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Canadian Geographical Names Service - Update

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Canadian Geographical Names Service - Update

At the 22nd Session of UNGEGN in 2004, Canada presented a paper about the Canadian Geographical Names Service (CGNS) a free web service. (See W.P. 13 (a) The Canadian Geographical Names Service (CGNS) on the UNGEGN web site at <http://unstats.un.org/unsd/geoinfo/22ndsessiontechnicalpapers.htm>.)

Since 2004, there have been a number of ongoing modifications and improvements. Some were already in progress; others were developed because of needs of the data users and data inputters. The CGNS may be found at <http://gnss.nrcan.gc.ca/index_e.html>.

Visitors to the CGNS public Web site access the service through the Geographical Names Search Service (GNSS). They may make a simple query for a particular name, or create an advanced query using various parameters. A query can be constructed by choosing from geographical name, generic, location, and status, or by combining any or all of those. The ability to use one or more wild cards in the geographical name has further enhanced the capabilities and flexibility of the search. At the moment, there is a 10, 000 record limit on the number of records which may be retreived by a single query. This limit is in place partly for performance reasons, to ensure that the query works efficiently for all users at all times. As the technology improves, it may be possible to download a larger number of records with a single query, allowing users to create individualized data sets for various purposes. An Application Programming Interface (API) is also available to allow users to further customize their request.

In order for users to get the most benefit from the CGNS, a GNSS users' guide was developed, and was recently added to the Web site. The guide provides instructions on how to use the GNSS Web interface, and also gives multiple examples on how users applications may access CGNS, using either the API or the Web Feature Service (WFS) capability. In addition, there is a referrer capability, which allows those developing a Web site, or a software application, to build the query function directly into their application.

Another feature of the CGNS is a table showing hard-to-construct characters, used in many Canadian geographical names of Aboriginal origin. As these names use non-standard Roman alphabet letters, it is difficult to portray them correctly in a digital environment. A combination of brace brackets and numbers is used to represent the various Aboriginal characters in the CGNS data. The table on the Web site allows users to click on a graphic to use one or more of these special characters in a name search.

Data in the original CGNS was a subset of data derived from the Canadian Geographical Names Data Base (CGNDB), which is maintained by the Secretariat of the Geographical Names Board of Canada (GNBC) at Natural Resources Canada. Since 1978, when the CGNDB was created, data has been provided by the provinces and territories in digital or paper format, and was added to the CGNDB by digital upload, or by manual data entry.

The long range goal of the CGNS is to replace the CGNDB, which will be phased out in the coming year. The next step in the development of the service is currently underway. The number of fields in the CGNS has been expanded, to include all the fields contained in the parent CGNDB. In order to streamline the process of updating the national data base, a user interface has been developed to allow each provincial, territorial, or federal member of the GNBC to load their geographical names data directly into the names warehouse. This Web-based application, known as the GNApp, is available only to CGNS data providers, and is protected by private login. Use of this interface will help to eliminate duplication of effort and delays in processing geographical names decisions. Provinces and territories wishing to do so can use the CGNS to store their toponymic data instead of maintaining their own database.

Some provinces and territories do not maintain their own databases, and are not familiar with data entry and maintenace. In order to help them with inputting their information directly into the CGNS, a guide is being prepared. The *GNApp Records Manual* will replace the *Canadian Geographical Names Data Base Records Manual,* as the CGNS will replace the CGNDB. The manual will provide information on all of the codes used in the data. It will describe each field and what should be entered in it. It will also give guidelines on how geographical names records are to be created and maintained. By providing the guide, the Secretariat will help to ensure that the data in the CGNS is consistent and follows national standards, regardless of where it is entered.

Some print copies of the text might be available, but for ease of use, and easy updating, the *GNApp Records Manual* will likely be maintained as an online document. This will ensure that all users are using the most up-to-date version, and will provide enhanced capabilities such as simpler navigation and linking to the Internet, or to other documents, from within the text.

Name records in the CGNS are currently linked only to a point, identified by latitude and longitude. The next stage in the evolution of the CGNS will be to provide access to digital extent data. Each record contains a feature identifier, a code which will allow the name record to be linked to spatial data for a place or entity. The identifier will also allow the tracking of name changes for a particular feature, and provide the basis for location-based services in the future.

Web mapping will be another important function of the CGNS. To that end, our developers are working with various groups to develop a standard for a Relevance at Scale attribute (RatS). This attribute will associate a map scale, or range of scales, with each record, in order to enable name selection on the fly for map applications. As users use mapping software to zoom in or out, the name selection will adapt accordingly.

As technology advances, the CGNS will evolve further, continuing to provide geographical names data for a growing variety of users and applications in the future.

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