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TOPONYMIC WEBSITES

Accessing Canada's geographical names on the Internet

Paper submitted by Canada**

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Find Canada's WWW national gazetteer at ..
http://geonames.NRCan.gc.ca

"Is the correct name Sydney or Sidney? Where is Tsiigehtchic?"
Which is further west Calgary or Edmonton?
Use the World Wide Web gazetteer to find the answers!

The production of gazetteers to disseminate geographical names as standardized by nationally authorized bodies is fundamental to the recommendations of both UNGEGN and the six United Nations Conferences on the Standardization of Geographical Names. However, the publication costs of developing paper copy products of this sort are rising, without the number of buyers necessarily increasing. Where budgets are limited or revenue generation is a basis for operation, this particular United Nations' goal is becoming difficult to attain.

Since 1979, Canada's geographical names have been maintained in digital form. Today's national data base - the Canadian Geographical Names Data Base (CGNDB) - stores some half-million records in ORACLE RDBMS tables; each name record can have up to some 30 attribute fields.

Over the past five years, the Canadian Permanent Committee on Geographical Names (CPCGN), has been under increasing pressure from libraries and educational bodies to make its 500 000 names records more widely accessible to the public, in particular for general reference purposes. In 1994, an alternative solution to paper copy or CD-ROM distribution presented itself ... the hypermedia technology of the World Wide Web (WWW) arrived on the Internet.

Launching Canada's Geographical Names Web Site

On 31 August 1994, the first phase of Canada's geographical names on the web was launched. As far as we know, this marked the establishment of the world's first toponymic WWW reference site made available under the auspices of a national names standardization authority. Access to the web site by the client can be in either English or French (i.e. in both official languages of Canada), but, of course, the names are in the language of approval (e.g. French, Inuktitut, Dogrib, English, etc.).

The challenge is to make as much data available as possible, but still to create a reference, rather than a data transfer, site. Although no charge is made for access to the web site, departmental policy does not support free distribution of data in an unlimited way. As a result, data files accessible on the web are structured in such a way as to make downloading of large quantities of toponymic data a lengthy and tedious process. [Digital files are available for sale on a cost recovery basis, and licensing arrangements for further use of the data are encouraged.]

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Phase I - basic names data

Phase I of the project launched the capacity to search all *Current* approved geographical names records for Canada, some 330 000 entries. For each named place or feature the following locational information is selected from the CGNDB and displayed on the screen:

(1)   approved form of the toponym
(2)   type of geographical feature or entity
(3)   province or territory
(4)   administrative or geographical region within (3) ... there is no systematic coast-to-coast sub-division of provinces and territories across Canada; officially-designated divisions vary from province to province, and the most useful (and complete) breakdown for each jurisdiction has been selected for display
(5)   latitude and longitude ... all entries show degrees and minutes; some include values to seconds
(6)   National Topographic System (NTS) 1:50 000-scale map ... one map is displayed and corresponds to the coordinates provided in (5)
(7)   the five-letter unique identifier code of the record ... this is particularly useful for any follow up purposes requiring a more in-depth search by office staff

Apart from the addition of item (7), the above selection of locational information is consistent with the data fields that would be included in national or provincial paper copy gazetteer volumes.

• Searching the data base on the Web and accessing locational maps

Users querying by name can organize the resulting selections in three ways:
- alphabetically by geographical name;
- by feature type; or
- by province / territory.

The first step of the search can involve the whole of Canada, or can be limited to one or more provinces / territories. A wild card can be used to help find names, for example, when the correct spelling is not known. However, a minimum of two characters must precede a "wild card" (e.g. dr*), a restriction imposed on users to make downloading of large amounts of data, a task that is difficult, time consuming, and expensive in terms of network access. The first selection returned to the user will list the names that meet the stated criteria and indicate the feature type and province / territory. A second call to the Oracle data base will provide the other data fields for the particular record specified.

Once the user has selected a name record, he/she can call up a small vector map to show the location of the place or feature being queried. Either a map of all Canada, or a map just of the appropriate region, may be selected. A target is superimposed on the simple map outline to indicate the position of the place or feature involved.

Phase II - formerly approved names

On April 2, 1996 Phase II of the geographical names Internet gazetteer was opened to the public. Formerly official, *Historical*, names with the same attribute fields as the *Current* names, were made available for users to search. Some 31 000 records were added to Phase I entries, and where applicable were cross-referenced to *Current* names. Historical names, in this context, are understood to date back only to the start of the national names

authority in Canada ... i.e. 100 years. At the same time as these additional records were launched, some information display was improved, and listings generated by names queries were changed to a presentation in tabular form.

The inclusion of these formerly approved names is in keeping with the United Nations resolutions dealing with the content of national gazetteers, and making the presentation helpful to the user.

Phase III - undersea feature names and new material

During the summer of 1996, Phase III was completed. A small file (4 000 records) of names of undersea features off the coasts of Canada is now searchable. These names are also part of the records of the CPCGN, and have been maintained by the Canadian Hydrographic Service and promulgated through editions of the hard copy *Gazetteer of Undersea Feature Names* in 1983 and 1987.

As part of Phase III, two other features came on line:
- calculation of point-to-point distances between two places, and
- a listing of places and/or features, lying within a specified radius (e.g. 10 km) of a particular place.

More detailed regional maps with the major features named can now be viewed for the general locality of the feature whose name was selected. These maps are based upon 1:1 000 000 scale raster images.

Phase IV - additional upgrades to meet client needs

1997 is the Centennial year for Canada's national names authority. During this year, several improvements and additions are scheduled for the WWW site:
- name query capabilities will be enhanced to permit the inclusion to characters such as apostrophes, hyphens, and exclamation marks
- CPCGN Centennial pages will be created for announcements regarding 100 years of official place naming in Canada, and a web version of the Centennial exhibit
- query by point coordinates will be available, so that all named places and/or features within 5, 10, or 20 km radius can be selected
- users will be able to limit their selections to types of feature/place (e.g. cities, unincorporated places, mountains)
- a link will be made to the Canadian Geographical Names Data Base table which stores all the 1:50 000 NTS maps relevant to a particular named feature

Toponymic information for WWW site browsers

Information on how to access records and on other toponymic matters is also important reference material for the user of the web site. In particular, clients accessing the Canadian GeoNames web site, can browse through the following:

(1)   Instructions and information for querying records
- fields of data included ... explanations and examples
- character sets ... indicating those names from Canadian Aboriginal languages that contain numerical substitutions for characters that are not yet included in international character sets

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- how to search names records that contain abbreviations, numbers, etc.
- ways to sort names in a data base query

(2)   Some useful information for translators
- various features in Canada that for particular reasons have approved names in both official languages (English and French)
- generic terminology in both official languages
- abbreviations and symbols for first level administrative units
- information on country names

(3)   Information on Canada's national names authority, the Canadian Permanent Committee on Geographical Names
- names and addresses of CPCGN members from the various provincial, territorial and federal government departments
- guiding principles of geographical naming in Canada
- background on the development of a national names authority

(4)   Government publications (federal/provincial/territorial) including gazetteers, names dictionaries, etc. ... their prices and availability

(5)   Purchase of digital geographical names data files
- what is stored in the CGNDB and the prices for purchasing various digital files

One of the marvellous aspects of web sites is that they can be expanded in many ways and linked to sites maintained by other organizations. This capability is used in various parts of the Geographical Names web site, for example:

(6)   "What's New"
- latest changes in community names, with special reference to amalgamation of cities, towns, etc. in southern Canada and to the change of names to Aboriginal names in northern Canada
- information on the new territory of Nunavut to come into being in 1999
- announcements on special projects
- statistics on the use of the web site
- what research projects are currently underway in Canadian toponymy

(7)   Links to other WWW sites that deal with geographical names data, or related information ... allowing users to make direct access to other web sites, for example other toponymy-related sites, those of name societies, etc.

(8)   United Nations and international standardization, which includes information about UN meetings, available United Nations reports, the aims and functions of UNGEGN, the text of the newly developed brochure, and UN resolutions on names standardization

(9)   Comments, enquiries, and registration
- allows users to contact the CPCGN Secretariat and the web site manager by e-mail or using an on-line form for comments over the network

(10)   Access to the SchoolNet geographical names module, developed in conjunction with the federal government department of Industry Canada ... querying geographical names locational data and names history / origin in a way that is of interest and challenge to students; and provision of classroom activity structures and suggestions for teachers

"SchoolNet" - toponymy and education

We have taken the opportunity to develop geographical names modules in conjunction with the federal government department of Industry Canada ... querying names origins and history in a way that is interesting and challenging to students; and providing classroom activity structures and suggestions for teachers to use.

Within this area of our WWW we have been able to present historical material on the names of the provinces, major cities and national parks. A collection of articles from our own publication *Canoma* and from other published toponymic works is presented to interest students, by creating self-checking quizzes. Word puzzles can be downloaded, colourful regional generic terminology can be searched and teachers can check out classroom activity ideas. In the summer of 1997, four students in different parts of Canada prepared their own modules on geographical names in their home regions, for inclusion on the site.

Being able to give the general public the link between toponymy and the history and geography of Canada provides a glimpse into the cultural significance of geographical names, in addition to the more technical aspects of cartographic location.

Reaching the audience

During the three years that the Canadian Geographical Names Data Base has been available as a WWW gazetteer, the number of accesses to the web site has grown enormously.

* In September 1997, over 3200 accesses per day to the html pages and maps on the site were recorded from over 4300 distinct host machines.

* During September 1997, the highest number of queries came from Canada and the USA, however, 67 other countries were logged as having accessed the Canadian GeoNames site.

* Queries of the names on the data base, as opposed to viewing other information about Canada's geographical names (as noted above), topped 2200/day in September (c.f. 1000 requests per day in May 1996), and were from over 1500 distinct host machines per week .

It is true that users must have a PC, Mac, or more sophisticated work station, and also have access to a WWW browser, which must support on-line forms. However, the speed at which the WWW technology is expanding, inevitably makes this way of distributing standardized names an increasingly attractive medium, to reach a potentially very large worldwide audience. Individuals can "bookmark" the site and so can return to verify names at their own convenience. The creation of Internet web pages is also becoming simpler as the software becomes more user-friendly, more individuals have the required skills, and the development costs involved decrease.

In addition to individual searches of the Canadian geographical names data through the web, we now have a small, but increasing number of government departments and private companies that would like to use the geographical names web site to call up their own data bases using place names. From the name, the coordinates will be used to link into other geo-referenced data. Links of this sort, provide users the advantage of reference to a geographical names data base that is constantly being maintained and updated.

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■✦■ Natural Resources   Ressources naturelles
       Canada   Canada

Welcome to Canada's geographical names!

Is it Sidney or Sydney? Where is Tsiigehtchic? Which is further west ... Edmonton or Calgary? Is Chatham in New Brunswick or Ontario?

To answer these and other questions consult this interactive and authoritative source of over 500,000 geographical names in Canada, maintained by the Canadian Permanent Committee on Geographical Names (CPCGN). By combining this server and the Canadian Geographical Names Data Base (CGNDB), we are providing a simple reference service which includes basic locational information and maps that are easy to download. It's a popular source of information for researchers, genealogists, cartographers and students.
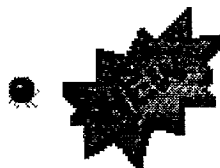
Just for fun, type in your family name in one of the "query" forms to search for places or features similarly named.

Querying Canadian geographical names

● Instructions

● **Query by geographical name** (includes current, historical, and undersea names)

● **Query by point coordinates** (includes current names only)

(Note: ensure your "browser" supports on-line forms before attempting queries)

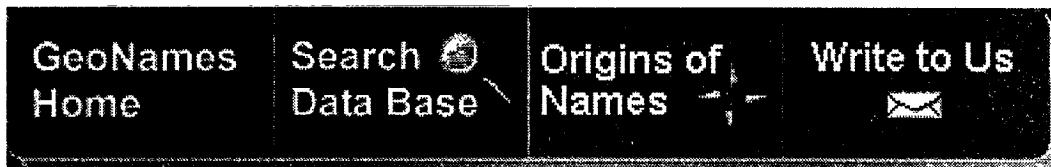## More information about Canada's geographical names:

● The CPCGN Centennial Page

- Abbreviations and symbols for the names of the provinces and territories

- Recent municipal changes

- Digital data available from the Canadian Geographical Names Data Base (CGNDB)

- About the Canadian Permanent Committee on Geographical Names (CPCGN)

- Some geographical names publications (including gazetteers)

- We welcome your comments, enquiries, or registration to indicate further interest

- What's New?
  - The territory of Nunavut
  - Current toponymic research projects
  - Centennial Exhibit

- United Nations and geographical names standardization around the world

- Some useful information for translators

- **Origins of Geographical Names (SchoolNet)**

- Other interesting Web sites

Le site du Web des noms géographiques officiels du Canada [Français]

| GeoNames Home | Search Data Base | Origins of Names | Write to Us |

HOME PAGE | NATIONAL ATLAS INFORMATION SERVICE / SERVICE D'INFORMATION DE L'ATLAS NATIONAL | PAGE INITIAL

Geographical Names / Les noms géographiques
GeoNames@NRCan.gc.ca / Toponymes@RNCan.gc.ca

**Natural Resources   Ressources naturelles
Canada   Canada**

Bienvenue aux noms géographiques du Canada!

Est-ce Sidney ou Sydney? Où se situe Tsiigehtchic? Quel est le lieu situé le plus à l'ouest... Edmonton ou Calgary? Chatham se trouve au Nouveau-Brunswick ou en Ontario?

Les réponses à ces questions et à bien d'autres vous sont ici données dans cette source autorisée et interactive, maintenue par le Comité permanent canadien des noms géographiques (CPCNG), et contenant plus de 500 000 noms géographiques du Canada. En combinant ce serveur et la Base de données toponymiques du Canada (BDTC), nous permettons ainsi l'accès à un service de référence simplifié incluant des données de localisation de base et des cartes qui sont faciles à télécharger. C'est donc un outil populaire pour les chercheurs, les généalogistes, les cartographes et les étudiants.

Pour vous amuser, entrez votre nom de famille dans l'écran de «toponymes à jour» et cherchez s'il y a des noms de lieux ou d'entités similaires à votre nom.

Recherche de noms géographiques au Canada

Instructions

Faites une recherche utilisant un toponyme (inc. toponymes à jour, toponymes historiques, noms d'entités sous-marines)

Faites une recherche utilisant des coordonnées

(Note : veuillez vous assurer que votre «fureteur» accepte les écrans en ligne avant toute interrogation)

Autres renseignements sur les noms géographiques du Canada

le Centenaire du CPCNG

- Abréviations et symboles pour les noms des provinces et territoires
- Changements municipaux récents
- Les données numériques disponibles à partir de la Base de données toponymiques du Canada (BDTC)
- Au sujet du Comité permanent canadien des noms géographiques (CPCNG)
- Quelques publications sur les noms géographiques (incluant les répertoires géographiques)
- Nous invitons vos commentaires, vos questions ou votre inscription indiquant un intérêt plus marqué.
- Quoi de neuf?
  - Origine des toponymes (Rescol)
  - Nunavut
  - Projets de recherche toponymique en cours
  - Exposition du Centenaire du CPCNG
- Les Nations Unies et la normalisation des noms géographiques à l'échelle internationale
- Renseignements pertinents pour les traducteurs
- Autres sites du Web

Canada's official geographical names Web site [English]

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