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# READY NET GO ... NEWS

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<http://www.readynetgo.net>

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## Websites Worth Watching

### Updating GPS maps

Do you use a GPS device? Have you noticed that some of your downloaded maps need to be updated? Contact Navteq and Tele Atlas who are maintaining the maps.

[www.navteq.com](http://www.navteq.com) – click **Map Reporter** on the navigation bar

[www.teleatlas.com](http://www.teleatlas.com) – click **Report map changes** in the middle of the screen

### Resources for GPS Info

[www.gps.gov](http://www.gps.gov) – Overview of GPS and the many applications where GPS excels.

<http://gpshome.ssc.nasa.gov/> - NASA site gives detailed information on what GPS is, how it works and describes the multitude of applications available with GPS technology.

### Popular GPS Manufacturers

[www.garmin.com](http://www.garmin.com) - Garmin

[www.tomtom.com](http://www.tomtom.com) - TomTom

[www.magellangps.com](http://www.magellangps.com) – Magellan

### GPS Privacy Concerns

[www.eff.org/](http://www.eff.org/) - Electronic Frontier Foundation seeks to preserve civil liberties in a digital world.

- Search for **GPS** or browse the site for the latest in privacy issues – more in next months' newsletter.

## Advances in GPS

GPS (Global Positioning System) devices are being used in nearly every industry providing positioning, navigation and timing services 24/7 around the world. The scope of GPS is far reaching. It began as a military device then branched out into the consumer market in the form of vehicle navigation and handheld devices suitable for hiking. It is now being integrated into cell phones, PDAs, sport watches, dog collars and more, making GPS devices available for nearly everyone to use.

We last wrote about GPS in our September 2007 newsletter and since then there have been many improvements to the overall technology and types of interfaces. We'll discuss some of these in this newsletter.

### What is GPS?

GPS is a utility devised by the US military that enables civilians and government entities to monitor their location, navigate reliably and display precise time anywhere on Earth. It is currently being monitored and maintained by the US Air Force.

There are three components to GPS:

- 1) 24 satellites strategically placed in orbit around the Earth;
- 2) Monitoring stations on Earth that control, maintain, and maneuver the satellites;
- 3) GPS receivers that people use to display position, navigation and timing.

### How it works?

GPS devices (receivers) on Earth pick up and translate signals transmitted by satellites orbiting in space. Signals from at least 3 satellites are needed to calculate your location.

GPS receivers calculate the following:

- 1) the distance to each satellite; and
- 2) the time it takes for each signal to reach the receiver.

With these figures, the GPS receiver can calculate your location anywhere on Earth and give you the exact time.

## Sample Uses for GPS

- Handheld devices provide **navigation maps, turn-by-turn directions, and voice commands** for recreation and business use worldwide (depending on software installed). Find gas stations, hospitals and repair shops even if you're not familiar with the area. Traffic receivers in vehicles offer real time traffic and construction delay notifications.
- GPS allows aid agencies to respond quickly to emergencies and provide disaster relief through surveying and mapping the area and locating survivors.
- Create **precise time tags** for worldwide financial and business transactions, electric power transmissions and wireless/data networks. GPS provides atomic clock time without the need for atomic clocks.
- Synchronizes hazardous weather reporting over long distances during tornadoes, hurricanes, earthquakes, etc.
- GPS watches allow runners, hikers and other recreation enthusiasts to monitor latitude, longitude and distance.
- **Improve your golf game** by using a GPS device to calculate precise distances between holes, navigate around obstacles, and even find the closest golf course if you're traveling. Watches geared for golfers will even suggest the best club for your next shot depending on distance to the next hole and your game history.
- **GPS-enabled cycle computers** track speed, distance, calories burned, maps, turn-by-turn directions and more for avid cyclists.
- Movie directors use GPS to synchronize multi-camera sequencing of film scenes.



**GPS Golf Watch** - Suunto G6 showing Tempo (T), Rhythm (R), Backswing Length (L) and Speed (S)



Garmin Bluetooth receiver and Smartphone

- **Bluetooth GPS receivers** – Bluetooth technology allows you to connect devices without the need for wires or cables. Bluetooth GPS receivers allow you to view maps throughout the US, Canada and European countries (depending on package chosen) on PDAs, Smartphones, Blackberry's and cell phones you may already own. An advantage of this system is **no monthly fee** that is associated with some dedicated GPS navigation devices.
- Cell phones that run Android (Google's OS) and the iPhone have several applications that use GPS including location based tracking – walk by a store and get a coupon; create a star map by taking a picture of the night sky with your cell phone; and many more.
- Many cell phones/Smartphones have GPS built-in but if yours doesn't, you can get this feature by **installing software** and **subscribing to an appropriate data plan** through your wireless provider. With GPS tracking enabled, you can track the location and speed of a cell phone and monitor activity via web-based or cell phone interfaces. Track children, employees, vehicles, etc. in real-time. {Note that all cell phones sold after 2005 are able to be tracked via 911 emergency calls. If you make a 911 call with your cell phone and don't know where you are, authorities can track your location via GPS coordinates and send help. Installing software and subscribing to a data plan will enable you to track a cell phone at anytime.}
- You can even **track your dog** with a GPS collar – purchase a standalone unit or pay a service to track your dog's location. Many collars have ranges up to 10 miles (depending on terrain) while some services offer tracking up to 50 miles away. Many units can track up to 10 dogs at one time. GPS collars are only available for dogs over 30 lbs – cat owners will have to wait for smaller units to be manufactured.