SIXTH UNITED NATIONS CONFERENCE ON THE STANDARDIZATION OF GEOGRAPHICAL NAMES
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TOPOYMIC DATA FILES: AUTOMATED DATA PROCESSING (ADP) SYSTEMS

US GeoData: the Geographic Names Information System (GNIS)

Paper submitted by the United States of America**

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US GeoData
Geographic Names Information System

Geographic names information available from the U.S. Geological Survey

The Geographic Names Information System (GNIS), a data system developed by the U.S. Geological Survey (USGS) in cooperation with the U.S. Board on Geographic Names, contains name information for all known places, features, and areas in the United States that are identified by proper names. Data from the GNIS can be incorporated into other data bases.

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

National Geographic Names Data Base

The National Geographic Names Data Base (NGNDB) is the largest GNIS data base. It contains records on more than 2 million geographic names in the United States—from populated places, schools, reservoirs, and parks to streams, valleys, springs, and ridges. Each entry includes the federally recognized name for the feature; former names, as well as variant spellings of the official name; the status of the name as determined by the U.S. Board on Geographic Names; the county in which each feature is located, the geographic coordinates in degrees, minutes, and seconds that locate the approximate center of an area or feature or the mouth and source of a linear feature such as stream; and the names of the USGS topographic maps on which the feature appears. Elevations and sizes are available for some features. A bibliographic code referring to the source of information for each feature name in the data base is also available.

The NGNDB is used in mapmaking, local and regional planning, service delivery routing, marketing, site selection, environmental analysis, emergency preparedness, and genealogical research.

The data base is organized into files for each State, territory, or outlying area. Data for each State are compiled into two phases. Phase I lists names obtained from large-scale 7.5-minute USGS topographic maps. Phase II lists historical, as well as current, names from other sources such as the National Ocean Service, the U.S. Forest Service, the Army Corps of Engineers, the Federal Aviation Administration, and the Federal Communications Commission. The names of railroads, roads, and streets are not included in Phase II compilation. An interim gazetteer is available in the form of bound computer listings, magnetic tapes, and microfiche. Under the National Gazetteer program, a State gazetteer is published when Phase II information is complete. These State gazetteers are volumes of "The National Gazetteer of the United States of America" published as USGS Professional Paper 1200. A fact sheet describing the National Gazetteer program is also available.

Standard reports, which can also be generated from the data base, are designed to convey general location and descriptive information. These reports are sold by State and include all geographic name records in the GNIS from the individual State and territory data base files. The entries are sorted alphabetically by feature name. However, customers with unusual requirements may request specialized searches of the data base or specify custom report formats.

A report that lists all populated place records in the GNIS for the United States is also a standard product. The entries are listed alphabetically by feature name. This report includes the official place-name; the feature type ("ppp" for populated place in all cases); the State; the county in which the place is principally located; the geographic coordinates in degrees, minutes, and seconds that locate the approximate center of the place; and the 1:24,000-scale USGS topographic map on which the feature appears. The elevation as feet is given if available. Census population figures are available for some ppp's. A bound listing titled "Populated Places in U.S. and Territories" can be purchased for $80.

NGNDB reports are available in the form of bound listings, magnetic tapes, and microfiche. All State or territory standard...
bound listings are in column format and use 132 characters per line. The microfiche is a duplicate of the bound listing. Standard magnetic tape files are in fixed field length format with 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 bytes per inch (bpi), and the user may specify any block size less than 32,000 bytes in keeping with the report format logical record length. The standard format populated places tape file has a logical record length of 132 characters.

Topographic Map Names Data Base

The Topographic Map Names Data Base (TMNDB) is a digital inventory of topographic maps published by the USGS. The data base is in five files, each representing a USGS map series. Each file lists the map name, the geographic coordinates referring to the corner of the map closest to 0 degrees latitude and 0 degrees longitude, the first eight characters of the Map Reference Code developed by the USGS that uniquely identifies each map (except TOPO100 and TOPO250), the map scale, and the two-digit Federal Information Processing Standards (FIPS) code identifying the State. A bound listing titled "USGS Topographic Map Names Data Base" can be purchased for $34.

TOPO100 contains entries for topographic maps portraying 30 minutes of latitude by 1 degree of longitude. These entries describe 1:100,000-scale maps in the conterminous States and Hawaii.

TOPO125 contains entries for topographic maps portraying 30 minutes of latitude by 30 minutes of longitude and contains entries only for the conterminous States. The maps represented are at a scale of 1:125,000. The publication date and the five-digit FIPS code identifying the State and county for which the maps portrays are contained in a special search of the file. Maps represented in this file are no longer available for purchase as current maps, but can be purchased as out-of-print maps.

TOPO250 contains entries for 1:250,000-scale topographic maps portraying 1 degree of latitude by 2 degrees of longitude.

TMNDB reports are available in the form of standard bound listings and magnetic tapes. The bound listings are in column 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 standard 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. Specialized searches are also available on request.

Reference Data Base

The Reference Data Base is organized into two files. The Generic Reference File contains an entry for every generic term encountered in the compilation of the NGNDB (for example, creek, river, run, mountain, and hill). Over 2,000 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. Examples of unusual or obscure terms, or terms applied to features in an unexpected or incongruous fashion, are given. Information from this file is available in the form of bound listings or magnetic tapes on request. The Bibliographic Reference File contains annotated bibliographies of all source materials used in the compilation of the NGNDB. The information in this file can be obtained on request.

Ordering Information

To get more information on the design, development, and data content of the GNIS or on individual State and territory data base file status, contact:

GNIS Manager
U.S. Geological Survey
523 National Center
Reston, VA 22092
703-648-4544

To get ordering information for GNIS products, contact any Earth Science Information Center (ESIC) or call 1-800-USA-MAPS.

To purchase volumes of "The National Gazetteer of the United States of America," contact:

USGS Book and Report Sales
Box 25425
Denver, CO 80225
303-236-7476