



Les fabricants envisagent
d'appliquer la technologie du
positionnement global partout
sur le parcours de golf

Manufacturers eye total course
GlobalPositioning technology

GPS

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Many thanks to M. Overbeck

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Affichage du système ParView
ParView display

In today's information-crazed society, satellite-driven Global Positioning Systems (GPS) are becoming more widely used as the technology improves and costs come down. GPS systems are being used as navigational devices by backwoods hikers, road weary businessmen, and, yes, even golfers. Some 300 courses in the United States have installed GPS systems on golf cars to encourage speedier play, allow players to pinpoint exact shot distances and increase food and beverage revenues.

Not to be left out of the GPS revolution, large maintenance equipment manufacturers have teamed up with "clubhouse based" GPS companies to develop a total course solution that would bring the satellite technology to superintendents.

Partnerships

John Deere acquired Boston-based Player Systems in August 1998 and launched John Deere Golf Technologies. Toro Co. made an equity investment in San Juan Capistrano, Calif.-based ProShot Golf in January 1999. Earlier this year, Textron Turf Care and Specialty Products announced that it is working with Sarasota, Fla.-based ParView Inc. to develop a maintenance-based GPS system.

The basic GPS system will track maintenance equipment on the golf course, allow superintendents to ensure that workers are performing assigned tasks and, when integrated with the golf car system, send workers to areas of the course that are not receiving much play.

"What we want to do is wrap our SkyLinks technology around the superintendent's duties," said Tom Meyers, marketing manager for John Deere Golf Technologies. "That will involve everything from preventative maintenance tracking to site specific management, precision spraying and mowing, accurate compliance with Environmental Protection Agency record keeping, detailed material analysis and application and inventory and cost control."



Affichage du
système ProShot
ProShot display

John Deere's DeereTrax system collects the GPS-generated data and assembles it in a useful management form. "The system is now being used in our construction equipment division and we are now looking at using it in golf," said Meyers.

The SkyLinks system for golf cars was launched earlier this year and is now in use on five golf courses.

Textron is working with ParView to integrate its Track-It maintenance and management software program with GPS and GIS to develop a total system management program.

"The solution is to give the superintendent a total course management system that allows the superintendent to monitor his product and equipment, but also to monitor the course itself in terms of spraying, course conditions

and machinery breakdowns," said Peter Whurr, vice president of product management for Textron Turf Care and Specialty Products. "If the superintendent knows all of this straight off, he can take proactive action."

According to Whurr, the system could also build a history of maintenance practices at a specific course. "When a new superintendent comes in, he could pull up a history of the course that shows him what has taken place over the last few years. That way he can hit the ground running," he said.

ParView's golf car system is in use on 70 golf courses and Whurr expects that the maintenance equipment GPS system will go into beta testing in the next few months.

Toro's Center for Advanced Turf Technology is working with ProShot's GPS technology to adapt it to maintenance applications.

"Toro is attempting to take the GPS technology and couple it with Geographic Information Systems (GIS) and take it to another level and apply it to our own equipment," said Chip Engdahl, marketing manager for Toro's commercial division.

"One of the big ideas is precision turf maintenance and management. By coupling GPS, GIS and variable rate spraying technology you can be more precise on rates-tracking where, how much and when you put stuff down."

The ProShot system is being used on more than 150 courses nationwide and Engdahl said that maintenance related product testing is ongoing.

Research and Development

GPS research and development has been time-consuming. In addition to developing maintenance-specific systems, companies have to solve reliability, durability, cost and marketability issues.

"You can't simply apply the technology that is being used on golf cars to equipment," said Engdahl. "Data capture needs to be more precise, it needs to communicate more often and it needs to be more durable. A mower gets more abuse than a golf car because you have grass, water, pesticides and dirt going through the unit as opposed to driving over it."

Textron has been working with superintendents to determine what features and systems will be the most helpful.

"We want to make sure that the product we have is what the customer wants," said Whurr. "We can put all sorts of bells and whistles on this and show people how clever we are, but that doesn't necessarily mean that a superintendent will find it useful."

A GPS system for golf cars costs between \$100,000 and \$300,000 depending upon the number of features and cars involved. While none of the companies have set prices for maintenance-only systems, a total course GPS system would work off the golf car price baseline.

Meanwhile, companies are still working on reducing costs.

"We have to make sure that this is something that courses can afford and find value in," said Meyers.

For communication alone, Bruce Williams, superintendent at Los Angeles Country Club, thinks GPS systems will be very useful on courses.

"This is a communication vehicle. Many courses didn't have radios 20 years ago; now we have radios, cell phones and two-way pagers for upward, downward and lateral communication," he said. "This is another way to stay in touch. It is just as important to know where your staff is if you have four guys or 40 guys."

While Scott Cybulski, superintendent at Falmouth Country Club outside of Portland, Maine, thinks GPS may be a little overly sophisticated, he too sees the potential value.

"Marking out sprayed areas with GPS may be the most handy," he said. "Knowing area sizes and where valve boxes and irrigation heads are would be great. ... If I could do it, that is why I would do it."

Market Potential

According to those in the industry the market potential is large.

"The industry is booming right now," said Nate Yoder, vice president of marketing for ParView. "We sold more systems in the last quarter than we had in the previous three years."

Of the nearly 17,000 golf courses in the U.S., Engdahl believes that every course will eventually be touched by GPS or GIS.

"At some point the technology will effect every course," he said. "GIS for irrigation, GPS for cars, and at some point it will be everywhere. The management of the golf course will be more unified because of these technologies."

According to Whurr, GPS systems will be well suited to the needs of course management companies. "The biggest concern from a management perspective is monitoring equipment and preventative maintenance," he said. "This would be a benefit to management companies because they'd know that they are getting the best out of their equipment."