

LIFE

Wristwatches are 'LoJack for kids' ; Devices can track children anywhere, but that worries some privacy experts

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Richard Winn of Pine Grove, Pa., doesn't think of himself as paranoid, but with so many abductions in the news lately, he wants to protect his daughters, ages 9 and 6.

So he bought them special wristwatches that will track their locations 24 hours a day.

"You hope like heck you're not over-paranoid and you're not too fearful of your child being dragged away," Winn says. "But you know the opportunity exists."

Forget about traditional ID tags. This summer, parents are starting to look toward a new breed of identification tag: devices that rely on the Global Positioning System (GPS), a worldwide navigation system that allows a person to find where they are by measuring themselves with satellites orbiting 12,000 miles above the Earth.

Winn purchased his watches from a Redwood Shores, Calif., company called Wherify Wireless, one of a handful of companies starting to sell relatively lightweight devices that can be worn like watches or pagers to track young children, aging parents with Alzheimer's or others at risk of wandering off.

All work similarly. In the case of Wherify, once the GPS watch establishes its position, it then uses cellphone technology to send that information to a central location. From there, Wherify makes that information available to parents: They can log on to the Internet and view a map of their child's location, or they can call Wherify from a regular phone and get the information from an operator.

Winn, a systems analyst for the state of Pennsylvania, says he has been using GPS devices for years to plot his fishing trips. "I started looking around for something for my kids, especially with the wave of abductions." The watches fit the bill; they're lightweight (3.9 ounces) and colorful (they come in purple and blue) and should arrive in early September.

GPS and other tracking technologies have been around for years. The federal government has even mandated that location tracking be incorporated into our cellphones so that our 911 calls can be traced, although implementation has been slow.

But the equipment, like cellphones of yesteryear, has been too big, too bulky and too expensive to be worn and used like a Star Trek communicator that you can just stick on your shirt and be located. Today's devices are still a little bulky and the batteries still need to be charged frequently, but they are wearable.

Among products available or in development:

* Wherify Wireless (whose founder, Timothy Neher, started the company after nearly losing his brothers' kids at a zoo) began taking orders for its \$400 GPS watches for children a few weeks ago and is promising shipment in early September. Customers also

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pay a monthly service fee of \$25 to \$50. The watches give the kids a "panic button" that calls Wherify, which alerts parents and the 911 emergency system; parents can lock the watch on kids' wrists so it can't be removed. It can also be programmed to notify parents when a child leaves a designated area. It's made from cut-resistant material and can be programmed to notify parents when the device is removed or tampered with.

"It's LoJack for kids," says Marc Klaas, likening it to the system that helps locate stolen vehicles. Klaas, father of Polly Klaas, the 12-year-old girl from Petaluma, Calif., who was kidnapped and murdered in 1993, is endorsing Wherify's product.

* Applied Digital Solutions, of Palm Beach, Florida, produces a product called Digital Angel, a combination watch and clip-on tracking device that also uses GPS.

The owner of the unit can go on the Net to view a map showing the wearer's location, and the watch also can be programmed to alert someone when the wearer has wandered outside of designated boundaries. The alerts can be automatically sent to any number of devices, including cellphones and pagers.

Digital Angel started shipping the devices in the spring. So far it has sent out 200 and has orders for close to 1,000 more, says company president Scott Silverman. The Digital Angel units also cost \$400, with a monthly fee of \$30.

A new version of the system, out in a few months, will be a one-piece unit about the size of a matchbook, the company says. Applied Digital also is developing a GPS device that can be surgically implanted. Latin American businessmen requested the device because so many of them have been kidnapped, says spokesman Matthew Cossolotto. The company aims to have a working prototype by the end of the year.

* GPSTracks, based in Dallas, is developing a product to be clipped on clothing. The company, which originally patented devices to find dogs, now is developing at least two different products -- one for dogs and another for humans, says founder Jennifer Durst of Oyster Bay, N.Y.

Unlike the others, GPSTracks, which has received several patents, does not go through a third party; instead device owners can get location information directly by using the Internet or wireless devices such as cellphones, pagers and personal digital assistants, Durst says. She plans to price the unit for under \$300; there will be a \$25 activation fee and the monthly service charge will range from \$10 to \$15.

"We're hoping to have them on the shelves by Christmas," Durst says.

Personal location devices are so new that only a few hundred have been shipped to owners; orders from Wherify and Applied Digital number in the low thousands.

One drawback? GPS devices don't work in places where satellite signals are blocked, such as concrete buildings and underground. But when they do work, they can pinpoint location to within feet. Wherify enhances GPS to help it work in some remote areas, but it's not perfect, and there will be areas of blockage.

Applied Digital also plans to use "enhanced" GPS, which combines cellphone technology with GPS technology and expands the area where a device will work.

But at this point, no GPS system is failproof. Chances are, if your cellphone won't work, the GPS won't work, either.

Still, Wherify says that the devices will be useful even in areas without reception: If a child is lost, his signal can be followed until he's found. If he enters an area where the GPS doesn't work, he can be traced to the last place where it did.

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The watches are expensive, but Winn says the peace of mind they provide is worth it. He hopes not only to be able to track his kids in case the worst happens, but also to find them if they simply get lost.

"I know if something happens I can track her down. Or if she gets hurt, I can find her." Wherify Wireless and other companies are exploring the idea of producing devices for daily rental at amusement parks, where parents and kids often get separated. They and others foresee a day when personal locators will be built into cellphones, watches and numerous other devices.

And that worries people like Alan Davidson of the Center for Democracy and Technology, a free-speech and privacy advocacy group in Washington, D.C.

"When you compile information over a long period of time, it can provide a complete dossier of a person's activities," Davidson says. "We do worry about how these devices will be used."

David Shapiro of the National Center for Missing and Exploited Children cautions against allowing technology to take the place of good parenting. "Understand it is a device. Devices can fail."

In addition, "With tracking comes the ability of people not in your family to track your children," he says.

Companies assure the strictest privacy and password-protect all their data. Still, some worry that the mere existence of the information could be dangerous; once it exists, someone could breach security and get it. Also, companies would have to turn it over if a law-enforcement agency subpoenaed the information.

Winn says he knows the watch won't take the place of talking to his kids and telling them what to do when approached by strangers. But it does make him feel better. "The watch itself? It's a little security for them, and it's a little security for me."

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PHOTO, B/W, Wherify; PHOTOS, B/W, Kalim A. Bhatti for USA TODAY (2);
Caption: Keeping watch: Richard Winn got GPS watches for daughters Hannah, above, and Audrey. Down on the farm: Hannah, center, and Audrey help their father, Richard Winn, feed a calf on the family's farm in Pine Grove, Pa. Richard says he's not paranoid, but recent highly publicized child kidnappings have him concerned. Wherify GPS: The locator is worn as a watch and can quickly determine a child's whereabouts.