

regarding violations and potential violations of TSA security regulations (TSRs), and would have been used, generally, to review, analyze, investigate, and prosecute violations of TSRs.

2. To facilitate TSA's performance of employment investigations for transportation workers, as required by 49 U.S.C. 114 and 44936, a system to be known as the Transportation Workers Employment Investigations system.

3. To facilitate TSA's performance of employment investigations for its own workers, a system to be known as the Personnel Background Investigation Files System.

4. Aviation Security-Screening Records would have enabled the TSA to maintain a security-screening system for air transportation. This system would have contained information regarding TSA's conduct of risk assessments required by 49 U.S.C. 114 and 44903. The system would have been used, generally, to review, analyze, and assess threats to transportation security and respond accordingly.

For the reason outlined above, the Department is withdrawing these proposals.

Issued in Washington, DC on July 19, 2004.

**Norman Y. Mineta,**

*Secretary of Transportation.*

[FR Doc. 04-19957 Filed 8-31-04; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Motor Carrier Safety Administration

#### 49 CFR Part 395

[Docket No. FMCSA-2004-18940]

RIN-2126-AA89

#### Electronic On-Board Recorders for Hours-of-Service Compliance

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Advance notice of proposed rulemaking; request for comments.

**SUMMARY:** The Federal Motor Carrier Safety Administration (FMCSA) requests comments on potential amendments to its regulations concerning the use of on-board recording devices to document compliance with the Federal hours-of-service rules. Because our current regulations do not reflect the considerable advances in the technology used in current-generation recording devices (also known as electronic on-board recorders, or EOBRs), we seek

information concerning issues that should be considered in the development of improved performance specifications for these recording devices. Our purpose is to ensure that any future requirements would be appropriate as well as reflect state-of-the-art communication and information management technologies.

**DATES:** Comments must be received on or before November 30, 2004.

**ADDRESSES:** You may submit comments, identified by DOT DMS Docket Number FMCSA-2004-17286, by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- Agency Web Site: <http://dms.dot.gov>. Follow the instructions for submitting comments on the DOT electronic docket site.

- Fax: 1-202-493-2251.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**Instructions:** All submissions must include the agency name and docket number for this notice. All comments received will be posted without change to <http://dms.dot.gov>, including any personal information provided. Please see the Privacy Act heading for further information.

**Docket:** For access to the docket to read background documents including those referenced in this document, or to read comments received, go to <http://dms.dot.gov> and/or Room PL-401 on the Plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**Privacy Act:** Anyone may search the electronic form of all comments received into any of DOT's dockets by the name of the individual submitting the comment (or of the person signing the comment, if submitted on behalf of an association, business, labor union, or other entity). You may review DOT's complete Privacy Act Statement in the **Federal Register** (65 FR 19477, Apr. 11, 2000). This statement is also available at <http://dms.dot.gov>.

**FOR FURTHER INFORMATION CONTACT:** Ms. Deborah M. Freund, Office of Bus and Truck Standards and Operations, (202) 366-4009, Federal Motor Carrier Safety Administration, 400 Seventh Street, SW., Washington, DC 20590-0001.

Office hours are 7:45 a.m. to 4:15 p.m., e.s.t., Monday through Friday, except Federal holidays.

#### SUPPLEMENTARY INFORMATION:

##### Legal Basis for the Rulemaking

The Motor Carrier Act of 1935 provides that "[t]he Secretary of Transportation may prescribe requirements for—(1) Qualifications and maximum hours of service of employees of, and safety of operation and equipment of, a motor carrier; and (2) qualifications and maximum hours of service of employees of, and standards of equipment of, a motor private carrier, when needed to promote safety of operation" (49 U.S.C. 31502(b)).

This advance notice of proposed rulemaking (ANPRM) deals with "safety of operation and equipment" of motor carriers and "standards of equipment" of motor private carriers, and, as such, is well within the authority of the 1935 Act. FMCSA has allowed the use of automatic on-board recording devices to track drivers' hours of service since 1988 (49 CFR 395.15). The recorders authorized by § 395.15 are mostly mechanical in design. Rapid developments in electronic technology have made them increasingly obsolete. This ANPRM therefore addresses the possibility of allowing motor carriers to use modern EOBRs to document drivers' compliance with the hours-of-service requirements. In order to meet the requirements of the 1935 Act, EOBRs must reliably and accurately perform the functions for which they are designed. The ANPRM seeks information on a wide variety of questions related to that issue.

The Motor Carrier Safety Act of 1984 provides concurrent authority to regulate drivers, motor carriers, and vehicle equipment. It requires the Secretary to "prescribe regulations on commercial motor vehicle safety. The regulations shall prescribe minimum safety standards for commercial motor vehicles. At a minimum, the regulations shall ensure that—(1) Commercial motor vehicles are maintained, equipped, loaded, and operated safely; (2) the responsibilities imposed on operators of commercial motor vehicles do not impair their ability to operate the vehicles safely; (3) the physical condition of operators of commercial motor vehicles is adequate to enable them to operate the vehicles safely; and (4) the operation of commercial motor vehicles does not have a deleterious effect on the physical condition of the operators" (49 U.S.C. 31136(a)).

This ANPRM is concerned primarily with section 31136(a)(2) and (3). The hours-of-service regulations are

designed to ensure that driving time—one of the principal “responsibilities imposed on the operators of commercial motor vehicles”—does “not impair their ability to operate the vehicles safely.” EOBRs that are properly designed, maintained, and used would enable motor carriers to track their drivers’ on-duty and driving hours very accurately, thus permitting them to better prevent regulatory violations or excessive driver fatigue, but also allowing them to schedule vehicle and driver operations more efficiently. Driver compliance with the hours-of-service rules would help to ensure that “the physical condition of [commercial motor vehicle drivers] is adequate to enable them to operate the vehicles safely.” In short, FMCSA is attempting to evaluate the suitability of EOBRs to demonstrate compliance with and enforcement of the hours-of-service regulations, which in turn have major implications for the welfare of drivers and the safe operation of commercial motor vehicles (CMVs).

In addition, Sec. 408 of the ICC Termination Act of 1995 (Public Law 104–88, 109 Stat. 803, at 958) required the agency to issue an ANPRM “dealing with a variety of fatigue-related issues pertaining to commercial motor vehicle safety (including \* \* \* automated and tamper-proof recording devices \* \* \*) not later than March 1, 1996.” The ANPRM was published on November 5, 1996 (61 FR 57252), the NPRM on May 2, 2000 (65 FR 25540), and the final rule on April 28, 2003 (68 FR 22456). FMCSA decided not to adopt EOBR regulations in 2003 but noted that it planned “to continue research on EOBRs and other technologies, seeking to stimulate innovation in this promising area” (68 FR 22488).

On July 16, 2004, the United States Court of Appeals for the District of Columbia Circuit vacated the 2003 final rule (*Public Citizen et al. v. FMCSA*, No. 03–1165) for reasons unrelated to EOBRs. In *dicta*, however, the court said that Sec. 408 of the ICC Termination Act “required the agency, at a minimum, to collect and analyze data on the costs and benefits of requiring EOBRs” [slip opinion, at 19]. This ANPRM, which has been under development for some time, is an effort to do just that.

## Background

Ensuring safe driving of commercial motor vehicles is at the heart of the Federal hours-of-service regulations (49 CFR Part 395). The hours-of-service regulations apply to drivers of commercial motor vehicles, as defined in 49 CFR 390.5. One of the most important goals of the rules is to ensure that commercial vehicle operators do

not drive for long periods without opportunities to obtain restorative sleep. Adequate sleep is an important contributor to human health. From the standpoint of highway safety, adequate sleep is necessary to ensure that a person is alert behind the wheel and able to respond appropriately to changes in the driving environment. Therefore, the hours-of-service rules prohibit CMV drivers from driving or being directed to drive more than a specified amount of time between mandatory off-duty periods.

The regulations also prohibit driving after a specific amount of cumulative on-duty time on both a daily and multiday basis. On-duty time is time spent driving and performing other duties at a motor carrier’s direction. Under § 395.8, all motor carriers and drivers must keep records to track on-duty and off-duty time. FMCSA uses these records to carry out safety oversight activities, as do State agencies enforcing compatible State laws and regulations. Under an exception at § 395.1(e), a motor carrier whose drivers operate within a 100 air-mile radius of the normal work-reporting location may use “time records,” or time cards, to satisfy the hours-of-service recordkeeping requirement.

The methods of recording and documenting hours of service have been modified several times over the years. The Interstate Commerce Commission (ICC) first established a requirement for a “Driver’s Daily Log” in 1940. In 1952, the ICC revised the format in *Ex Parte* No. MC–40, which reduced the number of drivers’ duty status categories from 15 to 4 (17 FR 4422 at 4488, May 15, 1952). This latter revision added the familiar graph-grid recording format to the driver’s log. In 1982, the document’s name changed to “Driver’s Record of Duty Status (RODS)” and additional minor changes were made (47 FR 53389, Nov. 26, 1982). Other additional minor revisions were made in subsequent years.

## Current Regulations and Guidance on Automatic On-Board Recording Devices

Motor carriers began to look to automated methods of recording drivers’ duty status records in the mid-1980s as a way to save drivers time and improve the efficiency of their compliance-assurance procedures. In April 1985 (50 FR 15269, Apr. 17, 1985), the Federal Highway Administration (FHWA), the predecessor agency to FMCSA within the U.S. Department of Transportation (DOT),<sup>1</sup> granted a waiver to Frito-Lay,

Inc. to allow it to use on-board computers in lieu of requiring drivers to complete handwritten RODS. Nine other motor carriers were subsequently granted waivers.

In 1986, the Insurance Institute for Highway Safety (IIHS) petitioned FHWA to require the installation and use of automatic on-board recordkeeping systems. The petition was denied, and IIHS petitioned for reconsideration in February 1987.

In July 1987 (52 FR 26289, Jul. 13, 1987), FHWA published an advance notice of proposed rulemaking concerning on-board recording devices. FHWA followed with a notice of proposed rulemaking in March 1988 (53 FR 8228, Mar. 14, 1988) and a final rule in September of the same year (53 FR 38666, Sep. 30, 1988). The rule revised part 395 of the Federal Motor Carrier Safety Regulations by allowing motor carriers the flexibility to equip CMVs with an automatic on-board recording device (AOBRD) in lieu of requiring drivers to complete handwritten RODS. The term automatic on-board recording device was defined under § 395.2 as:

\* \* \* an electric, electronic, electromechanical, or mechanical device capable of recording driver’s [sic] duty status information accurately and automatically as required by § 395.15. The device must be integrally synchronized with specific operations of the commercial motor vehicle in which it is installed. At a minimum, the device must record engine use, road speed, miles driven, the date, and time of day.

The regulations at 49 CFR 395.15 cover a motor carrier’s authority to require use of the devices; information requirements; the duty status and additional information that must be recorded; and the manner of recording change of duty status location. Entries must be made only by the driver. Drivers are required to note any failures in the performance of the device and to reconstruct records of their duty on blank RODS forms. For the benefit of both drivers and safety officials, especially law enforcement officers, an instruction sheet describing the operation of the automatic on-board recording device must be present in the vehicle.

Requirements for submission to the motor carrier of the RODS generated by automatic on-board recording devices are similar to those for handwritten RODS, except that the driver is not required to sign the record. Submission

(MCSIA) (Public Law 106–159, 113 Stat. 1748). The statute established the Federal Motor Carrier Safety Administration within DOT. On January 4, 2000, the Secretary redelegated to FMCSA the motor carrier and driver authority previously delegated to FHWA (65 FR 220).

<sup>1</sup> On December 9, 1999, the President signed the Motor Carrier Safety Improvement Act of 1999

of the record(s) constitutes certification that all entries made are true and correct.

Performance requirements for AOBDRs (at 49 CFR 395.15(i)) are straightforward. The manufacturer must certify that the design of the device "has been sufficiently tested to meet the requirements of this section and under the conditions it will be used."

§ 395.15(i)(1) The design 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 AOBDR and support systems must be tamperproof "to the maximum extent practicable." The AOBDR must provide a visual and/or audible warning to the driver if it ceases to function, and any sensor failures and edited data must be identified in the RODS printed from the device.

Finally, the AOBDR must be maintained and recalibrated 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 hours-of-service files in a separate location.

In part because on-board recorder technology was so new and such a significant departure from paper RODS when the final rule was developed 16 years ago, the rule included at § 395.15(j) a provision to rescind a motor carrier's authority to use an AOBDR. Under this provision, the agency may order any motor carrier or driver to revert to using paper hours-of-service records if it determines that the carrier poses certain safety management control issues.

Although the 1988 final rule addressed the possibility that some tachographs<sup>2</sup> could conceivably comply with the provisions of § 395.15 (53 FR 38666, at 38669, "This new definition is sufficiently broad to include computers and tachographs."), FHWA subsequently determined that conventional mechanical tachographs do not comply with these requirements. The agency explained its decision in a letter of September 23, 1991, to Abbott Tachograph. A copy of this letter is in the docket, along with copies of all reports, memoranda of understanding, and letters referenced in this document.

At the time § 395.15 was issued, the technology to allow on-board recorders to communicate data wirelessly between

the CMV and the motor carrier's base of operations did not exist on a widespread commercial basis. Thanks to emerging technologies used in these devices, the narrowly crafted on-board recorder regulation now needs to be revised. Various communications technologies, many of which include vehicle tracking using global positioning system (GPS)-based technologies, allow real-time transmission of a vehicle's location and other operational information. We call these current-generation recording EOBDRs. By taking advantage of these technologies, a motor carrier can improve not only its scheduling of vehicles and drivers but also its asset management and customer service. In fact, some system providers offer applications for real-time hours-of-service monitoring that build upon the time- and location-tracking functions included in the providers' hardware and software products.

To bridge the gap between the current regulations and state-of-the-art technology, FMCSA has relied upon interpretations, regulatory guidance, pilot demonstration programs, and, most recently, exemptions concerning the use of on-board recorders.

#### Interpretations and Regulatory Guidance

A comprehensive update of regulatory guidance published on April 4, 1997 (65 FR 16369, at 16426) included two interpretations concerning AOBDRs. The first clarified that backup electronic records are not required if a paper record of duty status document is printed. The second underscored the prohibition against a driver's using an AOBDR to amend his or her duty status during a trip.

We recently added an interpretation concerning the use of algorithms in AOBDRs to identify the location of a change of duty status relative to the nearest city, town, or village. Added to the Motor Carrier Regulatory Guidance and Interpretation System (MCREGIS) in March 2003, this interpretation specifies that algorithms must be sufficiently accurate to ensure, through the on-board recorder's integral connection to the vehicle's systems, correlation between the driving time and distance traveled. Also, the location description for the duty status change must be sufficiently precise to enable enforcement personnel to quickly determine the CMV's geographic location on a standard map or road atlas. This regulatory interpretation is available on FMCSA's Web site at <http://www.fmcsa.dot.gov/rulesregs/fmcsr/fmcsrguide.htm>.

#### GPS Technologies: Notice of Interpretation and Request for Participation

On April 6, 1998, FHWA published a notice of interpretation on GPS technology (63 FR 16697). The notice also announced a voluntary program whereby motor carriers using GPS and related safety management computer systems could enter into an agreement with the agency to use the systems in lieu of handwritten RODS or a conventional AOBDR. This program was offered as a pilot demonstration project consistent with the President's initiatives on reinventing government and regulatory reform. The project's intent was to demonstrate whether use of this technology by the motor carrier industry could improve compliance with the hours-of-service requirements while increasing operational efficiency and reducing paperwork burden. In June 1998, Werner Enterprises, Inc. (Werner) entered into a Memorandum of Understanding (MOU) with the agency to test the use of its system under such a pilot project.

At the time we entered into the MOU with Werner, certain features of GPS technology, wireless communications, and related computer systems were not readily adaptable to the provisions of § 395.15. However, the GPS-based systems that Werner proposed to pilot had other capabilities that would satisfy or go beyond these requirements. Table 1 of the notice of interpretation (63 FR 16697, at 16698, Apr. 6, 1998) describes these capabilities in relation to specific provisions of § 395.15. One notable difference was that, rather than being integrally linked to the vehicle to record driving time, the GPS system software employed algorithms that set on-duty and off-duty times using preprogrammed assumptions.

In a 1999 letter to FHWA, a safety advocacy organization stated that, based on information received from drivers, Werner's system did not appear to provide an accurate accounting of drivers' duty status under certain conditions, such as prolonged low speeds in traffic congestion. After an in-depth assessment, we concluded that under certain conditions the Werner system indeed failed to provide an accurate reporting of duty status or times. The agency required Werner to modify its GPS tracking and recording systems to ensure accurate documentation of drivers' duty status as mandated by 49 CFR Part 395.

In March 2002, FMCSA revised its MOU with Werner to address recording methods and the use of algorithms in the recording and reporting processes.

<sup>2</sup>The *Dictionary of Mechanical Engineering* defines a tachograph as an "electronic device that records vehicle usage relative to time." (Naylor, G.H. F., *Dictionary of Mechanical Engineering*, 4th edition. Society of Automotive Engineers, Inc., Warrendale, Pennsylvania)

The changes included eliminating certain default duty status entries as well as revising the method of recording CMV speed and, more important, distance traveled. According to item 13 of the revised MOU:

Both Werner and the FMCSA acknowledge that the FMCSA does not find the current Werner GPS-based (point-to-point) methodology of recording mileage acceptable. Werner's GPS methodology consistently understates the distance traveled. Werner agrees to identify and implement an accurate means of determining distance traveled, within 120 days of the signing of this agreement.

In effect, the revised MOU required Werner to obtain engine data through the tractor's electronic communications network in order to provide an "integral synchronization" with the vehicle's operation.

In December 2003 (68 FR 69117, Dec. 11, 2003), FMCSA published a notice of intent to grant an exemption to Werner Enterprises, Inc., thereby allowing the carrier to use GPS technology and complementary computer software programs to monitor and record its drivers' hours of service. The terms and conditions for the proposed exemption were the same as those of the revised MOU for the Werner pilot demonstration project, with a few exceptions. The need to rely on an exemption to allow Werner's use of these advanced technologies for RODS purposes underscores the importance of aligning EOBR performance specifications with state-of-the-art technologies.

The comment period for this notice of intent ended on January 12, 2004. Comments may be viewed at <http://dms.dot.gov>, Docket number 15818.

### Proposal To Mandate On-Board Recording Devices

Both the 1988 final rule and the 1998 notice of interpretation allowed the use of automated recording systems as an alternative to handwritten RODS. However, the prospect of a mandatory use requirement for these systems has provoked concern and debate.

On February 5, 1990, FHWA received from the National Transportation Safety Board (NTSB) Safety Recommendation H-90-28: "Require automatic/tamper-proof on-board recording devices such as tachographs or computerized logs to identify commercial truck drivers who exceed hours-of-service regulations." The NTSB classified this safety recommendation "Closed—Unacceptable Action" on July 7, 1998. While conceding that FHWA's "deliberately paced research and symposium approach may yield useful

information," the NTSB found "no indication of aggressive research and prompt action to develop and require advanced technical solutions to address the intent of Safety Recommendation H-90-28."

On August 3, 1995, IIHS, Advocates for Highway and Auto Safety, and several other highway safety and advocacy organizations petitioned FHWA to require on-board recorders in CMVs. The petitioners believed the mandated use of these devices would improve hours-of-service compliance, thereby reducing the number of fatigued drivers and fatigue-related crashes.

The DOT Office of Inspector General also referred to FHWA's proposed requirement for EOBRs in its report, *Top Ten Management Issues* (Report Number PT-2001-017, January 18, 2001, available at [http://www.oig.dot.gov/control\\_numbers.php](http://www.oig.dot.gov/control_numbers.php)). The Office of Inspector General report stated:

Driver hours-of-service violations and falsified driver logs continue to pose significant safety concerns. Research has shown that fatigue is a major factor in commercial vehicle crashes. During roadside safety inspections, the most frequent violation cited for removing a driver from operation is exceeding allowed hours of service. Use of electronic recorders and other technologies to manage the hours-of-service requirements has significant safety value. FMCSA's April 2000 proposed rulemaking would revise the hours of service by reducing the driving time allowed within a 24-hour period and by phasing in, over a period of years, the use of on-board electronic recorders to document drivers' hours of service. The Congress prohibited the Department from adopting a final rule during FY 2001. FMCSA management should use this time to consider all of the comments received and revise the proposed rule as appropriate.

In the final rule published in April 2003, however, the proposal for mandatory use of EOBRs was withdrawn (68 FR 22456, at 22488-22489, Apr. 28, 2003). We concluded that insufficient economic and safety data, coupled with a lack of support from the transportation community at large, did not justify an EOBR requirement at that time. We based these conclusions on the following:

(1) Neither the costs nor the benefits of EOBR systems were adequately ascertainable, and the benefits were easier to assume than to accurately estimate.

(2) The EOBR proposal was drafted as a performance standard, but enforcement officials generally preferred the concept of a design standard in order to facilitate data accessibility.

(3) There was considerable opposition to the proposal to phase in the EOBR

requirement, starting with large long-haul motor carriers—those having more than 50 power units. Large carriers argued that this was irrational because small carriers generally have higher crash rates. Major operators also complained that the phase-in schedule would force them to pay high initial prices for EOBRs, while carriers allowed to defer the requirement would benefit from lower costs associated with increased demand, competition, and economies of scale.

(4) There was considerable concern about the potential use of EOBR data for purposes other than hours-of-service compliance.

The final rule on drivers' hours of service did contain assurances that research related to EOBRs and other technologies would continue. This ongoing research would include evaluation of ways to encourage or provide incentives for their use. Key research factors would include:

(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 hours-of-service information quickly and easily;

(5) Level of protection afforded other personal, operational, or proprietary information;

(6) Cost; and

(7) Driver acceptability.

FMCSA requests comments on these research factors. In your view, are we considering the appropriate criteria for our research into EOBRs?

Since publishing the final rule, we have concluded that we need additional, up-to-date information relating to the costs and benefits of using EOBRs. As a safety agency, we have a responsibility to evaluate the potential costs and benefits associated with requiring the use of these devices, even if we ultimately decide that voluntary use or incentives are better alternatives. In today's notice, we are requesting comments on the costs and benefits of a requirement to use EOBRs, including the relative costs and benefits of an industrywide requirement versus a more limited mandate on certain industry sectors, such as long-haul carriers. We are specifically interested in factors such as hardware acquisition (including modules for CMVs, equipment for communications between the CMV and the home terminal, vehicle-location-reference systems, and use of satellite transponder channels); training of drivers and back-office personnel; equipment installation, maintenance, repair, and replacement;

and preservation of both electronic records and backup paper RODS, if necessary. In addition, we are interested in information relating to potential reductions in personnel costs derived from reduced checking and storage of RODS. Although we recognize that precise estimates might not be possible from motor carriers that have not adopted EOBR or related technologies, we would like to know their best estimates based on conversations they may have had with potential equipment or service vendors.

With reference to hours-of-service violations, we are especially interested in hearing from motor carriers using EOBRs (or AOBRDs) instead of paper RODS. Any information such carriers could supply concerning their violation and out-of-service rates would be valuable for purposes of comparison with those rates at carriers not using EOBRs or AOBRDs.

As important, we are requesting comments on the need to revise the general EOBR performance requirements, as provided in § 395.15. In addition, we request information and comments concerning potential revisions to § 395.15 for the purpose of developing a comprehensive, performance-based specification for EOBRs that would ensure maintenance of data integrity throughout all recording, transmission, storage, retrieval, and display processes. Our objective is to assess recording methods to improve hours-of-service compliance and oversight through the use of automated—including electronic—duty status records. This complements FMCSA's ongoing research into the potential of various technologies to assure that drivers are fit and alert behind the wheel.

#### Potential Contents of an EOBR Specification

This advance notice of proposed rulemaking begins a process leading to clearer points of reference for EOBR system developers and users. We recognize the need to consider the ways that motor carriers' use of EOBRs could affect how they maintain documents on their operations. We also will consider how our compliance-assurance procedures, and those used by State and local enforcement officials, would need to change.

#### Clarification of Terminology

Today's notice requests comments on potential new definitions for a performance-based specification for on-board recording devices. As noted previously, since most if not all of the current generation of on-board recorders

collect, store, and display data electronically, we will call those devices EOBRs. However, many recording devices developed before the introduction of electronically controlled engines in the early 1990s may collect some data via mechanical sensors, transform the mechanical signal to an electrical one, and transmit the signal electronically.

For the purpose of this rulemaking, we will use the generic term "EOBR." This would encompass any new devices as well as the AOBRDs that comply with the current definition at § 395.2 and operational requirements at § 395.15. However, we use the term "AOBRD" by itself to refer to the earlier-generation devices designed to comply with the current requirements.

#### Core Issues

Electronic systems, although relatively costly to design and maintain compared with paper-based systems, have the capacity to eliminate a substantial amount of time-consuming manual data entry and review. We recognize the many challenges in gathering and recording data that is both accurate and sufficient in scope and detail to determine motor carriers' and CMV drivers' compliance with the hours-of-service regulations. One such challenge is verification of non-driving duty status information.

As noted previously, this rulemaking is but one element of FMCSA's multipronged research effort concerning EOBRs. For example, § 395.15 should establish specific guidelines for ensuring accuracy, integrity, and security of data in the recording and storage of driving time information. Development of such guidelines could potentially entail: (1) A requirement for a means to identify system defaults impacting the accuracy and completeness of driving time records; (2) ready methods to pinpoint tampering (either during the recording process or after the fact) associated with capture and recording of driving time; and (3) a requirement for a means to ensure reliable identification of the particular driver whose driving time is being captured and recorded, including distinguishing between team drivers.

Another core issue concerns the requirement in the current regulation for a device that is integrally synchronized with specific operations of the CMV in which it is installed. The intent is that the device provide "ground truth" for on-duty-driving. The on-board recorder must identify who drove the CMV and for how long. It must facilitate accurate entry of other duty status categories. Further, it must be designed to prevent

duty status *activity and time* entries from being modified after the fact, while allowing drivers to enter explanatory information in the Remarks section.

FMCSA recently conducted a study published as *On-Board Recorders: Literature and Technology Review* (Report No. FMCSA-RT-02-040, July 2002). Through interviews with technology vendors and engine manufacturers, we learned that a number of products on the market provide some or all of the functions required under § 395.15. Nevertheless, few vendors actively market these features or have developed products *specifically* to provide the hours-of-service recordkeeping function. The study attributed this fact both to lack of market demand and to vendors' uncertainty regarding the Federal requirements. Interviews conducted with FMCSA staff as part of the study revealed concerns about:

- Technology limitations—particularly regarding the ability of a single system to capture all data perceived as important;
- The need to clearly define current performance requirements, and whether the requirements are well understood by the motor carrier industry; and
- The extent to which the enforcement community is prepared to rely on on-board devices for determining hours-of-service compliance.

A second study, *Hours of Service (HOS) Research and Analysis Modules* (January 2003), addressed in greater detail the potential for developing performance specifications for EOBRs. The five research modules cover data record structure and data security, engine control module and transmission control module use, georeferenced data, paper backup systems, and high-level architectures.

To increase our understanding of how on-board recorders might be more efficiently designed and used, FMCSA requests comments on the issues discussed below. We also will appreciate *your responses to the questions* included on some of the issues. Issue sections are designated A through O, and questions within sections are numbered. Please reference these letter and number keys in your responses.

#### A. Synchronization of Recorder to a Vehicle Operation Parameter

As noted previously, ensuring safe driving of commercial motor vehicles is at the heart of the hours-of-service regulations. An EOBR must be able to capture the data necessary to establish when a driver's duty status is "on duty,

driving.” The earliest AOBDRs captured this data using sensors—such as the speedometer or odometer circuit, or the tail shaft (output or drive shaft from an engine)—that reflected changes in vehicle motion. This data was combined with data from an internal clock to derive driving time. Advances in engine electronics allowed the data to be collected directly from the engine, presenting an opportunity to use the J1708 databus<sup>3</sup> to transmit it to an EOBR. One manufacturer, Delphi Corporation, asked FMCSA if this method complied with the Federal Motor Carrier Safety Regulations. In a December 2003 letter to Delphi Corporation, we affirmed that it would.

Some systems that track vehicle location using GPS technologies collect and record vehicle-position data only, inferring duty status based on software algorithms. As discussed earlier under *GPS Technologies: Notice of Interpretation and Request for Participation*, FMCSA became aware of at least one system that, in certain limited instances, did not provide accurate driving status information because of a combination of long polling intervals and preset system defaults. Thus, even though location data may be transmitted and recorded accurately, a motor carrier’s or system operator’s assumptions concerning changes in vehicle location between polling intervals, or data collection cycles (instances when vehicle location information is captured, along with the date and time), could result in incorrect duty status recordings. This would be particularly true if a driver failed to make entries in his or her on-board system to indicate that driving had begun. For example, a CMV moving slowly in a traffic stream through a construction zone might be traveling at less than a presumed driving speed, so that the duty status might be recorded as “on-duty, not driving.” Although drivers would presumably have an opportunity to correct their entries, they might not do so consistently.

We request comments concerning the need for synchronization and possible alternatives to the current regulatory language.

#### B. Amendment of Records

As noted earlier, the current regulatory guidance for § 395.15 (available on FMCSA’s Web site at <http://www.fmcsa.dot.gov/rulesregs/fmcsr/fmcsrguide.htm>) covers three issues:

<sup>3</sup> SAE standard, *Serial Data Communications Between Microprocessor Systems in Heavy-Duty Vehicle Applications*. Copyright 1993, Society of Automotive Engineers, Inc.

maintenance of a second electronic copy of files, amendment of a completed record by the driver, and use of algorithms to identify the location of the driver’s change in duty status. The agency’s current guidance on the second issue is as follows:

*Question 2:* May a driver who uses an automatic on-board recording device amend his/her record of duty status during a trip?

*Guidance:* No. Section 395.15(i)(3) requires [that] automatic on-board recording devices, to the maximum extent possible, be tamperproof and preclude the alteration of information collected concerning a driver’s hours of service. If drivers who use automatic on-board recording devices were allowed to amend their record of duty status while in transit, legitimate amendments could not be distinguished from falsifications. Records of duty status maintained and generated by an automatic on-board recording device may only be amended by a supervisory motor carrier official to accurately reflect the driver’s activity. Such supervisory motor carrier official must include an explanation of the mistake in the remarks section of either the original or amended record of duty status. The motor carrier must retain both the original and amended record of duty status.

We are reevaluating this guidance in the light of current EOBR capabilities. The guidance reflects two assumptions: that amendments would likely be made to change information already entered; and that the time the revision is made (and the times and duty status being revised) would be erased from the EOBR’s memory. The second assumption does not account for the EOBR’s ability (an ability probably shared by many AOBDRs) to maintain an *internal* audit log.<sup>4</sup> If the EOBR can accurately record the date and time of an entry, it could be programmed to prompt the driver to enter duty status or comments at any time the vehicle is stopped, the driver leaves the vehicle (if the vehicle has a door sensor), or the ignition is turned on or off. The EOBR also could prompt the driver to enter the time the work shift began and whether it included off-duty periods. We believe question 2 of the regulatory guidance may need to be revised to allow the driver to amend the duty status record, provided the system maintains both the original and amended records.

From a software perspective, this might be achieved through use of parallel data streams. One data stream would record the operation of the CMV using data and information contained in and extracted from other systems and devices on the vehicle. Examples include engine use information derived

<sup>4</sup> The hardware-based data download requirement of 49 CFR § 395.15(b)(3) supports that assessment. See the discussion of this requirement later in this document.

from engine control module (ECM) time and throttle position data; vehicle speed data, derived from throttle position and engine-on data; data on miles driven, from the odometer reading and time; and date and time data, from either the ECM clock or the internal clock on the recording unit. A second, overlying data stream would include the four categories of driver’s duty status, along with remarks and other information used in the duty status reporting.

FMCSA requests comments on this issue. We would particularly appreciate responses to the following questions:

(1) Should FMCSA revise its definition of “amend” in the regulatory guidance for § 395.15 to include or exclude certain specific activities? For example, should a driver be able to annotate the Remarks section to provide details of an activity being performed while he or she is in an on-duty-not-driving status? Should a driver be able to revise a record to change the amount of on-duty driving time recorded over a very short period (for example, while dropping a trailer at the home terminal)? Should a driver be able to revise a record to change the amount of driving time if he or she exits a vehicle while it is stopped in traffic upstream of a crash?

(2) Should drivers be allowed to amend the duty status record if the system maintains both the original and amended records?

(3) Should the agency maintain the blanket prohibition against drivers’ amending a RODS generated by an AOBDR?

#### C. Duty Status Categories When the CMV Is Not Moving

A significant number of hours-of-service violations are related to the on-duty-not-driving status, which onboard recorders are not designed to capture automatically (that is, without a driver’s input). We understand that at least one commercial system defaults to an on-duty-not-driving status when the CMV is stopped. The previously mentioned Werner system also was modified to default the driver’s duty status to “on-duty not driving” when the vehicle is stationary and the driver has not made an entry.

We request comments on this issue, and would particularly appreciate responses to the following question:

If a driver is away from a parked CMV but has not entered a change in duty status immediately upon stopping the vehicle, how might the driver correct the entry, other than by printing a hard copy of the day’s RODS and making a handwritten entry?

#### D. Ensuring That Drivers Are Properly Identified

Establishing and enforcing appropriate use and documentation requirements could improve linkage of operational data to the specific driver's activities. A fundamental requirement would be to ensure that duty status data accurately identifies the driver. Many information technology applications use personal identification numbers and/or smart cards. In some situations where the need for identification and verification is critical for security reasons, some types of biometric identifiers are being used and others are being explored. FMCSA requests comments on this issue.

#### E. Reporting and Presentation (Display) Formats

A standardized reporting format is important for ensuring a clear and unambiguous duty status record. This helps establish the sequence and timing of events and facilitates verification of regulatory compliance. Although State roadside enforcement officials conducting vehicle and driver inspections generally review only a single driver's (or a pair of team drivers') records at a time, these safety personnel work under time constraints and often-stressful conditions. We have received numerous reports of State enforcement officials who purposely avoid reviewing EOBR and electronic records because they are unfamiliar with their appearance and unsure they can review them accurately and efficiently.

Reviews of driver records by motor carrier safety officials responsible for assuring fleet compliance, as well as those conducted by enforcement officials at a carrier's business office, differ from those conducted by roadside inspectors. During onsite reviews, safety or enforcement officials consider both individual and collective driving records in order to determine whether patterns of noncompliance may exist.

The intent of § 395.15 is to require that an electronically produced record of duty status contain the same information as a handwritten record. The 13 items required by regulation for AOBDR-generated duty status records (§ 395.15(c) and (d)) are identical to those required for manually produced RODS (§ 395.8 (b), (c), and (d)), with two exceptions. Section 395.15 does not include a requirement for a driver's certification and signature, nor does it explicitly provide for a Remarks section. The driver's signature is unnecessary because, under § 395.15(h)(3), submission of the record certifies that

all entries made are true and correct. A Remarks section is not mandatory because there is no practical means for the driver to enter miscellaneous comments or information into an on-board recorder.

FMCSA is interested in developing a performance-oriented reporting standard that would serve officials conducting roadside inspections and compliance reviews. Since motor carriers and the traveling public would benefit from the prevention of regulatory violations, this reporting standard should help motor carriers facilitate their own internal review activities. *Your comments on the following two issues* would assist us in developing such a standard:

(1) *Visual record*—Although § 395.15(i)(5) does not specify details of how information is displayed on the screen of an AOBDR, § 395.15(b)(3) requires information support systems—separate from the on-board device—to comply with the requirements of § 395.8(d), including the use of a graph grid. We request comments on potential performance-oriented specifications for the display on the EOBR as well as for support systems that would provide a clear visual record while affording greater flexibility to those who design and use EOBRs. Comments from the law enforcement community would be especially helpful.

(2) *Data interchange standards*—Section 395.15(b)(3) states that EOBR support systems should meet the information interchange requirements of “American National Standard Code for Information Interchange EIARS–232/CCITT V.24 port.” This refers to the RS–232 serial communications standard<sup>5</sup> that was state-of-the-practice in the 1980s. Although some devices continue to use this interface, it has been supplanted in many applications. Furthermore, as a hardware communications standard, it does not address data formatting or content. We request suggestions concerning current and emerging data interchange standards for hardwired and wireless communications that would ensure the integrity of both data content and data formats. Your comments on other issues related to recording, reporting, and presentation (display) formats also would be helpful.

<sup>5</sup> RS–232C is a long-established standard (“C” is the current version) that describes the physical interface and protocol for relatively low speed serial data communication between computers and related devices. It was defined by an industry trade group, the Electronic Industries Association (EIA), originally for teletypewriter devices. (Source: <http://searchnetworking.techtarget.com>)

#### F. Audit Trail

In connection with the necessity for tamper resistance in an EOBR, we are carefully considering the process of recording and identifying information in the form of an audit trail or event log. An important design feature would be user-friendly interface(s) to support not only motor carriers' internal reviews, but also reviews by FMCSA safety officials and roadside inspections by our State partners under the Motor Carrier Safety Assistance Program. The information from an EOBR—including audit trail data—may need to be made available at a motor carrier's place of business on demand (as during a compliance review).

An audit trail must reflect the driver's activities while on duty and tie them to the specific CMV(s) the driver operated. Its design must balance privacy considerations with the need for a verifiable record. The audit trail should automatically record a number of events, including (1) Any authorized or unauthorized modifications to the duty status records, such as duty status category, dates, times, or locations, and (2) any “down” period “for example, one caused by the onset of device malfunction. In addition, the system should provide a gateway for electronic or satellite polling of CMVs in operation, or for reviewing electronic records already downloaded into a central system. This capability would permit reviewers to obtain a detailed set of records to verify time and location data for a particular CMV.

The presentation should include audit trail markers to alert safety officials, and personnel in the motor carrier's safety department, to records that have been modified. The markers would be analogous to margin notes and use highlighted code.

FMCSA requests comments on this issue.

#### G. Ability To Interface With Third-Party Software for Compliance Verification

It has been suggested that EOBR systems should be capable of interfacing with third-party auditing software packages, such as those used to verify point-to-point roadway distances. Others have suggested that hours-of-service compliance be verified instead through direct access to driver and motor carrier routing and scheduling data. Those favoring the latter method believe it could be most useful in the context of a compliance review, where safety officials must request the motor carrier's direct assistance and cooperation to access the carrier's systems. A special set of interfaces,



including views of specific information relevant to compliance, might be needed to enable safety officials to review the information they require.

We request responses to the following questions, as well as comments on other concerns related to the use of third-party software for compliance verification:

(1) What experience have motor carriers and roadside enforcement officials had using third-party software for compliance verification?

(2) What experience have motor carriers had using third-party software for purposes of scheduling, hours-of-service compliance review, and auditing?

(3) What experience have motor carriers had assisting FMCSA with extensive reviews of records of duty status that are maintained only in electronic form? Would third-party software have helped or hindered the process?

#### H. Verification of Proper Operation

Some electronic devices and systems on vehicles (such as antilock brake systems on cars and trucks) perform a power-on self-test. It might be possible to develop such a preprogrammed in-service test protocol for EOBRs that could be performed by safety officials at roadside. A test of this type might provide a limited amount of "go/no-go" information "such as whether the communications line between the vehicle and the recorder is intact, whether the clock has been reset, and the status of other specific system elements.

FMCSA requests responses to the following questions, as well as comments on other issues related to verification of proper operation:

(1) What experience have roadside enforcement officials had using third-party software for compliance verification?

(2) How would a driver, a supervisor reviewing records, or a safety official verify that a recorder and the systems to which it is linked are operating properly?

(3) How would a roadside safety official or FMCSA compliance official perform that verification?

(4) Should a device be able to produce the results of its original and/or most recent acceptance or certification tests?

(5) Could a device be configured to produce an "electronic audit" on demand?

(6) How would audits be performed on disabled or inoperable units?

(7) How long should a driver be allowed to operate a CMV while the

EOBR is not functioning, provided the driver is maintaining paper RODS?

(8) How would downtime, repair, and recalibration be documented?

(9) Should a unit be marked with its calibration data/record? If so, how should the unit be marked?

#### I. Testing and Certification Procedures

We are considering whether there is a need for the agency to establish detailed functional specifications for EOBRs, rather than continuing to rely upon the current generic performance standards under § 395.15(i). In addition, we are considering whether the current process of manufacturers' self-certification should be continued. The functional specifications would include standard performance criteria and compliance test procedures. If manufacturers (or independent third parties) were to perform tests according to FMCSA's compliance testing procedures, the agency could then offer to certify certain devices "or possibly designs for devices "as complying with the functional specifications. Parties performing the certification would need to obtain a device (or a sufficiently advanced prototype) to test.

This raises two issues: the propriety of FMCSA's rejecting a device, and the circumstances under which enforcement action should be taken.

If, during initial testing, the device were found not to meet the requirements of a published functional specification, FMCSA could unquestionably reject it. If, on the other hand, FMCSA certified an EOBR (and/or software) to which the manufacturer later made design changes, and the manufacturer's modifications diverged from one or more of the agency's functional specifications, the EOBR and/or software would no longer comply with our requirements. In such a case, immediate enforcement action against motor carriers found to be using the modified EOBR (or software) might not be appropriate. FMCSA might instead publish a **Federal Register** notice describing the noncompliance situation, and giving motor carriers an opportunity to check and recalibrate the affected EOBRs (or to otherwise ensure the devices operate within specified parameters). Any motor carriers that failed to comply with the terms of the **Federal Register** notice could then be subject to enforcement action, whether by FMCSA alone or in concert with other Federal agencies. One possible approach might be a public interest exclusion (PIE) similar to that used in 49 CFR part 40, subpart R. The purpose of a PIE is to protect the public interest

from serious noncompliance with the requirements.

The European Union (EU) Type Specification for Electronic Tachographs, European Union Directive 2135/98,<sup>6</sup> provides an extensive and complex design specification for the hardware, software, and data storage and auditing functions of an electronic on-board recorder. While some characteristics of the design specification, particularly the basic recording and data storage requirements, may lend themselves to adaptation, the software design and recording media requirements were developed to respond to the EU's desire for an integrated system for on-vehicle recorders and recordkeeping systems and, as such, are highly prescriptive and complex. In addition, although the type specification for these devices was finalized in 1998, the date for mandatory installation of the electronic tachographs in new commercial vehicles, originally set for August 2002, has repeatedly been revised. It currently is set for August 2005.

Furthermore, the EU enforcement community expressed a number of concerns about perceived differences, incompatibilities, and inconsistencies between the current manual-tachograph regulation and the proposed electronic-tachograph regulation. There have also been concerns about the published requirements for data downloading and the utility of the devices for roadside enforcement. See D. M. Freund, Working Paper, *On-board automated recording for commercial motor vehicle drivers' hours-of-service compliance: the European experience*, August 2001.

We request responses to the following questions concerning testing and certification procedures. We also welcome any other comments relevant to this issue.

(1) Who could perform certification tests? Should they be done by FMCSA, by another Federal agency, or by an independent third party according to procedures and documentation requirements set forth in regulation?

(2) Should FMCSA continue to allow manufacturers of these devices to self-certify them? Why, or why not?

(3) Should FMCSA develop a list of approved devices, similar to the Conforming Products List maintained by

<sup>6</sup> Council Regulation (EC) No. 2135/98 of 24 September 1998 amending Regulation (EEC) No. 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No. 3820/84 and (EEC) No. 3821/85. This regulation is available on the Internet at [http://europa.eu.int/eur-lex/en/lif/reg/en\\_register\\_07204020.html](http://europa.eu.int/eur-lex/en/lif/reg/en_register_07204020.html), where it is identified by the number 31998R2135.



the National Highway Traffic Safety Administration?<sup>7</sup>

(4) As noted above, FMCSA is aware of the European Union's detailed design specification that is part of Regulation 2135/98 for electronic tachographs. At this time, we believe the extraordinarily detailed database specification in the Appendix to Regulation 2135/98 would be too complex and costly, both for motor carriers and their EOBR suppliers to implement and for FMCSA to review. What are your views on this matter?

#### J. EOBR Maintenance and Repair

The current regulation (§ 395.15(i)(4)) requires the AOBDR to provide the driver with an audible and/or visible warning when it ceases to function. However, the types or degree of malfunction (such as loss of power source, loss of linkage to sensors, loss of ability to record, loss of ability to display) are not specified. While the requirement at § 395.15(i)(7) for the on-board recording device/system to *identify "sensor failures and edited data when reproduced in printed form"* [emphasis added] does address the question of data integrity, it nevertheless omits any requirement that such data be identified in an electronic record (*i.e.*, one that is not printed).

We request responses to the following questions related to EOBR maintenance and repair:

(1) Is it feasible to design the EOBR to record the malfunction event (including its nature, date, and time) automatically "that is, within the EOBR's memory?"

(2) Are there circumstances that could prevent automatic capturing of this information? Please describe them. In such cases, should the driver record the malfunction event on a paper RODS?

(3) Section 395.15(i)(8) of the current regulations addresses maintenance and calibration of AOBDRs. It states that these devices "must be maintained and recalibrated in accordance with the manufacturer's specifications." Is this requirement sufficient? Should the agency consider requiring that repair and recalibration be performed only by an approved source? Who should certify repair stations, and how could this be done?

(4) The current regulations do not address EOBR maintenance records. Motor carriers' CMV maintenance records must document installation, malfunction, failure, repair, and recalibration. Since the initial manufacturer places an identification

and certification plate on the device, should installation, repair, and recalibration activities be documented by the approved source (*see* question 3), the motor carrier, or both? Should entities authorized to perform repair and maintenance be required to comply with FMCSA requests for access to their facilities and to documents concerning their work performed for motor carrier clients?

(5) Although the current regulations do not address how long a CMV equipped with an EOBR could continue to be operated after the device failed, they do require drivers to reconstruct the RODS for the current day and the past 7 days (less any days for which drivers have records), and to continue to prepare a handwritten record of all subsequent duty status until the device is again operational (§ 395.15(f)). Should FMCSA require repair or replacement of an EOBR within a specific number of days?

(6) *Manufacturers and suppliers:* What types of periodic maintenance and calibration do AOBDRs and EOBRs require? How often do they require such maintenance, and what is the typical direct cost?

(7) *Manufacturers and suppliers:* What is the typical lifespan of an AOBDR? What is the typical lifespan of an EOBR? Is there any salvage value to either device?

#### K. Development of "Basic" EOBRs To Promote Increased Carrier Acceptance

Motor carriers and drivers expend a significant amount of time, effort, and money to complete, file, review, and store paper RODS. According to the most recent FMCSA estimate, it takes 6.5 minutes for a CMV driver to complete a RODS and an additional 3 minutes for a motor carrier to review it. Because more than 4.2 million CMV drivers must complete and file their RODS, drivers spend more than 110 million hours each year completing these records. Motor carriers must devote another 51 million hours annually to reviewing and storing the records. The agency estimates the cost of completing, filing, reviewing, and maintaining these records at \$63.3 million annually.

Many commercially available on-board recorders and support systems offer drivers and motor carriers the opportunity to better plan their schedules and routes, monitor the performance of their vehicles, and use this information to improve safety and operational productivity.

However, many of these advanced systems may come with a high price tag, perhaps too high for most small motor

carriers and independent drivers. For this reason, we are interested in exploring the development of a performance-based specification for a minimally compliant EOBR. A minimally compliant device would provide the electronic-data equivalent of an accurate RODS yet be more affordable for small motor carriers and independent drivers.

We request comments on the concept of such a performance specification.

#### L. Definitions—Basic Requirements

FMCSA requests comments on the following possible definitions of terms, including proposed basic requirements:

(1) *AOBRD* means an automatic on-board recording device as defined in 49 CFR 395.2.

(2) *EOBR* means an electronic on-board recorder used to record a CMV driver's hours of service in order to provide documentation to determine compliance with 49 CFR Part 395. An EOBR has features providing additional functions beyond those of an AOBDR. It must provide a means to record and store the date and time of each data entry, the status of the engine (on/off), and the location of the CMV. The EOBR also must calculate and display the distance traveled and the road speed. Definitions of these data elements follow.

(3) *Date and time:* The date and time must be obtained via a signal that cannot be altered by a motor carrier or driver. The signal may be obtained from a source that is internal or external to the CMV.

(4) *Engine on/off:* The signal indicating whether the engine is on or off must be taken from the ECM on those engines so equipped. On vehicles not equipped with an ECM (*i.e.*, those manufactured before the late 1980s), the signal must be taken from the tail shaft. The engine status must be monitored and recorded at intervals of 1 second or less, as well as when an engine on/off event occurs.

(5) *Location:* The physical location of a CMV. At a minimum, the location must be recorded at each change of duty status. The location description for the duty status change must be sufficiently precise to enable enforcement personnel to quickly determine the vehicle's geographic location on a standard map or road atlas. The location data must be entered by the driver or via signal(s) received from an independent source external to the vehicle. FMCSA seeks comment on how frequently such an external signal determines the vehicle location entry, and whether specific events such as ignition shutoff should automatically trigger a signal.

<sup>7</sup> The National Highway Traffic Safety Administration maintains its Conforming Products List under the designation NTI-131. *See* 69 FR 42237 (July 14, 2004) for the most recent amendment.

(6) *Distance traveled*: Miles traveled that day for each driver operating the CMV. The EOBR must derive the distance traveled from a source internal to the vehicle (for example, tail shaft data recorded on the ECM).

(7) *Road speed*: Must be derived using distance-traveled data from a source internal to the CMV (usually the ECM). The data must be monitored and recorded at intervals of 1 second or less. An AOBDR or EOBR is deemed to be integrally synchronized when it receives and records the engine and date/time information from a source or sources internal to the CMV.

#### M. Potential Benefits and Costs

*Benefits*. In general, motor carriers could be expected to derive both safety compliance and operational productivity benefits from EOBRs. Fundamentally, the use of EOBRs could improve hours-of-service compliance, potentially increasing highway safety. This could be accomplished in several ways. First, because these devices document driving hours more accurately and precisely than can paper RODS, they could help deter excessive hours behind the wheel. Second, EOBR data can be made more readily available to motor carriers to improve their efficiency of assigning drivers to particular runs, and to ensure those drivers' compliance throughout the trip. Third, the presence of EOBRs would serve as a tangible reminder to both motor carriers and drivers that compliance with the hours-of-service regulations is taken seriously. Last, increased use of the devices could set a positive example for the industry, and counteract the proclivity of some carriers to compete on the basis of noncompliance with the hours-of-service regulations.

Another potential benefit of EOBR use would be to improve motor carriers' operational productivity. Use of these devices, especially in conjunction with appropriate automated review and monitoring software, could provide for more accurate documentation of vehicle and driver operations in a form that is amenable to automated review. FMCSA estimates that these automatic on-board recording devices reduce substantially, by as much as 90 percent, the time involved in preparing, filing and storing paper. Additionally, on-board recording devices could be integrated with other operations or logistics management systems. They also may be installed as an accessory to some vehicle productivity and safety monitoring systems, as well as take advantage of interfaces with real-time communications systems.

*Costs*. On the other hand, there may be a number of concerns and potential limitations regarding the adaptability of state-of-the-art EOBRs to hours-of-service compliance assurance. Currently available devices cannot discriminate among the myriad activities that constitute on-duty-not-driving, nor can they differentiate on-duty-not-driving and off-duty activities.

Further, many motor carriers have expressed substantial concerns about costs and benefits of current on-board recorders. EOBRs can be costly both to purchase and to operate. Estimates of installed costs per unit range from \$500, for hardware supplied to an original equipment manufacturer for installation in a new vehicle, to \$3,000 for installation of a retrofit unit in an in-service CMV. The cost, particularly at the lower end of the scale, does not include back-office systems for data tracking, verification, and information management, or training for drivers and others.

In the 1990s, FHWA engaged the University of Michigan Transportation Research Institute to study the applicability of on-board recorders to motor carrier operations. Motor carrier fleet response rates for this study were very low, possibly because of early adverse industry commentary on the study. The study, completed in late 1998, found that: (1) Large fleets were far likelier to use on-board recorders, and (2) mandatory on-board recorder use was overwhelmingly viewed as requiring extremely high expenditures for minimal operational benefits. Significantly, FMCSA data indicate that 90 percent of motor carriers operate fewer than nine trucks or buses.

The degree of benefit provided by an EOBR depends upon whether and how it is used. Motor carriers will not benefit merely from installing an EOBR; they must use and act upon the EOBR data. If a motor carrier has not made the fundamental commitment to operate safely and fails to review and act upon the EOBR data, the potential safety influence of the device will be limited.

FMCSA requests responses to the following questions concerning benefits and costs:

(1) What have been the safety, operational, and compliance benefits experienced by motor carriers with actual use of AOBDRs or EOBRs?

(2) What have been the driver hours-of-service violation rates, out-of-service rates, and crash experience of motor carriers using AOBDRs or EOBRs?

(3) What cost savings have motor carriers using AOBDRs or EOBRs experienced as a result of paperwork

reduction, reduced time in reviewing RODS, and other efficiencies?

(4) In general, how is training on EOBR use presented to drivers, dispatchers, and other motor carrier employees? How many hours of training are typically required for drivers? Please estimate the direct costs of this training. How many hours of training are typically required for dispatchers and other back-office staff? Please estimate the direct costs of this training.

(5) What would be the typical cost of a typical EOBR that is minimally compliant with the current regulations? Would there be differences in the cost for a device installed at the time of the vehicle's manufacture and the cost of an aftermarket product? Please describe.

(6) What do manufacturers of on-board computer and communications systems typically charge motor carriers to incorporate in their systems EOBR capabilities satisfying the requirements of § 395.15? Please also include estimates of the costs of back-office systems.

#### N. Incentives To Promote EOBR Use

FMCSA believes EOBRs have the potential to improve motor carriers' compliance with the hours-of-service regulations, and to provide for more efficient, effective, and economical documentation and review of drivers' records of duty status. FMCSA requests comments on what other incentives could help to promote the use of EOBRs.

#### O. Miscellaneous Questions

We also request responses to the following questions:

(1) Should FMCSA propose requiring that motor carriers in general, or only certain types of motor carrier operations, use EOBRs?

(2) How reliable are current-generation EOBRs?

(3) What is the minimum information FMCSA should require an automatic or electronic on-board recorder to capture automatically, without any input from the driver or external sources?

(4) What information should drivers be required to enter into the on-board recorder, and how could that information be verified?

(5) For EOBRs that receive location information or raw latitude and longitude information via electronic signals from GPS technologies or a similar system, what minimum level of accuracy should FMCSA require with regard to the likely distance between the indicated and actual location of the CMV?

(6) What types of technology should be used to verify, to the greatest extent practicable, the identity of the person

who is operating the vehicle when the EOBR is recording the time as driving time?

(7) Should FMCSA require that if a memory storage device such as a smart card is used, the on-board system also must store information about the driver's identity and provide information concerning the times the storage device was entered and removed, what information was accessed, and by whom?

(8) Should the use of a particular file transfer protocol (XML or other) be considered for data capture? Should any such requirement specify use of an open-source protocol?

(9) What regulatory changes could FMCSA initiate to encourage greater usage of EOBRs in the trucking and motorcoach industries? For example, should we reduce our record retention requirement for motor carriers that use EOBRs?

(10) *Manufacturers and suppliers:* Approximately how many AOBDRs and EOBRs are currently in use? Describe the general characteristics of motor carriers (size, commodities transported, and geographical scope of operations) that use devices with limited functionality and of those using devices with comprehensive functionality.

(11) *Manufacturers and suppliers:* What types of data would it be inappropriate for an EOBR to record? That is, should any data be off-limits?

(12) *Manufacturers and suppliers:* When AOBDRs and EOBRs are manufactured or repaired, are solvents or other substances used that could have environmental or driver health consequences if they are not disposed of properly? Do the devices contain components or materials (including hazardous materials) that could generate adverse environmental or driver health consequences if not disposed of properly?

(13) How are EOBRs typically disposed of?

### **Rulemaking Analyses and Notices**

#### **Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory**

#### *Policies and Procedures*

FMCSA believes that this rulemaking is a significant regulatory action within the meaning of E.O. 12866, and is significant within the meaning of the U.S. Department of Transportation's regulatory policies and procedures (DOT Order 2100.5, May 22, 1980; 44 FR 11034, February 26, 1979) because of significant public interest in issues related to motor carrier compliance with the Federal hours-of-service regulations.

The Office of Management and Budget has reviewed this advance notice of proposed rulemaking under E.O. 12866. We would appreciate responses from the public to our questions on the potential costs and benefits of this rulemaking. This will help us better determine the level of significance of any subsequent rule regarding EOBR performance specifications and use.

#### *Regulatory Flexibility Act*

To meet the requirements of the Regulatory Flexibility Act (5 U.S.C. 601-612), FMCSA will evaluate the effects of this rulemaking action on small entities and make a preliminary determination that a regulation arising from this proceeding would have a significant economic impact on a substantial number of small entities.

Although this document does not make any specific proposal, we believe it could lead to a proposed rule with a significant potential impact on small motor carriers. FMCSA requests small entities to comment on the questions asked in this advance notice (specifically, questions related to the costs and benefits of compliance) so that we may accurately determine the economic impacts any proposal would have on small entities. *In addition, we request small entities to comment on other issues that are of particular concern to them, such as the timeframe for implementation.* This will help us to minimize any such impacts.

#### *Executive Order 13132 (Federalism)*

FMCSA has analyzed this ANPRM in accordance with the principles and criteria in Executive Order 13132 (Federalism). We have determined that this ANPRM does not have a substantial direct effect on States, nor would it limit the policymaking discretion of the States. Nothing in this document preempts any State law or regulation. Should FMCSA decide to issue a notice of proposed rulemaking dealing with electronic on-board recorders, the agency would evaluate any federalism implications of the proposal.

#### *Executive Order 12372 (Intergovernmental Review)*

Catalog of Federal Domestic Assistance Program Number 20.217, Motor Carrier Safety. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities do not apply to this program.

#### *Paperwork Reduction Act*

Under the Office of Management and Budget (OMB) regulations, at 5 CFR part 1320, Controlling Paperwork Burdens

on the Public (1995), FMCSA is required to estimate the burden that new regulations would impose in the course of generating, maintaining, retaining, disclosing, or providing information to or for the agency. We believe that rulemaking action in response to information submitted to the docket could effect changes that would substantially reduce the collection of information requirements that are currently approved.

On March 4, 2002, OMB approved the agency's request to renew or revise the information collection (IC) for the Driver's Record of Duty Status. This approval includes the driver's record of duty status under 49 CFR 395.8 and the time card alternative under 49 CFR 395.1(e). OMB assigned control number 2126-0001 to this information collection. FMCSA estimated the annual burden of this information collection to be 161,364,492 hours, at a cost to the public of \$63.7 million.

In anticipation of a regulatory action making certain motor carriers of passengers subject to the requirements of part 395 (among other regulations), FMCSA submitted a request to OMB to revise this information collection. OMB approved this revision on December 20, 2002, with an expiration date of December 31, 2005. The revised estimated annual time burden was 162,200,492 hours, and the revised annual cost was estimated at \$64 million. OMB approved FMCSA's most recent request to revise this information collection on April 29, 2003, and it will expire on April 30, 2006. The latest revised estimated annual time burden is 160,376,492 hours, with an estimated annual cost of \$63.3 million. This revision was due to the agency's implementation of a final rule, entitled "Hours of Service of Drivers: Driver Rest and Sleep for Safe Operations," that resulted in an estimated 48,000 fewer drivers being subject to the drivers' requirements covered by this information collection. In addition, the title of this IC has been changed from *Driver's Record of Duty Status to Hours-of-Service of Drivers Regulations*. This change was proposed in the NPRM, and no comments regarding the name change were received.

If this advance notice of proposed rulemaking leads to a rule that increases motor carriers' use of EOBRs, the annual time burden should decrease because the time required to create each record is considerably lower for electronic records than for paper records.

#### *Background of Past OMB Approvals*

*OMB Control Number: 2126-0001.*

*Title:* [Old]: Driver's Record of Duty Status (RODS). [New]: Hours-of-Service of Drivers Regulations.

As indicated earlier in the "Legal Basis" section, both the Motor Carrier Act of 1935 and the Motor Carrier Safety Act of 1984 allow the Secretary of Transportation (Secretary) to promulgate regulations that establish maximum hours of service of drivers employed by motor carriers. The Secretary has adopted regulations that require information to be recorded in a specified manner. FMCSA regulations allow motor carriers to make electronic records produced through the use of automatic on-board recording devices, in lieu of keeping paper records. *FMCSA estimates that these automatic on-board recording devices reduce substantially, by as much as 90 percent, the time involved in preparing, filing and storing paper.* FMCSA believes that the use of automatic on-board recorders continues to be uncommon and is unlikely to grow significantly under the current regulations.

The RODS must be maintained with all supporting documents for a period of 6 months from the date of the record. FMCSA believes the recordkeeping requirements are necessary for motor carriers and drivers to properly monitor compliance with the hours-of-service regulations. They also are necessary for Federal, State and local officials who are charged with monitoring and enforcing hours-of-service regulations. The hours-of-service regulations were promulgated to promote the safe operation of CMVs, and we believe this recordkeeping requirement is not duplicative of information that would otherwise be reasonably accessible to FMCSA.

FMCSA estimates there are 6,410,430 commercial motor vehicle drivers who are subject to the hours-of-service regulations. However, not all of these drivers are necessarily subject to the RODS paperwork requirement. For instance, FMCSA estimates that 25 percent of Local Delivery drivers are eligible to use the 100-air-mile-radius exception in § 395.1(e) in lieu of preparing paper RODS as required under § 395.8. This group of drivers is unlikely to use EOBRs since their recordkeeping requirements can be met with time cards. Therefore, we assume here that the remaining 75 percent of Local Delivery drivers who are subject to the hours-of-service regulations would be potential users of automated on-board recorders. Below is a breakdown of the total number of CMV drivers subject to the hours-of-service regulations and, for the purposes of this ANPRM, the estimated percentage of drivers within each category who would

be potential users of automated on-board recorders:

*Long-Haul Drivers:* 366,304 (100 percent are assumed to be potential EOBR users).

*Regional Drivers:* 834,363 (100 percent are assumed to be potential EOBR users).

*Local Delivery Drivers:* 3,997,023 (75 percent, or 2,997,767, are assumed to be potential EOBR users).

*Local, Services Drivers:* 1,190,740 (zero percent are assumed to be potential EOBR users).

*Long-Haul Commercial Van Drivers:* 22,000 (100 percent are assumed to be potential EOBR users).

Multiplying the above estimates of drivers in each group by the estimated percentages constituting potential EOBR users yields a total of 4,220,434 CMV drivers. This is FMCSA's estimate of the number of CMV drivers subject to the RODS paperwork requirement and, for the purposes of this ANPRM, the number we assume would be potential EOBR users. (More information on the above driver estimates is available at 67 FR 1396 (Jan. 10, 2002) under Docket number FMCSA-2001-9688.) FMCSA welcomes comments and alternative estimates regarding the number of applicable CMV drivers discussed above.

*Recordkeepers/Respondents:* Approximately 4,220,434 CMV drivers.

*Average Burden per Response:* 6.5 minutes for drivers to prepare the daily record of duty status; 3 minutes for motor carriers to review and file records of duty status and all supporting documents.

*Estimated Total Annual Burden:* The estimated total annual burden is 160,376,492 hours.

*Collection of Information Frequency:* RODS: Every day of the year. Two or more days off duty may be kept on one record. Supporting documents: Collection must occur during every workday.

*Estimated Annual Hour Burden for the Information Collection:* Interested parties are invited to send comments regarding any aspect of these information collection requirements, including but not limited to (1) Whether the collection of information is necessary for the performance of FMCSA functions, including whether the information has practical utility; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the collected information; and (4) ways to minimize the collection burden without reducing the quality of the information collected.

If you submit comments to the Office of Management and Budget concerning

the information collection requirements of this document, your comments will be most useful if received at OMB by November 30, 2004. You must mail, hand deliver, or fax your comments to: Attention: Desk Officer for the Department of Transportation, Docket Library, Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10102, 725 17th Street, NW., Washington, DC 20503; fax: (202) 395-6566.

#### *National Environmental Policy Act*

The National Environmental Policy Act of 1969 (NEPA), (42 U.S.C. 4321 *et seq.*, as amended) requires Federal agencies to consider the consequences of, and prepare a detailed statement on, all major Federal actions significantly affecting the quality of the human environment. Accordingly, FMCSA has prepared a Preliminary Environmental Assessment (PEA) for this advance notice of proposed rulemaking. The PEA is available in the docket. We invite all interested parties to submit public comments on this PEA.

#### **List of Subjects in 49 CFR Part 395**

Global positioning systems, Highway safety, Highways and roads, Intelligent Transportation Systems, Motor carriers, Motor vehicle safety, Reporting and recordkeeping requirements.

Issued on: August 27, 2004.

**Warren E. Hoemann,**

*Deputy Administrator.*

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## **DEPARTMENT OF COMMERCE**

### **National Oceanic and Atmospheric Administration**

#### **50 CFR Parts 679 and 680**

[I.D. 082504A]

RIN 0648-AS47

#### **Fisheries of the Exclusive Economic Zone Off Alaska; Voluntary Three-pie Cooperative Program; Allocation of Bering Sea and Aleutian Islands King and Tanner Crab Fishery Resources**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of availability of amendments to a fishery management plan; request for comments.

**SUMMARY:** The U.S. Congress amended the Magnuson-Stevens Fishery Conservation and Management Act