

'Amazing' data improves road maintenance and efficiencies

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By Penny Eaton – Journalist

"The information we get with this system is just amazing," says Kent Dubreuil, Reeve of the RM of Biggar in west Saskatchewan.

Dubreuil is enthused about a new customized GPS system that helps them keep track of the work his crew has completed, prevent damages from road hazards, ensure regular vehicle upkeep, and improve on paperwork efficiencies.

"We've installed special control modules and sensors on our fleet of road graders," he explains. "Using GPS technology, this device keeps track of all kinds of data that not only helps us maintain better roads, but it makes our job easier."

But aren't all heavy road vehicles such as graders already equipped with GPS units? Some are, he says, but most only offer simple reports of how many kilometres travelled by a piece of equipment. The genius in the system Dubreuil is using is that it is designed to solve several problems specific to RM and County road maintenance.

This is no random coincidence. The designer of the system, Vince Hardy of Text2Car Inc., spent considerable time studying the difficulties faced by RMs like Dubreuil's before coming up with his customized cellular-GPS system. "There's no one in the world that is doing this right now," he says. "Our system includes a cab-mounted control module that monitors a vehicle's activities and wirelessly transfers this information for real-time reporting."

Hardy noticed that many RMs and Counties struggle with a mountain of paperwork around current, past and future roadwork; employee timesheets; OHS reports; regular vehicle maintenance, and numerous other administrative requirements.

"Our unit tracks where the vehicle has been, how long the engine has been running, when it was last in the shop, distance travelled—and even when and how long a grader blade has been up or down," Hardy explains. "Along with generating timesheets and work orders, our system can also produce a map that shows which roads have been completed on any given day, week or month. This helps with both reporting past work and planning for the future."

Hardy's team has also built in a component that supports worker safety and avoids equipment damage. "From a mobile phone, a user can mark and identify road hazards such as culverts, wash-outs, fallen trees, signs, and so on. Once a hazard is marked, any tracked vehicle with a buzzer installed will notify the driver when they're approaching a hazard."

Municipalities across Canada and the US are already beginning to take notice of the capabilities of Hardy's system. He has also developed several other devices that help with monitoring and controlling equipment from miles away. He has set up pump station monitors that allow users to fill up water tanks using a simple key fob. These units eliminate coin-operated and card reader systems, prevent unauthorized use and allow for auto-generated billing and reports on usage and maintenance requirements. Another device controls and monitors access to a local landfill and helps with electronic timesheets for staff at remote worksites. An 'asset tracker' is another tool that can be attached to trailers, ATVs and other equipment to notify administrators of theft or unauthorized use.

Dubreuil says it is well worth the cost of installing the devices and the monthly service fee. "It saves us a lot of time, and keeps us on top of reports on completed work, staff time, known hazards and tons of other things."

The key, Hardy says, is realizing what is needed. "There are all kinds of technology available, but it's way more important to figure out what the problems are. Technology is just a tool to solve the problems."