

United Nations Group of Experts on  
Geographical Names

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Agenda Item 10, Geographical Names Information System Information Report

Prepared by Roger L. Payne, U.S.A.

# US GEODATA...GEOGRAPHIC NAMES INFORMATION SYSTEM

## Geographic Names Information Available from the U.S. Geological Survey

The Geographic Names Information System (GNIS) is an automated data system developed by the U.S. Geological Survey (USGS) to standardize and disseminate information on geographic names. GNIS provides primary information for all known places, features, and areas in the United States identified by a proper name. The information in the system can be manipulated to meet varied needs. Data from GNIS can be incorporated into other data bases for special applications.

GNIS is composed of three separate data bases. Each of these data bases provides different, but related, information for names in the 50 States, the District of Columbia, and the territories and outlying areas of the United States.

## The National Geographic Names Data Base

The National Geographic Names Data Base (NGNDB) is the primary, and by far the largest, data base in GNIS. This data base contains computerized records on almost 2 million geographic feature names in the United States—from populated places, schools, reservoirs, and parks; to streams, valleys, springs, and ridges. Each entry in the data base includes the federally recognized official name for the feature. Other known former or current names, as well as known variant spellings of the official name, are also available. Features are categorized and classified by type in the data base to facilitate search and retrieval. Feature location information is given by county, geographic coordinates, and Geological Survey topographic map(s) on which the feature is portrayed. Feature elevation, areal extent, and 1980 Census population figures are available for some features. A bibliographic code referencing the source of information for each feature name entered in the data base can also be obtained.

The information in the NGNDB is useful in locating manmade and natural features. For example, if one wants to know where Lake Helena in Montana is located, the data base can quickly provide the county and geographic coordinates. The information in this data base is used in cartographic applications, local

transportation planning, regional planning, service delivery routing, product marketing, site selection and analysis, environmental issues, emergency preparedness, genealogical research, and general problem solving requiring the use and analysis of geographic names.

The data base is organized into separately maintained files of information for each State, territory, or outlying area. Each file contains as a minimum those names shown on Survey topographic maps. Data compilation and augmentation is ongoing, with extensive research efforts now being directed on a State by State basis toward the gathering of names from a variety of other sources including the National Ocean Service, the U.S. Forest Service, the U.S. Army Corps of Engineers, the Federal Aviation Administration, the Federal Communications Commission, and appropriate State and historical materials. Refer to the GNIS Products Available Information Sheet, or write to the GNIS Data Base Manager for individual State and territory data base file status information.

Standard reports generated from the data base are designed to convey locative and descriptive information geared toward the needs of the general public. However, customers with unusual or unique requirements may request specialized searches of the data base and (or) specify custom-tailored report formats.

Standard reports are sold by State and include all geographic name records currently in GNIS from the individual State and territory data base files. The entries are sorted alphabetically by feature name. Each entry will include the official name of the feature; the feature type; the status of the name as viewed by the U.S. Board on Geographic Names; the county in which the feature is located; and geographic coordinates in degrees, minutes, and seconds that locate the approximate center of areal and the mouth of linear features. Geographic coordinates that locate the source or heading of linear features are also given, as is the name of the 1:24,000-scale Survey topographic map on which the feature is portrayed. If available, the elevation in feet is given.

A report that lists all populated place records in GNIS for the United States is also available as a standard

product. The entries are sorted by State and then listed alphabetically by feature name. This report includes the official placename; the feature type ("popl" for populated place in all cases); the Federal Information Processing Standards (FIPS) code referencing the State; the principal county in which the place is located; the geographic coordinates in degrees, minutes, and seconds that locate the approximate original center of the place; the year of any pertinent U.S. Board on Geographic Names activity regarding the placename or its application; and a reference to the 1:24,000-scale Survey topographic map on which the feature is portrayed. The elevation in feet is given if available, as is the 1980 Census population figure. Census population figures are available only for legally incorporated entities.

GNIS data are available on 8 1/2 by 11-inch bound paper listings, as magnetic tape files, and on microfiche. All State or territory standard bound listings are in columnar format, and use 132 characters per line. The available microfiche exactly duplicate the bound listings. Standard magnetic tape files are in fixed field length format, and have a logical record length of 240 characters. All tapes are available in either EBCDIC or ASCII character code, with standard IBM labels, ANSI labels or no labels. They may be written at densities of 1,600 or 6,250 bpi, and the user may specify any appropriate blocksize less than 32000 in keeping with the report format logical record length. The standard format populated places tape file has a logical record length of 132 characters.

A formal publication derived from the data base titled *The National Gazetteer of the United States of America*, published as U.S. Geological Survey Professional Paper 1200, is presently available for some States. The National Gazetteer is a compendium of geographic names published as a separate volume for each State or territory. Completion of data compilation for the Gazetteer series is expected within the next 8 to 10 years. In addition to the information included in the standard GNIS report format, the Gazetteer includes a glossary of pertinent terms and abbreviations, a map of counties of the particular State, and an alphabetical listing of the 1:24,000-scale Survey topographic maps of the State. Names other than the official name, and variant spellings of the official name, are listed in their appropriate alphabetical order and cross-referenced to the official name of the feature.

## Topographic Map Names Data Base

The Topographic Map Names Data Base (TMNDB) is the official digital inventory of past and present topographic maps published by the Geological Survey. The data base is presently organized into five files representing individual map series.

TOPO024 is the name of the file that contains information about Survey topographic maps published at a scale of 1:24,000, 1:25,000, and 1:20,000. This file contains an entry for each Survey topographic map portraying 7.5 minutes of latitude by 7.5 minutes of longitude in the United States and its territories and outlying areas. Standard reports produced from this file include the official map name, geographic coordinates that reference the corner of the map closest to 0-degrees latitude and 0-degrees longitude, the first eight characters of the code developed by the Survey that uniquely identifies each map, the map scale, and the two-character FIPS code(s) which identifies the State(s) for which the map portrays partial area. Additional information available on a special request basis includes the year of the last map name change, if applicable, and the associated previous name of the map. The date of publication of the map can also be obtained.

TOPO062 is the name of the file that contains an entry for each Survey topographic map portraying 15 minutes of latitude by 15 minutes of longitude in the United States. Also included in the file are entries representing maps that portray area in Alaska; however these maps do not necessarily portray regular 15-minute by 15-minute areas. The maps referenced in this file are at a scale of 1:62,500, except Alaska maps and certain older maps of areas in the conterminous States of which the scale is 1:63,360. Standard reports generated from this file include the official map name, geographic coordinates that reference the corner of the map closest to 0-degrees latitude and 0-degrees longitude, the first eight characters of the code developed by the Survey that uniquely identifies each 1:62,500-scale map, the map scale, and the two-character FIPS code(s) identifying the State(s) for which partial area is portrayed. The map publication date and five-digit FIPS code(s) referencing the State(s) and county(s) for which the map portrays partial area are also available on a special request basis. Many of the maps represented in this file are out-of-print and are no longer available for purchase.

TOPO125 is the name of the file that contains an entry for each Survey topographic map portraying 30 minutes of latitude by 30 minutes of longitude and contains entries only for the conterminous United States. The maps represented are at a scale of 1:125,000. Standard reports produced from this file include the official map name, geographic coordinates that reference the corner of the map closest to 0-degrees latitude and 0-degrees longitude, the first eight characters of the code developed by the Survey that uniquely identifies each map, the map scale, and the two-character FIPS code(s) identifying the State(s) for which partial area is portrayed. The map publication date and the five-digit FIPS code(s) referencing the State(s) and county(s) for which the map portrays partial area can also be obtained through a special search of the file. Maps represented in this file are no longer available for purchase.

TOPO100 is the name of the file containing an entry for each Survey topographic map portraying 30 minutes of latitude by 1 degree of longitude. These entries represent maps in the conterminous United States and Hawaii and are at a scale of 1:100,000. Standard reports generated from this file contain the official map name, geographic coordinates that reference the corner of the map closest to 0-degrees latitude and 0-degrees longitude, the map scale, and the two-character FIPS code(s) identifying the State(s) for which partial area is portrayed.

TOPO250 is the name of the file containing an entry for each Survey topographic map portraying one degree of latitude by two degrees of longitude. The map scale is 1:250,000. Standard reports produced from this file include the official map name, geographic coordinates that reference the corner of the map closest to 0-degrees latitude and 0-degrees longitude, the map scale, and the two-character FIPS code(s) referencing the State(s) for which partial area is portrayed.

Reports from the TMNDB are available as 8 1/2 by 11-inch bound paper listings and as magnetic tape files. The bound listings are in columnar format and use 132 characters per line. The magnetic tape files are in fixed field length format with a logical record length of 80 characters. The tapes are available in either ASCII or EBCDIC character code, with stand-

ard IBM labels, ANSI labels, or no labels. The tapes may be written at densities of 1,600 or 6,250 bpi, and the user may specify any appropriate block size less than 32,000 in keeping with the report format logical record length.

### Reference Data Base

The Reference Data Base is organized into two files. The Generic Reference File contains an entry for every feature type generic term encountered in compilation of the NGNDB (for example, creek, river, run, mountain, hill). Over 1,600 generic terms are listed in this file. Each of these generic terms is cross-referenced to the appropriate GNIS feature type classifier associated with entries in the NGNDB. Specific examples of the use of unusual or obscure terms, or terms applied to features in an unexpected or incongruent fashion, are given in the file. Information from this file is available as a bound listing or on magnetic tape on a special request basis.

The Bibliographic Reference File houses the annotated bibliographies of all source materials used in compilation of the NGNDB. The information in this file can be obtained on a special request basis.

### Product Ordering Instructions

To order GNIS products contact the Earth Science Information Center (ESIC). For more information regarding the design, development, and data content of GNIS contact the Manager, Geographic Names Information System.

*Earth Science Information Center  
507 National Center  
Reston, VA 22092  
(703)860-6045 FTS 959-6045*

*Manager, GNIS  
U.S. Geological Survey  
523 National Center  
Reston, VA 22092  
(703)648-4544 FTS 959-4544*

To purchase volumes of *The National Gazetteer of the United States of America*, contact USGS Map Sales, Box 25286, Denver, Colorado 80225.