collect even more. What they can collect tomorrow, they will. While the technology has its legitimate uses in improving safety, there is to me, a fear that the data can be misused. and if it “can” it will be misused. From General Motors disclosure statement: **“Unlike the data recorders on many airplanes, these on-board systems do not record sounds, such as conversation of vehicle occupants.”** Too that I add “YET”

History suggests that once cars are equipped for limited data recording, some in government will begin to argue that it is for drivers' own good to collect more and more information and for a longer and longer time, and that the data is the property of the government, or perhaps your insurance company.

Only California has a law requiring disclosure of the black boxes passed in 2003. The dealership where I bought my new car last summer in Grand Forks, referred me to the manufacturers consumer information line because neither the sales person, sales manager nor the service manager knew for sure if there was one in my car. They thought "perhaps."

SB 2200 is based on California statute and attempts to do the following:

1. Disclosure...Sellers would have to disclose the fact that a EDR was in the vehicle in a clear and conspicuous manner.
2. Privacy. You all remember that in 2002 when the voters had the opportunity to vote on a privacy issue... over 73% felt it important. Privacy protection is the guts of the bill. We attempt to define the data collected as the property of the owner of the car, and not public information. It should not be accessible by insurance companies and as Ford suggests "*others who may assert a right.*" Who owns what's in the vehicle you paid for?... Does Chrysler still own the tires, radio, battery? **What you paid for and have been given legal title to by the state.. Is YOURS, lock, stock, and black box.**



3. The bill would allow a car owner to have such a system disconnected. Continuing research has led me to believe that this portion of the bill will have to be removed, as the device is integrated into the electronic control modules of the vehicle.

4. Information on driving habits... contained in the box, can't be accessed by your insurance company to assess your insurance risk nor by automobile companies to void your warranty. (you may want to consider strengthening this component).

5. Data related to driving habits could be retrieved only by an order of the court or the owners permission.

6. Subscription services, like OnStar, are exempt, but the fact that information may be recorded or transmitted must be disclosed in the subscription service agreement...



Many say black boxes are Orwellian, straight out of "1984." "Big Brother is watching you."

Many say there are serious privacy and constitutional issues which need to be addressed, such as search and seizure, self incrimination, and due process.

Many say the implications are far-reaching - that black boxes will not only be used in accident investigations and criminal court trials as they currently are, but eventually to convict drivers on speeding tickets and even to determine insurance rates.

Many say that **Consumers Union** (publisher of Consumer Reports) is correct when it expresses concern that insurers will require the use of EDR information as a condition of coverage in the future.

Many say if the data is so important, those who want it should pay for it.

Some say if we pass any legislation in this area we will hamstring law enforcement in their investigation of accidents.

Some say we should wait until the federal government does something to protect our privacy, and that what we're doing runs counter to the public's interest and that of the Federal Government in traffic safety..

I say we should be proactive and move to protect the privacy of our citizens today and into the future . We do not live in George Orwells' Oceania, we live in North Dakota.

I say we should pass SB 2200

**TESTIMONY
SENATE BILL 2200
SENATE JUDICIARY
JANUARY 24, 2005**

- Mr. Chairman and members of the committee. My name is Bob Lamp and I am appearing on behalf of the Automobile Dealers Association of North Dakota which consists of the 106 franchised new car dealers in our state.
- I do not appear before you pretending to have any expertise on the technical issues in Senate Bill 2200. The complexities of this bill are a long way from a kid who used to work on his 1951 Ford. We obviously live in a different world with today's automobiles. And thankfully so.
- Since Senator Holmberg showed me a copy of the bill several weeks ago, I have spent considerable time trying to find out about Event Data Recorders (EDRs). My mission was to find out what they are, what they do and how other jurisdictions have addressed the issues in Senate Bill 2200. This is what I learned:
 1. The initial push for Event Data Recorders came in the 1970's from a recommendation by the National Transportation Safety Board (NTSB).
 2. Event Data Recorders are not Flight Data Recorders (black boxes). EDRs are part of the automobile's safety system that controls deployment of airbags and other restraint components.
 3. Event Data Recorders are integrated components. There is no EDR module in a vehicle. Rather, it is integrated within one or more modules in the automobile.
 4. It is all but impossible to disconnect the EDR component unless the entire airbag sensing and diagnostic module (SDM) is disconnected. (It may be technically feasible for a dealer to download new software into the SDM but the result of such action is unknown).
 5. If airbags are arbitrarily disconnected, we believe the action could be a violation of federal safety standards for automobiles and the dealer could have a serious liability problem.
 6. EDRs do not record data during 99.9% of driving time. They do not record daily driving information; do not record conversations, driving habits, locations visited, outside conditions or driving times and dates.
 7. EDRs are intended to record only crash-related data. They capture up to 10 seconds of pre-crash data and only milliseconds of data during the actual crash.
 8. The information on EDRs is being overwritten on a continuing basis. They do not store historical data. Generally, once an airbag has been deployed the module needs to be replaced.

9. Before data is recorded in the EDR, a crash must have occurred. At that point the issue of information ownership becomes relevant. It is the policy of the manufacturer I contacted that the vehicle's owner must grant consent to access the data. Police or court orders to access data may be issued in certain cases.
10. Information on the EDRs is only available remotely when the owner has an optional subscription service such as On Star.

- The dealers I represent:

1. Support disclosure by the manufacturer of the existence of EDRs.
2. Believe that data gathered by an EDR remain the sole property of the vehicle's owner or lessee.
3. Supports the requirement that subscription service providers notify their customers if crash-related information will be recorded.
4. Believe that regulation of this technology is a federal issue. There should be one standard not fifty. **(Currently, only one state, California, has passed and implemented EDR legislation).**
5. Believe that if such legislation is to be enacted in North Dakota it should be fashioned after model legislation that is available.

- The dealers I represent:

1. Do not believe it is feasible for them to be required to disconnect the EDR at a customer's request.
2. Do not believe they should be exposed to the cost and potential liabilities involved in disconnecting an EDR.
3. Do not believe they should be at risk of losing their dealer license for failure to disclose the presence of an EDR.

- Mr. Chairman, this concludes by testimony. Thank you and the committee for giving me the chance to speak to Senate Bill 2200.

Robert L. Lamp
Automobile Dealers Association of North Dakota

Att #3

MOTOR VEHICLE EVENT DATA RECORDERS
PROPOSED MODEL LANGUAGE

1 LEGISLATIVE COUNSEL'S DIGEST

2 Vehicles: manufacturers: consumer notification.

3 This bill would require a manufacturer of a new motor vehicle
4 sold or leased in this state that is equipped with one or more
5 recording devices, commonly referred to as "event data recorders (EDR)"
6 or "sensing and diagnostic modules (SDM)," to disclose that fact in the
7 owner's manual for the vehicle. The bill would prohibit specified
8 data that is recorded by a recording device from being downloaded or
9 otherwise retrieved by a person other than the owner of the motor
10 vehicle, except under specified circumstances. The bill
11 would also require a subscription service agreement to disclose that
12 specified crash-related information may be recorded or transmitted as
13 part of the subscription service.

14 The bill would provide that it applies to all motor vehicles
15 manufactured on or after 12 months following the date of enactment.

16
17 THE PEOPLE OF THE STATE OF [insert State] DO ENACT AS FOLLOWS:

18 Section xxx1 is added to the Vehicle Code, to read:

19 xxx1. (a) A manufacturer of a new motor vehicle sold or leased in
20 this state, which is equipped with one or more recording devices
21 commonly referred to as "event data recorders (EDR)," including
22 "sensing and diagnostic modules (SDM)," shall disclose that fact in the
23 owner's manual for the vehicle.

24

**MOTOR VEHICLE EVENT DATA RECORDERS
PROPOSED MODEL LANGUAGE**

1 (b) As used in this section:

2 (1) "owner" means a person having all the incidents of
3 ownership, including the legal title of a vehicle whether or not
4 such persons lends, rents, or creates a security interest in the
5 vehicle; a person entitled to the possession of a vehicle as the
6 purchaser under a security agreement; or the person entitled to
7 possession of the vehicle as lessee pursuant to a written lease
8 agreement, provided such agreement at inception is for a period
9 in excess of three (3) months.

10 (2) "Event Data Recorder (EDR)" means a feature that is
11 installed by the manufacturer of the vehicle and does one or
12 more of the following, for the purpose of capturing data for
13 retrieval after a crash:

- 14 (a) Records vehicle speed and/or direction.
- 15 (b) Records vehicle location data.
- 16 (c) Records vehicle steering performance.
- 17 (d) Records vehicle brake performance, including whether
18 brakes were applied before a crash.
- 19 (e) Records the driver's seatbelt status.
- 20 (f) Has the ability to transmit information concerning a
21 crash in which the motor vehicle has been involved to a
22 central communications system when a crash occurs.

23 (c) Data described in subdivision (b) (2) that is recorded on an EDR
24 may not be downloaded or otherwise retrieved by a person other than an
25 owner of the motor vehicle at the time the data is accessed, except
26 under one of the following circumstances:

MOTOR VEHICLE EVENT DATA RECORDERS
PROPOSED MODEL LANGUAGE

1 (1) The owner of the motor vehicle or the owner's agent or legal
2 representative consents to the retrieval of the information.

3 (2) Upon authority of a court or other judicial or administrative
4 authority having jurisdiction.

5 (3) For the purpose of improving motor vehicle safety, security or
6 traffic management, including for medical research of the human body's
7 reaction to motor vehicle crashes, and provided that the identity of
8 the owner or driver is not disclosed in connection with that retrieved
9 data. For the purposes of this subsection, the disclosure of the
10 vehicle identification number (VIN) with the last four digits deleted
11 does not constitute the disclosure of the identity of the owner or
12 driver.

13 (4) The data is retrieved by a licensed new motor vehicle dealer,
14 or by an automotive technician for the purpose of diagnosing, servicing
15 or repairing the motor vehicle.

16 (5) The data is retrieved for the purpose of determining the need
17 for or facilitating emergency medical response in the event of a motor
18 vehicle crash.

19 (d) A person, including a service or data processor operating on
20 behalf of such person, authorized to download or otherwise retrieve
21 data from an EDR pursuant to paragraph (3) of subdivision (c), may not
22 release that data, except: (1) for the purposes of motor vehicle safety
23 and medical research communities to advance motor vehicle safety,
24 security, or traffic management; or (2) to a data processor solely for
25 the purposes permitted by this subdivision (d), and only if the
26 identity of the owner or driver is not disclosed.

**MOTOR VEHICLE EVENT DATA RECORDERS
PROPOSED MODEL LANGUAGE**

1 (e) (1) If a motor vehicle is equipped with an EDR that is capable
2 of recording or transmitting information as described
3 subdivision (b) (2) and that capability is part of a subscription
4 service, the fact that the information may be recorded or transmitted
5 shall be disclosed in the subscription service agreement.

6 (2) Subdivision (c) does not apply to subscription services
7 meeting the requirements of paragraph (1).

8 (f) This section applies to all motor vehicles manufactured on or
9 after 12 months following the date of enactment.

10

Testimony of Patrick Ward in Opposition of SB 2200

Mr. Chairman and members of the committee. My name is Patrick Ward. I am a partner in the law firm of Zuger Kirmis & Smith here in Bismarck. I represent State Farm Insurance Company in opposition to SB 2200.

State Farm is the nation's largest automobile insurer and also has the largest market share in North Dakota. As such, State Farm is involved in investigating more automobile accidents and in totalling more vehicles than probably anybody else other than law enforcement in this state. We have several problems with this bill.

We do not have a problem with requiring a manufacturer or car dealer to disclose the existence of an event data recorder (EDR) or black box in a vehicle. We do oppose the provision that would allow a vehicle owner to request disconnection of the EDR at page 1, lines 14-15 of the bill.

In addition to the requirements of consent or court order for retrieval of data after a crash, we would also like language that would permit us, if this bill passes, to contract with owners in their insurance contract for advance consent to retrieve the data in the event of an accident that actuates the EDR or when we total a vehicle or take a vehicle into evidence after an accident.

The data on the EDR is very useful in determining fault for a motor vehicle accident. Until this time, we have been limited by accident reconstruction that is really based on educated guess work; i.e., skid marks, coefficients of friction, testing bulbs on headlights, eyewitness testimony, and similar unreliable data. We now have the technology that will tell us the speed of a vehicle, whether the

seat belts were in use, whether the lights were on, and similar important accident reconstruction data, and this statute attempts to suppress that useful information.

We certainly agree that privacy is important but after an accident has occurred, and especially one where others may be injured, we should not suppress data useful in the search for the truth.

We ask that you vote no on SB 2200.

From the owner's manual of the 2004 Chevrolet Impala:

VEHICLE DATA COLLECTION AND EVENT DATA RECORDERS

Your vehicle, like other modern motor vehicles, has a number of sophisticated computer systems that monitor and control several aspects of the vehicle's performance. Your vehicle uses on-board vehicle computers to monitor emission control components to optimize fuel economy, to monitor conditions for air bag deployment and, if so equipped, to provide anti-lock braking and to help the driver control the vehicle in difficult driving situations. Some information may be stored during the regular operations to facilitate repair of detected malfunctions; other information is stored only in a crash or near crash event by computer systems commonly called event data recorders (EDR).

In a crash or near crash event, computer systems, such as the Air Bag Sensing and Diagnostic Module (SDM) in your vehicle may record information about the condition of the vehicle and how it was operated, such as engine speed, brake applications, throttle position, vehicle speed, safety belt usage, air bag readiness, air bag performance data, and the severity of a collision. This information has been used to improve vehicle crash performance of future vehicles and driving safety. Unlike the data recorders on many airplanes, these on-board systems do not record sounds, such as conversation of vehicle occupants.

To read this information, special equipment is needed and access to the vehicle or the SDM is required. GM will not access information about a crash event or share it with others other than

- with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee,
- in response to an official request of police or similar government office,
- as part of GM's defense of litigation through the discovery process, or
- as required by law.

In addition, once GM collects or receives data, GM may

- use the data for GM research needs,
- make it available for research where appropriate confidentially is to be maintained and need is shown, or
- share summary data which is not tied to a specific vehicle with non-GM organizations for research purposes.

SB 2200.. The black box bill.

Senator Holmberg ✓

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated..4th Amendment, U.S. Constitution

What is the tipping point? The point at which citizens will take a stand against the increasing loss of our privacy. When you go to the mall, pump gas, buy a candy bar, or go on a stroll in many of our cities, SMILE, you are probably on candid camera.

We are reaching the stage where the only areas of privacy left are our homes and in our cars.

Oh. Did I say cars? Maybe once, but maybe no longer.

When I bought my new car I got more than I bargained and paid for. With the car, I got big brother riding shotgun.

My own personal "BIG BROTHER" is actually an unannounced Electronic Data Recorder, or Event Data Recorder (EDR) the more socially acceptable terms for a black box and much less inflammatory than, "spyware."

Since the early 1980's and even before, electronic devices in cars have monitored the deployment of air bags. Now, they're saving much more data, and that data is very useful to auto designers to design safer vehicles. Alan Adler, manager of product-safety communications at General Motors in Warren, Mich says, "The main purpose of the EDR is to get data after a crash to help us understand how the airbags worked. The privacy of our customers is very important to us, but [the device] doesn't record anything that isn't true."

So far most of the devices record the last five to eight seconds of readings before a crash, similar to flight-data recorders in airplanes.

Today's devices can record such information as :

Vehicle Speed, Engine speed, Percent throttle , Drivers and passengers seat belt usage, Brakes, Whether or not seat belt warning light was on, Changes in forward velocity 150 milliseconds after an event starts, Time from start till airbags begin sequence of deployment.

The problem is that most people don't realize these devices are in their vehicle, that the information recorded may be used against them, and there's no sort of regulation about who owns that information. That's the reason I'm standing here before you today as prime sponsor of SB 2200.

Jay Stanley, director of communications for the Technology and Liberty Project states that this is another example of where technology has outstripped the law and certain

assumptions of how the world works, installing black boxes with five seconds worth of memory was as simple as adding a memory chip to existing computer systems in cars. Increasing the memory to several months' worth of data would not be difficult at all he continues. If a manufacturer decided tomorrow to track three months of data instead of five seconds, there's nothing that would make them have to tell anybody. Unknown to us they might add a GPS or remote satellite component to the mix.

Who do "they" think the information would be used by?

More importantly.... Who do you think "they" might be?

Well, Ford Motor Company in its owners manual states who "They" think "they" might be...

"This information may be used by Ford service and repair facilities, law enforcement or government agencies, or others who may assert a right

or obtain your consent to know such information." Why not AND obtain your consent?

Ford Motor Company started to put such a disclaimer in light-vehicle owners manuals starting in 2001. General Motors has been including a disclaimer for a number of years, while they've been quietly including what amounts to third-generation recorders in their vehicles for several years.

The National Highway Traffic Safety Administration has federal authority in this area. It proposes that the recorders become standard equipment starting in 2009 models, retain at least the last eight seconds of data before a crash, and include added data from electronic stability control and anti lock braking systems.

My problem is that the boxes collect all kinds of data about driving habits, and can be easily altered to collect even more. What they can collect tomorrow, they will. While the technology has its legitimate uses in improving safety, there is to me, a fear that the data can be misused. and if it "can" it will be misused. From General Motors disclosure statement: "Unlike the data recorders on many airplanes, these on-board systems do not record sounds, such as conversation of vehicle occupants." Too that I add "YET"

History suggests that once cars are equipped for limited data recording, some in government will begin to argue that it is for drivers' own good to collect more and more information and for a longer and longer time, and that the data is the property of the government, or perhaps your insurance company.

Only California has a law requiring disclosure of the black boxes. It was passed in 2003. The dealership where I bought my new car last summer in Grand Forks couldn't tell me if I was carpooling with Big Brother. They referred me to the manufacturers consumer information line.

SB 2200 attempts to do the following:

Section 1.

1. Disclosure...Sellers would have to disclose the fact that a EDR was in the vehicle in a clear and conspicuous manner.

2. Privacy. You all remember that in 2002 when North Dakota voters had the opportunity to vote on a privacy issue... over 73% felt it important. Privacy protection is the guts of the bill. We attempt to define the data collected as the property of the owner of the car, and not public information. It should not be accessible by insurance companies and as Ford suggests "*others who may assert a right.*" Who owns what's in the vehicle you paid for?... Does Chrysler still own the tires, radio, battery? What you paid for and have been given legal title to by the state.. Is YOURS, lock, stock, and black box.

3. Onstar and other subscription services are exempt as long as it is disclosed in the subscription service agreement.

4.. (the heart of the bill) Data recorded is not admissible evidence in any court proceeding.

Section 2. Application. Act applies to all motor vehicles manufactured after July 31, 2005.

Many say black boxes are Orwellian, straight out of "1984." "Big Brother is watching you."

Many say there are serious privacy and constitutional issues which need to be addressed, such as search and seizure, self incrimination, and due process.

Many say the implications are far-reaching - that black boxes will not only be used in accident investigations and criminal court trials as they currently are, but eventually to convict drivers on speeding tickets and even to determine insurance rates.

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Some say we should wait until the federal government does something to protect our privacy, and that what we're doing runs counter to the public's interest and that of the Federal Government in traffic safety..

I say we should be proactive and move to protect the privacy of our citizens today and into the future . We do not live in George Orwells' Oceania, we live in North Dakota.

I urge you to put a do-pass SB 2200

Electronic Data Recorders: Liars Beware?

When the Feds can track your car's movements, it's time to be concerned. And it's already happening.

by Mike Davis

(2004-08-16)

Several months ago, bored with waiting in the car while my wife was shopping, I dared venture where few men (or women) ever go: reading the owner manual in the glovebox.

A notice jumped from the pages at me: "Data Recording — Computers in your vehicle are capable of recording detailed data such as use of restraint systems, engine, throttle, steering, brake, or other system status."

"This information may be used by Ford service and repair facilities, law enforcement or government agencies, or others who may assert a right or obtain your consent to know such information."

"Holy Cow," I said out loud to myself. "Lie detectors."

No more dog-ate-my-homework excuses, I thought. No more claims that seat belts failed, brakes didn't work or "I was only going 20 mph."

Although I was dimly aware that airplane-like black boxes had been talked about for cars, they always seemed way off in the future. And, as most TCC reader regulars know, my specialty as a car nut automotive writer has been more about the past than the future.

They're out there...

What I learned in short order was that the boiler-plate notice in our '03 Windstar's owner manual was included last year for the first time in all domestic Ford Motor light-vehicle owner manuals, regardless of the power of the recorders that are integral to every airbag module. Further I discovered that General Motors had been quietly including what amounts to third-generation recorders for several years.

Now the National Highway Traffic Safety Administration (the NHTSA) has proposed regulations to take effect September 1, 2008, for Electronic Data Recorders (EDR), the more socially acceptable term for black boxes. The Feds are NOT proposing mandatory installation of these devices but instead setting out minimum standards for those being installed voluntarily by the 18 light-vehicle manufacturers supplying the U.S. market.

Importantly, the proposal also is NOT directed at settling arguments among crash participants, but actually facilitating potential major advances in highway safety.

I make these two points right up front to deflect the panic of civil rightists from both left and right who've been obsessed with visions of Big Brother or black helicopters arising from EDRs.

(Note: if you want to make a comment to the NHTSA on EDRs, you must do so by August 13. I hope that after reading this you will endorse the proposed rulemaking.)

Where they've been

With those issues hopefully put to bed, let's get first to the history of these recording devices, take a look at where we are today and then where we are going.

As noted above briefly, "vehicle" data recorders have been around for several decades. Aircraft recorders, which include cockpit and radio-transmission voice recording as well as system operations, have been invaluable in solving crash mysteries, leading in many cases to operational, maintenance, and design changes.

More recently, such recorders have been installed in railroad locomotives and some heavy-duty commercial vehicles, where they have been somewhat controversial for disparate reasons unrelated to passenger cars.

And, just in case you wondered, the new NHTSA proposal does NOT address heavy vehicles like highway tractors or even school buses, which will be subject of separate proposals.

In cars, some form of data recording has been involved since the first installation of airbags in the mid-'70s. It is not clear that every vehicle maker's airbags included a recorder in its control module, but unquestionably GM has led the way in both technology and installation.

The NHTSA now estimates that 65 to 90 percent of vehicles on the road in the U.S. have some degree of EDR.

Phase one pioneer data recorders in airbag modules apparently only noted whether vehicle deceleration was sufficient to trigger airbag deployment and whether the driver seat belt was fastened at that instant. Generally, the trigger was set at the front-barrier-crash equivalent of 12-15 mph, or about 2g. Notably, this onset speed was strictly a guess.

There was no way to know what the correct speed should be because no one really knew at what speed crashes actually occurred, only what crash investigators surmised. Nor was there any way of really knowing at what point airbag protection was required to minimize rather than, as it turned out in some cases, aggravate injuries.

Thus, motorists, regulators, safety advocates, crash investigators, insurers, litigators, and engineers, however well-meaning, were all flying in the dark. Injuries — including fatalities — to some occupants by early airbag deployments in low-speed impacts have been well publicized and resulted in "smart bags."

But crash repair costs also have been hugely elevated — say from \$2500 to \$3200 in addition to just the impact damage — to replace bag modules, instrument panels, and even windshields in crashes where deployment may not have been necessary. This is an important issue, especially to insurance companies and your premiums, and further documents the need for better data.

Right here, right now

As the need and technology for more sophisticated airbags evolved in the Nineties, there were three important developments.

First, GM developed more extensive in-vehicle measurement and recording of crash events. Progressively the elements of impact speed, change in velocity ("delta V" to techies, "crash pulse" to the NHTSA), braking and throttle operation were added. Moreover, they were recorded in a continuous time loop to capture data from five seconds prior to airbag deployment. GM began including crash-pulse data in 1994. This became the second phase of EDRs.

Significantly, in 1991, the NHTSA's Special Crash Investigations program began working with GM and later other manufacturers to use EDR info. Through 1997, EDR information had been used in some 40 crashes by the NHTSA unit.

Today that investigation number is "more than 2000 crashes," according to the NHTSA. But until year 2000, only manufacturers possessed the data and systems to download from EDRs.

Second, in 1996 GM launched its OnStar system of vehicle-to-base communications that eventually tied into automatic notification of airbag deployment. Don't be misled chortling over the current rash of "BlondeStar" satires of OnStar advertising. A friend of mine, one-time journalist and later GM public relations exec, crashed his Cadillac and was momentarily dazed, to be awakened by the OnStar operator checking to see if an ambulance was needed. It was.

The NHTSA looks to the time when the link between airbag deployment and OnStar-type communications will tell emergency personnel at remote locations the extent of crash pulses involved. This is critical to saving lives because it enables emergency dispatchers to rate the priority of EMS need and emergency room physicians to know the degree of injury that might be involved.

And third, GM worked with a California service diagnostics company, Vetronix, to develop software and hardware for convenient downloading of data stored in the EDRs. All the stored crash event data is no good in solving mysteries and improving safety if it isn't crashworthy, tinker-proof and readily accessible. In 2000, Vetronix introduced a \$2500 interface module for law enforcement agencies, crash investigators, and others legally entitled to access EDRs via laptop computers. Some EDR information is downloadable from GM vehicles dating back to certain 1994 models.

GM went across the board — at least for its entire domestic light vehicles and Isuzu — with full-power third-generation EDRs in 2000 models. These can record engine speed, braking, throttle position, vehicle speed, belt use, and airbag readiness in the five seconds before the crash pulse triggers airbag deployment or even for an event not quite serious enough to fire the airbag.

Ford began working with Vetronix for downloading of some data from certain 2001 models forward, generally installing the equivalent of third-generation units as all-new vehicles have come on line — Thunderbird, Lincoln LS, Jaguar S-type, F-150, and the new '05 models being introduced over the next couple of months.

Chrysler Group told TCC its '05 Chrysler 300 and Dodge Magnum are its first to have full-scale EDRs. And Toyota reports that all its '05 models except Scion xA and xB, Lexus IS300,

Tacoma, Tundra, and GX470 have EDRs. These black boxes are mounted under the seat, behind the center console or in the instrument panel, varying from one vehicle to another.

Initially Vetronix's Crash Data Recovery (CDM) module only worked with GM and some Ford vehicles, but Chrysler and Toyota are coming on board. It takes many months for Vetronix to process the algorithms, or data codes, provided by auto companies into common software data capable of being downloaded by crash investigators.

The Michigan State Police, for instance, have only four Vetronix CDMs while the California Highway Patrol has eight. They are used only in crash investigations likely to lead to serious criminal charges such as vehicular homicide.

Nevertheless, one consequence has been the start of a body of truly scientific crash reconstructions and case histories. Examples are quite interesting. In a Florida criminal case, a defendant charged with vehicular homicide because of excessive speed was exonerated by EDR evidence showing that no speeding by the defendant was involved. But in another Florida fatal crash case, a defendant's claim he was not speeding in his Corvette was contradicted by EDR evidence his speed was 106 mph at impact.

Mandate or not?

Through the 1990s, realizing the potential of EDRs, many other actors were getting into the picture. These included familiar Washington advocacy organizations, technical societies — interested in establishing common technical standards — and government agencies such as the advisory National Transportation Safety Board (NTSB), which is separate from the NHTSA regulatory arm. This past week the NTSB added its opinion that EDRs should be installed in all vehicles as standard equipment, though the board has not formally proposed any data standard for the devices.

Private citizens petitioned the NHTSA to mandate EDRs while other groups worried about EDRs creating privacy or constitutional issues. Advocates insisted motorists had a right to know their actions were being monitored. In response, California enacted a law last September requiring that all EDR-equipped vehicles sold in that state and manufactured after July 1, 2004 must provide notice to owners. No doubt that influenced Ford to start putting its lawyerly notice in 2003-model owner manuals and a more eloquent GM notice (see accompanying text).

In any event, the NHTSA has now issued its proposed standards for EDRs. They require (1) minimum set of specified data elements, (2) common technical specifications for that data, (3) demonstrated EDR survivability in crash tests, (4) vehicle manufacturers make the recorded data accessible publicly for crash investigators to retrieve, and (5) standardized owner manual language concerning the devices.

Altogether, the NHTSA has identified 18 required data elements plus standards for another 24 "if equipped" data elements. The tape loop is extended from eight seconds before the triggering incident to six seconds afterward (to record possible rollovers), and the devices must record up to three crash events.

This sounds like double-talk until you realize that an unknown percentage of crashes involve multiple events. A car sideswipes a guardrail, rams another vehicle and then veers off into a tree, or rolls over. The safety agency wants to capture all these events.

Some of the additional proposed data elements include lateral as well as longitudinal impact forces, steering input, operation of side airbags, ABS and stability controls, seat position, and even occupant sizes.

This is an enormous, complicated, and challenging proposal but ultimately it should have far-reaching results in crash investigations, advanced safety designs, and prompter medical attention for those injured in crashes.

Fortunately, the regulators have proposed what seems to be a reasonable time period for development — four years.

It will be interesting to see the responses filed to the NHTSA's proposal.

<http://www.thecarconnection.com/index.asp?article=7386>

From the owner's manual of the 2004 Chevrolet Impala:

VEHICLE DATA COLLECTION AND EVENT DATA RECORDERS

Your vehicle, like other modern motor vehicles, has a number of sophisticated computer systems that monitor and control several aspects of the vehicle's performance. Your vehicle uses on-board vehicle computers to monitor emission control components to optimize fuel economy, to monitor conditions for air bag deployment and, if so equipped, to provide anti-lock braking and to help the driver control the vehicle in difficult driving situations. Some information may be stored during the regular operations to facilitate repair of detected malfunctions; other information is stored only in a crash or near crash event by computer systems commonly called event data recorders (EDR).

In a crash or near crash event, computer systems, such as the Air Bag Sensing and Diagnostic Module (SDM) in your vehicle may record information about the condition of the vehicle and how it was operated, such as engine speed, brake applications, throttle position, vehicle speed, safety belt usage, air bag readiness, air bag performance data, and the severity of a collision. This information has been used to improve vehicle crash performance of future vehicles and driving safety. Unlike the data recorders on many airplanes, these on-board systems do not record sounds, such as conversation of vehicle occupants.

To read this information, special equipment is needed and access to the vehicle or the SDM is required. GM will not access information about a crash event or share it with others other than

- with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee,
- in response to an official request of police or similar government office,
- as part of GM's defense of litigation through the discovery process, or
- as required by law.

In addition, once GM collects or receives data, GM may

- use the data for GM research needs,
- make it available for research where appropriate confidentially is to be maintained and need is shown, or
- share summary data which is not tied to a specific vehicle with non-GM organizations for research purposes.

Telematics

A flight data recorder for your car

A feature article from Newsfactor.com profiles the applications for blackbox technology (11/10/2003) By Adam Aston



A GPS device tracks vehicle location and can interpolate speed, acceleration, and deceleration by calculating changes in location over time. A microprocessor decides when an accident has happened and sends a distress signal over a standard cellular link.

Imagine you're in your car driving to the grocery store. You're accelerating away from a stop sign when suddenly -- BANG! -- you're hit from behind by a speeding car that never even slowed down. Badly shaken, you stumble out. The police arrive on the scene just minutes after the crash. Plus, they already seem know that you stopped, and the other guy -- who's being arrested -- didn't.

And moments later, your cell phone starts ringing. It's your insurance agent, who also has accident details and is calling to reassure you that it looks like a quick decision. How do the police and your insurer know what happened? Because a "black box" in each of the cars told them so, the instant it happened.

This is Telematics

Telematics is the electronic-communication system that collects and supplies information about and to a vehicle and the driver. Part of the Intelligent Transportation System (ITS) focus of USDOT's that began in 1990, the Intelligent Vehicle Initiative (IVI) and the development of a Vehicle Infrastructure Integration designed to Connect Vehicles and Infrastructure with the outside world.

The most widely known example of early telematics application is On-Star, a cellular driven personal and emergency assistance.

USDOT's driving force behind this push is safety and mobility, improving roadway operation, and improving safety and reducing congestion due to the need for more efficient management for an aging road network.

Vehicle-highway Information exchange is the key to improved management and operation of the transportation network. This capability could provide valuable information on traffic conditions, crashes, adverse weather and road conditions, etc.

The Vehicle Infrastructure Initiative (VII) can enable a Wide Range of Applications including Intersection Collision Avoidance which accounts for more than 17% of all highway fatalities.

DSRC prototype development has been underway for a short period time with approval already received from the FCC assigning frequency of 5.9Ghtz specific for DSRC.

A wide range of telematics services are expected to be enabled. These services will likely be available to the consumer on an opt-in basis. Some examples:

Dynamic route guidance, Electronic payment for services, Fleet management, and Advanced Traveler Information

As we collect more and more information there dangers inherent to this collection.

The expectation of privacy that is expected by a reasonable person in their car could quickly disappear. Americans have come to expect a certain degree privacy while in their car.

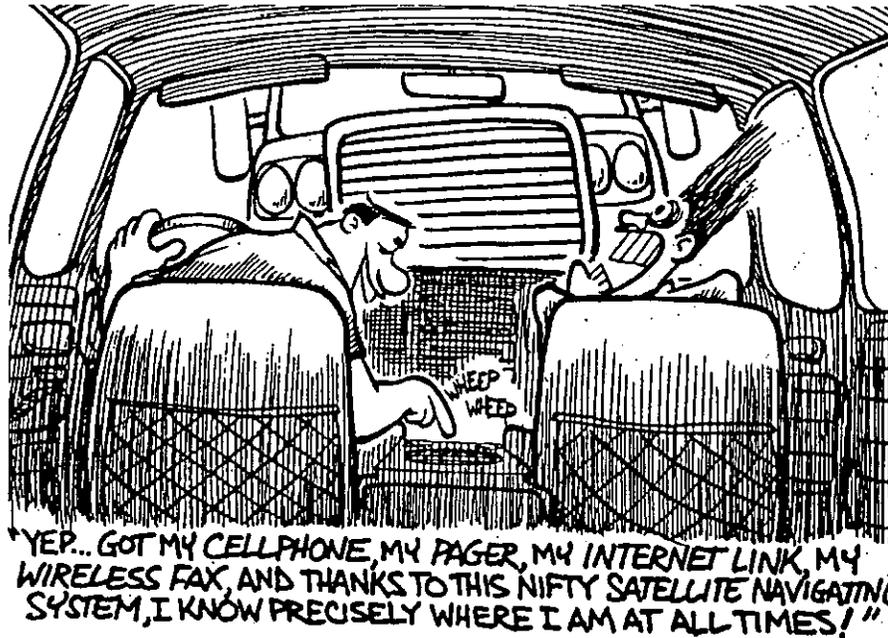
Examples:

Business discussions and decisions, reading a book while driving or as I witnessed a Legislator doing a crossword puzzle while driving down the interstate. Or the traveling salesman that drives down the interstate with his knees and works on the computer relying on the rubble strips on the side of the road for warnings. Now while these limited examples maybe right or wrong, the expectation of privacy is there.

Another threat is a move to tax road or highway use based on VMT as reported by individual vehicles. As well in the news article reporting speeds, turn signal use, or location, future law suites could include whether or not you maintained your car based on someone opinion based on condition of the car's transmission, engine, tires, brakes or other equipment as reported by the black box, which is the reason the "Boxes" started to begin with for the auto repair industry.

The challenge of Telematics has a number of issues as illustrated in this cartoon.

The Challenge has many faces



BY LOWE FOR THE SUN-SENTINEL, FLO

While Europe has been fighting the problem for a number of years before we even began to consider it, they don't recognize privacy in the same way as we do in America.

However, there are still some major issues that need to be resolved which include

Business Approach – Many Options

Full Public Funding – Public Utility

Public-Private Partnership

Institutional issues

Privacy -- Public and Private

Data Ownership

Access

The industry and FWHA is seeking the industry or others to take a leadership role in establishing the rules and standards for these systems and its applications, SB 2200 give North Dakota the opportunity to take another leadership role in transportation, just as it did in 1995 by creating the standards for Advanced Travelers Information Systems that is recognized nationwide.

Pass SB 2200 and send a clear message on policy, privacy and help to establish the future operational guidelines for telematics.

House Transportation Committee
Testimony by General Motors on Senate Bill 2200

Chairman Robin Weisz and members of the House Transportation Committee, my name is Tom D. Kelsch, and I am here testifying in opposition to Engrossed Senate Bill 2200, on behalf of General Motors Company. General Motors is not opposed to the idea of regulating Event Data Recorders, (EDR's), however it believes that the proposed model language, which is outlined in my amendment does a better job for the following reasons:

Section 1 of the Engrossed SB 2200:

- 1. Describes a "system data module" which term is not defined. The term generally used is "event data recorder" or "sensing diagnostic module". These terms were included along with a definition in the original version of SB 2200 as well as in GM's proposed amendment.
- 2. Notice in the owner's manual of the presence of an EDR should be sufficient to a purchaser. To require the dealer to disclose in the contract the possibility of an EDR does not add anything.
- 3. The definition of "a device that is installed by the manufacturer of the vehicle for the purpose of retrieving data" is too broad and would encompass odometers, on-board diagnostics and other electronic features.

These other important exemptions should be added to paragraph 2:

- 1. The registered owner of the vehicle at the time the data is download, not the owner at the time of recording, should be the one who provides consent to access EDR data. No one would be able to gain access to the vehicle and the EDR without the consent of whoever owns the vehicle at the time of the access.
- 2. Upon authority of a court or other judicial or administrative authority having jurisdiction. EDR's provide objective data that can help encourage parties in a lawsuit to settle cases out of court and, for those cases that do go to trial, assist the court in reaching a fair conclusion.
- 3. The Data is retrieved for the purpose of determining the need for or facilitating emergency medical response in the event of a motor vehicle crash." Without this exemption, Automatic Crash Notification (ACN) systems would not work in North Dakota. Studies predict that the newly introduced OnStar Advance Automatic Crash Notification system, which relays information about the collision from the vehicle to the OnStar center when the crash is of sufficient severity, will improve emergency and trauma care for people during the "golden hour" immediately after a crash.

Subsection 4.

Prohibiting EDR data as admissible evidence in a court proceeding is not defensible. What is the societal good that would result from the suppression of valuable crash data? Unlike subjective human observations of vehicle crashes, EDR data can precisely document crash circumstances including vehicle speed, how fast the vehicle stopped, the duration of the crash event, and when the air bag deployed. There is no other method available to obtain the same amount of accurate real-world crash data.

GM's proposed amendments are supported by the Association of Automobile Manufacturers, and more closely follow the original language of Senate Bill 2200.

On behalf of General Motors I request that you adopt the amendments to Engrossed Senate Bill 2200, and that you recommend a "do pass" for the amended bill.

#4

House Transportation Committee
March 3, 2005

Testimony of Patrick Ward in Opposition to SB 2200

Chairman Weisz and members of the committee. My name is Patrick Ward. I am a partner in the law firm of Zuger Kirmis & Smith here in Bismarck. I represent PCI and State Farm Insurance Company in opposition to SB 2200.

State Farm is the nation's largest automobile insurer and also has a large market share in North Dakota. PCI is a trade association which includes many domestic North Dakota insurance companies, as well as national property and casualty companies, writing insurance in North Dakota. These companies are involved in investigating more automobile accidents and in totalling more vehicles than probably anybody other than law enforcement in this state. We have several problems with the engrossed version of this bill.

We do not have a problem with requiring a manufacturer or car dealer to disclose the existence of an event data recorder (EDR) or black box in a vehicle. We strongly oppose paragraph 4 which begins at line 16 and 17 of page 2. That language prohibits use of an EDR or black box data in court proceedings.

We request an amendment to allow owner consent or court order for retrieval of data after a crash. This can be accomplished by simply removing lines 16 and 17 from page 2. Insurance companies often need to retrieve the crash data in the event of an accident that actuates the EDR or when we total a vehicle or take a vehicle into evidence after an accident.

The data on the EDR is very useful in determining fault for a motor vehicle accident. Until the advent of EDRs, we have been limited by accident reconstruction that is really based on educated guess work; e.g., skid marks, coefficients of friction, testing bulbs on headlights, crash deformation, eyewitness testimony, biomechanical reconstruction, and similar data. We now have available technology built right into the vehicle that will tell us valuable information like the speed of a vehicle, whether the seat belts were in use, whether the lights were on, and similar important accident reconstruction data, in the few seconds leading up to activation of the air bags. This bill unfairly suppresses that extremely useful and reliable accident reconstruction information.

We certainly agree that privacy is important but after an accident has occurred, and especially one where property is damaged or people may be injured, we should not suppress data useful in the search for the truth as to causation, impact severity, and fault. Certainly the reliability of the EDR or its data can be challenged in court, but do not prevent availability to the jury or judge of this data. The established rules of evidence should decide the admissibility and weight to be given EDR data.

We ask that you vote no on SB 2200, or at a minimum, amend the bill to allow use of the information.

PROPOSED AMENDMENTS TO
ENGROSSED SENATE BILL NO. 2200

Page 1, line 8, after 1. delete remainder of the bill, and insert in lieu thereof the following:

- a. A manufacturer of a new motor vehicle sold or leased in this state, which is equipped with one or more recording devices commonly referred to as "event data recorders (EDR)," including "sensing and diagnostic modules (SDM)," shall disclose that fact in the owner's manual for the vehicle.
- b. As used in this section,
 - (1) "Owner" means a person having all the incidents of ownership, including the legal title of a vehicle whether or not such persons lends, rents, or creates a security interest in the vehicle; a person entitled to the possession of a vehicle as the purchaser under a security agreement; or the person entitled to possession of the vehicle as lessee pursuant to a written lease agreement, provided such agreement at inception is for a period in excess of three (3) months.
 - (2) "Event Data Recorder (EDR)" means a feature that is installed by the manufacturer of the vehicle and does one or more of the following, for the purpose of capturing data for retrieval after a crash:
 - (a) Records vehicle speed and/or direction.,
 - (b) Records vehicle location data.
 - (c) Records vehicle steering performance..
 - (d) Records vehicle brake performance, including whether brakes were applied before a crash.
 - (e) Records the driver's seatbelt status.,
 - (f) Has the ability to transmit information concerning a crash in which the motor vehicle has been involved to a central communications system when a crash occurs.

- c. Data described in subdivision b.(2) that is recorded on an EDR may not be downloaded or otherwise retrieved by a person other than an owner of the motor vehicle at the time the data is accessed, except under one of the following circumstances:
- (1) The owner of the motor vehicle or the owner's agent or legal representative consents to the retrieval of the information.
 - (2) Upon authority of a court or other judicial or administrative authority having jurisdiction.
 - (3) For the purpose of improving motor vehicle safety, security or traffic management, including for medical research of the human body's reaction to motor vehicle crashes, and provided that the identity of the owner or driver is not disclosed in connection with that retrieved data.. For the purposes of this subsection, the disclosure of the vehicle identification number (VIN) with the last four digits deleted does not constitute the disclosure of the identity of the owner or driver.
 - (4) The data is retrieved by a licensed new motor vehicle dealer, or by an automotive technician for the purpose of diagnosing, servicing or repairing the motor vehicle.
 - (5) The data is retrieved for the purpose of determining the need for or facilitating emergency medical response in the event of a motor vehicle crash.
- d. A person, including a service or data processor operating on behalf of such person, authorized to download or otherwise retrieve data from an EDP pursuant to paragraph (3) of subdivision (c), may not release that data, except: (1) for the purposes of motor vehicle safety and medical research communities to advance motor vehicle safety, security, or traffic management; or (2) to a data processor.

solely for the purposes permitted by this subdivision (d), and only if the identity of the owner or driver is not disclosed.

- e. If a motor vehicle is equipped with an EDR that is capable of recording or transmitting information as described subdivision (b) (2) and that capability is part of a subscription service, the fact that the information may be recorded or transmitted shall be disclosed in the subscription service agreement. Subdivision (c) does not apply to subscription services meeting the requirements of paragraph (1).
- f. This section applies to all motor vehicles manufactured on or after August 1, 2006.

And renumber accordingly.

#1
3-17-05

Senate Bill 2200

Submitted by

Colonel Bryan Klipfel, North Dakota Highway Patrol

Mr. Chairman and members of the House Transportation Committee, my name is Bryan Klipfel and I am Superintendent of the North Dakota Highway Patrol.

Currently, our agency has two troopers trained and equipped in the retrieval of pre-crash data found in systems data module devices. We have had the capability to retrieve this data for approximately 17 months. During this time, we have completed approximately 25 downloads, all from vehicles involved in injury or fatality crashes.

The data obtained from the systems data modules helps to identify the vehicle dynamics just prior to a crash and can prove to be very beneficial to our accident reconstructionists as they begin to reconstruct the scene. But the information obtained can also be very beneficial to a victim or victim's family following a crash. Let me give you an example: a fatality victim driving a GM product was involved in a crash in which the SDM data was retrieved by our reconstructionist. Because this was a sideswipe-type collision, the speed estimates from both vehicles involved would have been difficult to ascertain; however, the SDM data from the victim's vehicle showed the speed of their vehicle at 62 MPH just prior to impact – the victim was not speeding. Is this information that could prove to be beneficial to the family, and should the family not have the right to use this information to disprove any theories that their loved one was the one speeding?

It is important to understand that law enforcement can only retrieve data from the systems data modules through consent from the owner or through the issuance of a court order. We **cannot** remove this box and download the information under any other circumstances. Of the approximately 25 downloads we have completed, 24 have been by voluntary consent, while one was from a court order.

Our troopers are trained extensively in accident investigation and our reconstructionists are very good at determining speed and other factors involved in a crash. The information from the systems data module not only provides a means of corroboration to substantiate the investigative work that the troopers have done, but can be a potentially strong ally to a victim or their family. Restricting the use of this information in a crash investigation would be a detriment to our citizens who rely on our agency to provide the best accident investigation possible.

General Motors Use of Electronic Data Recorders

GM EDR History

Basic EDRs were first used in the early 1970s in GM's air bag-equipped vehicles to record air bag status and crash severity data in impacts that caused the air bag to deploy. Today's EDRs collect more vehicle data - both pre- and post-crash - for longer periods of time than the earlier versions.

- Since 1994, event data recording capability has been included in GM's air bag sensing and diagnostic module (SDM), the on-board computer that controls the air bag system.
- In 1998, GM introduced a new SDM that records 5 seconds of pre-crash information including vehicle speed, engine RPM, engine throttle position, and brake application. As with earlier versions of the SDM, this module also records the status of the driver's seatbelt buckle switch, data related to air bag readiness, air bag performance, and the severity of a collision.

Federal Government Involvement in EDRs

The National Traffic Highway Safety Association (NHTSA) and the National Transportation Safety Board have been supportive of EDR use in motor vehicles. In 1998, the NHTSA formed a working group of industry, academia, and other government organizations to facilitate the collection and utilization of collision avoidance and crashworthiness data from on-board EDRs. Highlights of the working group's findings are the following:

- EDRs have the potential to greatly improve highway safety, for example, by collecting data that can improve occupant protection systems and improve the accuracy of crash reconstructions.
- Access to EDR data (minus personal identifiers) will benefit researchers, crash investigators, and manufacturers in improving safety on the highways. NHTSA has incorporated EDR data collection in its motor vehicle research databases.

- The benefit of EDRs is directly related to the number of vehicles operating with an EDR and the ability to use and assimilate these data.
- Automatic air bag crash notification (AACN) systems integrate the on-board crash sensing and EDR technology with other electronic systems such as global positioning systems and cellular telephones to provide early notification of the occurrence, nature, and location of a serious collision.

GM supports the Notice of Proposed Rulemaking on EDRs issued by NHTSA in June 2004. The NHTSA is proposing the following:

- The agency will not mandate the use of EDRs in vehicles;
- Requirement of a standardized minimum set of specified data for light vehicles in which an EDR is voluntarily installed;
- Vehicle manufacturers would be required to include a standard statement in the owner's manual indicating that the vehicle is equipped with an EDR and describing the purposes of the EDR.

State Legislative Activity

California was the first state to address privacy concerns with respect to the collection and use of EDR data with the enactment of a law in 2003 that requires disclosure of the presence of an EDR in owner's manuals, specifies the only circumstances under which data may be downloaded from an EDR, and with whom EDR data may be shared.

As of January 2005, the following states have introduced EDR legislation: Alaska, Arkansas, Montana, North Dakota, New Jersey, Texas, and Virginia.

The prospect of states developing a patchwork of potentially conflicting regulatory requirements for manufacturers to comply with regarding EDRs, in response, the Alliance of Automobile Manufacturers developed model EDR legislation that addresses the issues of providing notice to consumers that their car is equipped with an EDR, and specifying who has access to event data and under what circumstances. This model legislation is being offered as a substitute bill.

GM EDR FAQ's

What is an EDR?

An event data recorder (EDR) records vehicle and occupant information for a brief period of time (i.e. seconds, not minutes). In GM vehicles, an EDR is a vehicle function, which may or may not be a standalone device, which is typically housed in another control module such as the engine control, stability control, rollover protection, 4-wheel steering, or airbag sensing diagnostic module. These modules are located in various places such as under a front seat, the center console, or under the dash.

What is an SDM?

An SDM - Sensing Diagnostic Module - is the on-board computer module in GM vehicles that monitors and controls the vehicle's airbag system. In General Motors' vehicles, an EDR is a function of the SDM.

What is the difference between an EDR and a black box?

A "black box" typically refers to the flight data recorders (FDR) used in aircraft. The FDR records extensive crash and in-flight data and is intended to be used to reconstruct the cause of a crash. An EDR records limited crash data and does not record voices.

Why are manufacturers installing EDRs in vehicles?

An EDR's main purpose is to record data for retrieval after a crash that will assist in the understanding of how a particular vehicle's systems performed.

What do GM's EDRs typically record?

Currently, GM's EDRs can record one or more of the following types of information associated with a crash:

- Crash severity data (acceleration or change-in-velocity)
- Engine RPMs
- Air bag system performance and diagnostic data
- Vehicle speed
- Throttle position
- Brake status

- Driver seatbelt buckle status

Beginning with model year 1998, GM EDRs also record five-seconds of pre-crash safety systems-related data in a crash severe enough (or nearly severe enough) to deploy air bags.

Under what circumstances is event data recorded?

Once each second, the GM's SDM takes the most recent sensor data values and stores them in a re-circulating 5-second buffer (RAM). When the air bag sensing system algorithm detects an impact that may require an air bag deployment, the system quickly "enables," buffer refreshing is suspended, and recording occurs.

The two events that trigger GM's EDRs to store data are:

- 1.) A non-deployment event severe enough to "wake up" the air bag sensing algorithm but not severe enough to deploy the air bag(s). The EDR can store only one non-deployment event. This event can be overwritten by an event that has a greater vehicle forward velocity change. This event will be cleared by the EDR after the ignition has been cycled 250 times.
- 2.) An airbag deployment event. The EDR can store up to two different deployment events if they occur within five seconds of one another. Deployment events cannot be overwritten or cleared from the EDR. Once the EDR has deployed the air bag, the EDR must be replaced.

Do other GM modules record event data?

Yes. Gm offers Quadrasteer and Electronic Throttle Control on some vehicles and these applications include modules with data recording capability. Also, in GM vehicles equipped with OnStar, which is an Automatic Airbag Crash Notification system, event data may also be transmitted to a central communications center shortly after a crash occurs to aid in emergency rescue and treatment.

Can the EDR track a vehicle?

No. The EDR does not record time, date, location, steering inputs, conversations or outside conditions.

How does GM access the EDR data?

To retrieve electronically recorded data, special equipment is needed and access to the vehicle or the device that stores the data is required. GM has licensed the information that allows a third party to create tools to access the EDR information. The tool, which is available commercially, can only be used with access to the vehicle or the device that stores the data.

Isn't it true that GM licensed information to Vetronix that made it possible for Vetronix to develop the technology needed to download data from EDRs in GM vehicles?

GM has licensed the proprietary information necessary to access the EDR data recorded in its vehicle SDMs to the Vetronix Corporation. The Vetronix tool downloads data from the SDM to a laptop computer in easy-to-read formats. The Vetronix tool is available to the public and costs approximately \$2,500.

Only GM can retrieve the data in other modules with EDR function such as Quadrasteer and Engine Throttle Control.

Why did GM license that information instead of keeping it internal like other automakers? Now third parties like law enforcement and insurance companies have access to the data that is, in some instances, being used to convict drivers in court cases.

GM licensed the information to Vetronix to alleviate the flow of information requests that the company was receiving from parties that either had ownership of the vehicle or otherwise had jurisdiction or consent to access the data.

Under what circumstances will GM access EDR data?

GM will not access EDR information or share it with others except:

- with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee,
- in response to an official request of police or similar government office,
- as part of GM's defense of litigation through the discovery process, or
- as required by law.

What kind of information can the vehicle owner or lessee get about the EDR data?

In the event GM accesses a vehicle's EDR data with a vehicle owner's or lessee's consent, the vehicle owner or lessee will be provided with a description of any potential uses of the data by GM before GM inspects the vehicle and a copy of the results. A translation of the data will be provided upon request.

What does GM use EDR data for?

Examinations occur for a variety of reasons including customer inquiries or in GM's defense of product liability claims. GM also uses EDR data related to real world collisions for the purpose of assessing and improving crash performance. GM may make the EDR data available to non-GM organizations for research where appropriate confidentiality is maintained and need is shown, or share summary data that is not tied to a specific vehicle with other non-GM organizations for research purposes (removing items linking crash data to a particular vehicle, such as VIN, owner or driver name, etc, may create summary data).

Why does GM allow third parties, like law enforcement, to download data from the EDR?

GM is not involved in the downloading of data by third parties. This is done independently of GM and does not require the company's permission.

Can the police issue a speeding ticket based on the data within the module? Could they just plug something into my car to see if I was speeding?

No. Speeding will not result in the EDR storing data.

Is data always recorded in the event of a crash?

No. The crash has to be sufficiently severe to record data. Also, rear-end and oblique crashes may not result in any data being recorded. A catastrophic loss of vehicle power due to the crash event may also result in no data being recorded as the unit has a limited power reserve that is first used to deploy the air bags.

Is EDR data collection disclosed to owners and lessees?

Yes. Beginning with the 2004 model year, a section entitled "Vehicle Data Collection and Event Data Safety Recorders" was added to all GM Owner's Manuals. It describes what data is collected, how the data is used, and with whom the data may be shared. Some different vehicle models may record more data than others, and beginning with the 2005 model year GM owner's manuals will be individualized to disclose data collection specific to the vehicle.

Can vehicle data collection be disabled before a crash?

The EDRs in current production models cannot be turned off. We believe it is possible, but special tools and infrastructure would have to be developed. GM believes that since all the electrical components are designed to communicate with each other during vehicle operation, removal of the EDR device or disablement of the recording computer algorithm could create unexpected consequences in the performance, operation and safety of the vehicle.

Can EDR data be removed or altered after a crash?

Once data is permanently recorded on an EDR following a crash, it can only be removed by taking the EDR out of the vehicle; it cannot be written over.

Can I replace the EDR following a crash with another one?

Yes. Repair of the air bag system in a GM vehicle requires replacement of the SDM (which contains the EDR). Each SDM is uniquely numbered so there can be no confusion with the original SDM.

Does Onstar monitor vehicle locations without the knowledge of subscribers?

No. Onstar does not secretly monitor vehicle locations. Onstar maintains a strict privacy policy and tracking subscriber's whereabouts without their knowledge violates not only the Onstar privacy policy, but also Onstar's business philosophy. Onstar only obtains vehicle location data when subscribers initiate contact with Onstar.

Can Onstar listen in on conversations?

The Onstar system does not allow monitoring of vehicle occupants' conversations without notice to the occupants.

When Onstar establishes a voice connection, the Onstar status light flashes, the audio system mutes (if it's on) and the occupant will hear a phone ring. Vehicles with text messaging will see the word "phone" in the audio panel.

However, Onstar is like any other wireless service in that third parties may unlawfully intercept or access transmissions and private communications without the driver's knowledge.