



Electronic Logging Devices Enforcement and Technology

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Technology Overview

- Wireless Roadside Inspection Project
- Electronic Logging Devices
- Enforcement During Implementation Phases
- Fleet Management and Tracking Technology



Wireless Roadside Inspection (WRI) Project

- Real time safety assessment of commercial motor vehicles traveling at highway speeds
 - Assesses driver hours of service (HOS) information/CDL status
 - Envisioned to augment data available to the Safety Measurement System (SMS)
- Final report completed – August 23, 2017
- Suspended by the latest Appropriations Act



Electronic Logging Device Phase I

February 16, 2016 through December 18, 2017



Comparing the 3 Devices

	AOBRDs	Devices Installed with Software	ELDs
Integrally Synchronized	Yes	No	Yes
Automatic Recording of HOS	Yes	No	Yes
Technical Specifications	Limited	No	Yes
Registered with FMCSA	No	No	Yes*

*To see the list of ELDs registered with FMCSA, go to:

<https://www.fmcsa.dot.gov/hours-service/elds/equipment-registration>



Vehicle Equipped with an Electronic Device

- Motor Carrier/Driver declares official method
- Inspector can use electronic device as a supporting document



Citing During Phase I: Roadside and Investigations

	AOBRDs	Devices Installed with Software	ELDs
Section 395.8(d)	No	Yes	No
Section 395.15	Yes	No	No
HOS Limitations (10, 11, 14, 15, etc.)	Yes	Yes	Yes

- If the ELD is not registered with FMCSA, the device must meet the definition of an AOBRD or meet the requirements of §395.8(d)
- The CVSA Out of Service Criteria is applicable to all devices



Electronic Logging Device Phase II

December 18, 2017 through December 16, 2019



Comparing the 3 Devices

	AOBRDs	Devices Installed with S...	ELDs
Integrally Synchronized	Yes		Yes
Automatic Recording of HOS	Yes		Yes
Technical Specifications	Limited		Yes
Registered with FMCSA	No		No

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Automatic On-board Recording Devices

- Not subject to the technical specifications in the ELD rule
- Expansion of fleet = ELD installation
- Replacement of CMV = AOBRD reinstall



Electronic Data Transfer

ELD Requirements

- ELD provider is required to select 1 of 2 options:
 - Telematics

or

 - Local
- Within the selected option, the ELD must support both methods:
 - Telematics; email and webservice

or

 - Local; USB and Bluetooth



Electronic Data Transfer

Enforcement Official

- Telematics Option – Select 1 of 2 methods:
 - Email
 - Webservices
- Local Option – Select 1 of 2 methods:
 - USB
 - Bluetooth



All Else Fails

- ELD Display Screen
- Printout from ELD



*The rule does not address a motor carrier providing a driver's .pdf hours of service via fax or email



Electronic Records of Duty Status (eRODS)

- All electronic data will be analyzed by Electronic Records of Duty Status (eRODS)
- Potential hours of service violations identified
- 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

- Hours of service violation that is 15 minutes or less
- Identify patterns of hours of service non compliance
- Less impact on safety management score



Operating Without an ELD

- When vehicle is equipped with an ELD and the ELD is required
 - Removed from registration list
 - ELD Malfunction
- Vehicle is equipped with ELD
 - Driver is Exempt from ELD use
 - Exempt driver account
- When an ELD is not present/required
 - Driver/vehicle meets exemption



Falsification and Tampering

- Special Driving Categories – Yard Moves / Personal Conveyance
 - Make sure drivers understand when they can use these categories
 - Using a special driving category while not meeting the criteria may result in falsification of a RODS.
- Power failure
- Odometer jumps



Enforcement and Other Technologies



Fleet Management and Tracking Technologies

- Fleet Management Software (FMS)
 - Contains all information pertaining to trips / routes
- Toll Transponders
 - Records all toll transactions with time date and location
- Asset Tracking Systems
 - Follows and records movement of equipment
- Automatic On-Board Recording Device (AOBRD)
 - Electronic Hours of Service with Tracking Technology
- Electronic Logging Devices
 - Standardized Technical Specification - Records all movement of the CMV and engine data elements



Asset Tracking - Speed Monitoring



Speed

— jump to zone — address, city or ZIP search

Speed Controls
 Select your filter criteria to generate a speed report below.

Asset No: — all assets —
 Zone Filter: — select one —
 Draw a temporary zone:
 Date Range:
 From: 2012-04-04
 To: 00:00
 2012-04-04
 11:59

Speed Filter:
 Minimum Speed: 55.00 Mph/hour
 Attribute Filter:
 Select Filters
 Select Attributes:
 Select Attributes

Generate Report

Speed Report For Asset 51497 From: Wed 04 Apr 2012 09:29 To: Wed 04 Apr 2012 10:29
 — Speed Limit: 55 MPH

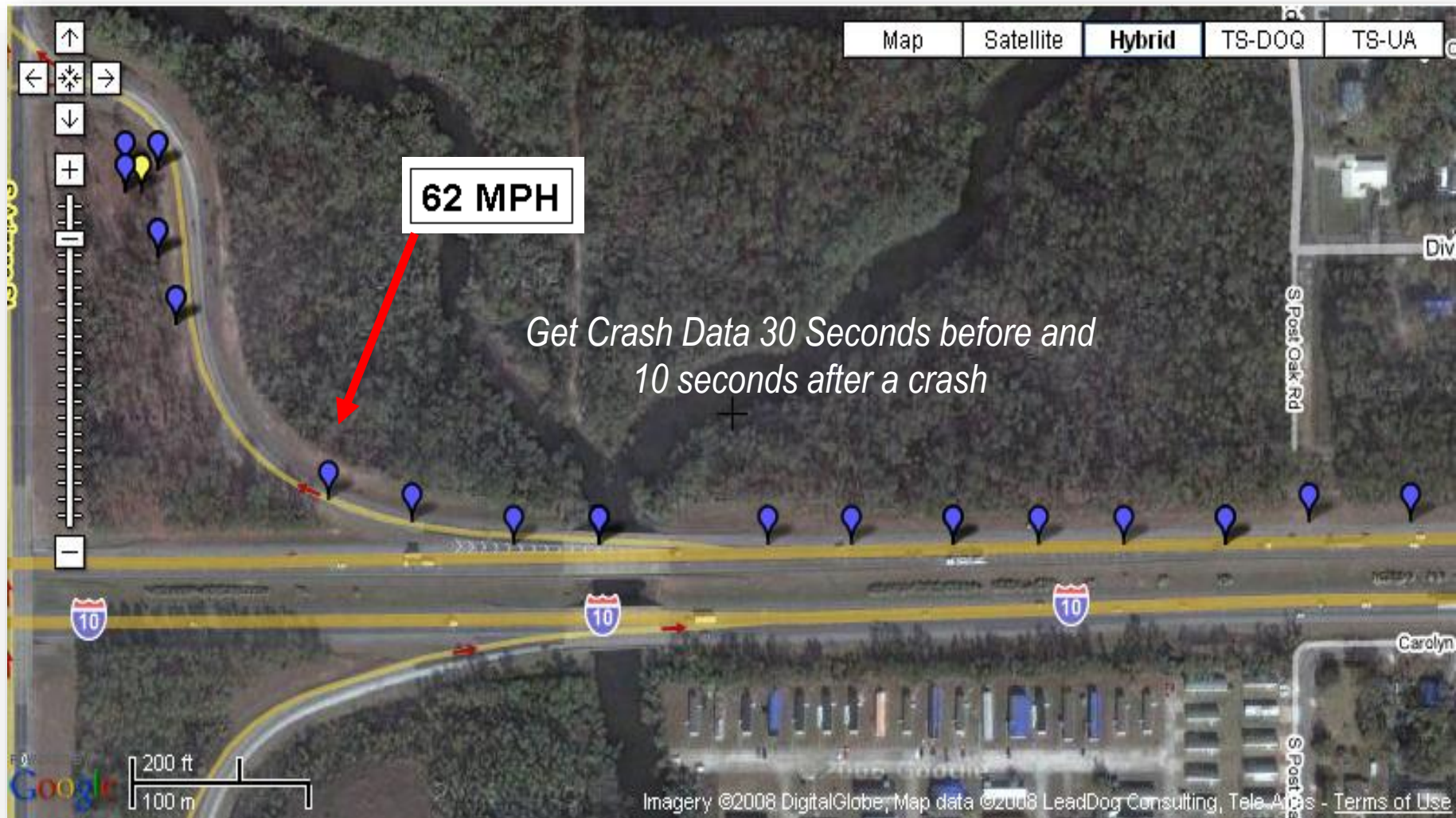
Miles Per Hour

Speed Filter: 55.00 Mph/hour

Asset No.	Subtype	Crash	Max Speed	Max Speed Time	Events	Zone
51497	Auto-Created Sub-Type	<input type="checkbox"/>	73.7 mph	Wed 04 Apr 2012 09:29:46	321	Alabama
51502		<input type="checkbox"/>	71.5 mph	Wed 04 Apr 2012 09:32:27	431	Georgia
42679		<input type="checkbox"/>	70.0 mph	Wed 04 Apr 2012 12:38:38	423	Texas

7:56 PM

Asset Tracking - Critical Event Reporting



Case History using Asset Tracking (GPS)



Crash Reconstruction Using GPS



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Trucking co. in school bus crash lacked oversight

Depositions show that Comtrak Logistics, the employer of the truck driver who plowed into a school bus in 2008, violated numerous safety regulations.

*By Suxon Lee
Staff writer*

Published: Tuesday, September 21, 2010 at 10:07 a.m.

Only one pair of eyes failed to see and heed a stopped school bus on a major four-lane highway outside Ocala two years ago, resulting in a fiery crash that killed a young girl.

But it was an entire trucking company, court documents show, that turned a blind eye to safety procedures in monitoring its drivers. That failure enabled a chain of events that ended abruptly and tragically on Sept. 23, 2008.

And today, nearly two years to the day later, the slack safety protocol exhibited by the major interstate carrier continues to sting representatives of families involved in the crash.

Reinaldo Andujar Gonzalez was behind the wheel of a semi-trailer when he plowed into the back of the bus, which was transporting home 60 students from North



File photo
Troopers with the Florida Highway Patrol Sept. 24, 2008, wrap up the investigation the previous days accident on North U.S. in Citra that killed Frances Margay Schee. top.

procedure when drivers were handed out of service citations by DOT officers.

The impact, which caused the bus to become engulfed in flames, claimed the life of 13-year-old Frances Margay Schee and left numerous others hospitalized. Gonzalez, 32, is now serving three years behind bars for vehicular homicide and reckless driving with serious bodily injury.

Gonzalez, an Orlando resident, was in violation of both the 11-hour and 14-hour rules and lacked sufficient rest in a 42 [] hour period from the time he left his home in

Gonzalez, an Orlando resident, was in violation of both the 11-hour and 14-hour rules and lacked sufficient rest in a 42 [] hour period from the time he left his home in Orlando early Sept. 22 up until the time of the crash on Sept. 23, a Florida Highway Report found.

Gonzalez, a father of five who had moved to Florida from Puerto Rico five years ago

The company today also receives direct email updates from the GPS systems of vehicles once drivers approach their 14-hour mark. Such alerts are sent to terminal dispatchers, who in turn, advise drivers to shut down and get off the road.

Employed with Comtrak just 13 days at the time of the crash, Gonzalez had entered into a lease agreement with the company and was acting under its authority when



Got Questions?

- Email: ELD@DOT.GOV
- ELD Website: <https://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-devices>

