To: Federal Motor Carrier Safety Administration, Department of Transportation
From: Michael E. Baptist, Professional Driver, Owner Operator
Subject: Comments on FMCSA-2004-17286

On the following pages I have tried to address the Issue of Electronic On Board Recorders (EOBRs) while keeping as much emotion out of it as possible. However, this issue is going to be an emotional one to almost all involved no matter what side they stand on.

I'm sure my comments will bring responses from my fellow Professional Drivers that are less than flattering. I feel if we as an industry are going to be tasked with these devices (EOBR) then we need to have them as fool proof as possible. These devices will effect productivity, no longer will that 30 minutes spent sitting in line to buy fuel and the additional 15 minutes to pump it and the 15 minutes standing in line to pay for and get back out on the road be logged as a 15 minute line 4 event. A drop in productivity will have an upward effect on freight rates. Increased freight rates will have an effect on wholesale and retail prices. The days of the Trucking Industry absorbing increased operating costs are gone. The cost of fuel and insurance over the past years has driven thousands of trucking companies out of business.

I support the mandated use of EOBRs as long as this mandate is applied equally to **ALL** segments of the industry. I support the use of EOBRs as long as the data is tamper proof and is accessible to the operating authority only for viewing, analyzing and storing. The data should never be able to be changed by the operating authority or anyone.

I support the mandated use of EOBRs as long as laws, rules and/or regulations are put in place to protect drivers who are in compliance. An example would be that shippers and receivers would be prohibited from requiring drivers who are out of hours to leave their facilities and the local law enforcement officers must support these laws, rules and/or regulations. States that have rest area time limits must be compelled to remove these time limits. These are only a few examples. The FMCSA must address all road blocks that are placed in front of drivers that make compliance impossible or impractical.

I support the mandated use of EOBRs with a rework of the current no break 14 hour rule. No one can mandate alertness. If a driver feels that in order to be safe he or she needs a 45 minute power nap, he or she should not be punished. Taking meal and shower time out of the drivers allowable hours to work is not only unhealthy but also takes a toll on alertness because drivers are skipping these events in an effort to run compliant.

I don't want to turn this in to a what if or story telling document so I will limit it to just one. Arrive at shipper 2200 CST for a 0800 CST appointment the next morning. Shipper wakes driver at 0800 CST to check in. Driver returns to truck and lays in the sleeper watching movies until 1900 CST. At 1945 CST the driver is loaded, paperwork completed and ready to roll 465 miles for 0600 EST. Driver is informed there will be a $400 deduction from the line haul rate if load is late. The line haul on this load was $600. Was I in compliance? Yes I was. I had spent 11 hours in the sleep berth since I checked in. That fact did not mean I was at my best. I would rather the appointment had been rescheduled. The shipper didn't care.

Thank you for your time.

Respectfully Submitted
Michael E. Baptist

A. Synchronization of Recorder to a Vehicle Operation Parameter:

The firmware/software of any EOBR device must record the facts only. The device cannot be programmed to make assumptions as with the early Werner system. All recorded data must reflect what the CMV is doing at that point in time, wheels turning, transmission in gear, parking brake released, and so on. GPS location information must be recorded on a continuous basis, not recorded on some predetermined schedule. The primary concern is that the data is current and correct, how often that information is transmitted to carrier for storage and review should not have an effect on compliance.

Synchronization of the EOBR, CMV systems and GPS location data is imperative to a device that gives a true and continuous vehicle status. Driver input should be limited to identification of duty status only when the vehicle is at rest. Non-input from the driver after a predetermined time should force duty status to line 4 and remain there until input is received from the driver. Further more, changing of the duty status should not be allowed or even possible by the driver or the carrier. Remember, in many cases the driver is the carrier (Owner Operators, operating under their own authority).

B. Amendment of Records.

The guidance in section 395.15 (i) (3) needs to be revised to prohibit the alteration of electronic records. There will be mistakes and omissions as drivers become familiar with the requirements of the system, but these will disappear very quickly because the driver's ability to generate income is based on the availability of hours to drive.

(1) Records should not be amended by anyone. Annotations that explain line 4 activity will be required unless other regulatory requirements are changed, Pre and Post Trip Inspections, Fueling activity, Loading and Unloading and Roadside Inspections, to mention a few.
(2) I just don't see a need to amend records. The EOBR should be programmed to prompt for an entry when there is a change in vehicle status.
(3) Yes.

C. Duty Status Categories When CMV Is Not Moving.

I still maintain that after a short period of time after implantation of the EOBRs there will be no need to amend RODS.

D. Ensuring That Drivers Are Properly Identified

Driver Identification is very important.

Team Operations. The practice of one driver doing the majority of the driving is wide spread in the industry. Yet when reviewing RODS for these team operations records indicate that the driving time is spilt. A system must be devised to ensure that the driver that is logged into the EOBR is the driver in the seat.

Incidental CMV Movement. The CMV should not be able to be moved without a driver logged into the EOBR. If the EOBR, defaults to the last driver logged on to it the RODS for slip seat company drivers may prove to be erroneous. Those drivers with assigned CMVs and Owner Operators may be found to in violation because, their CMV was moved by shop personnel while they were on a 34 hours break. It will be necessary to explore ways to prevent this.

E. Reporting and Presentation (Display) Formats

(1) Visual Record. I don't see a real need for a visual record. If the EOBR is functioning (Verified by Self Test of some type) and it indicates that the driver is in compliance, what other information is needed by Roadside Officers?

Section 395.8 (d), would have to be revised to eliminate the requirement for graph grid. There will need to be some information available for viewing. The driver will need to have the ability to review hours remaining till sleeper berth break or end of shift for day cab operators.

(2) Data Interchange Standards. This is a question better addressed by potential manufacturers. However, RS-232C is a pretty old standard, I would think a faster interface could be used.

F. Audit Trail

The need for an audit trail is realistic. However, once again I state that there should never be a need for a driver to amend or audit any entry and should not have the ability to do so. EOBR (and the driver data storage device) should store at a minimum, eight days RODS for the driver. Use of directly received GPS data would eliminate any gaps or reliance on carrier provided data (which should be prohibited). The carrier should only be able to receive data from EOBR, not send data to it.

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

There is no reason for the EOBR to interface with software such as PCMiler. The EOBR gets the location data from the GPS system, this data is cross referenced to a city and state via embedded software/firmware. Miles traveled data is provided on a continuing basis by the CMV ECM. What needs to be verified?

(1) Most drivers use third party information now to create compliant logs. They look for the shortest published distance between two events that must be logged rather than log the actual miles they drive.
(2) See item (1)
(3) No experience.

H. Verification of Proper Operation

Reviewing the following questions, it seems to me that we are planning on the EOBR to be constantly failing. I would hope that the FMCSA would hold the manufacturers of the EOBR to MilSpec type standards thus reducing the possibility of failures to zero or near zero. With this standard of design and construction, faced with a failure, my first inclination would be to suspect tampering.

(1) N/A
(2) Manufacturer Question
(3) Self Test
(4) Why?
(5) It could and it should be. However, as stated before this audit record should show nothing more than events generated by the system and the driver.
(6) I think that onboard flight data recorders have shown us that data can be retained in nonvolatile memory in the most adverse conditions. If all data is stored in nonvolatile memory within the EOBR and on the driver's memory device (Smart Card, Memory Stick, and so on) and is uploaded by the carrier, there should be no missing data.
(7) Hard question. I would like to say only to the next truck stop where a replacement would be available. I envision the EOBR as a leased item from a service provided that would just be exchanged for a different unit, this is the way most carriers deal with companies such as QualComm. Placing a minimum time or distance to replace a non-operational unit would mean placing federally mandated service centers within that time or distance from anywhere in the country. I don't think the FMCSA is going to do that, nor do I think any manufacturer would build and market the EOBR under those type requirements.
(8) Down time indicators would be reported by the EOBR itself. In the event of failure, once the unit is replaced and the driver inserts his or her memory device

the new unit will see the gap in data at once. It would become necessary for the driver's memory device to be updated at the time of EOBR replacement. How and by whom, I don't know. I still don't see a need for calibration of the EOBR. ECM on CMV and those found in almost all cars do not require calibration. The EOBR will get data from different sources and will compile that information into the RODS and should need no calibration.

(9) See item (8)

I. Testing and Certification Procedures

Other Departments within the U.S. Government have been doing just this for years. Once the design and functional specifications are established and published the market place will respond with their interpretations of those specifications requesting guidance or additional information before going forward with research and development. It's been many years since I've dealt with the process, but the system acquisition process is pretty much the same whether it be a weapons system or a desk top computer for use in a Government office.

Once a design has been approved by the FMCSA the manufacturer would be free to build and market the device but would not allowed to make changes or updates without approval from the FMCSA.

(1) Considering the volatility of this is issue I would think that the testing would best be done by the FMSCA with observers or participants from the CMV Industry and Safety Advocacy Groups.
(2) No. These devices will have to be compatible with all CMVs currently in use in the United States as well as those in Mexico and Canada. No mater who produces them they must be compatible with whatever device FMCSA and the State DOTs come up with to read the data (if readers are deemed necessary).
(3) If more than one contractor is approved by FMSCA to build and market the EOBR then yes, an approved list of those manufacturers, to include model numbers and software/firmware version numbers must be published and maintained.
(4) I am not familiar with the EU's design specifications. However, you stated that the database specification was so detailed that it would prove cost prohibitive. I have been using real time GPS navigation in my truck for over 6 years, software cost, $50 (US). I use computer based logging software, cost $70. The logging software does violation checks, speeding checks and a number of other things not needed in an EOBR. I have two way satellite communication with my carrier, cost, $18.34 a week. The software to extract information from the ECM of my truck is out there, I don't own a copy so I don't know the cost. A single purpose computer to tie all this information together and create a very good and detailed RODS doesn't seem to be undoable at a reasonable cost. The manufacturers are going to share a market of over 6 million government mandated customers. I don't think this is going to be as costly as some think. I could be wrong, it won't be the first time I was wrong.

J. EOBR Maintenance and Repair.

(1) Sure it would be. These fault codes (malfunction events) should also be stored on the driver's memory device at the same time.
(2) I'm sure there are catastrophic events that could prevent the EOBR from performing any of its functions. I do believe that a device can be designed and produced that limit these failures far below what the FMCSA seems to believe the will be. I feel that making any allowance for the creation of paper RODS is going to encourage drivers and carriers to look for ways or excuses to circumvent the using the EOBR.
(3) Section 395.15 (i) (8) should state that EOBRs must be maintained and calibrated if required in accordance with, whatever new section the FMCSA

comes up with. Repair stations would be certified by the FMCSA in conjunction with the manufacturer.

(4) YES to all questions in this section.

(5) I would like to think that EOBR could be repaired or replaced in a mater of hours. To think that a manufacturer(s) has built and fielded some 6 million units and is not ready to provide support for these units would be hard to believe. Requiring the driver to recall the last seven days events is not realistic, nor necessary. All that information is stored on the driver's memory device. There is not a roadside officer, that I'm aware of, that doesn't have a laptop in his or her unit. Part of the overall design specification must include PC based software that is capable of retrieving and displaying the data from that memory device. However, this data should be available for viewing, coping and/or printing only. The officer should not be able add or modify the data in any way. If the driver has an EOBR failure he or she should be able to stop at any state manned scale or CMV inspection facility and request a printout of his or her data.

(6) Manufacturer question

(7) Manufacturer question

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

Coming from a driver and owner operator you may find this hard to believe, but I just don't support the idea that we should do this half way. Nor do I believe there should be different versions of the EOBR. Different capabilities that a carrier may want added on, such as transmission of fuel efficiency data or temperature records from a reefer unit or status of an electronic lock on a trailer door come to mind at this time but I'm sure there are others. But there should be no deviations from the requirements of the EOBR. I think it is premature to guess what the EOBR might cost until design specifications are published and some feed back from manufacturers is received and reviewed.

The requirements for the EOBR must be the same for all carriers, one truck or one hundred thousand trucks. Any deviation from this would be seen as the FMSCA favoring a certain group and giving that group a competitive advantage. This must be a one size fits all requirement or it will end up back in the courts.

L. Definition-Basic Requirements

(1) No question

(2) No question

(3) No question

(4) No question

(5) The physical location of the CMV should be updated on a continuing basis. This location information does not and should not come from the carrier or any source other than the GPS system. Location data entered by the driver defeats the whole purpose of the system. As much data as possible must come from sources other than the driver and the carrier.

(6) Agreed

(7) Actual data must be used. No formulas other than tire rotation and time should be used and the ECM of the CMV does that calculation.

M. Potential Benefits and Costs

Benefits.I agree that carriers will benefit from safety compliance. However, there will be no productivity gains from the use of EOBRs. Let me qualify that statement. There will be gains in the home office, the compliance review staff at the carriers can reassigned to other tasks and departments. But the core of the industry is moving freight. If it was not firmly believed that most drivers fudge (nice word) on their logs each and every day they are behind the wheel we wouldn't be going through this. Everyday drivers use a

calculator to get as many miles out of as few hours as possible. Logging 693 miles in eleven hours (speed limit 65 mph) is done every day by hundreds of thousands of drivers. Fuel stops are logged in .25 hours even if you sit in line for .50 hours before you ever get to the pump. These are facts, we all know they are. The EOBR will make this kind of fudging (Falsification) impossible. There will be a loss of productivity in the movement of freight. Drivers will run out of hours fifteen miles from the receiver. Appointments will need to be rescheduled. A traffic accident (not driver involved) will throw the schedule off and the Just In Time (JIT) freight that stops the production line will arrive 10 hours late, in time for the next shift to arrive with the next truck.

Costs. A very wide range of possible costs have been spread around the industry. In the University of Michigan Transportation Research Institute study completed in 1998, stated "mandatory on-board recorder use was overwhelmingly viewed as requiring extremely high expenditure for minimal operational benefits." I would say that it is an extremely high expenditure for no operational benefit. However, we are discussing compliance, not operational benefits.

(1) No experience.
(2) No experience.
(3) No experience.
(4) No experience.
(5) No way of knowing.
(6) No experience.

N. Incentives To Promote EOBR Use.

I don't think there is any incentive that can be offered that would make any organization in any industry to raise overhead costs in order to invite more government oversight. EOBR use will have to a mandatory requirement to operate a CMV in the United States, period. No exclusions, no exceptions.

O. Miscellaneous Questions.

(1) Mandated use of EOBR must apply to all CMV operators. All CMV operators must be treated equally. No operational advantage should be realized any segment of the industry over another.
(2) I have no personnel experience with EOBR, but after reading your MOU with Werner Enterprises, I would say that any devise that receives data from outside the truck, with exception of GPS data, would be suspect in my mind.
(3) The EOBR must receive GPS data, there can be no exception to this requirement. CMV moving or at rest. CMV speed while in motion. CMV distance traveled between parking break sets. Time between parking brake sets. GPS location (city and state) at parking brake and parking set events.
(4) Driver input would be limited to Duty Status changes to Lines 1, 2 and 4. Line 3 activity would be triggered by parking brake release. There is not economically feasible way to verify the true status of Lines 1, 2 and 4. The use of seat and bunk sensors or body heat trackers would be cost prohibitive in my view. I could be wrong, maybe a manufacturer will submit a design that includes these.
(5) GPS accuracy standards have been set by the Department of Defense. In the last couple of the years the preprogrammed deviations for non-military users has been removed. There are some accuracy issues depending on the quality of the receiver used. My 12 channel GPS receiver cost less that $100 six years ago and it still works with in 50 feet of my ground location.

(6) Using a Smart Card or Memory Device of some type will work for solo drivers. I don't know what kind of technology would be needed for team operations to ensure that the person logged onto the EOBR is the person in the seat.

(7) All information recorded by the EOBR must be stored in three locations; (1) In the EOBR, (2) on the driver's memory device and (3) uploaded to the operating authority's main office location. The driver's memory device must always contain the last eight days of data, no matter what EOBR it has been inserted into (company drivers and/or slip seat drivers). I don't see the need to track who looks at the data, but I might be missing something here.

(8) Absolutely! It doesn't matter if one manufacturer or 20 make EOBRs that are approved for use by FMCSA, the data produced, stored and transferred must use the same protocol. No matter where a roadside officer is located, whether it be a U.S. DOT Officer on the Mexican boarder in Texas or a Highway Patrol Office in Montana, he or she must be able to view the data.

(9) The biggest regulatory change that will be needed it to make the use of EOBR mandatory.

(10) Manufacturer question.

(11) Manufacturer question.

(12) Manufacturer question.

(13) Don't Know

This was not mentioned nor asked for but I feel that this is a good place to insert it. Use of EOBRs will enable to discontinue the 15 minute log and use much more realistic one minute (or Minute Log). Using a paperless EOBR would make this very easy and give a truer picture of what is going on.

Thank You for your time and consideration.

Respectfully Submitted
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