



Keep on Trackin'

High-Tech Solutions to Maximize Production for Every Truck in Your Fleet

By Tony Nicoletti

Imagine sitting in the cab of your truck with each and every one of your drivers as they make their rounds, every single day. Using a GPS vehicle tracking system, you literally can. GPS is already proving itself to be the next business revolutionizing technology, just like mobile phones were in the 1990s or computers in the 1980s. For a fleet owner, the question is no longer whether a GPS tracking system is needed, but rather how to select the right one.

There are several factors in making that determination, but like anything else it comes down to doing a little homework. Because once you understand what GPS is, how vehicle tracking works, the benefits of GPS and how to evaluate and budget for your GPS tracking system, everything else will fall into place.

How Vehicle Tracking Works

Vehicle tracking involves three basic parts: 1) a transponder unit mounted on the asset to collect data; 2) a communication medium to transmit the data; 3) a user

interface where the manager views the data, normally an Internet software package.

The transponder unit is typically about the size of a large ashtray and houses the GPS receiver and wireless radio. Wireless networks, the same used by mobile phones, provide communication between the transponder on the machine and the manager at the computer. The unit literally “calls” information such as: location, on/off status, usage data, and critical updates pertaining to machine health and unauthorized use directly from the asset to the software, cell phones, PDAs and email in real time.

Additionally, the manager may “call” the unit from the software and request an update of this data, or other functions such as remote disabling of the asset, anytime with a click of the computer mouse. It is almost as if the machine has its own cell phone, from which it can call you and vice versa.

Being in the Driver's Seat

The biggest benefits of a GPS tracking system are improved dispatching, increased driver accountability

with increased productivity and decreased vehicle maintenance costs. Improved dispatching is the direct result of knowing where your vehicles are at all times. Being able to reroute drivers to the closest destination in real time significantly cuts down on backtracking and the associated costs of wasted driver time and excess mileage.

If a driver should get lost, then having their exact location on a map makes it easy to guide them to their destination with a mere phone call. Further gains are realized by the contractor who also tracks construction equipment with GPS, since the lowboys, service trucks and off-road assets will all appear on the same map in real time.

The fastest return on a vehicle tracking investment usually comes from the increased productivity and accountability of the drivers. Unauthorized stops, moonlighting, off route detours and “long lunch breaks” are easily identified and often disappear altogether once employees are told that the vehicle system is tracking them. Gains are seen in reduced mileage driven, thus burning less fuel, and more productive workdays, often decreasing the overtime that was previously used to make up those lost work hours. Since the tracking system clearly identifies when and where the vehicle started and stopped every day, time card “fudging” is quickly eliminated.

Consider the case of a New York contractor who quickly found that his drivers would turn on their trucks every morning, clock in and then head into the office and drink coffee. Once GPS was implemented, he shaved 30 minutes of inappropriate time card padding as well as the half hour of unnecessary fuel burning while the trucks idled.

The adage “you can’t manage what you don’t measure” rings true when it comes to vehicle tracking. Some systems will count loads or dumps on the trucks, along with the time and location of the drop. Thus, the manager will not only compare productivity between drivers, but also ensure there are no unauthorized dumps.

State mileage calculating for IFTA reports is a tedious process: collecting driver logs, inputting the miles into a computer, determining the per state total, etc. Your vehicle tracking system should do this with just a click of the mouse from the software, neatly totaling the mileage per state per truck for you in an Excel exportable format. The hours of clerical work and potential for human error has now been reduced to just ninety seconds of automated calculations.



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Reducing Liability, Fuel & Service Costs

One of the biggest liability exposures a contractor has is the after hours or weekend use of their trucks, particularly if they go home with the drivers. For this reason, a curfew may be established by the manager whereby the unit will flag after hours use and even call an infinite number of cell phones to report the abuse in real time. The system can even disable the trucks from being started at that time, with the disable override only available to the manager via the remote software.

Asset ID	Name	Description	Run Time	Roll Time	Idle Time	Loads	Current Location
43	Bob Hall	1979 Mack Grease T	86.43	32.93	52.37	0	Bloomington, Indiana-3864 W Constitution Ave
60	Brian Sylvester	2007 MACK CV713 T	164.92	119.42	45.5	216	Bloomington, Indiana-E University Rd
61	David Combs	2007 MACK CV713 T	158.22	118.87	39.35	89	Bloomington, Indiana-4368 SR-48
62	Dan Silvers	2007 MACK CV713 T	144.28	88.35	55.93	243	Bloomington, Indiana-3896 W Constitution Ave
63	Paul Bryant	2007 MACK CV713 T	168.8	133.6	35.2	232	Bloomington, Indiana-4369 SR-48
64	Danny Bourmar	2007 MACK CV713 T	155.97	92.53	43.43	226	Indiana-Monroe
76	Greg Cooper	95 KENWORTH T800	143.63	114.98	28.65	27	Indiana-Monroe
79	Zach Foddrill	1998 Mack	96.5	66.02	30.48	159	Bloomington, Indiana-3856 W Constitution Ave
1020	Scott Lentz	2002 FORD F150 4X4	99.28	60.75	38.53	0	Bloomington, Indiana-4263 S Clear View Dr
1021	Ron Cobb	2000 FORD F150	4.98	0.67	4.31	0	Bloomington, Indiana-3816 W Constitution Ave
1073	Ken Cave	1999 FORD F150XL	16.12	11	5.12	0	Bloomington, Indiana-Monroe
1073	Gary Farmer	1999 Ford F150	61.01	23.62	36.95	0	Bloomington, Indiana-5807 SR-48
3023	Tony Griffith	1999 F250	41.13	31.73	9.03	0	Bloomington, Indiana-E University Rd
3025	Paco	1999 F250	69.97	47.18	19.37	0	Bloomington, Indiana-1750 N Kinser Pike
3027	Tim Arthur	FORD F250XL UTILIT	70.43	42.52	27.92	0	Noblesville, Indiana-Pebble Village Ln
3028	Manual Meza	99 FORD F250XL LUT	68.78	31.83	36.95	0	Rockville, Indiana-US-41
4030	Greg Young NJ	1999 FREIGHTLINER	135.35	38.15	97.2	0	-Lom-86.5895, Lat:38.1824
4032	Al Fultz	91 MACK VAN LUBE	132.17	31.78	99.98	0	Indianapolis, Indiana-Haweslen Rd
5902	Larry Flick	94 877 PETERBILT LC	241.52	72.85	67.97	0	Bloomington, Indiana-520 SR-45

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Consider the situation of a contractor in Maryland who had a driver finish off the week at his favorite watering hole. The truck’s curfew kicked in and disabled the starter at 9 p.m., so when the driver stumbled out of the bar well after midnight he was forced to take a cab home instead of driving while intoxicated. As it turns out, the driver

Why GPS is Such a Cost-Saving Technology

GPS literally puts the manager in each and every one of his or her vehicles every single day, by putting the driver's route and activity at the fleet owner's fingertips. Some examples of available vehicle information:

- Automatic vehicle location updates showing the asset's current location
- "Bread crumb trail" showing the daily route history
- Speed alarms if the vehicle exceeds a certain threshold
- Daily mileage log
- On time vs. idle time vs. travel time reports
- Start and stop reports with location identifications
- Multiple vehicle display on the same map
- "Geofencing" to report immediately if a vehicle leaves a predetermined area
- Curfews to identify off hour and unauthorized use
- Remote disable capabilities, or auto disable during curfew
- State mileage reporting
- Load or dump counting
- Critical status notifications i.e. low oil pressure, high engine temp, etc.

was so overserved that the following day he could not recall where the truck was parked, and the contractor was saved from a DUI accident.

The biggest costs of any fleet are fuel and maintenance, both of which are impacted significantly by vehicle speed and idle time. Speeding burns fuel at an accelerated rate and puts additional wear on the engine, tires and other major components. An excessively speeding truck is also a high accident risk, as well as bad branding for the company. An idling truck burns a minimum of one gallon of fuel per hour and imparts similar wear and tear on the vehicle as driving over 80 miles per hour.

With a tracking system, the costs of speeding and idling are identified and brought under control. The manager specifies the speed not to exceed and a notification (e-mail, text message, etc.) is sent every time that threshold is broken as well as displayed in a report. Additionally, most transponder units track the hours since maintenance and report a real time notification when the asset is due for service as well as provide proactive scheduling reports.

Budgeting & System Evaluation

A quick Internet search for "GPS tracking" or "vehicle tracking system" turns up dozens of results, so how do

you select the right one for you? Here are some important factors to consider:

1. **Cost.** The transponder unit will run between \$600 and \$1,000 and quantity discounts are often available. The monthly communication should be between \$20 and \$50 per unit, per month. Some manufacturers will levy an activation fee, annual maintenance fee, multiple user fee and/or software license fee so be sure to ask about these at the start.
2. **Long-term contract.** Most providers require an air-time contract extending from anywhere between one to five years, similar to a mobile phone agreement. There are a few "no contract" manufacturers who bill month to month, giving you the option to stop service at any time.
3. **Provider background and support.** Make sure you have done due diligence on the manufacturer and dealer for your selected system. Is the product and company proven or are you one of the initial guinea pigs? Always be sure to identify where technical support and/or training will come from.
4. **Desktop vs. Internet based software.** Internet software gives you "anywhere, anytime" access while the desktop version works only where you have installed the software.
5. **Wireless coverage.** Wireless technology is much more pervasive than it was just five years ago, but it still isn't everywhere. Be sure to ask your prospective provider for a coverage map to ensure they have connectivity in your areas of operation.
6. **Fleet coverage:** Even if you don't plan to track both your trucks and equipment initially, does the provider offer an integrated system for both? You might start with your trucks and find equipment tracking to be a logical next step. Will the same vendor provide both systems or will you be using one vendor for equipment tracking and another for truck tracking?

The savings generated by a vehicle tracking system are undeniable, often paying for itself in under six months and delivering a return many times over the initial investment. So whether you implement vehicle tracking for the ROI or the peace of mind, you can rest assured knowing that you will never be out of touch with your fleet, wherever they go.

Tony Nicoletti is the director of North American sales for DPL America, a leading provider of GPS based asset tracking solutions that specializes in remote monitoring solutions for all mobile assets in the construction industry, both on and off road.

TRANSPORTING CONSTRUCTION EQUIPMENT DVD



Do your current practices comply with the new DOT regulations?

New federal regulations regarding tie-down devices and procedures adopted in June 2006 affect everyone transporting construction equipment whether it's cross country or across town.

To help you determine the answer to that question, the National Utility Contractors Association (NUCA) has released a new 34-minute DVD that visually illustrates the Department of Transportation's Federal Motor Carrier Safety Administration regulation 49 CFR, Part 393 as it applies to the transport of construction equipment.

The information has been segmented by major topic to facilitate review and/or clarification:

- Introduction
- The Trailer Loading
- Equipment Securement Points
- Understanding Tie-down Equipment
- Tie-down Procedures
- On the Road
- Conclusion



Member Price: \$195.00

Non-member: \$295.00

To order your copy, call (800) 662-6822 or visit the NUCA Store at www.nuca.com.