Fall 2007
Volume 1, Issue 1

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Welcome

The GeoBase Steering Committee and Secretariat are pleased to launch our biannual GeoBase newsletter. This newsletter is part of a revitalized communications strategy created by the GeoBase Steering Committee to promote GeoBase more effectively. We hope that you find the information contained in this newsletter useful.

INSIDE THIS ISSUE

The GeoBase story so far

GeoBase began in October 2001, when the Canadian Council on Geomatics (CCOG) approved the vision, principles and data definitions of a federal, provincial, territorial government initiative to provide fundamental geospatial data to all Canadians.

The GeoBase portal was launched on November 19, 2003, with the support of CCOG members and other stakeholders such as Natural Resources Canada (NRCan) and the GeoConnections program. Since then, the portal has provided six layers of framework data to Canadians at no cost, without licensing restrictions and under common terms and conditions. In subsequent years, these data sets have been downloaded an average of 1.5 million times annually.

Since 2003, the GeoBase Steering Committee and CCOG have continued to work to move GeoBase forward. Recent developments, such as deciding to grow GeoBase are promising for the future of GeoBase.

The GeoBase initiative is an excellent example of cooperation between federal, provincial and territorial governments, working together to improve the lives of all Canadians through geomatics.

Recent developments

In the fall of 2006, CCOG assigned the GeoBase Steering Committee to recommend which framework data themes should be added to the GeoBase portal next. The committee worked with provincial and territorial members of CCOG and with the federal Inter-Agency Committee on Geomatics (IACG) working group. They determined the top four priorities for new data themes. These data themes, in order of priority, are

- National Hydro Network
- version 2 of the National Road Network
- land cover
- municipal boundaries

CCOG agrees

At the CCOG meeting of April 16-17, 2007, the GeoBase Steering Committee presented their recommendations and the CCOG membership agreed to add the recommended data themes to the GeoBase portal. The CCOG Steering Committee endorsed this decision on May 28, 2007.

GeoConnections connection

The CCOG/IAGC recommended that data theme priorities align with the GeoConnections framework data priorities. The GeoConnections priorities were determined by a 2006 user-needs study and were endorsed by the GeoConnections Management Board in the spring of 2007.

Adding data themes

Working groups, led by federal and provincial/territorial co-leads and composed of CCOG team members, will direct the projects to integrate the new data themes into GeoBase.

National Road Network

The GeoBase data profile of version 2 of the National Road Network (NRNv2) includes street names, place names and address ranges. Users can familiarize themselves with NRNv2 via a demonstration data set for Prince Edward Island available on the GeoBase website. The data set is available in three formats:

- GML (Geography Markup Language)
- ESRI Shapefiles
- KML (Keyhole Markup Language)

Note: The KML files contain only partial contents of the data.

NRNv2 partnership agreements are currently being negotiated to secure 'closest to source' maintenance. In addition, GeoConnections is negotiating agreements with Statistics Canada, NRCan and participating provinces and territories for the financial support of NRNv2.

NRNv2 datasets will be posted on the GeoBase website as they become available. Stay tuned for news in future newsletters and on the GeoBase web site.

National Hydro Network

The National Hydro Network describes and models the elements of the interior, surface water systems of Canada. It contains two representations of water: a linear network which is a logical representation detailing surface water movement; and, a more traditional cartographic representation of hydrographic elements such as lakes, rivers, and streams.

Through workshops and consultations held across Canada, NRCan, with co-leaders British Columbia and Nova Scotia, developed the National Hydro Network (NHN) standard and specifications.

In the spring of 2007, the GeoConnections Management Board approved $1.2 million in funding to support the development of the NHN data layer on the GeoBase portal.

The NHN will be implemented in phases. National coverage with partial flow directionality and toponymy tagging is scheduled for release in March of 2008 on World Water Day.

Progress reports and key delivery dates will be posted in future newsletters and on the GeoBase Web site.

Land cover

In the fall of 2007 – to meet the need for a consistent land cover dataset for Canada – a Land Cover Community of Practice, established by the IAGC will begin work on harmonizing land cover products for Canada. Land Cover data users will be consulted to determine a common set of needs and product requirements. In 2008, the resulting products will be added to GeoBase. It is anticipated that this project will be supported by funding from GeoConnections, with technical support from NRCan.

Municipal boundaries

Work has begun on the development of the data model, profile and specifications of the municipal boundaries data layer. Canada Post and Ontario will co-lead the project. NRCan, British Columbia, Saskatchewan, the Department of National Defence, and potentially other federal departments will also be involved.

Look for progress on the land cover and municipal boundaries data layers in future newsletters and on the GeoBase Web site.

Current data layer updates

National Road Network

As of September 2006, the following updated National Road Network (NRN) data files were released:

- Northwest Territories (valid as of Jun. 2006)
- British Columbia (valid as of Nov. 2006)
- Yukon (valid as of Nov. 2006)
- Prince Edward Island (valid as of Dec. 2006)
- Alberta (valid as of Feb. 2007)
- Newfoundland and Labrador (valid as of May 2007)

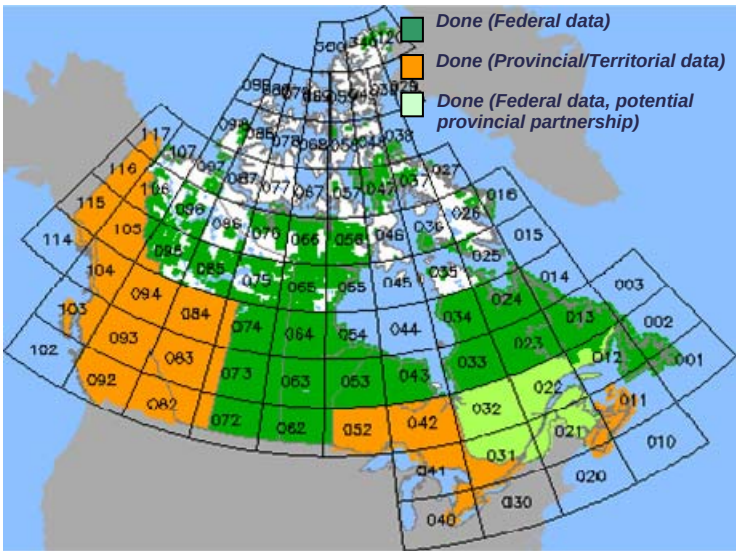
NRN observations

To maintain NRN data, a process to collect observations was established. GeoBase data supply partners invited NRN data users to share their observations of errors that will make a data file inconsistent with ground truth. Such errors include omission, commission, erroneous attribute value, inaccuracy and geometrical inconsistency. The process is outlined on the GeoBase Web site.

Canadian Digital Elevation Data

The Canadian Digital Elevation Data (CDED) has reached 72 percent coverage of the Canadian land mass.

In the winter of 2006, GeoConnections approved financing of $525,000 over the next three years, to be used towards completion of the CDED. The Earth Sciences Sector Contribution to GeoBase program will provide the balance of the funding required to complete the CDED.



CDED coverage – June 2007

This year the GeoBase CDED data layer is expected to increase by 900 data files. Private-sector companies will do most of the production of the CDED data layer.

In addition, the third edition of the CDED specifications was released in the summer of 2007.

Medium Resolution Imagery

To maintain the imagery data layer of the GeoBase data set, a new layer of medium resolution satellite ortho-imagery will be added to GeoBase. This Spot 4 and 5 imagery has a resolution of 10 metres in panchromatic mode and 20 metres in multispectral mode.

National Imagery Project partnership

Twenty-one government organizations are sharing the cost of acquiring and distributing the new medium resolution imagery. The project budget is $2.4 million over 5 years. Funding is apportioned as follows: the federal government (7 partners), 52%; provincial and territorial governments (13 partners), 28%; and GeoConnections, 20%.

Release of this imagery – on the GeoBase portal – is scheduled to commence in the fall of 2007. The release date will be announced in future newsletters and on the GeoBase Web site.

User feedback

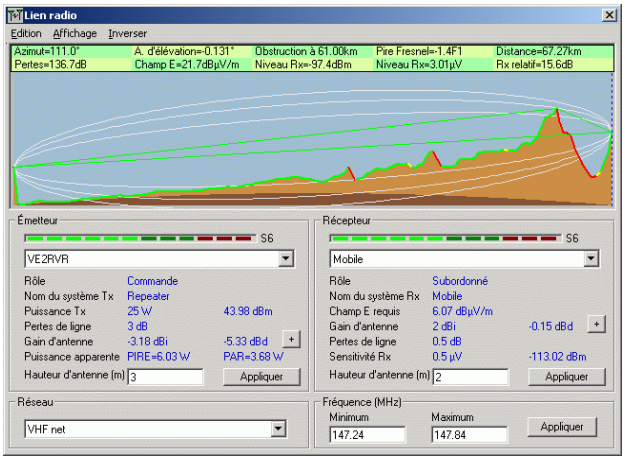
The GeoBase Steering Committee is looking for better methods for gathering feedback from you – the users of GeoBase data. Ideas include adding a user's forum to the GeoBase Web site. Let us know what you think by contacting the GeoBase Secretariat. We also welcome your success stories, and would be happy to publish them in this newsletter and on the GeoBase Web site.

GeoBase in action

Part of the GeoBase Steering Committee communications strategy is to share innovative ways in which GeoBase data is being used.

For this first edition of the GeoBase newsletter, we are highlighting the work of Radio Mobile. This freeware was developed for amateur radio users, and uses the GeoBase CDED data layer to predict radio frequency patterns and the performance of radio systems.

The GeoBase CDED data layer is used to automatically extract a path profile between an emitter and a receiver. CDED data is added to system, environmental and statistical parameters to feed the Irregular Terrain Model radio propagation model, in order that strength of a radio signals can be modeled as a function of distance, time and space. Elevation data is also used to produce background maps – illustrating the terrain.



Path profile between an emitter and a receiver

Radio Mobile has supplied 10 000 copies of the Radio Mobile freeware to members and has had 600 000 hits on its Web site since 1997.