

# Why 'Where' Matters: Understanding and Profiting from GPS, GIS and Remote Sensing

By Dr. Bob Ryerson, CMS, FASPRS

**W**hen Maureen Mountjoy asked me if I would be interested in preparing a small article on my book, *Why 'Where' Matters: Understanding and Profiting from GPS, GIS and Remote Sensing*, which I co-authored with Dr. Stan Aronoff, for the magazine, I said yes, and then I suggested that I could write about why Stan and I wrote the book and how it came about. That seemed like a reasonable approach to her – and that is what I will provide below.

But then I wondered, what would I say to those in the very precise Land Surveying side of our profession? Will Land Surveyors think me presumptuous to even consider myself to be in the same profession? Is there enough in the book to warrant their attention – and keep them happy?

I then reviewed a few of the things that we have written in the book about Land Surveying. In the book we argue that we are in a new economy – the GeoEconomy. We clearly state that this new economy is dependent on and driven by geo-information. We state in the book that Land Surveying is “one of the underpinnings of the GeoEconomy.” We also explain the importance of property and review the importance of boundaries, the role of Land Surveying, and the importance of standards. So while there is not an exhaustive explanation of Land Surveying, the topic is set in context.

Then in the two hours before I began to write this, many of my concerns went away – we received orders for six books from Land Surveyors, two of whom I knew and whose opinions I respect, and one of those had seen a preview copy. And of course we had excellent comments, for example from Dr. John McLaughlin, who is well respected in the Land Survey community. To take a small portion of his quotation, which can be found on the back of the book, he said that “The book provides a comprehensive overview of current geospatial technologies, data sources and applications; and effectively addresses a number of important policy issues.” So while I am still nervous, I am hopeful!

Why did we want to write this book? Let's go back a few years.

It was clear by the mid-1990s that the splendid isolation in which the various elements of geomatics (or geospatial)

existed was changing – all of the sub-disciplines of geomatics were coming closer together. The symbiotic relationships between mapping, GIS, and remote sensing became evident. A study we did some ten years ago clearly showed that Land Surveyors who saw their business as land information and who were using GIS were experiencing faster growth and greater profits than those who saw their business limited to traditional cadastral surveys. Our world was (and still is) changing. And to react to these changes, those of us in the field must understand what we do from a much broader perspective.

When I was Director General of the Canada Centre for Remote Sensing and often chaired the Geomatics Canada Management Committee (on which the former Surveyor General of Canada, Michael O'Sullivan sat) it was clear that we in the geomatics community had not been doing a very good job of explaining the importance of the field to our political masters. Support was not only weak, it was diminishing. My boss at the time kept saying “speak to me in my language.” He meant we should try to explain the value of what we could do in terminology that THEY (i.e. the decision makers) understood. That made sense. And who were the “they” we were trying to reach? The individuals, communities, companies and countries that could benefit from the use of geospatial information – and those who made the decisions about what information they would use, how they would use it and where they would use it.

From the preceding discussion we can extract the four major reasons why we wrote the book.

First, we wanted to address the general lack of awareness of the importance of geospatial information and technologies among those setting policy in governments. This is one reason we sought out John Manley to offer his comments about the book. He said that “It should be read by anyone who wants or needs to understand the sweeping implications for individuals, governments, and business of the modern use of geographically based information.” We can say that Mr. Manley knows something of the field from his days as a Minister responsible for Industry and the Space Agency, and he knows a great deal about government, and is highly respected by all. We are in the


process of preparing a formal paper on the importance of geomatics in policy formulation and have been active in the Geomatics Industry Association of Canada's activities on Parliament Hill, impressing upon our parliamentarians the importance of geomatics.

Second, we wanted to provide a handy reference to those in the field that explained the whole field but did so in an easy-to-read format – as an overview for all of us in the field (in a way to show where we all fit in), as a primer for new entrants to our field, and for those in the field to use to explain to others what they do. (Some companies and government agencies are buying the book in bulk to give to clients and visitors – something we encourage, of course!)

Third, we wanted to explain the importance of geospatial or geomatics. We believe that we are in a new economy – what we call the “GeoEconomy” that depends upon and is driven by geo-information – the book shows this with a review of the history of how we have come to where we are today (Chapter 2), and by demonstrating that throughout history geospatial information and related technologies have always been important (also in Chapter 2). After introducing the key technologies in Chapter 3, we then highlight the many links between geomatics (the

“where”) to important government policy issues (Chapter 4), and emerging issues (Chapter 5).

Fourth, we wanted to explain how the technologies can meet the needs of individuals, companies, communities and countries in a way that was both easy to understand and accessible to non-specialists – this we had some fun in doing in Chapter 6.

To do all of this we have spent many months writing and refining the book. To make it more accessible we had it edited by a non-specialist who insisted on us being clear and easily understood. We then hired a first class graphic designer to make the book look good and be easy to read. While it is not devoted to land surveying, we believe that it will be of interest to professionals within our field and to those outside who are interested in our world and how we both measure and monitor it today. 

**Dr. Bob Ryerson, CMS, FASPRS** is President of Kim Geomatics Corporation in Manotick, Ontario. The book *“Why ‘Where’ Matters: Understanding Profiting from GPS, GIS, and Remote Sensing”* written by Dr. Bob Ryerson and Dr. Stan Aronoff has just been published. Information about this book can be found in the Book Reviews section on page 46.