

The Future has Arrived!

If you're involved in machine control, tune in to this. It's the biggest news of the decade, in our view. And it puts squarely on the horizon the virtual certainty of a new generation of positioning technology that offers far better reliability than today's 3D gear.

A few days ago Trimble announced that it had signed an agreement with Nunzio Gambale's Locata Corporation of Canberra, for development and distribution of construction equipment integrating Locata's technology with Trimble's GNSS systems.

The applications specified in the agreement are heavy and highway construction and building construction.

What does this mean?

We've written several times in the past about Locata technology, which is Australian-developed and has recently been adopted by the United States Air Force. Basically, it's a system of very smart transmitters that pretend to be satellites — you place them around a site wherever you need them, up to five or more kilometres from where you're working.

Unlike the signals from satellites, Locata signals are strong enough to pass through trees and solid buildings, so they overcome the problem of shading and obstruction that currently reduces the reliability of GNSS equipment from time to time.

And they will compensate for an insufficiency of satellites at certain times of the day, a factor that all machine control users are very familiar with.

A group of LocataLites, as they're called, constitutes a LocataNet. Look upon it as having your own constellation of satellites, except that they're on the ground.

What Trimble and Locata will do is to collaborate in the design of receivers that can read both the satellite signals, and the Locata signals.

No Holdups—Just Keep Working!

Let's say you have a job that takes you under a canopy of heavy trees, through a forest, alongside a tall building, amongst hills, into a cutting, or under a bridge. Or perhaps you're working outside a new factory and want to continue grading inside, for a concrete slab.

With existing technology, you'd either lose satellite lock, and therefore accuracy—or you may have to set up a laser or an ATS to handle part of the work.

But if you have a hybrid receiver such as Trimble and Locata are contemplating, you'll have an entirely new and independent source of positioning data. So you'll just go on working.

A typical configuration might be three LocataLites for a work site 5km by 5km. You'd only need to be receiving a couple of satellites to be in business. The LocataLites constantly talk amongst themselves, verifying their own positions. So if you had a section of your work area that proved to be shaded by a hill, you'd just pick up one of them and move it to service the affected area. Within minutes they'd have figured out the change of position, and be back in business delivering high accuracy.

That's to say, LocataLites don't have to be surveyed in, and they replace the need for a GNSS base station and its associated radio links.

We'll pass on more information as it comes to hand.

