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ELECTRONIC ON-BOARD RECORDERS (EOBRs) AND TRUCK DRIVER FATIGUE REDUCTION

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

MAY 1, 2007

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ELECTRONIC ON-BOARD RECORDERS (EOBRs) AND TRUCK DRIVER FATIGUE REDUCTION

TUESDAY, MAY 1, 2007

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND
MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:35 p.m. in room SR–253, Russell Senate Office Building, Hon. Frank R. Lautenberg, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Our Subcommittee hearing today is on electronic on-board recorders and truck driver fatigue reduction.

I want to welcome everyone to today's hearing as we begin the Subcommittee's work on truck safety. It's a factor that worries all of us, particularly in a state like mine which has high-density travel, and in New Jersey, we are very conscious of risk that we face with a mixture of cars and trucks on the same roads, all competing for space and time.

Today, we're going to focus on reducing truck driver fatigue through the use of safety technologies. Each year, some 43,000 Americans die in traffic crashes; 5,000 of them are killed in a crash with a large truck. Surveys show that as many as one in five truck drivers regularly exceeds the maximum hours that they may drive under the law, and we know that that fatigue causes crashes.

The paper logbook system for recording driver time is outdated, easy to falsify, and fails to ensure safety. But there's an existing technology available to better enforce our safety laws. A device, presented over here on the table, called an "electronic on-board recorder," could help prevent tragedies by giving trucking companies and law enforcement officials a way to enforce hours-of-service.

These recorders can be installed in a truck's cab, made tamperproof, and programmed like a black box to record safety data, including engine operation, location, mileage, speed, and braking data. Further, I believe that these recorders could be used to help drivers accurately log the time spent loading and unloading trucks at terminals. This work, and the delays that sometimes occur at these facilities, can significantly add to driver fatigue, consumes a lot of time.

Last, on-board recorders can save time and money for truckers and trucking companies by reducing paperwork, improving fleet management, and increasing safety.

Electronic on-board recorders are already required in big trucks in the entire European Union, and many other countries in Asia, and South Africa. They've noted substantial reduction of accidents as a result—in the European Union—of the device's presence. Safety advocates have been advocating their mandatory use in the United States since the 1980s.

So, I'm perplexed as to why the Federal Motor Carrier Safety Administration proposed in January to require recorders on as few as 465 of the more than 700,000 trucking companies in this country. It doesn't make any sense.

Under the proposal, only 1 and a half percent of the industry will even be inspected for compliance with truck safety laws each year. Now, I'm not sure that the industry themselves could have written a more favorable proposal if they choose not to be concerned about this. We need electronic on-board recorders in every truck on the road to ensure the safety of our truck drivers and the families who travel on the highways.

So, I thank our witnesses for appearing today. Before we call on them, I want to recognize my colleague, Ranking Member Smith,

Senator Smith, your comments, please?

STATEMENT OF HON. GORDON H. SMITH, U.S. SENATOR FROM OREGON

Senator SMITH. Thank you, Mr. Chairman. I appreciate your scheduling this important and timely hearing. Thank all the witnesses for being here. I particularly want to welcome Administrator John Hill, who, I understand, recently was in Oregon, where he addressed the Oregon Truckers Association. And I hear you earned rave reviews.

So, we're fortunate to have an impressive group of experts with us to discuss an issue that's been debated for several decades and is now the subject of pending rulemaking.

So, I look forward to the hearing.

Senator LAUTENBERG. Thank you very much. We're pleased to have you join us for this hearing.

And I would now call on Mr. Hill. We welcome you here. You bring a lot of experience and knowledge. We're pleased to have your testimony. And if you would be—start with us. We'll give you 5 minutes. If you don't break down at 5, we'll give you some coasting time, maybe another minute, but we ask you to summarize, please.

Thank you.

STATEMENT OF HON. JOHN H. HILL, ADMINISTRATOR, FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Mr. HILL. Mr. Chairman, I'll try to be right on time.

Chairman Lautenberg and Ranking Member Smith, and members of the Committee, thank you for inviting me to discuss the Federal Motor Carrier Safety Administration's proposed rule-

making concerning electronic on-board recorders and our efforts to reduce the number of fatigue-related crashes.

I am pleased to describe FMCSA's proposal to require carriers with severe patterns of hours-of-service violations to use EOBRs and to promote the voluntary use of EOBRs throughout the industry. We are currently analyzing all the comments received on the proposal, and we will also incorporate the comments from this hearing into the public docket, basing future decisions on a complete analysis of all submitted information.

Since 2000, FMCSA has been exploring the EOBR issue, including whether these devices should be mandatory, and analyzing proper design, use, cost, and benefits.

In May 2000, FMCSA proposed requiring the use of on-board recorders for long-haul and regional carriers based on data indicating, one, the higher percentage of crashes involving these carriers; and, two, noncompliance with the hours-of-service regulations, particularly by some segments of the long-haul industry.

The proposal was part of the Agency's comprehensive rulemaking on hours-of-service. After reviewing nearly 50,000 comments to the rulemaking docket, and the data concerning the potential costs and benefits of requiring the use of on-board recorders, the Agency decided to focus, at that time, on completing the first major revision to the hours-of-service rules in over 50 years.

In September 2004 FMCSA published an advance notice of proposed rulemaking, requesting public comment on the issue of technological specifications for EOBRs and whether their use should be required for the entire motor carrier industry, certain segments of the industry, or whether they should remain voluntary.

During 2005, we completed a literature and technology review and study focusing on a range of data collection and information management topics.

In January 2007, FMCSA proposed a rule intended to increase the use of electronic on-board recorders within the industry and to improve hours-of-service compliance. The proposal contains three components: one, a new performance-based standard for EOBR technology; two, the use of EOBRs to enforce and monitor regulatory noncompliance; and three, incentives to promote EOBR use. We believe these three components strike a balance promoting highway safety while objectively evaluating the cost and benefits of the rulemakings. In addition to requesting comments through the *Federal Register* notice, the agency held three public listening sessions in Washington, D.C.; Phoenix, Arizona; and Chicago, Illinois.

In our enforcement activities, FMCSA targets unsafe companies. Based on our safety research, motor carriers whose drivers routinely exceed hours-of-service limits have an increased probability of involvement in fatigue-related crashes. The carriers that would be required, under the proposed rule to use EOBRs have crash rates that are 87 percent higher than the overall industry average. Therefore, we propose a risk-based approach to target these carriers.

EOBR technology is available and an important tool to ensure improved unsafe driving behavior. Drivers must follow the hours-of-service rules to protect them and those with whom they share the road. FMCSA's Large Truck Crash Causation Study shows that

approximately 13 percent of the large truck crashes involved some form of fatigue on the part of the commercial vehicle driver. EOBRs will help to encourage compliance of drivers violating hours-of-service regulations and reduce the likelihood of fatigue-related crashes.

My experience in traffic safety has taught me that meaningful traffic enforcement programs must contain strong and valuable laws and rules, public support for the law to encourage voluntary compliance, an effective enforcement regime that imposes sanctions for noncompliance, and, finally, there must be meaningful adjudication processes.

The 2007 notice of proposed rulemaking for electronic on-board recorders will provide a basis for meaningful enforcement of those who flaunt the safety of our highways. We intend to build on that NPRM as we review the comments, the docket, and will take them into consideration in determining the most appropriate action.

Thank you for the opportunity to appear before you today, and I'll be looking forward to your questions.

[The prepared statement of Mr. Hill follows:]

PREPARED STATEMENT OF HON. JOHN H. HILL, ADMINISTRATOR, FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Introduction

Chairman Lautenberg, Ranking Member Smith, and Members of the Subcommittee, thank you for inviting me today to discuss the Federal Motor Carrier Safety Administration's (FMCSA's) proposed rulemaking concerning Electronic On-Board Recorders (EOBRs) and our efforts to reduce the number of fatigue-related crashes involving commercial motor vehicle (CMV) drivers. I am pleased to describe to you what FMCSA has proposed to improve the safety performance of motor carriers with severe patterns of hours-of-service (HOS) violations, and to promote the voluntary use of EOBRs in the motor carrier industry. However, as FMCSA is now analyzing all the comments received on the proposal, we have not made any decisions about the next step in the rulemaking. Any future decisions concerning the rulemaking will be based on our analysis of the comments and data submitted to the docket.

These days, the transportation community must confront many important issues. Even as priorities change and transportation needs evolve, safety on our roads must remain paramount to all other priorities. Perhaps the most important influence on improving future road safety rests with technology. By strategically integrating smart technologies like EOBRs, we will improve safety in the motor carrier industry.

For many years, the transportation community has focused on fighting driver fatigue as a way to make our roads safer. Earlier this year, we took another step toward reducing the number of these crashes by proposing the mandatory use of EOBRs by carriers with the worst levels of compliance with the HOS rules. This action will force these carriers to provide their drivers with adequate opportunities to obtain the proper amount of rest before getting behind the wheel.

Background

Initially prompted by a desire to improve efficiency, the motor carrier industry began looking to automated methods for recording drivers' duty status more than 20 years ago. In the late 1980s, we implemented the first rule allowing the use of automatic on-board recording devices (AOBRDs). Still in effect today, the rule provides straightforward performance requirements for these devices to ensure they are tamper-resistant and capture enough information to monitor drivers' time behind the wheel.

The existing design standard must permit duty status to be updated only when the vehicle is at rest, unless the driver is registering the crossing of a state boundary. The on-board recorder and support systems must be tamper resistant "to the maximum extent practicable." The device must provide a visual or an audible warning to the driver if it ceases to function. Any sensor failures and edited data must be identified in the Records of Duty Status, more commonly known as log books, printed from the device. Finally, the on-board recorder must be maintained and re-

calibrated according to the manufacturer's specifications, drivers must be adequately trained in the proper operation of the device, and the motor carrier must maintain a second (backup) copy of electronic HOS files in a separate location.

At the time the current rule was issued, the technology to allow on-board recorders to transmit data wirelessly between the CMV and the motor carrier's base of operations did not exist on a widespread commercial basis. Today's technologies allow for real-time transmission of a vehicle's location and other operational information. These technologies enable a motor carrier to know at any point in time where a vehicle is, whether it is on its assigned route, and when it reaches its destination. These same technologies can also be used to record and transmit the driver's HOS information. FMCSA calls these current-generation recording devices electronic on-board recorders or EOBRs. By exploiting the power of these technologies, a motor carrier can improve not only its scheduling of vehicles and drivers but its asset management and customer service. These developments in technology and communications require that FMCSA revise the current, narrowly defined on-board recorder regulations.

May 2000 Proposal to Require EOBRs

Since 2000, the Federal Motor Carrier Safety Administration has been exploring the EOBR issue further—including whether these devices should be mandatory—and analyzing proper design, use, costs, and benefits. In May 2000, FMCSA proposed requiring the use of on-board recorders for long-haul and regional carriers based on data indicating: (1) a higher percentage of crashes involving these carriers; and (2) non-compliance with the HOS regulations, particularly by some segments of the long-haul industry. The proposal was part of the Agency's comprehensive rulemaking on HOS of CMV drivers.

After reviewing the public comments to the rulemaking docket and considering data concerning the potential costs and benefits of the proposal to mandate AOBRDs, the Agency decided that mandating the use of on-board recorders was not appropriate at that time. However, the Agency determined there was a need to further explore the potential of this technology for helping to ensure that motor carriers and drivers comply with the HOS rule. To this end, the Agency conducted research on EOBRs and other technologies, and considered the feasibility of providing incentives for their voluntary use. Key research factors included: (1) the ability to identify the individual driver; (2) tamper resistance; (3) the ability to produce records for audit; (4) the ability of roadside enforcement to quickly and easily access the HOS information; (5) the level of protection afforded other personal, operational, or proprietary information; (6) cost; and (7) driver acceptability. The research included a literature and technology review that was completed in March 2005, and a study focusing on a range of data collection and information management topics, including location referencing methods, completed in August 2005.

Initiation of New Rulemaking in 2004

On September 1, 2004, FMCSA published an Advance Notice of Proposed Rulemaking (ANPRM) requesting public comment on the issue of technical specifications for EOBRs, and whether the use of such devices should be required for the entire motor carrier industry, certain segments of the industry, or whether use of the devices should remain voluntary. During 2005, we analyzed the comments to the ANPRM and prepared a proposal for a new EOBR rule that takes those comments into consideration.

January 2007 Proposal

In January 2007, FMCSA proposed a comprehensive rule intended to increase the use of EOBRs within the motor carrier industry and to improve HOS compliance. The approach contains three components: (1) a new performance-oriented standard for EOBR technology; (2) the use of EOBRs to remediate regulatory noncompliance; and (3) incentives to promote EOBR use. FMCSA believes this approach strikes an appropriate balance between promoting highway safety and Executive Order requirements to evaluate the societal costs and benefits of all significant rulemakings. In addition to requesting comments through the *Federal Register* notice, the Agency held three listening sessions in Washington, D.C.; Phoenix, AZ; and Chicago, IL.

FMCSA's NPRM proposes amending the safety regulations to incorporate new performance standards for EOBRs installed in CMVs manufactured on or after 2 years from the effective date of a final rule. EOBRs meeting FMCSA's current requirements and voluntarily installed in CMVs manufactured before the rule's effective date may continue to be used for the remainder of the service life of those CMVs.

The technical standards element of the proposed rule would help motor carriers and safety compliance officials by providing them with clearly defined information,

presented and stored in a standardized way. These standards would provide a "benchmark" for EOBR system developers to use in designing their systems and for motor carriers to use in comparing the features and performance of different systems. The standards would also enable motor carriers to select the devices that are most appropriate for different types of operations, knowing that the data from the different systems will be recorded, stored, and secured in consistent ways. This portion of the rule would require EOBRs to record basic information needed to track a driver's HOS compliance, including: identity of the driver, duty status, date, time, and location of the commercial vehicle, and distance traveled. Additionally, it would add a new requirement to use Global Positioning System technology or other location tracking systems to automatically identify the location of the vehicle, which further reduces the likelihood of falsification of HOS information.

Our proposed technical specifications would improve dramatically the ease and convenience of using these devices as a safety tool. First, there would be standard display of specific data fields. Regardless of location or which manufacturer's device is being used, every read-out and display would be in a similar format. Additionally, the technology would have to support the ability to transfer the data—either by hard wire or wireless transmission. Updating the technology standards will allow us to make the best use of modern and efficient communications. Uniformity will help drivers and law enforcement know how to use these devices regardless of manufacturer or model.

The rule further proposes that motor carriers with a history of serious noncompliance with the HOS rules would be subject to mandatory installation of EOBRs meeting the new performance standards. If FMCSA determined, based on HOS records reviewed during each of two compliance reviews (CRs) conducted within a 2-year period, that a motor carrier had a 10 percent or greater violation rate ("pattern violation") for certain HOS regulations, FMCSA would issue the carrier an EOBR remedial directive. The motor carrier would be required to install EOBRs in all of its CMVs regardless of their date of manufacture unless the carrier had equipped its vehicles already with AOBRDs meeting the Agency's current requirements and could demonstrate to FMCSA that its drivers understand how to use the devices.

Finally, FMCSA would encourage industry-wide use of EOBRs by providing the following incentives for motor carriers that voluntarily use EOBRs in their CMVs: (1) revising its compliance review procedures to permit examination of a random sample of drivers' records of duty status; and (2) providing relief from HOS supporting documents requirements, provided certain conditions were satisfied.

Rationale for Limiting the Mandate

In all our enforcement activities, FMCSA focuses on those companies that are most likely to be a safety hazard on the road. Based on its safety research, FMCSA believes that motor carriers whose drivers routinely exceed HOS limits have an increased probability of involvement in fatigue-related crashes and therefore present a disproportionately high risk to highway safety. Based on the Agency's analysis of its Motor Carrier Management Information System data from CRs conducted on motor carriers operating in interstate commerce, carriers to which a remedial directive would apply under this proposal have crash rates that are 87 percent higher than the overall industry average. Currently, carriers with high crash rates and high driver HOS violation rates top our priority list for CRs and are targeted at the roadside for increased inspections.

Under this proposed rule, only those truck companies with a history of serious HOS violations would be required to install EOBRs in all of their commercial vehicles. Within the first 2 years of the rule's enforcement, we estimate that 930 carriers with 17,500 drivers would fall under this requirement.

FMCSA recognizes the views of many in the highway safety community and the general public about mandating EOBRs. However, there are several million CMVs on America's roads today. Our estimated costs for mandating EOBRS on every vehicle in the fleet greatly exceeded the estimated benefits at the time we published the April 2003 Final Rule on drivers' HOS. Therefore, we focused on finding other ways to get more of these units on CMVs without creating an unreasonable burden with a government mandate. Consequently, we proposed a risk-based approach to target this technology where it is likely to have the most benefits for the driving public.

Driver Behavior

While EOBR technology is at our disposal, we must always remember that it is just another tool to ensure safe driver behavior. Drivers must also follow the HOS rules that protect them and protect those with whom they share the road. In 2003 and again in 2005, FMCSA revised its HOS regulations to require motor carriers

of property to provide drivers with better opportunities to obtain sleep and thereby reduce the incidence of crashes attributed in whole or in part to drivers operating CMVs while drowsy, tired, or fatigued. These rulemakings were necessary because FMCSA estimated that a portion of truck drivers involved in large truck crashes each year is fatigued. Specifically, the results from our March 2006 Report to Congress on the Large Truck Crash Causation Study indicate that 13 percent of the large truck drivers involved in study crashes were believed to be fatigued. FMCSA estimates that, when adhered to fully, the changes to the HOS rules will save lives each year as a result of giving drivers an increased incremental amount of time to obtain rest and sleep. EOBRs will monitor non-complying motor carriers for compliance with these important rules.

Conclusion

Motor carriers have been allowed to use on-board recorders to document drivers' HOS for approximately 20 years. While the current level of on-board recorder use is limited and many believe that nothing short of an industry-wide mandate will improve safety, the information we had available at the time we published our NPRM did not support an industry-wide mandate. We have received strong feedback to our NPRM and have begun the process of reviewing each of the comments to the docket to determine the most appropriate steps to take in following up on the January 2007 proposal.

Thank you for the opportunity to appear before you today. I look forward to working with this Committee and the transportation community to ensure a safe transportation system for the citizens of the United States. I would be happy to answer any questions you may have.

Senator LAUTENBERG. Thank you very much, Mr. Hill.

The witnesses range from the Administration to trucking industry officials to the manufacturers of the on-board recorders, and we, obviously, welcome all of you to the witness table.

Mr. Rosenker, Mark Rosenker, Chairman of the National Transportation Safety Board, welcome, and please give your testimony.

STATEMENT OF HON. MARK V. ROSENKER, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

Mr. ROSENKER. Thank you, Chairman Lautenberg, Ranking Member Smith for allowing me to present testimony on behalf of the National Transportation Safety Board. It is my privilege to represent an agency that is dedicated to the safety of the traveling public.

Today, I'd like to talk about how technology can help prevent fatigue-related accidents by improving commercial driver compliance with the hours-of-service regulations.

First, I'd like to compliment the administrator and his organization, the Federal Motor Carrier Safety Administration, on beginning this process and framing the public debate by issuing a notice of proposed rulemaking on electronic data recorders for hours-of-service.

As you know, paper logbooks offer many opportunities to play fast and loose with the hours-of-service rules. Some unscrupulous drivers falsify their books, or keep two sets of books. Some motor carriers do not closely monitor their driver's compliance with the rules and some may actually coach their drivers on how to fudge their logbooks.

Recognizing this lack of accountability with paper logbooks, the Safety Board has advocated the use of on-board data recorders for the past three decades. In 1977, the Safety Board issued its first recommendation on the use of on-board recording devices for hours-of-service compliance by asking the Federal Highway Administra-

tion to explore the merits of tachographs on reducing commercial vehicle accidents. Although the Highway Administration studied the issue, they did not make any changes.

During the 1980s, the technology for on-board recorders for hours-of-service improved dramatically. In 1990, as part of a study on heavy-truck crashes, the Safety Board recommended that the Highway Administration and the states require the use of automated, tamperproof on-board recording devices. This recommendation was rejected by the Highway Administration.

In 1995, the Board reiterated this same recommendation to the Federal Highway Administration and the states. Both failed to act.

In 1998, the Safety Board tried a different approach and made recommendations directly to the industry, asking them to equip their commercial vehicle fleets with automated and tamperproof on-board recording devices. This recommendation was opposed by the industry.

In 2001, when the new FMCSA issued an NPRM for hours-of-service of drivers, the Board reiterated its position that FMCSA strongly consider mandatory use of electronic on-board recorders by all motor carriers. FMCSA did not incorporate this suggestion into the NPRM.

Finally, 2 weeks ago, the Board sent a letter to the FMCSA expressing our disappointment with the NPRM on-board recorder issue. There are three primary reasons why the Board felt that the NPRM fell short of its intended target:

First, the Board would like to see damage-resistance and data-survivability included in the standards for recorder hardware.

Second, the Safety Board believes on-board recorder technology should be applied to all carriers, rather than only to carriers found to be pattern violators. It will be extremely difficult for FMCSA to identify and administer the program on an exception basis, given that they can only audit annually about 1 percent of the carriers and that the Board has found significant problems with their current compliance review program. Therefore, the Safety Board is convinced that the only effective way in which on-board recorders can help stem hours-of-service violations, which the Board has linked to numerous fatigue-related accidents, is to mandate their use by all operators.

Third, the proposed rulemaking attempts to promote the voluntary installation and use of on-board recorders. It seems extremely unlikely that the unscrupulous motor carrier, who already plays fast and loose with the logbooks, would be willing to comply with a voluntary program.

In summary, fatigue-related accidents continue to plague our Nation's highways, because, unlike alcohol, fatigue is extremely difficult to detect. In fact, fatigue is probably the most under-reported causal factor in highway accidents. Electronic on-board recorders hold the potential to efficiently and accurately collect and verify the hours-of-service for all drivers. They will also establish the proper incentives and a level playing field for compliance with hours-of-service rules and will ultimately make our highways safer for all drivers.

Accordingly, Safety Board urges Congress to support the requirement for on-board recorders for all motor carriers.

I would be delighted to answer any questions.
[The prepared statement of Mr. Rosenker follows:]

PREPARED STATEMENT OF HON. MARK V. ROSENKER, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

Good morning Chairman Lautenberg, Ranking Member Smith, and Members of the Subcommittee. Thank you for allowing me this opportunity to present testimony on behalf of the National Transportation Safety Board regarding Electronic On-Board Recorders for Hours-of-Service Compliance.

As you know, the NTSB is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline, and issuing safety recommendations to prevent future accidents. The Safety Board also oversees the assistance to victims and their families following commercial aviation accidents and also acts as the Court of Appeals for airmen, mechanics and mariners whenever certificate action is taken by the Federal Aviation Administrator or the U.S. Coast Guard Commandant or when civil penalties are assessed by the FAA.

Since its inception in 1967, the Safety Board has investigated about 138,000 aviation accidents and thousands of surface transportation accidents. In addition, the Safety Board has issued more than 12,600 safety recommendations in all modes of transportation. Although we do not have authority to regulate safety, our reputation and our perseverance in following up on safety recommendations has resulted in an 82 percent acceptance rate for our recommendations.

Today, I would like to talk about how technology can help prevent fatigue-related accidents by improving commercial driver compliance with the hours-of-service regulations.

As you know, the Federal Motor Carrier Safety Administration (FMCSA) published a notice of proposed rulemaking (NPRM) regarding "Electronic On-Board Recorders for Hours-of-Service Compliance," on January 18, 2007 and asked for comments by April 18, 2007. Although this very important rulemaking has the potential to greatly improve the compliance with hours-of-service rules, and ultimately reduce fatigue-related accidents, it will not accomplish this in its present form.

First I would like to give you some background and long history on the Board's position on this issue.

For the past 30 years, the Safety Board has advocated the use of on-board data recorders to increase hours-of-service compliance of commercial drivers. As you know, commercial drivers are currently required to keep logbooks on the hours they drive. However, for many reasons these log books often do not reflect the true hours of operation. Because drivers for the most part are paid by the mile and motor carriers make more money the more miles that are driven by their drivers, neither party has adequate incentives for compliance with the hours-of-service rules. The current system of paper logbooks offers many opportunities to play fast and loose with these rules. Some unscrupulous drivers write down hours different from those that they actually drive, some maintain multiple logbooks, and some outright falsify the information. In addition, some motor carriers do not closely monitor their drivers' compliance with the rules and some actually may coach their drivers on how to fudge their logbook. It is not comical, but many in the truck and bus industry affectionately call the logbooks "comic books".

Let me summarize some of the key events that have led to the Board's position on hours-of-service compliance.

In 1977, the Safety Board issued its first recommendation on the use of on-board recording devices for commercial vehicle hours-of-service compliance. It was in response to the Federal Highway Administration's (FHWA's) withdrawal of an Advance Notice of Proposed Rulemaking concerning the installation of tachographs in interstate buses. That recommendation proposed that the FHWA:

> *Conduct scientifically controlled studies to determine the effects and merits of the use of tachographs on commercial vehicles in reducing accidents. (H–77–32)*

In April 1977, FHWA rejected the Board's recommendation due to "insufficient credible evidence of the effectiveness of recording speedometers as an accident prevention device" and due to "evidence that present day technology of recording speedometers severely limits their use to certain purposes and specific conditions."

In the 1980s, the technology for on-board recorders for hours-of-service improved dramatically, such that in 1990, the Safety Board first urged the FHWA to mandate the use of on-board recorders.

The Board made this recommendation in its 1990 safety study on Fatigue, Alcohol, Drugs, and Medical Factors in Fatal-to-the-Driver Heavy Truck Crashes. This study concluded that on-board recording devices could provide a tamper-proof mechanism to enforce the hours-of-service regulations. The study also found that, of the 182 cases studied, the most frequently cited factor or probable cause in these accidents was fatigue, cited in 31 percent the cases. Alcohol was second at 29 percent. Therefore, the Safety Board recommended that the FHWA:

> *Require automated/tamper-proof on-board recording devices such as tachographs or computerized logs to identify commercial truck drivers who exceed hours-of-service regulations. (H–90–28)*

An identically worded companion recommendation was made to the states, the Commonwealth of Puerto Rico, the Virgin Islands, and the Territories (H–90–48).

In 1995, the Board reiterated this Safety Recommendation (H–90–28) in its safety study on "Factors That Affect Fatigue in Heavy Truck Accidents" in which 107 heavy truck accidents were studied. The study also noted that the incidence of driver fatigue is under-represented in the Fatality Analysis Reporting System (FARS) database. Both the FHWA and the states failed to act on this recommendation.

In 1998, the Safety Board again advocated industry-wide use of on-board recording devices after investigating a multiple-vehicle accident that occurred in Slinger, Wisconsin, on February 12, 1997 in which 8 persons died. This time, rather that focusing on regulations we tried a different route and made the recommendations to the American Trucking Associations, the International Brotherhood of Teamsters, and the Motor Freight Carriers Association, the Independent Truckers and Drivers Association, the National Private Truck Council, and the Owner-Operator Independent Drivers Association, Inc. The recommendation was:

> *Advise your members to equip their commercial vehicle fleets with automated and tamper-proof on-board recording devices, such as tachographs or computerized recorders, to identify information concerning both driver and vehicle operating characteristics. (H–98–26) (H–98–23)*

At that time the American Trucking Associations responded that it opposed the mandatory installation of such devices. The International Brotherhood of Teamsters and the Motor Freight Carriers Association did not respond.

In August 12, 2001, the Safety Board reiterated its position regarding the use of on-board recorders for hours-of-service compliance in its response to the FMCSA's NPRM on Hours-of-Service of Drivers. In our response, the Safety Board again requested that the FMCSA strongly consider mandatory use of EOBRs by all motor carriers to help improve hours-of-service compliance.

Finally, 2 weeks ago on April 18, 2007 the Board sent a letter to FMCSA expressing its disappointment with the notice of proposed rulemaking entitled "Electronic On-Board Recorders for Hours-of-Service Compliance". Let me highlight some of the reasons why the Board felt the NPRM fell short of its intended target.

As you know, the NPRM focuses on three elements:

1. Performance-oriented standards for EOBR technology;
2. Mandatory use of EOBRs by motor carriers who are found to exhibit a pattern of violations of HOS regulations; and
3. Development of incentives anticipated to encourage voluntary industry-wide use of EOBRs.

With respect to the first element, the Safety Board is generally satisfied with the direction proposed by the FMCSA except in the area of crash protection. Performance standards offer flexibility in the face of rapid technological advances; thereby requiring minimal-to-no changes to pertinent regulations. The NPRM makes several proposals designed to ensure the security and validity of EOBR data, but it fails to address EOBR damage resistance and data survivability. Naturally, the survival of the data is important, not only for regulatory compliance, but also to assist accident investigators to determine the influence of fatigue on the driver and the cause of the accident. Therefore, in its comments on FMCSA's NPRM, the Safety Board asked FMCSA to add performance standard factors that consider these issues.

Concerning the second element, the Safety Board is disappointed that the NPRM did not propose to mandate the use of EOBRs by all operators subject to the hours-of-service regulations. The proposed rules only require EOBRs for carriers who are identified through the compliance review process as pattern violators of the hours-of-service regulations. Identifying such carriers seems problematic.

For a carrier to be identified as such, the FMCSA must perform at least two compliance reviews on that carrier within a 2-year span. In 2005, the FMCSA was only

able to perform a total of 8,097 compliance reviews on a population of approximately 911,000 active and registered carriers, meaning that less than 1 percent of all carriers were assessed for safety and fitness. Although the FMCSA uses a computerized rating methodology (SafeStat) to target potentially unsafe carriers for compliance reviews, flaws in the compliance review system guarantee that many unsafe carriers continue to evade even initial identification as an hours-of-service violator. The Safety Board has documented several instances in which carriers have received favorable compliance review ratings despite long and consistent histories of driver- and vehicle-related violations. For example, this was the case for the operator and vehicle involved in the recent investigation of the motorcoach fire that fatally injured 23 people near Dallas, Texas.

In light of the proven deficiencies in the FMCSA motor carrier compliance program, this program should not be the triggering mechanism to initiate a requirement for EOBRs. The Safety Board does not believe that the FMCSA has the resources or processes necessary to identify and discipline all carriers and drivers who are pattern violators of the hours-of-service regulations.

Consequently, a program to impose EOBRs on pattern violators that relies on the compliance program to identify such carriers seems unlikely to succeed. In addition, pattern violators of hours-of-service regulations are the carriers least likely to choose to install and use EOBRs voluntarily. The Safety Board is therefore convinced that the only effective way in which EOBRs can help stem hours-of-service violations, which the Board has linked to numerous fatigue-related accidents, is to mandate EOBR installation and use by all operators subject to hours-of-service regulations.

Additionally, the Safety Board is concerned that the NPRM proposes using EOBRs as a form of remediation or punishment, when the technology has significant potential for increasing the safety of all motorists. According to the NPRM, ". . . motor carriers that have demonstrated a history of serious noncompliance with the hours-of-service (HOS) rules would be subject to mandatory installation of EOBRs meeting the new performance standards." The Safety Board believes that encouraging motor carriers to perceive EOBRs primarily as a means of punishment would undermine the goal of achieving voluntary industry-wide acceptance. In fact, progressive motor carriers are using EOBRs as an effective tool in shipment tracking, equipment maintenance, and operator scheduling. In addition, EOBRs provide a more efficient and reliable way for enforcement agencies to monitor hours-of-service compliance. Finally, the Europeans have required the use of digital tachographs for some time.

With respect to the NPRM's third element, the proposed rulemaking outlines several incentives that the FMCSA hopes will promote the voluntary installation and use of EOBRs. Among these incentives are new compliance review procedures and exemptions for certain supporting documentation requirements. The Safety Board is in favor of any incentive that fosters use of EOBRs without undermining safety; however, the Board is skeptical whether the incentives currently proposed would be strong enough to override the financial motivation some carriers and drivers have for continuing to circumvent the HOS regulations and not use EOBRs. Moreover, for those motor carriers considering the installation of EOBRs, the burden of being subject to additional regulatory requirements might cause them to choose not to equip their vehicles with the technology voluntarily.

In summary, the Safety Board is convinced that the regulations proposed in the NPRM:

- will not result in the timely and effective adoption of EOBR technology by all motor carriers,
- may serve to depict EOBRs as a punitive device rather than as one that promotes safety, and
- will ultimately fail to reduce the number of carriers and drivers who exceed Federal hours-of-service limits.

Accordingly, the Safety Board urges the FMCSA to revise the NPRM to require that all motor carriers, subject to the HOS regulations, to install and use EOBRs.

The trucking industry in the United States has already installed hundreds of thousands of devices capable of recording hours-of-service information. We believe it is past time to act and that the use of EOBRs should be mandatory throughout the industry, as are similar devices required in most of Europe.

Fatigue-related accidents continue to plague our nation's highways and because fatigue is difficult to quantify by investigating agencies, it is likely the most under-reported underlying causal factor in highway accident investigation. Electronic On-Board Recorders hold the potential to efficiently provide the proper incentives for

compliance with hours-of-service rules and ultimately make our highways safer for all drivers.

I would be delighted to respond to any questions you may have.

Senator LAUTENBERG. Thank you very much.

Now, Captain John Harrison, President of the Commercial Vehicle Safety Alliance.

Captain Harrison, welcome.

STATEMENT OF CAPTAIN JOHN E. HARRISON, PRESIDENT, COMMERCIAL VEHICLE SAFETY ALLIANCE

Mr. HARRISON. Good afternoon, Chairman Lautenberg, Ranking Member and Senator Smith.

I am John Harrison, President of the Commercial Vehicle Safety Alliance, and Captain with the Georgia Department of Public Safety.

CVSA is an international not-for-profit organization comprised of local, state, provincial, territorial, and Federal motor carrier safety officials and industry representatives from the United States, Canada, and Mexico. Our mission is to promote commercial motor vehicle safety and security by providing leadership in enforcement, industry, and policymakers.

Our goal is uniformity, compatibility, and reciprocity of commercial vehicle inspections and enforcement activities throughout North America.

Chairman Lautenberg, thank you for calling this important hearing and inviting me to testify on issues relating to electronic onboard recorders and truck driver fatigue reduction.

In my testimony today, I will discuss the existing problems relating to hours-of-service, how EOBR technology can help provide—or help solve these problems, and our recommendations and qualifications on implementing EOBRs.

In our written statement, we have provided more detailed comments and recommendations on the current FMCA rulemaking. Even though I am a captain and have a number of employees under my command, I maintain CVSA certification to conduct North American standards inspections.

Since 2000, the regulations regarding commercial driver hours-of-service have been through a series of formal actions by the FMCSA, as well as being challenged by outside groups and in the D.C. Circuit Court of Appeals. In the meantime, compliance with hours-of-service continues to be a significant problem encountered by law enforcement, both at roadside and in the motor carrier's place of business.

In 2006, hours-of-service violations were represented in 7 of the top 20 driver violations discovered during roadside inspections representing 34.2 percent of the total. Further, of the top 20 driver out-of-service violations at roadside, 78.8 percent were for hours-of-service. During compliance reviews, 5 of the top 12 critical violations cited were hours-of-service related, representing 34.6 percent of the total.

The results from the 2006 Large Truck Crash Causation Study indicated that fatigue was reported as an associated factor in 13 percent of all large truck crashes.

We believe EOBRs hold great promise for helping improve compliance with hours-of-service regulations and providing a positive impact on safety in crashes related to driver fatigue. We also believe that widescale—with emphasis on "widescale"—adoption of EOBRs will help curb the challenges with the limited resources available at State and Federal levels for overseeing the motor carrier industry. Unfortunately, drivers operating in excess of hours-of-service limits and falsified driver logs continue to represent a significant risk to safety. However, it is important to realize that technology has limitations. In the end, driver behavior and changing the safety culture are determining factors in enhancing compliance and reducing crashes.

EOBR technology is proven. More than 50 countries have mandated electronic data recorders for driving and standby-time recording and/or speed and distance recording. Our recommendations are as follows:

FMCSA and the National Highway Traffic Safety Administration should work to make EOBR standard equipment with an implementation time-frame on the order of 3 to 5 years.

After market retrofit, installations should only be permitted if they meet OEM equipment standards.

Existing devices should be grandfathered into this new requirement only if they're able to meet the new OEM standards.

Those drivers operating existing vehicles, those built prior to the new OEM requirement, or using noncompliant EOBRs, would be required to retrofit their vehicles within 3 years to meet the OEM standard. The paper-based logging system would no longer be permitted.

FMCSA and NHTSA should create a rigorous certification program for EOBRs administered by a third party, similar to how speed-measuring instruments and breath alcohol testing devices are approved and certified.

Until such time the OEM standard is effected, FMCSA should conduct several field operational tests of different EOBRs and include a wide range of carrier operational types. In our view, moving forward with EOBR implementation means taking the following issues into consideration: simple and standardized display of the data for enforcement; positive driver identification; tamperproof; simple identification and explanation of errors malfunctions and manual inputs; an audit trail at roadside; certification and calibration standards; seamless secure standards based on EOBR data—EOBR data transfer for analysis by roadside enforcement away from the truck; evidentiary needs need to be accommodated; redundancy in the event the system malfunctions; and adequate and comprehensive training for enforcement; rigorous monitoring and quality control.

In summary, we believe that in order to enable significant changes—significant policy changes to out-of-service compliance, there needs to be a universal adoption of EOBR technology. However, it is critically important that the performance specifications for these devices and oversight for producing and using them is done in a such a manner that enables them to be user-friendly for law enforcement, and that there is credibility and confidence in the accuracy of the data.

Moving forward with a mandatory requirement will help provide certainty and competition in the manufacturing community, and help keep costs down for the motor carrier.

Thank you very much for inviting me to testify here, and I'll be glad to take any questions that you might have.

[The prepared statement of Mr. Harrison follows:]

PREPARED STATEMENT OF CAPTAIN JOHN E. HARRISON, PRESIDENT, COMMERCIAL VEHICLE SAFETY ALLIANCE

Introduction

Good afternoon Chairman Lautenberg, Ranking Member, Senator Smith, and members of the Subcommittee. I am John Harrison, President of the Commercial Vehicle Safety Alliance (CVSA) and Captain with the Georgia Department of Public Safety.

CVSA is an international not-for-profit organization comprised of local, state, provincial, territorial and Federal motor carrier safety officials and industry representatives from the United States, Canada, and Mexico. Our mission is to promote commercial motor vehicle safety and security by providing leadership to enforcement, industry and policymakers. Our goal is uniformity, compatibility and reciprocity of commercial vehicle inspections and enforcement activities throughout North America.

Chairman Lautenberg, thank you for calling this important hearing and inviting me to testify on issues relating to Electronic On-Board Recorders (EOBRs) and truck driver fatigue reduction.

In my testimony today I will discuss the existing problems relating to hours-of-service and driver log violations, how EOBR technology can help solve these problems, and our recommendations and qualifications on implementing EOBRs. Finally, I will comment on the current FMCSA EOBR proposed rulemaking and what we view as its shortcomings in addressing hours-of-service compliance and enforcement and the related problem of driver fatigue.

Even though I am a Captain and have a number of employees under my command, I maintain my CVSA Certification to conduct North American Standard Roadside Inspections. I work out in the field with the troops on a daily basis. From my perspective, if I am to be effective and have credibility within the ranks, this is something I need to do.

Problem Statement

Since 2000, the regulations regarding commercial driver hours-of-service (HOS) have been through a series of formal actions by the Federal Motor Carrier Safety Administration (FMCSA), as well as being challenged on the outside by various groups and the D.C. United States Circuit Court of Appeals. Countless hours have been devoted to this subject, both internal to the agency and by the public. In the meantime, compliance with the hours-of-service regulations continues to be a significant problem encountered by law enforcement, both at roadside and in the motor carrier's place of business. The problem is pervasive.

In the 2006 calendar year, hours-of-service violations were represented in 7 of the "Top 20" driver violations discovered during roadside inspections. These Top 20 driver violations in the aggregate numbered 2,232,834—Hours-of-Service violations comprised 763,186 of this total, or 34.2 percent. Delving further into the Top 20, Out of Service (OOS) violations related to Hours-of-Service totaled 179,778 of the 228,211 total driver OOS violations, or 78.8 percent. At the motor carrier's place of business during the conduct of Compliance Reviews, 5 of the "Top 12" Critical violations cited were Hours-of-Service related. These Top 12 violations in the aggregate numbered 6,676—Hours-of-Service violations numbered 2,309 of this total, or 34.6 percent.

There are numerous studies regarding commercial driver fatigue and each of them report different numbers related to driver fatigue and its contribution to large truck involved crashes. The results from the *2006 Large Truck Crash Causation Study* indicated that fatigue was reported as an associated factor in 13 percent of all large truck crashes. This is a significant number.

It is clear we have a compliance and a safety problem. How can we fix it?

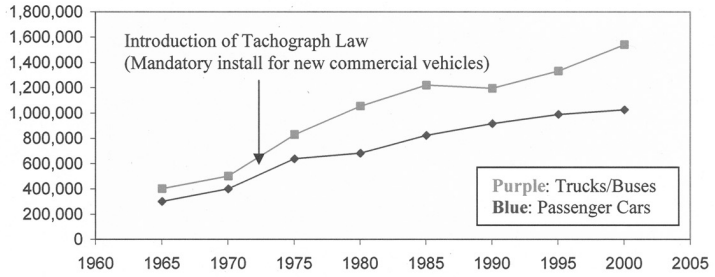
Recommendation

We believe the implementation of Electronic On-Board Recorders (EOBRs) for compliance with HOS regulations holds great promise for helping improve compli-

ance with HOS regulations and ultimately providing a positive impact on safety and reducing crashes related to driver fatigue and other work-related injuries. We also believe that the wide-scale adoption of EOBRs will also help to curb the challenges that currently exist with the limited resources available at the state and Federal levels for overseeing the motor carrier industry. With nearly 50,000 new motor carriers entering the business each year in the United States, the implementation of proven safety technologies serves to assist the law enforcement community in focusing its attention on high-risk drivers, vehicles and motor carriers.

EOBR technology is proven. More than 50 countries have mandated Electronic Data Recorders for driving and standby time recording and/or speed and distance recording. As an example, more than 5.5 Million Tachograph systems are being used in commercial vehicles and buses to improve road safety in the whole of Western and Eastern Europe. In Germany, for example, since the mid-1970s when the Tachograph was mandated until 2000, they experienced approximately a 167 percent improvement in the number of commercial vehicle miles traveled without personal injury (see figure below).

Kilometers traveled per accident with personal injury in Germany



Source: VDA (Association of German vehicle manufacturers), DIW (German Institute for Economic Studies), Statistisches Bundesamt (German Central Statistical Offices). Combination of multiple studies from 1965 to 2000

We believe that in order to meet the intent of the 3 objectives FMCSA laid out in its recent Notice of Proposed Rulemaking (NPRM) for EOBRs, these devices must be made mandatory for all commercial vehicles.

FMCSA should work with the National Highway Traffic Safety Administration (NHTSA) to make these devices standard OEM equipment. Aftermarket/retrofit installations should only be permitted if they meet the OEM equipment standards. In order to assist the manufacturing community and to help minimize the cost impacts to the industry, we would suggest that the requirement would be put in place at a point in the future, somewhere on the order to 3–5 years after the final rule is published. We believe existing devices should be grandfathered into this new requirement *only* if they are able to meet the new OEM standard specifications. We also believe the existing Automatic On-Board Recording Device (AOBRD) regulations in 49 CFR § 395.15 should be sunsetted. Those drivers operating existing vehicles (those built prior to the new OEM requirement) or using EOBR devices not compliant with the new standard would be required to retrofit their vehicles within 3 years to meet the OEM equipment standards. The paper-based logging system would no longer be permitted.

In the interim, we would suggest that FMCSA conduct several field operational tests of different device types (to include those not integrally synchronized with the vehicle) to understand what the optimum performance requirements should be, as well as to more fully evaluate their impact on safety. One option for this test could be to use the motor carrier population the Agency has suggested in its NPRM that would be subject to a remedial directive and be required to have the EOBRs installed—those carriers FMCSA has determined, based on HOS records reviewed during each of two compliance reviews conducted within a 2-year period, that the motor carrier has a 10 percent or greater violation rate ("pattern violation") for any regulation in proposed Appendix C to Part 385. Theoretically, once EOBRs are installed on the habitual offenders' vehicles, they should realize a significant improvement in safety, both in HOS compliance and in fatigue-related crashes. Another op-

tion to consider for the test phase, which is our preferred option, is to tie EOBR application (for the test phase) to SafeStat and ISS scores. This approach would broaden the pool of test candidates and will likely also serve as a more representative sampling of the industry. We believe that by taking into account *both* SafeStat and ISS scores, carriers with demonstrated performance problems, as well as those with no history can be part of the pool to be evaluated. If the test is properly carried out and administered, it should effectively demonstrate how to positively impact HOS compliance for carriers on both ends of the scale—those who are uninformed about the hours-of-service regulations and those who are habitual violators.

EOBRs must use standardized data formats and have a standardized interface for law enforcement so that training, compliance evaluation and monitoring is effective and simplified.

We also recommend that FMCSA (and NHTSA) create a more rigorous certification program for EOBRs that is administered by a 3rd party, and to also create an advisory board that would serve to create and maintain an approved EOBR list. This advisory group could operate similarly to those groups who are involved with speed measuring instruments and breath alcohol testing devices. Wherever possible, EOBR design and performance specifications should use accepted industry standards that are verifiable and certifiable.

It is our belief that moving forward with a mandatory requirement will help on all fronts. It will provide some certainty and competition in the manufacturing community and likely result in more "hardened" and user-friendly systems, help keep costs down for the motor carrier industry through economies of scale, and will assist the enforcement community since there will be stringent and uniform standards. It also will provide adequate lead time for both industry and enforcement to ramp up their operations and provide for training, as well as budget planning for the procurement of these devices and the development of back office systems to accept and manage the data output.

The FMCSA Notice of Proposed Rulemaking

In its recent NPRM regarding Electronic On-Board Recording devices for Hours-of-Service, FMCSA indicated the intent of the NPRM was to:

1. Improve CMV safety;
2. Increase use of EOBRs within the motor carrier industry; and
3. Improve HOS compliance.

They further indicated that their approach had three components:

1. A new performance-oriented standard for EOBR technology;
2. Use of EOBRs to remediate regulatory noncompliance; and
3. Incentives to promote EOBR use.

While CVSA certainly supports the 3 objectives embodied in the intent of the NPRM, we believe the approach FMCSA has taken will not measurably impact on them. The universe of motor carriers required to install EOBRs as a part of the proposal is a small fraction of the motor carrier population as a whole. Additionally, we also believe that their voluntary adoption, even with the incentives offered by FMCSA, will not occur in large numbers.

Safety

Given the fact that hours-of-service (HOS) compliance continues to be a major problem area for many motor carriers, and large truck crashes related to fatigue are significant, we firmly believe that in order to have a substantial impact on safety and HOS compliance EOBRs must be universally used in the motor carrier industry. We believe that habitual HOS offenders need stronger enforcement in addition to requiring the installation of EOBRs. HOS non-compliance is indicative of a systemic management problem within the motor carrier's operation, and the mere installation of EOBRs will not serve to correct this problem. The resources expended by government to monitor the motor carriers subject to mandatory EOBR use will be substantial and in our view, the benefits will not outweigh the costs.

Level Playing Field

In our view the NPRM will do little to help deploy EOBRs in large quantities. Most carriers already using these systems are doing them primarily to help better manage their drivers and not necessarily for HOS compliance. HOS compliance [to many of them] is a secondary benefit of these devices. We do not believe this thinking will change much with the implementation of the NPRM. Most carriers will view this as a cost item (and a legal liability) that will put them at a competitive disadvantage with their peers, therefore making them reluctant to voluntarily invest

in these devices. The EOBR vendors will not put much capital outlay into the development and deployment of these systems since there is not a clear market for them. Additionally, given the minimal number of devices that will likely penetrate the market, the benefit of economies of scale will not be realized, therefore not putting much pricing pressure or competition in the marketplace. This will likely result in most of the devices not being an attractive purchasing option for many small to medium sized fleets, or for those fleets operating on thin margins. Ultimately, in our view the NPRM will not enable a level playing field for the motor carrier industry as a whole, which will cause most fleets to opt not to purchase an EOBR.

Technology

As FMCSA indicates in its NPRM, technology has come a long way in recent years and is capable of performing many more functions than what would be needed to monitor and manage HOS compliance. We believe the optimal approach related to EOBRs is to limit their performance requirements to just those necessary for HOS compliance. This will help to keep costs down, and also help to ensure that the display, evaluation and back office system functionality needed for enforcement to monitor and evaluate compliance will be made easier and help to minimize the liability exposure to the industry.

We believe FMCSA needs to put more explicit focus and emphasis on standardizing the performance specifications regarding tamperproof requirements, information gathering and display, editing and error recording and reporting, and as well as communication accuracy, timeliness and redundancy. We are appreciative of the fact that FMCSA included GPS as a performance requirement in the NPRM, as this will provide some measure of assistance in accuracy and redundancy. We also appreciate requiring parallel data streams and making sure that the original data is kept intact, as this should help law enforcement when reviewing records and during the driver interview process. However, we still strongly believe there must be a tamper*proof* requirement.

A related issue is one of FMCSA's identified seven performance requirements in the NPRM—identification of the driver and ensuring the EOBR is able to attach the driver to his/her appropriate hours-of-service. In our view this issue is critical and fundamental to helping minimize falsification and errors/inaccuracies. Although we support providing flexibility to motor carriers and technology providers on this point, we strongly believe that FMCSA needs to specify a minimum performance requirement, to include outlining standardized and explicit test procedures and expectations. This would be part of the EOBR certification program (see Recommendation section). The EOBR must be able to correctly identify the driver/employee in all duty status stages of his/her hours-of-service and be able to accurately tie the employee to the vehicle, cargo and motor carrier at all times. This is especially important for leased drivers and owner/operators.

The NPRM discusses the notion of permitting EOBR devices that are not integrally synchronized with the vehicle. While we fully understand that cell phone and other like-technologies are available that use hours-of-service applications, at this point in time we are not supportive of permitting them to be used as EOBRs. We are not convinced that these technologies will effectively minimize the opportunity for falsification and drivers taking ghost runs. However, we do believe that these types of devices are in need of further study to understand how in the future they may be used in this capacity. We are sensitive to the fact that cell phone and like-technologies are pervasive in the industry and tend to be on the lower cost end of EOBR devices. We do not want to dismiss out of hand the fact that once they (and the performance specifications) are more fully outlined and understood they possibly could be used as an EOBR.

As for the recording interval, we are supportive of 1 minute increments. We also support the ± 1 percent location accuracy. We believe that EOBRs must use standardized data formats and communications protocols. We also firmly believe there must be a standardized display using the graph-grid format, and that non-compliance must be easily identified.

In our view, FMCSA may not want to explicitly identify the different types of communications technologies that are able to be used in the application of EOBRs, since they are so rapidly changing and evolving. The more important aspects related to the data in our view are the security aspects as well as the content and timeliness of the information availability, and not necessarily the method of communication.

Enforcement

The NPRM upon implementation will likely make it difficult for enforcement officers. The problem with EOBRs today is that there is no standardization in terms

of how the information is made available for officers to evaluate compliance, how errors and modifications to records are recorded and reported, nor is there a rigorous certification program to ensure they are operating correctly. The combination of grandfathering existing devices, providing the 2 year window for voluntary adoption of non-complaint 395.16 devices, and the likely limited penetration of EOBRs will continue to create difficulties for enforcement with understanding and accurately evaluating the operation of all the different device types. We also believe that the option of using devices not integrally synchronized with the vehicle presents its own set of challenges for enforcement that are not yet fully understood. We also strongly believe that EOBRs must be made tamperproof. Although the NPRM does make an attempt to correct some of these concerns in the performance specifications, we do not believe it goes far enough to minimize tampering or to make sure that officers will feel comfortable with using the devices.

Law enforcement needs the capability to be able to print HOS records at roadside to more effectively review HOS compliance and collect evidence. Although we support having EOBRs providing the functionality to print out the HOS records, we think a more prudent and cost effective approach is to equip certified inspectors/officers with the appropriate technologies and printing device to be able to do this themselves. This will help those officers who do not currently use laptop or hand held computers (or the software to read the EOBR data file). Ultimately, this approach will also serve to assist in having more roadside inspections completed (and uploaded) electronically, since many inspectors are still completing inspections on paper.

As for access to the HOS data, we agree with FMCSA that EOBRs must not require the officer to have to enter the cab of the vehicle. If electronic files are going to be made available for download, they must adhere to common, uniform and strict standards. In addition, the officers must be able to read the data on their (for those who have them) laptops or hand held computers. However, we do have concerns with the possibility of these files introducing a virus or otherwise damaging the operating system or software.

Summary

We believe that in order to enable significant positive changes to hours-of-service compliance there needs to be universal adoption of EOBR technology. However, it is critically important that the performance specifications for these devices, and the oversight of those producing and using them is done in such a manner that enables them to be user-friendly for law enforcement and that there is credibility and confidence in the accuracy of the data.

Hours-of-service continues to be a challenging area for many motor carriers to make significant strides in improving compliance. There must be a multi-faceted approach in terms of finding solutions, and the status quo is just not acceptable. We believe that the implementation of EOBRs is one of the important elements of such an approach.

Thank you very much for inviting us to be here today, and I am happy to take any questions you may have.

Senator LAUTENBERG. Thank each one of you for your testimony.

Mr. Rosenker, the USDOT's Large Truck Crash Causation Study in 2006, estimates that only 13 percent of American truck crashes involve fatigue, but yet, your agency has put the figure at 30 to 40 percent. Now, is DOT underestimating the problem of truck driver fatigue?

Mr. ROSENKER. Sir, our study that we did in 1990 on large truck crashes dealt with fatal accidents. We found that approximately one-third dealt with, in some shape or form, fatigue. But that didn't necessarily mean it was fatigue only. So, the data that, in fact, we are seeing now, clearly later data, is data which is quite valid.

Senator LAUTENBERG. How difficult is it to find out whether driver fatigue is a factor in truck crashes? Does it have to be an extrapolation of other data in order to even make an assumption like that?

Mr. ROSENKER. It does. And what we've found, in a series of 3 million inspections, 7 percent of the drivers that they took a look

at in the 3 million inspections were put off the road for human-factor issues, the vast majority of which dealt with fatigue. So, we found that to be a very large factor when they were put out-of-service.

Senator LAUTENBERG. Mr. Hill, what do you think about that?

Mr. HILL. Mr. Chairman——

Senator LAUTENBERG. Do you agree with Mr. Rosenker?

Mr. HILL. Well, I would agree with several points that he made. I would just like to clarify on the data problem that we have in quantifying exactly the related cause of crashes.

As you know, most of the crashes were done by local and state enforcement officers, and the crash reports indicate a variety of things. Fatigue is one of the things that's indicated on a crash report, as well as driver inattention. And so, what we look at is the FARS data, the fatality accident reduction—the accident reporting system, FARS, has a typical under-reporting problem with fatigue. We know that. Therefore, we're taking into consideration later data. When you mention the Large Truck Crash Causation Study, this study took nearly 1,000 crashes, and it had specialized people who went to the scene of the crash, interviewed all the drivers involved, and they knew how to find this fatigue-related matter. That is why the number is so much higher than what the common reporting numbers in FARS indicate, which is somewhere around 2 percent of all fatal crashes. So, we think that the number is much higher, and that's why our Large Truck Crash Causation Study indicates the number of 13 percent.

Senator LAUTENBERG. Did it take a long time for your agency to step up to the reinforcement requirements, the law enforcement requirements that were expected to be there in these years past, and yet very little has really happened?

Mr. HILL. In terms of the enforcement of the hours-of-service rules, sir?

Senator LAUTENBERG. Yes.

Mr. HILL. As Captain Harrison indicated, there has been significant litigation, and every time we have a disruption in that rulemaking process, the enforcement suffers from that. They are uncertain about what the current rule is. At any given time, when there are changes to the rule, we have to go out and train them on the changes that need to be enacted. There has been some disruption since 2003, when we implemented the rule. Since that time, we are moving forward with our current enforcement program. As Chairman Rosenker indicated we are seeing out-of-service rates comparable to what they were before the rule was imposed. So, we do have a consistency in the enforcement regime at this time.

Senator LAUTENBERG. Captain Harrison, how do you see it, in terms of the estimates on fatigue and the causation that it brings about?

Mr. HARRISON. Well, we are not statisticians, we're—we'll enforce whatever the rule is. And it appears, examining the data that we do have, that it's been pretty consistent, whether it was under the old rules or the revised rules. You know, the point I want to make is that the hours-of-service regulations since January 2004 have been in a constant state of flux, seems like. And, as far as an enforcement is concerned, we need stability in those rules so that ev-

erybody understands the rules and we can readily educate the motor carrier population and enforce the rules. We consistently run upon drivers that don't understand the rules. And sometimes we come to blows, almost, with drivers, because they can't understand why they're being placed out-of-service for exceeding the limits, when they don't really understand the limits. So, we need consistency on the rules, to start with.

Senator LAUTENBERG. How do we get that educational factor in place?

Mr. HARRISON. Well, first, we need these hours-of-service rules—if the FMCSA has done their job, and they have identified the human factors that affect driver fatigue, and say that a 24-hour clock is what you need, the circadian rhythm, and they fashion the rules according to that, we need them locked in place, and we'll enforce whatever the rules are. And then we can have a set of data that we can analyze. Right now, with the flux in the regulations, we haven't been under the new rules long enough to determine if they are effective, if they're making a difference.

Senator LAUTENBERG. It's obviously important for the EOB recorders on trucks to be tamperproof. Now, that doesn't look like it's an impossible problem, either technologically or educationally. Nobody can alter or adjust the information in black boxes on airplanes or locomotives, right? So, there shouldn't be a problem with that, certainly, in terms of what we expect the device to be able to guarantee here.

Mr. Hill, it seems that the Bush administration is taking an opportunity to use technology to make our highways safer. Why not require on-board recorders for all new trucks and all new carriers, at the very least? That's, frankly, how we got airbags into cars.

Mr. HILL. Mr. Chairman, I would just say to you that we are currently proposing a rule that would begin down the road of seeing a greater expansion of the technology in trucks, and we're open to considering other alternatives. That is why we are going through this notice of proposed rulemaking. So, I think that your question—for us, in terms of this particular rule, we're proposing one that deals with the risk, at the present time, that we feel is the greatest, and that's why we have addressed it the way we did. I made mention, in my earlier statement, that 87 percent of the carriers that would be involved in this remedial directive, or a requirement to have an EOBR placed on the vehicle within the first 2 years, 80—they have an 87 percent higher crash rating than other carriers not in that group of people. So, we're trying to assess risk, and put the technology where we can see it start to grow, and then hopefully create some incentives for other industry participation, as well.

Senator LAUTENBERG. Yes, but should we confine the use of these recorders only to those who seem to be riskier? We ought to be get it out there and introduce it as a requirement for new product. I think that's a relatively easy thing to do.

What do you think, Mr. Rosenker?

Mr. ROSENKER. We agree with you, Mr. Chairman. We've long been on the record about this particular technology. We believe it can do much to begin the process of getting compliance from those that are, unfortunately, skirting the law, and that it makes it easy

to do when you don't have technology like this to validate the actual hours-of-service that an operator is performing. We started with this back in 1977, and, unfortunately, have not been very successful in getting either regulatory or voluntary installation.

However, with that said, we've got an NPRM that's now out there, and I'm hoping that it would perhaps include, as what we suggested in our response to the NPRM: one, heartier, more robust standards for crash-worthiness that could be utilized in the event of an accident; two, it should basically deal with all carriers, not just selected carriers that have appeared in one shape or form that violated the rules; and, finally, the NPRM asks for voluntary compliance, and if you're asking for voluntary compliance from everyone, those that, in fact, are the most egregious of violators won't be incentivized to install this device.

Senator LAUTENBERG. I agree.

Last summer, a large truck crashed into two cars on the New Jersey Turnpike, killing four people. The truck driver was cited for careless driving. When your agency looked at the records of this driver—after the fact—the investigators found previous violations of the hours-of-service laws, falsifying records of compliance, and no drug or alcohol testing plan in place.

Now, obviously, wouldn't the electronic on-board recorder be an aid to your inspectors, and state inspectors, to find violators before, not after, a crash? The thing we were discussing, Mr. Hill, about looking at the riskiest places—the riskiest individuals also to be part of that.

Want do you think, Mr. Rosenker?

Mr. ROSENKER. Again, we believe technology has a tremendous place in this issue of compliance. With the new devices are data and digital data-driven, we believe that they are extremely difficult, if not nearly impossible, to in any way influence on change. So for us, when it comes to accident investigation, the kinds of equipment that we see right now would be extremely helpful. We believe we can significantly reduce the number of accidents, injuries and, ultimately, fatalities by getting compliance ahead of time so that the fatigue issue isn't a factor when we're talking about highway accidents.

Senator LAUTENBERG. But I'm not sure that we came to the conclusion that relates to the records of drivers, those who have had past difficulties, falsifying records. Could we use the data gathered here to determine that and make sure that these people had a particular condition that we had to watch out for?

Mr. ROSENKER. I'm not sure if this type of device, the way it is built at this moment, would be a device that would provide that type of information to the roadside inspector.

Senator LAUTENBERG. Yes.

Mr. ROSENKER.—an entire record. I don't know if that could be done.

Senator LAUTENBERG. No, but I assume that there is a place where records are kept of a driver's performance, especially in serious accidents. Shouldn't that be a database that we tap routinely for people who are going to get behind the wheel of a giant truck and get out there on——

Mr. ROSENKER. I would agree. And we have that on our Most Wanted List. I happen to have brought an example of our Most Wanted List with me.

Senator LAUTENBERG. OK.

Mr. ROSENKER. Two areas that, in fact, we've worked on with the Federal Motor Carrier Safety Administration is the area of preventing medically unqualified drivers from operating commercial vehicles, and also improving the carrier operations. We've asked that to be done by preventing motor carriers from operating if they put vehicles with mechanical problems on the road or unqualified drivers behind the wheel, which would be those that are in egregious violation of the rules and regulations of the State and Federal law.

Senator LAUTENBERG. Thanks. I have more questions, but my colleague Senator Smith has been most patient.

Senator take as much——

Senator SMITH. OK.

Senator LAUTENBERG.—time as you need.

Senator SMITH. Thank you, Mr. Chairman.

Administrator Hill, I understand that under the rule proposed by your agency earlier in the year, only carriers that have a identified history of noncompliance with hours-of-service regulations are the ones that will then get these electronic on-board recorders. Is that correct?

Mr. HILL. That is the proposal at this time. Of course, there are also incentives for people to put it onto their carriers into their fleet voluntarily, but we did require EOBRs as you suggested, for the noncompliant ones, yes.

Senator SMITH. I'm interested in how you arrive at the designation of a noncompliant person. As I listened to Mr. Rosenker, it seems to me he's saying that the sampling may be awfully small. In 2005, your agency performed only 8,000, roughly, compliance reviews, and there are nearly over 900,000 active and registered carriers, meaning 1 percent is the sample. If you're going to take your approach, providing EOBRs on all trucks, is that a sufficient sample?

Mr. HILL. Well, it—as I said, earlier to the Chairman in response to his question, we are starting with a proposed rule, and I think we have to consider that this is a baseline, and we need to consider other options. I'm hearing that very clearly today. I do believe that it's very small sample, and it's going to be difficult, but I will say that it's a snapshot in time, so that this list could grow, it could become larger, because of more roadside inspections finding noncompliance, and we could also foresee a time when we might use other indicators. And one of the things that using EOBRs does do, as the Chairman was alluding to in his last questioning with the Chairman, is that it allows us to go in and readily look for patterns of violations. So, where we put this into carriers, we'll be able to quickly survey and do an assessment of the driver records at that carrier's place of business much more quickly, because it will be automated, as opposed to the safety investigator going through and doing a laborious sampling of certain logbooks. So, I think it's a——

Senator SMITH. Doesn't it take you——

Mr. HILL.—in the long run——

Senator SMITH. It takes 2 years to determine if somebody has a noncompliance history?

Mr. HILL. Well, in terms of the proposal, that's what has been suggested.

Senator SMITH. And do you have the resources to increase the surveillance, the designations?

Mr. HILL. Well, as you indicate, as you framed the last question—we do have a large population here, and we have finite resources. I think last year we did 15,000 compliance reviews between us and the State enforcement groups. They're doing 3 million roadside inspections. That's still a very small part of the overall picture. So, we do have limited resources, and that's why we, as an agency, and our State partners, focus on risk, looking at the most severe violations to try to address that problem. And that's the consistent theme here that we've been trying to apply in this rule. And I would just, again, reiterate that it is a notice of proposed rulemaking, with the opportunity to make changes.

Senator SMITH. I would imagine that the truckers don't like this. You know, this is Big Brother watching over them. I can imagine that they just don't like the regulation. Can you give me some flavor of the opposition to this?

Mr. HILL. Sure. We're hearing privacy issues. In some cases, I think there is confusion on the part of the person making that claim, because we're not going to require anything under this proposed rule or this final rule of—as it comes out, that isn't already on a logbook.

But it's the idea that the monitoring system will allow the carrier to know where the vehicle is going when they are not doing work for the carrier——

Senator SMITH. So, is it the driver or the trucking company? Sometimes they're the same, I understand—but where is most of the pushback coming from, the drivers or the motor carrier company?

Mr. HILL. I believe you have both. I think, from the carrier perspective, there's a cost factor, and they want to make sure that if you do have it, that they're not playing on an uneven playing field with their competition. And then, I think you have other drivers who are concerned, because they're not fully aware of the EOBR technology, about privacy concerns.

Senator SMITH. So, the companies would prefer that, going forward, it be in every vehicle, I assume, as part of the cost of the vehicle, if you're going to have it at all, or would they prefer just in the basis of where you designate who has a noncompliance history?

Mr. HILL. Well, the industry's going to be here on panel two, and I'm sure they'll be ready to tell you how they feel about it. But I——

Senator SMITH. Well, I can imagine how they feel about it. I'm not saying where I am on this position. But I'm anxious to hear your perspective on your challenge in crafting this regulation, why you're proposing to do it this way.

Mr. HILL. Our problem, Senator Smith, is we're required, under the Administrative Procedures Act, to figure costs and benefits, and

it's going to be difficult to put a rule forward that allows us to show some kind of benefit with an industry-wide mandate.

Senator SMITH. OK.

Mr. HILL. And so, we're trying to work within that. To the extent that we can do this with a limited population, we can show a safety benefit. That is one of the options.

The alternative to that, of course, is that, as you deploy this more widespread you'll see prices come down with the——

Senator SMITH. Right.

Mr. HILL.—the technology. And somewhere in there, I'd like to see somebody suggest more incentives to encourage carriers to put this on their vehicles.

Senator SMITH. Well, thank you.

Mr. Rosenker, I understand that you've looked at what the Europeans are doing and their digital recorders for some time now, do they have it on all trucks? Is that correct?

Mr. ROSENKER. That is a requirement, yes, sir.

Senator SMITH. And has the incidence of fatigue-related crashes in Europe decreased since the installation of the recorders? Was there any data——

Mr. ROSENKER. We believe they have. And we believe we'd see that same type of improvement here in the United States if, in fact, we required all of the motor carriers to use them. I have to feel some sympathy for the Administrator, but I believe if we made it a requirement across the board, there would be a level playing field where everyone could participate. The costs of these devices would come down significantly. And you would also begin to see much better compliance.

As matter of fact, I believe what you would find is that this would help the Administrator and the local authorities in compliance, because, in fact, if everyone has them then they all run the same risk of being stopped and their devices being looked at for valid hours-of-service.

Senator SMITH. Do you know of any evidence that suggests the carriers with the EOBRs have fewer fatigue-related crashes?

Mr. ROSENKER. I have not seen the specific data that deals with that. There are not a whole lot of carriers out there that have it. Many of your larger carriers are using them, but they're using them as a total system, because with many of the more advanced devices that you get do significantly more than just monitor the hours-of-service. They will deal in load management, fuel management, trip management, cost-accounting devices. Now, those are more expensive devices, but I believe you're going to hear from industry that will follow us in the next panel, that will talk about the significant benefits they have in not only using the actual recorder for hours-of-service monitoring, but for other broader applications as well.

Senator SMITH. Administrator Hill, I wonder if there are any carrier companies that have them installed now, because they want all the information that Mr. Rosenker identified—accounting and control of their traffic and all of these things?

Mr. HILL. Yes, Senator, that is a very legitimate point to this whole process. It helps with the overall operational efficiency of their carrier operation.

I would just say to you in response to what you asked earlier, we are presently working with carriers who have deployed EOBR equipment, and we are looking at their crash rates. And I—it's a little premature, the study is finished, but we're going through a peer-review, so it's preliminary for me to actually tell you the results of it, but I will say the findings do look encouraging, in response to your question about the safety benefit for people who have deployed it.

Senator SMITH. I wonder—with all the information-gathering that could come from this, I wonder if one of the pushbacks, in addition to loss of privacy on the part of the driver, would be the fear on the part of the company for litigation and what would be discovered, in terms of information. Are you hearing that?

Mr. HILL. Yes, sir, that is a concern. And there is a desire in some part of the motor carrier industry to have that bulletproof so that there would not be this opportunity to just routinely take that information and use it in tort situations.

Senator SMITH. Thank you. Been helpful.

Senator LAUTENBERG. Thanks very much.

Senator Pryor, welcome.

STATEMENT OF HON. MARK PRYOR, U.S. SENATOR FROM ARKANSAS

Senator PRYOR. Thank you, Mr. Chairman.

Let me ask, if I may, Administrator Hill, just a quick hypothetical so I make sure I understand the program we're talking about. Let's say you have a trucking company that has 100 trucks, and one driver has an hours-of-service violation. Would this require all 100 to add this? Tell me how this is going to work.

Mr. HILL. Senator Pryor, the current proposal is that when we go in to do compliance review, we do a sampling of the hours-of-service compliance, so we would take a percentage of the drivers, so, in your particular scenario, it would have to be a very small carrier for one driver to be affected. If you have 100 drivers——

Senator PRYOR. Do you know——

Mr. HILL.—it would not affect the——

Senator PRYOR.—what you—what percentage——

Mr. HILL.—entire carrier.

Senator PRYOR.—what percentage are you looking for?

What's your threshold?

Mr. HILL. Ten percent violation rate, sir.

Senator PRYOR. OK. Let me ask this. I know that there are companies that are using this. And you all talked about that just a minute ago. What's your sense of how many trucks, or what percentage of trucks, on the road in the U.S. are using this technology?

Mr. HILL. We anticipated that question, sir, and we've been trying diligently to put our hands around it. There was a article in last year's *Commercial Carrier Journal* that suggested 100,000 vehicles had this kind of equipment. We have seen more recent data, from some of the trade publications, that indicates that there might be vehicles equipped with technology that is not presently measuring hours-of-service, but has the capability of doing so, on the order of 400,000–450,000. So, there is a lot of—as the chairman

just indicated—there's a lot of interest in this already with managing your operation, but not using it for the hours-of-service rule.

Senator PRYOR. And so, whatever the number is—100,000, 400,000—how many of these large trucks are out on the road?

Mr. HILL. Well, we are aware of about 8 million being registered, so—now, that includes anything over 10,000 pounds. So, a lot of trucks, a lot of vehicles that would impacted.

Senator PRYOR. I'm sorry, I missed the first part of the hearing, you probably said this, how expensive is the base unit? I know, as you mentioned, some do a lot of other things, but how much is a base unit? What's the cost?

Mr. HILL. You didn't miss it. We have, in the Notice Of Proposed Rulemaking, a range, anywhere from $100 up to $4,100. And the estimate that we use for this notice of proposed rulemaking was about $1,200.

Senator PRYOR. OK. You guys are working on this Mexican truck program that we've talked about before. The DOT, you know, is scheduled to allow Mexican trucks to operate beyond their current scope of authority and do international pickups and deliveries outside their current, "commercial zone." What sort of technology will be required, or is at least being contemplated, for those trucks participating in the Mexican truck program? What type of technology are we talking about there?

Mr. HILL. Well, I can say a couple of things. First of all, they are required to meet the same standards that U.S. trucks have.

Senator PRYOR. Right.

Mr. HILL. So, the regulatory scheme, there would be nothing other than what we presently have for U.S. trucks. But we are looking and considering using some kind of tracking mechanism for Mexican trucks and U.S. trucks going into Mexico during the time of the demonstration project that would be similar to a global positioning system that would allow us to monitor some of these activities.

Senator PRYOR. Would that qualify as an EOBR, or would that just be more like a GPS? And I'm not sure I understand the difference, completely, but——

Mr. HILL. It would have the capability of doing what an EOBR does. I haven't done a side-by-side comparison to say it meets every one of our performance standards, but it would allow us to monitor the movement of that vehicle. I wouldn't necessarily put a driver in the exact location every time in the same way that we want in this EOBR.

Senator PRYOR. And you might—underline the word "might," because I think you haven't finalized what you're going to do yet—but you might put—require these as part of this pilot program in order—so you can accurately monitor the program and see how it's going, is that the purpose of doing it?

Mr. HILL. Well, first of all, we are considering this, Senator. But the large issue here is cabotage movement. It'll allow us to watch for whether or not there is extensive movement beyond the point of delivery and the point of return. And so, in that sense, it'll allow us to know if the truck is operating within the United States contrary to the international point——

Senator PRYOR. Right.

Mr. HILL.—of pickup and delivery. It's not really focused exclusively on hours-of-service, but it could have an application. And I'm not prepared to talk a further about it, because I have not been fully briefed on that. I'd be glad to get back with you on it, though.

Senator PRYOR. That'd be great. If you would——

Mr. HILL. OK

Senator PRYOR.—that would be great.

Captain Harrison, let me ask you, from a law enforcement perspective, does having EOBR—a new EOBR regulation, does that present any challenge to local law enforcement, in terms of training and equipment, et cetera?

Mr. HARRISON. I don't think it would have a significant impact, provided we have a standard. The problem right now with the EOBRs that are in use is, there's not a standardized format from company to company or manufacturer to manufacturer. So, when we're trying to examine these devices now at roadside, it presents a significant problem, because every one of them presents the data in a different way. And so, now—it's probably a bigger problem now than it would be in the future, if they're implemented, because now what do you train on? You have all these——

Senator PRYOR. Right.

Mr. HARRISON.—different formats?

Senator PRYOR. Right.

Mr. HARRISON. In the future, if you have a standardized display of the information and how it's retrieved and so forth, we can train on that, and we can implement it.

Senator PRYOR. OK. Is, your concern is that there may not be any standard?

Mr. HARRISON. Well, our concern is that when and if it's implemented, number one, it should be systemwide. We advocate that it be on all vehicles—all commercial vehicles for an unspecified period of time, and that there be standards in place over and above what's there now to make sure that, number one, the data is displayed in a standardized format from manufacturer to manufacturer, that we have positive driver identification, because that is a significant problem. You could falsify the data in one of these devices by using a ghost driver. You punch in a different driver code, and, you know, the officer at the roadside, unless he has the name on the data, he doesn't know who that data belongs to, it's just some driver number. And also, that it's tamperproof. Those are our major concerns.

Senator PRYOR. OK.

Mr. Chairman, if I may, just one more question for the NTSB.

Mr. Rosenker, today we're talking about trucking. What other transportation industries regulated by DOT are currently required to use EOBR for hours-of-service compliance?

Mr. ROSENKER. As far as hours-of-service compliance, the primary use for the kinds of recorders that we use in aircraft, are flight data recorders for performance of the aircraft.

Senator PRYOR. Right.

Mr. ROSENKER. The hours-of-service is governed by other methods. We have data recorders for cabs in locomotives. Once again, they are dealing in performance. And then, of course, the same type of recording device for ships called voyage data recorders.

These are devices which record performance data of the vessels but not necessarily hours-of-service of the operators.

Senator PRYOR. OK. That's fair enough.

Thank you.

Senator LAUTENBERG. Thanks very much.

I would ask that you respond to any questions in writing that may come. And I thank you all for your testimony. And we'll excuse you now from the witness desk and ask for the next panel to come up. That would include Mr. Gabbard, Dr. McCartt, Mr. Reiser, and Mr. Olson, please.

[Pause.]

Senator LAUTENBERG. Welcome, to our second panel. Mr. Gabbard—or is it Gabbard?

Mr. GABBARD. Gabbard is correct, sir.

Senator LAUTENBERG. OK, you're Vice President of Siemens, VDO Automotive; Dr. Anne McCartt, Senior Vice President, Research, for Insurance Institute for Highway Safety; Mr. Reiser, Executive Vice President and General Counsel for Werner Enterprises, Incorporated—Mr. Reiser, you're going to be representing the American Trucking Association; and Mr. Olson, we know that you're Chief Executive Officer of FIL-MOR Express, Incorporated—as a small-size trucking company, you'll be able to tell us what size is small in the trucking industry. Thank you.

Let's start with Mr. Gabbard, please. Try to stay to a 5-minute limit, if you would.

STATEMENT OF JERRY G. GABBARD, VICE PRESIDENT AND GENERAL MANAGER, COMMERCIAL VEHICLES, NAFTA REGION, SIEMENS VDO AUTOMOTIVE CORPORATION

Mr. GABBARD. Thank you very much, Mr. Chairman and your Ranking Member.

My name is Jerry Gabbard. I am the Vice President of the Commercial Vehicle Group of Siemen's VDO. On behalf of Siemens VDO Automotive Corporation, I appreciate the opportunity to present our views on the use of electronic on-board recording devices.

As you stated earlier, I will say I find it astounding that the United States is one of the few areas of a modern industrialized society on this globe that does not have an electronic hours-of-service recording device requirement for heavy-duty truck drivers.

Globally, Siemens VDO, as indicated somewhat earlier in some testimony, is involved in the manufacturing of this type of device, and we have over 6 million of these devices deployed throughout the world.

What's wrong with today's notice of proposed rulemaking? I would suggest that the regulatory impact analysis that's been referenced in the earlier testimony has used data that is flawed, and has led people to draw erroneous conclusions.

The rule does not mandate the universal installation of EOBRs, and experience has found without the universal mandate of the EOBR, it will have minimal effect on road safety.

The rule does not require a tamperproof system, which is absolutely mandatory for law enforcement and to enforce the rules of the road.

The rule lacks standardization for driver identification, as mentioned earlier, on falsification of records and ghost trips.

And there also is no provision for moving data from one truck to the next. When a driver would happen to move from one vehicle to another, his hours-of-service data needs to move with him.

The data privacy concern is not adequately addressed.

Actually, what has happened is that the FMCSA has been led to ignore some of the evidence that was presented, and has been swayed somewhat by a regulatory impact analysis that is not as accurate as it should be.

If you look at the regulatory impact analysis specifically, the full cost of a fleet management system was being used, as was indicated in earlier testimony, that full cost was in the range of $1,200, when, reality, a minimally compliant device could be in the area of $300 to $450, which would dramatically impact and change the outlook of the regulatory impact analysis.

Also included in the RIA are costs for wireless data transmission of data back to a base or a home office, when, in reality today, sir, a lot of the truckers that are operating in the United States do not have a back office; in fact, it might be—the back of the cab that they're riding in might be their office; and, therefore, the wireless data transmission is not really needed for a minimally compliant device.

Cost savings from economies of scale, if you make a market attractive for manufacturers such as ourselves, it will drive down the cost of the device; therefore, the cost savings from economies of scale was not considered.

The useful life of the device, or the life expectancy of the device in the RIA was stated to be 3 to 5 years, when, in reality, the true market indication is, the life of the device should be in the neighborhood of 10 years.

A universal mandate will also further reduce costs of the device itself, as I mentioned, by economies of scale and by reducing installation costs; and, furthermore, with a standardized device, as indicated in earlier testimony, it will significantly reduce training costs for drivers, dispatchers, and law enforcement.

Therefore, I would re-emphasize that the—I believe that the FMCSA was led, to false conclusions by using flawed RIA data in their analysis.

What can an EOBR do for society and for the American roads? It can increase road safety. It can reduce the paper mill of supporting documents. It can improve driver compliance. It can provide tamperproof data. It can provide and reduce roadside time for roadside safety inspections. It can reduce accidents that translate into the reduced loss of life and property. It can provide a level playing field. And it can provide and create a market for a low-cost device. And, reemphasizing again, a low-cost device should be in the hundreds, not in the thousands.

In summary, Mr. Chairman, the full potential of a standardized device of an EOBR can lead to increased road safety. We can create an attractive market for manufacturing the device and the supporting materials that will come along with it.

The paper record of driver activity needs to be replaced, and I believe that in the efforts that have taken place over the last 3

years, that we've lost the focus of trying to come up with a system that would provide trustworthy, reliable data in order to enforce hours-of-service rules on our American highways. And this rule, to this point, has failed to address this issue.

This concludes my discussion, Mr. Chairman, and I look forward to questions later on.

[The prepared statement of Mr. Gabbard follows:]

PREPARED STATEMENT OF JERRY G. GABBARD, VICE PRESIDENT AND GENERAL MANAGER, COMMERCIAL VEHICLES, NAFTA REGION, SIEMENS VDO AUTOMOTIVE CORPORATION

Mr. Chairman and members of the Subcommittee, my name is Jerry Gabbard, and I am Vice President for Commercial Vehicles in the NAFTA region of Siemens VDO Automotive. On behalf of the Siemens VDO Automotive Corporation, I appreciate the opportunity to present our views on the use of electronic on-board recording devices.

Background of Siemens with Vehicle Safety Technologies

Siemens VDO is a leading international supplier of automotive electronics and mechatronics. Through the use of our products, such as airbags, ABS, or access control systems, both chassis and car-body safety is increased. As a development partner within the automobile industry, we manufacture a comprehensive spectrum of products relating to the drive-train, engine management electronics and fuel injection that simultaneously improve engine performance and reduce emissions. Driver comfort is enhanced and driving is made easier with information and car communication systems that include instrumentation, audio and navigation equipment, telematics, and multimedia applications, up to entire cockpit designs.

Globally, Siemens VDO supplies virtually all manufacturers of commercial vehicles with electronic on-board recorders and offers a variety of aftermarket solutions tailored to unique regional and national needs. There are more than 6 million of our on-board recorders installed in commercial vehicles throughout the world.

Our company is committed to support Federal Motor Carrier Safety Administration's (FMCSA's) goal to improve commercial vehicle motor safety and the intention to introduce a practical rule on Electronic On-Board Recorders (EOBRs) for Hours-of-Service (HOS) compliance. Over the past 35 years Siemens has learned from other world regions that EOBRs, universally used in all heavy commercial vehicles, have significant potential to contribute to improved compliance with HOS regulation, and therefore, reduce crashes related to driver fatigue.

Major Concerns With the Proposed FMCSA Rule on EOBRs

- Siemens VDO believes that the Notice of Proposed Rule Making (NPRM) on EOBR in its current form will not lead to increased installation and proper utilization of EOBR. We therefore predict no measurable impact on improved road safety and no contribution toward treating all carriers and drivers equitably and less driver exploitation.
- The Regulatory Impact Analyses (RIA) has used excessive EOBR cost estimates leading to inappropriate analyses.
- The rule does not mandate the universal installation of EOBRs, and the proposed incentives will not encourage carriers to install EOBR in significant quantities.
- The rule uses an inappropriate definition of "problem drivers" in regard to the reality of HOS compliance. Thus, the chances of detecting non-compliance given today's minimal number of roadside checks makes meaningful road safety improvements highly unlikely.
- The rule does not require a tamperproof system design.
- The rule lacks standard specifications for driver identification and how drivers can move their HOS data from one vehicle to another.
- Data privacy concerns are not adequately considered.
- FMCSA has tried to balance different arguments in the Advanced Notice of Proposed Rule Making (ANPRM) but has failed to put safety first. The rule therefore fails to meet the minimum standards established by the Motor Carrier Safety Improvement Act of 1999 or the D.C. Court of Appeals dictate in the *Public Citizen* decision.

FMCSA has based its decision not to propose a universal mandate for an EOBR and to promote mobile devices mainly on the cost/benefit analyses of the Regulatory Impact Analyses of Electronic On-Board Recorders. Unfortunately, the Regulatory Impact Analysis (RIA), and therefore FMCSA, ignored submitted evidence about EOBR products now on the market that are inexpensive, tamper-resistant and standardized. There is a significant difference between the cost estimation for EOBR as stated in the RIA and the cost estimation of Siemens VDO and other potential vendors.[1]

Detailed Criticism of the Underlying Regulatory Impact Analysis

- The full cost for today's fleet management systems has been used by FMCSA for the RIA, ignoring the fact that HOS function is only an add on component to the system. The primarily reason to use the fleet management system (and therefore its main cost driver) is to enforce other company policies such as to monitor drivers' behavior, vehicle movement, and freight. The proposed performance specification for EOBR HOS recording adds only minimal costs to standard fleet management solutions (FMS). Those transport companies that buy and use FMS mainly for operational reasons, are likely to benefit from limited additional cost for electronic HOS recording and would recoup their investment costs in a very short period. However, this would place smaller fleets and owner-operators at a competitive disadvantage.
- Costs for wireless data extraction are included in the annual operating cost. This is necessary for mobile phone solutions and is also normally part of fleet management concepts designed for big fleets in long haul operations. But this is not implicitly required for minimally compliant, tethered EOBR solutions, as they may use other means to transfer data to a secondary data back up system. In particular, owner-operators, small carriers, and those operating short range distributions do not benefit from wireless data extraction of HOS data. As only a limited number of power units do not return to the transport companies home location within the required time for downloading of HOS data to a secondary back up system, the EOBR rule must allow for data downloading without General Packet Radio Service (GPRS) or satellite communication.
- FMCSA is focusing on technical solutions available off-the-shelf today, but does not consider the technological possibilities for a minimally compliant and standardized EOBRs at current low cost.
- Cost savings from economies of scale (when universally mandating EOBR) and increased competition have not been considered by FMCSA.
- FMCSA assumes a useful lifetime of the EOBR of 3–5 years which might be correct when using mobile phones or fleet management systems but will certainly not be the case with minimally compliant and standardized EOBR. The Siemens solution, for example, has a market life of 10 years.
- With a universal mandate of EOBR, vehicle manufacturers are likely to offer the HOS functionality as an integral part of their vehicles. This will further reduce the cost for the device itself and its installation cost.
- Standardization will significantly reduce training cost for drivers, dispatchers and enforcers.

The Need to Introduce a Practical EOBR Rule

Thousands of people are killed every year on our roads in accidents in which trucks are involved. In addition, tens of thousands are severely injured. Anyone who has witnessed a large truck accident understands the extreme damage to life and property that can result.

Road traffic is increasing worldwide. The fact that safety on the roads has increased in most of the world's highly developed countries despite increasing traffic density is due to a wide range of measures ranging from improved infrastructure to safer vehicles and better training. Measures which encourage people to comply with speed and hours-of-service regulations are a key part of many of these regulatory systems.

Truck Crash Studies

Various truck crash studies have reached varying conclusions on the role of the driver but all conclude that driver fatigue is a significant factor.

We understand that some truck crash studies have assigned only 13 percent of the accidents to the fatigue of drivers (Large Truck Crash Causation Study) while

[1] *I.e.,* Report On Board.

others conclude that fatigue was the probable or primary cause of more than 40 percent of the crashes.[2] Other studies show significantly increased crash risk among drivers who have driven a long time rising by 50 percent after 4 hours driving and increasing by even 130 percent after more than 8 hours of driving time.[3]

To determine if drivers are violating the HOS rules, various studies have been conducted. Observations of long distance trucking indicate that 30 percent to 50 percent are in violation of the HOS regulations[4] whereas interviews of drivers indicate that more the 75 percent are at least partly violating the HOS rules.

It should also be noted that two-thirds of interviewed drivers stated that they had driven more miles than was recorded in their logbook during the past year.[5] In other words, Records of Duty Status (RODS) or electronic data records often do not reflect the reality about driving time. It is not only the paper log books which are easily tampered with but is also the case with many of the recording devices currently available in the U.S.

Data Security, Data Privacy and Standardization Requirements

A key purpose of EORB is to achieve less tampering of HOS records than is presently the case and to allow for better enforcement. Ultimately, the HOS data recorded in the EOBR must be reliable enough that they could be accepted in court, if required.

This requires:

1. A technical and organizational concept which ensures that HOS data input reflects drivers' consecutive activities properly;
2. A technical solution which records, stores, and transmits data in a tamperproof way;
3. A means to allow enforcers to detect any manipulation attempt;
4. Standardized data access/download interfaces for enforcers and carriers; and
5. Data access routines ensuring that only HOS relevant data could be accessed by law enforcers.

The NPRM fails to address these requirements in the following ways:

- Although the NPRM makes some suggestions for common protocols and file formats, EOBR systems from different vendors are unlikely to be interoperable with each other.
- The driver identification system and drivers' data transfer from one vehicle to another have not been specified and restricted to one technical solution. A consecutive HOS record for drivers using different vehicles is therefore highly unlikely.
- The proposed possibility to use mobile EOBR solutions not tethered to the vehicle leaves the door wide open for falsification.[6]
- The EOBR security level has not been defined. Test and certification against common IT standards by independent laboratories are not required as they should be.

Unfortunately, devices currently available in the U.S. are not able to provide meaningful compliance, because those who want to cheat can easily do it using these devices. The proposed FMCSA EOBR rule is unlikely to change this. It can be expected that law enforcement will return to requiring supporting documents, as the proposed EOBR rule does not provide the confidence that the HOS data is accurate and dependable.

Thus, we believe the proposed EOBR FMCSA rule will make little or no difference in improving the road safety and driving habits of drivers who frequently violate the HOS regulation.

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[2] Transportation Research and Marketing—*A Report on the Determination and Evaluation of Fatigue in Heavy Truck Accidents,* 1985.

[3] tzuoo-Ding Lin, Paul P. Jovanis, and Chun-Zin Yang, *Time of Day Models of Motor Carrier Accident Risk*.

[4] Beilock, R. and Capelle, R.B. "Economic Pressure, Long Distance Trucking and Safety", *Journal of the Transportation Research Forum 28* (1987) 177–85. Hertz, R.P. "HOS Violations Among Tractor-Trailer Drivers" *Accident Analyses and Prevention 23* (1991). Elisa R. Braver *et al.,* "Long Hours and Fatigue: A Survey of Tractor-Trailer Drivers" *Journal of Public Health Policy 353* (1992).

[5] *Id.* Elisa R. Braver *et al.,* at 4.

[6] Mobile EOBR can record proper HOS data, but only if the driver wants data to be recorded properly.

Findings and Conclusions

There is a widespread agreement that driver fatigue is a significant contributor to accidents and excessive driving times are a major contributor to driver fatigue. Professional drivers are likely to drive routinely for many hours and this behavior is often due to self-imposed economic pressure or other competitive pressures. These and other factors often encourage drivers to ignore HOS requirements.

Responsible managers of transport companies are aware and well informed about the link between driving time and accident risk. Several leading transport companies have given a favorable opinion on a mandated EOBR system, because they understand that both they and society benefit from EOBR deployment.

Based on our 35 years of experience around the world with legally required systems for recording of drivers' hours-of-service, we are fully convinced that these systems do have the strong potential to significantly reduce accidents that would otherwise be caused by fatigued drivers violating the rules and will contribute to harmonized competitive conditions and perhaps foster an environment that minimizes driver exploitation.

However, we have also learned that EOBR systems only achieve their full potential for improved road safety at a low cost if the technical concept of the EOBR system, its infrastructure and enforcement, are tailored for the specific needs and goals of the region in which they are being considered.

We believe that the proposed FMCSA rulemaking on EOBR for HOS compliance in its current form fails to meet these requirements and does not serve the public interest to reduce accidents caused by fatigued drivers, nor will it significantly contribute to any significant cost savings to the trucking industry.

The Regulatory Impact Analysis of Electronic On-Board Recorders[7] has failed to adequately collect and analyze information about cost reduction potential for EOBR systems for HOS recording in a universally mandated market and ignored submitted evidence about the existence of inexpensive tamperproof electronic on-board recorders. The conclusions of FMCSA in the NPRM regarding the cost/benefit analysis are therefore fundamentally flawed.

Low cost EOBRs are possible, especially for owner-operators or other companies that do not need the sophisticated functionality of fleet management systems. Dedicated EOBR for HOS recording could be available at low annual total cost if EOBRs are universally mandated by FMCSA.

Due to the lack of a universal mandate, existing and potential new vendors of EOBR systems can not expect any reasonable market for a low cost EOBR. Therefore, costs for an EOBR unit including ongoing operating cost will remain high.

Carriers are not homogenous and have different needs. Whereas some fleets benefit from using sophisticated fleet management systems others do not. It is likely that the majority of carriers will accept EOBRs, but only if their concerns about cost, data privacy, and competitive disadvantages are considered in the manner in which is mandated.

Under the proposed rule, the U.S. is unlikely to see significant numbers of EOBR systems installed and properly used by those drivers referred to as heavy violators, as they are simply not going to be apprehended by law enforcement.

Public safety will not be enhanced without a universal EOBR mandate.

The use of mobile solutions, not permanently installed in the vehicle, allows for ease of use but also allows easy manipulation of driving status. Those systems are perfect for drivers who will comply and demonstrate HOS compliance, but useless for enforcement if used by drivers willing to cheat.

The proposed EOBR performance standard proposed in the rule with its inherent possibility to falsify EOBR data records at all levels, will not improve the integrity of the recorded data over manual RODS. Additionally, law enforcement will not have an enhanced tool to detect falsifications.

It is highly likely under the proposed rule that any EOBR data will largely be ignored by state and local law enforcement official, as they will soon discover the shortcomings. Therefore, it is also unlikely to result in any reduction in the need for supporting documents.

Summary of Siemens VDO Recommendations

- The NPRM should be canceled and replaced by a new NPRM.
- The RIA must be reworked in order to take into consideration the existence of low cost EOBR devices.
- The NPRM must standardize the level of measures to prevent tampering with the overall system; it should standardize user interfaces with respect to driver

[7] RIA prepared by ICF Consulting, Inc. for the FMCSA Analyses Division, November 2006.

identification and how drivers' data are transferred from one vehicle to another; and it should define file formats and download protocols.

- The final EOBR rule should require systems to be fixed to the vehicle and not allow mobile solutions.
- As surveys show clearly that HOS violations are much more widespread than what FMCSA is assuming, a widespread mandate should be proposed.
- A phase-in scenario for tamperproof EOBR and phaseout for old systems should be developed.
- FMCSA should facilitate the introduction of EOBRs by sharing the most current and correct information on them with carriers and drivers.
- The decision to universally mandate EOBRs should be made with realistic figures and also in the light of the primary goal which is to improve road safety.

I appreciate this opportunity to offer these observations, experiences, and recommendations to improve highway safety in the United States.

Senator LAUTENBERG. Thank you.

Dr. McCartt?

STATEMENT OF ANNE T. MCCARTT, SENIOR VICE PRESIDENT, RESEARCH, INSURANCE INSTITUTE FOR HIGHWAY SAFETY

Dr. MCCARTT. Thank you, Mr. Chairman.

The Insurance Institute for Highway Safety is a nonprofit research and communications organization that identifies ways to reduce the deaths, injuries, and property damage on our Nation's highways. We're sponsored by U.S. auto insurers.

Thank you for allowing me to testify on this critical safety issue.

The Federal Motor Carrier Safety Administration and its predecessor agencies have refused to protect the American public by addressing, in a meaningful way, the serious problem of truck driver fatigue. The agency's decision to increase trucker's permissible daily and weekly driving hours, plus its failure to enforce the work rules, demonstrate indifference to public safety. Because it does not require recorders on all large trucks, and will affect only a tiny proportion of motor carriers, the proposed rule, if finalized, will be a travesty.

Efforts to improve enforcement of truckers' work rules span more than three decades. In 1971, Federal legislation was introduced to require all commercial buses and trucks manufactured after January 1974 to be equipped with tachographs to record driving time. The legislation was not enacted, and the system for enforcement still is inadequate.

In 1986, our Institute petitioned the Bureau of Motor Carrier Safety to require automatic on-board recording devices on all heavy trucks. The petition was denied, and, during the intervening 20 years, an estimated 16,030 people died in crashes involving fatigued truckers. This included 11,750 passenger vehicle occupants, 2,257 occupants of large trucks, and 2,023 motorcyclists, bicyclists, pedestrians, and others. By failing to take meaningful, readily available steps to address trucker fatigue, FMCSA and its predecessor agencies share responsibility for these deaths.

By all accounts, the system of manually recorded logbooks is a joke. In the electronic age, there's no excuse for refusing to require devices to enforce what are lax restrictions on truckers' driving times. It is doubtful that anyone can argue with a straight face that a tractor trailer driver spending 11 hours behind the wheel is good for safety.

Since 1986, our Institute has submitted four additional petitions and 19 comments calling for an on-board recorder requirement for all large trucks. We've provided more than 200 pages documenting the failed paper-based system of enforcement and the affordability of electronic on-board recorders. Instead of considering these and other objective research findings, FMCSA has given weight to evidence that's biased and lacking in scientific merit. For one brief period in 2000, FMCSA appeared to take its safety title seriously and proposed to require recorders in all large trucks. However, this requirement was removed from the final rule effective in January 2004. When it vacated the rule, the U.S. Court of Appeals for the District of Columbia questioned the rationality of the decision, chastising the agency for its, "one-sided and passive," regulatory approach to the issue of recorders, and noting that the agency had not taken the "seemingly obviously step of testing existing recorders on the road."

FMCSA still has not tested existing recorders, and, with little justification, has drafted a rule affecting only a tiny percentage of carriers. The proposal represents the most minimal action the agency could have taken in response to the court.

In requiring recorders for a tiny proportion of carriers, the agency assumes there are only a few problem carriers and drivers. This is contradicted by our Institute's research indicating that 20 to 25 percent of long-distance truck drivers violate work rules. In 2005, one in five drivers reported falling asleep at the wheel during the previous month, an increase from 13 percent in 2003, before the work rule change. Unless recorders are required, compliance officers must rely on paper logbooks and related documentation that can be easily falsified. So, identifying even this tiny proportion of egregious violators is problematic.

The proposal also fails to account for the large increase in trucks equipped with recorders. About 45 percent of truck drivers we interviewed in 2005 said their trucks had recorders, up from 18 percent in 2003; however, only 10 percent, or fewer, of truckers with recorders said they were using them in lieu of paper logbooks to show compliance with the rules. The excuse that technology is not there yet does not stand up to scrutiny. We can download 20,000 songs to our iPods. Worldwide, we sent 161 billion gigabits of digital information last year. Our Government sends astronauts to space for months at a time. In-vehicle technologies can parallel park without driver input. Many large truck rigs have expensive multifunction entertainment systems. Is it really possible that the Government cannot figure out how to get devices in trucks to record when they are being driven? It is past time for research, pilot studies, or government/industry cooperative ventures. It is time for action.

In the meantime, fatigue-related deaths continue. In Lake Butler, Florida, on January 26, 2006, a trucker, who had been awake for 34 hours, except for a short nap, rammed his tractor trailer into the back of a van stopped behind a school bus. In the ensuing inferno, all seven children in the van, ages 20 months to 15 years, were killed. Upon hearing of the tragedy, their grandfather suffered a fatal heart attack. The driver of the school bus and three children were seriously injured. Highway patrol officers said there

was no evidence the trucker braked and no apparent reason why the driver could not have seen the van and bus stopping. Many such tragedies occur each year because truck drivers, like this one, violate the work rules.

The proposed rule does nothing that will prevent future tragedies like this. FMCSA, with the word "Safety" in its name, must require electronic recorders in all trucks if it is to put real teeth in the hours-of-service rules and finally begin to curb the deadly problem of fatigued truck drivers.

Thank you.

[The prepared statement of Dr. McCartt follows:]

PREPARED STATEMENT OF ANNE T. MCCARTT, SENIOR VICE PRESIDENT, RESEARCH, INSURANCE INSTITUTE FOR HIGHWAY SAFETY

The Insurance Institute for Highway Safety is a nonprofit research and communications organization that identifies ways to reduce the deaths, injuries, and property damage on our Nation's highways. We are sponsored by U.S. automobile insurers. Thank you for allowing me an opportunity to testify on this critical safety issue.

The Federal Motor Carrier Safety Administration and its predecessor agencies have refused to protect the American public by addressing in a meaningful way the serious problem of truck driver fatigue. The agency's recent decision to increase truck drivers' permissible daily and weekly driving hours plus its failure to enforce work rules demonstrate indifference to public safety. Because it does not require electronic recorders in all large trucks and will affect only a tiny proportion of carriers, the proposed rule, if finalized, will be a travesty.

Efforts to improve enforcement of hours-of-service rules for truck drivers span more than 3 decades. In 1971 Federal legislation was introduced to require all commercial trucks and buses manufactured after January 1974 to be equipped with tachographs to record driving time. The legislation was not enacted, and to this day the system for enforcing hours-of-service rules is inadequate. I refer the Committee to the detailed chronology on rulemaking that is attached to my testimony.

On October 1, 1986, the Institute petitioned the Bureau of Motor Carrier Safety to require automatic on-board recording devices to be installed and used in all heavy trucks. This petition was denied, and during the intervening 20 years an estimated 16,030 people died in crashes involving fatigued truckers. This toll includes 11,750 passenger vehicle occupants; 2,257 occupants of large trucks; and 2,023 motorcyclists, bicyclists, pedestrians, and others on the road. By failing to take meaningful and readily available steps to address truck driver fatigue, the Federal Motor Carrier Safety Administration and its predecessor agencies share responsibility for these deaths.

By all accounts the current system of manually recorded logbooks is a joke. In the electronic age there is no excuse for refusing to require devices in trucks to improve the enforcement of what are lax restrictions on the amount of time truck drivers can spend behind the wheel. It is doubtful that anyone can argue with a straight face that a tractor trailer driver spending 11 hours behind the wheel is good for safety.

Since 1986 our Institute has submitted 4 additional petitions and 19 comments calling for an on-board recorder requirement for all large trucks. We have provided more than 200 pages documenting the failed paper-based system of enforcement of the hours-of-service rules and the affordability of electronic on-board recorders. Instead of considering these and other objective research findings, the agency has given weight to evidence that is biased and lacking in scientific merit.

For one brief period in 2000 the agency did appear to take its safety title seriously, proposing to require recorders in all large trucks. However, this requirement was removed from the final rule that was effective January 4, 2004. When it vacated the rule in July 2004, the U.S. Court of Appeals for the District of Columbia questioned the rationality of the decision, chastising the agency for its "one-sided and passive" regulatory approach to the issue of recorders and noting that the agency had not taken the "seemingly obvious step of testing existing [recorders] on the road" (*Public Citizen* v. *FMCSA,* 374 F.3d 1209, 1222 (D.C. Cir. 2004)). The Federal Motor Carrier Safety Administration still has not tested existing on-board recorders and, with little justification, has drafted a rule that would affect only a tiny percentage of motor carriers. The proposal represents the most minimal action the agency could have taken in response to the court.

In requiring on-board recorders for only a miniscule proportion of carriers, the agency assumes there are only a few problem carriers and drivers. This is contradicted by Institute research indicating that 20–25 percent of long-distance truck drivers violate work rules. In 2005, 1 in 5 drivers reported falling asleep at the wheel during the previous month, an increase from 13 percent in 2003 before the work rule change. The research further indicates an association between work rule violations and dozing at the wheel. Unless on-board recorders are required, compliance officers must rely on paper logbooks and related documentation that can be falsified easily. So identifying even this tiny proportion of egregious violators will be problematic.

The proposed rule fails to account for the large increase in trucks equipped with recorders. About 45 percent of long-distance truck drivers said in 2005 that their trucks had recorders, up from about 18 percent in 2003 and about 38 percent in 2004. However, only 10 percent or fewer of the truckers who reported having on-board recorders said they were using them in lieu of paper logbooks to show compliance with work rules. This indicates the need for on-board recorders to overcome noncompliance.

The excuse that the technology is not there yet simply does not stand up to scrutiny. We can download 20,000 songs to our iPods. Worldwide we sent 161 billion gigabytes of digital information last year. Our government sends astronauts to space for months at a time. In-vehicle technologies can parallel park without driver input. Many large truck rigs have expensive, multifunction entertainment systems. Is it really possible that the government cannot figure out how to get devices in trucks to record when they are being driven? It is no longer credible to argue that the devices are too expensive or burdensome for widespread use. It is past time for research, pilot studies, or government/industry cooperative ventures. It is time for action.

In the meantime, fatigue-related deaths continue. In Lake Butler, Florida, on January 26, 2006, a trucker who had been awake for 34 hours except for a short nap rammed his tractor trailer into the back of a van stopped behind a school bus. In the ensuing inferno all 7 children in the van, ages 20 months to 15 years, were killed. Upon hearing of the tragedy, their grandfather suffered a fatal heart attack. The driver of the school bus and 3 children were seriously injured. Highway Patrol officers said there was no evidence that the trucker braked, and there did not appear to be any reason why the truck driver could not have seen the van and bus stopping. Many such tragedies occur each year because truck drivers, like this one, exceed the hours-of-service regulations.

The proposed rule does nothing that will prevent future tragedies like this. The Federal Motor Carrier Safety Administration, with the word "safety" in its name, must require electronic recorders in all trucks if it is to put real teeth in hours-of-service rules and finally begin to curb the deadly problem of fatigued truck drivers.

REGULATING TRUCK DRIVER FATIGUE: A CHRONOLOGY OF DELAY

Hours-of-service and logbook regulations are inextricably related. The following chronology documents many initiatives that have been made over the past three decades to address the driver fatigue problem by improving the hours-of-service regulations and introducing on-board recorder technology that is objective and that does not rely on self reporting by the regulated industry.

1971—To address the issue of truck speeds and fatigued truck drivers, the Bus and Truck Safety Act of 1971 (H.R. 10267) is introduced to require all commercial trucks and buses to be equipped with tachographs to record driving speed and miles traveled.

1976—The Bureau of Motor Carrier Safety requests public comment on hours-of-service regulations to address the problem of fatigue-related crashes.

1986—The Insurance Institute for Highway Safety petitions the Bureau of Motor Carrier Safety to require heavy-duty truckers to install and use automatic on-board devices to record driving times and speeds. This petition is denied.

1987—After denying the 1986 petition to require on-board recorders, the Federal Highway Administration reverses its decision and publishes a notice seeking more information.

1987—The Insurance Institute for Highway Safety research shows that driving more than 8 hours increases the risk of large truck crashes.

1988—Citing the Insurance Institute for Highway Safety's petition for reconsideration on on-board recorders, the Federal Highway Administration proposes to allow on-board recorders in lieu of the handwritten log.

1988—Congress passes the Truck and Bus Safety and Regulatory Reform Act requiring the Bureau of Motor Carrier Safety to begin rulemaking on improved compliance with hours-of-service regulations, including consideration of on-board recorders.

1989—The Congressional Office of Technology Assessment issues a report citing a wide array of immediate and long-term governmental and industry actions that could reduce the truck crash problem. Requiring on-board recorders is among the recommendations.

1989—The Insurance Institute for Highway Safety petitions the Federal Highway Administration to require on-board recorders in motor carriers transporting hazardous materials.

1990—The National Transportation Safety Board recommends issuance of a Federal rule to require on-board recorders to monitor the hours-of-service of truck drivers.

1992—A survey by the Insurance Institute for Highway Safety indicates that the majority of long-distance truckers violate work-hour rules.

1992—The Federal Highway Administration proposes to increase the hours commercial vehicle drivers are permitted to drive.

1995—The Insurance Institute for Highway Safety and five other safety groups petition the Federal Highway Administration to require on-board recorders.

1996—Directed by Congress in 1995 to reassess hours-of-service rules, the Federal Highway Administration again considers relaxing the rule, relying on a driver fatigue study by the agency and American Trucking Associations. Both the Insurance Institute for Highway Safety and a panel assembled by the agency identified numerous weaknesses in the study.

2000—The newly created Federal Motor Carrier Safety Administration announces a proposal intended to reduce the problem of fatigue by requiring longer off-duty time for truckers and mandatory electronic recorders.

2003—The Federal Motor Carrier Safety Administration announces a rule that increases the mandatory daily rest period by 2 hours, allows drivers to stay on the road for an extra hour, and introduces a restart provision to increase allowable driving hours within a 7- or 8-day period. The rule does not require on-board recorders, despite proposing to require them.

2004—The U.S. Court of Appeals for the District of Columbia dismisses the Federal Motor Carrier Safety Administration's action as being "arbitrary and capricious." The court specifically cited the agency's attempted justification for backing off from its proposal to require on-board recorders. The agency's attempt reflects "questionable rationality," the court said, adding that it "cannot fathom . . . why the agency has not even taken the seemingly obvious step of testing existing [recorders] on the road" to see if they should be required in all truck rigs. *Public Citizen* v. *FMCSA,* 374 F.3d 1209 (D.C. Cir. 2004).

2004—Although the Federal Motor Carrier Safety Administration has permitted some carriers to use recorders instead of paper logs since 1985, the agency issues an advanced notice of proposed rulemaking seeking public comment on dozens of questions. This further delays mandating the use of recorders by all carriers.

2005—The Insurance Institute for Highway Safety surveys find that the Federal rule addressing truck drivers' work hours is not stopping truckers from driving with too little rest. The American Trucking Associations announces its conditional support for on-board recorders.

2005—The Federal Motor Carrier Safety Administration issues a revised hours-of-service rule very similar to the one the court rejected in 2004. *Public Citizen* and others immediately sue to overturn the rule.

2007—The Federal Motor Carrier Safety Administration issues a proposed rule to require on-board recorders for a miniscule proportion of truckers.

Senator LAUTENBERG. Thank you very much, Dr. McCartt.

Mr. Reiser?

STATEMENT OF RICHARD S. REISER, ON BEHALF OF THE AMERICAN TRUCKING ASSOCIATIONS, INC. (ATA); EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, WERNER ENTERPRISES, INC.; CHAIRMAN, ATA'S HOURS-OF-SERVICE COMMITTEE

Mr. REISER. Good afternoon, Mr. Chairman and other members of the Subcommittee. Thank you for the opportunity to express the American Trucking Associations' views on these important issues.

Senator LAUTENBERG. Bring the mike a little closer to you, please.

Mr. REISER. I have to turn it on, too. I'm sorry.

Senator LAUTENBERG. All right. Start anew.

Mr. REISER. My name is Richard Reiser. I'm the Executive Vice President and General Counsel of Werner Enterprises, from Omaha, Nebraska.

Werner Enterprises is a truckload motor carrier with a host of trucking- and transportation-related services. We have a fleet of more than 8,800 tractors, over 25,000 trailers, and have more than 14,000 employees and independent contractors. Our mission is to provide premier transportation and logistics services while maintaining a high standard of safety, profitability, and integrity.

Werner has operated a paperless electronic logging system since 1998 under a unique program and an exemption granted by the Federal Motor Carrier Safety Administration. For years now, we have had the functional equivalent of an EOBR in every one of our 8,000-plus trucks. As a result, we have a significant amount of experience in designing, installing, maintaining, and managing an EOBR system, as well as designing and implementing a training program for drivers.

The costs, complexities, and outcomes associated with using an EOBR system are well known to us. Although it is disappointing to say, we have not been able to quantify an improved safety outcome from using EOBRs and achieving a higher degree of hours-of-service compliance. Werner's experience with EOBRs, along with other members of ATA, is what drives ATA's position and recommendations on this issue.

ATA has tried hard to avoid the rhetoric surrounding this issue, and has tried to be dispassionate and productive in its policy recommendations. ATA can see a future state where certain trucking operations are mandated to use EOBRs for hours-of-service recordkeeping.

In our written testimony, we have included our full set of policy recommendations aimed toward moving the regulators and the industry there. I will highlight three of those:

First, there should be sound evidence that EOBR use leads to enhanced safety performance by means such as an accident-rate reduction or other safety performance measures in addition to improved compliance. This data will increase the credibility of EOBR systems as a cost-effective technology for motor carriers. A presumption has been made that EOBR use leads to better safety performance by carriers and drivers; however, there is little, if any, empirical evidence to support that position. Werner's 9-year experience with EOBRs bears that out. To try to get beyond this presumption, the regulators should partner with trucking to conduct a pilot program of sufficient duration with adequate controls in place to determine whether driver fatigue is reduced and if there are real safety benefits to EOBR use.

I note that CVSA has also recommended to the FMCSA that it conduct field operational tests to more fully evaluate the safety benefits of EOBR use. Whether we call it a pilot program or an operational test, it should be done, and it should involve the regulators, the industry, and the enforcement community. And it should

involve EOBRs which FMCSA certifies as meeting its requirements.

This leads me to our second recommendation. FMCSA should complete and issue updated and improved performance specifications for EOBRs, guidelines for how the technology works, what it should record, how often it records the data, et cetera. Having final, or draft final, technology specifications for the device will facilitate the short-term pilot program I mentioned. It will also facilitate voluntary adoption of this technology by those carriers choosing to move from paperwork to electronic logging.

Our first two recommendations are made to the regulatory agency, but our third is legislative in nature. We believe that statutory language defining motor carriers as the owners and primary controllers of the EOBR-generated data, along with language protecting the privacy rights of drivers, should be in place. Those granted access to this data should make up a limited list, and the access should be for hours-of-service compliance verification and enforcement, if necessary. Federal policy should be clear on this issue.

ATA can clearly see the future where certain trucking companies are mandated by regulation to use EOBRs for documenting hours-of-service compliance. Given the current lack of empirical evidence showing a safety benefit EOBR use, ATA understands FMCSA's proposed regulatory approach, and generally supports it. More meaningful regulatory incentives will help that approach.

In order to get to the desired future state, though, ATA recommends a pilot program for a goal—with the goal of producing empirical evidence that EOBR use has safety benefits and is cost-effective; that the basic performance specifications for EOBRs be clearly defined and finalized; and that Federal policy captured in statute clearly define data-ownership control and access limits.

In closing, a comment on hours-of-service limits. Most would agree that hours-of-service rules are a fairly rudimentary approach to addressing the complex issue of human alertness. The transportation industry and regulators need to move toward a comprehensive alertness and fatigue management program that better addresses this important issue.

Thank you for the opportunity for ATA to offer its views and policies. We look forward to working with this Subcommittee, the Congress, FMCSA, and other reasoned stakeholders to improve the safety and productivity of our Nation's highway transportation system.

[The prepared statement of Mr. Reiser follows:]

PREPARED STATEMENT OF RICHARD S. REISER, ON BEHALF OF THE AMERICAN TRUCKING ASSOCIATIONS, INC. (ATA); EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, WERNER ENTERPRISES, INC.; CHAIRMAN, ATA'S HOURS-OF-SERVICE COMMITTEE

Introduction

Mr. Chairman, Mr. Vice Chairman and other Members of the Subcommittee, thank you for the opportunity to express the American Trucking Associations' views on the issues of electronic on-board recorders (EOBRs) and truck driver fatigue. I am Richard S. Reiser, Executive Vice President & General Counsel of Werner Enterprises, Inc. in Omaha, Nebraska. Werner Enterprises is among the five largest truckload motor carriers in the U.S. with a portfolio of transportation services that includes: medium to long haul, regional and local van capacity, temperature-con-

trolled, flatbed, dedicated and expedited service. Werner is in its 51st year of business and has a fleet of more than 8,800 tractors, over 25,000 trailers and has more than 14,000 employees and independent contractors. The principal types of freight transported by Werner include retail store merchandise, consumer products, manufactured products and grocery items. Werner's mission is to provide premium transportation service while maintaining a high standard of safety, profitability and integrity.

Werner has operated a paperless electronic logging system since 1998 under a pilot program and exemption granted by the Federal Motor Carrier Safety Administration (FMCSA). As a result, Werner has a significant amount of experience in designing, installing, maintaining and managing an electronic on-board recorder (EOBR) system, as well as designing and implementing a training program for drivers. The costs, complexities and outcomes associated with using an EOBR system are well known to us.

It is my pleasure to appear before the Subcommittee today on behalf of the American Trucking Associations, Inc. (ATA). Werner is a longstanding and active member of ATA and I am currently the Chairman of ATA's Hours-of-Service Committee.

ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Its membership includes more than 2,000 trucking companies and industry suppliers of equipment and services. Directly and indirectly through its affiliated organizations, ATA encompasses over 35,000 companies and every type and class of motor carrier operation.

ATA is encouraged that FMCSA has initiated the process to update regulations involving EOBRs used to record a drivers' hours-of-service. ATA is also aware that the agency is contemplating the promotion of several new "safety technologies" to be potentially used in the future. As such, the agency and industry have undertaken studies to determine what is needed to motivate the industry to adopt and deploy on-board safety devices and technologies. The shared objective is to reduce truck-involved crashes by deploying proven, effective equipment that has the best return-on-investment (ROI). Integration of these concepts in the development of an EOBR rule would help to produce a useful regulation and provide incentives for implementation. (See Attachment A for recent research findings).

In our testimony today, we will:

- Explain our policies and views on FMCSA's proposed rule on EOBRs.
- Offer ATA's recommendations to make use of EOBRs more viable and effective.
- Offer an insight into the size of the truck driver fatigue issue and public policy development associated with it.

ATA's Policy Conditionally Supports a Mandate

ATA foresees a future state where certain trucking operations are required to use EOBRs for hours-of-service recordkeeping. ATA's membership established in October 2005 a nine-point policy regarding EOBRs aimed at achieving prudent utilization of this technology. We have attached this policy for the Subcommittee's review. (See Attachment B).

A primary point within our policy concerns the safety benefits of EOBR usage. This is stated as:

> "There should be sound, consensus-based evidence that EOBR use leads to enhanced fleet safety performance by such means as accident rate reduction and improved compliance, therefore, increasing the credibility of EOBR systems as a cost-effective technology for motor carriers."

There is little, if any, empirical evidence showing that EOBR use reduces driver fatigue, prevents accidents, improves safety and lowers costs.[1] This empirical evidence is necessary not only to support a regulation and its associated benefits, but also to provide motor carriers meaningful information in deciding whether to deploy such systems in their fleets.

While the safety benefits are the primary issue, as they should be, investment and ongoing costs are also a concern to ATA's members. When assessing the economic impact on a motor carrier of any future proposed requirement for EOBRs, it is necessary not only to consider the cost of purchasing and installing the system in each truck to record a driver's hours-of-service, but also other associated and potentially significant ongoing costs (See Attachment C). On this point, it is unfortunate that

[1] "Electronic On-Board Recorder Adoption In the Trucking Industry: Issues and Opportunities," September 2006, The American Transportation Research Institute.

FMCSA's Regulatory Impact Analysis (RIA) did little to help clarify the costs and benefits of the proposed rule, other than finding that costs of EOBRs almost always outweigh the benefits. The RIA makes it clear that there is a dearth of research identifying safety benefits of EOBR use, while the costs of the EOBR systems used in the RIA indicate that the technology remains a significant investment for motor carriers.

Given that FMCSA does not have safety benefit data sufficient to support an overall mandate, ATA generally supports the agency's policy approach to provide incentives to drive voluntary industry adoption of EOBRs, with mandates limited to targeted enforcement against carriers and drivers shown to be historically non-compliant with hours-of-service rules.

However, ATA believes the agency must make important changes to the proposed rule to make it effective in practice and to better promote the voluntary use of EOBRs.

This brings us to our next point within ATA's policy. That is:

> "EOBR systems should be based on the minimal, functional and performance specifications necessary to accurately record and report hours-of-service compliance and assure reliability and utility of operation."

The industry has asked for uniform, minimum performance criteria for EOBR devices and systems, which provides for flexibility in the design and delivery to the market. There needs to be design and operational requirements that will dependably, reliably and comprehensively replace manual logbooks. Without consistent and recognizable specifications for EOBR devices and systems, there will continue to be questions related to utility, reliability, tamper-resistance, accuracy, durability and effectiveness.

ATA members have expressed that they are much less likely to invest in EOBRs for hours-of-service compliance until there are accepted, feasible and finalized performance specifications. These performance specifications are needed to firmly establish uniform and reliable EOBR systems that will accurately record and report drivers' hours-of-service.

Motor carriers must make decisions in the course of product selection and need assurance that:

- The EOBR design requirements are fully and adequately determined.
- Performance specifications are recognized as the standard to be met by EOBR equipment and service providers.
- The EOBR system will function as expected in a secure environment.

ATA recognizes that recent court challenges to the existing hours-of-service rules have also hindered progress in defining specific information and parameters that would be entered into EOBRs. The hours-of-service rules need to be stable and firmly in place so that this integral information can be included in the software of deployable ("ready-to-use") EOBR systems, and thus eliminate the need for redeployment of operational systems in the future.

Even more immediately significant is that without final, definitive and acceptable performance specifications for EOBRs:

1. It is highly unlikely that motor carriers will invest in such systems (preferring to wait and buy the compliant version).
2. The EOBR vendor community will likely promote current designs and systems rather than make technological improvements (preferring to wait and produce a compliant version).
3. Research that could illustrate the benefits and costs of EOBRs will be placed on hold (preferring to model methodology with the new compliant version).

While we addressed two of our nine policy points above, we encourage a review of the additional points in the attached ATA policy. (See Attachment B).

ATA's Recommendations

Complete the Performance Specifications for EOBRs

The importance of satisfactorily completing and issuing final performance specifications should not be underestimated. This is essential to deployment of EOBRs and ATA recommends that FMCSA issue in the very near future a supplemental rulemaking notice with better and more technically sound performance specifications for EOBRs. ATA's comprehensive written comments to FMCSA included a number of specific recommendations in this area.

Conduct a Pilot Program

FMCSA should conduct a pilot program of sufficient duration with adequate controls in place to determine whether or not driver fatigue is reduced and there are real safety benefits to EOBR use. Congressional oversight Committees should support this type of pilot program. A presumption has been made that there are safety benefits; however, there is little, if any, empirical evidence to support that position. The pilot program should use a form of EOBRs which FMCSA certifies as meeting its requirements. This is critical since driver acceptance of the technology and the ability of drivers to understand and use it will be critical to the ultimate success of any such device. Additionally, it should ensure that a complying device is available at a cost which will obtain voluntary participation by carriers and which can be used for a benefit-cost analysis.

Given the size of the trucking industry, and the scope and complexity of this issue, mandating EOBRs without adequate testing through a pilot program may impose a huge financial and operational burden upon the trucking industry, for which no real benefit is derived by either the public or the industry.

ATA and several of its members are very much interested in participating with FMCSA in conduct of a pilot program and plans to submit a petition for such a program.

Provide Meaningful Incentives

If FMCSA moves forward with its current regulatory approach, it should offer motor carriers more substantial incentives to promote voluntary adoption of EOBRs. It can directly encourage motor carrier adoption of EOBRs by providing reasonable and defensible flexibility in certain areas of the hours-of-service requirements, and offering administrative incentives. For example, allowing the 14 hour "running clock" on-duty limit to be stopped for up to 2 hours for rest and meal breaks, providing flexibility in how drivers may take their rest periods when using a sleeper berth, and providing positive credit or points for carriers in the criteria used to select carriers for audits.

Congress can also assist in stimulating voluntary adoption of EOBRs for improved compliance. Two legislative approaches that might be considered are statutory data protections and tax incentives.

Statutory protections should be afforded to motor carriers pertaining to the control, ownership and admissibility/discoverability of data generated and derived from EOBRs, and to assure the privacy rights of drivers. The enactment of statutory protections for data beyond that currently required under 49 CFR Part 395 could alleviate a major impediment to industry acceptance of EOBRs. Government policy also needs to support data privacy. Without certain protections afforded to motor carriers and drivers, the shadow of external access to EOBR collected data that is outside the scope of the hours-of-service rules could serve as a disincentive to motor carrier investment.

Congress should also consider tax incentives (*e.g.,* credits) to encourage motor carrier investment in EOBRs and to offset the cost of purchasing EOBR devices and associated support systems. As noted in Attachment A, tax incentives for expense of equipment are prime "non-safety" motivators for investment.

Truck Driver Fatigue and Related Issues

It is important for policymakers to understand the size of the driver fatigue issue in relationship to truck-involved crashes. The most recent and, by far, most comprehensive truck crash causation study was completed last year, and a report was issued to Congress in March 2006.[2] That study found that fatigue was 11th on the list of the "Top 20" associated factors list. This report did not list fatigue as a "critical reason" or causation factor for the crashes investigated, rather it listed it along with other issues as an "associated factor." Associated factors in the study were defined as conditions or circumstances present at the time of the crash, and no judgment was made as to whether it was related to the crash—just that it was present. This study also found that the majority of truck crashes are multi-vehicles crashes involving at least one truck and one passenger vehicle, and that fatigue was coded as an associated factor twice as often for passenger vehicle driver and speeding more often for truck drivers.[3] We have included two tables from this report showing fatigue listed as an associated factor. (See Attachment D). This study was authorized and funded by the Congress, performed by the U.S. Department of Transpor-

[2] Report to Congress on the Large Truck Crash Causation Study, MC–R/RRA, March 2006, U.S. Department of Transportation, Federal Motor Carrier Safety Administration.

[3] *Ibid,* p. 3.

tation, and is widely recognized as the most comprehensive study of truck-involved crashes ever performed.

Of course, EOBRs are intended to assist companies and drivers record on-duty shifts and off-duty rest periods consistent with the applicable hours-of-service rules in order to minimize the risk of operating while fatigued. These rules have changed twice over the last 4 years, after remaining constant for more than 6 decades. Unfortunately, the current rules are unsettled again because they are the subject of ongoing litigation in the U.S. Court of Appeals for the D.C. Circuit by advocacy groups and organizations representing different parts of the industry. Depending upon the outcome, the rules could change yet again. FMCSA's EOBR rulemaking process could well be impacted by the Court's decision.

In addition, as a result of the rapid change in the hours-of-service rules in the last 4 years, the jury is still out on whether the revised rules are achieving their intended safety benefit. But the majority of stakeholders in this debate would likely agree that effective hours-of-service rules are only part of a solution aimed at keeping commercial operators alert and safe when working and driving. Managing operator alertness and fatigue in a trucking setting is a complex issue that calls for a more comprehensive approach. ATA is hopeful that the national dialogue on this issue moves beyond simple on-duty and driving limits toward a more comprehensive programmatic approach to managing alertness. This will take years, but movement toward this goal needs to begin.

Summary and Conclusion

ATA foresees and supports a future state where certain trucking companies are required to use EOBRs for documenting hours-of-service compliance. But given the lack of empirical evidence showing a safety benefit of EOBR use, ATA understands and generally supports FMCSA's proposed regulatory approach. In order to get to the desired future state, ATA recommends:

- A pilot program aimed at producing empirical evidence that EOBR use has safety benefits and is cost effective,
- That the basic performance specifications for EOBRs be clearly defined and finalized.

If FMCSA moves forward with its current regulatory approach, it should provide meaningful incentives for motor carriers to voluntarily adopt EOBRs for compliance purposes.

In addition, both government and industry need to recognize that hours-of-service rules are a fairly rudimentary approach to addressing the complex issue of human fatigue and alertness. The transportation industry and regulators need to move toward alertness and fatigue management programs that more comprehensively address this important issue.

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity for ATA to offer its views and policies on EOBRs and driver fatigue. We look forward to working with this Subcommittee, the Congress, FMCSA, and other reasoned stakeholders to improve the safety and productivity of our Nation's highway transportation system.

ATTACHMENT A

The Federal Motor Carrier Safety Administration (FMCSA) in its 2005 report "Factors in Decisions to Make, Purchase, and Use On-board Safety Technologies" identified several recommendations and conclusions in regards to advancing adoption of safety technologies for commercial motor vehicles.[1] This guidance was offered by motor carriers, original equipment manufacturers (OEMs), product vendors, drivers, and insurance companies. Some of the key decision points for promoting the use of such equipment were determined to be:

- "*Return on Investment (ROI) for Purchaser* (the carrier) is considered an important factor for sustained commercial success for on-board safety technologies. A positive ROI is a significant factor when carriers decide to purchase on-board safety technologies according to most of the carriers interviewed."
- "*Demonstrated Effectiveness to Improve Safety* through the use of on-board safety systems essentially represents the benefits that offset the purchase and other

[1] "Factors in Decisions to Make, Purchase, and Use On-board Safety Technologies", Federal Motor Carrier Safety Administration, December 2005. webpage at: *http://www.fmcsa.dot.gov/facts-research/research-technology/report/factors-in-decisions.htm.*

costs to yield a positive ROI. This factor is important to all stakeholders surveyed."

- "*Reliability and Maintainability* is also a significant factor (mentioned in a number of interviews) and is considered important to buyers (carriers) and manufacturers (OEMs and vendors). On-board safety technologies must be easy to use, provide accurate results, be consistently reliable, and be easy to maintain. Any inconsistencies or high maintenance requirements will discourage purchase by carriers."
- "*Liability* is a potential concern to a number of stakeholders interviewed, especially when combined with the discoverable nature of the data stored by some on-board safety technologies. While the absence of liability concerns is not sufficient to drive deployment, the presence of other concerns in this area could impede deployment, therefore making it a significant factor as well. Liability concerns are an important factor to carriers, drivers, and manufacturers interviewed."
- "*Initial Cost* is an important adjunct to ROI. Too high a purchase cost not only makes it difficult for the purchaser to believe there is a positive ROI but also may strain the ability of the purchaser to raise the needed capital for the purchase. The carriers interviewed indicated that affordability and payback influence the decision to purchase the new technology."
- "*Investment Required for Research and Development of New Technology,* such as on-board safety technologies for OEMs and vendors, is fundamental to their business plan. The combination of investment needed, expected sales volume, purchase cost, and cost of production make up the potential profitability for the vendor."
- "*Market Image* is a factor, at least in initial deployment of on-board safety technologies. As the market matures, leveling the competitive playing field, this may become less significant as a decision factor. Carriers compete for customers. Their image or reputation in the business is important to them. Running a state-of-the-art fleet that operates safely and efficiently is important to carriers' marketing programs. Crashes cause delays, additional costs, and damaged cargos."
- "*Driver Acceptance* is considered important by a number of carriers. Drivers were receptive to on-board safety technologies, as long as the devices are proven effective in improving safety, are user friendly, and that the recorded data will not be used to violate their privacy."
- "*In-Cab Technology Interface Integration* is an important factor to a number of the stakeholders interviewed. This factor plays a key role in enabling the various stakeholders to realize the value of on-board safety technologies with minimum cost, distraction, and potential for errors."

The 2006 release "Synthesis of Commercial Motor Vehicle Technology Surveys: What Has Been Learned,"[2] reported that:

> "Safety technology systems such as lane departure warning, forward radar, collision warning, adaptive cruise control, rollover and stability control, and many others are being investigated and promoted by FMCSA. In an effort to address three primary crash types (rear-end collisions, road departures, and lane change and merge collisions), FMCSA and other agencies within the U.S. Department of Transportation are working toward integration of collision avoidance systems for large trucks."

This study documented and synthesized the major qualitative survey efforts within the U.S. relating to stakeholder design, use and perspectives of on-board safety technologies. An underlying finding of this study was:

> "Determination of ROI and a need for increased safety were the two biggest factors associated with decisions to purchase safety technologies according to two protocols. When assessing the technology to determine its value and effectiveness once installed, tangible safety benefits and ROI were again the two most cited factors."

This report further found that the prime motivations for installations of safety technology among the motor carriers were—reduce accidents (68 percent), lower in-

[2] Virginia Dick, Daniel Murray and Amy Houser, "Synthesis of Commercial Motor Vehicle Safety Technology Surveys", Transportation Research Record: *Journal of the Transportation Research Board* No. 1969, Transportation Research Board of the National Academies, Washington, DC 2006, pp 107–144.

surance rates (52 percent), assist drivers (40 percent), and lower maintenance costs (40 percent).

When motor carriers were asked "what FMCSA could do to encourage the development and deployment of these technologies," participants responded:

- "Offer tax incentives for the expense of the equipment."
- "Make technology more affordable."
- "Avoid mandates."
- "Encourage public-private partnerships."

A 2006 study by the American Transportation Research Institute (ATRI) entitled "Electronic On-Board Recorder Adoption in the Trucking Industry: Issues and Opportunities"[3] found crucial indicators about EOBR deployment including:

- ". . . there is still a considerable dearth of research and data scientifically linking the various components of the EOBR-to-safety continuum. Ultimately, these research gaps form the underlying basis for most industry concerns."
- ". . . numerous participants and respondents cited the need for further documentation and justification of the relationship between EOBRs and safety. As such, there is a significant need for, and interest in, research that scientifically documents the linear relationship between EOBRs, compliance, fatigue, and safety."
- "The study authors determined that EOBR benefits were equally difficult to assess . . ." This is likely due to the lack of empirical data correlating the use of EOBRs with reduced driver fatigue, which is a primary basis for IIHS and other advocacy groups to advocate for the technology mandate. (*Editor's Note:* IIHS is the Insurance Institute for Highway Safety)
- "EOBR usage is typically rationalized as a compliance tool by both users and nonusers, rather than a safety management system."
- "Ultimately, what is needed is a large-scale study that causally (correlationally at minimum) links the relationship of fatigue to safety, and the successful management thereof by HOS regulations."
- "Cost, privacy, and the lack of safety nexus are the primary barriers to industry support of EOBR usage and mandates."

ATTACHMENT B

ATA Policy on Electronic on Board Recorders (EOBRS) Adopted October 2005

1. There should be sound, consensus-based *evidence that EOBR use leads to enhanced fleet safety performance* by such means as accident rate reduction and improved compliance, therefore, increasing the credibility of EOBR systems as a cost-effective technology for motor carriers.

Explanation: An EOBR mandate should be based on widely accepted substantiation that the devices and their support systems result in safety, cost and management advantages for carrier rather than be a consequence of political decision-making.

FMCSA should produce persuasive evidence that EOBR use will reduce fatigue-related accidents and thereby improve truck safety. It should not be presumed that there is a correlation between electronic recording and accident reduction. It must be documented. A belief that use of these recorders will improve compliance does not substantiate a conclusion of accident mitigation. The agency will need to provide research and data that shows that improved driver compliance, leads to safer performance and a decrease in accident occurrence.

2. EOBR systems should be based on the *minimal, functional and performance specifications* necessary to accurately record and report HOS compliance and assure reliability and utility of operation.

Explanation: Design and operational requirements and their recording, reporting and communication systems should be the basic elements that are needed to dependably replace manual logbooks.

What the industry needs are uniform, minimum performance criteria for EOBR devices and systems, which provides for flexibility in the design and delivery to the market. If EOBRs are to be further utilized, the emphasis should be on performance criteria rather than design specifications. Additionally, there needs to be specific cri-

[3] "Electronic On-Board Recorder Adoption in the Trucking Industry: Issues and Opportunities", American Transportation Research Institute, September 2006.

teria for what data should be collected and stored in an EOBR. It would be in the best interest of motor carriers, FMCSA, and enforcement personnel to define the *minimum* records of duty status (RODS) format and support system. This would help to remove all ambiguity between the different manufacturers and service providers, increase the basic utility of EOBRs for trucking companies, and improve the efficiency of the auditing process. Without consistent and recognizable guidelines for EOBR devices and systems, questions related to utility, reliability, tamper-resistance, accuracy, durability, and effectiveness will be raised.

3. *Statutory protections* should be afforded to motor carriers *pertaining to the control and ownership of generated data* and to assure the privacy rights of drivers.

Explanation: Federal policy should support and clarify that motor carriers are the owners of, and have exclusive control over the data.

Government policy needs to support data privacy. Without certain protections afforded to motor carriers, the shadow of external access could serve as a disincentive to motor carrier investment. In the case of EOBRs, there needs to be statutory protections for the control, ownership, admissibility, and discovery of generated data. To help minimize concerns and central to greater acceptance, the motor carrier must be recognized as the entity that has sole ownership of the EOBR data. To comply with and enforce the HOS rules, those granted access to this data should be a very limited list composed only of the motor carrier and the agents it designates, FMCSA officials, authorized state enforcement personnel, and, possibly, representatives of the National Transportation Safety Board for the purposes of post-incident investigations.

4. *Drivers* shall be *responsible for operating* the EOBR *in full compliance* with all applicable regulations.

Explanation: Recordings are for verification of drivers' HOS compliance. Drivers make these entries and should, therefore, be held responsible for the accuracy of the entries they make. Drivers are in the driver seat and must comply with the HOS requirements.

Drivers currently complete the manual record of duty status or logs for HOS compliance. Therefore, drivers must therefore be held responsible for correctly making entries into electronic on-board logging systems.

5. Any EOBR regulation must *address the operational diversity of the trucking industry,* continue existing exceptions to the record of duty status, and consider additional exemptions that balance compliance and the evolving industry diversity.

Explanation: If there is sufficient justification to exempt operational portions of the industry and HOS compliance can be pre-determined (*e.g.,* Less-than-Truckload (LTL), terminal to terminal routes), such operations should not be mandated to use EOBRs. Other exceptions currently granted by FMCSA from logbooks should be continued.

There are industry segments and types of operations that have expressed more concern than others regarding a potential, future requirement for EOBR use. Some ATA members that operate in the LTL segment fall into this category. LTL carriers typically operate with a hub and spoke system using pickup and delivery drivers in a local area (*i.e.,* they are typically 100 air-mile radius drivers), and in line-haul operations with drivers moving freight over a longer distance between company terminals. LTL line-haul drivers operate in a tightly controlled, closely supervised manner between terminals. In most cases the terminals of LTL carriers are strategically located to not only service customers, but to ensure that the regularly scheduled movements of freight are made in compliance with the HOS rules. Some of these LTL carriers see little or no compliance and safety performance benefit, of imposing a more complex HOS recording system. Also, it is believed that drivers and operations that are not currently subject to the logbook requirements should be treated similarly in regards to EOBR usage. These include 100 air-mile radius drivers, drivers in the state of Hawaii, and certain drivers in agricultural operations.

6. Motor carriers using compliant EOBRs should be *relieved of the burden of retaining supporting documents* for HOS compliance and enforcement purposes.

Explanation: If a compliant EOBR system is used, HOS supporting documents should no longer be required. This should reduce compliance costs and serve as a strong incentive for carriers to adopt such systems.

There has been a series of rulemaking by FMCSA on what records are needed to verify the recordings made by drivers on HOS logs. The most recent being a Supplemental Notice of Proposed Rulemaking in November 3, 2004. There is significant driver and motor carrier commitment in keeping the verifications. ATA estimates that the total annual requirement for industry to implement the proposed November 2004 rule would be about 258 million driver and motor carrier paperwork manhours. The potential overall costs could be over $5 billion annually. If FMCSA

provides allowances in the electronic generation and storage of data through the use of EOBRS, there could be substantial savings in operational time and expenses.

7. Any EOBR mandate, if instituted, should be made simultaneously *applicable to all vehicles of the affected population* of motor carriers, it should avoid any implementation inequities identified, and take measures to eliminate them.

Explanation: If EOBR adoption is required, it should be on all carriers large and small within the regulated industry segment at the same time. (The regulated segment may include exemptions for a part of the industry such as proposed in ATA provision #5.)

Many ATA members have communicated that any proposed future EOBR requirement should not treat large and small motor carriers differently. To propose a requirement where only trucking companies of a certain size must implement EOBR systems will permit these exempted carriers to operate at an economic advantage and therefore permit them to provide service at a lower cost. The same is true if a future proposal suggests that large motor carriers would have to implement EOBRs on a more accelerated timeline than small motor carriers. Small and large motor carriers should receive the same consideration in any future rulemaking proposal.

8. Any EOBR regulation that takes *an incentive-based approach* should allow *for* reasonable and defensible *flexibility* in the HOS rules for drivers and motor carriers.

Explanation: A rule encouraging the use of EOBRs should be based on adaptable HOS regulations.

An example of one aspect where of flexibility in the HOS rules could serve to be an incentive is in regards to the sleeper berth exemption. ATA members have stated difficulty in complying with the 2005 changes in regards to this provision, particularly, associated with team drivers. "Sleeper-berth" flexibility, if EOBRs were used, could serve as an added incentive, particularly, for truckload carriers.

9. *Tax incentives* should be pursued as a means to facilitate adoption of EOBR systems.

Explanation: There should be tax incentives (*e.g.,* credits) in Federal legislation to encourage carrier investment in EOBRs and to off-set the cost of purchasing EOBR devices and associated support systems.

Tax credits would serve to encourage motor carriers to invest in EOBR systems.

ATTACHMENT C

Costs Associated with Implementation of EOBRs [4]

- Airtime for transmission of data and retrieval of records (or data cartridge extraction and transfer).
- Technical demands that EOBR usage places on drivers.
- Training program development.
- Driver training in EOBR usage.
- Training for manual HOS log entry in the event of EOBR malfunction.
- Back office manpower and training in EOBR system usage.
- Training of field enforcement officers in relative aspects of EOBR device(s) and system(s).
- Computer capabilities and redundancy.
- External report generation.
- Inspection, maintenance and repairs and required recordkeeping.
- Calibration of devices.
- Potential truck downtime.
- Future hardware and software upgrades and future replacements.
- Costs for some fleets of moving from existing systems to new systems meeting the requirement (*i.e.,* stranded investments).

[4] Costs were identified by ATA's membership and included in written submissions to FMCSA in response to the Advanced Notice of Proposed Rulemaking on Electronic On-Board Recorders for Hours-of-Service Compliance, Docket No. FMCSA–2004–18940, American Trucking Associations, Inc., November 30, 2004 and Notice of Proposed Rulemaking on Electronic On-Board Recorders for Hours-of-Service Compliance, Docket No. FMCSA2004–18940, American Trucking Associations, Inc., April 18, 2007.

ATTACHMENT D

Table 8 – Estimated Number of Trucks in All Crashes by Associated Factor

Top 20 Factors	Number of Trucks*	Percent**
Drivers		
Prescription Drug Use	37,000	26.3%
Traveling Too Fast For Conditions	32,000	22.9%
Unfamiliar with Roadway (less than 6 times in 6 months)	30,000	21.6%
Over-the-Counter Drug Use	24,000	17.3%
Inadequate Surveillance	19,000	13.2%
Fatigue	18,000	13.0%
Under Work-Related Pressure	13,000	9.2%
Illegal Maneuver	13,000	9.1%
Inattention	12,000	8.5%
External Distraction Factors	11,000	8.0%
Inadequate Evasive Action	9,000	6.6%
Aggressive Driving Behavior (tailgating, weaving, other)	9,000	6.6%
Unfamiliar with Vehicle (less than 6 times in 6 months)	9,000	6.5%
Following Too Closely	7,000	4.9%
False Assumption of Other Road Users Actions	7,000	4.7%
Vehicle		
Brake Failure, out of adjustment, etc.	41,000	29.4%
Environment		
Traffic Flow Interruption (previous crash, congestion, other)	39,000	28.0%
Roadway Related Factors	29,000	20.5%
Driver Required To Stop Before Crash (traffic control device, other)	28,000	19.8%
Weather Related Factors	20,000	14.1%
Other Factors		
Cargo Shift	6,000	4.0%
Driver Pressured to Operate Even though Fatigued	5,000	3.2%
Cargo Securement	4,000	3.0%
Illness	4,000	2.8%
Illegal Drug Use	3,000	2.3%
Alcohol Use	1,000	0.8%

Notes:
* Estimates are rounded to nearest 1,000.
** Percents are calculated on unrounded weighted numbers.

Source: LTCCS Database, July 2005

Table 10 –Estimated Large Trucks and Passenger Vehicles in Two-Vehicle Crashes by Associated Factor

	Number*		Percent**	
Factor	**Large Truck**	**Passenger Vehicle**	**Large Truck**	**Passenger Vehicle**
Drivers				
Prescription drug use	19,000	22,000	28.7%	33.9%
Over-the-counter drug use	13,000	7,000	19.4%	10.3%
Unfamiliar with roadway (less than 6 times in 6 months)	13,000	6,000	19.1%	9.7%
Inadequate surveillance	10,000	9,000	15.8%	13.2%
Driving too fast for conditions	10,000	7,000	15.2%	10.4%
Making illegal maneuver	8,000	9,000	11.5%	13.1%
Felt under work pressure	6,000	2,000	9.9%	2.6%
Driver inattentive to driving	6,000	6,000	8.5%	9.2%
External distraction	5,000	4,000	7.7%	5.6%
Driver fatigue	5,000	10,000	7.5%	14.7%
Inadequate evasion	4,000	5,000	6.5%	6.9%
False assumption of other road user's actions	4,000	2,000	5.9%	3.1%
Unfamiliar with Vehicle (less than 6 times in 6 months)	4,000	2,000	5.4%	2.4%
Vehicle				
Brake failure, out of adjustment, etc.	18,000	2,000	27.0%	2.3%
Lights/Tape deficiencies	4,000	1,000	6.1%	1.1%
Environment				
Traffic flow interrupted	16,000	16,000	23.7%	24.6%
Required to stop before crash (traffic control device, other)	14,000	16,000	21.0%	24.5%
Roadway problems (missing signs, slick surface, other)	11,000	11,000	16.6%	16.2%
Weather problems (rain, snow, fog, other)	9,000	9,000	13.3%	13.3%
Sightline to other vehicle obstructed	5,000	3,000	6.9%	4.9%
Other Factors				
Driver ill	1,000	5,000	12%	7.6%
Cargo shift	***	***	0.6%	0.0%
Illegal drug use	***	4,000	0.4%	6.7%
Driver used alcohol	***	6,000	0.3%	9.0%

Notes:
* Estimates are rounded to nearest 1,000.
** Percents are calculated on unrounded weighted numbers.
*** Weighted numbers lower than 500 are rounded to zero.

Source: LTCCS Database, July 2005

Senator LAUTENBERG. Thank you very much.

Mr. Olson, we'd be pleased to hear from you.

STATEMENT OF RICHARD G. OLSON, CEO, FIL-MOR EXPRESS, INC.

Mr. OLSON. Thank you. My name is Richard Olson. I own FIL-MOR Express, in Cannon Falls, Minnesota.

We've got—our good Senator from Minnesota here—we have 174 tractors and 234 drivers. We voluntarily installed a logging system in our trucks. We studied the system, starting back in July of 2005. We bought—the first company that we investigated, we bought their system, and ran it for about 5 months, and my colleague Michelle, who is very astute at the IT side of this business, researched all of the vendors that we could find, and we saw many of them going wanting.

We discovered a small company in Salt Lake City. The name is DriverTech, which is not a household word for anybody in this

room, I don't think. We'll show you some things that, I think, could halfway amaze you. We voluntarily put these in our trucks. We started them about a year and a half ago. We ran them with dual logs, with paper logs and with the device that we're currently operating. January 1 of this year, we went full-blown with all of our trucks, and we're 100 percent active with the—I call them paperless logs, electronic logs. And our results have been outstanding.

And what we've seen, in all of the carriers that we've talked to, big and small, that calls her on a regular basis and say, "How do you do that?" And she tells them. Or they want to know how we can get the kind of success that we've had.

In the last 2 weeks, we've had zero violations with all of our trucks. We've had 26 violations, total, since the first of the year; many of those, for a minute and 22 seconds, 4 minutes, 2 minutes and 16 seconds. You can't draw a line on a paper log today to reflect that kind of a difference.

Having said that, we'll show you how we do it.

By the way, we have a electronic presentation that we've been doing with the state patrols around the country and with the local DOT representatives, and Michelle will do a second presentation with the Minnesota State Patrol on May 9th to do an in-service with all the State Troopers.

They're enthused with what they see. They are impressed with the accuracy. And the accuracy is there, and it comes from what you see in front of you. We've got a computer—the same kind of a computer that you may have on your office desk today to start with, it's Windows XP, 400 gigabytes on the hard drive, 256 of RAM, 1 gigahertz processor, and there are 15 ports. And we'll show you exactly what the device looks like.

But in our presentation with the state patrols and the DOT—our regulators, that we're dealing with, when we show them what this will do, they see this kind of a device—the three ports that you see on that picture, run three cameras. And we do. We can shine a camera down the right side of the truck in the so-called blind spot that everybody deals with. I have a major beer customer that told us that we were having trouble with shifting loads, and we loaded our little camera in the front end, closed the doors. It was infrared technology. There's a little thing called a "graph," that measured the shake of the trailer forward, back, up and down, and then we coordinated it with this, and pinged the truck every 3 minutes, so we knew exactly when that load shifted, or didn't. We knew the exact location. And this technology, as Dr. McCartt said earlier, this is a day in the United States that we've got this kind of technology, whether it's iPods or whatever, and we're carrying this around in our truck. I'll show you, in a few minutes, it's not expensive.

Senator LAUTENBERG. How much?

[Laughter.]

Mr. OLSON. I'll show you, in just a moment. I'm sorry, Senator. I've got a chart that shows how we arrive at that.

In addition to the cameras, we can run ports that measure the pressure and temperature of the tires going down the road at each wheel position. This is better than iPods, by the way. The rubber

that you see on the road, you have lower inflation in the tires, you have poorer fuel economy, you possibly can prevent an accident, you can clearly stop the tire from going flat on the road. That data, when it reads on the screen with the driver, gets transmitted into our dispatch office and to our shop, and technically we could see the truck pull into a filling station or a truckstop and we could see the inflation on that tire going up. This is what we can do today.

Everybody knows what Wal-Mart is doing with devices that measure inventory, RFID. We've got this tag, that's now being installed—we've got 20 of them that are on the truck. We've done the programming, and we've got the antenna coming out of our box that you saw earlier. And this will have the trailer number loaded on this RFID in the front of the trailer It will download the data, the trailer number, to the driver's log, which is required; it'll download into dispatch and show which trailer the driver has. If he was told to pick up trailer number 4000, and he backs into trailer number 5000, it says, "You've got the wrong trailer." Now, I've told this story to many of our friends in the trucking industry that are trying to see how this thing works, and I say, "There isn't anybody in the industry who hasn't shipped a trailer to New York when it's supposed to be in Los Angeles." And everybody laughs. And the—one large company said, "Yes, and the one in New York is empty." I mean, the reason it's funny is, it happens. And here is the technology, right here, that can help prevent those kind of things.

This—go ahead——

Senator LAUTENBERG. Thank you. Can you wrap up with that next poster?

Mr. OLSON. Wow. Yes. We can also do seatbelt monitoring.

Did I go over the 5 minutes already? I'm sorry, I wasn't——

Senator LAUTENBERG. Well, time flies when you're having fun.

Mr. OLSON. Yes. Yes, it does.

[Laughter.]

Mr. OLSON. We've got a potential of doing seatbelt monitoring. The Federal law says that a truck driver has to be wearing a seatbelt. The officers that we talk with on a regular basis say the seatbelt monitor—or the seatbelt use is a big factor in safety. If we can't convince the driver that he—after he gets the sensor, we could put a camera on him. Now, we don't want to do that. But we've got the ability to do and see those kinds of things.

First of all, we're very happy with what's going on with this. We think this is important, because we don't think anybody in this room has seen this kind of technology out there. We took the position, when we put this together with DriverTech—and I heard people talk about that, earlier, in this room today—that the issue was, how do you stop a violation from happening? And that's exactly what we built into our system. Everybody that came to us says, "We'll give you a list of your violations the next day." I don't want a list of violations, I want the help built into this system that tells the driver that he's got to stop in an hour, he's got to stop in 30 minutes. If he logs in too early on his 10 hour rest, it tells him, "Don't log in. Don't start the truck," et cetera, et cetera. So, we've started with that kind of a premise.

[The prepared statement of Mr. Olson follows:]

PREPARED STATEMENT OF RICHARD G. OLSON, CEO, FIL-MOR EXPRESS, INC.

This is FIL-MOR Express Inc.'s follow up statement from the May 1, 2007 Hearing on Electronic On-Board Recorders and Truck Driver Fatigue. Because of the relatively short presentation, the Committee suggested I finish my testimony with written comments.

FIL-MOR Express is a voluntary user of EOBR's for our entire fleet since January 2007. Our experience developing our current system since July 2005 has shown us that there is a great deal of misunderstanding by many parties including regulators, motor carriers both big and small, enforcement and perhaps legislators.

Our experience developing our plan for the recorders has brought us in contact with the various groups listed above, and our testimony hopefully will shed some light on this very important safety subject.

There are four general areas I will speak to:

a. mandatory policy

b. incentives

c. substantial and reliable devices

d. statutory protection of data

The current proposal relies on a voluntary implementation coupled with vigorous enforcement for a limited population with enforcement issues. This direction is penalty driven for a small group of carriers with no incentives for large scale participation. Presented as a mandate more electronic manufacturers would participate, leading to greater quality and technical equipment at a lower cost.

Clearly one of the major misunderstandings by all is the cost or return of these devices for the carrier. Our experience has shown costs reductions in transmission costs alone of $11,000.00 per month. In addition we've eliminated one position for a total of $182,000 per year or an 18 month payback for those two cost areas. The precise data we now have has allowed us to reconfigure our routes and relay locations to more than pay for our recorders in the first year.

With an incentive program for tax relief in the form of tax credits or accelerated depreciation coupled with true incentives such electronic matching of documents would help carriers bridge the original investment gap. We did this on our own voluntarily. It was one of the best decisions we've made! Clearly others would move more quickly if mandated and incentives drove the proposal.

An additional misunderstanding and incentive is the accuracy and control of the EBOR—that's good news! However, any voluntary user is at a distinct disadvantage to the paper log user. The first 4½ months of 2007 FIL-MOR had 32 violations for all drivers. Sixty percent were under 5 minutes. None of these violations would have shown up with a paper log.

Interruptions during the 10 hour reset to move a trailer at a customer, truckstop, or rest area is recorded electronically, but not on paper. Fuel stops with paper are averaged at 15 minutes. Spotting a trailer at a customer, or multiple deliveries in one city get logged differently today. Carriers need a variance of some type to provide for these experiences. We end up majoring in minors and lose site of the overall benefits of the EOBR.

Further discussion and comments between carriers and regulators need development as we learn from the accuracy of these devices as compared to paper logs.

Another major misunderstanding is the adequacy of existing technology. We researched the available equipment in the market and found the specifications of 395.16 could not be met. However, through our due diligence we found DriverTech in Salt Lake City with the basic technology and skills to program 395.15 and 395.16. This equipment is substantial and I'm confident it will meet the requirements of the current proposal. On the other hand there are a number of devices on the market that do not perform in an adequate way.

The final rules must spell out specific performance specifications for the EOBR.

Finally a mandated proposal must provide statutory protection of the data. A mandated proposal coupled with incentives and data protection will alleviate the majority of carrier concerns and take advantage of this huge safety opportunity!

FIL-MOR Express has been working with a small coalition of carriers that share our views on highway safety. In each instance these carriers are far more advanced than our company on this subject. They have agreed to share their views with you through this statement. This small group represents a substantial number of tractors and drivers, and shows the deep interest shared by motor carrier fleets for the broad support of the EOBR.

ATTACHMENT A

FIL-MOR EXPRESS, INC.
Cannon Falls, MN.

Hon. JOHN HILL,
Administrator,
Federal Motor Carrier Safety Administration,
Washington, DC.

Docket No. FMCSA–2004–18940; Electronic On-Board Recorders for Hours-of-Service Compliance; Proposed Rule—RIN–2126–AA89

Dear Mr. Hill:

My name is Richard Olson, I am CEO of Fil-Mor Express, Cannon Falls, Minnesota. We operate 174 tractors, 550 trailers, with 234 drivers. We've been in business about 25 years. July 2005, we researched the market and looked at the major players offering EOBRs and did not find anyone immediately that met Federal requirements.

In January 2006, we learned of a company that was in the development stage with adequate controls and the precision to meet our requirements. We learned we had to work closely with them since they were an electronic company and did not understand fully all of the hours-of-service requirements. We purchased their system in April of 2006 and worked closely with their programming and mechanical people through October of 2006 when we installed 174 units in all of our trucks. A substantial portion of the programming was completed. In January 2007, after running a dual operation of paper logs and electronic logs, we went "paperless" with the system on January 1, 2007. This was one of the best decisions our company has made.

The cost to own and operate this EOBR is outstanding with a payback of about 12 months as currently configured. Added operational and monitoring systems such as tire pressure and temperature monitoring by each wheel position is now in test. The cost of safety benefits has not yet been determined but we're expecting fuel and tire cost improvements as well as safety improvements. The technology to monitor seat belt compliance is a sensor and program away. One person buckled in and saved is worth it, just ask any law enforcement officer.

Here are our comments regarding the *NPRM Mandatory Compliance:*

1. All EOBRs should be mandatory for all carriers regardless of size. The present positioning of the rule targets a limited number of vehicles which will have a minimum impact on safety and no real incentives for voluntary participation. We voluntary participated with no second thoughts. Positioned properly, this is a very large idea to bring together a safety coalition of motor carrier industry participants and Washington safety proponents. This would be a strong and unusual coalition with congressional backing.

2. Equipment Specifications—FMCSA approved EOBRs should be substantial with total accuracy, tamper proof, and tethered. Specifications should also be mandated by FMCSA.

3. Mileage Exemptions—Docket No. FMCSA–2003–15818 provides an exemption renewal for a 2 mile exemption. "The FMCSA believes that with the terms and conditions in place, _____ will maintain a level of safety that is equivalent to or greater than, the level of safety that would be obtained by complying with the requirements for written RODS".

4. We concur with the mileage exemption! Our operating experience with the EOBR has given us insight into the total accuracy of a solidly designed and built recorder. Here's what we've experienced:

A. The miles are recorded from the ABS system which flows through the engine ECM. When the wheels turn, driving is recorded. It's tamper proof with no way for a driver to change it. It works!

B. A fuel stop moves to On Duty, Not Driving and *actual fuel time* is recorded—not the 15 minutes paper log entries show. It may be 6 minutes, 8 minutes, or 12 minutes.

C. If a driver is parked at a shipper or receiver on a 10 hour break, and the customer asks the driver at anytime to back the vehicle into the dock, the movement is detected, miles are recorded, and the driver with an accurate EOBR is in violation while a driver with a paper log at the next dock door backs in and logs nothing. This is a competitive disadvantage for a voluntary EOBR user. It happens!

D. The same situation develops at truck stops or rest areas if the driver is asked or told to move. Is our driver less safe?

E. When a driver enters a receiver's yard and must move 3 or 4 limited times to position a trailer in a lot or at a door, the grid becomes a 1/8″ thick line on the recorder and the miles are recorded on the EOBR. Who knows what the paper logs show?

The point is the EOBR is so accurate as compared to the paper log that the EOBR user is at a competitive disadvantage to a paper log where in fact an exemption should be provided so as an incentive for voluntary use. We feel strongly that a 1 percent total driving mileage exemption should apply. As an example, a 550 mile driving day with the exemption would be 5.5 miles which would equalize paper log differentials and serve as an incentive.

Other incentives should include accelerated deprecation or tax credits for further encouragement of use. I recognize the IRS would have to be involved with those types of incentives but the dialogue should begin.

I read over 500 comments to the NPRM and the various studies in your preamble. After operating our outstanding EOBR with the results I've seen, I'm convinced there is a lack of factual understanding of cost, opportunities, and accuracy of a well developed EOBR. It's the best decision we've made and I encourage you to move this enormous opportunity ahead for better safety.

Sincerely,

RICHARD G. OLSON,
CEO.

Senator LAUTENBERG. Well, your testimony is compelling, and I wish we had more time. Unfortunately, it would be unfair to the others and to my colleague Senator Klobuchar, who we're very proud of. She's a new member of the U.S. Senate. Also, like you, Mr. Olson, she has lifted the spirits of the environment that she's in, and we're pleased to see her here, and would turn the program over to you.

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Well, thank you very much, Mr. Chairman and all of you. Welcome to the Committee.

I'm going to preside over the Senate, which is always an honor, and so, I'm not going to be able to ask questions here. But I just wanted to thank all of you for coming.

And I wanted to thank you, Mr. Olson. You would be glad to know that another Minnesotan, Garrison Keillor, was here today, and, as you talked, I thought of his words, "Minnesota, where the women are strong, the men are good looking, and all the children are above average." You are clearly above average, Mr. Olson, and I want to thank you for the good work that you're doing.

Sadly, I was reading about the case, this morning, on the computer, out in Minnesota, where the truck driver's truck had overturned and hit a bus containing members of the Chippewa band in Wisconsin, five of them were killed. The case went to trial. He was acquitted. I don't know the details of the case or what was right or wrong, but I know one of the allegations was that he may have been tired. And I wanted to thank you for being so proactive. And certainly, there must be a way to take the work that you've done here and to look at how we can bring these kind of safety measures throughout the industry.

And I will tell you, also, there have been some small-business truckers that have called our office, concerned. And I guess my opening question I'd ask of the panel before I have to leave here

is how you think that we could fashion this in a way that would take account for the concerns of some of the small business truckers. Any thoughts on that?

Mr. GABBARD. I would suggest that a minimally compliant device that's been suggested in our notice of proposed rulemaking comments and—is a way to address this. For a trucker, a dollar spent has to be a dollar of income in the truck, so they're very cost-conscious about investing in their livelihood. And if you could put a cost-effective, minimally compliant hours-of-service recording device in their truck, it reduces the time that it takes to fill out the paper log document. His time can be better spent driving the vehicle rather than filling out a paper log. So, it's a cost-effective alternative.

And if the rule is properly deployed, it also will potentially eliminate the supporting documents, which is a big cost of doing business for a trucker.

Senator KLOBUCHAR. And then, Mr. Olson, how much did you say this costs per truck?

Mr. OLSON. It was around a quarter of a million dollars, the original purchase. It's—we started it in the first of January of this year—it's completely paid for itself.

Senator KLOBUCHAR. And how has it paid for itself?

Mr. OLSON. Pardon me?

Senator KLOBUCHAR. How has it paid for itself?

Mr. OLSON. Yes.

Senator KLOBUCHAR. How has it paid——

Mr. OLSON. The—first of all, the transmission time in the system that we had before was a satellite transmission, and the DriverTech—my cost per month went from $14,500 a month to $3,500. Big amount of money. It saved one labor position, because somebody wasn't sorting through paper logs all day long. And the analysis that we can now do as to what our routes look like, I—it was a large amount of money, I'll put it that way. It was greater than we spent—and this just happened in the last 10 days.

Senator KLOBUCHAR. Thank you very much.

Mr. REISER. Senator, if I could address your first question, there, that you asked of the panel, just briefly, I think one thing that would help in getting the small truckers interested in the technology and using it is if they were—if they could see, and were convinced, that there is a true safety benefit, in terms of accident reduction from using the technology. I think there's a great deal of apprehension and skepticism that rigid adherence to the hours-of-service will result in reduced accidents on the highway. And I think if they were convinced of that, they would be much more willing to move towards that technology.

Senator KLOBUCHAR. Thank you very much.

Senator LAUTENBERG. Thanks, Senator Klobuchar, for being with us. Mr. Olson, we appreciate your views considering you have a relatively small company but, in terms of equipment, et cetera, it's a pretty good-sized operation. And we admire the fact that you got into this thing with so much gusto, if I can call it that. And the results that you talk about are very comforting.

Now, compared to Mr. Reiser's company experience, in which I'd say, Mr. Reiser, if I understood your testimony correctly, you were

not very excited about the results obtained. Am I correct in that assessment?

Mr. REISER. No——

Senator LAUTENBERG. Because I didn't hear you say—I thought you said very little by way of safety evidence, very little by—very little advantage here, there, and everywhere. And I wonder what the difference is.

Mr. REISER. Senator, that—actually, my comment was limited to seeing a direct result in accident reduction as a result of using the technology. We have achieved a—an excellent driver out-of-service number. Our number, on a percentage basis, runs about 1.5 percent. The national average is 6.8 percent. So, in terms of compliance, which is, you know, a significant factor to our business, we are very compliant with the hours-of-service rule. So, that's certainly a benefit to us. If we get a compliance review, our drivers are doing a good job. It's also, I think, a benefit to us that we are controlling the hours-of-service from the standpoint of accident litigation. That's a positive for us, that we don't have the situation where some companies find themselves with a driver who is seriously over on the hours-driving time, at the time of the accident, because we're doing a better job—we're able to control that on the front end. So, we do see some benefits.

But my—the distinction I guess I'm trying to make is we have not been able to say, "Because we put this in, we are seeing a better accident rate than we were before."

Senator LAUTENBERG. So, essentially, you're saying that fatigue, et cetera, hours-of-service, as far as you can see, it doesn't improve safety records. So, should we discard all this and say, "Look, it doesn't matter"? I mean, if compliance is your mission, that's a different goal than I would have imagined, because obeying the rules is usually good for your health and well-being.

Mr. Olson, we learned a very sad lesson in the State of New Jersey a couple of weeks ago, when my dear friend, and our Governor, was in a very serious accident, and he wasn't wearing his seatbelt and was seriously injured as a result. So, we put the two together, anyway and——

So, Dr. McCartt, what do you think of the little dialogue that we just had here?

Dr. MCCARTT. Well, I think one—first of all, I would say that——

Senator LAUTENBERG. Push your button, please.

Dr. MCCARTT. First of all, I would agree with comments several people have made. It's very difficult to determine whether or not a particular crash involved fatigue. And I think a problem with looking at on-board recorders and seeing a difference in crashes is that, as you've heard today, the carriers who are using these devices tend to have good safety records already. And so, you know, it's—if they're already obeying the rules, and already have low crash rates, then it may be the case that on-board recorders won't make a significant difference.

But I guess the other thing I would say is that the purpose of on-board recorders is to have people follow the work rules. And it's the Institute's belief, and many others' belief that the work rules already allow very arduous schedules. And we can argue about the percentage of crashes due to fatigue, but I don't think there's any

debate about the fact that fatigue in truck crashes is a significant factor. And so, we've developed these work rules to try to address fatigue. And the purpose of recorders, again, is to achieve compliance with that. So, I don't think the burden of proof really should be that the recorders reduce crashes, per se, because we know there's fatigue, we know that the work rules already, even if they're followed legally, are very arduous.

Senator LAUTENBERG. Mr. Gabbard, what do you think?

Mr. GABBARD. I would like to add a comment that the system that Mr. Olson is talking about—and, I believe, the systems that Mr. Reiser is running in his fleet—are a somewhat more complicated and much more extensive system than a minimally compliant EOBR device would be. An hours-of-service recording device is intended to record time and distance and location. It's not dealing with some of the other functions that could be put into a fleet management system, because there is still a lot of confusion about a fleet management system and a minimally compliant electronic hours-of-service recording device. They're two different beasts.

A minimally compliant device has to be—in order to be effective, it has to be standardized. The systems that we're talking about—and you can just—and Mr. Olson's system, which is quite extravagant and extensive in its functionality—is beyond what a minimally compliant hours-of-service recording device is perceived to be. I'm not saying that those benefits are not good, because they're outstanding. He's making a significant contribution to road safety and driver safety. But he's somewhat unique in that characteristic.

But I would say there is a minimally compliant, simple device to replace paper logbooks and to get a tamperproof system in place to eliminate the paper logbooks that are sometimes referred to in the industry as comic books.

Senator LAUTENBERG. I think that the most important thing with compliance is to improve safety, it's not simply to regulate behavior. It's to regulate behavior—for what reason? And the reason is to make the roads safer. And so, whether it's as elaborate a system as you suggest—that Mr. Olson says, or the one that's simpler, plainer, that you have, the fact is that whatever brings about compliance can't help but bring around improved safety, reduce risks for those on the highway. We're stunned when we hear about rear-ending a car, as we had in New Jersey, a little SUV, a woman and two children, and a truck came down the hill, the driver not paying attention, for whatever reason, just killed the three of them. These are such painful things to observe. And when you take these behemoths, these big trucks, 10,000 pounds and over, coming down and not being sure that the driver of the vehicle is in good shape a la hours of work, not extended beyond one's ability to think clearly—look at what happens with pilots. I mean, they don't want pilots up there, because they know that there is a fatigue factor that enters in with too much time spent at the stick, I'll say.

And, in terms of tamperproof, I was just in a visit out-of-state, and I was introduced to an operation that had 400 employees. Now, before I came to the Senate, I ran a company; I was co-founder of a company called ADP, pretty big-sized company today, and our specialty was payroll. And I know that the company now processes payroll for some 35 million people every pay period. The figure's

enormous. And what I saw at this company that I visited, they had a handprint for timecards. Very simple. Put it down, and nobody else could use that timecard. And it's readily available. This is a nice-sized company, but these are not people who are billionaires or whatever. And so, they bought these machines to make sure that the recording was easier. And if that can be so easily—an identifier for people, that there are things that you can do that would make these things fairly tamperproof.

Dr. McCartt, does the insurance industry offer lower insurance rates or any other benefits to trucking companies that use the EOBR systems?

Dr. MCCARTT. I can't really address that. Our Institute—I can't answer that question. The Institute does research, and disseminates the research. We're funded by insurers, but we're not involved in the business—their business——

Senator LAUTENBERG. Anybody else have any commentary about that? Insurance rates? No?

Mr. Gabbard, you would——

Mr. GABBARD. I'm aware of a fleet in the United States that has reduced their insurance rates by installing a European version of this device, which has been referred to in this testimony as a tachograph. They have chosen to go self-insured, because their results from running the system has proven to be extremely beneficial, except for major liability insurance. They dropped a lot of their actuarial carrier insurance, so that particular fleet claims to be saving quite a few dollars in insurance rates, because he feels he's modified the behavior of this drivers.

Senator LAUTENBERG. Yes. I think you said, earlier, that if the systems were used more universally in the United States, that the prices would come down substantially. Is that correct?

Mr. GABBARD. Yes, our assumption is, if you create a broad market you can attract enough competitive electronic manufacturers, such as ourselves, to the marketplace, that the law of supply and demand will weigh in, and, therefore, the price of the device will go down with time. As long as the people are meeting the minimal design requirements and meeting the specifications of the regulation.

Senator LAUTENBERG. What does the recorder that your company makes cost?

Mr. GABBARD. Today, because the market does not exist in the United States, we are not producing a device nor selling a device, because the market, in theory, for a minimally compliant device really does not exist. There is a market for fleet management systems, and there are a lot of very competent suppliers that are supplying those to the industry.

We would project, based upon some limited—based upon the understanding of what the rule is requiring today, which requires GPS for location, and requires wireless messaging capability. That we would be able to sell the device in the marketplace for $450.

Senator LAUTENBERG. And the——

Mr. GABBARD. That's what we would project——

Senator LAUTENBERG. And the cost for wireless operational—like that of a telephone or anything else is——

Mr. GABBARD. Yes, that adds costs to the system. As we know with our telephone, the cost of buying the hardware is the beginning of your cost——

Senator LAUTENBERG. Sure.

Mr. GABBARD.—with any wireless tool, because you're going to pay your monthly fees——

Senator LAUTENBERG. Yes.

Mr. GABBARD.—to maintain that system on the airways.

Senator LAUTENBERG. Yes. Well, once you buy the fishing pole, then the cost starts going up. If you——

Mr. GABBARD. Unfortunately, that's true.

Senator LAUTENBERG. The—Mr. Gabbard, many have said that that FMCA's analysis of costs and benefits of using electronic on-board recordings is flawed. Do you believe that their cost-benefit analysis for these devices under this rule is accurate?

Mr. GABBARD. I believe the—what they've chosen to use as their foundation is accurate data, but I do not feel that they have followed enough of the marketplace and really paid attention to the ATRI study, which was done about 2 years ago. This study did a good cross-section study of data, of potential devices that were available, and, therefore, they chose to use a higher price point for the function. That price point does exist in the marketplace for a fleet management system, but the price point that's used in that analysis is not a minimally compliant hours-of-service recording device. We are confusing two basic tools, a fleet management system and an hours-of-service recording device, or, as this industry is referring to it, as an EOBR.

Senator LAUTENBERG. I thank all of you for your testimony. You've been very helpful, to me anyway, and, I think, to the Subcommittee and to the Committee, in terms of focusing in on this problem, because the problem certainly exists, whether the system to put a check on it, to reduce these horrible accidents that do occur, when there are 5,000 of them in a year, that's far, far too many than what we should have to deal with. So, we thank you all.

And, with that, this Subcommittee hearing is concluded.

[Whereupon, at 4:20 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF JOE RAJKOVACZ, MEMBER, BOARD OF DIRECTORS, OWNER-OPERATOR INDEPENDENT DRIVERS ASSOCIATION

EXECUTIVE SUMMARY

EOBRs Are No Better Than Paper Logs for Ensuring Hours-of-Service (HOS) Compliance

The hours-of-service rules require a record to be kept of both driving time *and* all non-driving work activity (waiting to load and unload, inspecting/repairing the truck, performing the loading and unloading, looking for the next load, receiving a dispatch, doing paperwork, performing compensated work at another job, etc.) Even though an EOBR can record how long someone has operated a truck, if the driver does not manually enter his non-driving work time into the EOBR, the EOBR will show the driver as available to drive when he is not under the HOS rules! In fact, *EOBRs will still permit someone performing compensated work for a person other than the motor carrier to drive, without showing a violation*.

EOBRs Do Not Address the Cause of Driver Fatigue: Economic Pressure

Drivers do not always know in advance how much uncompensated time a shipper or receiver will demand of them. Nor do drivers always know whether they will be expected to do the physical work of loading or unloading their truck or whether there will be proper equipment to do the job. Many drivers are forced to spend between 18 and 44 hours per week at the loading docks. How can drivers facing such wild cards be expected to plan their work/rest schedule and manage their fatigue?

The majority of drivers are paid either a flat amount per load-hauled, a percentage of freight charges or per mile-driven. Working under such an unpredictable schedule, some drivers must minimize the recording of their non-driving work in order to drive enough to make a basic living. EOBRs will do nothing to address these problems. And as described above, they will permit drivers to manage this problem as they always have—not logging all of their on-duty, not-driving time. If, on the other hand, driver compensation were correlated to both the amount of driving and the amount of non-driving work performed, not only would the incentive to maximize driving time be eliminated, but drivers would have a powerful incentive to log every hour of non-driving work required of him or her.

EOBRs Can Be Used To Exacerbate Driver Fatigue

As FMCSA touted in its proposed rule, EOBRs will permit motor carriers to monitor, in real-time, the location and duty-status of their drivers. Carriers will be able to notice whenever a driver has stopped the truck during their on-duty time. Perhaps the driver has decided to take a break and get rest. Such breaks do not suspend the running of the 14 hour work-day under the HOS rules. The carrier will be able to instantly instruct the driver to return to the road and maximize his or her driving time. Carriers will also be able to instruct drivers, whenever they want, to log their on-duty, not-driving work as off-duty, thereby preserving their on-duty driving time. Both practices remove what little discretion drivers have today to resist the economic pressure discussed above.

Mandating EOBRs Would Be an Unconstitutional Invasion of Privacy

Truck drivers are widely offended by the invasion of privacy presented by 24 hour a day electronic monitoring by EOBRs of, for many, their home away from home. The use of EOBRs would be a warrantless search prohibited by the U.S. Constitution. An EOBR mandate for HOS enforcement would not pass the Supreme Court's standards for a search of a pervasively regulated business or a search under the special needs exception in Fourth Amendment jurisprudence. Truck drivers feel as though EOBRs represent the government's categorical "sentencing" of thousands of persons to the "wearing" of electronic ankle bracelets without suspicion, probable cause, due process or any finding of wrongdoing.

OOIDA encourages lawmakers to seek solutions to motor carrier safety issues that are much less intrusive and much more effective: mandating comprehensive driver training, resolving problems at the loading docks, revising methods of driver compensation, creating more flexible hours-of-service rules, and providing adequate truck parking in those areas around the country where drivers who wish to rest cannot find such parking today.

(See "Rigs Keep On Trucking, Searching for Parking" the *The Wall Street Journal,* page B1, May 1, 2007)

TESTIMONY OF JOE RAJKOVACZ

I was an Owner-Operator for over two decades. I owned both my truck and trailer and lease them along with my driving services to a motor carrier. I was also a representative of a group of owner-operators who collectively haul a majority of America's fresh foods. Meat, dairy products, and produce are primary examples of what I would haul. I love what I did. However, I also hated what I did. Unfortunately, this testimony outlines what it is I hated in the industry. It is abuse of truckers at loading docks around this country and by implication, why many truckers do not account for time spent unloading or loading in the log books.

I appreciate the Committee reviewing my testimony and look forward to any opportunity to interact with Committee Members and staff on these critically important trucking issues. I believe it would have been prudent for the Committee to first explore the substantial and overwhelming problems facing truck drivers in complying with the hours-of-service rules, which I have detailed in the below testimony. Hopefully my testimony will shed some light on these critical issues, in light of the fact that it appears the Committee may have jumped to the conclusion that Electronic On-Board Recording Devices (EOBRs) are the solution to the problems truckers face. I trust that future hearings will involve the voice of the professional truckers.

Although my testimony may be anecdotal in nature, what happens to truckers has a profound effect on highway safety, driver health, and our country's economy. Loading and unloading abuse begins at the point of dispatch for a driver. Often, the schedules given to me were not achievable within the Federal hours-of-service regulations. Most shippers and receivers require appointments for loading and unloading. They tell truckers when to arrive and are not concerned whether a driver can do it legally. They utilize a form of hidden coercion.

For example, I may have been required to make an appointment no earlier than 8 AM on a given Monday. But, they wanted me there at 2 a.m. If I said that won't work, they'd respond that the next available date for delivery is Wednesday—an extra 2 days for which their load will sit on my truck, but I receive no extra compensation. Thus, I am compelled to accept a time I knowingly cannot make legally. Remember, most truckers are paid by the mile or by a percentage of whatever a load pays, not by the hour.

Earlier last year, I was given a delivery schedule spanning 22.5 hours to drop part of my freight at six different locations. After 22.5 hours, I was scheduled to drive 800 miles to the next morning's appointment. Federal regulation only allows me to be on duty for fourteen consecutive hours at which time I must take a 10 hour break. I objected to the scheduling and was told the usual, "do the best you can." I was not told, "sorry Joe, do it legally." Upon leaving my terminal, my mood was flustered and my anxiety level was high, because I knew I was "screwed" with an impossible schedule.

The majority of truckers are very conscientious about appointments. They know to miss an appointment can yield a fine by the shipper or receiver and being rescheduled to another day. An increasing number of receivers are imposing "late fees" for missed appointment times. The charge is usually $150. To wait for another day would mean more uncompensated time away from the family. That is a great motivator to be on-time regardless of the regulations. Everyone in this room has been late for work at one time or another for reasons beyond your control. Traffic accidents, bad weather and vehicle break-downs are primary examples. Your employer may take action against you if a pattern develops. However, none of you risk losing a day's pay because you got caught behind an accident. Truckers do. The stress to make schedules is immense on drivers. Fines and rescheduled appointments for days late are an unconscionable burden imposed by shippers and receivers. It is ironic that when I showed up on-time to deliver, for example, three pallets of freight, and 5 hours later I finally left the dock, the same receiver threatened me with "late fees" and refused to pay me for my wasted time. Neither the FMCSA nor Congress has studied this issue or searched for solutions in over twenty-five years.

Delays in unloading cause a cascade effect where other appointments are missed. The primary cause of unloading delays is that time spent at a dock does not represent a cost to the receiver. They have no economic incentive to use drivers' time productively. Their trucks become rolling and sitting warehouses with the driver spending as much time babysitting the freight as moving it from point to point. It is a huge inefficiency in our economy, favoring shippers and receivers.

At the beginning of last year, I made two deliveries to a distribution center in Anniston, Alabama. The first time I was to deliver two pallets of cottage cheese and the second time I had only one pallet, of all of the pallets on my truck. I was on-time for both appointments. I spent 6.5 hours and 4.75 hours respectively to deliver that freight. That is 11.25 hours for three pallets of freight. I was not paid for that excessive time and caused me to miss other appointments. How is this productive for me or our economy?

An absolute maxim of economic theory is, "if something is free, it will be used to excess, regardless of the hidden costs." There are hidden costs. Drivers do not account for those hours as I described because they are not paid for them. Because EOBRs require manual input from a driver to account for such time, drivers will still be able to continue to not log this time, mostly as a result of subtle coercive pressure from motor carriers, shippers, and receivers. Drivers sacrifice their health putting in 20 hour days because of an inequitable system that quietly coerces them to do so. EOBRs will not affect this coercion.

Most receivers I frequented required me to enter their property through a security gate. They scheduled the appointments and grouped more trucks together than they could unload during a given time. Trucks are usually not allowed on the property until 1 hour prior to an appointment. This creates bottle-necks of trucks in line at the same time. I have spent hours, just creeping forward to the gate, waiting for my turn at the guard shack, only to get there and be told I am late. This time is never logged. The receiver has no incentive to use my time productively, because my time is free.

When I finally arrived at the receiving office all of those trucks ahead of me at the gate were now in line ahead of me at the single receiving window to check in. A particular receiver in Puyallup, Washington, requires all drivers to check in at 2 a.m. I have spent hours standing in line, outside in a cold drizzle, snaking my way in line to the one receiving window. No drivers report this waste of time, because they are not paid for it. Hopefully, once I checked in with the receiver I'd be given a dock assignment. Unfortunately, because of over-booking and unproductive use of truckers ahead of me, I'd have to wait for a dock to become available for 1, 2, 3, and 8 or more hours. I've experienced it all. I'm on-time, yet I sit. No driver accounts for these delays in their log books, and they won't be accounted for on EOBRs.

Finally, I'd back in, ready to unload my freight. However, the receiver would not use their powered equipment to remove my pallets unless I paid their employees to unload their own freight. In the grocery distribution business, drivers are an easy target and a profit center for the receiver. Nearly every grocery chain in America plays this game. Grocery distribution centers contract with unloading services drivers call "lumpers." Lumping services never have one person for each dock maybe one for every five docks.

To keep from totally running afoul of the law, the receiver may make a manual hand-jack available for a driver to pull pallets off the trailer onto their dock. However, they may have only one jack for twenty doors, or worse, the jack is so decrepit that its unusable. Drivers are given a choice without a distinction and coerced into paying for unloading.

An average pallet of freight often exceeds 2,000 pounds. This represents a physical impracticality for most drivers to manually remove. If a driver is lucky enough to have a load called a "straight pull' (the palletized freight simply needs to be pulled from the trailer and placed on the dock and counted) unloading by manual pallet jack can takes hours.

The situation is worse if a load needs to be "broken-down". Break-downs represent the majority of freight I hauled. I performed this task myself or hired the lumpers to do it. An example of a break-down is palletized butter that I haul. The shipper stacked it four boxes high on the pallet, but the receiver wanted one or two boxes taken off and placed on a separate pallet. If I could not do the break down, I had to pay a lumper a minimum of $45 for one pallet. This would often lead to a cost of hundreds of dollars for an entire trailer load. That is a steep enough price to make me labor for endless hours on a dock to avoid paying for unloading. Drivers spend many hours engaged in physical labor on docks and do not record any of that time against hours-of-service. It is because drivers are not paid.

It is the classic catch 22 situation. Comply with Federal regulations, burning hours for no compensation. A driver can hide that time wasted at docks so that a he has hours left for driving, where the money is made.

Some in Washington believe that mandating electronic on-board recorders (EOBRs) will stop this coerced driver behavior. Supporters include those without experience driving a truck, motor carriers who seek to use EOBRs to maximize the efficiency of their fleet, and of course, EOBR equipment manufacturers. None are truck drivers.

An EOBR is dependent on a driver's input. If he is not paid for all the above mentioned wasted time he will not start the EOBR until loading or unloading is completed, thus saving hours for driving. All of this has obvious repercussions on highway safety, driver health and our economy. Another economic axiom is, "there are no free lunches." Truckers pay a huge hidden price with their health for this abuse at docks. Now they are being asked to bear the additional burden of EOBRs, an unconstitutional invasion of their privacy. This would be nothing more than the government's categorical "sentencing" of thousands of persons to the "wearing" of electronic ankle bracelets without suspicion, probable cause, due process or any finding of wrongdoing. I've read where electronic monitoring adds precipitously to worker stress levels.

For many, the sleeper berth in the truck is home away from home. If EOBRs record everywhere drivers go and when they go there, such data would reveal their routes, the houses of friends and relatives, and other places they may visit while in their truck: book stores, restaurants, motels, libraries, casinos, truck stops, lawyers' offices, doctors' offices, health clinics, therapist offices, places of worship, customers, and possible future employers. None of this information is necessary to enforce any motor carrier safety rule and none of it is anybody else's business.

EOBRs are not the panacea to compel better adherence to HOS regulations. If the objective is more effective recording of drivers hours and improving safety, how, without addressing loading and unloading abuse is this to be accomplished? America's hard working truck drivers deserve better from their government. If this were addressed properly, benefits to safety and improvements in warehousing and trucking efficiency would logically follow.

You may ask yourself, if the trucking business is so bad, why did I continue trucking for so many years? For as much as I hated the treatment that I've described, I knew that eventually I'd be rolling down the highway, across the mountains, seeing what others only see in dreams. Truckers personify that undefeatable American spirit of freedom and independence. They have an optimism that all things pass and tomorrow can be better. I urge you to put the proposal of EOBRs aside, and give drivers the hope that Congress will pursue real solutions that address the actual causes of drivers' problems in the workplace. Thank you for your attention to my comments.

Joe Rajkovacz has been a truck driver for 29 years and a member of the Owner-Operator Independent Drivers Association Board of Directors for 7 years. OOIDA has submitted extensive comments to the FMCSA's Advanced Notice of Proposed Rulemaking detailing its Constitutional arguments against EOBRs: *http://dmses.dot.gov/docimages/pdf90/306665_web.pdf* and presenting drivers' critical review of Werner Enterprises' experience with such devices. See: *http://dmses.dot.gov/docimages/pdf90/306665_web.pdf* and to FMCSA's Notice of Proposed Rulemaking detailing several legal deficiencies in the agency's proposed EOBR rule, See: *http://dmses.dot.gov/docimages/pdf101/466044_web.pdf*.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO HON. JOHN H. HILL

Question 1. Why doesn't your proposed rule make use of the results of the 3 million roadside inspections performed every year to identify the motor carriers that are violating hours-of-service?

Answer. Under FMCSA's electronic on-board recorders (EOBRs) proposal, motor carriers that have demonstrated a history of serious noncompliance with the hours-of-service (HOS) rules would be subject to mandatory installation of EOBRs meeting the new performance standards. If FMCSA determined, based on HOS records reviewed during each of two compliance reviews (CRs) conducted within a 2 year period, that a motor carrier had a 10 percent or greater violation rate ("pattern violation") for certain HOS-related regulations, FMCSA would issue the carrier an EOBR remedial directive.

Such carriers would have already demonstrated repeated noncompliance with the HOS regulations after being afforded an opportunity to improve. The Agency's exist-

ing compliance oversight processes would already have singled out these carriers for FMCSA's attention because safety violations found during roadside inspections, crash involvement, or both, placed them statistically well outside the norm at the time of the second CR. The Agency would also have provided recommendations to these carriers following the first CR to guide them toward improving their safety performance and regulatory compliance.

FMCSA considered, but rejected, approaches for a remedial directives trigger based on roadside inspections or other non-CR procedures. Far more roadside inspections than CRs are performed, and these inspections generate a significant volume of HOS compliance data. However, certain of the Agency's algorithms using these data, such as the Driver Safety Evaluation Area (SEA) component of SafeStat scores, incorporate both HOS and some non-HOS violations, such as commercial driver's license violations. In addition, roadside inspections are designed to determine the safety status of a driver or vehicle at a given point in time, not to provide, on the basis of a single examination, a broad assessment of a motor carrier's general operations and safety management controls.

CRs, by contrast, are intended to provide a broad assessment of a motor carrier's overall operations and safety management controls. They are ordinarily conducted at a motor carrier's place of business, involve larger samples of records, examine multiple vehicles and drivers' RODS, and typically produce a series of violation findings. Motor carrier safety ratings are based largely on CR data. Given the potential for an EOBR remedial directive to place a serious financial burden on a motor carrier, we believe such a directive should be issued only on the basis of a broad scope of operational examination and extensive record review inherent to the CR process. Although the Agency will continue to compile and use non-CR data as in the past and may consider cumulative roadside data in the future, FMCSA is proposing to use only CR-based violations as direct grounds for issuance of EOBR remedial directives. The Agency would continue to capture and make use of this valuable roadside input by using SafeStat results as a basis for selecting carriers for CRs.

The FMCSA believes the proposal to use CR results was appropriate, based on the information available at the time the proposed rule was published. The FMCSA is reviewing the public comments to its EOBR Notice of Proposed Rulemaking and will consider whether different criteria should be used for triggering the mandatory use of EOBRs.

Question 2. Hasn't your Compliance Review (CR) system been severely and repeatedly criticized for poor data and mistaken identification of the more dangerous motor carriers? If you propose using the data from CRs, how are you going to quickly correct these defects?

Answer. As part of FMCSA's recent Notice of Proposed Rulemaking, motor carriers that have demonstrated a history of serious noncompliance with the hours-of-service rules would be subject to mandatory installation of EOBRs. Serious noncompliance would be determined based on hours-of-service records reviewed during compliance reviews conducted onsite at the motor carrier's place of business.

The underlying violation data resulting from compliance reviews has not been routinely criticized. To the contrary, a recent draft Government Accountability Office (GAO) report found that FMCSA's management of our compliance review program met their standards for internal controls, thereby promoting thoroughness and consistency.

The FMCSA's Safety Status Measurement System (SafeStat) used to identify which carriers should be subjected to an onsite compliance review has, however, been the subject of recent reviews that have identified problems primarily associated with the completeness of state-reported crash data. In response, FMCSA has implemented a number of data quality initiatives that have resulted in improvements.

While FMCSA works continually to improve SafeStat's effectiveness, the system is still an efficient, effective, and useful tool for identifying high-risk motor carriers. The 2004 Office of Inspector General (OIG) report noted that compliance review results support the ability of SafeStat to identify high-risk carriers. In addition, a 2007 GAO report indicated that SafeStat works twice as well as selecting carriers randomly and, therefore, has value for improving safety.

The crash data quality issues identified in recent GAO and OIG reports have the potential to allow some high-risk carriers to escape scrutiny. They do not, however, mean that the carriers FMCSA has identified are not high-risk.

With respect to the EOBR proposed rule, an important point is that any motor carrier that would be subject to mandatory installation would have had their hours-of-service problems documented through more than one on-site compliance review and would have been afforded full due process before being required to install EOBRs.

Question 3. If you are concerned about U.S. motor carriers and drivers violating hours-of-service and falsifying logbooks, why aren't you requiring electronic on-board recorders for all Mexico-domiciled motor carriers?

Answer. The FMCSA's proposal to require the mandatory use of EOBRs by certain motor carriers is intended to serve as a corrective measure for motor carriers that have demonstration a history of serious noncompliance with the hours-of-service rules. The FMCSA is not aware of any information that would suggest that Mexico-domiciled motor carriers, as a group, have a demonstrated history of serious noncompliance with the hours-of-service regulations.

The FMCSA requires that all motor carriers operating commercial motor vehicles within the United States comply with the applicable HOS requirements. The Agency recognizes that there are differences between the HOS requirements of the United States and Mexico. However, the fact that Mexico-domiciled carriers operating in Mexico are not subject to FMCSA's requirements while they operate within Mexico does not mean these carriers have a history of serious noncompliance with FMCSA's hours-of-service rules.

Question 4. Is there data that shows that truck drivers working nearly 100 hour weeks are just as safe and healthy as workers who work more conventional jobs requiring 40-hour work weeks?

Answer. On August 25, 2005, FMCSA published a final rule revising its hours-of-service regulations or drivers of property-carrying commercial motor vehicles. The 2005 HOS rule provides increased opportunities for drivers to obtain necessary rest and restorative sleep, while also recognizing the need to provide motor carriers with flexibility to move products and while ensuring safe operations. The FMCSA's revised HOS rule balanced considerations of driver and public safety, driver health, and costs and benefits to the public and the motor carrier industry—all factors the Agency is statutorily required to consider under 49 U.S.C. 31136.

On July 24, 2007, the United States Court of Appeals for the D.C. Circuit vacated those portions of the 2005 final rule that increase the daily driving limit from 10 to 11 hours, and that permit an off-duty period of 34 hours to restart the weekly on-duty limits. Therefore, motor carriers employing drivers of property-carrying vehicles no longer have the opportunity to use the restart provision. Other portions of the rule that remain in effect include: a more stringent sleeper berth provision that bars drivers from splitting their off-duty sleep period by requiring one 8-hour rest period; the 10 hour off-duty requirement to enable 8 hours of continuous rest; and a more restrictive 14 hour non-extendable duty tour "driving window." The FMCSA is analyzing the court's opinion regarding driving time in light of its mandate to protect the health and safety of drivers.

Question 5. FMCSA stated in the proposed rule that falsifying logbooks is a pervasive and chronic problem. These rules exist to prevent accident and injury. Why isn't the FMCSA using every technology, including requiring on-board recorders in all large commercial motor vehicles to stop these violations? If FMCSA can't justify enforcing the rules, can the rules themselves be justified?

Answer. The FMCSA recognizes the views of many in the highway safety community and the general public about mandating EOBRs for the entire motor carrier industry. However, there are several million trucks and buses on America's roads today. The FMCSA's estimated safety benefits of mandating EOBRs on each of these vehicles was far less than the estimated costs of doing so, at the time the Agency published the NPRM. Therefore, the Agency focused on finding other ways to get more of these units on commercial motor vehicles, while targeting those with the greatest safety risk, without creating an unreasonable burden. This is why the proposed rule would encourage industry-wide use of EOBRs by providing incentives for voluntary use, rather than mandating the devices for the entire industry.

Question 6. How are you going to stop hours-of-service violations and logbook falsification by only requiring about one one-hundredth of 1 percent of motor carriers each year to have to install and use electronic on-board recorders?

Answer. The Agency is aware of comments suggesting the final rule should cover more motor carriers, and is considering how to address such comments.

The FMCSA focuses on those companies that are most likely to be a safety hazard on the road in its enforcement activities. Under this proposed rule, only those truck and bus companies with a history of serious hours-of-service violations would be required to install electronic on-board recorders in all of their commercial vehicles. Within the first 2 years that the rule would be enforced, we estimate that about 930 carriers with 17,500 drivers would fall under this requirement.

The FMCSA, based on its safety research, believes that motor carriers whose drivers routinely exceed HOS limits have an increased probability of involvement in fatigue-related crashes and therefore present a disproportionately high-risk to high-

way safety. Based on the agency's analysis of its Motor Carrier Management Information System (MCMIS) data from CRs conducted since 1995 on motor carriers operating in interstate commerce, carriers to which a remedial directive would apply under this proposal have crash rates that are 87 percent higher than average. The crash rate for these carriers is an indication that they should be a top priority for the Agency.

The FMCSA recognizes the views of many in the highway safety community and the general public about mandating EOBRs. However, there are several million trucks and buses on America's roads today. The FMCSA's estimated safety benefits of mandating EOBRs on each of these vehicles was far less than the estimated costs of doing so, at the time the Agency published the NPRM. Therefore, the Agency focused on finding other ways to get more of these units on commercial motor vehicles, without creating an unreasonable burden with a government mandate. This is why the proposed rule would encourage industry-wide use of EOBRs by providing incentives for voluntary use, rather than mandating the devices for the entire industry.

Question 7. Why aren't you preventing fraud, misuse, and tampering by setting enforceable requirements in your EOBR proposed rule?

Answer. The FMCSA believes the proposed performance standards for EOBRs are enforceable. However, while the Agency has authority to regulate motor carriers and drivers, it does not have direct regulatory authority over EOBR manufacturers. In developing the proposed requirements for EOBRs, FMCSA focused its attention on seven research factors listed in the ANPRM: (1) Ability to identify the individual driver; (2) Tamper resistance; (3) Ability to produce records for audit; (4) Ability of roadside enforcement personnel to access the HOS information quickly and easily; (5) Level of protection afforded other personal, operational, or proprietary information; (6) Cost; and (7) Driver acceptability.

The FMCSA proposed that the EOBR record basic information needed to track duty status, including the identity of the driver, duty status, date and time, location of the CMV, distance traveled, and other items that the driver would enter (such as truck numbers and shipping document numbers). The EOBR would be required to identify the driver, although FMCSA does not propose mandating a specific identification method. This approach would allow carriers to use existing identification systems or implement newer technologies as they become feasible.

While many of the proposed requirements, such as that for tamper resistance, parallel the requirements for AOBRDs, others would extend the AOBRD requirements based on our expectation that the EOBR will have a high degree of reliability. For example, FMCSA proposed that the EOBR would not need to be integrally synchronized to the engine or other vehicle equipment. An EOBR must, however, have GPS or other location tracking systems that record location of the CMV at least once a minute. EOBRs could still use sources internal to the vehicle to record distance traveled and time. EOBRs must perform a power-on self-test on demand and must also warn the driver if the device ceased to function. Maintenance, recalibration, and self-certification requirements would be similar to those for AOBRDs.

Question 8. How are you going to prevent fraud and misuse by allowing portable cell phones to be used for showing hours-of-service compliance and without linking an EOBR with engines and electronic control modules?

Answer. The purpose of an AOBRD or EOBR is to accurately record a driver's sequence of duty statuses, the time the driver is engaged in a given duty status category, and the sequence of dates, times, and locations that make up a trip. Historically, the only information available from a source not directly controlled by the driver was the driving time and distance, both of which were obtained from a source on the vehicle. Change-of-duty status locations had to be entered manually. In the 20 years since AOBRDs were first used, communications and logistics management technologies have evolved to enable a more fundamental item of information vehicle location to be tracked and recorded. The precision and accuracy of this recording has come to rival or surpass that of distance-and-time records from the CMV.

FMCSA believes it is appropriate to offer an alternative, performance-oriented approach that allows motor carriers and EOBR developers to take advantage of emerging technologies. Specifically, FMCSA now believes that an EOBR does not necessarily have to be "integrally synchronized" with the CMV to provide an accurate record of driving time, equivalent to that of an electronic odometer or the time function contained in an ECM. The Agency is proposing to allow two ways to record distance traveled and time: (1) via sources internal to the vehicle (*i.e.,* the ECM with an internal clock/calendar) to derive distance traveled, or (2) via sources external to the vehicle (*i.e.,* location-reference systems—GPS, terrestrial, or a combination of

both) recording location of the CMV once per minute and using a synchronized clock/calendar to derive distance traveled ("electronic breadcrumbs"). This approach has the potential advantages of removing a restrictive design requirement, providing an opportunity for innovation, and allowing use of less expensive hardware (*e.g.,* GPS-enabled cell phones), without making existing synchronized devices obsolete.

Regardless of the communications modes (wireless or terrestrial) and the method used to synchronize the time and CMV-operation information into an electronic RODS, FMCSA would require the records from EOBRs to record duty status information accurately. The difference proposed between actual distance traveled and distance computed via location-tracking methods over a 24-hour period would be ± 1 percent. EOBR developers would need to test their devices thoroughly to ensure they meet or exceed these tolerances.

Question 9. How are you going to guarantee that the driver of a rig with an EOBR is actually the authorized or *bona fide* driver?

Answer. The FMCSA's proposal would correct an apparent gap in the existing automatic on-board recorder (AOBRD) regulation. The current rule includes no explicit requirement for driver identification beyond requiring the driver's signature on hard copies of the record of duty status. The proposed rule would require driver identification, without prescribing a specific method.

The FMCSA recognizes the diversity of motor carrier operations and acknowledges that numerous commenters' to the Agency's 2004 advance notice of proposed rulemaking (ANPRM) expressed concerns about the potential costs of advanced driver identification methods such as biometric identifiers and smart cards. Various approaches to identification currently exist, while others are being developed, and carriers may have different needs and standards regarding an acceptable level of risk.

Rather than limiting carriers' ability to adopt technically advanced systems or imposing duplicative requirements on carriers desiring more secure systems, FMCSA proposed adopting a general requirement that driver identification be part of the EOBR record, without prescribing a specific approach. An EOBR would require the driver to enter self-identifying information (*e.g.,* user ID and password, PIN numbers) or to provide other identifying information (*e.g.,* smart card, biometrics) when he or she logs on to the EOBR system.

In developing its proposed rule, FMCSA also considered ANPRM comments suggesting that the Agency require use of the Department of Homeland Security's proposed Transportation Working Identification Card (TWIC) to identify the CMV driver and possibly serve as a portable data record, FMCSA does not presently anticipate using TWIC for EOBR HOS data storage. There are several reasons for this. While the amount of memory required has yet to be specified, it is expected to be less than what would be needed for an EOBR application. Furthermore, FMCSA acknowledges concerns about driver and motor carrier privacy; some information contained on the TWIC would not be relevant to an HOS record.

Question 10. Do you agree that waiting, loading and unloading activities for truck drivers can contribute to fatigue? Will the FMCSA consider requiring that carriers who use EOBRs ensure that on-duty, not driving time is also entered into the EOBR system to keep track of these waiting, loading and unloading activities?

Answer. Yes. All motor carriers that are required to maintain a record of duty status, whether handwritten or electronic, must continue to ensure that the record accurately documents all driving time, and other duty time, such as waiting, loading and unloading.

In developing the proposed requirements for EOBRs, FMCSA focused its attention on seven research factors listed in the ANPRM: (1) Ability to identify the individual driver; (2) Tamper resistance; (3) Ability to produce records for audit; (4) Ability of roadside enforcement personnel to access the HOS information quickly and easily; (5) Level of protection afforded other personal, operational, or proprietary information; (6) Cost; and (7) Driver acceptability. The FMCSA proposed that the EOBR record basic information needed to track duty status, including the identity of the driver, duty status, date and time, location of the CMV, distance traveled, and other items that the driver would enter (such as truck numbers and shipping document numbers). The EOBR would also be required to identify the driver, although FMCSA does not propose mandating a specific identification method. This approach would allow carriers to use existing identification systems or implement newer technologies as they become feasible.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO CAPTAIN JOHN E. HARRISON

Question 1. Do you believe that EOBR's will permit enforcement officials to more efficiently and accurately determine hours-of-service violations?

Answer. Yes, if there are uniform standards regarding their design and implementation (i.e. standard interface for enforcement). As important, if not more so, is how to "enforce" these standards. There should be a 3rd party independent certification (initial and ongoing) program and a list of "approved" EOBRs. This will help to give comfort to those buying EOBRs and enforcement officers using them that they are certified to a certain standard.

Question 2. Currently, how long does it take, on average, for enforcement officials to review and verify a driver's paper logbook? How do enforcement officials verify the information in the paper logbook and corroborate evidence to support driver's notations?

Answer. It depends on the complexity of the trip and the nature of the interview. Generally speaking, the hours-of-service portion of the inspection takes approximately 10–15 minutes. Law enforcement uses the driver interview, supporting documents such as bills of lading, toll receipts, fuel receipts, gate receipts and other trip-related documentation to review hours-of-service compliance.

Question 3. From your organization's perspective, how large is the problem of drivers falsifying logbooks and exceeding their hours-of-service limits?

Answer. We believe it is larger than what the data show.

Question 4. Do you believe there is a corollary between drivers who violate the hours-of-service rules and safety?

Answer. Yes we do. The attached research report corroborates this.

PREDICTING TRUCK CRASH INVOLVEMENT: DEVELOPING A COMMERCIAL DRIVER BEHAVIOR-BASED MODEL AND RECOMMENDED COUNTERMEASURES,

A Report by American Transportation Research Institute (ATRI)

The Problem

Efforts by government and industry over the years to reduce large truck crashes have led to a number of significant positive trends. The U.S. Department of Transportation (USDOT) recently reported a decrease in the fatal crash rate for large trucks from 2.2 fatalities per 100M vehicle miles traveled (VMT) in 2000 to 1.9 fatal crashes per 100M VMT in 2003.[1] In spite of increasing VMT and increased congestion over the years, the trucking industry has seen a general downward trend in fatal, injury and property damage crash rates over the last 20 years.

However, both industry and government recognize that more must be done to reduce the overall number of large truck crashes. Prior research studies, including the Federal Motor Carrier Safety Administration (FMCSA) Large Truck Crash Causation Study, point to driver-related factors as a critical reason for the majority of crashes involving large trucks. Therefore, focusing on driver behaviors will have the most profound impact on crash reduction.

Research Goal

The objective of this research was to design and test an analytical model for predicting future crash involvement based on prior driver history information. A second objective of the research, conducted in conjunction with the Commercial Vehicle Safety Alliance (CVSA), was to identify effective enforcement actions to counteract the driving behaviors and events that are predictive of future crash involvement.

Methodology

This research is one of the first studies of its kind to analyze several available subsets of driver-specific data and statistically relate the data to future crashes. Data sources included the Motor Carrier Management Information System (MCMIS) and the Commercial Drivers License Information System (CDLIS).

The main dependent variable is crash involvement. For purposes of this research, crash involvement is the objective measure of driver "safety." The independent variables are driver-specific performance indicators mined from the data including: specific violations; driver traffic conviction information; as well as past accident involvement information.

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[1] Large Truck Crash Facts 2003, Analysis Division, Federal Motor Carrier Safety Administration, FMCSA–RI–04–033, February 2005.

Driver data was gathered across a 3-year timeframe, and was analyzed to determine future crash predictability. For each of the drivers in the selected samples, driver history regarding past inspections and crashes were derived from MCMIS, and past conviction data was derived from CDLIS. Descriptive statistics were run on this entire dataset to develop the targeted samples.

Appropriate statistical tests, including chi-square analyses, were used to identify statistically significant predictions for future crash involvement based on past inspection, conviction, and/or crash information.

In order to associate the negative behaviors and events with enforcement strategies on a state-by-state basis, an objective measure was created that developed a statistical relationship between CMV traffic enforcement and a weighted crash metric. All 51 enforcement jurisdictions were surveyed to identify current enforcement activities addressing CMV driver behavior. Additional research was conducted on those states identified as "top tier" to identify targeted enforcement strategies and best practices.

Findings

The predictive model included data on 540,750 drivers. The analysis shows reckless driving and improper turn *violations* as the two violations associated with the highest increase in likelihood of a future crash. The four *convictions* with the highest likelihood of a future crash are: improper or erratic lane change; failure to yield right of way; improper turn; and failure to maintain proper lane. When a driver receives a conviction for one of these behaviors, the likelihood of a future crash increases between 91 and 100 percent. Table 1 ranks the top 10 driver events by the percentage increase in the likelihood of a future crash.

Table 1

Summary of Crash Likelihood for all Data Analyzed	
If a driver had:	**The crash likelihood increases:**
A Reckless Driving violation	325%
An Improper Turn violation	105%
An Improper or Erratic Lane Change conviction	100%
A Failure to Yield Right of Way conviction	97%
An Improper Turn conviction	94%
A Failure to Maintain Proper Lane conviction	91%
A Past Crash	87%
An Improper Lane Change violation	78%
A Failure to Yield Right of Way violation	70%
A Driving Too Fast for Conditions conviction	62%

The targeted surveys and interviews indicated that successful enforcement programs and strategies for addressing problem driver behaviors are those that exhibit one or more of the following components:

- Center on aggressive driving apprehension programs/initiatives;
- Target both commercial motor vehicle (CMV) and non-CMV behavior patterns;
- Utilize both highly visible and covert enforcement activities; and
- Incorporate an internal performance-based system for managing enforcement by specific crash types, driver behaviors, and locations.

The research also surveyed carriers to identify those hiring, training, and remediation practices most likely to mitigate the impacts of the problem behaviors identified.

A complete listing of findings and recommendations can be found in the full report, *Predicting Truck Crash Involvement: Developing a Commercial Driver Behavior-Based Model and Recommended Countermeasures.**

To receive a copy of this report and other ATRI studies, please visit: *www.atri-online.org.*

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO RICHARD S. REISER

Question. Do you have an explanation of why your drivers regularly falsified their Qualcomm logs a few years ago when you started the FMCSA's pilot program to test Qualcomm's GPS system for monitoring truck driver hours-of-service compliance?

Answer. We are uncertain of the context in which it is alleged that our drivers "regularly falsified their Qualcomm logs a few years ago". We have sought clarification of that through the American Trucking Associations; however, as of this time we have not received a clarification of the question. In view of the impending deadline, we will attempt to answer the question as we understand it.

The concept and design of the Werner Paperless Log System was to create an automated logging system for our drivers. The purpose was not to create simply an electronic means of recording logbook information, but to create a system which would do so automatically with minimal driver input. Stated differently, we were not attempting to simply replace a hand written document with a type written document. We should also explain that both the idea and motivation for the Paperless Log System originated from Werner with the dual goals of improving the accuracy of driver records of duty status and the safety of its fleet.

In order to accomplish an automated logging system it was necessary that certain assumptions be made. Those assumptions were made on the basis of what the most frequent, or most common response would be to a particular situation, and the driver given the means of overriding that assumed response as necessary. Drivers were instructed to do so. One of the assumptions made in the first stages of the pilot program, which was based on years of experience with records of duty status in our fleet, was that if a truck stopped moving for a certain period of time (15 minutes), it was assumed that the driver had gone off-duty. A log entry would be entered accordingly. That was the most common situation when a driver ceased moving for a period in excess of 15 minutes. Obviously, however, there were times when a driver ceased moving and then went on-duty not driving. In those situations, the driver was instructed to override the assumption and show that he was in fact on-duty.

During the course of the pilot program and the frequent auditing of the pilot program by FMCSA, FMCSA became concerned that some drivers were simply accepting the assumption that they had gone off-duty and were failing to override that assumption to show that they were in fact on-duty not driving. Doing so would create the effect of a false log. Although there was no indication that this was a widespread problem, FMCSA required that assumption be changed, so that when a truck ceased moving for a period of time, the driver would be placed "on-duty not driving", and would therefore be less likely to accept that assumption if he was "off-duty".

The changes which were made in the program to change the automatic assumption, have been reviewed by FMCSA and found acceptable prior to the time an exemption was granted. If you have any additional questions concerning this, or if this is not the issue to which your question was directed, please feel free to contact me.

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*This report is maintained in Committee files.