

# Location, Location, Location

BY NWB STAFF



Photos courtesy of Tecterra

**I**t's a wide world and knowing exactly where things are is becoming a more integrated part of doing business.

While many people haven't heard of geomatics, it nonetheless is likely to be a part of their lives. And for industry, it is a must.

Geomatics technology is relatively new but is advancing rapidly and one company has made it their mission to ensure that people who are trying to develop geomatics technology have the best chance possible.

"We do not develop technology but we enable and fund the development of technology," explained Tecterra CEO Dr. Mohamed Abousalem.

"We have funding from the province of Alberta and the federal government to use those funds to stimulate the economy. Our objective is to create commercial activity with the money we have by encouraging and helping companies to bring technology out to market."

In a nutshell, geomatics is the discipline of gathering and interpreting information that pertains to location and positioning. Applications that are location, positioning, navigation, mapping, remote sensing imagery based— all these are geomatics applications.

"It originally started with surveying...today people use satellites instead of the conventional surveying equipment. Satellites are used to provide accurate positioning, with a lot of advantages from an operational point of view," said Abousalem.

There is no shortage of applications that impact industry, as Abousalem points out. Knowing where and how deep to drill, inertial navigation sensors such as pipeline pigs carry, navigation systems of all kinds, wildlife tracking devices, underwater positioning, and a host of other applications, some as yet undeveloped, are just a few examples.

"One of the first things in any project at any site is you see a lot of earth moving activity. Ground is being dug in one area and earth is being moved from one spot

Regardless of what industry they're applied to, applications that help pinpoint location accurately can save companies time as well as money.



Tecterra CEO Dr. Mohamed Abousalem

to the next, every minute of that equipment being used costs a lot of money because this is expensive equipment and time is money. It is important for them to know in the field, what to move, how much earth to move and where to move it to. GPS and laser technology are typically used together as a geomatics application to help operators of those (pieces of) equipment...to determine what they need to do in the field in real time and to the centimeter," explained Abousalem.

And that really is just the start of it. But, that's where Tecterra comes in. Geomatics is still a relatively new thing. The advent of satellite technology and the advancement of communications technologies have taken geomatics from its infancy to a rapidly advancing set of technological applications. However, not all companies with a good idea have the resources to take that idea to market.

Perhaps the most critical advancement impacting the ability to commercialize the applications, said Abousalem, is the miniaturization of the technologies. This he added reduces expense and that's important because the more inexpensive technology becomes, the more applications they can be deployed in.

"Let's talk forestry applications and imagery and taking pictures by airplanes if you will or fighting fires with aircraft. You can only put so much on an aircraft because it's important how much that equipment weighs. So, again, with the miniaturization of technology that has become very useful now and very usable if you will," he said.

Sometimes cost is the prohibitive factor in using technology in certain appli-



Photos courtesy of Tecterra

**Tracking the movement of wildlife helps not only to monitor impact on the wildlife but can assist industry to plan more effectively to accommodate our wilder neighbours.**

cations," he added. Tecterra is offering a number of programs to help with this and other stumbling blocks.

"We work with university programs and research programs to help them push their technology out to market. They line up industry partners and we can fund their development to bring their technology to market. We will be launching programs to assist in the employment of highly qualified professionals in the field of geomatics, not only technical but also business," said Abousalem.

One example of the business focus is the recently launched GEomatics Commercialization Kick-Off (GECKO) program. It will provide early-stage funding to geomatics entrepreneurs and researchers for the development of comprehensive business plans for the purpose of commercializing new geomatics technologies. Grants of up to \$25,000 per business plan project are available to qualified applicants. "The ultimate goal is generating wealth," said Abousalem.

For more information about programs offered by Tecterra, their website at [www.tecterra.com](http://www.tecterra.com) has a complete listing. **NWB**



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