



## ELDs Taking Full Effect

Ready or not, here it comes: December 18, 2019, marks the final deadline to comply with the ELD Mandate, the requirement that most commercial motor vehicles incorporate an electronic logging device (ELD) to better track drivers' hours of service (HOS).

This important milestone has been both anticipated and dreaded—but it certainly comes as no surprise. The mandate is a provision of Moving Ahead for Progress in the 21st Century, or MAP-21, a bill passed back in 2012. The ELD Mandate officially went into effect on December 18, 2017. However, agencies didn't begin enforcing the rule until April of 2018 (after a legal challenge postponed the original date).

The upcoming December deadline is really the end of an extension that applies only to operators who are replacing their older automatic on-board recording devices (AOBRDs), rendered obsolete under the current set of standards.

Earlier this year, [a survey of carriers](#) suggested that a significant number will wait until the final quarter to become fully compliant by the deadline—which will be made more difficult to meet by the shipping-intensive holiday season. Considering the concerns surrounding ELDs (some of them voiced in the courtroom), it's likely that many weren't merely procrastinating, but also taking time to study the ramifications of the mandate as it was phased in.

And it's true: The adoption of ELDs will have implications far beyond the bill's stated goals of increasing safety through greater compliance with HOS rules. ELDs herald a new era of data analytics in the trucking industry. The unprecedented amount and scope of information provided by ELDs has the potential to transform every aspect of the trucking industry.

The advent of ELDs promises broad benefits: increased safety, efficiency, productivity, and quality of life for drivers. And as with every innovation, it also opens the door to challenges and unintended consequences—for privacy, cybersecurity, and regulatory reach, to name a few. To steer the outcomes away

# ELDs herald a new era of data analytics in the trucking industry.

## The ELD process



### 1. Record



### 2. Certify



### 3. Transfer



### 4. Review

from costs and toward benefits, it's critical to understand how ELDs are already affecting the trucking industry and how they could shape its future.

### How ELDs Work

An electronic logging device can record a range of vehicle data, but its primary function is to log drive-time hours. After all, the purpose of the ELD Mandate is to facilitate more accurate enforcement of HOS rules.

Whereas old paper-based recordkeeping methods were susceptible to error or fraud, an electronic device connected to a vehicle's electronic control module (ECM) generates impeccable data, and consequently, more accurate Records of Duty Status (RODS). Furthermore, as an electronic record, the information is far easier to track, manage, and share with safety officials.

The Federal Motor Carrier Safety Administration (FMCSA) [outlines the ELD process](#) as follows:

#### 1. Record

First, a certified ELD synchronized with the vehicle's engine records an array of information, including power and motion status, miles driven, engine hours, and more.

#### 2. Certify

Next, the driver certifies the data, adding explanatory notes, or annotations, as needed.

#### 3. Transfer

Upon request, the ELD must be able to transfer information securely, either remotely (using email or other web services) or locally (using USB or Bluetooth connections).

#### 4. Review

Once the data is transferred, safety officials can review it for possible HOS violations.

#### Compliance = Safety

By ensuring greater compliance with HOS rules, the ELD mandate supports MAP-21's core principles of raising safety standards in the commercial driving industry. The logic goes like this: Greater compliance with HOS averts driver fatigue, which in turn prevents accidents. Around 4,000 Americans per year die in [truck-related collisions](#), many caused by human error. [The FMCSA estimates](#) that the ELD Mandate will avoid 1,844 traffic accidents, 562 injuries, and 26 fatalities per year.

#### A Small Step, and a Giant Leap

Despite the anxieties stirred up by the mandate's rollout, ELDs don't represent a radical shift in regulation—just in the way regulations are enforced. It has long been FMCSA's role to create and enforce regulations such as HOS rules in the interests of protecting public safety and, indeed, the American economy. The FMCSA views ELDs as simply the newest and best tool for the job.

However, the universal adoption of ELDs does represent a turning point for the commercial vehicle industry—

its official entry into the information age. In conjunction with GPS-enabled telematics and other technologies, ELDs can generate an unprecedented torrent of data—data that can be leveraged through data analytics. As in so many industries, data analytics can increase productivity and create opportunity in the trucking industry—that is, when used thoughtfully and responsibly.

#### Data as Deterrent

Just as safety officials use ELD data to discourage HOS violations, managers are using the technology to discourage unwanted behavior, such as aggressive driving.

A typical motorist drives around 12,000 to 15,000 miles annually, and has a one in 15 chance of being involved in a crash says [Automotive Fleet](#). By contrast, an OTR truck driver can add 2,000 to 3,000 miles to an odometer *every week*, making his or her risk of collision that much greater. Distracted or aggressive driving compounds the threat of accidents. Careless or reckless driving on the job can devastate a company's bottom line, not to mention people's lives.

[According to the FMCSA](#) and Department of Transportation, the cost of a non-fatal injury crash averages about \$195,000; for a fatal accident, the figure rises above \$3,600,000 (and that was when the study was released in 2007). Of course, these figures don't include related costs—such as mental healthcare for crash victims or lost earnings by family caregivers—and could never account for the loss of life.