Managing your fleet just got easier™
“Managing the fleet is an ongoing challenge. Fleet Tracking Systems are proving to more than justify their investment as a result of their wide variety of fleet-specific applications.”

Robin A Standlee, President and CEO
Fleet managers are all too familiar with the innumerable challenges they must handle on a daily basis. Yet, no matter what the situation, the common element is data. Knowing the facts, having the information, means the fleet manager can make the right decisions in a timely manner. Of course, the obvious question is “How do you gather data on vehicles which are in diverse locations?”

Fortunately, technology offers an excellent answer—telematics, “the branch of information technology which deals with the long-distance transmission of computerized information”. Thus, the proximity of the vehicle to the management center is not an issue. Today, this can be achieved by the Fleet Tracking System.

The Fleet Tracking System consists of four main parts. The first is a comprehensive software package (including a user-friendly, cloud-based, web interface) to capture and analyze data. The software can provide vehicle position information in both “real-time” and historic perspectives. The second part is a GPS locator which communicates with the software via the third part of the system – the cellular (cell phone) network. Positioned in the vehicle, the locator also acts as a receiver which connects with the fourth part of the system, the USA NAVSTAR GPS (Global Positioning System). Maintained by the U.S. Air Force, the national GPS system “consists of three segments: the space segment, the control segment, and the user segment.”

In the case of the fleet, the user segment connects the locator in the vehicle with the orbiting satellites in the space segment. These satellites transmit navigational messages on a continuous basis.
These messages are composed of the satellite’s exact orbital position and the transmission time of the message. Vehicle locators capture these messages along with other data. Using a precise mathematical algorithm, the vehicle locator calculates the vehicle’s speed and the time at that moment. The locator transmits this information back to the software periodically via the cellular network. In cases where transmission is not possible, the locator will store its information until transmission is once again restored.

The national GPS network was originally designed by the U.S. military for their own use. In large part due to its military applications, the GPS network is in a constant state of renewal. The GPS III phase, scheduled to begin launching in 2016, has a “15-year design lifespan” providing improvements such as “enhanced signal reliability, accuracy, and integrity.”

GPS is wholly-owned by the U.S. government which does not plan to privatize this system.

For these reasons, it can be assumed that civil GPS will be a reliable network for the foreseeable future.

The Fleet Tracking System is the optimum short and long-term solution for fleet managers.

At any given time, the Fleet Tracking System can accurately show where a vehicle is, whether it is stationary or moving, and if in motion, how fast it is going and in which direction. In short, it is the ultimate vehicle-tracking tool.

The applications of this seemingly-narrow stream of data are varied and wide-reaching.
Here are some fleet-specific examples:

**MORE EFFICIENT DRIVER ALLOCATION**

In time-sensitive situations, it is critical to know if the allocated driver is on-schedule. The Fleet Tracking System not only shows current position, it can predict destination ETA. If there is a significant delay, the system shows fleet managers the closest available driver for re-routing to the job site. Sometimes, customers call with a repair need that is crucial to their business operations. Again, the Fleet Tracking System software informs fleet managers “who is where” so they can do their best to meet their customer’s needs in a timely and efficient manner.

**SAVINGS OF TIME**

Efficient time usage reduces costs and increases profits. With the Fleet Tracking System, for example, there is no need for time-wasting calls to find out driver locations. Also, the system can report on road conditions so drivers know the best overall route to take to or from the job.

**REDUCED FUEL COSTS**

According to the Environmental Protection Agency (EPA), after 50 mph, the faster the vehicle, the less efficient the gas mileage. In other words, “each 5 mph you drive over 50 mph is like paying an additional $0.25 per gallon for gas.”

Not only speed, but driving behavior can increase fuel costs. Exceeding the speed limit, braking often, and accelerating rapidly can reduce fuel efficiency by 5% in the city and 33% on the highway.

Idling also wastes fuel – between 1/4 to 1/2 gallon each hour. This is more than the amount of fuel consumed when restarting an engine. So,
taking a coffee break in a heated vehicle on a cold winter’s day is an expensive proposition.

Per EPA-quoted research, “driver feedback devices” can improve driving habits, thus “increasing fuel economy by about 3% and improving gas mileage by about 10%. That’s like saving about $0.11 to $0.35 per gallon.” It is the feedback aspect which facilitates changes to driving habits. The Fleet Tracking System can help educate fleet drivers about safer driving habits. In addition, the system can increase drivers’ awareness about how they drive via alerts for behaviors such as hard braking/acceleration, excess speed, and lengthy idling.

Multiplying all these fuel cost savings by the number of vehicles in the fleet produces a significant reduction in fuel costs on a continuing basis.

LOWERED LABOR COSTS
A recent article in the online magazine, “Women on Business” includes statistics which show that 9 out of 10 employees waste some time at work every day. Fleet drivers are no exception. They can accumulate unapproved “down time” by checking their emails on their smart phones, taking unscheduled breaks, doing errands, etc. The Fleet Tracking System makes wasting work time very difficult. As a result, the amounts of both non-billable time on the road and overtime charges are reduced significantly.
One of the ways the Fleet Tracking System can track driver movements is with “geo-fencing”. As SC Magazine explains it, geo-fencing creates “a virtual ‘fence’ and devices that are in or out of this fence will trigger different types of actions.” Fleet managers are able to specify a set geographical area as the “fence”. Driver movements both in and out of this fence will trigger alerts. Geo-fencing contributes to better risk management (drivers are not in problematic situations such as a lunchtime drink at the pub); fewer instances of fraud (drivers are working when they should be working); and improved customer relations (drivers arrive and leave the job site in a timely manner).

FEWER MAINTENANCE CHARGES
Depending on the vehicles life cycles, maintenance costs can be a substantial part of the fleet’s expenses. Figures by automotive analysis firm, Vincentric, show that improperly maintained fleet vehicles can end up costing the company “nearly double the vehicle’s purchase price on maintenance costs and simple depreciation”. Since most maintenance is done per mileage, the Fleet Tracking System tracking can keep fleet managers updated as to which vehicles are due for which maintenance. More sophisticated systems, like BlackBox GPS Fleet Manager PRO offer maintenance scheduling alerts that are

Case 1

Company A installed tracking units in their service technician vehicles. The company was amazed to find out that the service technicians were returning up to 2 hours earlier each day but clocking out at the regular time. As the service technicians were making $25 ~ $40 per hour, these “on the job breaks” were quite costly. In addition, the time could have been spent on at least one other customer call each day.
mileage and date-based, and track vehicle costs as well as providing all the other routing and mapping features.

**IMPROVED RISK MANAGEMENT**

FBI statistics report that 3 U.S. motor vehicles are stolen every 2 minutes. Making matters even worse, just “11.9 percent of thefts are cleared.” Full-size pickup trucks are in the top-ranked stolen vehicles. This could make vehicle theft one of the fleet’s biggest concerns. Here’s how a Fleet Tracking System can help.

Case 2

Company B had a truck stolen out of their driver’s driveway. (The fleet driver took the truck home each night.) As soon as the driver realized the truck was gone, he reported it to the company. The fleet manager logged into the system, found the vehicle, called the police, and worked with them to find the vehicle and the thief. During the chase, the thief stopped at a flea market to unload all the tools. By having a GPS tracking system, the company recouped most of their tools and their vehicle, saving thousands of dollars in downtime and asset replacement costs.

Fleet drivers, like any other drivers, are sometimes involved in accidents. The Fleet Tracking System can help clarify which driver was at fault, lowering legal costs, reducing court time, and preventing unnecessary increases of insurance premiums. In addition, driving alerts (see Reduced Fuel Costs above) provide continuous, real-time feedback, allowing drivers to self-monitor their driving habits.
Company C’s driver was in an accident. The other driver involved in the accident was trying to sue the Company saying that its driver had been speeding. The fleet manager pulled up the driver’s miles-per-hour records for that day. When compared with the speed limits at the location of the accident, the records indicated that the driver had not been speeding. The other driver had no choice but to drop the lawsuit.

Case 3

A recent report by the non-profit organization, Environmental Defense Fund (EDF) reminds us that in the U.S., cars and light trucks are responsible for over half (62 percent) of greenhouse gas emissions. The Fleet Tracking System can quickly assist with shorter routes and less idling to reduce the fleet’s fuel consumption, hence, fewer CO₂ emissions. In addition, customers will be pleased to know that their fleet is thinking “green.”

A “fleet,” which used to refer to a group of ships, now refers to a group of land vehicles. Never-the-less, one aspect has remained the same – the challenge of size. Actress Cate Blanchett has put it nicely, “For me, I think the bigger something is, the more difficult it is to make it nimble and fleet afoot.” Her unintended pun, in our case, sums up the situation. Keeping fleets “fleet of foot,” able to respond on a timely basis as needed; trimming waste to keep lean and within budget; being proactive in contributing to a safer and cleaner environment – these are the challenges.

The latest figures from ABI research are that 20 percent of U.S. fleets use some type of Fleet Tracking System. These companies are maximizing the productivity of both their drivers and their vehicles.
Companies not yet “connected” should be aware of the following trends:

» Fuel and maintenance costs will continue to climb.
» The number of fleets adding telematics will keep growing.
» Future Fleet Tracking Systems will not only deal with historical and real-time data (as now), but move on to predictive analytics – identifying problematic situations before they occur.
» Fleet Tracking Systems that have the ability to integrate with CRM’s already in place will help fleet managers effectively and efficiently manage customer relations as their business grows.
» Improved connectivity across national borders, will effectively increase the fleet’s “operating zone.”

Therefore, fleet companies who have not yet “hooked up” are strongly suggested to get on board. If you would like more information about our Fleet Tracking Systems contact sales@blackboxgps.com or call us toll free at 866.933.8986 ext. 3.
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