

September 29, 2005 **Connecting the Dots**

by Rebecca teBrake

Canadians are able to access a rapidly increasing number of datasets as GeoConnections and its partners work together in building an online resource for using and combining geographic information (e.g., maps and satellite images) to gain new insights into social, environmental, and economic issues.

As a national program led by NRCan, the mandate of [GeoConnections](#) has been renewed to further develop and operationalize the Canadian Geospatial Data Infrastructure (CGDI). The second phase of GeoConnections is about realizing the potential of the CGDI to help decision makers find solutions in areas Canadians see as priorities: public health, public safety, the environment and sustainable development, and issues of importance to Aboriginal communities. GeoConnections will continue to work with partners to operate, expand and evolve the CGDI, while pursuing partnerships with new end-users.



GeoConnections is working to make access to geospatial data as simple as pressing a button on the keyboard.

Building the CGDI required cooperation from all levels of government, universities, industry, and potential clients of geospatial information.

The initial phase of GeoConnections focused on building the foundation needed for an infrastructure like the CGDI. The program worked with organizations to create standards for developing software and publishing data that would ensure these products are compatible with the CGDI. "We helped data-holding government bodies publish their data to standards compatible with the CGDI, and then we started working with communities who could use the data now available to them through the CGDI," explains Dr. Dolores Durant, Content Specialist Project Officer at GeoConnections.

The publishing of data online ensures that it is more reliable, accurate, and up to date. Seamless layers of information can also be created through the overlapping of data sets. "The idea is that you can view data through the York Region Portal, for example, and underneath that data, there could be data from the Province of Ontario, and underneath that, there could be datasets from the federal government," explains Dolores.

Partnerships involving data-sharing between information holders are designed to create a high-quality service for end-users. Web portals are now available in a few pilot communities, allowing these communities to gather information from the CGDI. "We have just completed projects with York Region, the County of Oxford, the Centre for Sustainable Watersheds, Pollution Probe-Ottawa, and the Winnipeg School Board. We helped them obtain or build the technology they needed, and now their systems are CGDI compatible, enabling them to capitalize on their information and to access information from other sources," states Dolores. Although organizations need CGDI-enabled software to publish data, individual Web users have the benefit of entering through an on-line portal that doesn't require them to download special software to view the data.



Easier access is being addressed in the next phase of GeoConnections. For example, a municipal land planner would be able to seamlessly access maps and other pertinent data from



Tom Duncan presents the work that INAC has undertaken to engage in a partnership with GeoConnections through CGDI.

various jurisdictions to determine the location of roads, wells, and other structures, allowing for more informed land-use decision making.

Indian and Northern Affairs Canada (INAC) is creating a seamless data integration portal to make its and other departments (e.g. NRCan) geospatial data available to the public, its stakeholders, and staff. This geoportal enables INAC to provide the most up-to-date geographic information to its stakeholders across the country--Indian, Inuit and Métis communities. It also facilitates the use of geographic information within the department, reducing the

duplication of effort within INAC and saving it money and effort.

With a mandate that requires a physical presence across the country, it is important to INAC—a department with several regional offices—to reduce information duplication. As Dolores notes, "Instead of the regional offices each buying the same dataset, headquarters buys it once with enough data licenses for all the offices, enabling all of its locations to avoid duplication." Furthermore, since all of the regional offices also have software that is compatible with the CGDI, this data can be shared through the INAC geoportal.

Implementation of the geoportal posed some challenges to INAC. "This is an enterprise-type solution," explained Tom Duncan, Geomatics Officer at INAC's Corporate Information Management Directorate. "Our Information Technology group didn't have any experience in geospatial data systems. The technology is a piece of cake compared to the administrative stuff that goes to support it."

"We don't just help with funding, we also provide expertise," states Dolores about the services offered by GeoConnections. "We know about the standards, the technology, and the CGDI. We really do work in partnership to ensure a good end result."

GeoConnections has been working closely with a number of government departments, including Fisheries and Oceans Canada, Public Works and Government Services Canada, and Environment Canada, among others. Although some departments, such as National Defense, cannot make their data available to everyone, they are able to benefit from, and create linkages with, other departments by acquiring related data. GeoConnections has also created working relationships with the provinces to provide more data and enable greater accessibility.

In the context of its five-year renewal, GeoConnections has set its sights on establishing more partnerships to increase the number of organizations contributing to and benefiting from the CGDI.

To promote use of the CGDI and encourage more partnerships, GeoConnections takes to the road, traveling across Canada to host workshops showing the benefits of, and how to use, the CGDI.

The ultimate goal of GeoConnections is to have Canada's geospatial information applied via the Internet to support communities of practice (from the federal to the local scale) in achieving their social and economic goals.