



Surveying's Hybrid Vehicle

Florida land surveyor taps GPS/Robotic solution to keep crew size down, production up



Atlantic Land Design (ALD) specializes in lot and block surveys, providing title companies, banks, and mortgage companies with the land verification needed to secure titles. Once a larger firm with 25 employees and a full slate of commercial accounts, The Great Recession, which hit Florida hard, forced them to downsize. Today, with just three other employees, owner Jim Cesiro says he is happy with where they are at and is using technology to help them compete.

"We are the guys that everyone at the PLS continuing education class swears they'd never want to be, preferring instead huge projects, massive subdivisions," he said. "After the crash, I worked solo with a Topcon total

Company

Atlantic Land Design
Jensen Beach, Florida

Project

General Surveying Operations
Jensen Beach, Florida

Topcon Products

Hybrid Positioning Technology with
GT-503V Robotic Total Station and
HiPer VR receiver combined

Topcon Dealer

Lengemann Corp., Altoona, Florida

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station for quite a while, feeling that GPS was overkill for what I was doing." Years later, thanks to the keen eye of Brent Hays, sales engineer from Lengemann Corp., the regional Topcon dealer, all that changed.

"I was doing GPS training for another customer down the street from Jim's office," said Hays. "I was headed back, saw his sign, turned around, went in to introduce myself, and showed Jim all that a GPS solution could do for him; I think it was a great move for both of us."

Cesiro is inclined to agree, admitting that he had previously downplayed the need for GPS. "I see now that was a foolish way of thinking," he said. "I've been using my Topcon HiPer VR for a little over three years and I'm still seeing the potential it offers. Among its other obvious productivity-based benefits, right now I'm building GIS maps – I have entire sections of this town in CAD. I wish I'd done this sooner, for sure."

If realizing the potential of GPS was a watershed moment, what Hays would show Cesiro next would result in what he half-jokingly calls his "superpowers."



"With a used robot and my HiPer VR receiver, Brent gave me a crash course in what hybrid technology could do for me. While I'd heard about it, I didn't think it would be a good fit for a small operation like mine – I could not have been more wrong. The hybrid solution is perhaps the best answer for a firm that's looking to keep manpower and costs down without sacrificing productivity. I was sold on it and made the purchase shortly afterward."

Cesiro said that the speed of the hybrid solution is amazing; working alone, he can quickly do 100-200 shots. "In the old days, if we would get 150 shots in a full eight-hour day, we felt we were killing it. Now, I can do that in an hour before lunch. Using this technology, I can accomplish things – alone – that I never dreamed possible."



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Because of ALD's size, Cesiro is keenly aware when a purchase generates a return on its investment. While both GPS and the hybrid solution have met that goal, the savings go far beyond simply monetary gains.

"Since adding the hybrid solution, we've turned out the same amount of work we did from 2008 to 2009 – with half the staff," he said. "The GPS paid for itself in less than a year, both through increased productivity and by not having to add an employee. Looking at it from that same perspective, the robot paid for itself in about five months, maybe less."



A [full-length version](#) of this story is on the Topcon website.



[Watch the video](#) on this project. Visit the [Topcon YouTube channel](#) for more on the technology featured in this TAW.

