

Waste Fleet Safety: *Reducing Driver Distractions*

White Paper



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Introduction

Every day more than 150,000 drivers across the country take to the streets in specialized trucks to collect waste and recycling materials. These drivers and trucks travel through cities, communities and neighborhoods to collect our garbage and complete their routes as quickly and efficiently as possible. Making sure they do so safely is everyone's number one priority.



Safe driving is largely dependent on limiting driver distractions.

Statistics from the U.S. Department of Transportation (DOT) indicate that 3,092 people were killed and over 400,000 injured because of distracted driving in 2010. Nearly 20 percent of all injury crashes in 2010 were reported as distraction-affected crashes (U.S. DOT 2012).

It stands to reason that reducing driver distractions is essential for all waste fleet safety programs.

Types of driving distractions

The DOT describes distracted driving as “any activity that could divert a person’s attention away from the primary task of driving.”

It further indicates that driving distractions can manifest themselves in four distinct ways:

1. **Visual distractions.** Any time you take your eyes off the road, you are visually distracted.
2. **Manual distractions.** Your hands should always be on the steering wheel. If you have to use your hands for anything but driving, you are being manually distracted.
3. **Cognitive distractions.** Not paying attention while driving means you are cognitively distracted. Anything that diverts your attention span from the task of driving is a cognitive distraction.
4. **Auditory distractions.** If you are hearing something that is not related to your driving and it has your attention, it is an auditory distraction.

Removing or reducing distractions for waste fleet drivers means allowing them to focus on what’s important: the driving and servicing of their routes in the safest manner possible.

It means reducing the copious requirements for human intervention that can distract. It means removing unnecessary on-the-road paperwork, data entry, too many manual touch-points, cell phones and texting.

Reducing distractions for waste fleet drivers

Waste fleet drivers have to be multi-taskers.

They have to drive the trucks, empty carts and containers, follow routing instructions, interact with dispatch, respond to customer service issues and more – mostly in real-time. On a typical day, a waste collection driver has the potential to be distracted in hundreds of ways. Drivers can have too much to think about, too many buttons to press, too many calls to answer or make, and too many reports to submit.

Eliminating or seriously reducing the risk of distraction is of utmost importance. Virtually all of this can be easily eliminated or radically reduced by deploying the right onboard computing system.

New fleet management technologies can vastly improve the driver experience and reduce the risk of distraction. The challenge for a fleet management system is to provide accurate driver and customer service time data and bilateral communications without over-burdening the driver.

Less human intervention = less distractions.



Technology for a better – and less distracting - driver experience

Advanced fleet management systems are now designed for drivers who perform dozens of customer service stops per route to make it easier and faster for drivers to account for their full day with a minimum of manual or other distractions.

These technologies include:

1. Onboard computing or smart displays

New and advanced touchscreen displays make bilateral communications between drivers and dispatch (the back office) easy and intuitive. These smart displays typically provide a single point of interface for the driver, truck, back office and all communications. No more cell phones or other mobile devices. A touchscreen display allows for real-time video and audio functionality, and flexible interfaces ensure easy interaction with the control system.

2. Driver direction solutions

Today's automatic driver direction tools provide directions to a driver's designated next stop and can also automatically re-calculate routes when a driver deviates from the route or makes an out-of-sequence manual stop. Subsequent locations do not need to be entered by the driver. Ongoing route locations and directions are based on the driver's schedule and are provided audibly and automatically.

3. Automated service verification

More and more waste carts and containers now come with RFID tags installed that automatically track individual stops. No driver intervention is required unless there is an exception. For a typical commercial route of about 120 stops, usually 95 percent can be automated. This means that dispatch will know automatically and in real-time when a lift is done, how much it weighs and so forth. This dramatically reduces distractions and drivers can now focus on driving safely.



Fleet management technologies address the four types of distractions

Reducing visual distractions

Visual distractions for waste collection drivers can be an ongoing challenge. Too often they have to refer to hard copy run sheets to check on customer locations, make handwritten notes for any exceptions and check route data.

Onboard fleet management solutions make these distractions a thing of the past.

Onboard fleet management systems are designed to be hands-free. They are also typically installed ergonomically in the cab to provide quick visual references for route or customer information. No more paper work; no more manual processes. Drivers can now focus on the road.

Reducing manual distractions

Drivers need to keep their hands on the wheel as much as possible.

Onboard fleet management systems are typically 90 percent automated. This means that the driver rarely needs to touch the screen. Indeed, if the truck is in motion, most smart displays will not allow a driver to interact with the screen. The only time a driver has to interact with the touchscreen is for exceptions or extras, and to do so, the vehicle needs to be fully stopped.

Reducing cognitive distractions

Drivers need to keep their mind on what they're doing. By providing them with audible driving directions, they can focus on their routes and on driving safely.

Driver direction technologies automatically provide driving directions to the truck's next stop based on run sheet data - no driver input should be required. They also provide turn-by-turn directions, voice prompts and graphical maps to make navigating easy and intuitive.



When a driver downloads his route, the system will tell him exactly how to run it. This allows drivers to focus on the core task of driving safely to pick-up locations. Drivers can concentrate on driving – not navigating.

Additionally, most smart display solutions come with front and rear vehicle video and camera feeds to automatically capture any information or issues in real-time for the dispatch or back-office. If, for example, access to a container is blocked, the driver simply taps the touchscreen to take a photo for immediate transmission to the back office. The back office has the required evidence for any customer service calls, and the driver can continue with the implementation of his route without further distraction.

Reducing auditory distractions

If drivers are hearing anything that is not related to driving or the road – it’s a distraction.

Onboard fleet management technologies can provide them with automatic voice directions to keep them focused on turn by turn directions.

Further, they can set audible alarms to alert them of any issues. For example, they can set an alarm that will ping when certain speed or idling thresholds are exceeded. Unlike cell phones or hands-free conversations, these auditory signals are targeted on driving behavior and help to keep drivers focused and safety-conscious.

No more cell phones

According to the Virginia Tech Transportation Institute (VTTI), driving while using a cell phone reduces the amount of associated brain activity by 37 percent. That's a huge distraction from the task at hand!



Waste collection vehicles should never make a driver rely on mobile phones for back office communications. Onboard computing solutions are built on built on bilateral communications to eliminate any cell phone requirements. All communications are conducted via the touchscreen display. Some of the newest driver display units even feature VoIP capabilities for interactive voice communications.

No more texting

VTTI research indicates that text messaging creates a crash risk 23 times greater than driving while not distracted.



Onboard computing solutions with electronic run-sheets eliminate the requirement for mobile devices and texting. For example, a driver used to have to text acknowledgment for any route updates or changes. With electronic run-sheets, this is a thing of the past. In addition to removing the need for any mobile devices, smart displays streamline all required communications. These solutions will now also force a driver to be stationary for any textual communications. A driver can enter text messages via the touchscreen when required, but he won't be able to do so if his vehicle is in motion.

A better driver experience can virtually eliminate the need for follow up calls to verify service and can track all events and locations – automatically and in real-time.

No more paperwork

Transitioning from a paperwork-driven to paper-free environment is critical to reducing driver distractions.



Drivers have traditionally been expected to manually capture all essential information – record times of arrivals and departures, note weights, detail collection issues – all while operating under time constraints for route completion. A capable onboard fleet and route management system should ask less of driver and deliver better data on a real-time basis.

Drivers win – we all win!

Drivers who rely on cell phones and pieces of paper to get route info are distracted drivers. Drivers who need to press buttons constantly are distracted drivers. Drivers who need to fill out forms en-route are distracted drivers.

Distracted drivers make mistakes.
Mistakes cause accidents.

Using technology to ensure a more focused driver experience improves safety, productivity and the overall driver experience.

Ultimately, we are all big winners of a less distracted driver experience.



DRIVERS WIN

About FleetMind

FleetMind Solutions, Inc. is the award-winning technology leader for fleet management solutions. FleetMind's technology is derived from over 10 years and millions of dollars invested in developing the industry's best and most advanced fleet solutions specifically designed for waste and recycling environments. FleetMind solutions have been successfully installed in thousands of vehicles across North America. Our products have allowed the industry's largest waste and recycling fleets to link their drivers and vehicles to business operations in real-time to ensure improved productivity, safety, sustainability, profitability and customer service.

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