

Make no Mistake —GPS Guidance Has Arrived

Elsewhere in this issue of *The Bulletin* we report on the first commercial installation of Trimble's SiteVision GPS-based guidance system by South East Excavations, the earthmoving contractors on the Casuarina Beach subdivision project.

The approach in that article is to give a "hands on" report concerning an actual operating system, whereas this article gives an overview of what's going on around the state.

It will be interesting to see how this technology evolves over the next few years, but one thing can already be said with certainty. GPS guidance of earthmoving machinery has arrived, and it's here to stay.

SiteVision is relatively new. It was developed at Trimble's Christchurch NZ research and development centre, based upon Trimble's technical expertise as a GPS supplier in the fields of land and marine survey, mapping and agriculture—not to mention the U.S. military, and fleet management.

In fact, all taxis in Brisbane and the Gold Coast are fitted with a Trimble GPS chip integrated into their on-board communications system, to monitor their locations and facilitate despatch of the closest car when you phone up for a cab.

Rapidly Gaining Acceptance in the United States Market

SiteVision sales in the earthmoving field have rapidly accelerated in the U.S. market and are currently running at about fifty each month.

Up until now, activity in Australia has been limited to trials, but the Turner bothers of South East Excavations have now weighed in for the first commercial installation, and it's working out well for them.

Brisbane-based distributors for the eastern and central states of Australia, Ultimate Positioning, are busy talking to a number of other clients and new installations will shortly take place.

Comalco Installation at Weipa

The Comalco people have Allan Archbold, National Sales Manager of Ultimate Positioning, booked on a flight to Weipa to install a SiteVision system on a Cat D11 working at their bauxite mine.

The mine operation involves stripping overburden from an area of about two hundred hectares each year and then taking out the bauxite layer beneath.

The overburden varies in depth from 400mm to 1.2 metres in the areas worked by dozers. A contour model is created by core drilling over a surveyed grid.

Presently, supervision of the stripping operation is by laser, which is both labour intensive and unsuited to night operations—not to mention being an unpleasant job in the extreme daytime heat of Cape York.

For Comalco, accurate stripping also means that less contamination has to be removed from the bauxite ore—the advantages are obvious. They are looking to separate the overburden from the ore to an accuracy of about 25mm.

Comalco has a few D10's and D11's at the Weipa mine, and if everything works as planned, this first installation will not be the last.

Having set up the differential GPS base station, further on-board SiteVision guidance systems for machines working right across the mine site will be a straightforward matter.

Recent Installation in W.A.

Since Western Australia is not part of Ultimate Positioning's sales territory, Allan Archbold was acting as technical consultant when he travelled to the West late in October to handle the installation of SiteVision on a Cat 16G grader for Catalano Pty. Ltd.


Stephen Catalano is the earthmoving and mining contractor at

Worsley Aluminium's smelter site east of Bunbury, and is involved in the construction of several huge settlement dams that will keep him busy for the next three years.

The operation involves stripping topsoil and placing three layers of material to fine tolerances in the bottom of the dams.

Clay to a depth of 540mm is covered with 150mm of sand, followed by 150mm of gravel to create a filtering course feeding a central drain.

Allan had the SiteVision installation finished for Steve Catalano in one day, and at work the next.

Additional installations are in prospect and depend to a degree upon suitable projects coming up. Ultimate Positioning are talking to several major contractors in Queensland, South Australia, and Victoria who are in the process of submitting tenders based upon the use of SiteVision. 

Second Gateway Bridge?

As part of the Queensland Roads Implementation Program, funds will be set aside for a planning study into a second river crossing in the vicinity of the Gateway Bridge as part of the Port of Brisbane Motorway project.

"Main Roads and Queensland Transport are exploring all options in full consultation with all the major stakeholders," says Steve Bredhauer, Transport Minister.

"Investigations so far have shown that a second Gateway Bridge in the area would cost around \$400 million. A tunnel option would be considerably more expensive.

"However, we are still in the early stages. I'll await a more detailed analysis before a decision is made," Bredhauer said. 