



White Paper - Fleet Safety

# A Modern Take on Fleet Safety



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# The Most Important Issue of Them All

The most important issue facing truck fleets today is safety. Nothing is more important for your business than protecting your drivers, your assets, the general public and the freight you haul. It's a lot to take on—particularly given all the other management worries on your plate.

But luckily, help is available—a full-on partnership with ISAAC and its driver-focused safety expertise. It can help bolster your fleet's safety record with data-driven insights and real-time information that empowers safety in a way never possible before.

## The stakes of road safety

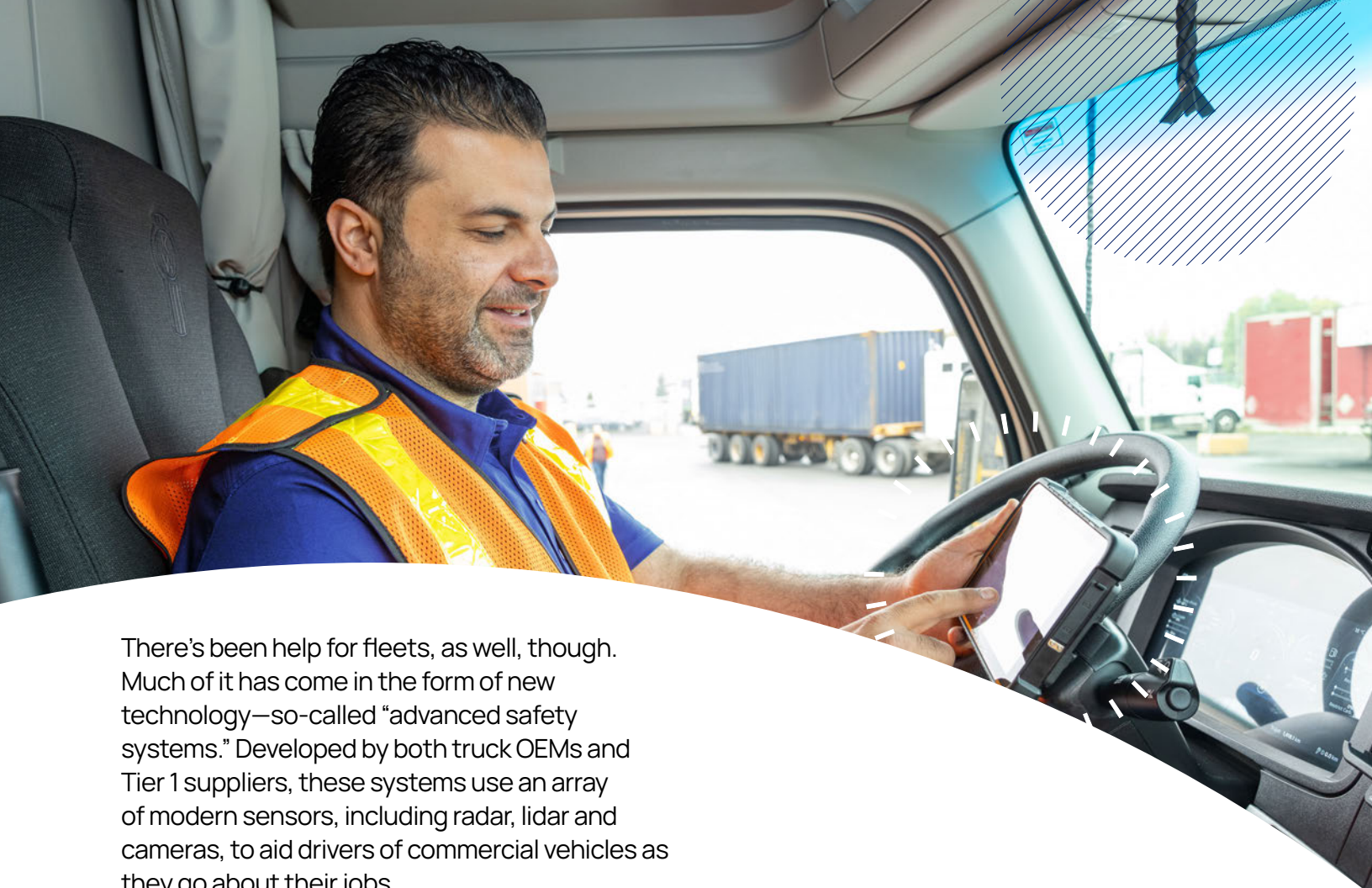
On the surface, developing a culture of safety for your fleet simply makes good business sense. A serious accident today can make national news headlines—with disastrous fallout for the company responsible. And you only have to flip on your television or look at a highway billboard to see advertisements from aggressive law firms seeking victims of a “big truck” crash.

If a crash is bad enough, with injuries or even fatalities, so-called “nuclear verdicts”, with settlements well north of \$1 million are common. More than one carrier has gone under as a result of a jury verdict in the aftermath of a bad accident. And even a less severe settlement can cause your insurance rates to skyrocket.

To add to the pressure, the Commercial Vehicle Safety Alliance, a nonprofit association comprised of local, state, provincial, territorial and federal commercial motor vehicle safety officials and industry representatives, both

revamped its reporting metrics for unsafe fleets, and established an online “scorecard” for every carrier in North America. Using this resource, safety-focused shippers can bypass unsafe carriers and find trusted business partners to transport their cargo in as safe a fashion as possible.





There's been help for fleets, as well, though. Much of it has come in the form of new technology—so-called “advanced safety systems.” Developed by both truck OEMs and Tier 1 suppliers, these systems use an array of modern sensors, including radar, lidar and cameras, to aid drivers of commercial vehicles as they go about their jobs.

**These include safety enhancing systems such as:**

- Anti-rollover protection
- Lane departure warnings
- Active cruise control
- Following distance warning
- Excessive speed warnings
- Lane-change assist
- Active steering assist
- Tire pressure management systems
- Collision avoidance/mitigation systems

And yet, in spite of all the societal, financial, and governmental pressure to be safety conscious, as well as all of the new driver assistance systems, figures show that traffic fatalities have actually been climbing to near-record levels in recent years.

## A sharp spike in road fatalities

According to preliminary data compiled by the U.S. National Highway Traffic Safety Administration (NHTSA), an estimated 42,915 people died in motor vehicle traffic crashes in 2021—a 10.5% increase from the 38,824 fatalities recorded in 2020.

Worse, this is the highest number of fatalities recorded since 2005 and the largest annual percentage increase in the history of the Fatality Analysis Reporting System.

The specific trendlines are sobering. According to NHTSA:

- Fatalities in crashes involving at least one large truck jumped 13%, reversing the trend seen in 2020.
- Truck-involved fatalities logged in at 5,601, with fatalities in large truck-involved crashes also rising the board with 12% more drivers, 9% more passengers, 9% more motorcyclists, 13% more pedestrians and 5% more bicyclists losing their lives compared to 2020 data.\*
- Additional preliminary data reported by the Federal Highway Administration shows that vehicle miles traveled in 2021 increased by about 325 billion miles, or about 11.2% compared to 2020.
- Data estimates show the fatality rate for 2021 was 1.33 fatalities per 100 million vehicle miles traveled, marginally down from 1.34 fatalities in 2020.

Traffic fatalities in multiple categories showed relatively large increases in 2021 versus 2020:

- Fatalities in multi-vehicle crashes up 16%
- Fatalities on urban roads up 16%
- Fatalities among drivers 65 and older up 14%
- Pedestrian fatalities up 13%
- Daytime fatalities up 11%

These figures are rising despite a heightened awareness of safety at the fleet and driver level, increased regulation and reporting from governments, and unprecedented advancements in driver safety assistance systems.

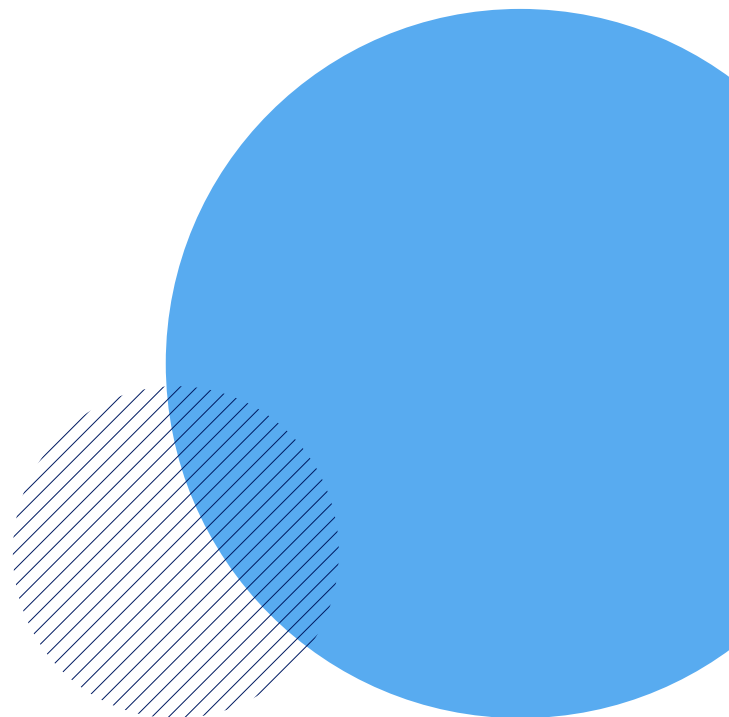
To be sure, shippers and carriers have never before been under such intense, unrelenting pressure to move and deliver freight. A crumbling infrastructure, poor roads and bridges combined with record traffic congestion certainly doesn't help.

Like it or not, we live in a distracted age where it is all too easy for drivers to get fixated on systems or devices instead of the road. In all likelihood, all of these factors play a role in driving up traffic accidents and fatalities.

Regardless of the causes, the trend is both clear and alarming; despite good intentions and new technology, fleets today need to focus more on safety.

But how?

\*NHTSA defines a large truck as any truck with a Gross Vehicle Weight Rating of more than 10,000 pounds, either in commercial or non-commercial use at the time of the crash—a weight range that includes everything from heavy duty pickups to semis.





# Safety First and Foremost

No matter how much of an emphasis you make safety for your business, the reality is that trucking is an inherently dangerous job that requires long hours, exposure to congestion and other unsafe drivers—in other words, the human factor.

## Promoting a safety culture

Safety is a complex issue, which makes it a complex job for fleets to manage. And getting a grasp on safety often means changing the culture at a company. Merely giving lip service to the importance and idea of safety simply won't cut it. You have to make safety a priority, and then—through constant training, messaging and reinforcement—make certain it becomes a priority for every employee at your company as well.

Training is critical as well. If you have any doubts about your fleet's commitment to safety, a review of driving training techniques is an excellent place to begin transforming the culture at your business.

The ISAAC solution includes the perfect driving training tool to start your new drivers off right, and refresh your older drivers' skills. ISAAC's

on-screen notifications help guide drivers through critical steps that teach them to identify dangerous situations and take immediate steps to avoid an accident before it occurs. It's a great way to teach defensive driving techniques that will allow drivers to avoid dangerous situations before it is too late to avoid an accident.

No matter how thorough the training program, given the unpredictable dynamics of the modern roadway, some accidents are unavoidable. But in these instances, the ISAAC solution teaches your drivers proactive moves to avoid or at least mitigate an accident when a situation becomes dangerous.



## Technology at the service of improved safety

Despite the rise in traffic fatalities over the past couple of years, it would be a mistake to discount new driver assistance safety systems and related technologies as a way to boost safety while your trucks are on the road.

Sit down with your fleet safety managers and controllers to review any systems you're currently using to make sure they're delivering the results you expect. And then review your fleet operational data to see if there are trends or patterns that additional technology can help mitigate. If you're going to invest in well-trained drivers, it only makes sense to give them the latest and best safety systems to reinforce and boost that training.

Once again, ISAAC can help by giving you the hard operational data you need to make well-informed spec'ing decisions. For example, ISAAC provides data to fleet clients that show if drivers are having a spike of hard-braking or hard-turning events. In these instances, collision mitigation systems or more user-friendly GPS navigation systems might be a sensible solution.

Perhaps most importantly of all, you need to establish a fair system of accountability that includes documented verbal and written warnings, follow-up remedial training and coaching. These procedures can save you massive headaches later if you are faced with post-accident litigation.

All of those are commendable, excellent, first steps toward a safer fleet. But, unless you're a large fleet with deep pockets, the reality is that managing fleet-wide safety to the degree necessary today can be a difficult task.

Even the safest fleets will inevitably be involved in a highway accident. How can these fleets handle compiling the information after the incident?

### **Do they have telematics reports including on-demand dash-camera footage?**

- Who will review that data?
- What actions will be taken following that review?

### **Do they have reliable data and easy access to footage that helps to prove their drivers' innocence (in the great majority of accidents), and could protect against lawsuits and nuclear verdicts?**

- Who controls that data?
- How is it being handled and applied effectively?

### **How can their fleet use this information to avoid these events from occurring again?**

- Who will use the footage and data for further training, coaching and fleet policies?
- How will they do so?

If you don't know the answers to those basic questions right away, then you need a partner: a partner that specializes in risk mitigation management, protects the privacy of your data and offers reliable, cutting-edge technology to help you put your safety plan into action and make it stick.

You need a partner like ISAAC.





# Custom-Fit Risk Mitigation and Safety Management

Safety, compliance and risk mitigation are central to ISAAC in terms of both technology and expertise. ISAAC's technology is scalable and customizable in ways that help you manage your fleet effectively and drill down to that data that matters when an accident occurs.

## Better communication means fewer distractions

Start with the ISAAC solution that not only delivers a paperless and automated workflow, but builds on that performance with integrated safety features, including a locked screen while driving to prevent distraction, and text-to-speech messaging to handle urgent messages.

ISAAC's automated workflow functions are like having a virtual assistant right there in the cab who can help take a lot of stress and frustration out of a driver's day. And a less-stressed driver is an inherently safer driver who can better stay focused on the task at hand:

safely maneuvering an 80,000 lbs. commercial vehicle down the roadway. In addition, the predictive workflow updates the driver's log as he completes his workflow, ensuring compliance to HOS regulations thus mitigating risk of HOS violation.

Similarly, helping your drivers keep their eyes on the road is critical for fleet safety. ISAAC's driver-focused solution helps you do just that with its easy-to-use features and provider-supplied device that gives timely information and locks while driving. This approach ensures drivers don't get distracted when their hands are on the wheel, as opposed to one that has drivers using their personal phones for work-related purposes.



## Keeping eyes on the road

Build on that with the ISAAC InView Camera System—ISAAC's proprietary camera system that helps you enhance fleet safety with a dash cam that provides continuous recording of the road ahead.

When critical events are detected aboard the truck, video footage that includes 10 seconds before and after the event is automatically downloaded for your viewing. What's more, you can easily browse through any video footage on demand, and rapidly pinpoint the quality video sequence you actually need downloaded.

Robustly built and with a tamper-proof casing, the camera is reliable in helping you better understand critical events and in safeguarding the reputation of your company and your drivers.

And should an accident occur, ISAAC InView has your back by providing:

- Automatic downloading of critical event videos
- Automatic hard maneuvers detection and instant download of key video footage over the air for easy viewing
- Tamper-proof camera casing which prevents tampering or repositioning of the camera, to ensure uninterrupted filming of the road ahead
- Optional auxiliary camera for capturing additional views inside the cab
- On-demand access to all video footage, including footage not linked to hard maneuvers that can be selectively downloaded on demand, over the air
- Camera operation monitoring to ensure continuous, gap-free, recording
- Loss-proof storage of meaningful footage means no important footage gets lost thanks to permanent, unremovable camera memory and server storage following downloads



# A Complete Picture to Help You Control Risk

With ISAAC's safety-focused technology solutions in your corner, you'll have a wealth of data at your disposal to help you coach drivers, prevent accidents, and better protect your business when an accident does occur.

ISAAC helps you to:

1. **Quickly identify risky and unsafe driving behaviors.**

At a glance, see behaviors such as hard braking, hard turning and speeding so that you can take corrective action quickly. And ISAAC's driver-focused design displays real-time alerts and other important visual cues on the tablet (in the driver's peripheral field of vision) instead of issuing beeps, alarms or other jarring, distracting warnings that could make the situation worse.

ISAAC also provides immediate incident data to fleet managers on driving incidents, which can then be used to provide feedback to drivers following hard braking or turns. This helps reinforce good driving behavior and provides opportunities to identify drivers in need of additional training. It also allows the prompt review of critical event videos to better monitor and improve safety.

The ISAAC InView camera system automatically records events as they occur, and provides easy access to any video when it is needed.





## 2. Reconstruct complete accident details.

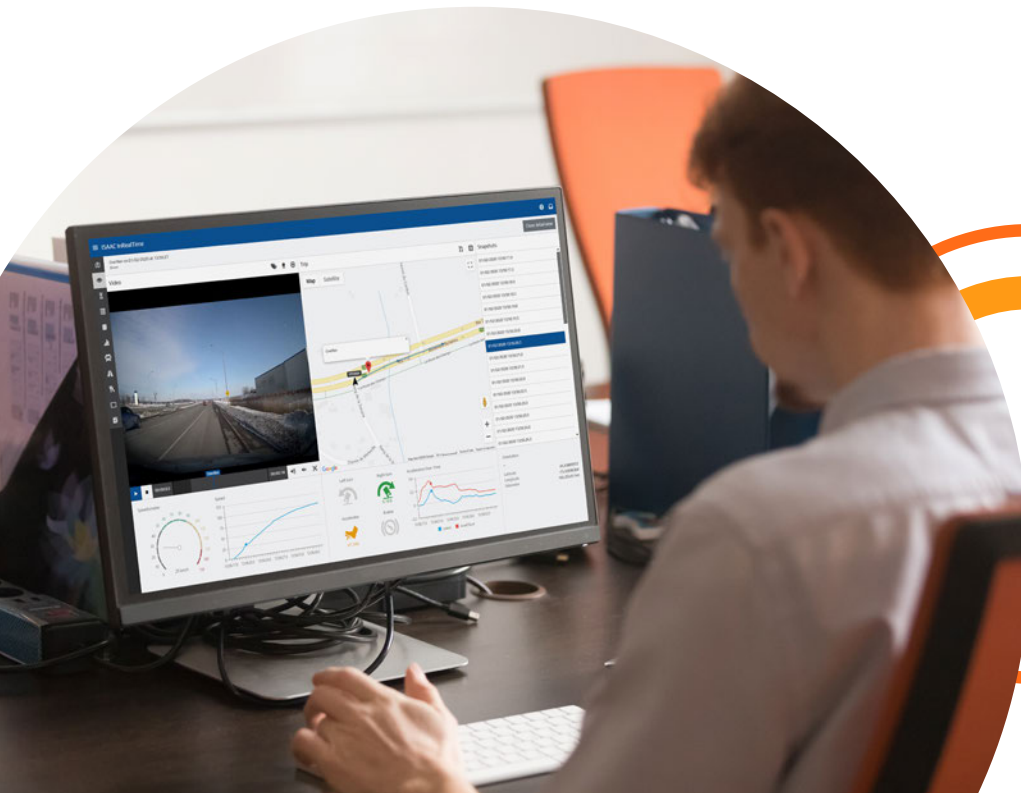
To avoid repeating the same mistakes, you need to understand what went wrong. Understand the course of events with the help of indisputable telemetry data. Our gateway continuously samples over 40 different parameters up to 100 times per second for unmatched precision.

Additionally, leverage ISAAC risk mitigation expertise with free support from an engineer trained in accident reconstruction to help you understand exactly what happened, why it happened and what steps you can take to minimize the chance of it happening again.

## 3. Reduce speeding and promote a road safety culture with SpeedGauge.

ISAAC provides you with information about your drivers' driving habits, while SpeedGauge lets you know whether a vehicle's speed is within the limits of the travelled road.

With the most up-to-date maps and speed limits database, you can monitor your drivers' speed on side roads, rural areas, and even terminal yards. You can thus intervene and correct risky driving behaviors to reduce the risk of citations and accidents.







## A partner in safety

With the ISAAC solution and its ecosystem of white-listed technology partners, you get a complete driver safety package that is flexible and adaptable to your needs and those of your drivers.

In the cab of the truck, ISAAC helps your drivers train better, reduce stress while on the road and obtain immediate feedback to develop good driving habits.

In the office, ISAAC provides all the hard data, including real-time incident recording with video as well as hard-driving event alerts that allow you to fine-tune all aspects of fleet operations from spec'ing trucks to identifying problematic safety trends and focusing additional training on them before the problem gets out of hand.

Fostering a culture of safety starts with you. And finding a risk mitigation partner that understands trucking as well as you do is key to making your fleet safer and putting that culture shift in place. Let ISAAC help you control your risks and drive safety to the forefront of your fleet operations.

ISAAC's driver-focused approach to ELDs and safety can help you attract and retain drivers, boost your safety record, and give you the information you need to make even more informed safety and efficiency decisions going forward.

In today's dangerous, litigious world, you need every advantage you can get. You need a partner who understands both trucking and drivers.

**Let ISAAC help you you work safer and smart, no matter where your trucks go.**



Together,  
we **simplify**  
trucking

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