U.S. Geological Survey Circular 1011

The National Geographic Names Data Base: Phase II Instructions

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By DONALD J. ORTH and ROGER L. PAYNE

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CONTENTS

CONTENTS (Con't.)

ILLUSTRATIONS

ILLUSTRATIONS (Con't.)

THE NATIONAL GEOGRAPHIC NAMES DATA BASE: PHASE II INSTRUCTIONS

By Donald J. Orth and Roger L. Payne

ABSTRACT

The Geographic Names Information System is a computer-based information system developed to meet major national needs by providing information for named entities in the United States, its territories, and outlying areas. The National Geographic Names Data Base, a component of the Geographic Names Information System, currently contains most names and associated information recorded on the 1:24,000-scale (or largest scale available) topographic maps of the U.S. Geological Survey. The work involved in this initial compilation of names shown on the topographic-map series, and the development and editing of the National Geographic Names Data Base, is referred to as Phase I.

Optimal use and effectiveness of an automated names system require that the names of features not recorded on topographic maps be added. The systematic collection of names from other sources, including maps, charts, and texts, is termed Phase II. In addition, specific types of features not compiled during Phase I are encoded and added to the data base. Other names of importance to researchers and users, such as historical and variant names, are also included. The rules and procedures for Phase II research, compilation, and encoding are contained in this publication.

CHAPTER 1

THE NATIONAL GEOGRAPHIC NAMES DATA BASE AND PHASE I PROJECT

Introduction

Beginning about 1960, there was a growing demand for a relatively complete listing of our Nation's named places, features, and areas. From about 1955 to 1970, multiple attempts, costing several million dollars, were made by various Federal and State agencies and business organizations to develop a computer–based geographic names data base designed to meet a variety of special needs. For the most part, these attempts were limited in completeness of name coverage and extent of name information. A single, unbiased, relatively complete depository of geographic names, including basic or essential information about each name and named place, was urgently needed by all levels of government, diverse users in private industry, and by the general public. The U.S. Board on Geographic Names (BGN) was also interested because such an information depository would facilitate the standardization of geographic names in the United States.

Because of the nature and size of the task, most users looked to the Federal Government for help in developing and maintaining a master computer–based catalog of the Nation's 3 to 5 million domestic geographic names. The U.S. Geological Survey (USGS) agreed in 1978 to undertake such a program. The Geological Survey was interested because it is responsible for providing staff support for the domestic names activities of the Board and such a program would provide direct support to USGS mapping missions.

The National Geographic Names Data Base

A relatively complete computerized data base of geographic names in the United States, its territories, and outlying areas was planned by USGS as early as 1960. Although the Branch of Geographic Names in USGS had been developing and using automated methods for handling geographic name information since 1964, it was not until computer technology was readily available that building such a data base became feasible. An early version of the National Geographic Names Data Base was developed in 1975. Further development led to implementation of a system called the Geographic Names Information System (GNIS). The System is made up of four data bases, data retrieval software, ancillary software, and procedures specifically designed, arranged, and programmed to function as a geographic names information system and a tool for toponymic research. GNIS is a computer–based system designed to meet a broad spectrum of information and program needs, including:

- Cartographic support
- Standard reference
- Geographic base for special files
- National standardization
- Toponymic and other research
- Geographic inventory and control
- Gazetteer production
- Special publications.

Information in the system may be retrieved, arranged, analyzed, and manipulated for general and specific purposes without bias. The National Geographic Names Data Base is the largest data base in GNIS and contains a separate file for each State, territory, and outlying area. The other data bases in GNIS are:

- National Topographic Map Names Data Base
- Reference Data Base
- Board on Geographic Names Data Base.

Information about GNIS and its products and the National Geographic Names Data Base may be obtained from:

GNIS Manager
U.S. Geological Survey
523 National Center
Reston, Virginia 22092
Tel: 703–648–4544 (FTS 959–4544).

Basic Record Information

The effectiveness of GNIS and the National Geographic Names Data Base depends on both the completeness and integrity of the data in the system. The geographic–names staff in the Branch of Geographic Names has identified those basic or critical elements needed for each name record in the system. These critical elements are:

- Written form of the full official, legal, or standard name (Record Name),
- Designation of the kind of geographic entity by a standard term (Feature Class),
- Location by State and county (State/County Name and code),
- Location by map of a standard series (Map/Chart Name and codes),
- Identification and extent of the named entity by geographic coordinates (Geographic Coordinates),
- Official status of the name and its application (Federal Status),
- Variant names or other names for the same geographical entity and variant spellings of those names (Variant Names),
- Administrative responsibility of a controlled area (special designators),
- Section, township, range, and principal meridian, and
- Bibliography.

Although not critical, three other elements are considered important for a name record when applicable and when the information is available:

- Elevation,
- Size, and
- History of the name, especially with regard to name origin and meaning.

See Data Elements and Record Format for a description of each of the primary data elements associated with a name record.

Building the Data Base

The data base must be designed for handling information and defining required data elements. The major task, however, was and is the collection of names and associated information to go into the data base. Written sources of name information are extensive and varied. The sources include both current and historical maps and charts of different scales as well as textual material. This name-source material varies in number and form from area to area. Only published name information was considered for use in building the data base.

The largest and most uniformly distributed coverage of current geographic names of the United States and its territories is found on the topographic maps published by USGS. A survey made in 1970 indicated that the large- and intermediate-scale topographic maps contained from 50 to 70 percent of all names in current usage.

This situation provided a logical division of the work into two distinct phases:

Phase I, the collection of most names and associated information from the USGS standard topographic map series, and

Phase II, the collection of such information from other sources.

Phase I Project

The Geological Survey began preliminary work on Phase I in 1976, a time when published large-scale topographic maps covered more than 70 percent of this country's land surface. In a pilot project, names published on the maps covering the States of Kansas and Colorado were collected and recorded in machine-readable form. In the fall of 1978, a contract was awarded to collect and record corresponding information for the remainder of the States and territories. The contract was completed in March 1981. All work was monitored closely for completeness, accuracy, and adherence to established procedures by the Branch of Geographic Names in the Geological Survey's National Mapping Division. The error rate was about 2 percent.

Phase I activity for building the data base involved:

- The systematic collection of most names and attendant information from the topographic maps on a State-by-State basis, and
- The correction and updating of this data by comparison with the official BGN files by the National Mapping Division's Branch of Geographic Names staff.

The procedures followed for Phase I were as follows:

- Map Acquisition and Numbering
  A complete collection of USGS topographic maps was acquired on a State-by-State basis. Each 7.5- x 7.5-minute map or unpublished map cell of a State set was given a unique sequential number. Beginning with "1" in the northwest corner of the State,

the numbering proceeds from west to east while moving south latitudinally. The largest–scale USGS topographic maps available in each State were used for compilation.

- Map Annotation
  The contractor identified each named place and feature on every map and assigned each a unique number. The extent of certain features such as streams also was annotated by hand on each map. The extent of each named feature, as well as the location of its geographic coordinates, was identified on each topographic map on which the feature appeared.

- Data Entry
  The geographic coordinates of the four corners of the map were recorded, and the location of each feature was digitized and stored on magnetic disk along with other required data, such as name, type of feature, county, map, and elevation. The digitized x–y coordinates were converted automatically into geographic coordinates before final processing.

- Processing and Editing
  A series of computer programs was used to check the accuracy of data during compilation.

- Format Conversion
  Tapes produced by the contractor were delivered to USGS in a specific format, designed for direct entry (file dump) into the data base.

- Data Monitoring
  Names data from a random sampling of 10 percent of the 1:24,000–scale maps were retrieved from the system in printout form for data verification. The names and feature positions also were plotted on transparent overlays for visual comparison with the source maps.

- Editing and Updating
  Data were checked against the BGN files and updated to include changes, additions, and corrections that occurred since the topographic maps were published. The Board's decision dates and variant names were added.

Phase I work resulted in the collection and storage of about 1.7 million name records. As each State was completed, preliminary information was made available to users by means of standard and specialized bound listings, computer tapes, and microfiche. Also, the data base was made available at USGS for interactive retrieval, manipulation, arranging, and analysis of name information.

CHAPTER 2

PHASE II, PART 1: THE COLLECTION AND MAP ANNOTATION OF DATA

Introduction

Phase II work on compiling data for entry into the Geographic Names Information System began in 1982. The work is divided into three parts for convenience and control:

- Part 1, Collection and map annotation of data
- Part 2, Transfer of data to coding forms
- Part 3, Encoding data for entry into the system

The main thrust of Phase II work for each State project consists of a systematic search of selected documents in order to identify unrecorded name information and to create new name records to add to those assembled during Phase I. This procedure includes the collection of variant names and spellings for all name records. The procedure needs to be completed before a State or territory volume of The National Gazetteer of the United States of America can be published.

Phase I compilation did not include all named entities shown on the topographic maps. It was recognized in the beginning that certain kinds of named features, such as those that were large or scattered, or name information already in list or digital form, could be handled more efficiently during Phase II compilation. Phase II, Part 1 compilation requires both the coding of name records purposely omitted from Phase I compilation and the collection and recording of names and associated information not found on the topographic maps used during Phase I.

The topographic maps do not show all geographic names that are in current use. Many names in local and (or) published usage were unknown to the compilers when the maps were made. Names applied to minor features often were not shown for lack of map symbols or to avoid map clutter. The maps also do not normally show historical and obsolete names, variant applications, and other names once used for currently named places, features, or areas.

Qualifications of Research Personnel

It is important that each person researching name information for Phase II be able to interpret topographic maps and to relate point, line, and area symbols among maps of different and varying scales. A researcher should be able to make reliable judgements on feature identification when comparing maps and relating textual description to map symbols. This includes expertise in translating named symbols on sketch maps for accurate identification on the modern large-scale topographic maps.

An understanding of how people use and apply geographic names to the landscape is useful. The researcher should understand how proper names are applied to symbols by map editors and the limitations inherent in the process. Knowledge of the geography and history of the area being worked will greatly improve a researcher's ability to interpret data. An important

factor, often overlooked, is the researcher's ability to print upper and lower case letters legibly, and to print exactly what is intended to be recorded because the person keying data will make no interpretation, but will enter exactly what is shown on the coding form.

General Procedures

The following procedures are specified for the preparation, collection, and processing of name data during Phase II, Part 1 work. These standard procedures help ensure the relative completeness and integrity of information that will go into the National Geographic Names Data Base.

Phase II, Part 1 activity begins with the preparation, selection, and systematic review of name source documents other than topographic maps and the annotation of the new name information on the work maps. Annotation is the procedure by which specified information derived from other documentary sources is hand drawn/labelled directly on the work map by a pen or pencil. The printed and annotated data on the maps are then used to create new name records that are encoded and added to the data base. Work is accomplished in a specific order and is carefully controlled to maintain accuracy and to prevent duplication of the data. The procedures for Part 1 are divided into:

- Organization and preparation
- Acquisition of source documents
- Compilation evaluation and annotation procedures.

Organization and Preparation

Before beginning, decisions need to be made concerning administrative organization for the project, choice of persons who will do the work, limits of source-material investigation, and a work plan to be followed to achieve Phase II goals. The project requires a leader who can prepare reports and make decisions. Careful supervision is needed to prevent duplication and omission, to maintain the integrity of the work, and to insure that the research workers have adequate work-map coverage and that they are aware of and can locate source documents.

Preparation includes:

- Acquiring work maps and other required reference materials,
- Preparing work maps.

Acquiring Work Maps and Required Reference Materials

One of the first steps is the acquisition of a master set of work maps. These should be the largest-scale topographic maps available. For the most part, they will be 1:24,000- or 1:25,000-scale maps published by USGS. The next smallest scale, 1:62,500, should be obtained for those areas not covered by the larger-scale maps. See figure 2 for a sample State index of large-scale topographic map coverage. A master set of work maps is furnished by the GNIS Manager. Complete map coverage of the State at 1:250,000-scale and a State base map are also furnished. Other reference items that are furnished by USGS, if needed or when appropriate, include:

- Federal Information Processing Standards publication 6–2 1976,
- List of required and suggested source documents,
- GNIS Users Guide,
- Map feature guide,
- List of state civil divisions,
- State index of GNIS map codes, and
- National Ocean Service charts and National Forest maps.

Preparing Work Maps

Careful map preparation helps to ensure maximum work efficiency with the minimum possibility of error. It includes:

- Outlining all county boundaries with a felt–tipped marker of a specific color,

- Annotating State and county FIPS codes on each map collar adjacent to each county area (fig. 1),

- In areas not covered by 1:24,000– or 1:25,000–scale maps, the individual 7.5– x 7.5–minute map names are identified and appropriately labeled on the smaller–scale map, and

- Drawing latitude and longitude lines across each map at the 2.5–minute "ticks" located at the neatline of each map, if geographic coordinates are to be obtained by the use of ten–space dividers or scales (Appendix H).

Source Documents and their Selection

Bibliography and Bibliographic Codes

A bibliography and bibliographic coding procedure are built into the Geographic Names Information System. This allows a ready reference to the sources of information for all name records in the data base. The absence of a code indicates a Phase I name, that is, the source of the name in the data base is a topographic map published by USGS prior to the initial compilation period of 1978–1981 (see Appendix J for coding topographic maps published after Phase I work). Preparation for Phase II work requires developing a preliminary bibliography of required and probable source documents to be reviewed. The bibliographic listing will grow as new sources are discovered.

With the exception of the USGS topographic maps reviewed during Phase I compilation, each source document is given a unique alphanumeric code. The first two characters of the code are the alphabetical FIPS State code, followed by a dash (–), then the letter T (for a textual source) or an M (for a map source), and unique number used for referencing the different sources. The unique number may be assigned sequentially as the source bibliography is developed for the maps (M) and texts (T). Certain codes are reserved for general use. (See Appendix J.) Bibliographic codes are annotated on the work maps for both new name data and variant names. Examples: ME–T1, ME–T2, ME–T3, etc. and ME–M1, ME–M2, ME–M3, etc. (Maine text and map bibliographic codes).

If the document source is an atlas or similar publication, the map or page number should be recorded as part of the bibliographic code. The map or page number is separated from the code by a slash (/). Examples: AZ–T2/p.80, AZ–Ml4/m.24 (Arizona codes).

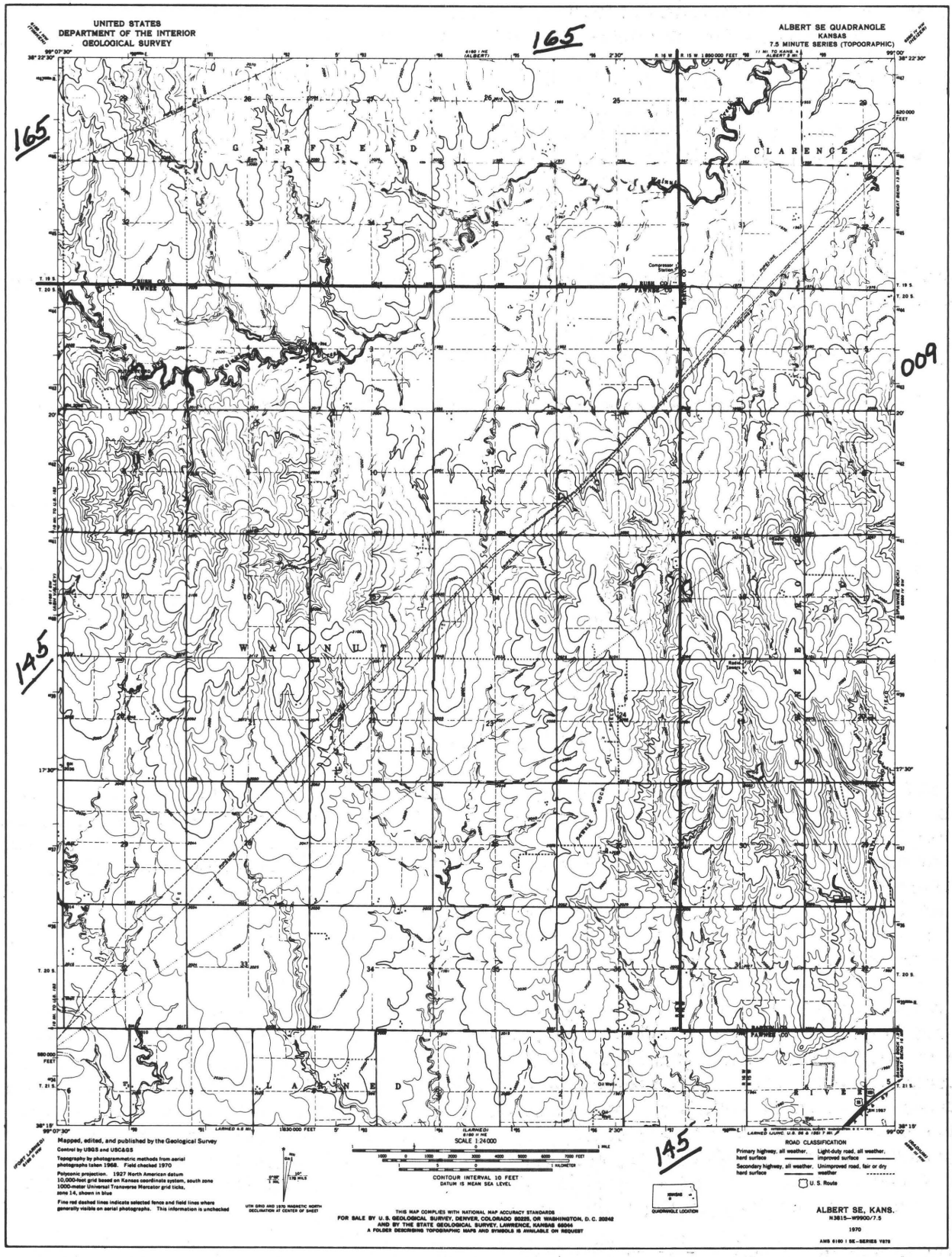


Figure 1.--An example of work preparation showing the annotated FIPS county codes. The county boundaries have been manually enhanced with a felt-tip pen for easier reading.

An annotated bibliography for each source from which a name or variant name was derived should be prepared in a standard format along with its bibliographic code:

AZ–T16 Johnson, Robert X. "Hiking Guide to the Rocky Mountains," New York: Doubleday, Inc., 1982, 3rd Ed., 472 pp. Refers to hiking routes with references to names of trails and physical features.

A copy of the annotated bibliography is to be submitted periodically to the GNIS Manager for approval and documentation.

Use of Phase I Computer Listing

The Phase I listing contains name records and variants alphabetically by State or other area. The listing is required as a reference for Phase II work. It is used to determine if variants are already present in the data base and to obtain the necessary identification number for recording variants of existing name records. Researchers must use the 1:24,000–scale or 1:25,000–scale topographic maps as the main reference and, except in the case of maps published since Phase I compilation, may assume that names already found on the maps are in the data base. If one has interactive access to GNIS, questions may be answered by direct retrieval of information.

Special Computer–Generated Lists

The Geological Survey will furnish selected computer–generated named feature listings for name records not created during Phase I work because the information was already available in more complete form in existing specialized data files. These kinds of named features are:

- airports,
- radio and television antenna sites,
- recreation and wilderness areas, and.
- current minor civil divisions.

The names of certain categories of features collected during Phase I are not complete. This is because not all were shown in the maps used for Phase I collection. For this reason, the following categories of features will require comparison with more complete listings:

- Dams and reservoirs, and
- Populated places (FIPS 55).

Required Source Documents

A major part of Phase II work requires the review of certain important source documents. These documents should be reviewed in the following order:

* – USGS topographic maps published or reprinted since Phase I compilation (the key date will be provided by the GNIS Manager),
* – National Ocean Service coast charts, river charts, and lake charts,
* – U.S. Forest Service maps,
* – U.S. Bureau of Standards FIPS 55 list,

* – Dams and reservoirs list,
* – Federal Aviation Administration airport list,
* – U.S. National Park Service list,
* – U.S. Forest Service recreation area list,
* – Federal Communications Commission radio and television list,
* – List of shopping centers,
  – County maps and listings published by the State,
  – Real estate maps,
  – Lists of churches and schools, and
  – Historical maps, atlases, and gazetteers.

*Source documents are furnished by the GNIS Manager.

Note – Underlined sources are considered basic references for determining official standard names.

Primary Federal Sources

The primary Federal maps should be the first sources systematically reviewed after the preliminary work has been completed because official names are determined by usage on these maps. The names found on the topographic map series published by the Geological Survey are already in the data base. For Phase II, the process involves comparing names and their applications shown on the work maps with those shown on the National Ocean Service charts and the U.S. Forest Service maps. These maps and charts are furnished to those officially participating in the Phase II compilation program. Others may order them at the current price at the following addresses.

- For topographic maps:

U.S. Geological Survey
Map Distribution
Federal Center, Bldg. 41
Box 25286
Denver, CO 80225

- For forest maps: Contact each individual Forest Office.

- For National Ocean Charts:

National Ocean Service – NOAA
Distribution Branch – N/CG33
Riverdale, MD 20737

Secondary Federal Sources

After the primary Federal sources have been reviewed and processed, it is useful to systematically compare name information from other listings made available by the GNIS Manager with that shown on the work maps. Most of the named entities in the listings will already be shown on the work maps and may only require quick visual verification. The listings, however, are more complete and, with the exception of the FIPS 55 list, represent official administrative names. The other source listings, mainly Federal in origin, include:

- U.S. Forest recreation areas

- National Park Service: National

  - Parks
  - Historical parks
  - Battlefields and battlefield sites
  - Military parks
  - Memorials
  - Historic sites
  - Monuments
  - Preserves
  - Seashores and lakeshores
  - Parkways
  - Rivers and riverways
  - Recreation areas
  - Scenic trails

- National Bureau of Standards, Federal Information Processing Standard – FIPS 55.

Other Information Sources

The success of a Phase II compilation program depends upon the availability of source materials for research other than those provided by the GNIS manager. Major university and city libraries with large historical and current map holdings and local history sections can furnish a large amount of source information for Phase II work. Research of State and local historical society publications and State, county, city, and town records is also required.

State and Local Governmental Publications

The collection of name data from the Federal documents covers most major named places, features, and areas. Experience indicates, however, that this represents only about 50–70 percent of all names found in present–day usage. Thus, the next task of Phase II work is to identify the names of geographic entities in use today that are not already in GNIS or recorded on the required, primary, and secondary sources. State and local governmental publications may be the best source of information of this kind. These documents include but are not limited to:

1. Maps produced by State agencies and local governments and
2. Special State and other governmental publications dealing with –

   - Schools
   - Churches
   - Hospitals
   - Cemeteries
   - Shopping centers
   - Public landmarks
   - Springs and streams
   - Lakes and ponds
   - Recreation areas
   - Public parks and forests
   - Natural features

- Historical sites and structures
- Highway rest areas
- Natural resources
- Mines and mining areas
- Industrial parks.

The names of subdivisions and real estate developments are useful records to have in the National Geographic Names Data Base, even though many of the names may appear ephemeral. These names represent populated areas that often are recognized by a legal process at some level of government. Most are not named on the topographic work maps. Information about the names and locations of real estate developments normally is available at governmental offices or agencies that deal with zoning or planning and through real estate multiple listing maps.

Historical and Other Publications and Records

Almost all written material uses geographic names for locational purposes. Source documents for Phase II, Part I work are widespread. Careful selection of sources that provide the greatest potential of new name information is important because of time limitations. After the names information from the previously mentioned Federal and State source documents has been collected, the remaining kinds of information needed for the data base include:

- Historical and obsolete geographic names,
- Indian and other minority group geographic names,
- Regional and area names, and
- Minor feature names.

The availability of documents from which useful information can be obtained varies among States and among areas within a State. The more obvious possible source documents are:

- Historical maps and atlases;
- Books and pamphlets on local history;
- Old Federal reports, maps, charts, and guides including census listings, coast pilots, postal guides, and reports on explorations;
- Land records and plats;
- State and regional geographic names studies and books;
- City plats, and county and regional maps;
- Etymological texts and materials; and
- Early written records dealing with travel, exploration, and settlement.

It is reiterated that priorities and limits need to be established to prevent an excessive amount of research time spent on going through sources that furnish minimal results.

Compilation, Evaluation, and Annotation Procedures

Introduction

In review, the purpose of Phase II, Part I research is the collection of geographic-name data not recorded during Phase I compilation. Use of a single set of work maps for Phase II compilation is crucial to a successful program for several reasons. Without exception, all names and certain associated information collected during Phase II are recorded on the one set of work maps.

The large-scale topographic maps published by the U.S. Geological Survey provide an ideal base with which names data from other sources can be compared. They give us a graphic representation of selected natural and manmade entities on the Earth's surface plotted to a definite scale. A full set of these maps covering the Phase II research area are the work maps that provide the reference foundation for the organized collection of geographic names and their attendant data. Portrayal of the shape and elevation of the terrain on these work maps is usually determined by precise engineering surveys and photogrammetric measurements. The scales of the maps are large enough to allow symbolism and name labeling of relatively small features. Because each work map shows the accurate locations and shapes of mountains, valleys, and levels, the networks of streams, bodies of water, and principal works of man, it is easy to relate a name with the entity it identifies. If an appropriate symbol is not shown on the map for a particular named entity, a symbol can be easily annotated directly onto the map in a fairly accurate location by relating its position with other map symbols. New names and additional variant names are associated with the proper map symbols and annotated directly onto the maps along with bibliographic codes and other pertinent data. Both the annotated data and reliable qualitative and quantitative information published on the maps are used to develop new name records for the National Geographic Names Data Base.

Four Conditions to be Researched

Each source document is systematically reviewed and compared with the work maps. One source document normally is reviewed at a time in order to prevent duplication and error. If more than one is reviewed at a time by several persons working on the project, care should be taken to prevent duplication of work. Only one reference is needed for a Phase II name record or variant. The following four conditions between the source documents and the work maps are identified if encountered:

- New Name: Names in the source documents applied to geographical entities not named on the topographic work maps (New Name means new to the data base),
- Variant Name: Different names or different spellings for the same entity,
- Variant Application: Names with the same or different spelling applied to two different entities of the same kind, and
- Variant Application: Names with the same or different spelling applied in part to two different entities of the same kind.

Annotation Procedures

Each name collected for Phase II, including the bibliographic code and identification of one of the four conditions mentioned above, is annotated onto the work maps in association with the appropriate feature symbols. Annotations on the work maps should be made so that there is no ambiguity with regard to the names and their applications. Annotations on the map are made carefully and neatly. Remember that a large number of annotations may be made on a map before the work for Phase II is finished. The printed names and their symbols on the work maps should not be obscured by the annotations.

Work maps may be annotated either at or alongside the map symbols on the face of the map (fig. 2) or on the map collar with connecting lines to the appropriate symbols (fig. 3). Depending on clarity and convenience, both procedures can be used on the same map. If a map

becomes cluttered, a new work map may be permanently attached to the original. The researcher must define the extent of named features. This is done by marking or tracing their limits or extents with pencil, pen, or different color markers on the work maps (fig. 3).

The following procedures should be followed carefully:

- Transferring name information from the various source documents should be done carefully. Except for abbreviations, which are spelled out, print each name in upper and lower case letters exactly as found on the source document.

- Not all landscape and cultural features are symbolized on the topographic work maps. If an appropriate symbol is not shown on the work map, one should be annotated neatly in the proper location and identified by the name and bibliographic code annotation. Remember, scale differences and map quality (especially historical material), affect the transfer of information.

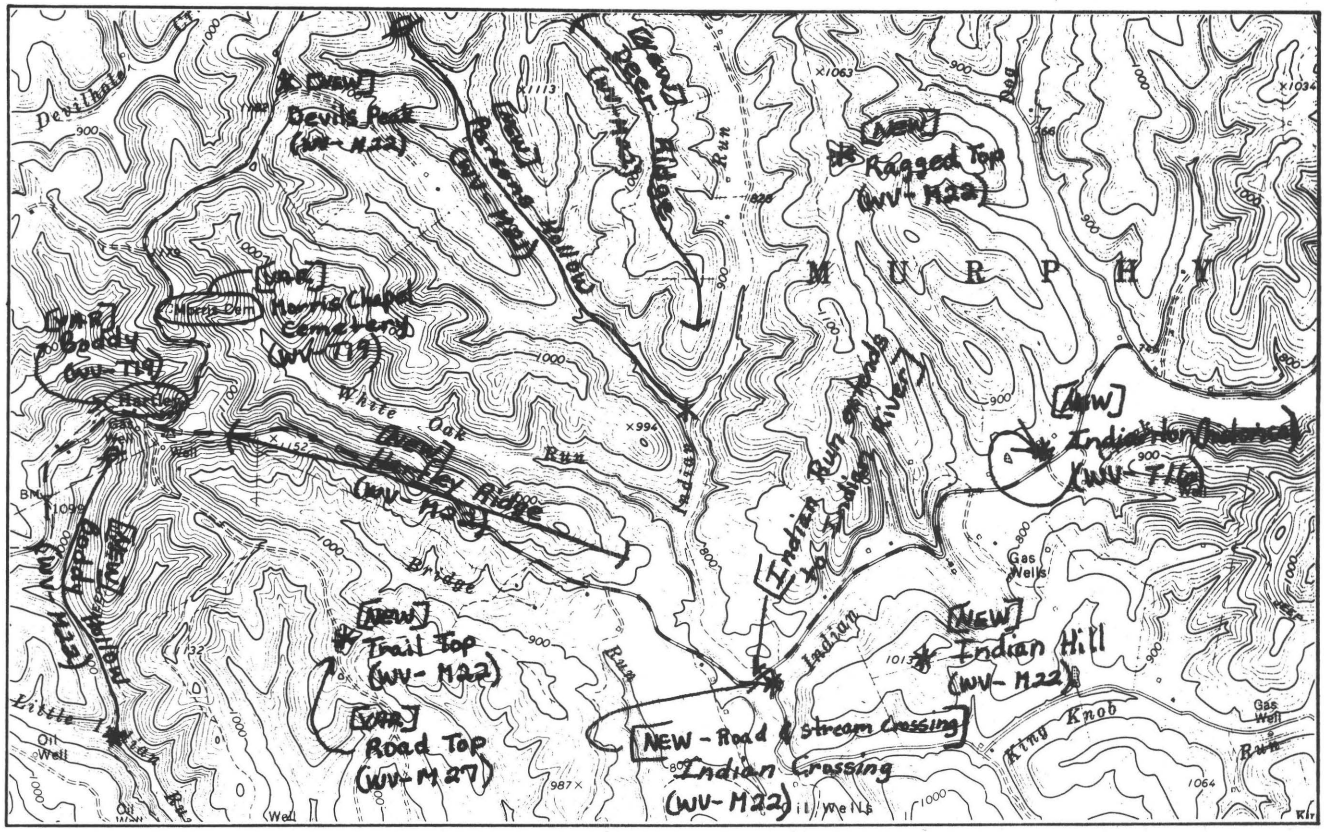


Figure 2.—An example of map–face annotations; each indicating the nature of the name [new or variant] and bibliographic code which gives the source of information. Care is always taken to ensure correct application of the annotated name to the feature symbolized on the map using application lines (Deer Ridge, Parsons Hollow, Hartley Ridge, Boddy Hollow) and lead lines/arrows (Indianton, Indian Crossing). Annotated variant names can also be tied to the circled map name by a lead line. Note the reference (historical) is considered part of the name for recording and data entry (Indianton).

- Annotation may be done by a fine–point felt–tipped pen, a good ball–point or standard marking pen, or by a sharp, but not excessively hard, pencil. It is advisable to annotate new names in one color and variant names in a contrasting color. It is also possible to annotate name/feature application differences in another color. The method used should be documented and applied consistently.

- Only one annotation is required to build a name record. If a new name or variant name is encountered during document research and it has already been annotated on the work map from a previous source, it can be ignored unless the later source contains additional useful information not found on the previous source. For example, it is useful to keep an account of the earliest published use of a name. It is acceptable to record more than one bibliographic source code if desired, but only one is required.

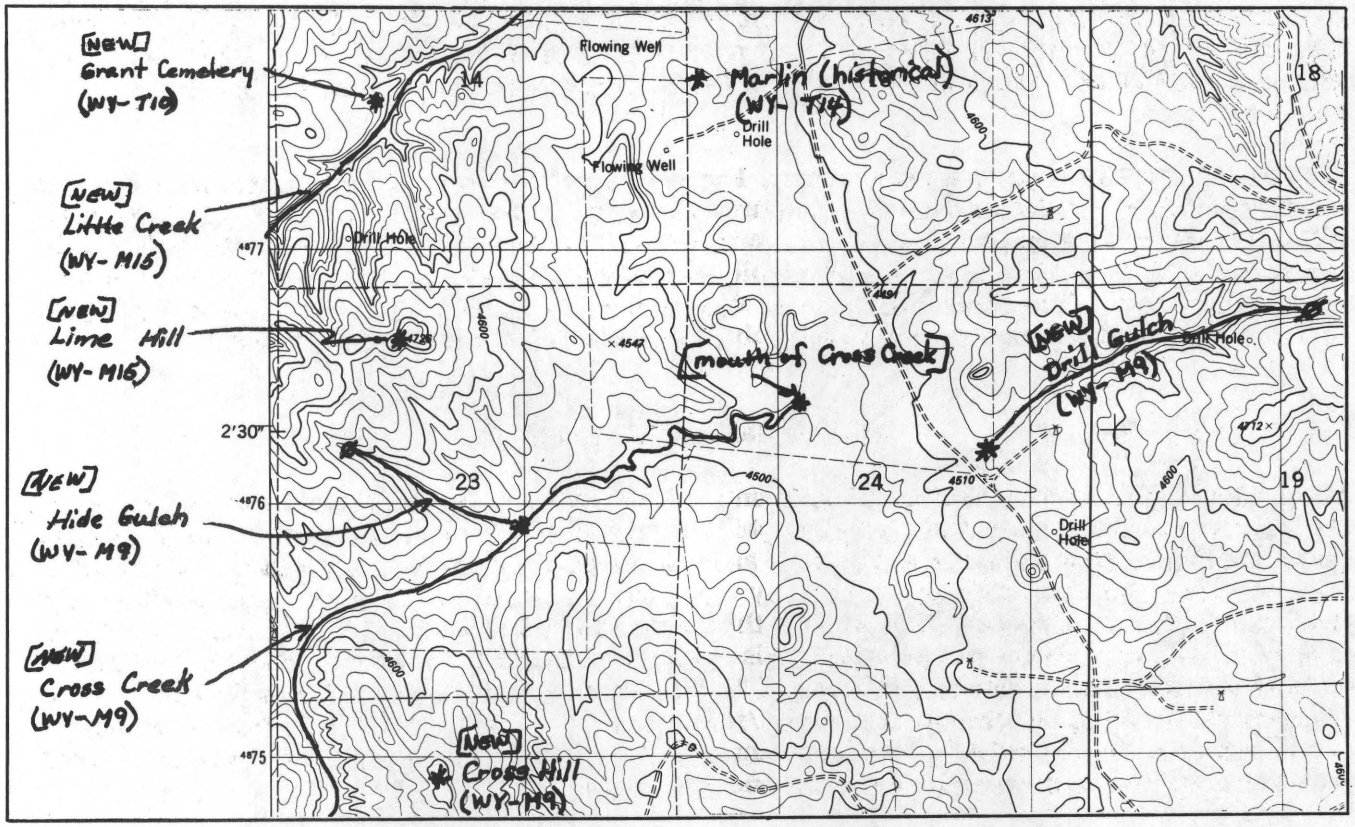


Figure 3.—An example of map–collar and map–face annotations. Both methods of annotation can be used on the same map. Clarity of name information and application are the main determinants in annotation procedure. These factors must be obvious to any person who may be transferring name data to the coding forms. Clarification notes can be added in parentheses whenever needed (see note on the mouth of Cross Creek).

Name Categories That Do Not Require Annotation

As mentioned earlier, certain categories of named entities were not compiled from the topographic maps during Phase I because the information needed to build the name records was readily available in more complete special listings or digital files. These listings are furnished to cooperators in the Phase II program by the GNIS Manager. Except for smaller dams and reservoirs, the following categories of named entities need not be extracted from the source documents and annotated onto the work maps:

- Airports, landing strips, heliports;
- Dams and reservoirs; and
- Radio and television stations.

It should be noted that named streets, roads, and highways are not identified for inclusion in GNIS during Phases I or II.

Topographic Map "Time–Gap" Procedures

Phase I compilation was accomplished with a cut–off date for each State between 1976 and 1981. The compilation does not contain names published on the large–scale topographic maps after the cut–off date. A list of State cut–off dates will be furnished by the GNIS Manager. This procedure is temporary because new names from maps published within the "time–gap" will be compiled and added to GNIS at one time. Contact the GNIS Manager for the status of this compilation.

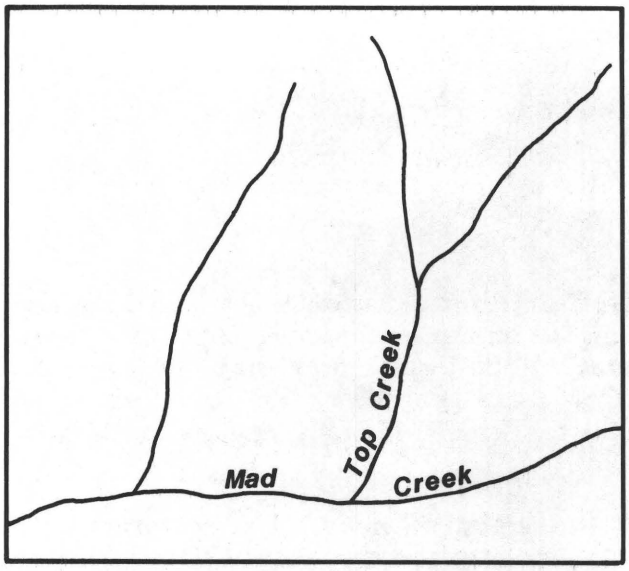
Because of the time gap between Phases I and II, the first step of Part 1 compilation is to identify additions or changes to the standard topographic map series published since the cut–off date on the work maps. The names are identified by the two–letter code "US" followed by a dash (–) and the code M101. For example, US–M101 identifies a new name or change on a topographic map. This name data can be determined by comparing recently published maps with the largest–scale map coverage available for an area before the cut–off date.

Variant Names and Spellings

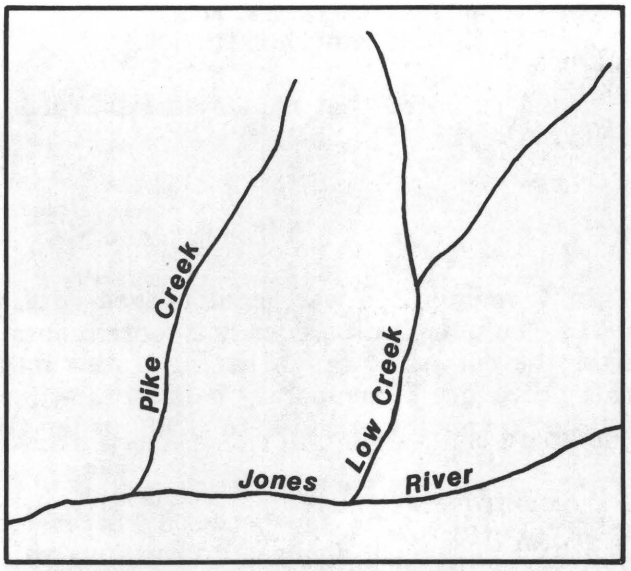
All variant names and variant spellings found in the source documents should be annotated on the work maps along with their bibliographic codes for inclusion in the data base. A variant name is defined here as a name found on any source used to refer to a particular geographic feature, other than the official or primary entry name. A variant spelling is defined as any spelling of what is intended to represent the same name, but which differs from the spelling of the official or primary entry name. This includes published typographical errors and minor spelling variations such as the inversion of "ie" and "ei" or "ll" and "l." This includes variation between names with or without the plural/possessive "s." The genitive apostrophe, however, is not a factor for establishing variant names and should always be omitted when annotated onto the work map and recorded onto the encoding sheet.

In all cases, the variant names should be referenced to the named entities and not to the names (fig. 4). For example, a small settlement may be called Avon. If a post office or railroad station a mile away is also called Avon, there are two different named entities requiring two different records. James Creek and James Gorge, through which the stream flows, are two different features because the former is a hydrographic (water) feature and the latter is a hypsographic (land) feature. Early maps and maps with scales too small for accurate name placement should be carefully interpreted in order to prevent the creation of variant names not intended by the mapmakers. Keep in mind the logical application of a name based on its generic element. A named cape applied to an island on a small–scale map was probably meant to apply to what was perceived as a cape and not the island. The relationship between a named mountain and its separately named peak or peaks should also be carefully maintained.

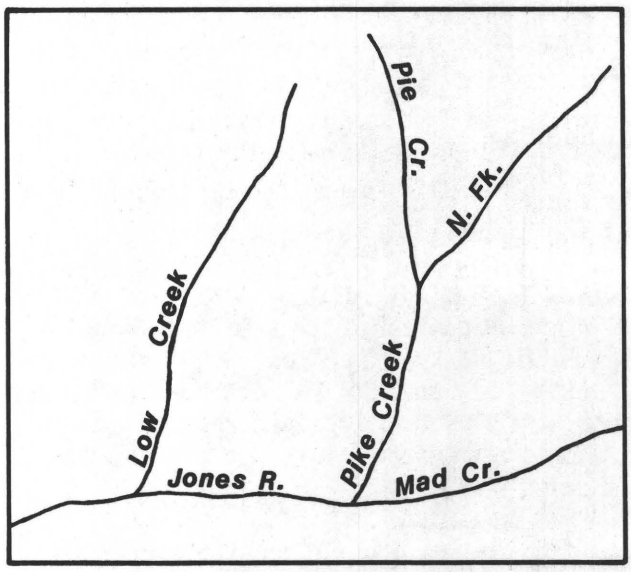
A. Source Map - 1894



B. Source Map - 1909



C. Source Map - 1941



D. Work Map - Current USGS

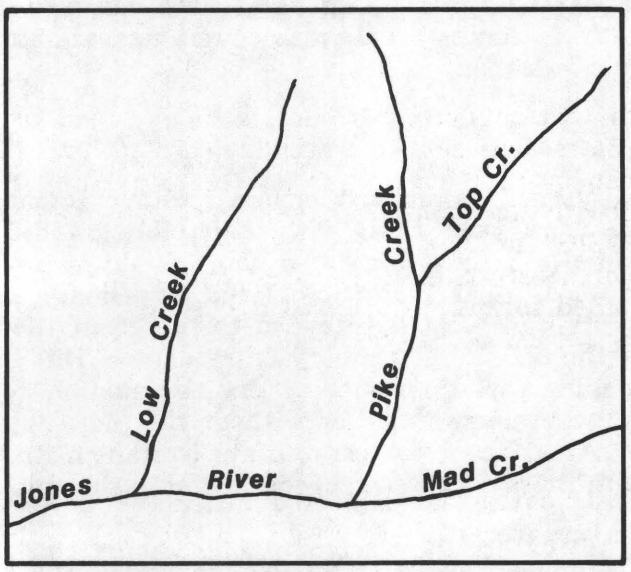


Figure 4.—Application Problems and Variant Names. When identifying variant names, each part of a feature or system of features uniquely named on a source map is considered a separate entity. A variant name is associated with a record name even though it may have been applied only to a part of the record name feature on a source document. The record names on map D have the following variant names derived from source documents A, B, and C:

Official Name	Variant Name
Jones River	– Mad Creek (in part)
Mad Creek	– Jones River (in part)
Low Creek	– Pike Creek
Pike Creek	– Pie Creek (in part), Low Creek, Top Creek
Top Creek	– North Fork Pike Creek

Controversial Names and the Board on Geographic Names

A name controversy exists if the name of a populated place, locality, reservoir, or natural feature or its application differs between any two of the following: (1) topographic map (Phase I listing), (2) U.S. Forest Service map, or (3) National Ocean Service chart. If a controversy exists, the matter should be brought to the attention of the U.S. Board on Geographic Names. This can be done by submitting a Domestic Geographic Names Report (Form 9–1343) (Appendix D) as soon as possible to the:

Executive Secretary for Domestic Names
U.S. Board on Geographic Names
National Center 523
Reston, Virginia 22092
Tel. 703–648–4506; FTS 959–4506

The Board or its staff will resolve the controversy and notify the informant of the decision.

If the controversy exists for entities other than populated places, localities, and natural features, an effort should be made to ascertain the name recognized by an administrative authority. When this name cannot be established, the researcher should arbitrarily choose what appears to be the best one for the Record Name. All other names then become variant names.

County and Other Minor Civil Division Names

Phase I collection did not include county and other minor civil division names because such information can be compiled best as a single effort during Phase II work rather than on a map–by–map basis. The information is not annotated on the work maps, but instead recorded directly on Input Coding Forms (discussed on p. 10) and designated as "civil" on line "a3, DESIG" of the form. Phase II compilation should include counties; civil parishes; towns (northeastern United States); named townships; grants, patents, and hundreds; and any other named formal divisions of the land not recorded during Phase I compilation. In most cases, a digital list of current minor civil divisions can be provided by the GNIS manager.

Major Feature and Regional Names

Other categories of named entities sometimes not collected during Phase I operations include major natural features (such as Lake Michigan, Rocky Mountains, and Coast Range), extensive Federal and State parks and recreation and wildlife areas, and regional names (fig. 5). In all of these cases, no precise instructions can be given that will allow Phase II researchers to know if the records were, or were not, established during Phase I compilation. Researchers must check the computer listing or query the State file by means of a computer terminal in each case. Fortunately, the total number of these entities is not large.

Those major natural features and extensive parks, recreation, and wildlife areas to be added to the Phase II file can be plotted or outlined best on the 1:250,000–scale or State base maps furnished by the GNIS Manager. The data for building each name record can be developed from such map annotation (fig. 6). The annotated intermediate–scale maps then become part of the work map collection for continual reference.

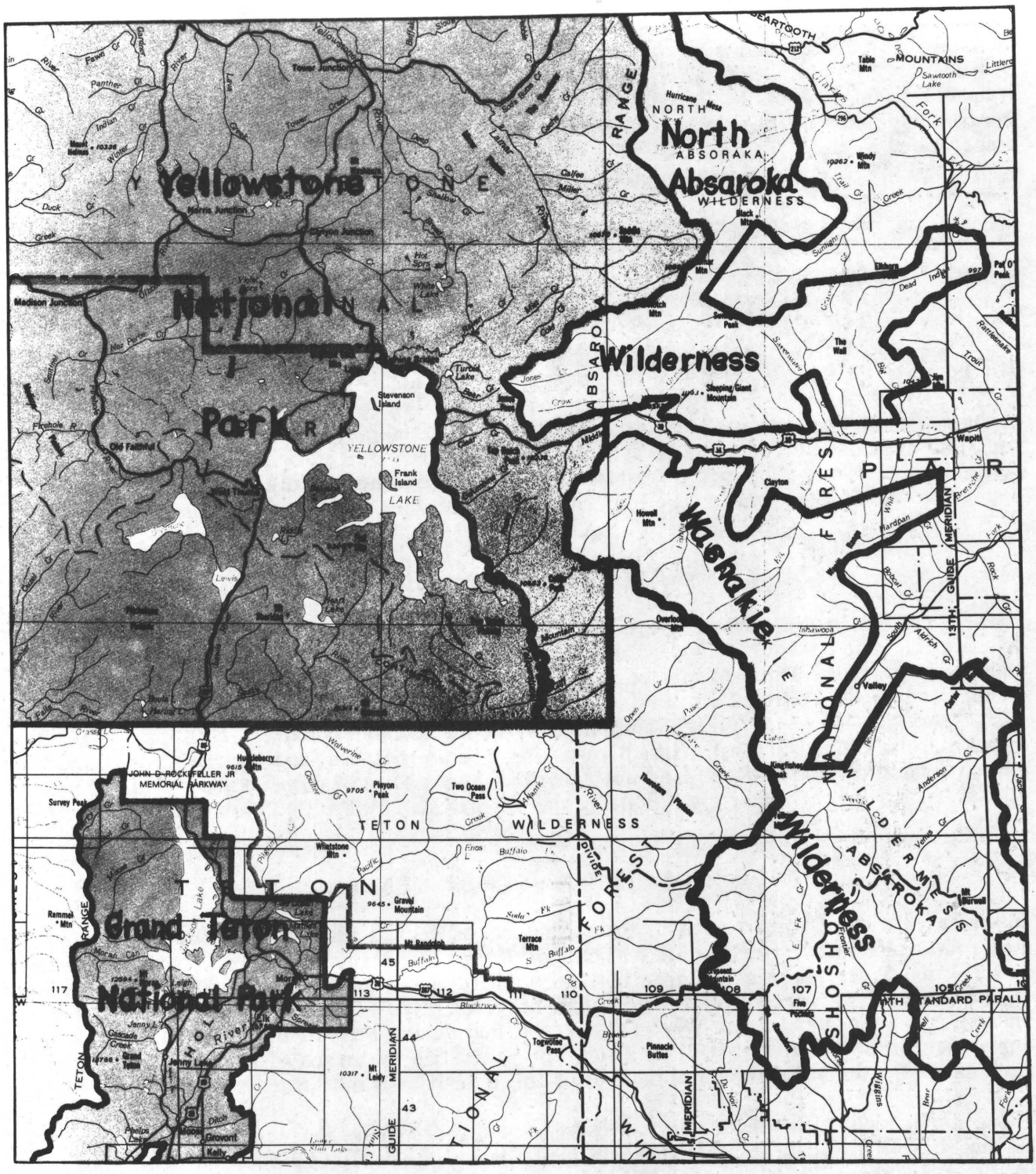


Figure 5.—Annotating named Federal and State entities. As with major features, it is best to identify scattered and large named areas that fall under the administrative authority of a Federal or State agency on a small-scale map. This procedure helps the compiler to understand extent and relationships not easily discernible on the larger scale work maps. County boundaries also can be annotated on the small-scale map if it is considered helpful.

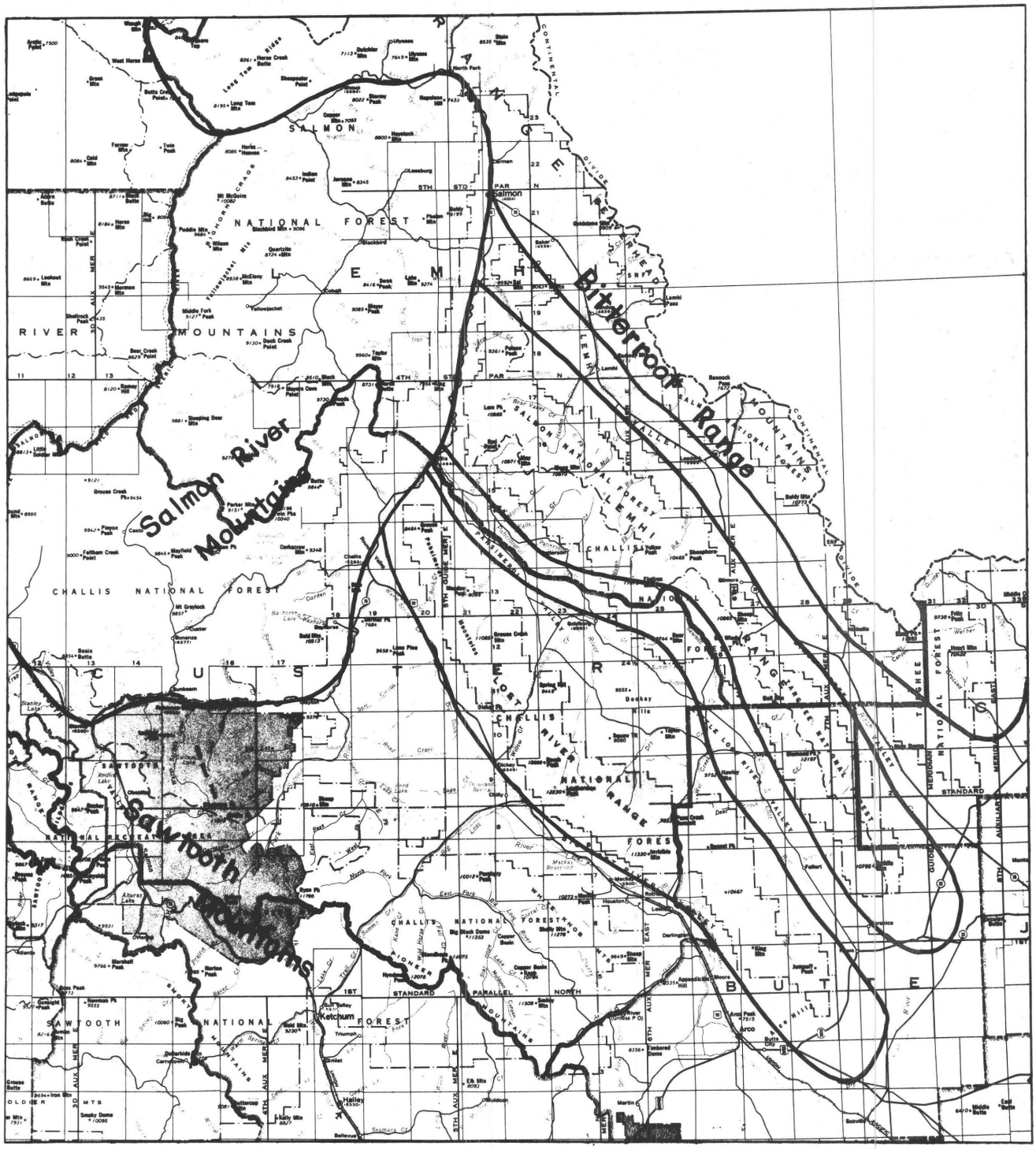


Figure 6.--It is best to delineate major named entities on 1:250,000-scale or State base maps in order to understand their full extent and relationships with each other. Record data can be derived from the small-scale map or the feature boundaries can be transferred to the large-scale work maps.

Currently used names for regions are not normally found on topographic or on other base–map series. These names often can be found in the geographic literature. Regional names used in the past are found in the historical literature of a State or region. Because regional names often have indefinite boundaries, the Phase II researcher must interpret the area covered by a regional name so that an appropriate name record can be developed for the data base file. Precise boundaries are not needed.

Vague, Obsolete, and Vanished Entity Names

The National Geographic Names Data base is designed to be a total information depository. It contains all obtainable names (and associated information) that were once or are presently used to identify or refer to landscape features and areas of the United States, its territories, and outlying areas. Every geographic name, except those for streets, highways, and roads, should be recorded as a record name or variant name. This applies to the names of features that are no longer in use (landings, post offices, railroad stations, schools), the names of features that no longer exist (destroyed manmade and natural features), and historical and current names applied to vague entities (regions, areas). For example, Sir Francis Drake applied the name "New Albion" to the land along the west coast of what is now the United States. New Albion is a legitimate name record for each of the State files for California, Oregon, and possibly Washington. When in doubt about the location of a named area or feature, an educated guess is made and coded to indicate coordinates may be inexact. In most of the above cases, the record name is followed by (historical).

Sequential Entities at the Same Location

Some geographical locations have had a sequence of named entities over a period of time. A city today, for example, may be located at the site of a former or current fort which, in turn, was located at the place where early maps show an Indian village. In such a case, all three named entities, and their variant names and spellings, are given separate and complete records in the data base. There is normally a complete cultural and time break between the Indian village and subsequent occupation of the site, and the fort is a different kind of feature from that of the city. The Indian village record name and the fort record name, if no longer used for military purposes, should be followed by (historical); for example: Blount, Fort (historical).

For the purpose of cross–referencing sequential site features, both the Indian village and fort record names can be listed as variants of the city name followed by (q.v.); example: Fort Blount (q.v.). The (q.v.), quod vide, means "which see," and tells the reader that the name also is found in the data base as a complete record. It also will be listed in The National Gazetteer as a variant and a separate record.

Incorporation, Subdivisions, and Metropolitan Areas

Incorporation or merging often occurs when one or two (or more) nearby named populated places grow in area until they coalesce forming one population cluster. In some cases, incorporation boundaries also are extended to include centers of population separated by open or rural–like areas. In either case, a name record is prepared for the legally incorporated polity. All other names of places that are located within the boundaries of incorporation, and differ from the incorporate name in form or spelling, are given separate name records in GNIS. For the purpose of cross–reference, however, each is also listed in the variant field of the name record of the incorporated entity followed by (in part, q.v.); example: Star City (in part, q.v.).

A named populated place that is part of a population cluster but outside the boundaries of an incorporated area is a separate entity and is not listed in the variant field of the adjacent incorporated area.

Name records are prepared for all named subdivisions of a city or suburban area. The record name should be followed by (subdivision); example: Cleveland Park (subdivision).

The term "subdivision" is here defined in its broadest sense. It is to include:

- Named entities within the corporate boundaries of a city (subdivisions, neighborhoods, etc.) and
- Named unincorporated populated tracts outside the boundaries of a city but having economic or other relational ties to a city or that are considered to be part of a metropolitan area (housing developments and similar population concentrations).

The term "subdivision," however, should not be used to identify well–established, identifiable populated entities outside the corporate boundaries of a city, such as:

- Older populated places that have come under the influence of an expanding metropolitan area, and
- Well defined, larger, commercially developed satellite communities that are generally perceived to be more than a housing development and are generally considered to be separate populated places.

The decision to add or not add (subdivision) in the name record will not always be easy. However, a conscientious effort should be made to use the above instructions for making a decision. A certain degree of expertise and local knowledge is helpful in applying the term "subdivision." If the subdivision is within the boundaries of an incorporated place, it is necessary to record the name of the entity in which the subdivision is located. Record this name after the preposition "in" on line a19 of the coding form (example: "in Pleasantville").

Named metropolitan areas that contain several incorporated and unincorporated places are considered separate geographic entities and each will be given a name record for each State that the area may cover. For example, the Washington Metropolitan Area is a valid name record of the Virginia, Maryland, and District of Columbia files in the data base. Named polities and places within the metropolitan area are <u>not</u> listed as variant names for a metropolitan area name record.

Abbreviations, Generic Terms, and Designators

Because of editorial policy or lack of space, names were sometimes abbreviated or the generic elements of the names were not shown or recorded on the source documents. These should <u>not</u> be considered variant names.

<u>All</u> parts of a name abbreviated on the source documents should be spelled out when annotated on the work maps and input encoding forms. See Appendix E for standard abbreviations used on maps and charts published by the U.S. Government. For example, "St. Johns R." on the map or chart is annotated in its full form — Saint Johns River — on the work map and encoding form. Other sources, however, may use a variety of abbreviations that differ from

those in Appendix F. Special care should be taken to ascertain the intended word for an abbreviation. For example, "Br." normally used for the word "Branch," could also be intended to mean "Brook" on historical maps and manuscripts.

The generic element should always be recorded, fully spelled out, on the work map and encoding form. If the source document or documents do not supply a generic for one or more names, one must be provided by the compiler for each specific part of a name that is appropriate to the feature and the area in which the feature is located. Note that in textual sources, the generic elements for the names of certain kinds of features (rivers, deserts, etc.) are often omitted. If, for example, the text refers to "crossing the Poloma," and a stream is the reference, the name recorded would be Poloma River. This is inferred because other terms for streams (creek, bayou, run, and branch) normally require the use of a generic with the specific term in written text.

Exceptions to the rule of supplying unwritten generic elements to names for GNIS occur when the geographic names were never intended by users to have a standard specific–generic form. There are three categories of such names:

1. Most populated places and locales (and rarely a mountain) do not use the generic element (Denver, Columbia, New York) except in their political titles (City of Denver). The political title or long term of the name should be listed as a variant even though it has official status. Of course, many populated places have an imbedded generic element (Greenville, Boston, Middleburg).

2. A small number of natural features have exotic or nonce–generic forms for their names (Bald Alley, a ridge; Battle Ax, a mountain; Bold Dick, a rock formation).

3. Another small group of natural features are identified by use of the definite article and noun/name only (The Cape, The Toothpick, La Mesa). In such cases, the definite article is always capitalized when annotated on the work map.

Feature–class terms are an important part of each GNIS name record. The Glossary of Feature–Class Terms (Appendix F) should be studied in the beginning of the Phase II work, and can be used as a constant reference during work, especially when encoding data for computer input. As mentioned above, the generic element is not used in all names and, when it is used, it may mislead the reader as to its true reference. For example, Green River may be a populated place and not a stream. Larsons Cave in Indiana may be a "basin" and not a "cave" in the sense with which we are normally familiar. Feature–class terms, sometimes called designators, are provided for all names in GNIS. These terms not only assist in feature identification and name application, but also provide an economical and efficient procedure when making a computer search for certain kinds of name information.

The Phase II compiler must be careful that he or she does not introduce personal or professional bias into the interpretation of features when selecting feature–class terms. The cross–reference generic listing in Appendix G should be used to determine the feature class. If the generic is not in this list, the project coordinator should be notified and a generic form (fig. 8) should be completed. Map interpretation alone, in some cases, may be misleading. Some generics may have multiple references in the generic list. The compiler should attempt to view feature symbols on a map as if one were actually seeing the real feature at ground level where the naming process normally occurs. For example, the name Silver Hills may be applied along what appears to be a cliff or an escarpment on the map. The generic element in the name, however, implies that the name actually refers to the broken or "hilly" landscape that is the result of cliff or escarpment erosion. The feature–class term, then, should be "range" and not "cliff."

In a few cases, a Phase II compiler may not be able to ascertain what a particular name indentifies on a map. If such a problem cannot be resolved by seeking help from the project director or other people familiar with landscape features in the area worked, the encoding form can be tagged and referred to the Manager, GNIS.

Numbers and Numerals

Arabic numbers should normally be spelled out when they comprise part of a geographic name. This is especially true for the names of natural features (22 Camp Hill = Twentytwo Camp Hill). Exceptions sometimes are sanctioned by the Board on Geographic Names. Arabic numbers are also spelled out for cultural features except when the names have certain legal or administrative significance (School Number 22). Roman numerals, however, are always retained because they are based on letters of the Roman alphabet.

CHAPTER 3

PHASE II, PART 2: PREPARING TO ENCODE DATA

Introduction

Part 1 involves the collection of name data on a master set of work maps. Parts 2 and 3 require the transfer and conversion of both the annotated and printed map data into machine-readable form for inclusion into the National Geographic Names Data Base. Although it is possible to encode name records directly from the work maps to the computer, such a procedure is not normally recommended because it requires special equipment and highly skilled operators, has a greater error factor, and is more difficult to monitor. Instead, an intermediate step, Part 2, is used. It involves the transfer of annotated and published map data to an Input Coding Form for each name record (fig. 7). The Input Coding Form is then used for data entry into the computer system.

Data Transfer

All data must be carefully and clearly printed on the Input Coding Form in upper and lower case (or as directed) and in exactly the same form as shown on the work maps, except that no abbreviations are permitted, all words must be spelled out.

Data Elements and Record Format

Introduction

Each name record consists of categories of information called data elements arranged in a particular order as illustrated on the Input Coding Form (fig. 7) because they will also be encoded for machine entry. After the completion of the names research program and map annotation, the information is ready to be encoded for entry into the data base. This is accomplished by transferring the map annotations and associated map data to the Input Coding Form. The encoding form is arranged in the same order as the GNIS data input software (GDIP). The following categories describe the data to be encoded. Any specific entity can have only one record name in the data base. Each data element is identified by a:

- Descriptive name (column 2 on the input form),
- Format code (column 1 on the input form).

Record Number

The NUMBER line (a0) is used only for adding variants to existing records in the data base or for minor corrections to existing information in the data base. New names and associated new name information will never have a record number.

Geographic Names Information System (GNIS) Input Coding Form

(a0) NUMBER _____

(a1) NAME _____

(a3) DESIG _____

(a4) * LOC _____

(a5) * COUNTY _____

_____

(a9) *MAPNAME

_____
_____
_____

(a6) *LATLONG

_____
_____
_____

**HEADS MAPNAME

_____
_____
_____

(a7) HEADS

_____
_____
_____

(a11) ELEV _____

(a15) HIST _____

_____

(a16) * VAR _____

_____

_____

(a17) SIZE _____

(a18) STATUS _____

(a19) SPDESIG _____

(a20) STR _____

(a98) REMARKS _____

(a99) BIBLIO _____

*multiple entries required if necessary - if corrections are required with multiple entries, then all entries must be re-entered except variants - use the back if more room is needed.

**If the mouth and source are on the same map, no Heads Mapname will be recorded.

Note: See Chapter 3 for detailed instructions.

Figure 7.--Input Coding Form

The information recorded here is always an eight-digit number that can be found on the special Phase I listing supplied by the GNIS manager or that can be obtained interactively if one has this option.

Record Name

The geographic name entered on the NAME line (a1) of the Input Coding Form is the official or primary name to which all variant names and spellings are referenced. Normal spacing and upper-lower case spelling are to be used regardless of the type shown on the source document (example: "Lakewood" not "LAKEWOOD"). Exceptions occur when an upper-case letter is normally used within the body of the specific part of a name; DeKalb, LaMarr.

Except for the genitive (possessive) apostrophe, all nonletter characters that are part of the name are to be properly recorded on the coding form. This includes the apostrophe (O'Malley Creek), hyphen (Miller-White Ditch), and the accents acute (é), grave (è), circumflex (ê), tilde (ñ), and cedilla (ç).

Each name is printed letter by letter, word by word, in its normal order except in those cases where the generic part of the name of a natural (physical) feature precedes the specific part as in Mount Adams, Lake Ann, Bay Saint Louis, and Lake of the Woods. In such cases the specific or substantive part is listed first, followed by a comma, a blank space, and the remaining parts of the names:

Adams, Mount
Ann, Lake
Saint Louis, Bay
Woods, Lake of the.

However, a populated place, locality, civil division (city, village, county, township, crossroad, and railroad siding) or any other cultural feature named for a physical feature is always listed in normal order even though the generic part of the name may precede the specific part. A village or locality called "Mount Calvary" is listed in that order, while a physical feature with the same name is shown with the specific part of the name first; that is, "Calvary, Mount." Names containing the definite article in the initial position should be reversed. For example, The Ditch and La Mesa become Ditch, The and Mesa, La respectively. Names for cultural and physical features that no longer exist must be followed by the word historical in parentheses. Similarly, the word subdivision in parentheses should follow entries that are integral parts of populated areas.

Feature Class

The feature classes entered on the DESIG line (a3) are designed to group similar features into broad categories to facilitate search and retrieval. The Map Feature Guide (Appendix G) provides a reference for all known geographic-name generics to the appropriate broad feature class. However, if a geographic-name generic not yet in GNIS is encountered, it should be recorded on the "Generic Information" form (fig. 8) and submitted to the GNIS manager through the project coordinator.

GENERIC INFORMATION FORM

Generic or Unusual Word _____

GNIS Feature Class _____

Location of Primary Geographic Coordinates - circle one:

center mouth top dam

Standard Abbreviation (if known) _____

Type of feature to which THE GENERIC REFERS _____

_____

Etymology or Description (if known): _____

An example of the use of this generic can be found on/in

MAPNAME _____

SCALE _____

STATE _____

OR

TEXTUAL SOURCE: _____

Figure 8.—Generic information form used to identify and report new generic words found in geographic names.

State/County Codes

"The Standard for Counties and County Equivalents of the States of the United States" (FIPS PUB 6–2, latest edition) published by the U.S. National Bureau of Standards will be the source for codes on the LOC line (a4) to identify the States and counties in which a named feature occurs. The individual code is five digits. The first two digits refer to the State and the last three digits refer to the county or county equivalent. This is an alphanumeric variable–length field. A five–digit State/county code will be recorded for each county and State in which the named entity is located. When more than one code is entered, the State and county in which the primary coordinate symbol is located is listed first. The sequence thereafter is from "mouth to source" for drainage features, referred to in GNIS as linear features, and multiple entries are separated by blanks.

When a feature is in both United States territory and another country, the appropriate 2–character alphabetical FIPS code will be used, for example, CA for Canada, MX for Mexico, UR for Soviet Union, UK for the United Kingdom, and WS for Western Samoa.

County Name

The specific part of the county name, or county equivalent name, is printed on the COUNTY line (a5). Record all county names (separated by a comma and a blank) including counties in other States. The county names in other States are followed by the 2–character alphabetical FIPS code for the State enclosed in parentheses. Example: Snohomish (WA). Only the specific part of the name is listed. Arlington County and Terrebonne Parish are listed as:

Arlington
Terrebonne.

If the primary coordinate is located in an independent city, the specific name of the city or town is recorded followed by the word city in parentheses. Example: Richmond (city).

Geographic Coordinates

Geographic coordinates entered on the LATLONG line (a6) are established not only to locate named places, features, and areas, but also to indicate the extent of certain kinds of features and to identify all map cells on which a named entity is located. The coordinates are categorized into primary, secondary, and source locations of parts of some entities, such as the mouths and heads of streams, canyons, valleys, and washes. The annotation symbols suggested for use on the work maps are:

* = primary coordinate
x = secondary coordinate
Ø = source coordinate.

More complete instructions as to the locations where geographical coordinates are to be taken may be found in the Map Feature Guide (Appendix G).

A 15–character compressed geographic coordinate is used in line a6 for primary and secondary points. Multiple data items are separated by a blank space. If the degrees of longitude are less than 100 a leading 0 must be present. Example: 250607N0713214W.

The primary and secondary coordinates are geographic coordinates that not only locate and indicate certain feature limits, but also associate a named feature with the map or maps on which it appears. Latitude is in degrees, minutes, and seconds followed by one alphabetical directional character (N or S); and longitude is in degrees, minutes, and seconds followed by one alphabetical directional character (E or W). There is a geographic coordinate associated with each topographic map or cell on which a feature is located. The primary coordinate followed by all secondary coordinates will be recorded after the precedence code "a6." Multiple entries or data items may be required. The order recorded is from mouth to source for linear features and generally from the center outward for areal features.

All primary and secondary coordinates must be recorded within $\pm$5 seconds (about 400 feet) of accuracy at a scale of 1:24,000 or 1:25,000. Geographic coordinates may be accurately determined by means of 10–space dividers, scaling rulers, special coordinate overlays, or by the use of an electronic digitizer. Procedures for establishing coordinates for Phase II encoding should be arranged with the GNIS Manager (see Appendix H).

The primary coordinate entry is the first coordinate on the form and should locate a point at the mouth of a linear feature and at the approximate center of an areal feature. Specific instructions as to where the geographic coordinates are to be taken are found in the Map

Feature Guide (Appendix G) or may be obtained interactively by accessing the Reference Data Base. The approximate center must be determined subjectively for areal features with indefinite, irregular, or nondiscernible boundaries. The centers of populated places often may be determined by locating certain features such as the town or city hall, main library, main post office, the old central business district, or a main intersection. The mouth of a natural feature refers to the terminus of linear entities such as streams, valleys, and canyons and is located where the feature joins another feature of the same kind, ends in a delta, an alluvial fan, or no longer has a discernible channel or troughlike characteristics. Primary coordinates for entities classified as summits are recorded at the tops or highest points of the features. The Primary Coordinate entry corresponds to the data elements county name, map name, and State/county code.

The appropriate primary coordinate should be recorded if it is available. If the primary coordinate is not available, enter the 15–character entry *PRIMARY COORD* followed by all subsequent secondary coordinates related to the named feature.

The secondary coordinate is a point arbitrarily chosen to locate the named feature on maps or cells through which it passes or on maps that do not contain the primary coordinate. Choose only one secondary coordinate for each 7.5– x 7.5–minute cell on which the feature is located. Its only purpose is to identify the name with the map and general extent of the feature. The location of each secondary coordinate may be anywhere on the map as long as it is located on the feature in question. All secondary coordinates correspond on a one–to–one basis with multiple data items in the mapname data element.

Source Coordinate

The source coordinate is a 15–character compressed geographic coordinate identical in format to the coordinates found in the primary and secondary coordinate field. There must be only one geographic coordinate to represent the source of a linear feature on the HEADS line (a7).

The annotator will assign the source coordinate symbol Ø to the furthest point at the head of the longest, straightest extension of the named feature unless its location is otherwise defined on the map by name placement, textual description, or other influencing variable. This procedure is in accordance with the policies of the U.S. Board on Geographic Names. See figure 9 for examples of locating points for source coordinates. If the source coordinate is outside the State, the appropriate coordinate should be obtained. If it is not available, the line on the coding form will be filled in with *SOURCE COORD*.

Map/Chart Name

The MAPNAME line (a9) on the coding form allows for the inclusion of a variable–length mapname. The entry for this field is the name of the topographic map on which the primary or secondary coordinate occurs even though the feature may not be named and (or) not symbolized on the map. If a feature lies outside the bounds of topographic map coverage, reference to a chart source should be made if applicable. For example, the reference NOS 12345 indicates that the feature is covered on National Ocean Service Chart 12345 and is outside the bounds of the National Topographic Map Series. Record all entries for each feature and separate multiple entries by a comma and a blank space. If the map lies outside the boundaries of the State being encoded, record the name of the map followed by a blank space and the two–character alphabetical FIPS code for the State in which the map is located.

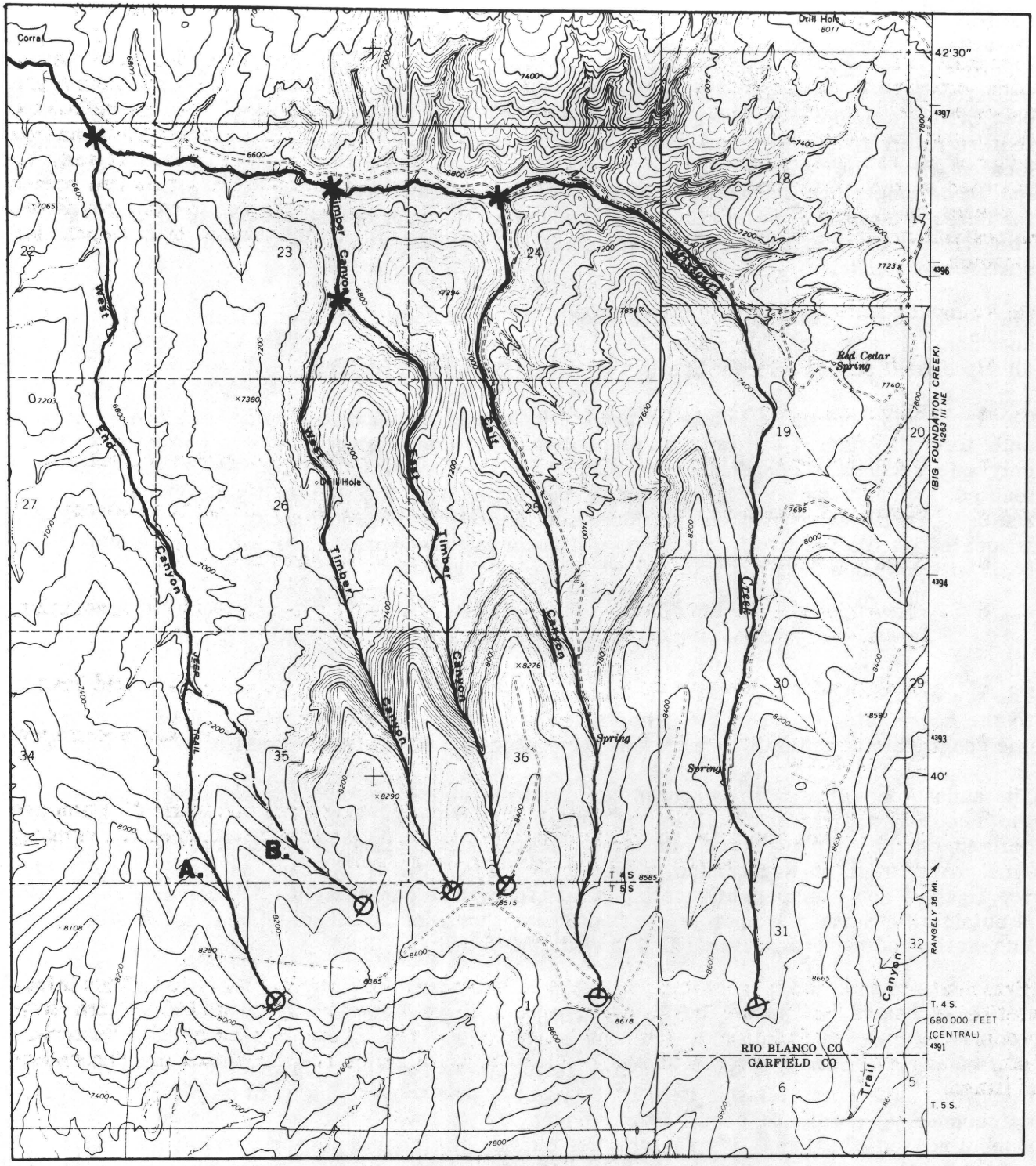


Figure 9.---A source (sometimes called head) coordinate is to be taken at the extreme head of the longest, straightest branch of a stream and the longest, straightest, or deepest branch of a canyon. The source coordinate is established at the extreme head of drainage determined by reentrant contour lines and not necessarily at the end of a stream symbol or end of the name printed on the map. In the first symbol, West End Canyon represents a borderline case. However, it appears that its source coordinate would be best established on branch A because it is the longest and straightest branch.

Elevation

Topographic maps show elevations for selected points, such as the summits of hills and mountains, crossroads, mountain passes or gaps, lakes and ponds, and dams. Surveyed points are shown in black print, photogrammetrically determined elevations are in brown, and water elevations are shown in blue. Every effort should be made to record the elevations of named features on the ELEV line (a11) when appropriate. Elevations for linear features may be recorded at the mouth and source, and it is useful to have elevations for most named bodies of water, such as ponds, lakes, and reservoirs. Elevations are required for all populated places and summits. Elevations not recorded on the map can be determined by interpolating contours.

The following rules apply to determining and recording elevations:

- Only one elevation will be recorded for each name record;
- Elevations are to be given in feet;
- Elevations may be no longer than five characters including a negative symbol;
- Elevations are to be recorded at, or very near, the primary coordinate location;
- Negative values (feet below sea level) are preceded by a minus sign (–);
- Elevations are determined for the highest points of summits such as mountains, peaks, hills, mesas, ridges, mounds, and bluffs;
- Elevations are determined for the lowest points of passes, gaps, notches, and basins;
- Elevations for bodies of water, such as lakes, ponds, and reservoirs are determined by water level.
- Elevations for the GNIS categories of populated place (ppl) and summit, when not published on the map, should be estimated according to the location of the primary coordinate between the upper and lower contour lines.

Historical Note

Historical information is recorded on the HIST line (a15) and is free–form text. This information is useful but should be recorded only if it is immediately available. Extra time researching this information is not recommended for the Phase II program. If historical information is obtained, priority should be given to name origin and derivation and chronology of usage.

Variant Name(s)

Variant name, recorded on the VAR line (a16), refers to all other known names or spellings once or presently applied to the entity identified by the record name. The following rules apply to the recording of variant names on the coding form:

- If more than one variant name exists for a record, they are separated by a comma and a blank space.

- The bibliographic code must be recorded and is in parentheses following the variant.

- If the variant name is or was known to have been formerly applied to only a part of the name record feature, the expression (in part) in parentheses should follow the variant name.

Size of Feature

The size of the feature refers to a short variable length, upper/lower case, alphanumeric description that indicates the length of linear features and the breadth of areal features in English units. After the precedence code on the SIZE line (a17), it is possible to enter a short phrase indicating size. Example: 41 miles long and 2 miles wide, 123 miles long, 8 acres.

Federal Status

This code indicates the status of the record name and its application as determined by U.S. Board on Geographic Names. See Appendix I for a list of feature classes associated with status categories. After the precedence code on the STATUS line (a18), enter an all–upper–case entry for status. The possible categories are:

BGN – the name is official according to the policies of the U.S. Board on Geographic Names,

BGN (YEAR) – the name is official and the year of special research to resolve a contro–versy is given,

US (YEAR) – the name is official by an Act of Congress,

ADMIN – the name is official according to an administrative Federal, State, or local organizaton,

UNOFF – the name is considered unofficial because it is not within the purview of the U.S. Board on Geographic Names, or any other official organization.

Special Designators

Special designator on the SPDESIG line (a19) is used to indicate the named entity in which a subdivision is located. It is also used to indicate the ownership of only administrative areas. Entries should be made according to the following categories:

Subdivisions
- Name of area in which subdivision is located

Administrative areas
- Federally owned,
- State owned,
- Municipally owned,
- Privately owned, and
- Commercially owned.

Section, Township, Range, and Meridian

The section, township, range, and meridian information should be recorded on the LTR line (a20) if the State uses the Public Land Survey System. The information in this data element provides location according to the system established to administer the public lands of the United States. The public domain included all the lands ceded to the Federal Government by the colonial States, and all subsequent lands acquired from native Americans and foreign powers. (See figure 10.) The 13 original States, Tennessee, Kentucky, Vermont, Maine, West Virginia, Texas, and Hawaii do not use the Public Land Survey System. In addition, present territories, outlying areas, and commonwealths are not included.

The basic provisions of the Public Land Survey System require that the public lands be divided by north and south lines corresponding to true meridians of longitude and by base lines crossing the meridians at right angles, forming areas of 6 miles square called townships. The east–west boundaries are termed township lines while the north–south boundaries are termed range lines. Townships are normally divided into 36 sections ideally containing 640 acres each or 1 square mile. By necessity, a section may have less than 640 acres, but it may still be considered as a complete, numbered section.

Because the range lines follow longitudinal meridians, they converge at the poles. This convergence is apparent in surveying the township lines. Therefore, correction lines called standard parallels are used to offset the convergence of the range lines to allow each section to represent as nearly as possible 1 square mile.

When recording information for entry into the data base, only the section number in which the primary coordinates of the feature are located will be recorded. However, if a feature is in more than one township and/or range, all townships and ranges should be recorded, but no section numbers should be recorded. The examples in figure 11 provide a guide for recording the information.

Remarks

The REMARKS entry line (a98) is free–form text and may be used to convey anything about the name record's research, compilation, or encoding to the GNIS manager or staff. For example, it may be appropriate to explain why geographic coordinates are not present in the name record.

Bibliographic Entry

The bibliographic entry on the BIBLIO line (a99) provides a ready reference to the exact compilation source of all names not recorded from USGS topographic maps. The absence of the code indicates that the name was recorded on the USGS topographic map during Phase I compilation (1976–1981). See Appendix J for a list of national bibliographic source codes. If no bibliographic code is available, enter the word none. The line should not be left blank because an entry is needed to close the record. The complete annotated bibliography used in Phase II compilation for each State will be available in the Reference Data Base. Annotated bibliographies and codes should be sent to the GNIS manager for approval and recording.

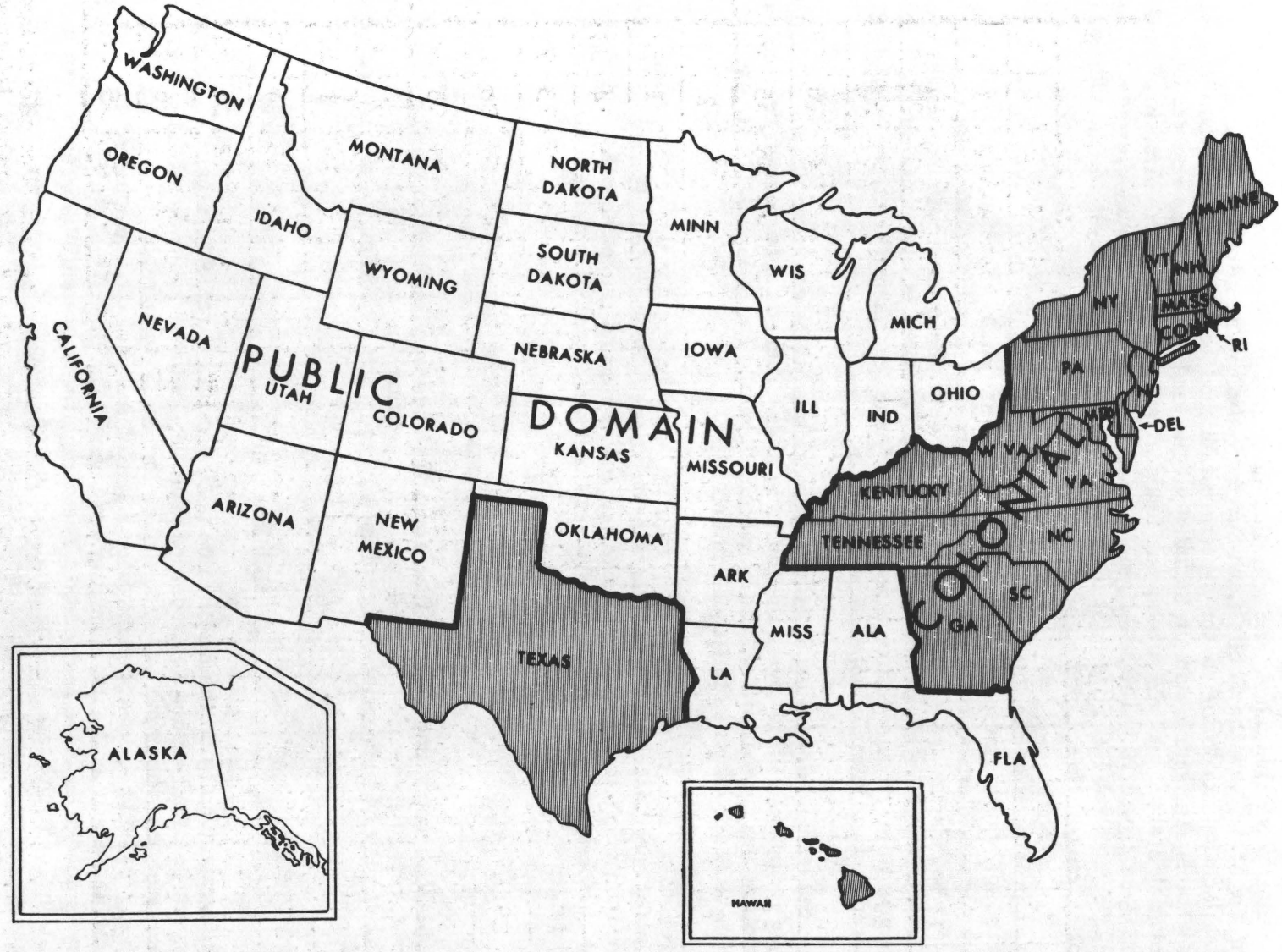


Figure 10.—States not shaded are partitioned according to the Public Lands Surveying System as proclaimed by the Northwest Ordinance of 1787.

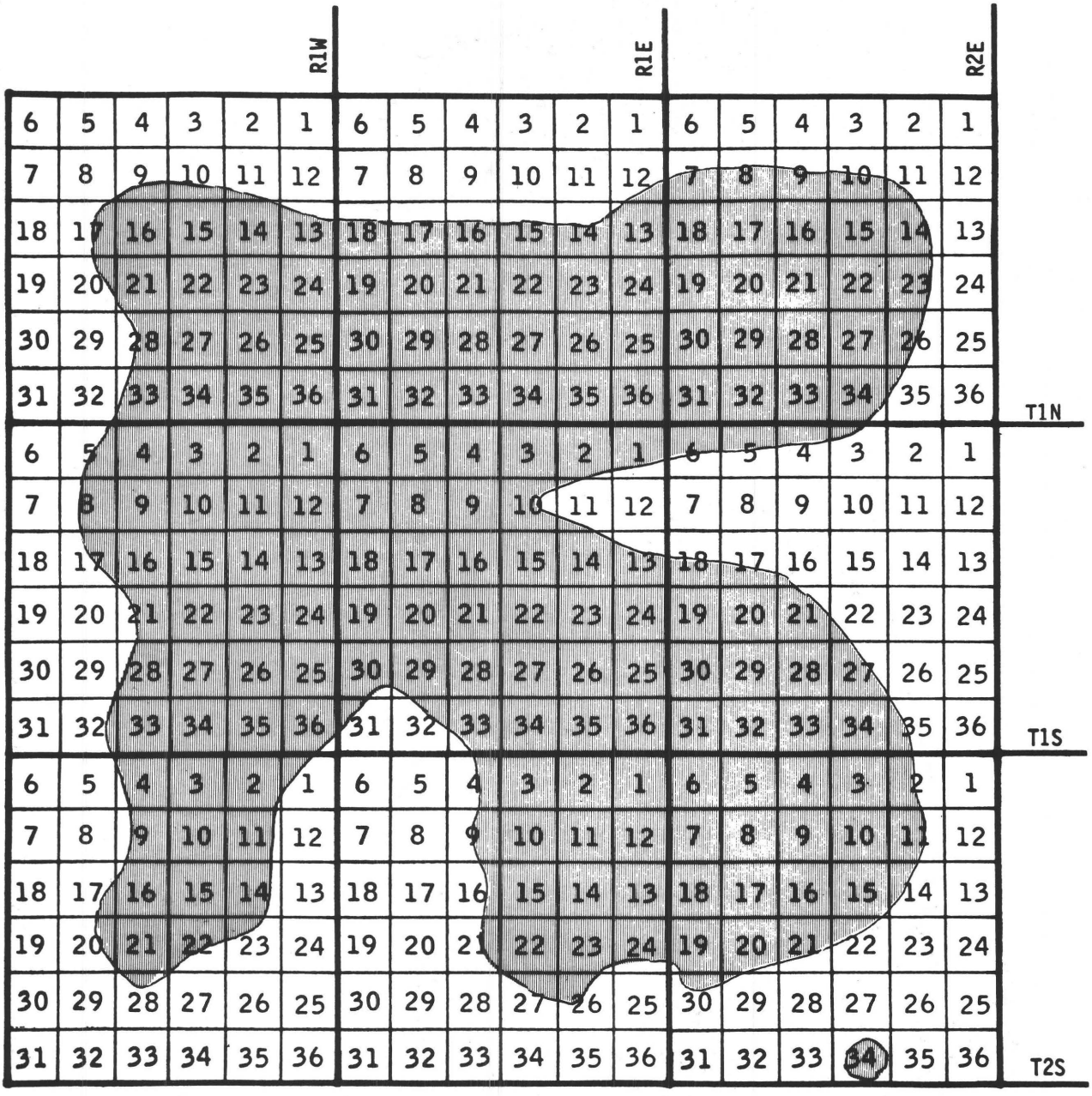


Figure 11.—An example of recording section, township, range, and meridian information. The two shaded areas represent geographic features and the land survey information is recorded as follows: Small shaded section – Sec 34, T2S, R2E, Fifth Principal Meridian; Large shaded section – T1N, Tps 1&2 S, Rgs 1&2 E, R1W, Fifth Principal Meridian.

CHAPTER 4

PHASE II, PART 3: ENCODING DATA

Once Phase II name data have been collected and annotated on the work maps, and after the coding forms have been completed, the name records are ready to be put into machine-readable form and become part of the National Geographic Names Data Base. Part 3 involves the actual encoding of data for entry into the system. Technical information on the equipment and procedures necessary for this operation is obtainable from the GNIS Manager. Organizations that participate in an official Phase II program (at their option) will be provided with data entry software developed by the GNIS staff specifically for the program. This pre-designed software, known as GDIP, will save time in designing other input encoding programs. This package is also designed to automatically generate information for certain required categories, thereby saving data keying time as well as eliminating certain categories from being transcribed onto the coding forms. If one elects to use the GNIS data input software, the following data categories need not be transcribed or keyed:

a4	LOC
a18	STATUS

The GDIP software operates on any IBM or IBM-compatible personal computer, and automatically formats the data into the required GNIS format for entry into the data base.

Additional comments regarding current encoding procedures for the record data elements are listed below. Changes and enhancements to the procedures may be made periodically and the GNIS Manager should be consulted before any actual keying of data is done.

- Multiple entries: All data elements having multiple data items follow two rules. Text data items are separated by a comma and a blank space while numeric data items are separated by only a blank space.

- Corrections: If a correction is made to a data element with multiple data items, all data items must be rekeyed except variants.

- Name – a1: If the computer system being used does not provide for the recording of diacritical marks, the name should be followed by a blank space followed by an asterisk to indicate the presence of a special writing mark in the name, for example, Canon del Norte *.

- Feature class – a3: The feature-class term is recorded and entered in lower-case letters only.

- Elevation – a11: All numerical elevations are to be aligned on the left and are not to exceed five character spaces.

APPENDIXES

APPENDIX A.—Categories of Named Features not Included in the Geographic Names Information System

Phase I

Generally, all named features on the most–current largest–scale USGS topographic maps were included for Phase I compilation. Some categories of named features, however, were omitted from Phase I because more complete lists of these categories were available from other sources. If a State or territory has been completed only through Phase I, the following cate–
gories of named features will not be present:

- Airports,
- Radio and television station towers,
- Federally administered areas greater than 30 square miles,
- Major and minor civil divisions,
- Some major or large features that are too large to be named on 7.5–minute, 1:24,000–scale topographic maps,
- Regional names,
- Historical names,
- Most building names,
- Roads and highways.

Phase II

Available information from the categories not compiled during Phase I, as well as geographic names from other sources, are added during Phase II. If a State or territory has been com–pleted through Phase II compilation, information for all known named features should be present except for roads and highways.

APPENDIX B.—Sources for the Geographic Names Information System

Primary sources in order of their research and compilation

- USGS quadrangle maps published or reprinted since Phase I compilation
- National Ocean Service (NOS) Charts and River and Lake Charts
- U.S. Forest Service Maps
- U.S. Board on Geographic Names list of names not found on USGS maps
- U.S. National Bureau of Standards FIPS 55 list
- U.S. Army Corps of Engineers Dams and Reservoirs list
- Federal Aviation Administration Airport list
- National Park Service lists
- Federal Communication Commission Radio and television station list
- Shopping Center listing
- County maps published by the State (not provided by USGS)
- Primary State maps (highway, etc.) (not provided by USGS)
- Real estate multiple listing maps (not provided by USGS)
- List of schools, and churches (not provided by USGS)
- Historical maps, atlases, and gazetteers (not provided by USGS)

Additional information must be added for:

- Counties
- Townships
- Other minor civil divisions
- State and Federal Recreation, Wildlife areas, etc.
- Missing major or large features
- Regional names

Optional Sources are:

- City plats
- Textual material having reference to geographic names
- Historical Federal sources such as old NOS charts and pilots, old Postal Guides, etc.
- Bureau of Indian Affairs information

- Outline county boundaries.
- Annotate FIPS codes on map collar adjacent to the county.
- Draw lines at 2.5–minute ticks for determining coordinates if coordinates are determined manually.
- Editing checks.
- Add new variants.
- Prepare annotated bibliography.
- Interpolate elevations for populated places (ppl) and summits.

APPENDIX D.—The Domestic Geographic Name Report form used for submitting name problems to the U.S. Board on Geographic Names.

Form 9-1343 (Apr. 1967)

UNITED STATES DEPARTMENT OF THE INTERIOR BOARD ON GEOGRAPHIC NAMES DOMESTIC GEOGRAPHIC NAME REPORT	☐ Controversial name ☐ Name change ☐ Changed application ☐ Other	Recommended name State County

Lat.____° ____' ____" N, Long.____° ____' ____" W, Mouth End Center (Circle one)

Lat.____° ____' ____" N, Long.____° ____' ____" W, Heading End (Circle one)

Description of feature: where appropriate, give shape, length, width, direction of flow or trend, direction and distance of extremities from points with established names, and section, township, range, meridian where useful, also elevation if known.

Published Maps Using Recommended Name (Map name, date, agency, & scale)	Variant Name or Application	Map or Source Using Variant (Map name, date, agency, & scale)

Available information as to origin, spelling, and meaning of the recommended name and/or statement concerning nature of difference in usage or application:

AUTHORITY FOR RECOMMENDED NAME	MAILING ADDRESS	OCCUPATION

Submitted by: Name	Title	Date
Agency	Address	
Person who prepared this copy if other than above:		Date
Name	Title	

APPENDIX E.—Standard Cartographic Abbreviations

Academy	Acad	Crater	Ctr
Agency	Agcy	Creek	Cr
Air Force Base	AFB	Crossing	Xing
Airfield	Afld	District	Dist
Airport	Aprt	Ditch	D
Anchorage	Anch	Divide	Div
Aqueduct	Aque	Division	Div
Arroyo	A	Dock	Dk
Atoll	At	Dockyard	Dkyd
Bank	Bk	Elevation	Elev
Bay	B	Entrance	Entr
Bayou	B	Estuary	Est
Beacon	Bn	Ferry	Fy
Bottom	Bot	Field	Fld
Branch	Br	Flat	Fl
Breakwater	Bkwr	Foot	Ft
Bridge	Br	Ford	Fd
Brook	Bk	Forest	For
Building	Bldg	Fork	Fk
Canal	Can	Fort	Ft
Canyon	Can	Glacier	Gl
Cape	C	Grade	Gr
Castle	Cas	Grant	Gt
Cemetery	Cem	Gulch	Gl
Channel	Chan	Gulf	Gf
Chapel	Ch	Hammock	Hmk
Chimney	Chy	High School	HS
Church	Ch	Hollow	Hol
Civil Division	Civ	Hook	Hk
College	Col	Hospital	Hos
Corner	Cor	Institute	Inst
County	Co	Island(s)	I, Is
Cove	C	Islet	It
Isthmus	Isth	Shoal	Shl

APPENDIX E.—Standard Cartographic Abbreviations—continued

Jetty	Jty
Junction	Junc
Lagoon	Ln
Lake(s)	L
Land Grant	Ld Gt
Landing	Ldg
Landing Field	Ldg Fld
Landing Strip	Ldg Str
Lighthouse	LH
Lookout	LO
Meadow	Mdw
Monument	Mon
Mount	Mt
Mountain	Mtn
Mountains	Mts
Ocean	O
Park	Pk
Passage	Pass
Peak	Pk
Peninsula	Pen
Plateau	Plat
Point	Pt
Pond	Pd
Projection	Proj
Promontory	Prom
Quarry	Qry
Range	R
Ravine	Rav
Reef	Rf
Refuge	Rfg
Reservoir	Res
River	R
Rock	Rd
Run	R
School	Sch
Siding	Sdg
Slough	Slu
Spring	Spr
Square	Sq
Station	Sta
Strait	Str
Stream	Str
Terrace	Ter
Thorofare	Thoro
Tidal Flat	Tid Fl
Tower	Tr
Township	Twp
Track	Tk
Tributary	Trib
University	Univ
Valley	Val
Viaduct	Viad
Village	Vil
Volcano	Volc
Wharf	Whf
Windmill	WM
Yard	Yd

APPENDIX F.—Glossary of Feature–Class Terms

The feature–class terms and abbreviations currently consist of up to nine letters. They were chosen for computer search and retrieval purposes and do not necessarily represent terminology for the identification of all kinds of cultural and natural features. Although some of the terms may agree with dictionary definitions, they represent more generalized categories. Some commonly used generic names are listed at the end of each entry to assist in understanding the range of cultural and natural entities represented by the term. Refer to the Reference Data Base to retrieve all generics thus far encountered in geographic names compilation (Appendix G). In most instances a plural form is listed as if it were singular; for example, archipelago or islands would be categorized as island. The terms and the definitions are as follows:

airport – manmade facility maintained for the use of aircraft (airfield, airstrip, landing field, landing strip).

arch – natural arch–like opening in a rock mass (bridge, natural bridge, sea arch).

area – any one of several areally extensive natural features not included in other categories (badlands, barren, delta, fan, garden).

arroyo – watercourse or channel through which water may occasionally flow (coulee, draw, gully, wash).

bar – natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment (ledge, reef, sandbar, shoal, spit).

basin – natural depression or relatively low area enclosed by higher land (amphitheater, cirque, pit, sink).

bay – indentation of a coastline or shoreline enclosing a part of a body of water; a body of water partly surrounded by land (arm, bight, cove, estuary, gulf, inlet, sound).

beach – the sloping shore along a body of water that is washed by waves or tides and is usually covered by sand or gravel (coast, shore, strand).

bench – area of relatively level land on the flank of an elevation such as a hill, ridge, or mountain where the slope of the land rises on one side and descends on the opposite side (level).

bend – curve in the course of a stream and (or) the land within the curve; a curve in a linear body of water (bottom, loop, meander).

bridge – manmade structure carrying a trail, road, or other transportation system across a body of water or depression (causeway, overpass, trestle).

building – a manmade structure with walls and a roof for protection of people and (or) materials but not including a church, hospital, or school.

canal – manmade waterway used by watercraft or for drainage, irrigation, mining, or water power (ditch, lateral).

cape – projection of land extending into a body of water (lea, neck, peninsula, point).

cave – natural underground passageway or chamber, or a hollowed out cavity in the side of a cliff (cavern, grotto).

cemetery – a place or area for burying the dead (burial, burying ground, grave, memorial garden).

channel – linear deep part of a body of water through which the main volume of water flows and is frequently used as a route for watercraft: (passage, reach, strait, thoroughfare, throughfare).

church – building used for religious worship (chapel, mosque, synagogue, tabernacle, temple).

civil – a political division formed for administrative purposes (borough, county, municipio, parish, town, township).

cliff – very steep or vertical slope (bluff, crag, head, headland, nose, palisades, precipice, promontory, rim, rimrock).

crater – circular depression at the summit of a volcanic cone or one on the surface of the land caused by the impact of a meteorite; a manmade depression caused by an explosion (caldera, lua).

crossing – a place where two or more routes of transportation form a junction or intersection (overpass, underpass).

dam – water barrier or embankment built across the course of a stream or into a body of water to control and (or) impound the flow of water (breakwater, dike, jetty).

falls – perpendicular or very steep fall of water in the course of a stream (cascade, cataract, waterfall).

flat – relative level area within a region of greater relief (clearing, glade, playa).

forest – bounded area of woods, forest, or grassland under the administration of a political agency (see woods) (national forest, national grasslands, State forest).

gap – low point or opening between hills or mountains or in a ridge or mountain range (col, notch, pass, saddle, water gap, wind gap).

geyser – eruptive spring from which hot water and (or) steam and in some cases mud are periodically thrown.

glacier – body or stream of ice moving outward and downslope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area (icefield, ice patch, snow patch).

gut – relatively small coastal waterway connecting larger bodies of water or other waterways (creek, inlet, slough).

harbor – sheltered area of water where ships or other watercraft can anchor or dock (hono, port, roads, roadstead).

hospital – building where the sick or injured may receive medical or surgical attention (infirmary).

island – area of dry or relatively dry land surrounded by water or low wetland (archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, rock).

isthmus – narrow section of land in a body of water connecting two larger land areas.

lake – natural body of inland water (backwater, lac, lagoon, laguna, pond, pool, resaca, waterhole).

lava – formations resulting from the consolidation of molten rock on the surface of the Earth (kepula, lava flow).

levee – natural or manmade embankment flanking a stream (bank, berm).

locale – place at which there is or was human activity; it does not include populated places (ppl), mines, and dams (battlefield, crossroad, camp, farm, ghost town, junction, landing, railroad siding, ranch, ruins, site, station, windmill).

mine – place or area from which commercial minerals are or were removed from the Earth; not including oilfield (pit, quarry, shaft).

oilfield – area where petroleum is or was removed from the Earth.

other – category for miscellaneously named manmade entities that cannot readily be placed in the other feature classes listed here.

park – place or area set aside for recreation or preservation of a cultural or natural resource and under some form of government administration; not including National or State forests (national historical landmark, national park, state park, wilderness area).

pillar – vertical, standing, often spire–shaped, natural rock formation (chimney, monument, pinnacle, pohaku, rock tower).

plain – a region of general uniform slope, comparatively level and of considerable extent (grassland, highland, kula, plateau, upland).

ppl – populated place; place or area with clustered or scattered buildings and a permanent human population (city, settlement, town, village).

range – chain of hills or mountains; a somewhat linear complex mountainous or hilly area (cordillera, sierra).

rapids – fast–flowing section of a stream, often shallow and with exposed rock or boulders (riffle, ripple).

reserve – a tract of land set aside for a specific use; does not include forests, civil divisions, or parks.

reservoir – artificially impounded body of water (lake, tank).

ridge – elevation with a narrow, elongated crest which can be part of a hill or mountain (crest, cuesta, escarpment, hogback, lae, rim, spur).

school – building or group of buildings used as an institution for study, teaching, and learning (academy, college, high school, university).

sea – large body of salt water (gulf, ocean).

slope – a gently inclined part of the Earth's surface (grade, pitch).

spring – place where underground water flows naturally to the surface of the Earth (seep).

stream – linear body of water flowing on the Earth's surface (anabranch, awawa, bayou, branch, brook, creek, distributary, fork, kill, pup, rio, river, run, slough).

summit – prominent elevation rising above the surrounding level of the Earth's surface; does not include pillars, ridges, or ranges (ahu, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll, mauna, mesa, mesita, mound, mount, mountain, peak, puu, rock, sugarloaf, table, volcano).

swamp – poorly drained wetland, fresh or saltwater, wooded or grassy, possibly covered with open water (bog, cienega, marais, marsh, pocosin).

tower – a manmade structure, higher than its diameter, generally used for observation, storage, or electronic transmission.

trail – route for passage from one point to another; does not include roads or highways (jeep trail, path, ski trail).

tunnel – linear passageway open at both ends.

valley – linear depression in the Earth's surface that generally slopes from one end to the other (barranca, canyon, chasm, cove, draw, glen, gorge, gulch, gulf, hollow, ravine).

well – manmade shaft or hole in the Earth's surface used to obtain fluid or gaseous materials.

woods – small area covered with a dense growth of trees; does not include an area of trees under the administration of a political agency (see forest).

APPENDIX G.—Map Feature Guide
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Aa	lava	center	
Aboiteau	reservoir	dam	
Academy	school	center	
Acclivity	slope	center	
Acequia	canal	center	
Addition	locale	center	
Adert	slope	center	
Adit	mine	center	
Agency	locale	center	
Agua	stream	mouth	yes
Ahu	summit	top	
Aiguille	pillar	top	
Air Facility	military	center	
Air Force Base	military	center	
Air Station	military	center	
Airfield	airport	center	
Airport	airport	center	
Airstrip	airport	center	
Aisle	gap	center	
Alcove	cave	center	
Aljibe	reservoir	dam	
Alluvial Fan	area	center	
Alluvium	area	center	
Alto	summit	top	
Ammunition Depot	military	center	
Ammunition Plant	military	center	
Amphibious Base	military	center	
Amphitheater	basin	center	
Amusement Park	park	center	
Anabranch	stream	mouth	yes
Anchor	bar	center	
Anchorage	harbor	center	
Anse	bay	center	
Anse	stream	mouth	yes
Aquafact	pillar	top	
Aquatic Preserve	park	center	
Aqueduct	canal	center	
Arboretum	park	center	
Arch	arch	center	
Archipel	island	center	
Archipelago	island	center	
Area	area	center	
Arete *	ridge	center	
Arm	bay	center	
Arm	stream	mouth	yes
Arm	summit	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Army Depot	military	center	
Army Headquarters	military	center	
Army Post	military	center	
Arrecife	bar	center	
Arroyo	arroyo	mouth	yes
Arroyo	stream	mouth	yes
Arsenal	military	center	
Atoll	island	center	
Awawa	stream	mouth	yes
Back	slope	center	
Back	summit	top	
Backbone	ridge	center	
Backdeep	valley	mouth	yes
Backwater	lake	center	
Badlands	area	center	
Bag	bay	center	
Bahada	area	center	
Bahia	bay	center	
Baie	bay	center	
Baie	gut	center	
Baie	lake	center	
Baissiere	lake	center	
Bald	summit	top	
Baldy	summit	top	
Balk	ridge	center	
Ball	ridge	center	
Ball	summit	top	
Bally	summit	top	
Balm	cave	center	
Balneario	beach	center	
Banc	bar	center	
Banco	lake	center	
Bank	bar	center	
Bank	levee	center	
Banks	summit	top	
Bantam	bar	center	
Bar	bar	center	
Baraboo	summit	top	
Barachois	lake	center	
Barasway	lake	center	
Barchan	summit	top	
Barracks	military	center	
Barranca	valley	mouth	yes
Barre	bar	center	
Barren	summit	top	
Barrens	area	center	
Barrier Beach	island	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Barrier Island	island	center	
Barrio	civil	center	
Basin	harbor	center	
Basin	basin	center	
Basin	bay	center	
Bassin	basin	center	
Bath	spring	center	
Battery	military	center	
Battle Field	locale	center	
Battlefield	locale	center	
Batture	summit	top	
Bay	bay	center	
Bay	lake	center	
Bay	swamp	center	
Baygall	swamp	center	
Baygul	swamp	center	
Bayou	swamp	center	
Bayou	stream	mouth	yes
Bayou (flowing)	stream	mouth	yes
Bayou (stagnant)	gut	center	
Beach (populated)	ppl	center	
Beach (unpopulated)	beach	center	
Beacon	tower	center	
Bed	flat	center	
Bed	stream	mouth	yes
Beigh	ppl	center	
Beinn	summit	top	
Bell	island	center	
Bell	bar	center	
Ben	peak	top	
Bench	bench	center	
Bend	bend	center	
Berg	summit	top	
Berm	ridge	center	
Berth	harbor	center	
Bight	bay	center	
Bill	cape	center	
Bite	bay	center	
Block	pillar	top	
Block	summit	top	
Blow-Me-Down	cliff	center	
Blowhole	cave	center	
Blowout	basin	center	
Bluff	cliff	center	
Boca	area	center	
Bocca	crater	center	
Bog	swamp	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Bogan	swamp	center	
Bogue (flowing)	stream	mouth	yes
Bogue (still)	lake	center	
Bois	woods	center	
Bolly	summit	top	
Bolson	basin	center	
Bonnet	summit	top	
Borehole	well	center	
Boro	ppl	center	
Borough	ppl	center	
Borough	civil	center	
Bosquet	woods	center	
Bosse	summit	top	
Bot	bend	center	
Bottleneck	bay	center	
Bottom	bend	center	
Bottom	stream	mouth	yes
Bottoms	flat	center	
Boulder	summit	top	
Bour	stream	mouth	yes
Bourne	stream	mouth	yes
Bowl	basin	center	
Box	valley	mouth	yes
Box Canyon	valley	mouth	yes
Bracket	area	center	
Brake	swamp	center	
Brake	stream	mouth	yes
Brake	woods	center	
Branch	swamp	center	
Branch	stream	mouth	yes
Branche	stream	mouth	yes
Brandies	bar	center	
Bray	summit	top	
Breachway	gut	center	
Breakers	area	center	
Breaks	area	center	
Breaks	cliff	center	
Breakwater	dam	center	
Bridal Veil	falls	center	
Bridge	bridge	center	
Brisants	bar	center	
Broad	area	center	
Broad	gut	center	
Brook	stream	mouth	yes
Brow	cliff	center	
Buckle	swamp	center	
Buffalo Jump	cliff	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Building	building	center	
Bull	summit	top	
Bur	ppl	center	
Burg	ppl	center	
Burgh	ppl	center	
Burial	cemetery	center	
Burn	stream	mouth	yes
Burn	area	center	
Burr	summit	top	
Bury	ppl	center	
Burying Ground	cemetery	center	
Buse	summit	top	
Butt	summit	top	
Butte	summit	top	
Buttereau	summit	top	
Buttress	cliff	center	
By	ppl	center	
Cabeza	cape	center	
Cabo	cape	center	
Cabin	locale	center	
Cachment	reservoir	dam	
Cairn	summit	top	
Cairn	park	center	
Cajon	valley	mouth	yes
Cala	stream	mouth	yes
Caldera	crater	center	
Caldron	basin	center	
Caleta	bay	center	
Caleta	stream	mouth	yes
Callow	area	center	
Cam	stream	mouth	yes
Camas	flat	center	
Camass	flat	center	
Camp	locale	center	
Campagna	plain	center	
Campground	locale	center	
Campus	school	center	
Canada *	valley	mouth	yes
Canal	canal	center	
Canal *	channel	center	
Candelas	pillar	top	
Cano *	stream	mouth	yes
Canon *	valley	mouth	yes
Canyon	valley	mouth	yes
Cap	summit	top	
Cap	cape	center	
Cape	cape	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Capilla	church	center	
Carre	plain	center	
Carse	bend	center	
Cas	pillar	top	
Casa	building	center	
Cascade	falls	center	
Caster	ppl	center	
Castle	pillar	top	
Cataract	rapids	center	
Cataract	falls	center	
Catchment	basin	center	
Causeway	bridge	center	
Cave	basin	center	
Cave	cave	center	
Cavern	cave	center	
Caverne	cave	center	
Caverns	cave	center	
Cay	island	center	
Caye	island	center	
Cayo	bay	center	
Cayo	island	center	
Ceja	cliff	center	
Cellar	cave	center	
Cemetery	cemetery	center	
Cerrillo	summit	top	
Cerrito	summit	top	
Cerro	summit	top	
Cester	ppl	center	
Cey	island	center	
Chain	range	center	
Champ	plain	center	
Champaign	plain	center	
Channel	stream	mouth	yes
Channel (man–made)	canal	center	
Channel (natural)	channel	center	
Chapel	church	center	
Charco	lake	center	
Chasm	valley	mouth	yes
Chenal	channel	center	
Chester	ppl	center	
Chimney	pillar	top	
Chimney	summit	top	
Chine	valley	mouth	yes
Chokey	channel	center	
Chops	cape	center	
Chuck	bay	center	
Chuck	lake	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Chuckle	bar	center	
Church	church	center	
Chute	stream	mouth	yes
Chute	channel	center	
Chute	gut	center	
Chute	rapids	center	
Cienaga	swamp	center	
Cinder	summit	top	
Cirque	basin	center	
Cistern	reservoir	dam	
City (administrative)	civil	center	
City (populated place)	ppl	center	
Civil Division	civil	center	
Claim	civil	center	
Clearing	flat	center	
Cleft	valley	mouth	yes
Cleuch	valley	mouth	yes
Cleugh	valley	mouth	yes
Cliff	cliff	center	
Cliff Dwellings	locale	center	
Clint	flat	center	
Clove	valley	mouth	yes
Cluse	valley	mouth	yes
Coast	beach	center	
Coast Guard Base	military	center	
Coast Guard Lifeboat Station	military	center	
Coastline	beach	center	
Col	gap	center	
Colina	summit	top	
Collado	summit	top	
College	school	center	
Colline	summit	top	
Colombier	gap	center	
Column	pillar	top	
Comb	ridge	center	
Combe	valley	mouth	yes
Common	park	center	
Community	ppl	center	
Community Center	building	center	
Cone	summit	top	
Confluence	bend	center	
Confluent	area	center	
Congress	swamp	center	
Constriction	gap	center	
Coombe	valley	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Cordillera	range	center	
Corner	locale	center	
Corner	ppl	center	
Corner	valley	mouth	yes
Corners	locale	center	
Corniche	cliff	center	
Corral	locale	center	
Correctional Center	building	center	
Corrider	gap	center	
Corrie	basin	center	
Cote	beach	center	
Cote	summit	top	
Cote *	area	center	
Coteau	area	center	
Couch	ridge	center	
Coude	bend	center	
Coulee	arroyo	mouth	yes
Coulee	stream	mouth	yes
Coulee	valley	mouth	yes
Coulee *	lake	center	
Couloir	valley	mouth	yes
Coulter	beach	center	
Country	area	center	
Country Club	locale	center	
County	civil	center	
County park	park	center	
Courant	stream	mouth	yes
Courbe	bend	center	
Cours	stream	mouth	yes
Court House	building	center	
Cove	slope	center	
Cove (land)	valley	mouth	yes
Cove (water)	bay	center	
Crag	cliff	center	
Craigs	cliff	center	
Cran	gap	center	
Crater	crater	center	
Cratere	crater	center	
Creek	bay	center	
Creek	canal	center	
Creek	gut	center	
Creek	stream	mouth	yes
Crest (linear)	ridge	center	
Crest (top)	summit	top	
Crete	ridge	center	
Crevasse (earth)	valley	mouth	yes
Crevasse (ice)	glacier	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Crique	bay	center	
Crique	stream	mouth	yes
Crook	bend	center	
Crossing	crossing	center	
Crossroads	locale	center	
Crown	summit	top	
Cuchilla	ridge	center	
Cuesta	ridge	center	
Cul-de-sac	channel	center	
Culvert	tunnel	center	
Cumb	valley	mouth	yes
Cumbre	summit	top	
Cup	summit	top	
Current	stream	mouth	yes
Curve	bend	center	
Cusp	beach	center	
Cut	channel	center	
Cut	gap	center	
Cutbank	levee	center	
Cutoff	bend	center	
Cutoff	channel	center	
Cypriere *	swamp	center	
Dairy	locale	center	
Dale	valley	mouth	yes
Dalles	cliff	center	
Dalles	valley	mouth	yes
Dam	dam	center	
Danger	bar	center	
Deadening	swamp	center	
Deadwater	area	center	
Debouche	gut	center	
Debouchure	area	center	
Decharge	stream	mouth	yes
Decharge	gut	center	
Declivity	slope	center	
Deep	area	center	
Defile	gap	center	
Dell	valley	mouth	yes
Delta	area	center	
Demoiselles	pillar	top	
Den	valley	mouth	yes
Depot	locale	center	
Depression	basin	center	
Descent	slope	center	
Descente	slope	center	
Desert	plain	center	
Detroit	channel	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Deversant	slope	center	
Dike	stream	mouth	yes
Dike	levee	center	
Dingle	valley	mouth	yes
Dismal	swamp	center	
Distributary	stream	mouth	yes
District	civil	center	
Ditch	canal	center	
Ditch	stream	mouth	yes
Divide	ridge	center	
Division	civil	center	
Doab	cape	center	
Dock	locale	center	
Dockyard	locale	center	
Dol	valley	mouth	yes
Dolina	basin	center	
Doline	basin	center	
Dome	summit	top	
Donga	valley	mouth	yes
Doubles	summit	top	
Down	flat	center	
Downs	locale	center	
Draft	valley	mouth	yes
Dragway	locale	center	
Drain (man–made)	canal	center	
Drain (natural)	stream	mouth	yes
Draw (deep)	valley	mouth	yes
Draw (shallow)	arroyo	mouth	yes
Dribble	stream	mouth	yes
Drift	summit	top	
Droke	valley	mouth	yes
Droke	stream	mouth	yes
Droke	woods	center	
Drook	woods	center	
Drook	stream	mouth	yes
Drook	valley	mouth	yes
Drop	falls	center	
Drum	summit	top	
Drumlin	summit	top	
Drumlinoid	summit	top	
Drumloid	summit	top	
Drywash	arroyo	mouth	yes
Dugout	channel	center	
Dugout	stream	mouth	yes
Dump	falls	center	
Dun	summit	top	
Dune	summit	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Dustwell	basin	center	
Dwip	summit	top	
Ears	pillar	top	
Eau	sea	center	
Eau	lake	center	
Echouerie	bar	center	
Eddy	rapids	center	
Eddy	bay	center	
Edge	ridge	center	
Elbow	bar	center	
Elbow	bend	center	
Elevation	summit	top	
Embankment	levee	center	
Embayment	bay	center	
Embouchure	area	center	
Eminence	summit	top	
End	cape	center	
Ensenada	bay	center	
Entrance	gut	center	
Entree	gut	center	
Erg	plain	center	
Escarpment	cliff	center	
Esker	ridge	center	
Estate	locale	center	
Estero	bay	center	
Estero	stream	mouth	yes
Estuary	bay	center	
Everglade	swamp	center	
Exclosure	locale	center	
Eye	island	center	
Eye	arch	center	
Eyot	island	center	
Face	cliff	center	
Fairgrounds	locale	center	
Fairway	channel	center	
Falaises	cliff	center	
Fall	falls	center	
Falls	stream	mouth	yes
Falls	falls	center	
Fan	area	center	
Fang	summit	top	
Farm	locale	center	
Faro	island	center	
Fault	valley	mouth	yes
Faux chenal	channel	center	
Feeder	stream	mouth	yes
Fell	summit	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Fells	area	center	
Fen	swamp	center	
Ferry	locale	center	
Field	park	center	
Fields	flat	center	
Fill	summit	top	
Filter Plant	building	center	
Finger	lake	center	
Finger	pillar	top	
Fiord	valley	mouth	yes
Fire House	building	center	
Firetower	locale	center	
Firing Center	military	center	
Firing Range	military	center	
Firn	glacier	center	
Firth	bay	center	
Fishing Ground	area	center	
Fissure	valley	mouth	yes
Fjord	valley	mouth	yes
Flake	cliff	center	
Flat	flat	center	
Flatiron	summit	top	
Flats	swamp	center	
Flats (inundated)	bar	center	
Flatwoods	swamp	center	
Fleche	summit	top	
Fleuve	stream	mouth	yes
Flooding	reservoir	dam	
Floodplain	swamp	center	
Floodway	channel	center	
Floor	flat	center	
Flow	stream	mouth	yes
Flow	bay	center	
Flowage	reservoir	dam	
Flume	stream	mouth	yes
Flume (man-made)	canal	center	
Flume (natural)	valley	mouth	yes
Fly	swamp	center	
Fly	stream	mouth	yes
Fold	summit	top	
Folly	area	center	
Fond	bend	center	
Foot	locale	center	
Foot	area	center	
Foot Bridge	bridge	center	
Foothills	summit	top	
Ford	locale	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Ford	stream	mouth	yes
Foredune	summit	top	
Foreland	cliff	center	
Foreside	beach	center	
Forest (administrative)	forest	center	
Forest (natural)	area	center	
Forge	locale	center	
Fork	stream	mouth	yes
Fort	locale	center	
Fortress	military	center	
Foso	stream	mouth	yes
Fosse	canal	center	
Fosse	cemetery	center	
Fosse	mine	center	
Fosse	stream	mouth	yes
Foulground	bar	center	
Foundry	locale	center	
Fount	lake	center	
Fountain	geyser	center	
Fourche	stream	mouth	yes
Freshet	stream	mouth	yes
Fulje	basin	center	
Fumaroles	geyser	center	
Funnel	gap	center	
Furnace	locale	center	
Furrow	valley	mouth	yes
Galera	ridge	center	
Gallery	gut	center	
Gallery	gap	center	
Game Management Area	park	center	
Game Reserve	park	center	
Gap	gap	center	
Garden	area	center	
Gate	dam	center	
Gate	gap	center	
Gate	channel	center	
Gateway	channel	center	
Gaze	summit	top	
Geyser	geyser	center	
Ghost Town	locale	center	
Gill	valley	mouth	yes
Gin	locale	center	
Girdle	bar	center	
Glacier	glacier	center	
Glacis	slope	center	
Glade	flat	center	
Glen	valley	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Gloryhole	mine	center	
Goe	cave	center	
Goldfield	area	center	
Golf Course	locale	center	
Golfe	bay	center	
Gorge	valley	mouth	yes
Goulet	gut	center	
Graben	valley	mouth	yes
Grade	slope	center	
Gradient	slope	center	
Graike	basin	center	
Grain Elevator	locale	center	
Grange	locale	center	
Grange Hall	locale	center	
Grant	civil	center	
Grassland	plain	center	
Grave	cemetery	center	
Gravel Fan	area	center	
Greenbelt	park	center	
Greve	beach	center	
Gristmill	locale	center	
Grotte	cave	center	
Grotto	cave	center	
Ground	shoal	center	
Group	area	center	
Grove	woods	center	
Guard Station	locale	center	
Gulch	valley	mouth	yes
Gulf (land)	valley	mouth	yes
Gulf (water)	bay	center	
Gulley	arroyo	mouth	yes
Gully	stream	mouth	yes
Gully	channel	center	
Gully	lake	center	
Gully	valley	mouth	yes
Gurnet	channel	center	
Gut	bay	center	
Gut	gut	center	
Gut	stream	mouth	yes
Gut	valley	mouth	yes
Gutter	channel	center	
Gutter	stream	mouth	yes
Gutter	valley	mouth	yes
Guzzle	stream	mouth	yes
Hall	locale	center	
Ham	ppl	center	
Hamada	plain	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Hamlet	ppl	center	
Hammock	island	center	
Hamongog	summit	top	
Hamp	ppl	center	
Harbor (man–made)	harbor	center	
Harbor (natural)	bay	center	
Hassock	island	center	
Hat	area	center	
Hat	flat	center	
Haut–fond	bar	center	
Haven	harbor	center	
Havre	harbor	center	
Hay	flat	center	
Hay Meadow	swamp	center	
Haystack	island	center	
Head	island	center	
Head	stream	mouth	yes
Head	swamp	center	
Head	summit	top	
Head (hill)	summit	top	
Head (steep face)	cliff	center	
Headland	cliff	center	
Headwall	cliff	center	
Headwaters	stream	mouth	yes
Heath	flat	center	
Heath	swamp	center	
Heaven	summit	top	
Heights	summit	top	
High	summit	top	
High School	school	center	
Highland	area	center	
Hill	summit	top	
Hillock	summit	top	
Hills	range	center	
Hirst	levee	center	
Historical Marker	park	center	
Hogback	ridge	center	
Hole	basin	center	
Hole	cave	center	
Hole	channel	center	
Hole	valley	mouth	yes
Hole	lake	center	
Hole (land)	bend	center	
Hole (water)	bay	center	
Hollow	valley	mouth	yes
Homestead	locale	center	
Hono	harbor	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Hoodoos	ridge	center	
Hook	bend	center	
Hook	cape	center	
Hook	bar	center	
Horn	summit	top	
Horn	swamp	center	
Horseback	ridge	center	
Horseshoe	bend	center	
Horseshoe	lake	center	
Horst	summit	top	
Hospital	hospital	center	
Hot Spring	spring	center	
Huerfano	summit	top	
Hum	summit	top	
Hummock	island	center	
Hump	summit	top	
Hurst	summit	top	
Ice Patch	glacier	center	
Ice Shelf	glacier	center	
Icecap	glacier	center	
Icefall	glacier	center	
Icefield	glacier	center	
Icesheet	glacier	center	
Iglesia	church	center	
Ile	island	center	
Ilet	island	center	
Ilette	island	center	
Ilot	island	center	
Incline	trail	center	
Incline	slope	center	
Indian Reservation	reserve	center	
Industrial Park	locale	center	
Inferno	valley	mouth	yes
Infirmary	hospital	center	
Inlet	channel	center	
Inlet	stream	mouth	yes
Inlet (channel)	gut	center	
Inlet (water body)	bay	center	
Inn	locale	center	
Institute	school	center	
Interchange	locale	center	
Intercolline	gap	center	
Interfluve	swamp	center	
Intervale	swamp	center	
Intervale	basin	center	
Island(s)	island	center	
Isla	island	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Isle	island	center	
Islet	island	center	
Islote	island	center	
Isthmus	isthmus	center	
Jambs	valley	mouth	yes
Jardins	area	center	
Jeep Trail	trail	center	
Jetty	dam	center	
Jonction	locale	center	
Jugs	summit	top	
Jumpoff	cliff	top	
Junction	locale	center	
Kame	summit	top	
Kap	cliff	center	
Kar	basin	center	
Karroo	plain	center	
Karst	area	center	
Keana	cave	center	
Kernbut	summit	top	
Kettle	basin	center	
Kettlehole	basin	center	
Key	island	center	
Kill	stream	mouth	yes
Kills	harbor	center	
Kink	bend	center	
Kipuka	island	center	
Kipuka	lava	center	
Kirk	church	center	
Knap	summit	top	
Knob	summit	top	
Knoll	summit	top	
Kop	summit	top	
Kopje	summit	top	
Kula	plain	center	
Kwun	cape	center	
Labyrinth	island	center	
Lac	lake	center	
Lae	cape	center	
Lae	ridge	center	
Lago	lake	center	
Lagoon (open water)	lake	center	
Lagoon (vegetation)	swamp	center	
Laguna	lake	center	
Laguna	stream	mouth	yes
Lagune	lake	center	
Lake	flat	center	
Lake(s)	lake	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Lakebed	flat	center	
Land	area	center	
Land Grant	civil	center	
Landfall	slope	center	
Landing	locale	center	
Landing Field	airport	center	
Landing Strip	airport	center	
Landslide	slope	center	
Landslip	slope	center	
Langue	cape	center	
Langue	isthmus	center	
Lateral	canal	center	
Lateral	stream	mouth	yes
Lava	lava	center	
Lava Cone	lava	center	
Lava Delta	lava	center	
Lava Field	lava	center	
Lava Flow	lava	center	
Lava Pit	crater	center	
Lava Plain	lava	center	
Lava Plateau	lava	center	
Lava Tongue	lava	center	
Lava Tube	lava	center	
Lea	plain	center	
Leach Hole	cave	center	
Lead	channel	center	
Lead	ridge	center	
Ledge	summit	top	
Ledge (land)	bench	center	
Ledge (water)	bar	center	
Ledge	island	center	
Leg	canal	center	
Leg	bay	center	
Leg	gut	center	
Lenticular	summit	top	
Levee	levee	center	
Level	flat	center	
Lick	area	center	
Lick	stream	mouth	yes
Lighthouse	locale	center	
Littoral	beach	center	
Llano	area	center	
Locale (little or no population)	locale	center	
Locality	locale	center	
Loch	lake	center	
Loch	lake	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Lochan	lake	center	
Locks	dam	center	
Logan	swamp	center	
Loma	summit	top	
Loma	summit	top	
Longshore Bar	bar	center	
Longstone	pillar	top	
Lookoff	locale	center	
Lookout	locale	center	
Lookout	summit	top	
Loop	bend	center	
Loop Lake	lake	center	
Lough	lake	center	
Lowland	flat	center	
Lowmoor	swamp	center	
Lua	crater	center	
Lump	summit	top	
Lump	bar	center	
Lump	island	center	
Lunatt	bar	center	
Maar	crater	center	
Mal Bay	lake	center	
Malaspina	glacier	center	
Malpais	area	center	
Mamelon	summit	top	
Mangrove	swamp	center	
Mar	sea	center	
Marais	lake	center	
Marais	stream	mouth	yes
Marais	swamp	center	
Marche	area	center	
Mare	lake	center	
Marecage	swamp	center	
Mareman	swamp	center	
Marina	locale	center	
Marine Corps Air Station	military	center	
Marine Corps Base	military	center	
Marker	park	center	
Market	locale	center	
Marsh	stream	mouth	yes
Marsh	swamp	center	
Mash	swamp	center	
Mass	summit	top	
Massif	range	center	
Matterhorn	summit	top	
Mauna	summit	top	
Mead	flat	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Meadow	flat	center	
Meadow	stream	mouth	yes
Meander	bend	center	
Meander Core	bend	center	
Meandre	bend	center	
Medano	summit	top	
Meetinghouse	church	center	
Memorial Garden	cemetery	center	
Mendip	summit	top	
Mer	sea	center	
Mesa	summit	top	
Meseta	summit	top	
Mesita	summit	top	
Midway	channel	center	
Military Reservation	military	center	
Mill	locale	center	
Millpond	reservoir	dam	
Millrace	stream	mouth	yes
Millstream	stream	mouth	yes
Milltown	locale	center	
Mine	mine	center	
Mineral Pile	mine	center	
Mire	swamp	center	
Mish	swamp	center	
Missile Base	military	center	
Missile Range	military	center	
Mission	church	center	
Mitre	summit	top	
Mofette	valley	mouth	yes
Moku	island	center	
Mole	dam	center	
Monadnock	summit	top	
Monastery	church	center	
Monolith	pillar	top	
Mont	summit	top	
Montagne	summit	top	
Montanas *	range	center	
Monte	summit	top	
Monticle	crater	center	
Monticule	crater	center	
Monument	island	center	
Monument	pillar	top	
Monument	park	center	
Moor	flat	center	
Mor	flat	center	
Moraine (area)	summit	top	
Moraine (linear)	ridge	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Morais	swamp	center	
Morass	swamp	center	
Moremma	swamp	center	
Morne	swamp	center	
Morriner	ridge	center	
Mosque	church	center	
Motion	area	center	
Mott	woods	center	
Mott	summit	top	
Motte	cliff	top	
Motte	summit	top	
Mouillage	harbor	center	
Mouillere *	lake	center	
Mouillere *	swamp	center	
Moulin	glacier	center	
Mound	summit	top	
Mount	summit	top	
Mountain	summit	top	
Mountain Chain	range	center	
Mountain Group	range	center	
Mountain Range	range	center	
Mountain System	range	center	
Mountains	range	center	
Mountainside	cliff	center	
Mouth	channel	center	
Mouth	area	center	
Mud Cone	summit	top	
Mud Flat	flat	center	
Mud Pot	spring	center	
Mudbank	bar	center	
Mudflow	slope	center	
Mull	cape	center	
Municipality	civil	center	
Municipio *	civil	center	
Muraille	cliff	center	
Museum	building	center	
Muskeg	swamp	center	
Nap	flat	center	
Narrow	gap	center	
Narrows	gap	center	
Narrows	gut	center	
Narrows	ridge	center	
Narrows	channel	center	
Narrows	valley	mouth	yes
Natatorium	locale	center	
National Forest	forest	center	
National Grasslands	forest	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
National Historical Landmark	park	center	
National Monument	park	center	
National Park (administrative)	park	center	
National Seashore	park	center	
National Wilderness Area	park	center	
National Wildlife Area	park	center	
Natural Bridge	arch	center	
Naval Air Station	military	center	
Naval Base	military	center	
Naval Shipyard	military	center	
Naze	cliff	center	
Neck	cape	center	
Neck	valley	mouth	yes
Needle	pillar	top	
Ness	cape	center	
Neve *	glacier	center	
Nez	cape	center	
Nez	summit	top	
Niche	cave	center	
Nip	cave	center	
Nipple(s)	summit	top	
Nob	summit	top	
Nobble	summit	top	
Nook	summit	top	
Nook	bay	center	
Nose	cliff	center	
Nose	summit	top	
Notch	gap	center	
Notch	channel	center	
Novitiate	church	center	
Nub	island	center	
Nubble	summit	top	
Nubble	island	center	
Nuddicks	range	center	
Nullah	valley	mouth	yes
Nunatak	summit	top	
Nursery	locale	center	
Oasis	spring	center	
Obelisk	tower	center	
Observatory	building	center	
Ocean	sea	center	
Oceano *	sea	center	
Offset	ridge	center	
Offshore Bar	bar	center	
Oil Pumping Station	oilfield	center	
Oilfield	oilfield	center	
Oilwell	well	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Ojito	spring	center	
Ojo	spring	center	
Open	flat	center	
Open Bay	bay	center	
Opening	channel	center	
Orchard	locale	center	
Ordinary	locale	center	
Ordnance Laboratory	military	center	
Ordnance Plant	military	center	
Os	ridge	center	
Osar	ridge	center	
Outcrop	summit	top	
Outlet	channel	center	
Outlet	stream	mouth	yes
Outwash	plain	center	
Oven	cave	center	
Overfall	rapids	center	
Overhang	cliff	center	
Overlook	locale	center	
Overpass	bridge	center	
Oxbow	bend	center	
Oxbow	lake	center	
Padou	gut	center	
Pagoda	church	center	
Pahas	summit	top	
Pain de sucre	summit	top	
Pali	cliff	center	
Palisades	cliff	center	
Pampas	plain	center	
Pan	flat	center	
Panplain	plain	center	
Paps	range	center	
Paramilla	range	center	
Paramo	area	center	
Parish	civil	center	
Park (administrative)	park	center	
Park (natural)	flat	center	
Pasaje	channel	center	
Pass	gap	center	
Pass	channel	center	
Pass	stream	mouth	yes
Passage (navigation)	channel	center	
Passage (portage)	locale	center	
Passe	gap	center	
Passe	channel	center	
Pasture	flat	center	
Patch	bar	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Path	trail	center	
Paw	summit	top	
Peak	summit	top	
Pediment	slope	center	
Pen	locale	center	
Pena *	pillar	top	
Penasco *	pillar	top	
Peneplain	plain	center	
Peninsula	cape	center	
Peninsule	cape	center	
Penitentiary	building	center	
Pepino	summit	top	
Pic	summit	top	
Picacho	summit	top	
Picnic Area	locale	center	
Pico	summit	top	
Piedmont	range	center	
Piemont	range	center	
Pier	locale	center	
Pikes	summit	top	
Pile	summit	top	
Pillar	pillar	top	
Pinacle	pillar	top	
Pinacle	summit	top	
Pinchgut	bay	center	
Pingo	summit	top	
Pinnacle	pillar	top	
Pinnacles	island	center	
Pit	basin	center	
Pit	mine	center	
Pitch	rapids	center	
Pitch	slope	center	
Piton	summit	top	
Pits	flat	center	
Place	locale	center	
Placer	area	center	
Plage	beach	center	
Plain	plain	center	
Plaine	plain	center	
Plains	plain	center	
Plantation	civil	center	
Plantation	ppl	center	
Plantation	locale	center	
Plat	plain	center	
Plateau	plain	center	
Platform	bench	center	
Platform	oilfield	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Playa	area	center	
Playa	beach	center	
Plaza (cultural)	locale	center	
Plaza (physical)	area	center	
Plug	isthmus	center	
Pocket	basin	center	
Pocket	swamp	center	
Pocosin	swamp	center	
Pohaku	pillar	center	
Point	summit	top	
Point	ridge	center	
Point (peninsula)	cape	center	
Point (promontory)	cliff	center	
Pointe	cape	center	
Pointers	range	center	
Pointu	summit	top	
Pol	island	center	
Polder	flat	center	
Polje	basin	center	
Pollack	bar	center	
Polye	basin	center	
Pond (man–made)	reservoir	dam	
Pond (natural)	lake	center	
Ponor	basin	center	
Pool (man–made)	reservoir	dam	
Pool (natural)	lake	center	
Port	harbor	center	
Port	ppl	center	
Port	locale	center	
Port of Entry	locale	center	
Portage	locale	center	
Portal	gap	center	
Portal	mine	center	
Portal	tunnel	center	
Porte	gap	center	
Pot	basin	center	
Pothole	basin	center	
Potrero	flat	center	
Poulier	bar	center	
Pouroff	arroyo	mouth	yes
Power Plant	building	center	
Pozo	reservoir	dam	
PPL (populated place)	ppl	center	
Prairie	area	center	
Pre	flat	center	
Precinct	civil	center	
Precipice	cliff	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Presquile	cape	center	
Priory	church	center	
Prison	building	center	
Projection	cliff	center	
Promontoire	cliff	center	
Promontoire	summit	top	
Promontory	cliff	center	
Prong	stream	mouth	yes
Puddle	lake	center	
Puddle	stream	mouth	yes
Puerta	gap	center	
Puertecito	gap	center	
Puerto	gap	center	
Puerto (land)	gap	center	
Puerto (water)	harbor	center	
Puffing Hole	cave	center	
Pughole	lake	center	
Pulpit	summit	top	
Pumping Station	building	center	
Punch Bowl	basin	center	
Punta	cape	center	
Punta	summit	top	
Pup	valley	mouth	yes
Pup	stream	mouth	yes
Puragatory	cave	center	
Puu	summit	top	
Pyramids	summit	top	
Quagmire	swamp	center	
Quaking Bay	swamp	center	
Quarry	mine	center	
Quarry	basin	center	
Quartermaster Depot	military	center	
Quarters	valley	mouth	yes
Quay	locale	center	
Quebrada	valley	mouth	yes
Queue	bay	center	
Race	rapids	center	
Race	area	center	
Race	stream	mouth	yes
Racetrack	park	center	
Rade	harbor	center	
Railroad Siding	locale	center	
Railroad Station	building	center	
Railroad Stop	locale	center	
Rainpool	lake	center	
Ramble	valley	mouth	yes
Ramparts	cliff	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Ranch	locale	center	
Ranch	slope	center	
Rancho	civil	center	
Rang	range	center	
Range	channel	center	
Range	range	center	
Ranger Station	locale	center	
Rapide	rapids	center	
Rapids	rapids	center	
Rattle	rapids	center	
Ravin	valley	mouth	yes
Ravine	valley	mouth	yes
Razorback	ridge	center	
Reach	channel	center	
Reach	area	center	
Recif	bar	center	
Reef	ridge	center	
Reef	bar	center	
Reentrant	bend	center	
Refuge	park	center	
Reg	plain	center	
Relex	cliff	center	
Remnant	summit	top	
Remous	rapids	center	
Resaca	lake	center	
Resaca	stream	mouth	yes
Research Station	locale	center	
Reservacion Militar *	military	center	
Reserve	park	center	
Reserve	forest	center	
Reserve	reserve	center	
Reserve Training Center	military	center	
Reservoir	reservoir	dam	
Resort	ppl	center	
Rest Area	locale	center	
Retention Basin	reservoir	dam	
Retreat	harbor	center	
Retreat	locale	center	
Revetment	levee	center	
Ria	bay	center	
Rib	bar	center	
Ridge	ridge	center	
Ridge	island	center	
Riffle	rapids	center	
Rift	channel	center	
Rift	valley	mouth	yes
Rig	oilfield	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Rigolet	channel	center	
Rill	stream	mouth	yes
Rim	cape	center	
Rim	cliff	center	
Rimrock	cliff	center	
Rincon	cape	center	
Rincon	valley	mouth	yes
Rio	stream	mouth	yes
Rip	area	center	
Ripple	rapids	center	
Rips	rapids	center	
Rise	slope	center	
Rito	stream	mouth	yes
Rivage	beach	center	
Rive	beach	center	
River	stream	mouth	yes
River Basin	basin	center	
River Bed	channel	center	
River Bottom	bend	center	
River Valley	valley	mouth	yes
Riveret	stream	mouth	yes
Riviere	stream	mouth	yes
Riviere *	stream	mouth	yes
Rivulet	stream	mouth	yes
Roads	bay	center	
Roadstead	harbor	center	
Roca	bar	center	
Roche	island	center	
Roche Moutonnee	summit	top	
Rocher	pillar	top	
Rocher	island	center	
Rock	bar	center	
Rock	island	center	
Rock (massive)	summit	top	
Rock (singular)	pillar	top	
Rock Slide	slope	center	
Rock Tower	pillar	center	
Rockfall	slope	center	
Rocks	cliff	center	
Rodeo Grounds	locale	center	
Rognon	summit	top	
Rookery	island	center	
Room	area	center	
Roost	island	center	
Roost	summit	top	
Rough	ridge	center	
Roundhouse	locale	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Roundtop	summit	top	
Route	locale	center	
Rub	slope	center	
Ruins	locale	center	
Ruisseau	stream	mouth	yes
Ruisselet	stream	mouth	yes
Run	flat	center	
Run	stream	mouth	yes
Runaround	stream	mouth	yes
Runnel	stream	mouth	yes
Runoff	stream	mouth	yes
Runround	stream	mouth	yes
Saddle	gap	center	
Saddleback	ridge	center	
Sag	gap	center	
Sag	valley	mouth	yes
Sagpond	lake	center	
Salient	ridge	center	
Salina	flat	center	
Salt Bottom	flat	center	
Salt Flat	flat	center	
Salt Lick	flat	center	
Salt Marsh	flat	center	
Salt Prairie	flat	center	
Saltpan	flat	center	
Salturn	flat	center	
Sanctuary	park	center	
Sand	beach	center	
Sand Drift	summit	top	
Sand Dune	summit	top	
Sand Flat	flat	center	
Sand Hills	summit	top	
Sandbank	bar	center	
Sandbar	bar	center	
Sandia	summit	top	
Sandkey	island	center	
Sands	bar	center	
Sandwash	arroyo	mouth	yes
Sault	rapids	center	
Savane	plain	center	
Savane	swamp	center	
Savanna	plain	center	
Savannah	swamp	center	
Sawback	range	center	
Sawgrass	swamp	center	
Scabland	area	center	
Scabrock	area	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Scar	cliff	center	
Scarp	cliff	center	
Scaur	cliff	center	
Schloss	summit	top	
School	school	center	
School District	civil	center	
Scrape	area	center	
Scree	slope	center	
Scrub	woods	center	
Scrubland	area	center	
Sea	swamp	center	
Sea (continental)	sea	center	
Sea (inland)	lake	center	
Sea Arch	arch	center	
Sea Cave	cave	center	
Sea Mount	pillar	top	
Sea Stack	summit	top	
Sea Wall	levee	center	
Seaboard	beach	center	
Seacoast	beach	center	
Seashore	beach	center	
Seaside	beach	center	
Seat	summit	top	
Sedge	island	center	
Sedge	swamp	center	
Seep	spring	center	
Seep	stream	mouth	yes
Serrate	summit	top	
Settlement	ppl	center	
Sewer	stream	mouth	yes
Shaft	mine	center	
Shake	isthmus	center	
Shake	cave	center	
Shaw	woods	center	
Sheep Camp	locale	center	
Sheepback	summit	top	
Shelf	bar	center	
Shelter	locale	center	
Shingle	beach	center	
Shire	civil	center	
Shoal	bar	center	
Shoals	stream	mouth	yes
Shop	locale	center	
Shore	beach	center	
Shoreline	beach	center	
Shoulder	ridge	center	
Shoulder	slope	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Shrine	church	center	
Shutup	valley	mouth	yes
Siding	locale	center	
Sierra	range	center	
Silo	ppl	center	
Silva	woods	center	
Sink	basin	center	
Sinker	island	center	
Sinkhole	basin	center	
Site	locale	center	
Skerries	island	center	
Skerry	island	center	
Ski Area	locale	center	
Ski Trail	trail	center	
Slag Heap	mine	center	
Slang	area	center	
Slash	swamp	center	
Slash	stream	mouth	yes
Slide	slope	center	
Slide	valley	mouth	yes
Slip	locale	center	
Slofe	stream	mouth	yes
Slope	slope	center	
Slough	lake	center	
Slough (flowing)	stream	mouth	yes
Slough (stagnant)	gut	center	
Slue	stream	mouth	yes
Slue (not open channel)	swamp	center	
Slue (open channel)	gut	center	
Sluice	canal	center	
Sluice Gate	dam	center	
Snout	summit	top	
Snow Patch	glacier	center	
Snowfield	glacier	center	
Snye	stream	mouth	yes
Sog	swamp	center	
Soi	basin	center	
Solfatara	summit	top	
Sommet	summit	top	
Sonda	bay	center	
Sound	bay	center	
Sowback	ridge	center	
Spa	locale	center	
Space Flight Center	military	center	
Speedway	locale	center	
Spillway	canal	center	
Spindle	bar	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Spire	pillar	top	
Spit	bar	center	
Spoil Bank	bar	center	
Sports Arena	locale	center	
Spot	bar	center	
Spring	spring	center	
Springs	spring	center	
Springs	stream	mouth	yes
Spung	stream	mouth	yes
Spur	ridge	center	
Spur	trail	center	
Square	park	center	
Stack	pillar	top	
Stadium	park	center	
State Forest	forest	center	
State Historic Site	park	center	
State Park	park	center	
State Preserve	park	center	
Station (no population)	locale	center	
Station (populated)	ppl	center	
Statue	park	center	
Stead	ppl	center	
Steady	lake	center	
Sted	ppl	center	
Steephead	cliff	center	
Steeple	summit	top	
Steppe	plain	center	
Steps	bench	center	
Steptoe	lava	center	
Still	lake	center	
Stillwater	area	center	
Stillwater	area	center	
Stock Trail	trail	center	
Stone	island	center	
Stone	cliff	top	
Store	locale	center	
Strait	channel	center	
Strand	beach	center	
Strand	swamp	center	
Strath	flat	center	
Stream	stream	mouth	yes
Stretch	area	center	
Stretch	channel	center	
Stringer	stream	mouth	yes
Subsidence	basin	center	
Suburb	ppl	center	
Suck	swamp	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Sugar Loaf	summit	top	
Sugarloaf	summit	top	
Summit (cultural)	locale	center	
Summit (physical)	summit	top	
Sump	bar	center	
Sunker	island	center	
Supply Center	military	center	
Supply Depot	military	center	
Swag	gap	center	
Swale	stream	mouth	yes
Swale	valley	mouth	yes
Swallow	basin	center	
Swallow Hole	cave	center	
Swamp	swamp	center	
Swamp	stream	mouth	yes
Swash	bar	center	
Synagogue	church	center	
Tabernacle	church	center	
Table	summit	top	
Table Mountain	summit	top	
Tableland (+ 3 mi. across)	area	center	
Tableland (– 3 mi. across)	summit	top	
Taiga	woods	center	
Tail	cape	center	
Talus	slope	center	
Tank	reservoir	dam	
Tanque	reservoir	dam	
Tarai	swamp	center	
Tarn	lake	center	
Tavern	locale	center	
Teat	summit	top	
Teeth	bar	center	
Temple	church	center	
Ten	ppl	center	
Tepee	pillar	top	
Terminals	locale	center	
Terrace	bench	center	
Terrain	plain	center	
Terrane	plain	center	
Terrasse	levee	center	
Terrene	plain	center	
Test Center	military	center	
Test Range	military	center	
Tete	cliff	center	
Tete	cape	center	
Teton	summit	top	
Thalweg	valley	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Thicket	woods	center	
Thorofare	channel	center	
Thorofare	gut	center	
Thoroughfare	channel	center	
Thoroughfare	gap	center	
Thorpe	ppl	center	
Throat	stream	mouth	yes
Throughlet	channel	center	
Thrum	island	center	
Thrumcap	island	center	
Thumb	pillar	top	
Thurm	cliff	center	
Thwaite	flat	center	
Tickle	gut	center	
Tidal Creek	gut	center	
Tidal Flat	flat	center	
Tidal Inlet	gut	center	
Tidal Marsh	swamp	center	
Tideland	flat	center	
Tiderace	stream	mouth	yes
Tie	bar	center	
Tilt	summit	top	
Timber	park	center	
Tin	ppl	center	
Tinaja	spring	center	
Tipple	locale	center	
Tit(s)	summit	top	
Toe	cape	center	
Toe	summit	top	
Toll House	locale	center	
Toll Plaza	locale	center	
Tollgate	locale	center	
Tolt	summit	top	
Tomb	cemetery	center	
Tombolo	isthmus	center	
Ton	ppl	center	
Tongue	bar	center	
Tongue	cape	center	
Tooth	pillar	top	
Top	summit	top	
Top	cape	center	
Topsail	summit	top	
Tor	summit	top	
Torbiere	summit	top	
Torrent	rapids	center	
Tourelle	summit	top	
Tournant	summit	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Tower	tower	center	
Tower (+ 500 ft. across)	summit	top	
Tower (– 500 ft. across)	pillar	top	
Towers	range	top	
Towhead	island	center	
Town	civil	center	
Town (populated place)	ppl	center	
Township	civil	center	
Trace	trail	center	
Trace	stream	mouth	yes
Track	trail	center	
Trail	trail	center	
Tramway	trail	center	
Transverse	valley	mouth	yes
Trap	lake	center	
Trench	valley	mouth	yes
Trestle	bridge	center	
Tributary	stream	mouth	yes
Trou	gap	center	
Trou	cave	center	
Trough	valley	mouth	yes
Tub	basin	center	
Tuck	woods	center	
Tule	swamp	center	
Tulelands	swamp	center	
Tump	island	center	
Tun	ppl	center	
Tundra	plain	center	
Tunnel	tunnel	center	
Turn	bend	center	
Tusk	pillar	top	
Tying	bar	center	
University	school	center	
Upbac	slope	center	
Upland	plain	center	
USS (permanently moored)	park	center	
Uvala	basin	center	
Vale	valley	Mouth	yes
Valle	valley	mouth	yes
Vallee	valley	mouth	yes
Valley	valley	mouth	yes
Vault	valley	mouth	yes
Veldt	plain	center	
Vereda	trail	center	
Versant	slope	center	
Viaduct	bridge	center	
Village	ppl	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Vlei	valley	mouth	yes
Vley	valley	mouth	yes
Vloer	flat	center	
Vly	lake	center	
Vly	valley	mouth	yes
Vly	swamp	center	
Vly	stream	mouth	yes
Voe	bay	center	
Volcano	summit	top	
Wadi	arroyo	mouth	yes
Walk	stream	mouth	yes
Wall	cliff	center	
Wallow	basin	center	
Wallow	valley	mouth	yes
Wash	arroyo	mouth	yes
Wash	stream	mouth	yes
Wash	valley	mouth	yes
Washover	flat	center	
Waste Bank	bar	center	
Wasteland	area	center	
Wasteway	canal	center	
Water	bay	center	
Water	basin	center	
Water	stream	mouth	yes
Water Gap	gap	center	
Water Passage	gut	center	
Water Pocket	lake	center	
Water Sink	basin	center	
Water(s)	lake	center	
Water(s)	lake	center	
Watercourse (dry)	arroyo	mouth	yes
Watercourse (flowing)	stream	mouth	yes
Waterfall	falls	center	
Waterfront	harbor	center	
Waterhole (area)	lake	center	
Waterhole (point)	spring	center	
Watermill	locale	center	
Waterpan	lake	center	
Watershed	ridge	center	
Watertank	reservoir	dam	
Waterway	gut	center	
Waterway	channel	center	
Way	channel	center	
Wayside	locale	center	
Weapons Range	military	center	
Wedge	cape	center	
Weir	dam	dam	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Well	well	center	
Wetland	flat	center	
Whaleback	summit	top	
Wharf	locale	center	
Whirlpool	rapids	center	
Wich	ppl	center	
Wick	ppl	center	
Widger	valley	mouth	yes
Wildlife Management Area	park	center	
Wildlife Refuge	park	center	
Wind Gap	gap	center	
Windmill	locale	center	
Winged Headland	cliff	center	
Woodland	woods	center	
Woods	woods	center	
Worth	ppl	center	
Y	locale	center	
Yacht Club	locale	center	
Yard	locale	center	
Yardang	ridge	center	
Zanja	stream	mouth	yes
Zoo	park	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
airport	Airfield	center	
airport	Airport	center	
airport	Airstrip	center	
airport	Landing Field	center	
airport	Landing Strip	center	
arch	Arch	center	
arch	Eye	center	
arch	Natural Bridge	center	
arch	Sea Arch	center	
area	Alluvial Fan	center	
area	Alluvium	center	
area	Area	center	
area	Badlands	center	
area	Bahada	center	
area	Barrens	center	
area	Boca	center	
area	Bracket	center	
area	Breakers	center	
area	Breaks	center	
area	Broad	center	
area	Burn	center	
area	Callow	center	
area	Confluent	center	
area	Cote *	center	
area	Coteau	center	
area	Country	center	
area	Deadwater	center	
area	Debouchure	center	
area	Deep	center	
area	Delta	center	
area	Embouchure	center	
area	Fan	center	
area	Fells	center	
area	Fishing Ground	center	
area	Folly	center	
area	Foot	center	
area	Forest (natural)	center	
area	Garden	center	
area	Goldfield	center	
area	Gravel Fan	center	
area	Group	center	
area	Hat	center	
area	Highland	center	
area	Jardins	center	
area	Karst	center	
area	Land	center	
area	Lick	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
area	Llano	center	
area	Malpais	center	
area	Marche	center	
area	Motion	center	
area	Mouth	center	
area	Paramo	center	
area	Placer	center	
area	Playa	center	
area	Plaza (physical)	center	
area	Prairie	center	
area	Race	center	
area	Reach	center	
area	Rip	center	
area	Room	center	
area	Scabland	center	
area	Scabrock	center	
area	Scrape	center	
area	Scrubland	center	
area	Slang	center	
area	Stillwater	center	
area	Stretch	center	
area	Tableland (+ 3 mi. across)	center	
area	Wasteland	center	
arroyo	Arroyo	mouth	yes
arroyo	Coulee	mouth	yes
arroyo	Draw (shallow)	mouth	yes
arroyo	Drywash	mouth	yes
arroyo	Gulley	mouth	yes
arroyo	Pouroff	mouth	yes
arroyo	Sandwash	mouth	yes
arroyo	Wadi	mouth	yes
arroyo	Wash	mouth	yes
arroyo	Watercourse (dry)	mouth	yes
bar	Anchor	center	
bar	Arrecife	center	
bar	Banc	center	
bar	Bank	center	
bar	Bantam	center	
bar	Bar	center	
bar	Barre	center	
bar	Bell	center	
bar	Brandies	center	
bar	Brisants	center	
bar	Chuckle	center	
bar	Danger	center	
bar	Echouerie	center	
bar	Elbow	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
bar	Flats (inundated)	center	
bar	Foulground	center	
bar	Girdle	center	
bar	Haut–fond	center	
bar	Hook	center	
bar	Ledge (water)	center	
bar	Longshore Bar	center	
bar	Lump	center	
bar	Lunatt	center	
bar	Mudbank	center	
bar	Offshore Bar	center	
bar	Patch	center	
bar	Pollack	center	
bar	Poulier	center	
bar	Recif	center	
bar	Reef	center	
bar	Rib	center	
bar	Roca	center	
bar	Rock	center	
bar	Sandbank	center	
bar	Sandbar	center	
bar	Sands	center	
bar	Shelf	center	
bar	Shoal	center	
bar	Spindle	center	
bar	Spit	center	
bar	Spoil Bank	center	
bar	Spot	center	
bar	Sump	center	
bar	Swash	center	
bar	Teeth	center	
bar	Tie	center	
bar	Tongue	center	
bar	Tying	center	
bar	Waste Bank	center	
basin	Amphitheater	center	
basin	Basin	center	
basin	Bassin	center	
basin	Blowout	center	
basin	Bolson	center	
basin	Bowl	center	
basin	Caldron	center	
basin	Catchment	center	
basin	Cave	center	
basin	Cirque	center	
basin	Corrie	center	
basin	Depression	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
basin	Dolina	center	
basin	Doline	center	
basin	Dustwell	center	
basin	Fulje	center	
basin	Graike	center	
basin	Hole	center	
basin	Intervale	center	
basin	Kar	center	
basin	Kettle	center	
basin	Kettlehole	center	
basin	Pit	center	
basin	Pocket	center	
basin	Polje	center	
basin	Polye	center	
basin	Ponor	center	
basin	Pot	center	
basin	Pothole	center	
basin	Punch Bowl	center	
basin	Quarry	center	
basin	River Basin	center	
basin	Sink	center	
basin	Sinkhole	center	
basin	Soi	center	
basin	Subsidence	center	
basin	Swallow	center	
basin	Tub	center	
basin	Uvala	center	
basin	Wallow	center	
basin	Water	center	
basin	Water Sink	center	
bay	Anse	center	
bay	Arm	center	
bay	Bag	center	
bay	Bahia	center	
bay	Baie	center	
bay	Basin	center	
bay	Bay	center	
bay	Bight	center	
bay	Bite	center	
bay	Bottleneck	center	
bay	Caleta	center	
bay	Cayo	center	
bay	Chuck	center	
bay	Cove (water)	center	
bay	Creek	center	
bay	Crique	center	
bay	Eddy	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
bay	Embayment	center	
bay	Ensenada	center	
bay	Estero	center	
bay	Estuary	center	
bay	Firth	center	
bay	Flow	center	
bay	Golfe	center	
bay	Gulf (water)	center	
bay	Gut	center	
bay	Harbor (natural)	center	
bay	Hole (water)	center	
bay	Inlet (water body)	center	
bay	Leg	center	
bay	Nook	center	
bay	Open Bay	center	
bay	Pinchgut	center	
bay	Queue	center	
bay	Ria	center	
bay	Roads	center	
bay	Sonda	center	
bay	Sound	center	
bay	Voe	center	
bay	Water	center	
beach	Balneario	center	
beach	Beach (unpopulated)	center	
beach	Coast	center	
beach	Coastline	center	
beach	Cote	center	
beach	Coulter	center	
beach	Cusp	center	
beach	Foreside	center	
beach	Greve	center	
beach	Littoral	center	
beach	Plage	center	
beach	Playa	center	
beach	Rivage	center	
beach	Rive	center	
beach	Sand	center	
beach	Seaboard	center	
beach	Seacoast	center	
beach	Seashore	center	
beach	Seaside	center	
beach	Shingle	center	
beach	Shore	center	
beach	Shoreline	center	
beach	Strand	center	
bench	Bench	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
bench	Ledge (land)	center	
bench	Platform	center	
bench	Steps	center	
bench	Terrace	center	
bend	Bend	center	
bend	Bot	center	
bend	Bottom	center	
bend	Carse	center	
bend	Confluence	center	
bend	Coude	center	
bend	Courbe	center	
bend	Crook	center	
bend	Curve	center	
bend	Cutoff	center	
bend	Elbow	center	
bend	Fond	center	
bend	Hole (land)	center	
bend	Hook	center	
bend	Horseshoe	center	
bend	Kink	center	
bend	Loop	center	
bend	Meander	center	
bend	Meander Core	center	
bend	Meandre	center	
bend	Oxbow	center	
bend	Reentrant	center	
bend	River Bottom	center	
bend	Turn	center	
bridge	Bridge	center	
bridge	Causeway	center	
bridge	Foot Bridge	center	
bridge	Overpass	center	
bridge	Trestle	center	
bridge	Viaduct	center	
building	Building	center	
building	Casa	center	
building	Community Center	center	
building	Correctional Center	center	
building	Court House	center	
building	Filter Plant	center	
building	Fire House	center	
building	Museum	center	
building	Observatory	center	
building	Penitentiary	center	
building	Power Plant	center	
building	Prison	center	
building	Pumping Station	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
building	Railroad Station	center	
canal	Acequia	center	
canal	Aqueduct	center	
canal	Canal	center	
canal	Channel (man–made)	center	
canal	Creek	center	
canal	Ditch	center	
canal	Drain (man–made)	center	
canal	Flume (man–made)	center	
canal	Fosse	center	
canal	Lateral	center	
canal	Leg	center	
canal	Sluice	center	
canal	Spillway	center	
canal	Wasteway	center	
cape	Bill	center	
cape	Cabeza	center	
cape	Cabo	center	
cape	Cap	center	
cape	Cape	center	
cape	Chops	center	
cape	Doab	center	
cape	End	center	
cape	Hook	center	
cape	Kwun	center	
cape	Lae	center	
cape	Langue	center	
cape	Mull	center	
cape	Neck	center	
cape	Ness	center	
cape	Nez	center	
cape	Peninsula	center	
cape	Peninsule	center	
cape	Point (peninsula)	center	
cape	Pointe	center	
cape	Presquile	center	
cape	Punta	center	
cape	Rim	center	
cape	Rincon	center	
cape	Tail	center	
cape	Tete	center	
cape	Toe	center	
cape	Tongue	center	
cape	Top	center	
cape	Wedge	center	
cape	Wedge	center	
cave	Alcove	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
cave	Balm	center	
cave	Blowhole	center	
cave	Cave	center	
cave	Cavern	center	
cave	Caverne	center	
cave	Caverns	center	
cave	Cellar	center	
cave	Goe	center	
cave	Grotte	center	
cave	Grotto	center	
cave	Hole	center	
cave	Keana	center	
cave	Leach Hole	center	
cave	Niche	center	
cave	Nip	center	
cave	Oven	center	
cave	Puffing Hole	center	
cave	Puragatory	center	
cave	Sea Cave	center	
cave	Shake	center	
cave	Swallow Hole	center	
cave	Trou	center	
cemetery	Burial	center	
cemetery	Burying Ground	center	
cemetery	Cemetery	center	
cemetery	Fosse	center	
cemetery	Grave	center	
cemetery	Memorial Garden	center	
cemetery	Tomb	center	
channel	Canal *	center	
channel	Channel (natural)	center	
channel	Chenal	center	
channel	Chokey	center	
channel	Chute	center	
channel	Cul–de–sac	center	
channel	Cut	center	
channel	Cutoff	center	
channel	Detroit	center	
channel	Dugout	center	
channel	Fairway	center	
channel	Faux chenal	center	
channel	Floodway	center	
channel	Gate	center	
channel	Gateway	center	
channel	Gully	center	
channel	Gurnet	center	
channel	Gutter	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
channel	Hole	center	
channel	Inlet	center	
channel	Lead	center	
channel	Midway	center	
channel	Mouth	center	
channel	Narrows	center	
channel	Notch	center	
channel	Opening	center	
channel	Outlet	center	
channel	Pasaje	center	
channel	Pass	center	
channel	Passage (navigation)	center	
channel	Passe	center	
channel	Range	center	
channel	Reach	center	
channel	Rift	center	
channel	Rigolet	center	
channel	River Bed	center	
channel	Strait	center	
channel	Stretch	center	
channel	Thorofare	center	
channel	Thoroughfare	center	
channel	Throughlet	center	
channel	Waterway	center	
channel	Way	center	
church	Capilla	center	
church	Chapel	center	
church	Church	center	
church	Iglesia	center	
church	Kirk	center	
church	Meetinghouse	center	
church	Mission	center	
church	Monastery	center	
church	Mosque	center	
church	Novitiate	center	
church	Pagoda	center	
church	Priory	center	
church	Shrine	center	
church	Synagogue	center	
church	Tabernacle	center	
church	Temple	center	
civil	Barrio	center	
civil	Borough	center	
civil	City (administrative)	center	
civil	Civil Division	center	
civil	Claim	center	
civil	County	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
civil	District	center	
civil	Division	center	
civil	Grant	center	
civil	Land Grant	center	
civil	Municipality	center	
civil	Municipio *	center	
civil	Parish	center	
civil	Plantation	center	
civil	Precinct	center	
civil	Rancho	center	
civil	School District	center	
civil	Shire	center	
civil	Town	center	
civil	Township	center	
cliff	Blow-Me-Down	center	
cliff	Bluff	center	
cliff	Breaks	center	
cliff	Brow	center	
cliff	Buffalo Jump	center	
cliff	Buttress	center	
cliff	Ceja	center	
cliff	Cliff	center	
cliff	Corniche	center	
cliff	Crag	center	
cliff	Craigs	center	
cliff	Dalles	center	
cliff	Escarpment	center	
cliff	Face	center	
cliff	Falaises	center	
cliff	Flake	center	
cliff	Foreland	center	
cliff	Head (steep face)	center	
cliff	Headland	center	
cliff	Headwall	center	
cliff	Jumpoff	top	
cliff	Kap	center	
cliff	Motte	top	
cliff	Mountainside	center	
cliff	Muraille	center	
cliff	Naze	center	
cliff	Nose	center	
cliff	Overhang	center	
cliff	Pali	center	
cliff	Palisades	center	
cliff	Point (promontory)	center	
cliff	Precipice	center	
cliff	Projection	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
cliff	Promontoire	center	
cliff	Promontory	center	
cliff	Ramparts	center	
cliff	Relex	center	
cliff	Rim	center	
cliff	Rimrock	center	
cliff	Rocks	center	
cliff	Scar	center	
cliff	Scarp	center	
cliff	Scaur	center	
cliff	Steephead	center	
cliff	Stone	top	
cliff	Tete	center	
cliff	Thurm	center	
cliff	Wall	center	
cliff	Winged Headland	center	
crater	Bocca	center	
crater	Caldera	center	
crater	Crater	center	
crater	Cratere	center	
crater	Lava Pit	center	
crater	Lua	center	
crater	Maar	center	
crater	Monticle	center	
crater	Monticule	center	
crossing	Crossing	center	
dam	Breakwater	center	
dam	Dam	center	
dam	Gate	center	
dam	Jetty	center	
dam	Locks	center	
dam	Mole	center	
dam	Sluice Gate	center	
dam	Weir	dam	
falls	Bridal Veil	center	
falls	Cascade	center	
falls	Cataract	center	
falls	Drop	center	
falls	Dump	center	
falls	Fall	center	
falls	Falls	center	
falls	Waterfall	center	
flat	Bed	center	
flat	Bottoms	center	
flat	Camas	center	
flat	Camass	center	
flat	Clearing	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
flat	Clint	center	
flat	Down	center	
flat	Fields	center	
flat	Flat	center	
flat	Floor	center	
flat	Glade	center	
flat	Hat	center	
flat	Hay	center	
flat	Heath	center	
flat	Lake	center	
flat	Lakebed	center	
flat	Level	center	
flat	Lowland	center	
flat	Mead	center	
flat	Meadow	center	
flat	Moor	center	
flat	Mor	center	
flat	Mud Flat	center	
flat	Nap	center	
flat	Open	center	
flat	Pan	center	
flat	Park (natural)	center	
flat	Pasture	center	
flat	Pits	center	
flat	Polder	center	
flat	Potrero	center	
flat	Pre	center	
flat	Run	center	
flat	Salina	center	
flat	Salt Bottom	center	
flat	Salt Flat	center	
flat	Salt Lick	center	
flat	Salt Marsh	center	
flat	Salt Prairie	center	
flat	Saltpan	center	
flat	Salturn	center	
flat	Sand Flat	center	
flat	Strath	center	
flat	Thwaite	center	
flat	Tidal Flat	center	
flat	Tideland	center	
flat	Vloer	center	
flat	Washover	center	
flat	Wetland	center	
forest	Forest (administrative)	center	
forest	National Forest	center	
forest	National Grasslands	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
forest	Reserve	center	
forest	State Forest	center	
gap	Aisle	center	
gap	Col	center	
gap	Colombier	center	
gap	Constriction	center	
gap	Corrider	center	
gap	Cran	center	
gap	Cut	center	
gap	Defile	center	
gap	Funnel	center	
gap	Gallery	center	
gap	Gap	center	
gap	Gate	center	
gap	Intercolline	center	
gap	Narrow	center	
gap	Narrows	center	
gap	Notch	center	
gap	Pass	center	
gap	Passe	center	
gap	Portal	center	
gap	Porte	center	
gap	Puerta	center	
gap	Puertecito	center	
gap	Puerto	center	
gap	Puerto (land)	center	
gap	Saddle	center	
gap	Sag	center	
gap	Swag	center	
gap	Thoroughfare	center	
gap	Trou	center	
gap	Water Gap	center	
gap	Wind Gap	center	
geyser	Fountain	center	
geyser	Fumaroles	center	
geyser	Geyser	center	
glacier	Crevasse (ice)	center	
glacier	Firn	center	
glacier	Glacier	center	
glacier	Ice Patch	center	
glacier	Ice Shelf	center	
glacier	Icecap	center	
glacier	Icefall	center	
glacier	Icefield	center	
glacier	Icesheet	center	
glacier	Malaspina	center	
glacier	Moulin	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
glacier	Neve *	center	
glacier	Snow Patch	center	
glacier	Snowfield	center	
gut	Baie	center	
gut	Bayou (stagnant)	center	
gut	Breachway	center	
gut	Broad	center	
gut	Chute	center	
gut	Creek	center	
gut	Debouche	center	
gut	Decharge	center	
gut	Entrance	center	
gut	Entree	center	
gut	Gallery	center	
gut	Goulet	center	
gut	Gut	center	
gut	Inlet (channel)	center	
gut	Leg	center	
gut	Narrows	center	
gut	Padou	center	
gut	Slough (stagnant)	center	
gut	Slue (open channel)	center	
gut	Thorofare	center	
gut	Tickle	center	
gut	Tidal Creek	center	
gut	Tidal Inlet	center	
gut	Water Passage	center	
gut	Waterway	center	
harbor	Anchorage	center	
harbor	Basin	center	
harbor	Berth	center	
harbor	Harbor (man-made)	center	
harbor	Haven	center	
harbor	Havre	center	
harbor	Hono	center	
harbor	Kills	center	
harbor	Mouillage	center	
harbor	Port	center	
harbor	Puerto (water)	center	
harbor	Rade	center	
harbor	Retreat	center	
harbor	Roadstead	center	
harbor	Waterfront	center	
hospital	Hospital	center	
hospital	Infirmary	center	
island	Archipel	center	
island	Archipelago	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
island	Atoll	center	
island	Barrier Beach	center	
island	Barrier Island	center	
island	Bell	center	
island	Cay	center	
island	Caye	center	
island	Cayo	center	
island	Cey	center	
island	Eye	center	
island	Eyot	center	
island	Faro	center	
island	Hammock	center	
island	Hassock	center	
island	Haystack	center	
island	Head	center	
island	Hummock	center	
island	Ile	center	
island	Ilet	center	
island	Ilette	center	
island	Ilot	center	
island	Isla	center	
island	Island(s)	center	
island	Isle	center	
island	Islet	center	
island	Islote	center	
island	Key	center	
island	Kipuka	center	
island	Labyrinth	center	
island	Ledge	center	
island	Lump	center	
island	Moku	center	
island	Monument	center	
island	Nub	center	
island	Nubble	center	
island	Pinnacles	top	
island	Pol	center	
island	Ridge	center	
island	Roche	center	
island	Rocher	center	
island	Rock	center	
island	Rookery	center	
island	Roost	center	
island	Sandkey	center	
island	Sedge	center	
island	Sinker	center	
island	Skerries	center	
island	Skerry	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
island	Stone	center	
island	Sunker	center	
island	Thrum	center	
island	Thrumcap	center	
island	Towhead	center	
island	Tump	center	
isthmus	Isthmus	center	
isthmus	Langue	center	
isthmus	Plug	center	
isthmus	Shake	center	
isthmus	Tombolo	center	
lake	Backwater	center	
lake	Baie	center	
lake	Baissiere	center	
lake	Banco	center	
lake	Barachois	center	
lake	Barasway	center	
lake	Bay	center	
lake	Bogue (still)	center	
lake	Charco	center	
lake	Chuck	center	
lake	Coulee	center	
lake	Eau	center	
lake	Finger	center	
lake	Fount	center	
lake	Gully	center	
lake	Hole	center	
lake	Horseshoe	center	
lake	Lac	center	
lake	Lago	center	
lake	Lagoon (open water)	center	
lake	Laguna	center	
lake	Lagune	center	
lake	Lake(s)	center	
lake	Loch	center	
lake	Lochan	center	
lake	Loop Lake	center	
lake	Lough	center	
lake	Mal Bay	center	
lake	Marais	center	
lake	Mare	center	
lake	Mouillere *	center	
lake	Oxbow	center	
lake	Pond (natural)	center	
lake	Pool (natural)	center	
lake	Puddle	center	
lake	Pughole	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
lake	Rainpool	center	
lake	Resaca	center	
lake	Sagpond	center	
lake	Sea (inland)	center	
lake	Slough	center	
lake	Steady	center	
lake	Still	center	
lake	Tarn	center	
lake	Trap	center	
lake	Vly	center	
lake	Water Pocket	center	
lake	Water(s)	center	
lake	Water(s)	center	
lake	Waterhole (area)	center	
lake	Waterpan	center	
lava	Aa	center	
lava	Kipuka	center	
lava	Lava	center	
lava	Lava Cone	center	
lava	Lava Delta	center	
lava	Lava Field	center	
lava	Lava Flow	center	
lava	Lava Plain	center	
lava	Lava Plateau	center	
lava	Lava Tongue	center	
lava	Lava Tube	center	
lava	Steptoe	center	
levee	Bank	center	
levee	Cutbank	center	
levee	Dike	center	
levee	Embankment	center	
levee	Hirst	center	
levee	Levee	center	
levee	Revetment	center	
levee	Sea Wall	center	
levee	Terrasse	center	
locale	Addition	center	
locale	Agency	center	
locale	Battle Field	center	
locale	Battlefield	center	
locale	Cabin	center	
locale	Camp	center	
locale	Campground	center	
locale	Cliff Dwellings	center	
locale	Corner	center	
locale	Corners	center	
locale	Corral	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
locale	Country Club	center	
locale	Crossroads	center	
locale	Dairy	center	
locale	Depot	center	
locale	Dock	center	
locale	Dockyard	center	
locale	Downs	center	
locale	Dragway	center	
locale	Estate	center	
locale	Exclosure	center	
locale	Fairgrounds	center	
locale	Farm	center	
locale	Ferry	center	
locale	Firetower	center	
locale	Foot	center	
locale	Ford	center	
locale	Forge	center	
locale	Fort	center	
locale	Foundry	center	
locale	Furnace	center	
locale	Ghost Town	center	
locale	Gin	center	
locale	Golf Course	center	
locale	Grain Elevator	center	
locale	Grange	center	
locale	Grange Hall	center	
locale	Gristmill	center	
locale	Guard Station	center	
locale	Hall	center	
locale	Homestead	center	
locale	Industrial Park	center	
locale	Inn	center	
locale	Interchange	center	
locale	Jonction	center	
locale	Junction	center	
locale	Landing	center	
locale	Lighthouse	center	
locale	Locale (little or no population)	center	
locale	Locality	center	
locale	Lookoff	center	
locale	Lookout	center	
locale	Marina	center	
locale	Market	center	
locale	Mill	center	
locale	Milltown	center	
locale	Natatorium	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
locale	Nursery	center	
locale	Orchard	center	
locale	Ordinary	center	
locale	Overlook	center	
locale	Passage (portage)	center	
locale	Pen	center	
locale	Picnic Area	center	
locale	Pier	center	
locale	Place	center	
locale	Plantation	center	
locale	Plaza (cultural)	center	
locale	Port	center	
locale	Port of Entry	center	
locale	Portage	center	
locale	Quay	center	
locale	Railroad Siding	center	
locale	Railroad Stop	center	
locale	Ranch	center	
locale	Ranger Station	center	
locale	Research Station	center	
locale	Rest Area	center	
locale	Retreat	center	
locale	Rodeo Grounds	center	
locale	Roundhouse	center	
locale	Route	center	
locale	Ruins	center	
locale	Sheep Camp	center	
locale	Shelter	center	
locale	Shop	center	
locale	Siding	center	
locale	Site	center	
locale	Ski Area	center	
locale	Slip	center	
locale	Spa	center	
locale	Speedway	center	
locale	Sports Arena	center	
locale	Station (no population)	center	
locale	Store	center	
locale	Summit (cultural)	center	
locale	Tavern	center	
locale	Terminals	center	
locale	Tipple	center	
locale	Toll House	center	
locale	Toll Plaza	center	
locale	Tollgate	center	
locale	Watermill	center	
locale	Wayside	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
locale	Wharf	center	
locale	Windmill	center	
locale	Y	center	
locale	Yacht Club	center	
locale	Yard	center	
military	Air Facility	center	
military	Air Force Base	center	
military	Air Station	center	
military	Ammunition Depot	center	
military	Ammunition Plant	center	
military	Amphibious Base	center	
military	Army Depot	center	
military	Army Headquarters	center	
military	Army Post	center	
military	Arsenal	center	
military	Barracks	center	
military	Battery	center	
military	Coast Guard Base	center	
military	Coast Guard Lifeboat Station	center	
military	Firing Center	center	
military	Firing Range	center	
military	Fortress	center	
military	Marine Corps Air Station	center	
miltary	Marine Corps Base	center	
military	Military Reservation	center	
military	Missile Base	center	
military	Missile Range	center	
military	Naval Air Station	center	
military	Naval Base	center	
military	Naval Shipyard	center	
military	Ordnance Laboratory	center	
military	Ordnance Plant	center	
military	Quartermaster Depot	center	
military	Reservacion Militar *	center	
military	Reserve Training Center	center	
military	Space Flight Center	center	
military	Supply Center	center	
military	Supply Depot	center	
military	Test Center	center	
military	Test Range	center	
military	Weapons Range	center	
mine	Adit	center	
mine	Fosse	center	
mine	Gloryhole	center	
mine	Mine	center	
mine	Mineral Pile	center	
mine	Pit	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
mine	Portal	center	
mine	Quarry	center	
mine	Shaft	center	
mine	Slag Heap	center	
oilfield	Oil Pumping Station	center	
oilfield	Oilfield	center	
oilfield	Platform	center	
oilfield	Rig	center	
park	Amusement Park	center	
park	Aquatic Preserve	center	
park	Arboretum	center	
park	Cairn	center	
park	Common	center	
park	County park	center	
park	Field	center	
park	Game Management Area	center	
park	Game Reserve	center	
park	Greenbelt	center	
park	Historical Marker	center	
park	Marker	center	
park	Monument	center	
park	National Historical Landmark	center	
park	National Monument	center	
park	National Park (administrative)	center	
park	National Seashore	center	
park	National Wilderness Area	center	
park	National Wildlife Area	center	
park	Park (administrative)	center	
park	Racetrack	center	
park	Refuge	center	
park	Reserve	center	
park	Sanctuary	center	
park	Square	center	
park	Stadium	center	
park	State Historic Site	center	
park	State Park	center	
park	State Preserve	center	
park	Statue	center	
park	Timber	center	
park	USS (permanently moored)	center	
park	Wildlife Management Area	center	
park	Wildlife Refuge	center	
park	Zoo	center	
peak	Ben	top	
pillar	Aiguille	top	
pillar	Aquafact	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
pillar	Block	top	
pillar	Candelas	top	
pillar	Cas	top	
pillar	Castle	top	
pillar	Chimney	top	
pillar	Column	top	
pillar	Demoiselles	top	
pillar	Ears	top	
pillar	Finger	top	
pillar	Longstone	top	
pillar	Monolith	top	
pillar	Monument	top	
pillar	Needle	top	
pillar	Pena *	top	
pillar	Penasco *	top	
pillar	Pillar	top	
pillar	Pinacle	top	
pillar	Pinnacle	top	
pillar	Pohaku	center	
pillar	Rocher	top	
pillar	Rock (singular)	top	
pillar	Rock Tower	center	
pillar	Sea Mount	top	
pillar	Spire	top	
pillar	Stack	top	
pillar	Tepee	top	
pillar	Thumb	top	
pillar	Tooth	top	
pillar	Tower (– 500 ft. across)	top	
pillar	Tusk	top	
plain	Campagna	center	
plain	Carre	center	
plain	Champ	center	
plain	Champaign	center	
plain	Desert	center	
plain	Erg	center	
plain	Grassland	center	
plain	Hamada	center	
plain	Karroo	center	
plain	Kula	center	
plain	Lea	center	
plain	Outwash	center	
plain	Pampas	center	
plain	Panplain	center	
plain	Peneplain	center	
plain	Plain	center	
plain	Plaine	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
plain	Plains	center	
plain	Plat	center	
plain	Plateau	center	
plain	Reg	center	
plain	Savane	center	
plain	Savanna	center	
plain	Steppe	center	
plain	Terrain	center	
plain	Terrane	center	
plain	Terrene	center	
plain	Tundra	center	
plain	Upland	center	
plain	Veldt	center	
ppl	Beach (populated)	center	
ppl	Beigh	center	
ppl	Boro	center	
ppl	Borough	center	
ppl	Bur	center	
ppl	Burg	center	
ppl	Burgh	center	
ppl	Bury	center	
ppl	By	center	
ppl	Caster	center	
ppl	Cester	center	
ppl	Chester	center	
ppl	City (populated place)	center	
ppl	Community	center	
ppl	Corner	center	
ppl	Ham	center	
ppl	Hamlet	center	
ppl	Hamp	center	
ppl	Plantation	center	
ppl	Port	center	
ppl	PPL (populated place)	center	
ppl	Resort	center	
ppl	Settlement	center	
ppl	Silo	center	
ppl	Station (populated)	center	
ppl	Stead	center	
ppl	Sted	center	
ppl	Suburb	center	
ppl	Ten	center	
ppl	Thorpe	center	
ppl	Tin	center	
ppl	Ton	center	
ppl	Town (populated place)	center	
ppl	Tun	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
ppl	Village	center	
ppl	Wich	center	
ppl	Wick	center	
ppl	Worth	center	
range	Chain	center	
range	Cordillera	center	
range	Hills	center	
range	Massif	center	
range	Montanas *	center	
range	Mountain Chain	center	
range	Mountain Group	center	
range	Mountain Range	center	
range	Mountain System	center	
range	Mountains	center	
range	Nuddicks	center	
range	Paps	center	
range	Paramilla	center	
range	Piedmont	center	
range	Piemont	center	
range	Pointers	center	
range	Rang	center	
range	Range	center	
range	Sawback	center	
range	Sierra	center	
range	Towers	top	
rapids	Cataract	center	
rapids	Chute	center	
rapids	Eddy	center	
rapids	Overfall	center	
rapids	Pitch	center	
rapids	Race	center	
rapids	Rapide	center	
rapids	Rapids	center	
rapids	Rattle	center	
rapids	Remous	center	
rapids	Riffle	center	
rapids	Ripple	center	
rapids	Rips	center	
rapids	Sault	center	
rapids	Torrent	center	
rapids	Whirlpool	center	
reserve	Indian Reservation	center	
reserve	Reserve	center	
reservoir	Aboiteau	dam	
reservoir	Aljibe	dam	
reservoir	Cachment	dam	
reservoir	Cistern	dam	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
reservoir	Flooding	dam	
reservoir	Flowage	dam	
reservoir	Millpond	dam	
reservoir	Pond (man–made)	dam	
reservoir	Pool (man–made)	dam	
reservoir	Pozo	dam	
reservoir	Reservoir	dam	
reservoir	Retention Basin	dam	
reservoir	Tank	dam	
reservoir	Tanque	dam	
reservoir	Watertank	dam	
ridge	Arete *	center	
ridge	Backbone	center	
ridge	Balk	center	
ridge	Ball	center	
ridge	Berm	center	
ridge	Comb	center	
ridge	Couch	center	
ridge	Crest (linear)	center	
ridge	Crete	center	
ridge	Cuchilla	center	
ridge	Cuesta	center	
ridge	Divide	center	
ridge	Edge	center	
ridge	Esker	center	
ridge	Galera	center	
ridge	Hogback	center	
ridge	Hoodoos	center	
ridge	Horseback	center	
ridge	Lae	center	
ridge	Lead	center	
ridge	Moraine (linear)	center	
ridge	Morriner	center	
ridge	Narrows	center	
ridge	Offset	center	
ridge	Os	center	
ridge	Osar	center	
ridge	Point	center	
ridge	Razorback	center	
ridge	Reef	center	
ridge	Ridge	center	
ridge	Rough	center	
ridge	Saddleback	center	
ridge	Salient	center	
ridge	Shoulder	center	
ridge	Sowback	center	
ridge	Spur	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
ridge	Watershed	center	
ridge	Yardang	center	
school	Academy	center	
school	Campus	center	
school	College	center	
school	High School	center	
school	Institute	center	
school	School	center	
school	University	center	
sea	Eau	center	
sea	Mar	center	
sea	Mer	center	
sea	Ocean	center	
sea	Oceano *	center	
sea	Sea (continental)	center	
shoal	Ground	center	
slope	Acclivity	center	
slope	Adert	center	
slope	Back	center	
slope	Cove	center	
slope	Declivity	center	
slope	Descent	center	
slope	Descente	center	
slope	Deversant	center	
slope	Glacis	center	
slope	Grade	center	
slope	Gradient	center	
slope	Incline	center	
slope	Landfall	center	
slope	Landslide	center	
slope	Landslip	center	
slope	Mudflow	center	
slope	Pediment	center	
slope	Pitch	center	
slope	Ranch	center	
slope	Rise	center	
slope	Rock Slide	center	
slope	Rockfall	center	
slope	Rub	center	
slope	Scree	center	
slope	Shoulder	center	
slope	Slide	center	
slope	Slope	center	
slope	Talus	center	
slope	Upbac	center	
slope	Versant	center	
spring	Bath	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
spring	Hot Spring	center	
spring	Mud Pot	center	
spring	Oasis	center	
spring	Ojito	center	
spring	Ojo	center	
spring	Seep	center	
spring	Spring	center	
spring	Springs	center	
spring	Tinaja	center	
spring	Waterhole (point)	center	
stream	Agua	mouth	yes
stream	Anabranch	mouth	yes
stream	Anse	mouth	yes
stream	Arm	mouth	yes
stream	Arroyo	mouth	yes
stream	Awawa	mouth	yes
stream	Bayou	mouth	yes
stream	Bayou (flowing)	mouth	yes
stream	Bed	mouth	yes
stream	Bogue (flowing)	mouth	yes
stream	Bottom	mouth	yes
stream	Bour	mouth	yes
stream	Bourne	mouth	yes
stream	Brake	mouth	yes
stream	Branch	mouth	yes
stream	Branche	mouth	yes
stream	Brook	mouth	yes
stream	Burn	mouth	yes
stream	Cala	mouth	yes
stream	Caleta	mouth	yes
stream	Cam	mouth	yes
stream	Channel	mouth	yes
stream	Cano *	mouth	yes
stream	Chute	mouth	yes
stream	Coulee	mouth	yes
stream	Courant	mouth	yes
stream	Cours	mouth	yes
stream	Creek	mouth	yes
stream	Crique	mouth	yes
stream	Current	mouth	yes
stream	Decharge	mouth	yes
stream	Dike	mouth	yes
stream	Distributary	mouth	yes
stream	Ditch	mouth	yes
stream	Drain (natural)	mouth	yes
stream	Dribble	mouth	yes
stream	Droke	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
stream	Drook	mouth	yes
stream	Dugout	mouth	yes
stream	Estero	mouth	yes
stream	Falls	mouth	yes
stream	Feeder	mouth	yes
stream	Fleuve	mouth	yes
stream	Flow	mouth	yes
stream	Flume	mouth	yes
stream	Fly	mouth	yes
stream	Ford	mouth	yes
stream	Fork	mouth	yes
stream	Foso	mouth	yes
stream	Fosse	mouth	yes
stream	Fourche	mouth	yes
stream	Freshet	mouth	yes
stream	Gully	mouth	yes
stream	Gut	mouth	yes
stream	Gutter	mouth	yes
stream	Guzzle	mouth	yes
stream	Head	mouth	yes
stream	Headwaters	mouth	yes
stream	Inlet	mouth	yes
stream	Kill	mouth	yes
stream	Laguna	mouth	yes
stream	Lateral	mouth	yes
stream	Lick	mouth	yes
stream	Marais	mouth	yes
stream	Marsh	mouth	yes
stream	Meadow	mouth	yes
stream	Millrace	mouth	yes
stream	Millstream	mouth	yes
stream	Outlet	mouth	yes
stream	Pass	mouth	yes
stream	Prong	mouth	yes
stream	Puddle	mouth	yes
stream	Pup	mouth	yes
stream	Race	mouth	yes
stream	Resaca	mouth	yes
stream	Rill	mouth	yes
stream	Rio	mouth	yes
stream	Rito	mouth	yes
stream	River	mouth	yes
stream	Riveret	mouth	yes
stream	Riviere	mouth	yes
stream	Riviere *	mouth	yes
stream	Rivulet	mouth	yes
stream	Ruisseau	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
stream	Ruisselet	mouth	yes
stream	Run	mouth	yes
stream	Runaround	mouth	yes
stream	Runnel	mouth	yes
stream	Runoff	mouth	yes
stream	Runround	mouth	yes
stream	Seep	mouth	yes
stream	Sewer	mouth	yes
stream	Shoals	mouth	yes
stream	Slash	mouth	yes
stream	Slofe	mouth	yes
stream	Slough (flowing)	mouth	yes
stream	Slue	mouth	yes
stream	Snye	mouth	yes
stream	Springs	mouth	yes
stream	Spung	mouth	yes
stream	Stream	mouth	yes
stream	Stringer	mouth	yes
stream	Swale	mouth	yes
stream	Swamp	mouth	yes
stream	Throat	mouth	yes
stream	Tiderace	mouth	yes
stream	Trace	mouth	yes
stream	Tributary	mouth	yes
stream	Vly	mouth	yes
stream	Walk	mouth	yes
stream	Wash	mouth	yes
stream	Water	mouth	yes
stream	Watercourse (flowing)	mouth	yes
stream	Zanja	mouth	yes
summit	Ahu	top	
summit	Alto	top	
summit	Arm	top	
summit	Back	top	
summit	Bald	top	
summit	Baldy	top	
summit	Ball	top	
summit	Bally	top	
summit	Banks	top	
summit	Baraboo	top	
summit	Barchan	top	
summit	Barren	top	
summit	Batture	top	
summit	Beinn	top	
summit	Berg	top	
summit	Block	top	
summit	Bolly	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Bonnet	top	
summit	Bosse	top	
summit	Boulder	top	
summit	Bray	top	
summit	Bull	top	
summit	Burr	top	
summit	Buse	top	
summit	Butt	top	
summit	Butte	top	
summit	Buttereau	top	
summit	Cairn	top	
summit	Cap	top	
summit	Cerrillo	top	
summit	Cerrito	top	
summit	Cerro	top	
summit	Chimney	top	
summit	Cinder	top	
summit	Colina	top	
summit	Collado	top	
summit	Colline	top	
summit	Cone	top	
summit	Cote	top	
summit	Crest (top)	top	
summit	Crown	top	
summit	Cumbre	top	
summit	Cup	top	
summit	Dome	top	
summit	Doubles	top	
summit	Drift	top	
summit	Drum	top	
summit	Drumlin	top	
summit	Drumlinoid	top	
summit	Drumloid	top	
summit	Dun	top	
summit	Dune	top	
summit	Dwip	top	
summit	Elevation	top	
summit	Eminence	top	
summit	Fang	top	
summit	Fell	top	
summit	Fill	top	
summit	Flatiron	top	
summit	Fleche	top	
summit	Fold	top	
summit	Foothills	top	
summit	Foredune	top	
summit	Gaze	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Hamongog	top	
summit	Head	top	
summit	Head (hill)	top	
summit	Heaven	top	
summit	Heights	top	
summit	High	top	
summit	Hill	top	
summit	Hillock	top	
summit	Horn	top	
summit	Horst	top	
summit	Huerfano	top	
summit	Hum	top	
summit	Hump	top	
summit	Hurst	top	
summit	Jugs	top	
summit	Kame	top	
summit	Kernbut	top	
summit	Knap	top	
summit	Knob	top	
summit	Knoll	top	
summit	Kop	top	
summit	Kopje	top	
summit	Ledge	top	
summit	Lenticular	top	
summit	Loma	top	
summit	Loma	top	
summit	Lookout	top	
summit	Lump	top	
summit	Mamelon	top	
summit	Mass	top	
summit	Matterhorn	top	
summit	Mauna	top	
summit	Medano	top	
summit	Mendip	top	
summit	Mesa	top	
summit	Meseta	top	
summit	Mesita	top	
summit	Mitre	top	
summit	Monadnock	top	
summit	Mont	top	
summit	Montagne	top	
summit	Monte	top	
summit	Moraine (area)	top	
summit	Mott	top	
summit	Motte	top	
summit	Mound	top	
summit	Mount	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Mountain	top	
summit	Mud Cone	top	
summit	Nez	top	
summit	Nipple(s)	top	
summit	Nob	top	
summit	Nobble	top	
summit	Nook	top	
summit	Nose	top	
summit	Nubble	top	
summit	Nunatak	top	
summit	Outcrop	top	
summit	Pahas	top	
summit	Pain de sucre	top	
summit	Paw	top	
summit	Peak	top	
summit	Pepino	top	
summit	Pic	top	
summit	Picacho	top	
summit	Pico	top	
summit	Pikes	top	
summit	Pile	top	
summit	Pinacle	top	
summit	Pingo	top	
summit	Piton	top	
summit	Point	top	
summit	Pointu	top	
summit	Promontoire	top	
summit	Pulpit	top	
summit	Punta	top	
summit	Puu	top	
summit	Pyramids	top	
summit	Remnant	top	
summit	Roche Moutonnee	top	
summit	Rock (massive)	top	
summit	Rognon	top	
summit	Roost	top	
summit	Roundtop	top	
summit	Sand Drift	top	
summit	Sand Dune	top	
summit	Sand Hills	top	
summit	Sandia	top	
summit	Schloss	top	
summit	Sea Stack	top	
summit	Seat	top	
summit	Serrate	top	
summit	Sheepback	top	
summit	Snout	top	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Solfatara	top	
summit	Sommet	top	
summit	Steeple	top	
summit	Sugar Loaf	top	
summit	Sugarloaf	top	
summit	Summit (physical)	top	
summit	Table	top	
summit	Table Mountain	top	
summit	Tableland (– 3 mi. across)	top	
summit	Teat	top	
summit	Teton	top	
summit	Tilt	top	
summit	Tit(s)	top	
summit	Toe	top	
summit	Tolt	top	
summit	Top	top	
summit	Topsail	top	
summit	Tor	top	
summit	Torbiere	top	
summit	Tourelle	top	
summit	Tournant	top	
summit	Tower (+ 500 ft. across)	top	
summit	Volcano	top	
summit	Whaleback	top	
swamp	Bay	center	
swamp	Baygall	center	
swamp	Baygul	center	
swamp	Bayou	center	
swamp	Bog	center	
swamp	Bogan	center	
swamp	Brake	center	
swamp	Branch	center	
swamp	Buckle	center	
swamp	Cienaga	center	
swamp	Congress	center	
swamp	Cypriere	center	
swamp	Deadening	center	
swamp	Dismal	center	
swamp	Everglade	center	
swamp	Fen	center	
swamp	Flats	center	
swamp	Flatwoods	center	
swamp	Floodplain	center	
swamp	Fly	center	
swamp	Hay Meadow	center	
swamp	Head	center	
swamp	Heath	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
swamp	Horn	center	
swamp	Interfluve	center	
swamp	Intervale	center	
swamp	Lagoon (vegetation)	center	
swamp	Logan	center	
swamp	Lowmoor	center	
swamp	Mangrove	center	
swamp	Marais	center	
swamp	Marecage	center	
swamp	Mareman	center	
swamp	Marsh	center	
swamp	Mash	center	
swamp	Mire	center	
swamp	Mish	center	
swamp	Morais	center	
swamp	Morass	center	
swamp	Moremma	center	
swamp	Morne	center	
swamp	Mouillere *	center	
swamp	Muskeg	center	
swamp	Pocket	center	
swamp	Pocosin	center	
swamp	Quagmire	center	
swamp	Quaking Bay	center	
swamp	Savane	center	
swamp	Savannah	center	
swamp	Sawgrass	center	
swamp	Sea	center	
swamp	Sedge	center	
swamp	Slash	center	
swamp	Slue (not open channel)	center	
swamp	Sog	center	
swamp	Strand	center	
swamp	Suck	center	
swamp	Swamp	center	
swamp	Tarai	center	
swamp	Tidal Marsh	center	
swamp	Tule	center	
swamp	Tulelands	center	
swamp	Vly	center	
tower	Beacon	center	
tower	Obelisk	center	
tower	Tower	center	
trail	Incline	center	
trail	Jeep Trail	center	
trail	Path	center	
trail	Ski Trail	center	

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
trail	Spur	center	
trail	Stock Trail	center	
trail	Trace	center	
trail	Track	center	
trail	Trail	center	
trail	Tramway	center	
trail	Vereda	center	
tunnel	Culvert	center	
tunnel	Portal	center	
tunnel	Tunnel	center	
valley	Backdeep	mouth	yes
valley	Barranca	mouth	yes
valley	Box	mouth	yes
valley	Box Canyon	mouth	yes
valley	Cajon	mouth	yes
valley	Canada *	mouth	yes
valley	Canon *	mouth	yes
valley	Canyon	mouth	yes
valley	Chasm	mouth	yes
valley	Chine	mouth	yes
valley	Cleft	mouth	yes
valley	Cleuch	mouth	yes
valley	Cleugh	mouth	yes
valley	Clove	mouth	yes
valley	Cluse	mouth	yes
valley	Combe	mouth	yes
valley	Coombe	mouth	yes
valley	Corner	mouth	yes
valley	Coulee	mouth	yes
valley	Couloir	mouth	yes
valley	Cove (land)	mouth	yes
valley	Crevasse (earth)	mouth	yes
valley	Cumb	mouth	yes
valley	Dale	mouth	yes
valley	Dalles	mouth	yes
valley	Dell	mouth	yes
valley	Den	mouth	yes
valley	Dingle	mouth	yes
valley	Dol	mouth	yes
valley	Donga	mouth	yes
valley	Draft	mouth	yes
valley	Draw (deep)	mouth	yes
valley	Droke	mouth	yes
valley	Drook	mouth	yes
valley	Fault	mouth	yes
valley	Fiord	mouth	yes
valley	Fissure	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
valley	Fjord	mouth	yes
valley	Flume (natural)	mouth	yes
valley	Furrow	mouth	yes
valley	Gill	mouth	yes
valley	Glen	mouth	yes
valley	Gorge	mouth	yes
valley	Graben	mouth	yes
valley	Gulch	mouth	yes
valley	Gulf (land)	mouth	yes
valley	Gully	mouth	yes
valley	Gut	mouth	yes
valley	Gutter	mouth	yes
valley	Hole	mouth	yes
valley	Hollow	mouth	yes
valley	Inferno	mouth	yes
valley	Jambs	mouth	yes
valley	Mofette	mouth	yes
valley	Narrows	mouth	yes
valley	Neck	mouth	yes
valley	Nullah	mouth	yes
valley	Pup	mouth	yes
valley	Quarters	mouth	yes
valley	Quebrada	mouth	yes
valley	Ramble	mouth	yes
valley	Ravin	mouth	yes
valley	Ravine	mouth	yes
valley	Rift	mouth	yes
valley	Rincon	mouth	yes
valley	River Valley	mouth	yes
valley	Sag	mouth	yes
valley	Shutup	mouth	yes
valley	Slide	mouth	yes
valley	Swale	mouth	yes
valley	Thalweg	mouth	yes
valley	Transverse	mouth	yes
valley	Trench	mouth	yes
valley	Trough	mouth	yes
valley	Vale	mouth	yes
valley	Valle	mouth	yes
valley	Vallee	mouth	yes
valley	Valley	mouth	yes
valley	Vault	mouth	yes
valley	Vlei	mouth	yes
valley	Vley	mouth	yes
valley	Vly	mouth	yes
valley	Wallow	mouth	yes
valley	Wash	mouth	yes

APPENDIX G.—Map Feature Guide—continued
(* indicates diacritical mark missing)

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
valley	Widger	mouth	yes
well	Borehole	center	
well	Oilwell	center	
well	Well	center	
woods	Bois	center	
woods	Bosquet	center	
woods	Brake	center	
woods	Droke	center	
woods	Drook	center	
woods	Grove	center	
woods	Mott	center	
woods	Scrub	center	
woods	Shaw	center	
woods	Silva	center	
woods	Taiga	center	
woods	Thicket	center	
woods	Tuck	center	
woods	Woodland	center	
woods	Woods	center	

APPENDIX H.—Determining Geographical Coordinates

There are various ways to determine relatively accurate geographical coordinates (latitude and longitude) of a point located on a large-scale topographic map published by the U.S. Geological Survey. Two common methods for determining latitude and longitude of a point are described here. In each case, special tools or interpolation devices are needed; the first method involves the use of special film-positive templates; the second requires the use of ten-space dividers. Each method is of equal merit, once the procedures are learned.

Increasing latitude values are read from south to north in the United States. Increasing longitude values are read from east to west. The values are based on units of degrees divided into 60 minutes which, in turn, are divided into 60 seconds. When recorded, the latitude values precede the longitude values; example: 47°15'20" (latitude) and 112°45'15" (longitude). Latitude and longitude values are shown at each of the four corners of a topographic map. Intermediate latitude values are designated on the right and left (east and west) margins of the neat-line of the map by tick marks, thin lines projecting a very short distance into the body of a map opposite the 2 1/2 minute interval values. In a similar way, intermediate longitudinal values are designated on the top and bottom (north and south) margins of the map at 2 1/2 minute intervals.

The purpose of the special interpolation devices is to determine latitude and longitude of a point by degree, minute, and second values from the margins of the map. The following instructions for the use of the film-positive templates and the ten-space dividers apply to 1:24,000-scale USGS topographic maps.

Using Film Positive Templates

This procedure requires the use of two linear scales on transparent film marked at 5-second increments, and of sufficient length to encompass 7.5 minutes of latitude and of longitude. One scale is used for latitude and the other for longitude. They are 7.5 minutes long because the latitudinal and longitudinal distances on the 1:24,000-scale topographic maps are 7.5 (7'30") minutes south to north and east to west.

The latitude scale can be used for measuring latitudinal bands on 1:24,000-scale maps up to 10 degrees North and South without loss of accuracy. Meridians of longitude converge from the Equator to the Poles and units of longitude on the map become smaller as one progresses from south to north. For this reason, a different template is used to conveniently fit the map scale for each degree band of latitude.

In order to determine the latitude of a point on a map, place the latitude template on the map in such a way that the 0' mark matches the bottom (south) neatline of the map and the 7.5 (7'30") minute mark at the top of the scale intersects the top (north) neatline. The black centerline on the template intersects the point to be measured (see fig. 1H). The minute and second values of the point are then read and added to the latitudinal value of the bottom (south) neatline of the map. Locations within the 5-second increments on the scale can be visually interpolated. For example, the latitude of Country Junction on the map in the illustration is read as 1'32". This value added to the neatline value of 42°37'30" makes the latitude value of the road junction called Country Junction 42°39'02" N. Keep in mind that 60" equals 1'; thus 62 seconds (62") equals 1 minute 2 seconds (1'2"). Note that all points in the fifty United States are in north latitude.

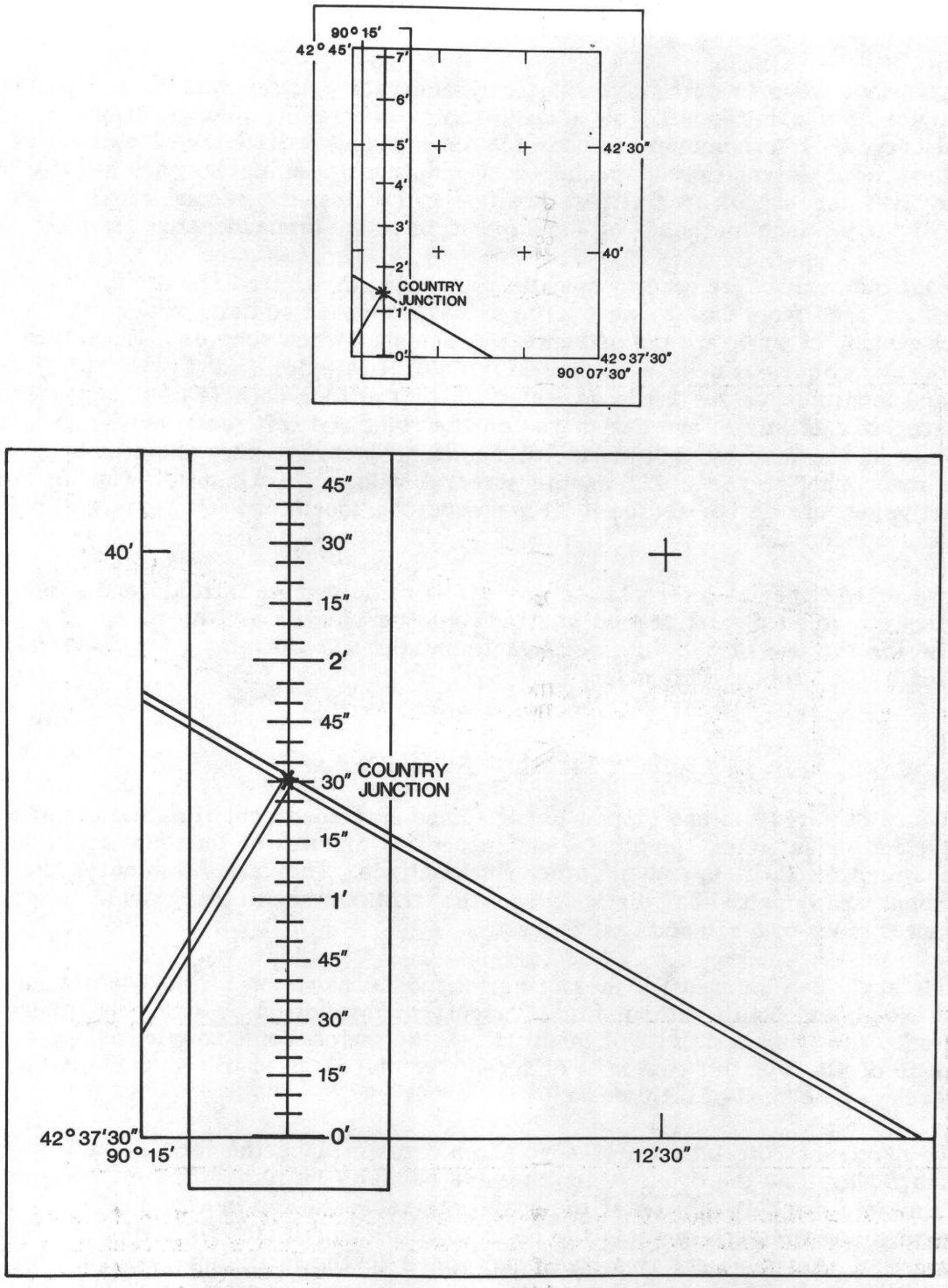


Fig. 1H.—To determine latitude (north–south), a film positive template can be used for measuring latitudinal bands on 1:24,000–scale maps of up to 10 degrees N–S without loss of accuracy. The template for measuring latitude is placed on the map so that the 0' tick mark intersects the neatline of the south edge of the map. The 7'30" tick intersects the neatline on the north edge of the map and the centerline of the template intersects the points being measured. Add the reading from the template to the latitude of the south edge of the map to obtain the latitude of the point. For example, the reading on the template for Country Junction is 1'32" from the south edge of the map at 42°37'30" + 1'32" = 42°39'02" N. For longitude, see fig. 2H.

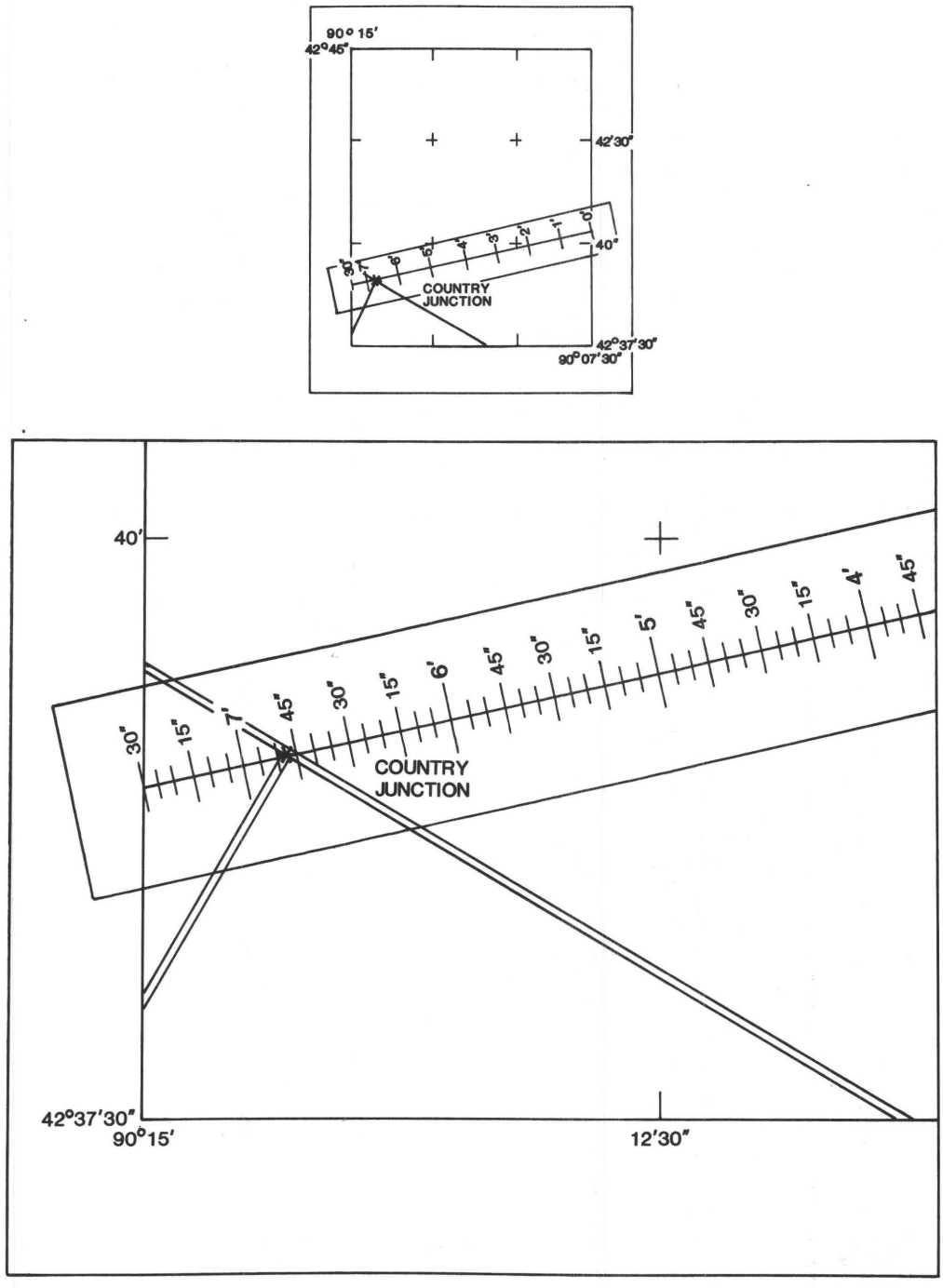


Figure 2H.--To determine longitude (east–west) using a film positive template on 1:24,000–scale maps, use the following method. Because of convergence of meridians, a separate template is needed for each 1° band of latitude. For this example, select the longitude template for 42° latitude. Usually, this template will be slightly longer than the E–W distance between the map boundaries. Rotate the template until the 0' tick mark intersects the neatline of the east edge of the map, the 7'30" tick mark intersects the neatline on the west edge of the map, and the centerline intersects the point being measured. Add the reading from the template to the longitude of the east edge of the map to obtain the longitude of the point. For example, the reading on the template for Country Junction is 6'47" from the east edge of the map at 90°07'30" + 6'47" = 90°14'17" W.

The longitude of Country Junction is determined using the same procedure with the longitude template. In this case, the side (east and west) neatlines of the map are used. Usually the template is longer than the distance between the map margins and so must be rotated (angled) in such a way that the 0' mark is on the right (east) neatline and the 7'30" mark is on the left (west) neatline. The centerline of the template scale then intersects the road junction. In illustration "b," the road junction is read as 6'47" on the scale. This value is added to the longitudinal value of the right or east edge of the map; in this case 90°07'30". Thus Country Junction is located at 90°14'17" W. longitude.

Using Spacing Dividers

A spacing divider can also be conveniently used to determine the geographical coordinates of a point on a map. It is a metal device that can be simply adjusted by hand so that its end points can be separated or closed to fit variable distances on a map. Any distance between two points on a map is then divided into 10 equally spaced units. For example, the 2 1/2' (minute) grid tick marks on the margins of a map at 1:24,000 scale can be divided into tenths or units of 15" (seconds). Ten times 15" equals 150" or 2'30" (60" divided into 150" equals 2'30").

A spacing divider is not large and cannot be extended across the face of the map from edge to edge. For this reason, it is sometimes necessary to divide the topographic map into smaller units of area by drawing pencil lines across the face of the map connecting equal 2.5–minute grid tick marks east and west and south and north for feature points in the center of the map. Note that the places where the 2.5–minute grids cross each other in the body of the map are printed with fine–line cross tick marks. These points can be used as guides for drawing the pencil lines.

To determine the geographical coordinates of a particular point on the map, the spacing divider is adjusted by spreading the device to the exact distance of 2.5 minutes of latitude (south–north) determined from the tick mark on the east or west side of the map. The distance between each point on the divider is one–tenth of 2.5 minutes, or 15 seconds. The spacing divider can now be moved and used to measure the latitude of the map point reading from south to north. For example, in figure 3H, there are 6.7 divider intervals to the center point of Anthony, counting northward from the neatline of the map. As in this case, locations between spacing divider points are usually interpolated. Thus 6.7 x 15" = 100.5 seconds or 1'40" (rounded off). This, added to the latitide 37°07'30" of the lower (south) base line on the map equals 37°09'10" N. for the latitude of Anthony. The same procedure is followed to determine longitude except that one works from right to left (east to west). The longitude of Anthony is about 98°01'50" W.

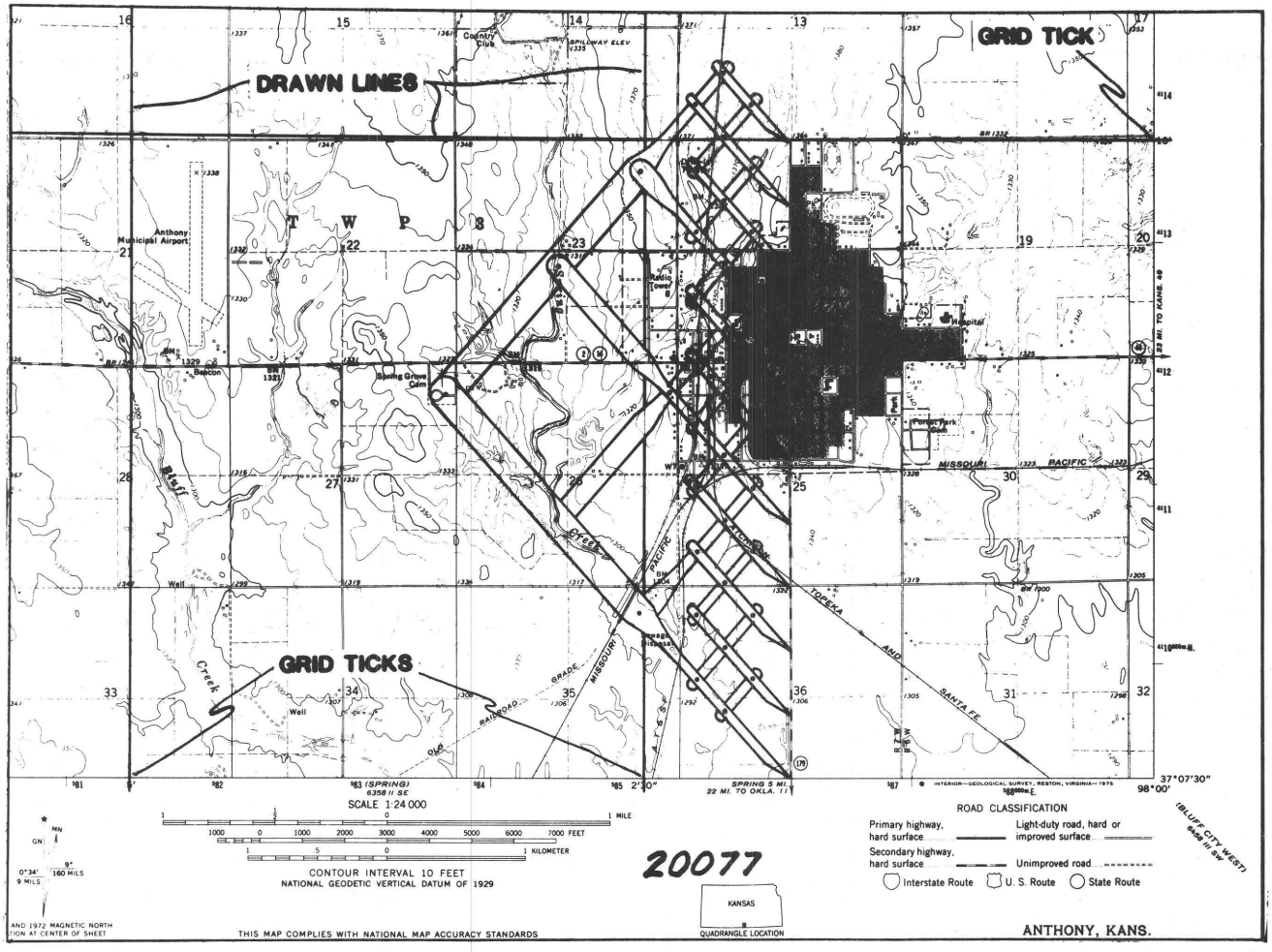


Figure 3H.—Use of the equal spacing divider for determining latitude and longitude. The geographic coordinate system is indicated on the 1:24,000- and 1:25,000-scale maps of the U.S. Geological Survey by grid ticks located along the neatline of each map 2.5 minutes apart. These grid ticks can be connected across the face of the work map by east-west and north-south lines. When the equal spacing divider is adjusted with its end points set at the bounds of the 2.5-minute area, the distance between each point represents 15 seconds of latitude or longitude on the map. For example, there are 6.7 divider intervals counting from the bottom of the map at 37°07'30"N + (6.7 x 15") 1'40" (rounded) = 37°09'10" N. The longitude of Anthony is determined in the same manner east-west: 98°01'50" W.

APPENDIX I.—Status Category Classification

ADMIN –	airport	forest		
	civil	park		
UNOFF –	bridge	oilfield		
	building	other		
	cemetery	school		
	church	tower		
	crossing	trail		
	dam	tunnel		
	hospital	well		
	mine			
BGN –	arch	cave	island	reserve
	area	channel	isthmus	reservoir
	arroyo	cliff	lake	ridge
	bar	crater	lava	sea
	basin	falls	levee	slope
	bay	flat	locale	spring
	beach	gap	pillar	stream
	bench	geyser	plain	summit
	bend	glacier	ppl	swamp
	canal	gut	range	valley
	cape	harbor	rapids	woods

Appendix J.—National Bibliographic Source Codes

This list is used nationally and is subject to expansion as needed. Contact the GNIS Manager for the latest list.

US – M101/YEAR – USGS topographic quadrangle maps published or reprinted since Phase I.
US – M103/ * /YEAR – NOS ocean, river and lake charts where * is the 5–digit chart number.
US – M104/YEAR – U.S. Forest Service maps.
US – M105/YEAR – County maps published by the State.
US – M106/YEAR – State base map – 1:500,000–scale.
US – M116/YEAR – State highway maps.
US – M9***/MAPNAME/YEAR – USGS historical topographic maps where *** is a 2– or 3–digit code for map scale
24=1:24,000–scale; 25=1:25,000–scale;
62=1:62,500–scale; 63=1:63,360–scale;
125=1:125,000–scale; 250=1:250,000–scale; 99=other scales.
US – T102 – U.S. BGN list of names not found on USGS topographic maps.
US – T106 – FIPS 55 list (U.S. National Bureau of Standards).
US – T107 – Dams and Reservoirs list (U.S. Army Corps of Engineers).
US – T108 – Airport list (FAA).
US – T109/NAME/YEAR – National Park Service lists and brochures where NAME refers to the name of the brochure.
US – T110 – Radio and Television Station lists (FCC).
US – T111 – U.S. Forest Service recreation area list.
US – T112/YEAR – Census of Population list (Bureau of the Census).
US – T113/YEAR – NOS Coast Pilot.
US – T114/YEAR – NOS Light list.
US – T115/YEAR – Census County/Township (Bureau of the Census).
US – T119/YEAR – Shopping Center Directory.
US – T120/YEAR – Public Laws (Congressional Record).
US – T121 – BGN Files after Phase I.
US – T122/DATE – USGS – Public Affairs Office – Newsletters.
US – T123/YEAR/p. _ – Bullinger's Postal and Shippers Guide.
US – T124/NAME/YEAR – National Wildlife Refuge Brochures and Maps where NAME refers to the brochure name.
US – T125/p. –– – Federal Writers' Project Volume.

APPENDIX K.—"a" Format for Encoding Geographic Names

The "a" format is used for all three types of data to be encoded.
The three types of data include the following:

1) NEW names and associated information not in the State file.
2) VARIANTS to records currently in the State file (variants to NEW names are included with the appropriate NEW names record).
3) Additions and corrections to records in the State file.

This will require that the three types of data be submitted in three separate files because each will be processed differently.

This format corresponds exactly with the attached Input Coding Form. Each data element will begin on a new 80–character format line with an "a" in the first position followed by the appropriate data element associated number (see fig. 7). There must be a blank between the data element number and the data.

Only the first 69 characters of the format line may be used. In some instances, a data element will have multiple data items in which case a continuation is signaled by a quotation mark or " in position one of the 80–character format line. The quotation mark must be separated from the following data by a blank space.
Example:

a1 Big Canyon
a3 vall
a4 410 41039 41041 53061
a5 Coos, Lane, Lincoln, Snohomish (WA)
a6 461410N1233111W 460729N1233101W 455920N1233026W
" 455445N1232745W 455231N1232901W
a7 454621N1231903W
a9 Knappa, Wickiup Mountain, Vinemaple, Sager Creek,
" Birkenfield, Clear Creek
a16 Bigger Canyon (OR–T43/p. 14), Big Valley (US–M105),
" Nasty Canyon (US–M104), Nowhere Canyon (OR–T301/p. 84),
" Triple Canyon (US–M105)
a17 42 miles long
a18 BGN
a20 sec 17, T4N, R7W, Willamette Meridian
a99 OR–T43/p. 14

As many continuation lines as necessary may be made as long as only the first 69 positions of formatted line are used and the continuations follow in a logical sequence. Also, the data should be broken at logical breaks in words or data items even if less than 69 positions are used for that particular formatted line. There is no minimum in number of used positions in this format, but there is a maximum of 69.

Each type of data requires a different processing procedure. NEW names records will require as a minimum the following data elements: a1, a3, a4, a5, a6, a9, a18, and a99. Elements a7, a16, a19, and a20 are necessary if applicable. The other data elements (a11, a15, a17) enhance the information and are desirable only if obtaining that data does not significantly interfere with the acquisition and research for the minimum required data. The element a98 is used to convey messages or problems and will not become part of the permanent entry.

The second type of data includes VARIANT names to records already in the State file. The data element a0 is followed by the appropriate record identification number (eight digits obtained from the ID Names Listing), and the new variants are entered as data element a16. All VARIANTS must include a bibliographic code in parentheses after the variant. Do not use data element "a99" for this procedure. See "Variant Names," p. 00, for instructions.

The third type of data includes additions and/or corrections to records already in the State file (variants are not included in this procedure). The data element a0 is followed by the appropriate record identification number (eight digits obtained from the ID Names Listing). The addition or correction is then entered after the data element number. If corrections or additions are required with multiple entries, then all entries must be re–entered for this data element. Data element a99 is not necessary.

The final data may be submitted on magnetic tape or magnetic diskette. For data submitted on 9–track magnetic tape, use the following format:

Record length	= 80
Block size	= 6160
Tape density	= 6,250 or 1,600 bpi
Character code	= ASCII
nonlabeled	

For data submitted on floppy diskettes the data must be an American Standard Code for Information Interchange (ASCII) file and must have been prepared using the Disk Operating System (DOS).

GLOSSARY OF TERMS

annotated bibliography – A complete bibliographic reference including a short explanation and worth of the source.

areal feature – Features that contain area as opposed to those that are classed as linear; the coordinates "digitized" or recorded are at the approximate center of the feature.

bathymetric – The measurement of the depth of a water body, hence, a map with isobaths or contour lines measuring the relief of the floor of the body of water.

Board on Geographic Names – See U.S. Board on Geographic Names.

cell – Used specifically in GNIS to refer to equal 7.5– by 7.5–minute map areas. The term is used because GNIS references the map cell whether published or not published, and divides "overedge" maps into two equal 7.5–minute by 7.5–minute maps.

centroid – The approximate center of an areal feature and the point represented by the primary geographic coordinate.

controlled redundancy – Multiple occurrence of data or records on purpose. For example, a name entity passing through or occurring in more than one State has a valid record in each State file in which it is located.

Controversial Name Report – See Domestic Geographic Names Report.

data base – A collection of interrelated or independent data items stored together without unnecessary redundancy, to serve one or more applications.

data element – A basic unit of identifiable and definable information and occupies the space provided by fields in a record, blocks, or a form.

data item – An expression of a fact of a data element. A subdivision of the data element, and the smallest definable unit in a record.

data system – A collection of data bases.

designator – See feature class.

diacritical mark – A mark added to a letter to show pronunciation.

Domestic Geographic Names Report – The form used to annotate and submit controversial names to the U.S. Board on Geographic Names for resolution.

entity – Something about which data are recorded. In data base management concepts, a person, place, or object about which items or data are collected, recorded, and organized into fields, records, and data files.

feature class – One of 63 broad categories in GNIS that groups similar features into categories to facilitate search and retrieval. For example, creek, river, branch, brook, run, etc., are all linear overland flowing bodies of water categorized as stream.

feature–class definition – The specific definition of 63 broad GNIS categories of features.

Federal Information Processing Standards (FIPS) Code – Any code developed and published by the National Bureau of Standards; specifically, in GNIS, the five–digit numeric State/county codes and certain two–character alphabetical codes for States and foreign countries.

field – See data element.

FIPS Code – See Federal Information Processing Standards Code.

generic – That part of a geographic name that refers to kind or type of feature. For example, Big Lake where lake is the generic part of the name.

geographic coordinates – An artificial system or grid expressed in degrees, minutes, and seconds used for location on the Earth's surface – latitude measures distance north–south and longitude measures distance east–west.

geographic name – A proper name or geographic expression by which a particular geographic entity is or was known; a noun phrase of one or more words used consistently in spoken and (or) written language to refer to a particular and relatively permanent place, feature, or area on the Earth's surface or to a conceptionally related group of such places, features, or areas.

Geographic Names Information System (GNIS) – The system composed of data bases, software, programs, and procedures that include geographic names, their standards, and associated information.

GNIS – An acronym for Geographic Names Information System.

interactive – The process of interacting or interfacing directly with the data base for immediately retrieving and displaying information.

interface – A common boundary at which two separate systems or portions of each system join or intersect. An interface can be mechanical, as in adjoining hardware surfaces, or it can be electrical, as in single–level transformation points. Moreover, it can also refer to human and machine interface, and the interaction between man and computers.

label – The established abbreviation for each data element which must be used when establishing the search criteria.

linear feature – A named feature in GNIS that is linear r ather than areal in extent. Specifically features that are in the feature categories arroyo, valley, and stream that are linear and require both mouth and source geographic coordinates.

Phase I – Includes the compilation and edit of all names in the United States and its territories from the U.S. Geological Survey topographic map series (see Appendix A).

Phase II – Includes the compilation and edit of names from most known sources in addition to U.S. Geological Survey topographic maps (see Appendix A.)

primary coordinate – The geographic coordinate representing the center of areal features and the mouth of linear features.

record – A group of related data elements or fields treated as a unit – specifically, a record refers to a named feature and associated data.

redundancy – See controlled redundancy.

secondary coordinate – A geographic coordinate that associates a feature with each 7.5–minute U.S. Geological Survey topographic map on which it is located.

software – Computer programs, procedures, rules, and documentation associated with the operation of a computer system.

source coordinate – The beginning point of linear features expressed as a geographic coordinate.

spatial – Refers to space or occupying space.

topographic map – A map portraying horizontal and vertical positions on a specific part of the Earth's surface determined by geographic coordinates and specifically portraying elevation or altitude by isohypse or contour lines.

U.S. Board on Geographic Names – A Federal body which is authorized by law to establish and maintain uniform geographic names usage throughout the Federal Government. The Board, composed of representatives of Federal agencies, was created in 1890 and organized in its present form by Public Law in 1947.

variant – The term used to list and describe any other known names, forms, or spellings of a current official name.

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