

FMCSA R&T: Today and Tomorrow

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U.S. Department of Transportation
Federal Motor Carrier Safety Administration

The logo for the Transportation Research Board (TRB), consisting of the letters "TRB" in a bold, sans-serif font inside a rectangular border.

TRB

On-Board Vehicle Recording

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On-Board Recording: Why Do It?

- ◆ Operational productivity
- ◆ Proactive vehicle maintenance
- ◆ Vehicle performance
- ◆ Driver feedback
- ◆ Compliance assurance
- ◆ Impartial observer



Where Are We Today?



- ◆ Voluntary use of technology in highway vehicles
- ◆ Emerging recommended practices for gathering, storing, and retrieving data from highway vehicles

What Are The Technology Drivers?

- ◆ Electronically-controlled engines
- ◆ High-speed vehicle databus
- ◆ Smaller and more durable sensors
- ◆ Smaller, more durable, and cheaper recording devices and media
- ◆ Improved communications technologies



Current FMCSA Studies



- ◆ Event Data Recorders
- ◆ Vehicle Data Recording, Notification, and Feedback
- ◆ J1939 Network Testing
- ◆ IVI Field Operational Tests
- ◆ On-Board Monitoring to Improve CMV Safety

USDOT Activities



- ◆ NHTSA EDR: www-nrd.nhtsa.dot.gov
- ◆ NHTSA EDR NPRM
- ◆ FRA NPRM
- ◆ MARAD Voyage Data Recorders
- ◆ FAA Flightdeck Recording

Research and Technical Activities Outside USDOT



- ◆ SAE J1698-1 (“VEDI”)
- ◆ SAE T&B EDR
- ◆ TMC RP 1214
- ◆ IEEE 1616, 1616a
- ◆ NCHRP 17-24

HOS Recording



1980s: Pilot project, AOB RD rule

1998: Electronic Recorder Study

1998: NOI – GPS Technology Pilot

2002: Literature & Technology Review

2003: HOS Research & Analysis Modules

2004: Werner Exemption – GPS Technology

2005: Technology & Market Assessment

EOBR Rulemaking



- ◆ ANPRM published Sept. 1, 2004
- ◆ Comment period closed Nov. 30, 2004
- ◆ Approximately 300 comments in docket
- ◆ Analysis is in progress
- ◆ Next steps TBD

It's Not Just About The Record . . .



. . . it's about the data

- ◆ How the data is transformed into useful information
- ◆ How the information is used to improve both safety and productivity

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