

2016 CCMTA ANNUAL MEETING

HALIFAX, NOVA SCOTIA

CONCURRENT SESSIONS

TOPIC:

ELECTRONIC LOGGING DEVICES (ELD)

MANDATE IN THE US AND IMPLICATIONS FOR CANADA

PRESENTER:

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Conseil canadien des administrateurs en transport motorisé
Canadian Council of Motor Transport Administrators



Electronic Logging Devices (ELD)s Mandate in the US and implications for Canada

CCMTA, June 19, 2016

Continental Corporation

Five Strong Divisions

Chassis & Safety	Powertrain	Interior	Tires	ContiTech
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Definitions

- › Automatic On Board Recording Devices (AOBRD)
 - › US Regulation 49 CFR Part 395.15 published 1988
 - › integrally synchronized with the vehicle
- › Electronic Recording Device (ERD)
 - › complies with section 83 of the Canadian Commercial Vehicle Service Regulations.
- › Records drivers's duty status information
 - › Display or printout logs
 - › Must be connected to vehicle (wired or wireless).
Standalone smartphone not compliant.
 - › Can be part of a Fleet Management System



Definitions

- › Fleet Management Systems (FMS) / On Board Computers (OBC)
 - › Record vehicle, driver and freight related data
 - › Typically allows tracking and real time information through cell or satellite connectivity
 - › Do not need to comply with FMCSA and Transport Canada regulations
 - › May include AOBRD / ERD functionality



Definitions

- › Electronic On Board Recorder (EOBR)
 - › US regulation 49 CFR Part 395.16 published 2010
 - › US Rule was vacated in 2011
- › Electronic Logging Device (ELD)
 - › US Final rule published December 2015
 - › Canada
 - Draft standard CR-683 from 2013
 - Targeted implementation in 2017?



Who is subject to ELDs?

- › **All drivers who currently use paper log books must switch to an ELD**

Subject to requirements in 49 CFR 395

- › **Exceptions:**

- › 100 air-mile radius drivers may continue to use timecards, as allowed by §395.1(e)(1)
- › 150 air-mile radius non-CDL freight drivers may continue to use timecards, as allowed by §395.1(e)(2)
- › Using paper RODS for not more than 8 days during any 30-day period
- › Conducting “drive away-tow away” operations
- › Driving vehicles manufactured before model year 2000

When is compliance required - timeline

ELD Final Rule Publication	12/16/2015
ELD Compliance (fleet must use AOBRD or ELD)	12/18/2017
AOBRD grandfathered until <i>49 CFR 395.15</i>	12/16/2019



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ELD functional requirements – Subpart B of Part 395

- › GPS capability for automatic date, time and location information
- › No requirement of real time communication (cellular or satellite not required)
- › RODS to be submitted to motor carrier's office within 13 days
- › Integral synchronization with vehicle ECM
 - › Detection of power off / disconnection from vehicle must be detected and recorded
 - › Handheld with communication to residing black box allowed
- › Minimum security requirements
 - › Multiple checksums, PKI, encryption
 - › Unique driver identification through driver license # and state
- › Minimum diagnostic capabilities
- › No change in data retention requirements (6 months in office, last 7 or 8 days in vehicle)

ELD functional requirements – Subpart B of Part 395

Data records

- › Data to be recorded at each event

(change of duty status, once per hour when vehicle in motion)

- › date; time; engine hours; vehicle miles; location information
- › identification information for
 - › the driver, the authenticated user,
 - › the vehicle,
 - › the motor carrier,
 - › the shipping document.



ELD functional requirements – Subpart B of Part 395

Driver inputs and access

- › Protect drivers from harassment (see driver coercion rule)
 - › Driver needs to approve logs as well as any change done by carrier
 - › Mute function when in sleeper berth
- › Minimum data privacy requirements
 - › Reduced location precision records (1 mile and 10 miles radius)
 - › Data transfer encryption
 - › User authentication for data access
- › Exemptions choice by driver
 - › Personal Use
 - › Yard moves
 - › Short haul (100/150 miles radius)

ELD functional requirements – Subpart B of Part 395

Roadside inspection

Data Transfer:

ELD manufacturer must pick either local transfer or wireless

Local (peer to peer)

Bluetooth

USB 2.0

Wireless (Telematics)

Web services

Email

Manual inspection:

Printout (not all ELDs provide)

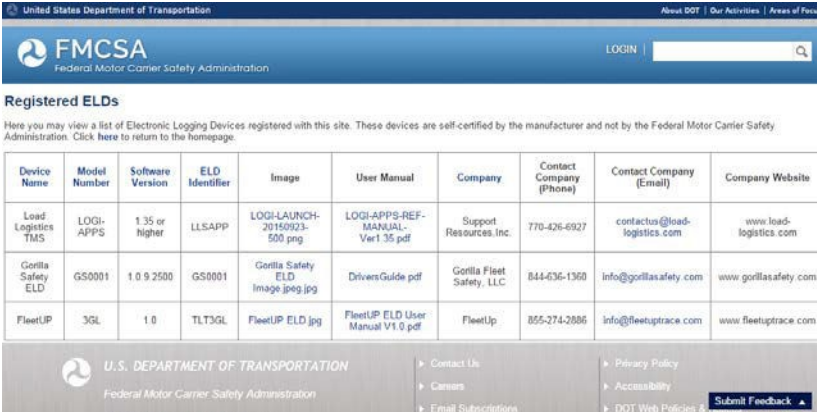
or

Screen display visible outside of cab



ELD functional requirements – Subpart B of Part 395 Certification

- › **Self** certification by ELD suppliers
 - › Suppliers to register on FMCSA website
 - › Hardware variant and software version required
 - › FMCSA publishes list of compliant ELDs



The screenshot shows the FMCSA website's 'Registered ELDs' page. It features a table with columns for Device Name, Model Number, Software Version, ELD Identifier, Image, User Manual, Company, Contact Company (Phone), Contact Company (Email), and Company Website. The table lists three registered ELDs: Load Logistics TMS, Gorilla Safety ELD, and FleetUP.

Device Name	Model Number	Software Version	ELD Identifier	Image	User Manual	Company	Contact Company (Phone)	Contact Company (Email)	Company Website
Load Logistics TMS	LOGI-APPS	1.35 or higher	LLSAPP	LOGI-LAUNCH-20150923-500.png	LOGI-APPS-REF-MANUAL-Ver1.35.pdf	Support Resources, Inc.	770-426-6927	contactus@load-logistics.com	www.load-logistics.com
Gorilla Safety ELD	GS0001	1.0 9 2500	GS0001	Gorilla Safety ELD Image.jpg	DriversGuide.pdf	Gorilla Fleet Safety, LLC	844-636-1360	info@gorillasafety.com	www.gorillasafety.com
FleetUP	3GL	1.0	TLT3GL	FleetUP ELD.jpg	FleetUP ELD User Manual V1.0.pdf	FleetUp	855-274-2886	info@fleetuptrace.com	www.fleetuptrace.com

› Verifications from FMCSA

- › FMCSA published optional compliance test procedure
- › FMCSA may conduct audits of ELD systems using the test procedure
- › Defined process for FMCSA to ask ELD suppliers to correct deficiencies and/or remove non compliant ELDs

Supporting Document – 395.11

- › Required to verify on-duty not driving time
- › Up to 8 documents per 24 hours period
- › In all 5 categories:
 - › origin and destination of each trip (BOLs, itineraries, schedules...)
 - › Trip records
 - › Expense receipts
 - › Electronic mobile communication
 - › Payroll
- › Required information
 - › Driver name or ID
 - › Date
 - › Location
 - › Time
- › No change in data retention requirements (13 days to submit, then 6 months in office)

ELD mandate implementation challenges

- › Legal challenge from OOIDA
- › Self-certification process confusing for industry (especially small carriers and OO)
- › Roadside inspections
 - › Data transfer specifications incomplete
 - › Training of enforcement and availability of tools
 - › Manual inspections on displays
 - › liability issues (who is responsible for handheld?)
 - › Ease of falsification for open architecture handhelds (fake apps for smartphones easy and cheap to develop)
- › Truck leasing companies impacted by absence of ELD interoperability standard

Challenges associated with ELD

- › Industry
 - › Costs of ELD - cost pressure in competitive environment,
 - › Adapt processes to strict compliance with HOS rules
 - › How to choose an ELD? Which systems are compliant?
 - › Data privacy / data access rights



Challenges associated with ELD

- › Enforcement
 - › Access RODS at roadside in all situations
 - › With or without cell reception and network access
 - › Ability to access and view electronic data
 - › Trust data
 - › How to identify if data has been manipulated?
 - › Which devices can be trusted?
 - › Costs of implementation



Canadian ELD / EOBR requirements

- › Will be compatible with US ELD Final Rule
- › Mandate schedule
 - › Transport Canada announced that ELDs will be mandated to match the US
 - › Unlikely to be before 2018 due to regulation process
- › Manual inspection only
 - › Printout or Display
 - › No requirement or standard for electronic data transfer
- › Data availability must not rely on cellular connectivity
- › Must be connected to vehicle databus
- › Real time communication to office not required

How ELDs will look like?

- › Multiple types of ELD will be found



ELD types

- › Fleet Management System with ELD functionality
 - › Wide range of productivity features
 - › Relies on wireless connectivity (cell or satellite) to send data to back-end
 - › Roadside inspection through display outside of cab or printout



ELD types

- › Smartphone, tablet based systems
 - › App that runs on smartphone / tablet with connection through Bluetooth to blackbox installed in vehicle
 - › System **MUST** include blackbox in vehicle to record data when smartphone not present, disconnected or powered down
 - › Roadside inspection through display outside of cab or printout



ELD Types

- › Standalone system
 - › Dedicated device that provides regulatory compliances as well as vehicle usage information
 - › Integrated printer for reliable and fast manual roadside inspection



Thank you!

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