



# Working with Onboard Recorders



**Max Heine**  
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*November 14, 2011*

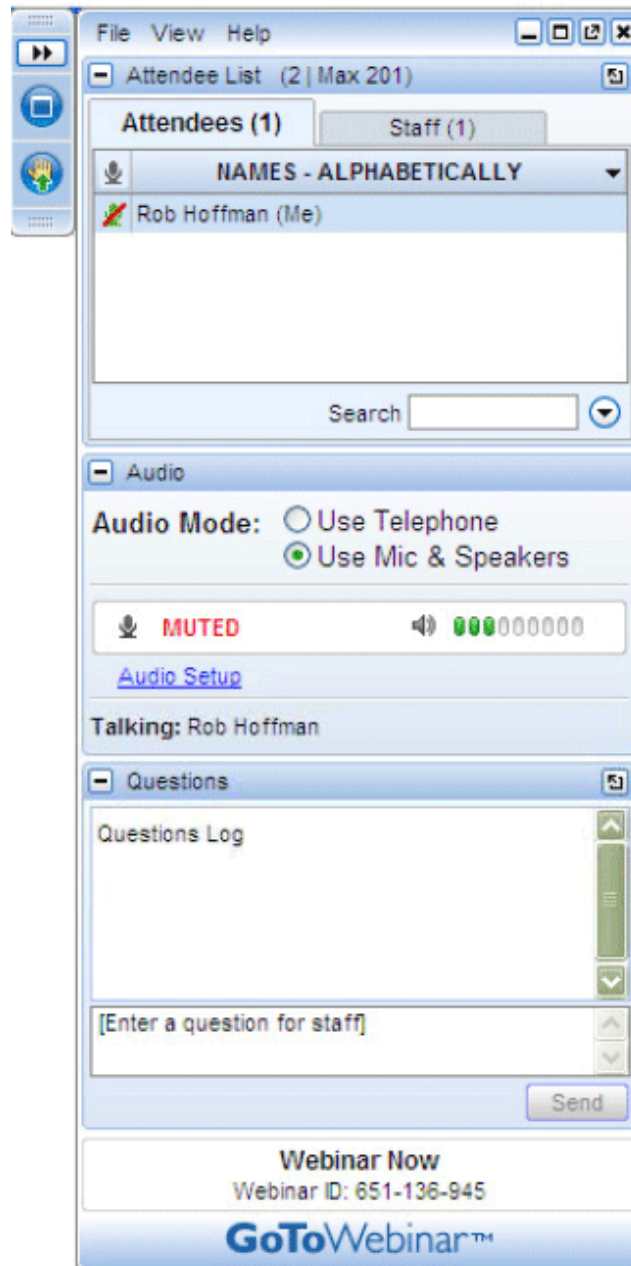


**Thomas Bray**  
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from the editors of: Overdrive and Truckers News

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# Working with Onboard Recorders

- Love them or hate them, they are here to stay

# History of automatic electronic logs

- 1985: Automatic On-Board Recording Devices (AOBRDs) allowed by “waiver”
- 1988: Regulations changed to allow industry-wide AOBRD use (anyone could voluntarily use AOBRDs in place of logs)
- 1995: ICC Termination Act required the study of, and possible implementation of, mandatory AOBRD regulations
- 1998: AOBRD regulations updated, but use still voluntary
- 2003: HOS update proposed the mandatory use of AOBRDs (this was withdrawn from the rule)
- 2010: “Remedial Directive” regulations published
- 2011: “Universal Mandate” regulations *proposed*

# What is an AOBRD/EOBR?

- AOBRDs (the systems presently available covered in §395.15)
- EOBRs (the new systems that will be rolling out in the future covered in §395.16)

# What is an AOBRD/EOBR?

- A device that:
  - Automatically gets movement and mileage information from the vehicle to determine driving time (must be integrated with the vehicle)
  - Captures the same information as the old-fashioned paper log
  - Stores and displays current day and the last seven days (future systems will have to “export” the data to officers as well)

# What is an AOBRD/EOBR?

- Requirements:
  - Driver entries cannot be made while the vehicle is moving
  - “Tamperproof”
- Main components:
  - Recorder
  - Display
  - “Back office” storage system
  - Some systems use laptop, PDA, cell phone, etc. to display the information stored on the recorder and in the system



# What is an AOBRD/EOBR?

- Back office function can allow edits, *HOWEVER...*
  - Who, what, when, where, and why must be explained in “edit log”
  - Original electronic record submitted by driver cannot be overwritten or destroyed
  - “Edit log” is a common audit request!

# What is an AOBRD/EOBR

- Additional Requirements
  - Driver must have “instruction sheet”
  - Device must tell driver when it fails
  - In future, driver will have to officially notify carrier of device failure
  - Driver must have enough logs to complete the present trip if the device fails
  - Driver must have today and previous seven days at all times (even if device fails)

# What is an AOBRD/EOBR

- A compliant system does not have to “print logs” for officers (officer views the display)
- How do you know you have a compliant device?
  - Manufacturer must provide “certification” information stating that the device meets the requirements of §395.15 (or §395.16 in the future)

# What is NOT an AOBRD/EOBR

- Non-tethered laptop logging programs
- Logging “aps” for smartphones and PDAs
- These systems are still “legal” for logging, but they are treated as “paper logs,” not AOBRDs/EOBRs
  - Must create a log that meets the requirements in §395.8 (keep it current!)
  - Must be printed (and signed) to be accepted

# AOBRD/EOBR Regulatory Update

- §395.15 (the rules already in place)
- §395.16 and “Remedial Directive” Rule
- “Universal Mandate” Proposal

# EOBR Final Rule (Remedial Directive)

- Issued April 5, 2010
- Effective June 4, 2010
- Compliance date: June 4, 2012
- 3 components:
  - New performance standards:
    - §395.16
    - Appendix A to Part 395
  - “Remedial directive” = Mandate to install for SOME carriers
  - Incentives for voluntary adoption (§395.11)

# EOBR Final Rule

- New performance standards:
  - §395.16 (EOBRs) to update and replace §395.15 (AOBRDs)
  - Appendix A to Part 395 to provide the technical details
    - File formats
    - Automatic location recording details
    - Export of data (wired and wireless)
    - Time drift standards

# EOBR Final Rule

- Remedial directive found in Part 385, *Safety Fitness Procedures*
  - EOBR remedial directive can result from audit after June 4, 2012
  - “Remedial Directive” happens if: Auditor finds 10% or higher HOS violation rate during a carrier audit
  - Projected to have impacted roughly 5,700 carriers and 129,000 drivers



# EOBR Final Rule

- Incentives for voluntary adoption
  - Reduction in the supporting documents that must be kept (documents related to driving not to be used during auditing)
  - Alternate driver selection method during auditing

# EOBR Remedial Directive

- Ordered “vacated” by DC Federal Circuit Court
  - FMCSA has not officially stated the next step they intend to take, choices include:
    - Simply removing the regulations
    - Removing them and then republishing some or all of them (with additional research or changes)
    - Awaiting Congressional guidance (statute change)
  - “Technical standards” and “incentives” associated with this rule need “republished”
    - Even if FMCSA decides “Remedial Directive” portion of the rule is unnecessary or moot

# EOBR Remedial Directive

- FMCSA can still “force” a carrier into using AOBRDs/EOBRs following an audit
  - Settlement agreement (install and use AOBRDs/EOBRs to reduce fine)
  - Terms of continued operation (FMCSA will only lift the Unfit Suspension if...)

# “Universal Mandate” Proposal

- ***Proposed*** rule released February 1, 2011
- Three components
  - Mandatory use of electronic on-board recorders (EOBRs) for nearly all carriers
  - Systematic HOS oversight of drivers by company
  - Use and retention of supporting documents
- Note: Alexander/Pryor bill would only accelerate the proposal becoming a final rule

# “Universal Mandate” Proposal

- Only exceptions:
  - 100 air-mile radius drivers (CDL)
  - 150 air-mile radius drivers (non-CDL)
- PROVIDED:
  - The driver qualifies for the use of the exception 5 or more of the last 7 days

# “Universal Mandate” Proposal

- No exception for:
  - Owner operators or small fleets
  - Private fleets
  - “Non-freight” operations
  - Short-haul/regional drivers that have to complete logs now
  - Non-CDL commercial vehicle drivers (commercial vehicles 10,001 to 26,000 pound that do not carry placarded HM or enough passengers)

# “Universal Mandate” Proposal

- Comment period was reopened to address “harassment” and “privacy” concerns (this is what led to the “Remedial Directive” rule being vacated)

# “Universal Mandate” Proposal

- Next steps:
  - FMCSA considers comments and publishes the final rule
  - Final rule is not under a mandatory timeline, however FMCSA has it on the agenda for June 2012, with a three year implementation period



# Why consider EOBRs?

- Reduce paperwork time
- Less headaches for drivers
- More timely and accurate tracking of driver availability
- Eliminates the two most common HOS roadside violations that drivers and companies deal with (“Log: Form and Manner” and “Log not Current”)

# Why consider EOBRs?

- Improved carrier and driver CSA scores (fewer on-road violations means better Fatigued Driving BASIC score)
- Less risk for carrier and driver during an audit
  - Many of the common audit violations, such as falsified logs and failure to submit logs, are eliminated by use of an EOBR system

# Barriers

- Perception that “big brother is watching”
- Drivers fear they will be forced to drive without breaks or when tired
- Drivers fear the company and DOT will know where they are minute-by-minute
- Reduction in “flexibility” (and therefore productivity)
- No one likes change!

# Barriers

- COST
  - “EOBRs cost several thousand dollars” (Myth!)
  - Low cost: Simple EOBR and back office system
  - High cost: EOBR as part of full-service system that includes tracking and communicating functions, and a full “back office suite”
  - Choice of functions is what drives price!

# Change is coming

- It may be years away, but it is coming
- Consider a smooth transition
  - Start operating in compliance with the HOS regulations
  - Then consider transitioning to electronic system
  - Do not wait for a rule change to start the transition process!

# Summary

- There are two different types of “compliant” automatic logging devices
- There are two different rulemaking activities in this area
- There are benefits to voluntarily adopting EOBRs, and there are barriers. The barriers can be managed
- Be prepared for the transition when it happens!



*Run Smart<sup>SM</sup>*

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## Virtual Technician

Mike McHorse

On-Highway Product Marketing Manager

Freightliner Trucks

Fort Mill, SC, November 15, 2011

## Virtual Technician



## A VIRTUAL TECHNICIAN IN THE REAL WORLD

Detroit Diesel continues its leadership position by being one of the first manufacturers to integrate GPSTechnology, state-of-the-art communications and engine diagnostics to provide the piece-of-mind that customers demand.

## How Virtual Technician Reduces Downtime

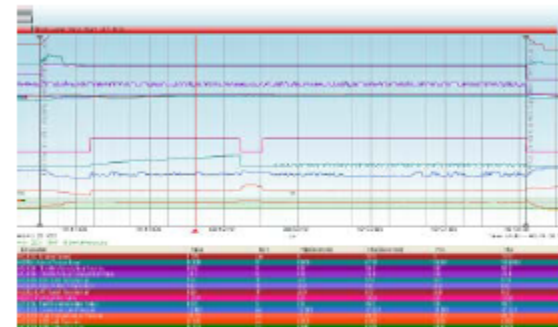
- ✓ Real time communication to the customer advising of vehicle event data
- ✓ Remote diagnosis identifies urgency of event letting customer determine proper course of action
- ✓ Provide customer with choice of authorized Detroit Diesel service outlet\* and opportunity to "schedule" repair
- ✓ Advanced notice provides service outlet with opportunity to obtain parts required
- ✓ Notification to service outlet allows for allocation of dealer resources before customer arrives
- ✓ Immediate and accurate diagnosis expedites "fix it right the first time"

\* Authorized service outlets include Freightliner and Western Star Truck Dealers or Detroit Diesel Distributors



## Service

1. Telematics
  - GPS location, Altitude, and Date/Time
2. Instrument Cluster Unit (ICU)
  - Odometer Mileage
3. Powertrain ECU's
  - Diagnostic Trouble Code (DTC)
  - “Ring Buffer” captures 66 Parameters
    - Engine Protection, Fuel System, Air System, EGR System, ATD System, DEF Support Systems, System Battery Voltage
4. Customer Information
  - Fleet name, unit number, VIN, ESN and fleet contact e-mail obtained during registration of VT Unit
5. Flight Recording Information Captured



Remote DDEC flight recording data

- Captures 60 seconds before and 15 seconds after the code occurs
- Viewable and playable with the current DDDL Diagnostic Tool
- Identifies the cause of the code and establishes the corrective action
- Format familiar to Technicians

## Virtual Technician Overview

*When the driver sees a check engine light the fault code is classified into one of three categories and each one is handled according to the level of severity.*

Check Engine  
Light/MIL



Advises operator/dispatch of CEL/MIL situation and required action if necessary



Advises operator/dispatch to check when convenient and complete trip



Advises the CSC, review of fault log and send a note with recommendations to operator/dispatch

## Customer Notification

To: Fleet Email Address

Subject: Unit # 1118 - NOW - - Virtual Technician Case Number 3791939 CSC FOLLOW UP

The CSC has completed the analysis of your log file.

The code logged is identified as 157/16 Fuel Rail Pressure Low at [date & time] and should be serviced right away or a disruption in your route may occur. Our analysis indicates the fuel filter or fuel supply line from fuel tank is plugged.

We show the truck to be in Kansas City heading east. The following service locations have the part in stock. Also any service location can obtain the part within 24 hours from our parts distribution center.

Part #	Unit	Cost	Trade
444-400004281	96 43	940.00	80.00
Description: FUEL FILTER			
Source	Location	Phone #	Qty
1. D. E.K. TRUCK COMPANY	LANSING, MI	817/604-1305	2
2. DIESEL TRUCK SALES, INC.	SARASOTA, FL	904/753-4401	50
3. WOLVERINE FREIGHTLINER WEST	YPSILANTI, MI	734/879-2508	85
4. STOOPS FTL QUALITY TRAILER	BRENDON, IN	260/823-6863	73
5. GREAT LAKES WESTERN STAR CO.	MONTICELLO, MI	734/243-2308	86
6. WOLVERINE FREIGHTLINER	MOUNT CLEMENS, MI	800/753-2444	86
7. FREIGHTLINER OF TOLEDO	TOLEDO, OH	419/684-6128	80
8. HILL TRUCK SALES INC	EDMONT, IN	857/632-3441	100
9. HILL TRUCK SALES INC	SOUTH BEND, IN	857/628-4808	170
10. STOOPS FTL & STLEWIST	NEW HAVEN, IN	260/749-6867	170

Part  
Number

Customer  
decides which  
location to  
visit

Service Outlet  
closest to  
current  
location with  
parts in stock

You can use the following link to locate an authorized DDC service location:

<http://www.detroitdiesel.com/supportnetwork/>

If you are heading into a repair facility please contact us at [csc@daimler.com](mailto:csc@daimler.com) or 855-253-0420. Please include case number 3135921 when you call or write and the service location selected.

Thank you

Marty Kubiak

Manager, Customer Support Center

## Dealer Notification



EMAIL to:  
Virtualtech@superdealer.com



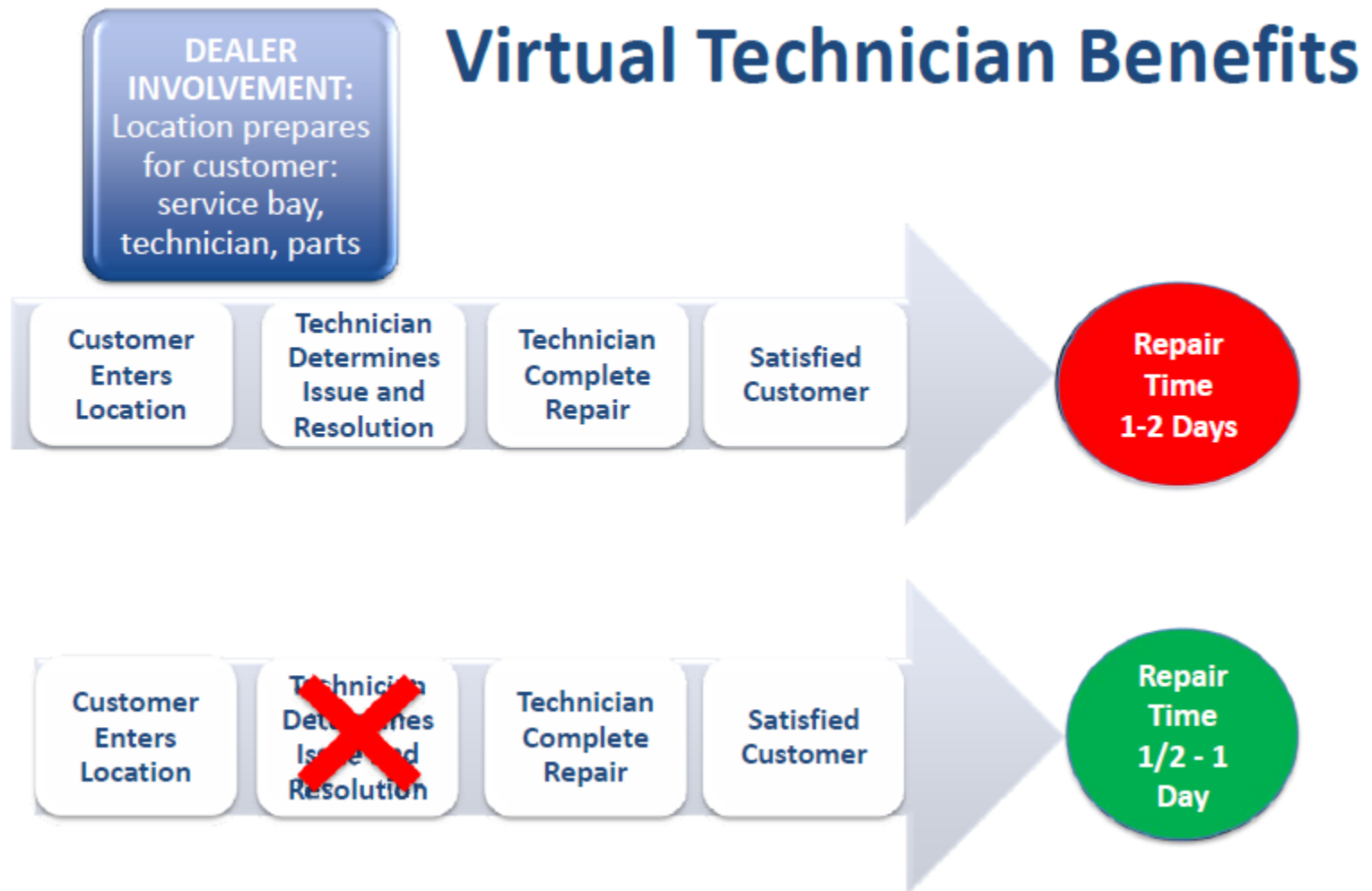
**From:** VirtualTechnician@daimler.com  
**Sent:** Tuesday, May 17, 2011 6:09:26 PM  
**To:** customer@yourlocation.com  
**Subject:** Virtual Technician Service Now Case Number 63071

Virtual Technician has sent details of an important fault code on unit 1029 (Customer Truck Number), VIN - (Last 6) BD8624 to the Customer Support Center. The CSC will review this report and respond shortly with advice and repair recommendations - (Monday through Friday 8am to 7PM Eastern time and 8am to 3PM on Saturdays)  
 The code logged 111/1 (SPN/FMI) indicates

**"Coolant Level - Low".**  
 This should be serviced right away or a disruption in your route may occur. Please begin to arrange for service.

You can use the following link to locate an authorized DDC service location:  
<http://www.detroitdiesel.com/supportnetwork/>  
 If you are heading into a repair facility please contact us at csc@daimler.com or 800.445.1980.  
 Please include ticket number 00000000027574 and case number 63071 when you call or write.

Thank you,  
 Marty Kubiak  
 Manager, Customer Support Center



**QUESTIONS??**

# Trucker webinars

from the editors of: Overdrive and Truckers News

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**Download the  
Working with Onboard Recorders  
webinar and Power Point at  
[www.truckerwebinars.com](http://www.truckerwebinars.com)**

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