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REPORTS OF THE DIVISIONS

Report of the United States/Canada Division

Submitted by: United States of America & Canada Division

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## **Report of the United States/Canada Division**

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Since the 21<sup>st</sup> Session of UNGEGN, representatives of the USA/Canada Division have met three times informally in association with other geographical name activities including the annual meetings of the Council of Geographic Names Authorities and the Geographical Names Board of Canada, which have proved to be ideal sessions for discussions. Also, formal presentations were made at each respective conference by visiting experts from the guest country. Several areas of cooperation and issues of mutual interest were discussed. Naming authorities in the United States and Canada (national and state/provincial) have continued to cooperate closely by exchanging documentation, and making recommendations in accordance with the bilateral agreement signed between the two national names authorities in 1988 regarding transboundary names. The terms of cooperation in the Transboundary Agreement continue to be especially useful regarding joint efforts between Canada and the United States for bathymetric mapping projects in the Great Lakes of North America as well as border mapping projects. Attending each other's annual meetings has afforded an extraordinary opportunity for exchange and acquiring differing techniques for problem solving relating to similar issues. The Division representatives have also agreed on the basic tenet that standardized geographical names are essential to development and implementation of a National Spatial Data Infrastructure (NSDI), and have had appropriate related discussions especially in regard to development of the toponymic mapping framework layer.

Division representatives have had numerous discussions regarding policies and procedures for collecting, processing, and applying indigenous names according to the guidelines most applicable in each respective country. There has been much activity in both countries regarding agreements, use and application of names from indigenous languages, and policy development and enhancement with special regard to established dialogue among all interested parties. Both countries have discussed appropriate terminology to refer to their country's earliest inhabitants. The divisional representatives continually compare principles, policies, and procedures for standardizing geographical names.

There have also been discussions and formal exchange of ideas and documentation regarding names automation, especially regarding electronic data exchange and web-based applications. Each national names authority has authorized and directed the re-engineering and redesign of their respective official, domestic geographical names databases, and there was a considerable amount of information and advice exchanged regarding these projects. There has also been extensive enhancement in data delivery and efficiency of the official websites, much of which resulted from collaboration and exchange of information.

There has been collaboration within the Division as well as throughout UNGEGN as a result of positions held by Division members within UNGEGN. These include the Chairperson of UNGEGN, Convener of the Working Group on Toponymic Data Files and Gazetteers, and Convener of the Working Group on Country Names. Also, Division members serve as UNGEGN liaison with the International Hydrographic Organization and the Pan American Institute of Geography & History. Members of the Division also contributed substantially to the text and editing of the recently compiled UNGEGN manual relevant to the standardization of geographical names.

### **Canada**

Since the last meeting in Berlin in 2002, much effort has been expended on further development of the Canadian Geographical Names Service (CGNS), the latest technology being used to distribute Canada's geographical names via the Internet. Users can query on characteristics, such as geographical name or status. They can also query for geographical names within a spatial area by defining a bounding box search, using latitude and longitude. The on-demand service aspect of the CGNS, and its ability to generate an immediate response (data or web map) using current data, means that geographical names are always available and up to date. The CGNS delivers geographical names data in XML/GML format to applications and end users. It also produces a geo-referenced image of geographical names as labels that can be integrated with other thematic layers in the construction of web maps. Styled Layer Descriptors (SLDs) are used. They represent a language that defines the rules for the portrayal or symbolization of features and allows the requestor to specify filters, colours, and map symbology. The CGNS was officially launched June 25, 2003. See < <http://cgns.nrcan.gc.ca>>

The CGNS was developed in partnership with members of the Geographical Names Board of Canada, using an agreed upon national standard for toponymic databases that would allow for the integration of toponymic data into the fundamental layers of the Canadian Geospatial Data Infrastructure (CGDI). The CDGI is being developed to enable the access and interchange of Canadian geospatial data. This national framework makes it possible to provide the geographical data sets of Canada based upon a common reference system and will enable the development of related applications and value-added services. See <http://www.geoconnections.org>

The GeoBase portal, of which the CGNS is a part, was opened to the public January 16, 2004. This portal is the result of cooperation between federal and provincial governments as well as producers of geospatial data. This initiative is aimed at ensuring the availability of geospatial data for the entire Canadian landmass. The data have been produced and are available in accordance with standards, including metadata to facilitate their use. See <http://www.geobase.ca>

Work has commenced on the development of a feature-based toponymic database that associates the appropriate official geographical name to its respective feature including the definition of the digital geographic extent of each feature. A delineation methodology has been developed including analysis and tools to define all types of topographic features. A delineation workshop was held at the Geographical Names Board of Canada annual meeting in October 2003 to present the procedures developed in-house for the digital collection and storage of geospatial extents of geographical features, technical approaches and challenges and to promote the linkage between geographic names and framework data. The suggestion was made to update the current 'Concise Gazetteer of Canada' to include on-line maps built on framework data compiled by the GSDNR program and on-line access map tools by the 'Connecting Canadians' program. As well, northern names may require special characters (e.g. Inuktitut syllabics) as contributed by the Geomatics for Northern Development program.

Procedures to implement the "Feature ID" concept are being finalized. The Feature ID ties the geographical name to its associated feature geometry; it is a sequential numeric string that has no meaning and will be independent of any name change. The Feature ID will be system generated and tagged to its geometry in a spatial database. Implementation of "Relevance at Scale" values in the CGNS has commenced with small map scales, such as 1:1M and 1: 7.5M, with plans to continue with larger scales, such as the 1:250K and 1:50K next fiscal year. These values indicate for each feature which map scales the geographical name should appear on and therefore display the proper amount of feature names for each scale of map to avoid crowding or insufficient geographical names data. Future work will include providing location based services and the support for aboriginal character sets, i.e., syllabics and extended Roman alphabet or "hard to

construct” characters, and the integration of the CGNS into a Global Geographical Names Service.

## **United States**

The work of the U.S. Board on Geographic Names (USBGN) is primarily divided among two standing committees and two advisory committees. The Domestic Names Committee (DNC) and the Foreign Names Committee (FNC) are empowered to make decisions on behalf of the Board, while the advisory committees, made up of advisors and experts, make recommendations to the Board for decision. All decisions by the Board are subject to concurrence by the Secretary of the Interior.

### **Domestic Names Activities**

The Domestic Names Committee of the U.S. Board on Geographic Names meets monthly, and since the last session, has rendered decisions on 123 newly proposed names and has adjudicated 287 controversial issues involving geographic names. During this period, the domestic names staff responded to more 1,642 inquiries of which almost 95 percent were by electronic mail mostly from the Geographic Names Information System (GNIS) webpage. Over the past two years the amount of conventional inquiries has dropped by about 20 percent.

The committee has completed the final draft of its revisions to the principles, policies, and procedures for domestic geographic names, and that final draft will be circulated once more to all interested parties for final comment before publication and posting on the USBGN website. There has been much editing to clarify various policies, and previously “unstated” policies have been codified. Examples of clarification in wording include administrative names or those to which the Board declares its policies do not apply, names in wilderness areas, and the use and application of historical factors for name changes, to name a few. Some policy issues explained include no standard orthography for names, use of the genitive apostrophe, names issues within territorial seas, names legislated by States and Territories, pronunciation, and commercial names.

The National Geographic Names Data Compilation Program is in progress still. This major effort began in 1976 as a 30-year project that is basically on schedule. Thus far, 43 States have been completed, three States and all territories are in progress, and four States remain to begin this extensive compilation effort (names from Federal sources only are present for these four States). Since the 21<sup>st</sup> Session, more than 100,000 names that are not controversial have been collected and added to the database.

The official website for geographic names in the United States is known as the Geographic Names Information System (GNIS), and has been operational on the Internet since 1995. The URL address is <<http://geonames.usgs.gov>>. Since the last session there have been several, minor enhancements to the website incorporating improvements based upon user comments and continuing analysis by staff. Two major and significant enhancements include a much more efficient algorithm for the search engine greatly improving response time for complicated searches, and the addition of a much improved method of displaying the retrieved feature location on various scales of the topographic maps of the U.S. Geological Survey. In process, is a complete redesign of the search page whereby users will have access to the capability to search by spatial definition or “footprint.”

Presently version 2.4 of the web-based maintenance software, designed by staff, is utilized by various agencies of the Federal government responsible for activities using geographical names, two of which have

been activated since the last UNGEGN Session. The full participation of Federal agencies in the GNIS Maintenance Program is a major component of maintenance for GNIS, but it does not allow for complete maintenance of every category of feature or complete geographical coverage as Federal maintenance is often based upon a project area, and Federal land management areas have bounded areas of responsibility. The long-range goals of the GNIS Maintenance program includes partnerships with State and local agencies nationwide, which will assure completeness, and virtually instant and local assurance of data that is current and correct. In the past two years, agreements have been reached with the State of West Virginia and the State of Nevada adding to such agreements with Delaware and Florida. Discussions are underway with the State of Oregon and the Commonwealth of Pennsylvania for similar agreements.

Each of these partnerships and maintenance programs are coordinated with the larger program of the U.S. Geological Survey known as *The National Map* project, which is operational, and utilizes State, local, and other suppliers of data from identified themes to provide a seamless and integrated, digital national map series that is continuously maintained and that reflects completely current data. Most of the efforts of staff activity have been directed to support for *The National Map*, the digital topographic map for the 21<sup>st</sup> century and more. Concentrated effort was directed at providing a map service to serve names from GNIS, the official national names database to the “viewer” or display mechanism for *The National Map*, and to implementing the procedures for integration of local data from partners into GNIS. *The National Map* viewer incorporates various levels of name display at selected map scales to avoid crowding and overprinting. Of note, as part of the agreements with local and State partners, those organizations will incorporate the GNIS feature unique identification code, which will assist the implementation of univocity and contribute to names standardization nationwide. Also, a special aspect of the redesigned database is the incorporation of a spatial component into the database whereby feature boundaries may be stored, searched, and displayed including more than one spatial “footprint” thereby allowing temporal displays. This spatial function will be available to the general user community in about a year. It must be noted that the population of the database with spatial geometry for features will be a slow process including mostly administrative features at first for which geometry exists. The database will be populated with geometry for natural features as can be acquired; in fact, algorithms do not even exist for determining the extent of some natural features.

### **Undersea Features (ACUF)**

ACUF, in its present function and name, was created in 1963, and in December 2003 the committee held its 300th Meeting. ACUF's role is to provide undersea feature name standardization for Federal Government use. The committee considers new name proposals from academia, government, the scientific community and the public. It then recommends approval on actions concerning undersea feature names to the USBGN. The committee's purview includes undersea features that lie outside the territorial seas of all nations. There are approximately 4,700 named undersea features presently in the Geographic Names Data Base (GNDB), maintained at the National Geospatial-Intelligence Agency (NGA).

The focus of the committee during the past two years has been a major file maintenance and improvement effort. There have been several activities and inquiry responses that indicate a growing interest and concern about standardization of undersea feature names. Some examples include the following activities. The ACUF Secretary and a Member presented papers at the 2003 Council of Geographic Names Authorities in the United States (COGNA) Conference in Pacific Grove, California. In March 2004, a workshop is to be held in Woods Hole, Massachusetts examining approaches to developing a federated index for digital gazetteers of marine and submarine features. Additionally, an initiative is underway within the USBGN to search for ways to improve coordination and cooperation among its committees.

ACUF maintains a close working relationship with the General Bathymetric Chart of the Oceans' (GEBCO) Sub Committee on Undersea Feature Names (SCUFN). The two committees have endeavored to resolve or agree upon differences in practices. The Secretary of ACUF attended the 16th GEBCO SCUFN Meeting in April 2003.

NGA's GEOnet Names Server (GNS) is the access point for the names contained in the GNDB <<http://earth-info.nga.mil/gns/html/index.html>>.

### **Antarctic Names (ACAN)**

Since the 21<sup>st</sup> Session ACAN has received, processed, and approved for Federal Government use 199 names proposed for previously unnamed features in Antarctica. Most of these proposals were generated by need for projects of large-scale mapping. In accordance with policy, these decisions were coordinated with other countries and all other interested parties before a decision was made. At the recommendation of ACAN, the USBGN changed the name of Ice Streams A-F draining from Marie Byrd Land into the Ross Ice Shelf. The ice stream's names were changed to honor U.S. scientists who conducted studies on the ice streams in the 1990s. The streams were originally given their utilitarian nomenclature in the 1980's when the features were first mapped, and names were required as referents.

ACAN also recommended that the USBGN approve the forms of the names Vostok Subglacial Lake and Concordia Subglacial Lake even though other countries had approved forms without the term "Subglacial" in the names. There was considerable debate regarding the use of the term "Subglacial", but the approved forms reflect ACAN's long-standing policy, which is in concordance with the Scientific Committee on Antarctic Research's (SCAR) recommendation, dealing with subglacial features. ACAN also revised its form for submitting proposals which is now available at its website <<http://geonames.usgs.gov>>.