

GPS satellites get a serious upgrade

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Navstar-2F satellite of the Global Positioning System (GPS). Image: USAF

(PhysOrg.com) -- GPS has become such an integral part of the new technology in our lives that we really do not give it much of a thought. It gets us to our destination without getting lost. It helps the ambulance to find us when we dial 911 on our cell phones. It lets you become the mayor of your gym for all those check in's.

When you get down to it, all of that technology is powered by a set of 24 satellites, and most of them have been up there for quite some time. The time has come for an upgrade. The newest version of a [GPS satellite](#) is called the [GPS IIF](#) and it is enhanced with more than one new upgrade.

The GPS IIF is expected to double the accuracy of GPS, which is just as good of news for fans of Foursquare as it is for the FAA. One has to

wonder exactly what doubling that accuracy really means. Well, currently GPS can estimate your location to an area of about 20 feet. When the next generation satellites are in place, this location will be narrowed down to an area of two to three feet, making pinpointing locations less like a range, and more like the spot you are standing on.

This enhancement means that the next generation of GPS technology may be able to work with augmented reality technology indoors. Imagine having a virtual docent at the Met, or a guide to help you around your new college campus. The possibilities with this level of accuracy are intriguing.

Currently, only one of these satellites, the [GPS IIF SV-1](#), is in [orbit](#) and fully operational since August 2010. The second [GPS IIF satellite](#), SV-2 is planned to launch this year. Eventually 10 other units will join them, and that is when you can expect to see the upgrades.

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