

# Technology Report

By ANDREW BALTAZAR, Associate Editor

## Track Your Fleet Via the Web with Tierra

With Topcon's Tierra, fleet managers can track equipment locations on an online map, view instrument panels remotely in real-time, and more

**D**eveloped by California-based Topcon Positioning Systems, Tierra is a Web-based asset mobile management tool that helps fleets track equipment location, manage jobsite security, and transmit real-time machine-performance data.

To enable bidirectional communication and data sharing with a central database and remote computers, each monitored piece of machinery, whether it be an excavator, motor grader, paver, or even an SUV, must be equipped with a wireless device, such as the Topcon AM10, AM25, AM50, or ADL100.

Once equipped with the device, each vehicle's location will be visible on a digital map. Using either the AM50 or ADL100, equipment with built-in CAN-bus functionality can also remotely provide data on fuel levels, engine hours, oil pressure, idle time and maintenance requirements, and the instrument panel can be viewed from a remote location.

"Remote location or remote office, it makes no difference," says Mark Bittner, senior vice president of Topcon telematics. "With Internet connectivity, you see working machines on the jobsite in a wide variety of ways and get information that is important to creating the maximum productivity from your heavy iron."

"Topcon Tierra also provides an array of advanced analyses designed to provide the most meticulous data to companies interested in maximizing productivity and drastically reducing unexpected and unnecessary equipment maintenance," Bittner says.

To help prevent theft, Tierra's geofencing feature sends an alert either by e-mail or text message when a machine goes outside a pre-designated area plotted on an online map. It can



Tierra shows machine locations via GPS, engine performance, as well as real-time machine speed and fuel status through the virtual instrument panel.

**Inset:** When installed in a vehicle, the AM50 allows that vehicle to be seen by the Tierra network, allowing managers to view its location, maintenance needs, performance and other data.



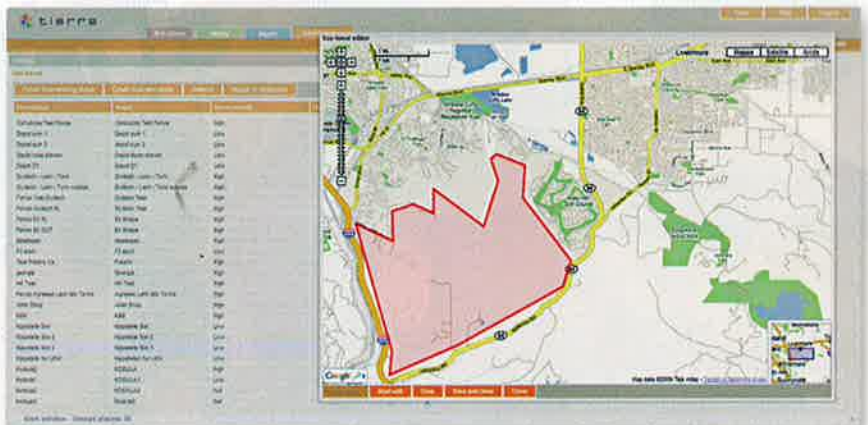
also show the run-paths of each vehicle, illustrated by "trails" on the online map, as well as reproduce real-time or cached video from a worksite.

The diagnostics feature updates fleet managers on the status of individual machines and their maintenance needs, downtime and productivity; and the report feature provides data on path run, engine-on time, and medium, minimum or maximum telemetry status.

"Simply put, Topcon's system lets you monitor every piece of equipment regardless of location, regardless of make or model," Bittner says. "And it provides you with instant documentation on the jobsite information you want to receive."

Because Tierra is a Web-based tool, no additional software is needed to access its features. Fleet employees can simply log into the Tierra Web site from any Internet-enabled computer around the world.

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The geofencing feature, which lets fleet managers create a virtual "fence" on an online map, will send an alert when a machine goes outside the fence borders.