



## Yankee Ingenuity

Right equipment means economy and efficiency for Connecticut surveyor

— by Michael Margolis, Magellan

**D**ave Laferriere, fifth-generation New Englander and son of a Connecticut farming family, knows the virtue of economy.

A veteran land surveyor, Laferriere, working out of Woodbury, Connecticut, recently decided to expand his surveying capabilities. When he did, he took particular care in choosing exactly the right equipment. His analysis led him to undertake field trials of several competing GPS solutions before settling on the single-frequency Magellan ProMark3. He found it would be the most cost-effective choice for achieving his goal: expanding his business while remaining an essentially a small, efficient operation.

He bought his first Magellan ProMark3s late in 2005, and he was not to be disappointed. “They’re so valuable they paid for themselves within a month,” he says. Preferring to keep it his “secret,” he somewhat reluctantly added, “The ProMark3 is one of my competitive advantages. It puts me ahead of the pack in so many ways. For example, it enables me to do jobs that larger firms should be doing, but I’m out there competing with them every step of the way.”

Laferriere uses the ProMark3 in three principal ways: in static setting control, kinematic stop-and-go topo work, and in GIS work. In fact, he’ll soon be starting work on challenging a contract to do the GIS for one of Connecticut’s larger towns.

Laferriere works throughout Connecticut, concentrating much of his work in the hilly, rural northwest corner of the state where old family farm parcels are being subdivided for housing.

In his twenty-eight years of surveying, since leaving the Navy as chief quartermaster, Laferriere has used and mastered virtually all types of surveying equipment. Now, the L1 Magellan ProMark3 has become a favorite because it’s so efficient and easy to use. “A monkey could do it,” he jokes.

Don’t be fooled, though. Laferriere knows his way around the world of GPS, and he’s convinced that knowledge is very important and that too few surveyors have it. For example, he’s a great believer in mission planning—knowing satellite configuration and Kp index—which he thinks is probably given too short a shrift by surveyors, often leading to frustratingly poor results.

Laferriere’s efficiency begins by bringing control to the job site with the ProMark3. “In Connecticut, our state monumentation has deteriorated pretty badly,” he says. “Much of it has been destroyed. We often need to go more than a few miles to tie the job into a NVGD 29 or NAVD 88 bench mark. Instead of taking a day to do this conventionally, I can do it much more efficiently with the ProMark3.”

Once control is on the job site, he or his assistant Chet Kasper can speedily perform the requisite number of stop-and-go measurements to produce either a two- or five-foot contour topographic map of the site. He points to initialization as something else that has been made simple and convenient with the ProMark3. “Magellan engineers have thought of everything and done a really good job making it a snap.”

Once he’s moving around, even in tree cover, Laferriere finds the ProMark3 seldom loses lock. “It amazes me how well the ProMark3 holds lock, even, for example, on the south side of a field where dense boundary foliage comes between the antenna and the satellite constellation.”



Laferriere and his assistant, Chet Kasper, collecting data for a topographic map of the site

When asked about the confidence he has with the ProMark3, Laferriere says, “We consistently get +/- 1-2 mm horizontally and +/- 6 mm vertically, in the static mode.”

Laferriere is looking forward to growing the GIS component of his business, and he expects the ProMark3 to play a key role for the new venture. Laferriere, who has headed a municipal survey department, scoffs at the notion held by some that survey firms can’t make good money doing GIS for municipalities. “The fact is,” says Laferriere, “it can be much more economical for a municipality to hire an outside GIS service than to staff the function themselves.”

The Connecticut town where he’ll soon be starting GIS contract work had previously been serviced by an in-house GIS team. When the town requested bids for the extensive contract, Laferriere won despite competition from some much larger firms.

As he prepares to undertake the contract for which the ProMark3 will play an important role, he continues to do many private GIS-type jobs. In one recent GIS application, Laferriere used the ProMark3 to map the wetlands on a 150-acre parcel. The owner wanted to do a development feasibility study, and the parcel had been marked with 150 flags by soil scientists. Within less than five hours, Laferriere was able to collect and map all 150 flags with the ProMark3.

“Instead of using conventional methods where we would have to leap-frog into the site, the ProMark3 enabled us to go directly to the site, turn on the unit and begin work,” he says. Laferriere adds that the site had dense brush and a thick pine forestation canopy. “You’d expect to have problems with a situation like that,” he says, “but the ProMark3 never missed a beat. It’s a terrific system.”