Electronic Logging Device (ELD) Mandate

Sgt. Dana C. Moore-Texas Highway Patrol
Will the ELD Mandate Affect You?
Federal Motor Carrier Safety Regulations

Applicability

**Interstate Operations**

GVWR or GVW 10,001 lbs. or more

Compliance Date December 18, **2017**

**Intrastate Operations**

GVWR, GVW, or Registered weight of 26,001 lbs. or more

Compliance Date December 16, **2019**
Texas Department of Public Safety
Commercial Vehicle Enforcement

ELD Rule

Requires new technical specifications for ELD’s

Mandates ELD’s for drivers currently using RODS (there are exceptions)

Clarifies supporting document requirements

Provides protection for drivers from being harassed by carriers
If a driver is currently required to prepare a paper record of duty status, the driver is required to use an ELD.

UNLESS, the driver or commercial motor vehicle meets one of the limited exemptions...
ELD Exemptions

- 100 air-mile radius drivers
- 150 air-mile radius non-CDL freight drivers
- Required to prepare paper RODS for not more than 8 days during any 30-day period
- Conducting “driveaway-towaway” operations – when the vehicle is the commodity including towing or driving recreational vehicles
- Driving vehicles manufactured before model year 2000 (as listed on the vehicle registration)
ELD Exemptions

Engine

- Truck manufactured 2000 or later with a pre-2000 engine is exempt from ELD rule
- Truck manufactured pre-2000 with a 2000 or later engine is subject to ELD rule
- Glider kits are very popular and becoming more numerous
- No requirement to carry engine documentation in vehicle
- FMCSR Part 379 Appendix A requires motor carrier to retain motor & engine records (FMCSA Investigators only)
ELD Exemptions

Rental Vehicle

- Rental vehicles are exempted from the ELD rule for up to 8 days
- Must be a rental and not a lease
- Driver must carry a copy of the rental agreement and the exemption from FMCSA
Definitions

Paper RODS – Log Book

Logging Software – a computer software program or application on a phone or tablet that does not comply with 395.15. Not connected to the engine data. An electronic version of a paper log.

AOBRD – Automatic On-board Recording Device, complies with 395.15. Connected to the engine data. Automatically records the drivers duty status.

ELD – Electronic Logging Device – a device that automatically records a driver’s driving time and meets the requirements in the new subpart B of Part 395. Connected to the engine data.
Is the Device Registered with FMCSA?

# Comparing the 3 Devices

<table>
<thead>
<tr>
<th></th>
<th>AOBRDs</th>
<th>Devices Installed with Software</th>
<th>ELDs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrally Synchronized</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Automatic Recording of HOS</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Technical Specifications</strong></td>
<td>Limited</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Registered with FMCSA</strong></td>
<td>No</td>
<td>No</td>
<td>Yes*</td>
</tr>
</tbody>
</table>
ELD Transition

Effective Date: February 16, 2016  
Compliance Date: December 18, 2017  
Full Compliance Date: December 16, 2019
# Texas Department of Public Safety
## Commercial Vehicle Enforcement

**Implementation Phase 1**

<table>
<thead>
<tr>
<th>ELD</th>
<th>AOBRD</th>
<th>Logging Software</th>
<th>Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

CVE Training Unit
Texas Department of Public Safety
Commercial Vehicle Enforcement

Implementation Phase 2

<table>
<thead>
<tr>
<th></th>
<th>ELD</th>
<th>AOBRD</th>
<th>Logging Software</th>
<th>Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes *</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

*If AOBRD was installed prior to December 18, 2017

** Vehicles & carriers that are exempt for ELD rule can continue to use paper RODS or logging software

CVE Training Unit
Texas Department of Public Safety
Commercial Vehicle Enforcement

Implementation Phase 3

<table>
<thead>
<tr>
<th>ELD</th>
<th>AOBRD</th>
<th>Logging Software</th>
<th>Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

* Vehicles & carriers that are exempt from ELD rule can continue to use paper RODS or logging software
ELD Technical Specifications
ELD Automatic Duty Status Changes

Driving time is automatically recorded

Records driving time when vehicle reaches 5 MPH

Device requires an alert if the vehicle stops moving for 5 minutes

Defaults to “On-Duty” if no driver entry occurs within 1 minute

Other automatic duty status settings are prohibited
ELD - Special Driving Categories

The motor carrier can enable access for the driver to use two other types of driving:

- Authorized personal use of CMV (PC) – Off duty
- Yard moves – On Duty, Not Driving
ELD Special Driving Categories

Authorized personal use of CMV (PC) – Off duty

GPS location increased from 1 mile to 10 miles

Omits recording vehicle miles and engine hours (except for vehicle power-up & shut down)

Yard moves – On Duty, Not Driving

Operating on company premises

*13. Beginning December 18, 2017, if a driver indicates use of a special driving category as defined by 395.28(a) when not involved in that activity, the driver’s log is considered to be false.
**Texas Department of Public Safety**  
**Commercial Vehicle Enforcement**

**ELD Technical Requirements 395.26**

<table>
<thead>
<tr>
<th>When elements are recorded</th>
<th>When data is captured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Change of duty status</td>
</tr>
<tr>
<td>Time</td>
<td>Intermediate recording (1 per hour)</td>
</tr>
<tr>
<td>Location information</td>
<td>Special driving (personal or yard)</td>
</tr>
<tr>
<td>Engine hours</td>
<td>Certification of log</td>
</tr>
<tr>
<td>Vehicle miles</td>
<td>Log in</td>
</tr>
<tr>
<td>Driver or authenticated user</td>
<td>Log out</td>
</tr>
<tr>
<td>Vehicle</td>
<td>Engine power up</td>
</tr>
<tr>
<td>Motor Carrier</td>
<td>Malfunction &amp; data diagnostic event</td>
</tr>
</tbody>
</table>

CVE Training Unit
ELD User Accounts

All drivers and support personnel must have a unique user name and password.

Multiple persons cannot share one account.

Driver account must include DL information to provide unique ID and not have administrative rights.

If driver is also the administrator, must have a separate administrative account.

Exempt driver account.
Unidentified Driving

• ELDs must record all movement of the CMV in which it is installed.
  
  – If a driver does not log into the ELD the ELD must
    • Provide a visual or visual and audible warning to stop and log in to the ELD
    • Record driving and on duty not driving per 4.4.1 under the unidentified driver profile
    • Not allow entry of any other information other than a response to the login prompt
Unidentified Driving

- **Driver** must review any unassigned driving time
  - Assume any records that belong to the driver or;
  - Indicate the records do not belong to the driver

- **Motor carrier** must review the records and;
  - Annotate the record, explaining why it is unassigned
  - Assign the record to the appropriate driver
  - Maintain records for 6 months
  - Provide records to safety official
Edits

• Drivers can make edits to their ELD record
  – Must re-certify ELD record after edit is made
• Carrier can request edits after ELD records have been submitted
• Driver has the right to decline edits
• Assigned miles must be addressed prior to operating the commercial motor vehicle
  – Accepted or declined
Electronic Data Transfer Methods

Option 1 – Telematics Transfer Methods
- Web Services
- Email

Option 2 – Local Transfer Methods
- Bluetooth
- USB 2.0

ELD provider will determine the option, and the enforcement officer will determine which method within that option
Electronic Data Transfer Methods

Option 1 – Telematics Transfer Methods

Web Services method will transmit the ELD file directly to FMCSA servers with the inspectors routing code

Email method will send ELD file to FMCSA servers along with inspectors routing code (not emailed directly to inspector)

Inspector will download ELD file from FMCSA using eRODS software
Data Transfer: Web Services

Submit:
- Vendor certificate
- ELD data file
- Output file comment

FMCSA Web Services

Send: “okay” or error list

Validate ELD

U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Data Transfer: Email

ELD
To: FMCSA Global Email Address

S/MIME

FMCSA Email Server
- Encrypt with FMCSA ELD public key
- Sign with vendor private key

Send: “Okay” or error list

U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Electronic Data Transfer Methods

Option 2 – Local Transfer Methods

Bluetooth method will connect the ELD and inspectors computer. The inspectors computer will transmit via the internet the ELD file to FMCSA servers. eRODS software will then download the ELD file and display on the inspectors computer.

USB method will use a proprietary USB stick provided to the inspector. Driver will insert the USB device and download the ELD file. The inspector will then insert the USB device into the computer and the ELD file will be displayed on the eRODS software.
Data Transfer: Bluetooth®

Submit:
Vendor certificate, ELD data file, output file comment

ELD

Bluetooth Internet (shared connection)

FMCSA Email Server

Send “okay” or error list

U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Data Transfer: USB 2.0

ELD → USB stick → Inspector laptop (file validated locally)
eRODS Display
Display or Print Requirements

Electronic transfer back-up method - RODS must be shared in one of two ways

***Determined by the provider

- Printout
  - Visible at a reasonable distance without entering the cab

- Screen Display
**Display or Print Requirements**

- Daily Header

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<table>
<thead>
<tr>
<th>Record Date</th>
<th>USDOT #</th>
<th>Driver License Number</th>
<th>Driver License State</th>
<th>ELD ID</th>
<th>Trailer ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-Nov-14</td>
<td>123456789</td>
<td>D00368210361</td>
<td>IL</td>
<td>987654</td>
<td>Unit #</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Zone</th>
<th>Driver Name</th>
<th>Co-Driver Name</th>
<th>ELD Manufacturer</th>
<th>Shipping ID</th>
<th>Data Diagnostic Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST</td>
<td>Smith, Richard</td>
<td></td>
<td>Acme ELDs</td>
<td>BL1234567890</td>
<td>No</td>
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</table>

<table>
<thead>
<tr>
<th>24 Period Starting Time</th>
<th>Driver ID</th>
<th>Co-Driver ID</th>
<th>Truck Tractor ID</th>
<th>Unidentified Driver Records</th>
<th>ELD Malfunction Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midnight</td>
<td>1234567</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Start End Odometer</th>
<th>Miles Today</th>
<th>Truck Tractor VIN</th>
<th>Exempt Driver Status</th>
<th>Start End Engine Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acme Trucking</td>
<td>39564 - 39984</td>
<td>420</td>
<td>1M2P267Y5AM022445</td>
<td>No</td>
<td>758.2-765.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Location</th>
<th>File Comment</th>
<th>Print/Display Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 mi. NE North Auburn, CA</td>
<td></td>
<td>20-Nov-14</td>
</tr>
</tbody>
</table>

* Vehicle mileage is obtained from ECM and may not be the same as the odometer.
Display or Print Requirements
24-Hour Duty Status Grid
## Display or Print Requirements

### Daily Log Detail

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Odometer</th>
<th>Eng Hours</th>
<th>Event Type/Status</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-Nov-14</td>
<td>49 mi NNE Fallon, NV</td>
<td>39564</td>
<td>758.2</td>
<td>SB</td>
<td>Driver</td>
</tr>
<tr>
<td>0:00</td>
<td>49 mi NNE Fallon, NV</td>
<td>39564</td>
<td>758.2</td>
<td>Login</td>
<td>Driver</td>
</tr>
<tr>
<td>10:00</td>
<td>49 mi NNE Fallon, NV</td>
<td>39564</td>
<td>758.2</td>
<td>ODND</td>
<td>Driver</td>
</tr>
<tr>
<td>10:52</td>
<td>49 mi NNE Fallon, NV</td>
<td>39564</td>
<td>758.2</td>
<td>Power Up</td>
<td>Auto</td>
</tr>
<tr>
<td>11:00</td>
<td>49 mi NNE Fallon, NV</td>
<td>39564</td>
<td>758.2</td>
<td>Driving</td>
<td>Auto</td>
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<tr>
<td>12:00</td>
<td>2 mi E Fernley, NV</td>
<td>39624</td>
<td>759.3</td>
<td>Int Location</td>
<td>Auto</td>
</tr>
<tr>
<td>13:00</td>
<td>7 mi NNE Truckee, CA</td>
<td>39684</td>
<td>760.3</td>
<td>Int Location</td>
<td>Auto</td>
</tr>
<tr>
<td>14:00</td>
<td>6 mi SSE Meadow Vista, CA</td>
<td>39744</td>
<td>761.3</td>
<td>Int Location</td>
<td>Auto</td>
</tr>
<tr>
<td>15:00</td>
<td>3.5 mi SW Davis, CA</td>
<td>39804</td>
<td>762.3</td>
<td>Off Duty</td>
<td>Driver</td>
</tr>
<tr>
<td>17:00</td>
<td>3.5 mi SW Davis, CA</td>
<td>39804</td>
<td>762.3</td>
<td>Driving</td>
<td>Auto</td>
</tr>
<tr>
<td>18:00</td>
<td>1 mi E Emeryville, CA</td>
<td>39864</td>
<td>763.4</td>
<td>Int Location</td>
<td>Auto</td>
</tr>
<tr>
<td>19:00</td>
<td>4 mi SSW Univ. of California, CA</td>
<td>39924</td>
<td>764.4</td>
<td>Int Location</td>
<td>Auto</td>
</tr>
<tr>
<td>20:00</td>
<td>6 mi NE North Auburn, CA</td>
<td>39984</td>
<td>765.5</td>
<td>ODND</td>
<td>Driver</td>
</tr>
<tr>
<td>21:00</td>
<td>6 mi NE North Auburn, CA</td>
<td>39984</td>
<td>765.7</td>
<td>Off Duty</td>
<td>Driver</td>
</tr>
<tr>
<td>23:00</td>
<td>6 mi NE North Auburn, CA</td>
<td>39984</td>
<td>765.7</td>
<td>ODND</td>
<td>Driver</td>
</tr>
<tr>
<td>23:58</td>
<td>6 mi NE North Auburn, CA</td>
<td>39984</td>
<td>765.7</td>
<td>Cert</td>
<td>Driver</td>
</tr>
<tr>
<td>23:58</td>
<td>6 mi NE North Auburn, CA</td>
<td>39984</td>
<td>765.7</td>
<td>Logout</td>
<td>Driver</td>
</tr>
</tbody>
</table>
Roadside HOS Evaluation of ELD RODS

As long as the driver is able to display the RODS on the ELD unit or printout, or transfer the ELD file, he/she is considered to have records of duty status.

For example, if there is no internet service during the inspection, the driver only needs to display the information on the unit. (Some units may have a printout instead.)

If the driver cannot display the RODS on the unit, but can transfer the ELD information in any of the approved manners, they are considered to have records of duty status.
ELD Driver Interaction – Mounted

Portable (including hand-held)

ELD’s must be in a fixed and mounted position during operation
Driver’s Responsibilities

- User’s Manual
- Data Transfer Instruction Sheet
- ELD Malfunction Instruction Sheet
- Supply of blank record of duty status graph grids
- Any supporting documents in the driver’s possession must be provided to the safety official upon request
Texas Department of Public Safety
Commercial Vehicle Enforcement

Manual Input

• Off duty
• Sleeper berth
• On-duty not driving
• Annotations
• Driver’s location
• Commercial Motor Vehicle Power Unit number
• Trailer number
• Shipping document number
ELD Malfunction (Driver)

- Note the malfunction
  - Provide written notice to motor carrier within 24 hours. (May include an electronic message, such as an email and/or a Fleet Management System (FMS) message.)
- Reconstruct the previous 7 days
- Continue to manually prepare records of duty status
What to Expect Roadside
Providing the Previous 7 Days
Records of Duty Status *(December 11–17, 2017)*

- Paper Logs
- Printout from device with logging software
- Printout from an Automatic On-Board Recording Device (AOBRD), if now using an ELD

*Driver may insert missing data into the ELD*
eRODS

- Electronic data will be analyzed by FMCSA Electronic Records of Duty Status (eRODS)
- Provided to all DOT inspectors
- Potential HOS violations identified (interstate property & passenger rules)
- Falsification and tampering alerts
- Safety officials will continue exercise investigative techniques

*eRODS is a tool to help expedite the hours of service inspection process.*
Nominal Hours of Service
Roadside Violations

- Hours of service violations that are less than 15 minutes (on previous 7 days only)
- Identify patterns of hours of service non compliance
- Less impact on safety management score (SMS)
- Select the “nominal” HOS violation in the CVE-3
Operating Without an ELD

- When an ELD is required
  - Device has been removed from the FMCSA registration site
  - There has been an ELD Malfunction
- When ELD is not required
  - Driver/vehicle meets an ELD exemption
  - Vehicle is equipped with ELD (Driver Exempt)
- Exempt driver account
Interstate Hours of Service

- 11 hours driving
- 14 hour operating window
- 70 on-duty hours in 8 days or 60 on-duty hours in 7 days
- 34 hour restart
- 30 minute break required
Texas Intrastate Hours of Service

• 12 hours driving
• 15 hours on-duty
• 70 hours in 7 days
• 34 hour restart
• No 30 minute break required (interstate only)
Short Haul (Local) Driver Exemption

- Operate within 100 (interstate) or 150 (intrastate) air miles
- Shift limited to 12 hours
- Carrier maintains time records

If any condition cannot be met, driver is required to log for that day

If required to log more than 8 times in any 30 day period, ELD may be required
DPS adopted the ELD rule for intrastate operations

Intrastate motor carriers that do not engage in interstate operations have until December 16, 2019 to come into compliance with the ELD rule

Until then intrastate carriers may use paper logs, logging software, AOBRD’s, or ELD’s to maintain compliance with the Hours of Service

Until December 16, 2019 inspectors can only verify compliance with the Texas HOS when a CMV is making an intrastate movement
After April 1, 2018, if it is discovered that the driver and the vehicle operated by the driver is subject to the ELD rule, then the driver should be cited and placed OOS in accordance with the CVSA OOSC.

Until April 1, 2018, the driver should be cited (violation recorded), but not placed OOS. Drivers will not be placed OOS for not having an ELD until April 1, 2018, providing they have a ROD that meets the requirements of the regulations.

Drivers exempt from the ELD rule may continue to record HOS on paper RODS, AOBRDs, logging software, or an ELD. Exempt drivers are not required to log into a CMV equipped with an ELD.
ELD Rule Summary

ELD rule is being phased in

Voluntary use of ELD’s began on February 16, 2016 (Phase I)

Phase II compliance date is December 18, 2017

AOBRD’s compliant with 395.15 that were installed before the Phase II compliance date (12-18-17) can be grandfathered for 2 additional years (December 16, 2019)

AOBRD’s must be upgraded or replaced with ELD’s by December 16, 2019

Until December 18, 2017, drivers can meet the HOS requirements by using paper logs, logging software, an AOBRD, or an ELD
Resources

Federal Motor Carrier Safety Administration (FMCSA) Website
https://www.fmcsa.dot.gov/

FMCSA Frequently Asked ELD Questions
https://www.fmcsa.dot.gov/hours-service/elds/faqs
Texas Department of Public Safety
Commercial Vehicle Enforcement

ELD Questions?