

The AHAS supported mandating EOBRs for road drivers, claiming that current cost estimates run well below even the lowest estimate used by the agency. It strongly recommended the agency consider requiring EOBRs for Type 3 drivers as well because of added risks associated with split-shift driving and tendency of drivers to falsify records. It would even include Type 4 (local) drivers and was not persuaded by reliance on DOL timecards, as AHAS believes there are no independent means of corroboration. The AHAS found that requiring EOBRs would at least protect drivers from being compelled to exceed hour limitations.

The AHAS disagreed with industry's privacy concerns and favored addition of global positioning system (GPS) technology, which AHAS believes would not be very expensive, certainly not double the quoted \$300 base cost. The AHAS noted that in this age of automation, in an industry that operates on razor-thin margins, any carrier that does not take advantage of technological advances would be left behind and would fail to survive.

CRASH supported requiring EOBRs, but suggested that more safety technologies already exist and should be brought into play. PATT also supported mandatory use of EOBRs, which it found long overdue. PATT believed the devices did not cost too much and that any changes in HOS regulation without them would be useless.

The NSC supported technology integration for safety purposes, but found the NPRM lacked data showing that the safety benefit would equal the cost of \$1,500 per unit. The NSC recommended piloting required use on the poorest performers, *e.g.*, those with accident rates double the national average.

Vendors' Comments

VDO claimed to be the world's largest independent manufacturer of automotive instrumentation. VDO claimed to have an EOBR meeting the performance standards listed. VDO claimed the device, also known as an electronic tachograph, has become widely used in the European Union with strong support from fleet owners, drivers, unions, and enforcement. VDO claimed its version of the European B1™ Tachograph answers all of the negative comments and concerns of the motor carrier industry.

VDO had talked to several U.S. companies and was told by Qualcomm and Cadec that they believed they could not meet the requirements for EOBRs as proposed.

VDO contended the opportunities its digital tachograph affords users go far beyond merely the time saved on doing paper logs. The device automatically recorded everything fed into it, and the user could decide what to do with the information. VDO has done studies that it believes reflect the beneficial results of what it refers to as a "driver feedback loop." VDO claimed that no matter what device is used, management and society need feedback to correct the poor driver behavior detected, *e.g.*, speeding, tailgating, harsh braking, excessive hours, etc. The benefits did not come from the EOBR, but from the attitude of the carrier that chooses to use it for safety purposes.

Diversified Auto Technology (Diversified) claimed it was on the verge of completing a 13-year project researching and developing on-board recording devices. The company claimed it had been involved primarily in the EU market and that initial cost of Diversified's complete system built to comply with proposal would be estimated to be \$2,500.

QUALCOMM Incorporated commented that it offered two primary products to the transportation industry, a geo-stationary satellite-based, mobile communications system and a terrestrial mobile communications system that uses a digital, wireless network. QUALCOMM claimed it was developing an onboard computer solution that would fulfill the requirements of the EOBR requirement. It believed the regulations on electronic recordkeeping should be crafted to promote both safety and productivity in order that carriers can have a return on investment with onboard technology. They projected their device could cost as much as \$1,600 per vehicle with an additional charge of \$15,000 to \$25,000 for host software, plus additional costs for firmware and GPS upgrades, installation, downtime on vehicles and training. These costs would be in addition to the cost of hardware for those fleets not already equipped with mobile communications equipment.

Marconi InfoChain reported that its company and others, including Bristow and E-Truck, were offering an inexpensive alternative to VDO's European solution—a personal digital assistant.

FMCSA Response

The FMCSA has decided not to adopt regulations on EOBRs at this time. However, there are several technologies that offer significant promise for HOS recordkeeping and enforcement. The agency plans to continue research on EOBRs and other technologies, seeking

to stimulate innovation in this promising area. There are several reasons for this decision and the planned research.

First, neither the costs nor the benefits of EOBR systems are adequately known. Cost estimates vary enormously, mainly because there is no significant market for such devices at the moment and thus no hard prices available from competing vendors. There appear to be only a limited number of vendors that could offer a suitable system in the near future, and no guarantee that they could satisfy all of initial demand, should EOBRs be required. Meanwhile, other technologies offer potential for HOS record keeping and compliance and should be evaluated alongside of EOBRs.

The benefits of EOBRs are easier to assume than to estimate. Full voluntary compliance with the HOS rules is unlikely, but the amount of cheating that could be deterred by EOBRs is unknown and the amount that could be detected depends on the tamper-resistance of the design and the ability of roadside enforcement quickly and easily to access the information recorded by the system. FMCSA did not test the (very few) EOBRs currently available, so both issues remain unresolved.

Second, the agency's EOBR proposal was drafted as a performance standard, but enforcement officials generally argued that a design standard was necessary to ensure that they did not have to waste time and effort mastering incompatible read-out procedures created by different EOBR vendors. In retrospect, it might have been better to propose a partial design standard governing driver-identification and information read-out procedures, while setting a performance standard for all other features of the device. FMCSA can neither adopt such far-reaching requirements without prior notice nor ignore the concerns of the enforcement community. The solution, at least for now, is to adopt a rule that does not require EOBRs.

Third, FMCSA proposed that long-haul motor carriers with more than 50 power units be required to adopt EOBRs within 2 years, while those with less than 20 power units would have up to 4 years to comply with the rule. Many commenters argued that this phase-in schedule was irrational because the smallest motor carriers generally have higher accident rates than large ones. Furthermore, the first carriers subject to a regulatory mandate would probably pay more, and perhaps substantially more, for EOBRs than carriers allowed to defer compliance to a later date.