



[ A Special Report ]

**Field Technologies**  
OPTIMIZE FIELD WORKERS, SERVICE & ASSETS

# The Criticality Of Fleet Safety

Understand the cost of fleet safety, what goes into a fleet safety strategy, and how today's technologies play a role.



## 3 Common Myths About Fleet Safety Initiatives

This report is dedicated to discussing the criticality of fleet safety, which is a growing focus area among our readership. But before we dive into the content, I thought it would be interesting to explore some of the common misconceptions I've heard from companies about fleet safety initiatives.

### **Myth #1: A Fleet Safety Focus Will Take Away From My Efficiency Initiative**

First, and I think the biggest myth, is that putting a focus on fleet safety will take away from a company's focus on productivity and efficiency improvements. The reality is that safety and efficiency are in many ways related. I understand that organizations face constant pressure to cut costs and improve productivity, but there are strategic objectives outside of just efficiency that are important to consider — safety being one of them. And you may be surprised about the impact improving fleet safety can have on efficiency. Moreover, it's totally feasible for an organization to simultaneously tackle both a fleet efficiency and fleet safety initiative. Today's GPS and telematics solutions are equipped to help in both of those areas, and in choosing one instead of the other you are likely leaving value on the table. If you're looking for ways to optimize your fleet operations, you should look at how a safety initiative could compliment your efficiency goals.

### **Myth #2: There's No ROI With Fleet Safety**

The second myth I've heard related to fleet safety is that there won't be a hard ROI, and, therefore, it isn't worth the investment. In actuality, there are a number of ways that making safety improvements can impact the bottom line. The first is that cutting back on certain unsafe driving behaviors

like speeding, braking, and harsh accelerations all reduce fuel usage, which equates to dollars saved. Second, reducing wear and tear on vehicles caused by unsafe driving can equate to lower maintenance costs. And finally, safer driving practices result in fewer accidents, which saves a company on not just the cost associated with the accident itself (vehicle repair or replacement, worker time off) but can also result in lower insurance premiums.

### **Myth #3: We Don't Have Time To Focus On Fleet Safety**

If you think fleet safety isn't important enough to focus your company's time and resources on, you should think again. That said, a fleet safety initiative may take less time and resources than you're thinking — especially if you've already invested or are already planning to invest in a fleet management solution with fleet safety possibilities. It doesn't take much extra time or effort to work on improving an area or two of fleet safety. Simply pick the area or two that you feel your drivers struggle with most, and focus there first. You can always broaden the scope over time, but starting with a small focus area prevents the initiative from becoming overwhelming. Also, consider using incentives to engage drivers — the more they understand the reasoning for the safety initiative and are motivated to buy into the project, the easier and more successful the project will be.



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## Understanding The Costs Of Ignoring Fleet Safety

**F**leet operators keep a sharp eye on costs. A vehicle fleet is one of the most expensive assets a company can purchase, own, and maintain. But an element of the fleet budget that is difficult to quantify on the balance sheet is safety. Unlike most company assets, your vehicles are out of your physical control most of the time and operated by employees with a wide variety of driving habits. Your vehicles are also the public face of your company while they are on the road, and they can both sustain damage and inflict damage on other vehicles, property, and people.

The potential liability costs of a fleet are high, so safe driving is critical to keeping overall fleet costs low. Those costs aren't necessarily just directly related to the cost of an accident. Fleet safety costs are multi-dimensional and often hidden. They include:

**Fuel:** Fuel costs are often unpredictable and difficult to manage, and fleet managers are always trying to find ways to control or reduce that line item in their budget. Fuel consumption is directly tied to speed and acceleration, so if your drivers are exceeding the speed limit, you are probably wasting some fuel. The Department of Energy claims that every 5 mph over 50 mph is the equivalent of adding 14 cents in additional cost to every gallon of gasoline. Keeping driver speed in check can go a long way toward reducing those costs.

**Maintenance:** Every vehicle needs regular maintenance, but if your trucks aren't being operated safely, those maintenance costs can go up significantly. Harsh braking, harsh acceleration, hard turns, sudden stops, tailgating, and other bad habits can affect the lifecycle of your vehicle's brakes, oil, transmission, steering, tires, and other components. When these elements need to be serviced or replaced more frequently, the cost of maintaining the vehicle goes up exponentially, in addition to the cost of downtime that results in having the vehicle in the shop.

**Employee/Public Safety:** Unsafe driving does more than just risk material losses; it can lead to injuries or fatalities. Your employees add value to your company, and if they are injured in an accident, everyone loses (including your customers). If a driver injures or kills a pedestrian or another driver, the costs to the victim's family, your driver, and your own peace of mind are incalculable.

**Liability:** If your vehicles are involved in an accident, you may be the target of legal action or civil lawsuits. In

addition to tarnishing your brand, these incidents can cost millions in legal fees and damages. Your drivers may also make expensive workers compensation claims when they are injured on the job.

**Asset Costs:** In addition to damaging other vehicles or property, accidents have a direct impact on capital expenditures. Depending on the industry, fleet vehicles can cost anywhere from \$30,000 to upwards of \$100,000 or more (in addition to the cost of any equipment inside the vehicle). Even if your insurance covers the cost of a lost vehicle, you may still have to pay some portion of the purchase price. If your drivers' poor habits result in increased maintenance, you'll need to invest in additional trucks to minimize downtime.

**Theft and Loss:** Your safety concerns don't end once the vehicle is parked. Company vehicles are frequently the target of thieves who either plan to sell the vehicle or its parts, or steal the tools or other equipment locked inside. Your fleet should be sufficiently protected to keep your investment safe.

**Insurance Premiums:** Frequent speeding tickets or accidents can also send your already high insurance premiums through the roof. If the problem is persistent, you may have difficulty obtaining the level of insurance you need to effectively operate your fleet in the first place.

**Reputation:** Your vehicles are practically rolling billboards for your business, and you count on them to help spread your marketing message across town as your employees move from job site to job site. The last thing you want is for one of your drivers to tarnish your hard-earned reputation by speeding, driving recklessly or aggressively, running red lights, or being at fault in an accident. Hundreds of potential customers see your vehicles every day; unsafe driving can taint your brand permanently.

In addition, a high number of accidents or infractions can lead to a lower safety rating with the Department of Transportation. In some industries, those ratings can mean the difference between winning or losing a contract with an important customer.

The right approach to fleet safety will not only help your fleet manager sleep better at night, but can also reduce the cost to maintain and operate your fleet. In the following sections, we'll outline the key pillars of fleet safety and explain how fleet management solutions and tracking technology can help improve your safety program.

# The Pillars Of A Solid Fleet Safety Strategy

It is easier than ever before to monitor driver behaviors and safety issues using technology. Fleet operators can not only view exactly where each vehicle is 24 hours a day, they can also glean important information about how their employees are operating those vehicles. With a simple click, they can generate reports about speeding, harsh acceleration/braking, accidents, idling, equipment operation (cherry pickers, winches, etc.), start/stop times, and other information that can give them an up-to-the-minute view of how safely the fleet is operating.

But technology is just one piece of the puzzle. If that technology doesn't rest on a solid foundation of robust hiring and training procedures, then the data won't result in any sort of ROI — except maybe in excess frustration. A fleet

aware of company expectations when it comes to behavior behind the wheel. In many industries, this type of training is already part of the hiring process because the vehicles include specialized equipment or there are special licensing requirements. But even companies that use standard pick-up trucks or vans should include a driver training component so that employees know what is expected when they are on the road.

**Establishing Formal Policies and Procedures:** That training should be based on formal written policies that outline the company's expectations about how the vehicles are operated, what qualifies as unauthorized use of the vehicle, and a clear policy regarding how safety violations will be dealt with. There should be a clear escalation process that out-

lines what behavior will warrant a warning, a penalty (reduction in pay or hours), a suspension, or a dismissal.

**Ongoing Management and Retraining:** While safety policies will help weed out repeat offenders, the

goal of the program should be to improve driver and fleet performance, not just to penalize drivers. The initial response to poor driving behavior should involve retraining and discussion with the drivers. A high level of speeding may indicate scheduling or route problems, not just poor decision making on the part of the employee. Retraining can include formal driver training and testing to address specific behaviors. You should also provide regular safety training.

**Investing in Fleet Management Technology:** How can you manage this process with a staff of drivers out of your direct supervision most of the day, and who may be located across a widely dispersed geographic area? In some organizations, drivers may not even see managers face-to-face for weeks at a time. Smaller fleet operators often lack the staff to effectively supervise the drivers, or lack the ability to manage formal safety programs. Technology — in the form of a fleet tracking/management solution — can help.

Fleet management solutions that include GPS tracking and wireless communication will give you the tools to monitor and manage your safety program by providing real-time data on where your vehicles are located and what your drivers are doing during their shifts.

**The American Transportation Research Institute found that if a commercial driver had a previous violation for driving more than 15 mph over the posted speed limit, the future likelihood of that driver being involved in a crash increased by 67%.**

safety program should focus on the safety of the drivers, the safety of the public at large, and the safety of your vehicles, equipment, and other assets. Below, we've listed some of the key pillars of a fleet safety program that can help you protect your investment in drivers, vehicles, and technology.

### Keys To Fleet Safety Success

**Selecting and Screening Drivers:** This may seem obvious: Every company wants to hire reliable, qualified drivers. Unfortunately, in several industries (like long-haul trucking) there is currently a driver shortage. In other markets, the employees operating the trucks aren't hired for their driving skills; they are plumbers, HVAC repair specialists, utility workers, etc., who just happen to be driving a company vehicle. Background checks and preliminary driving tests should be part of the hiring process. A study by the American Transportation Research Institute found that if a commercial driver had a previous violation or conviction for driving more than 15 mph over the posted speed limit, the future likelihood of that driver being involved in a crash increased by 67 percent.

**Driver Training:** Once drivers are hired, make sure there is a formal training process in place so that each driver is fully

# The Role Technology Plays In Improving Fleet Safety

**F**leet management and tracking solutions have traditionally been deployed to improve visibility, reduce costs, and boost efficiency. But the same solutions that can optimize scheduling and dispatch by using real-time location data, or that can cut fuel costs by monitoring unnecessary idling, can also be leveraged to support a safety program and provide measurable improvements.

While many of these benefits are focused on driver monitoring, fleet management systems also make it possible to keep drivers and equipment safe while simultaneously reducing costs.

#### **Identify Drivers in Distress:**

With real-time fleet monitoring solutions (some of which even include in-vehicle cameras and sensors), you can more easily identify when a driver may be in danger, and get help to the driver's location more effectively. In field service industries, where workers often find themselves in remote, rural locations, the GPS system is sometimes their only means of communication when they need assistance. If there's an accident or a breakdown, companies can quickly respond.

If a vehicle is stationary for too long and the driver can't be contacted, steps can be taken to check on their well-being. Some solutions also include a "panic button" that drivers can utilize to summon first responders if there is an accident or if they find themselves in danger.

#### **Reduce Unauthorized Usage via Geofencing:**

GPS-based solutions allow companies to create geofences to help keep drivers on their assigned routes and discourage unauthorized use of the vehicles. Geofencing and zoning capabilities also improve security by issuing alerts if a driver leaves his predetermined route, or if a vehicle is moved after hours. This can deter unauthorized use of assets, and can help reduce equipment replacement costs and insurance rates.

**Recover Stolen Vehicles Fast:** Reducing vehicle or cargo theft also has significant safety and

financial benefits. Delivery trucks and construction equipment are extremely expensive (in some industries, a single vehicle may have a six-figure price tag), so recovering a stolen asset can pay for the entire fleet management solution in some cases. With geofencing and off-hours use alerts, authorities can be notified within minutes of a vehicle being stolen.

#### **Monitor Speeding and Other Driver Behaviors:**

Through dashboard views and reporting, fleet managers can keep tabs on unacceptable driver behavior. Fleet solutions can monitor speeding, hard braking, and other driver behaviors and send real-time email alerts to supervisors. Armed with this information, it is easier to identify which drivers may need additional training.

Some of these solutions include detailed data on local speed limits, right down to specific streets and roads, so you'll know if your vehicles exceed the posted limit no matter where they are.

26%

**Ecolab reduced preventable accidents 26% in one year with a fleet management solution.**

#### **Real-World Fleet Safety Success**

Fleet monitoring can have a real impact on a company's safety performance. When St. Paul, MN-based Ecolab, an environmental services provider, deployed a fleet management solution, safety was one of the key performance indicators (KPIs) outlined for the project. The company set safety targets and designed custom reports with the solution vendor. As a result of the new solution (in conjunction with safety training and other programs), preventable accidents declined 26 percent in one year.

**Improved Navigation:** In-cab fleet management tools can provide hands-free navigation functionality that not only helps get your drivers where they are going on time, but can also provide alerts that help them avoid heavy traffic, accidents, or dangerous conditions. Audible directions also help keep their eyes on the road.

**Real-Time Alerts Improve Behavior:** Some

fleet systems can also be configured to give drivers real-time feedback about how they are performing against the company's safety parameters. Chesapeake Energy deployed a fleet solution to improve both asset management and driver safety

be able to use driver scorecards to forecast the likelihood of accidents or infractions, and then tailor its training to address those needs. That data is used in weekly safety meetings with its drivers and provided to management in monthly finance and operation

## With the deployment of a GPS-fleet management solution, Toshiba Global Commerce Solutions reduced its insurance costs by half a million dollars.

and has integrated data from the system into its regular safety meetings. They also made real-time driver alerts part of the solution. If drivers exceed predetermined speeding or hard-braking limits, they receive an audible alert so they can immediately address the problem. Within the first year, the number of alerts the system issued to drivers fell by 20 percent to 25 percent.

**Automatic HoS Tracking and Reporting:** For fleets that are covered by federal Hours of Service (HoS) regulations, fleet tracking technology can be used to automatically populate driver logs for both HoS and fuel tax reporting purposes. In addition to improving compliance, these solutions can help fleet operators ensure that drivers are not overtired behind the wheel. This not only helps ensure safe driving, it also reduces the risk of costly fines.

In fact, the U.S. Federal Motor Carrier Safety Administration (FMCSA) has mandated electronic logging devices (ELDs) for most commercial fleets for recording HoS data — and these can include devices typically used for fleet tracking applications. The FMCSA estimates that in addition to reducing paperwork, this move will help prevent 1,844 crashes per year.

**Reporting and Scorecarding Help Guide Driver Training:** The reports generated by the fleet solution can help identify which drivers are having problems and make it easier to target retraining efforts. If a specific driver continually exceeds safety parameters, the issue can be addressed privately with the driver. Having formal safety policies in place can help guide and escalate this process when necessary.

UniTek Global Services deployed a fleet management solution with safety in mind. The company wanted to

reports. Since the system was put in place, the number of accidents has been reduced by 30 percent.

To that end, it's important that the fleet solution identifies both vehicles and drivers so that you can effectively monitor and measure safety compliance. Vehicle-centered hardware solutions should require driver identifications/log-ons so that you can more accurately track safety issues.

**Lower Costs:** Monitoring driver behavior and quickly correcting issues like persistent speeding can save money by reducing the cost of speeding tickets and any associated insurance increases. Improving driver performance can also reduce the risk of accidents, which also saves money.

**Improving driver behaviors, reducing accidents, and discouraging theft all result in reduced liability and insurance costs.** A tracking solution can also help establish "proof of fault" in an accident. If a driver is involved in an accident, the data generated by a fleet tracking solution can help show that the driver was properly operating the vehicle. If a driver is accused of causing an accident, fleet managers can report on their location and speed.

In addition, in many cases, insurance carriers will offer a reduction in premiums for having certain types of fleet management solutions in place. For instance, when Toshiba Global Commerce Solutions deployed a GPS-fleet management solution for its field service operation (covering more than 350 vehicles in North America), the company reduced its insurance costs by half a million dollars. By deploying the solution's module for monitoring safe driving, Toshiba was able to leverage insurance discounts made possible through generating verifiable driver data.

# Get Your Drivers On Board With Your Fleet Safety Initiative

A safety-centered approach to fleet management also helps encourage employee buy-in to the new fleet solution. Fleet tracking systems are often viewed suspiciously by drivers. Think about it: These highly independent employees may feel they are suddenly being spied upon. If you can clearly outline both the productivity advantages for the company and the safety advantages for the driver, that will go a long way toward fostering acceptance and reducing pushback.

## Driver Resistance Can Inhibit Safety Goals

Driver resistance can be a major stumbling block to effectively using fleet management tools to improve safety performance. It's important to involve the drivers in the deployment early and explain how the solution can make them safer and improve operations (as well as save costs). By educating drivers up front, you dispel any myths or misconceptions about the system. This also encourages drivers to embrace the capabilities of the solution and use it to its fullest potential.

These changes can be challenging for drivers and managers alike. Keeping an open line of communication is critical for instituting the safety program. That's why having clear, written policies established prior to the technology is so important. Drivers should know exactly what to expect from the solution and what the company expects from them. Being consistent with what you measure and how you report that data is also important.

Involving drivers in the process allows companies to more proactively address safety issues using the data generated by the solution. Monitoring also creates "coachable" moments for managers. Many drivers may not even be aware of some of their poor habits, so having accurate data in hand can help make driver coaching and training much easier.

## The Indirect Impact Of Fleet Management On Safety

Fleet management solutions also improve safety (and the working environment for the drivers) in indirect ways as well. By using location data to

create more efficient routes and schedules, drivers may have more time for a proper meal break instead of trying to eat while they are driving (a distraction that can lead to an accident). In-vehicle computers can provide hands-free directions and communication with dispatchers that will elimi-

## Driver Engagement Checklist:

- ✓ Clearly articulate the reasoning for the technology being used
- ✓ Explain benefit to drivers themselves
- ✓ Involve drivers early on
- ✓ Have an open line of communication
- ✓ Develop clear, written policies
- ✓ Be consistent
- ✓ Take advantage of "coachable" moments
- ✓ Establish incentive programs
- ✓ Ask for driver feedback

nate unsafe distractions caused by mobile phone or radio usage.

Finally, the fleet solution can be used to establish a reward or incentive program for safe driving. Frequently, the technology is used to simply mitigate and follow up on incident level performance. But these solutions can provide even more benefits when companies leverage the aggregated fleet intelligence to motivate drivers to improve their behavior. Companies can monitor trends, create scorecards, and use gamification of driver metrics to incentivize drivers to improve. The safety benefits can be compounded once drivers are actively addressing these issues on their own.

With real-time visibility, fleet operators can also improve the safety of their drivers. Doing so provides a better work environment, makes the road safer for all motorists, and potentially reduces liability and insurance costs for the fleet owner.



Founded in 2004 GreenRoad has become a global leader in fleet performance management and analytics solutions, helping organizations achieve greater productivity and improved safety and performance through real-time actionable data. GreenRoad's advanced technology and business intelligence tools help organizations of all types improve driver safety, increase operational efficiencies, and maintain corporate and regulatory compliance while reducing overall risk. Companies no longer have to choose between telematics and safety. With GreenRoad's safety solution organizations can access real-time GPS tracking, vehicle maintenance, fuel optimization, resource location, and driver behavior all in one low-cost, comprehensive platform.

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