

Peak Energy taps into satellite info

Pete Stirling
Transportation Manager
Peak Energy Services



Photo by David Glecko

Trucking company uses GEOTrac GPS system to track and communicate with trucks in remote areas. Company saves on fuel as a result

By **Poonam Khanna**
Computing Canada

ASA MULTI-SERVICE RENTAL COMPANY that has truck drivers on the road, Peak Energy occasionally fields calls from motorists complaining about its drivers. Recently, when one woman called to say one of its trucks was speeding, the company's transportation manager was able to look up the driver's actual speed thanks to a GEOTrac satellite and GPS tracking system and tell her that in fact, the truck was well under the speed limit.

"I pulled information off the CE-OTrac system and I found the truck never exceeded 90 kilometers per hour and it was a 100 km-h highway. It saved me from going to the driver and annoying him. It was a little old lady going at 70 km-h. That type of thing comes up a lot in our industry," says Pete Stirling, transportation manager for Peak Energy Services in Red Deer, Alta., which works with oil companies. It was just one of the unexpected side benefits of GEOTrac International Inc.'s portable tracking and communications (PTAC) kit. The system is used by oil and gas companies to track the location and safety of equipment and employees in remote locations.

Before GEOTrac was implemented, tracking the whereabouts of a truck was a laborious process that required phone calls from branch to branch to find out if a truck was in the area. Stirling says, "Cellular contact with the drivers was spotty at best given that they were driving in remote areas. Stirling says. It was also expensive.

Panic button

As a result of the system, Peak Energy now knows exactly where its trucks are at any given time. The on-board computer featuring a global positioning system and modern pings a satellite every three minutes to keep track of the location. Truck drivers can also communicate with branch offices by sending and receiving text messages. A panic button can

"(The system's) not meant for you to have a 45-minute chat with someone at home. The cost is prohibitive."

- Kevin MacDonald, VP, GEOTrac

be hit in case of an emergency.

GEOTrac has 40 low earth orbit (LEO) satellites at 800 km above the Earth that travel at 25,500 km-h. A satellite can circumnavigate the Earth every 100 minutes. The satellites are connected with a low-bandwidth signal that sends messages.

It's more cost-effective to send text messages, says Kevin MacDonald, vice-president of marketing and communications for GEOTrac in Calgary.

"(The system's) not meant for someone at home. The cost is prohibitive," he says. "Our screen is a touch screen terminal to send messages back and forth."

Drivers might, for example, send messages to dispatch that a road has closed due to an avalanche and they are parking there for the night, or that they are changing their route because a bridge has been washed out.

"Those are the kinds of messages they need to send," MacDonald says.

At the back end of the GEOTrac system are two IBM Blade Centre server farms with Intel Xeon processors. The company recently completed a second server farm in order to guarantee redundancy. GEOTrac was using Intel Pentium-class processors but had to scale up, MacDonald says, as it's

handling thousands of transactions a second.

"The processing is 266 times faster than before," he says. "This means our customers can bring up their custom maps faster, can receive and send communications faster."

If a truck is speeding, dispatch can send the driver a message to slow down, reducing fuel consumption, MacDonald says.

And saving on fuel is just what Peak Energy did, Stirling says. Aside from the increased efficiency gained from driving at lower speeds and reducing idling, the company is better able to allocate trucks, he says.

Because it was difficult finding out where trucks were before, two trucks might be assigned to the same area.

Now branch offices can always find the nearest available truck, Stirling says.

And the GEOTrac application has helped in other areas as well—in unexpected ways, he says.

The company, which bills its clients on an hourly basis, ended up using it as a customer relations tool.

"We always get into, he said, she said," Stirling says.

Now, Peak Energy can simply print out the information from the tracking tool as proof of how much time was logged by a truck.

In the process, it was able to get rid of the old, inefficient tracking system.

In the future, Stirling hopes to tap the information for the company's fuel tax reporting process.

"The on-board computers tell us how much our trucks burn, and they could help us with our fuel tax reporting in the future."

SATELLITE COMMUNICATIONS

KEEPING CONTACT

- Peak Energy Services needed a way to better track and communicate with its trucks.
- Cell phones were costly and unreliable as trucks would drive through foothills and in remote areas, so the company turned to GEOTrac's satellite and GPS-based system.