

U.S. Department of the Interior
U.S. Geological Survey

USGS Maps



USGS Maps

Since the U.S. Geological Survey's beginnings in 1879, it has been charged with conducting topographic and geological surveys of the United States and producing its findings. A wide variety of maps, from topographic maps of the Earth's contours to maps of the planets and moons, have been produced and are available to the public. This booklet gives a brief overview of each type the Survey sells and distributes through its Earth Science Information Centers (ESIC) and its map distribution facilities.

Cover: Part of the 7.5-minute series map "Honokane Quadrangle, Hawaii," 1982, 1:24,000, Universal Transverse Mercator projection, 23 x 27 inches.



Topographic Maps

Most USGS topographic maps use brown contours to show the shape and elevation of the terrain. Elevations are usually shown in feet, but on some maps they are in meters. Contour intervals vary, depending mainly on the scale of the map and the type of terrain.

The maps show and name prominent natural and cultural features. Those at scales of 1:24,000 (1 inch = 2,000 feet) show an area in detail. Such detail is useful for engineering, local area planning, and similar purposes.

Less detail is shown at scales of 1:50,000 (1 centimeter = 0.5 kilometer) to 1:100,000 (1 centimeter = 1 kilometer). They cover large areas and are used in land management and planning.

Maps at scales of 1:250,000 (1 inch = about 4 miles), 1:500,000 (1 inch = about 8 miles), and 1:1,000,000 (1 inch = about 16 miles) cover very large areas on each sheet and are used in regional and statewide planning.

Areas featured. Most USGS map series divide the United States into quadrangles bounded by two lines of latitude and two lines of longitude. For example, a 7.5-minute map shows an area that spans 7.5 minutes of latitude and 7.5 minutes of longitude, and it is usually named after the most prominent feature in the quadrangle. Others show a whole area—a county, State, national park, or place of special interest.

7.5-minute maps

The best known USGS maps are those of the 7.5-minute, 1:24,000-scale quadrangle series. A scale of 1:25,000 is used for maps based on metric units (1 centimeter = 0.25 kilometer). The area portrayed on each sheet ranges from 64 square miles at latitude 30 degrees north to 49 square miles at latitude 49 degrees north.

The scale of the 7.5-minute map is used for areas where much detail must be shown. About 55,000 maps show the conterminous 48 States, Hawaii, and territories. All of these maps are now on sale to the public. (In Alaska, 15-minute maps at 1:24,000 and 1:25,000 scale are available for areas around Anchorage, Fairbanks, and Prudhoe Bay.)

The sheet size is about 22 x 27 inches north of latitude 31 degrees and 23 x 27 inches south of that latitude.

For Puerto Rico, the scale of 1:20,000 (1 centimeter = 0.2 kilometer) was adopted in the 1950's because it was a metric scale and the island had used metric measurements previously. The island was originally mapped at 1:30,000 scale, but was changed to 1:20,000 to provide greater detail. The sheet size is about 29 x 32½ inches. The U.S. Virgin Islands of St. Croix, St. John, and St. Thomas have been mapped at a scale of 1:24,000; central Pacific islands at scales ranging from 1:10,000 to 1:50,000.

◀ Part of the 7.5-minute series map
"New Orleans West Quadrangle, Louisiana,"
1992, 1:24,000, Universal Transverse
Mercator projection, 22 x 27 inches.

15-minute maps

The standard map series covering Alaska is the 15-minute, 1:63,360-scale (1 inch = 1 mile) quadrangle series, usually having quadrangle dimensions of 15 minutes in latitude and from 20 to 36 minutes of longitude. The area portrayed on each sheet ranges from 207 to 280 square miles, depending on the latitude.

The features shown on 15-minute maps are generally the same as those shown on 7.5-minute maps, except that some may be generalized or omitted because of the smaller scale and consequent space restrictions. The sheet size is about 18 x 22 inches north of latitude 62 degrees and 17 x 27 inches south of that latitude.

About 97 percent of the 2,920 sheets covering Alaska at this scale are completed; the remaining 3 percent to be done are in the Aleutian Islands and the Bering Sea islands west of the mainland.

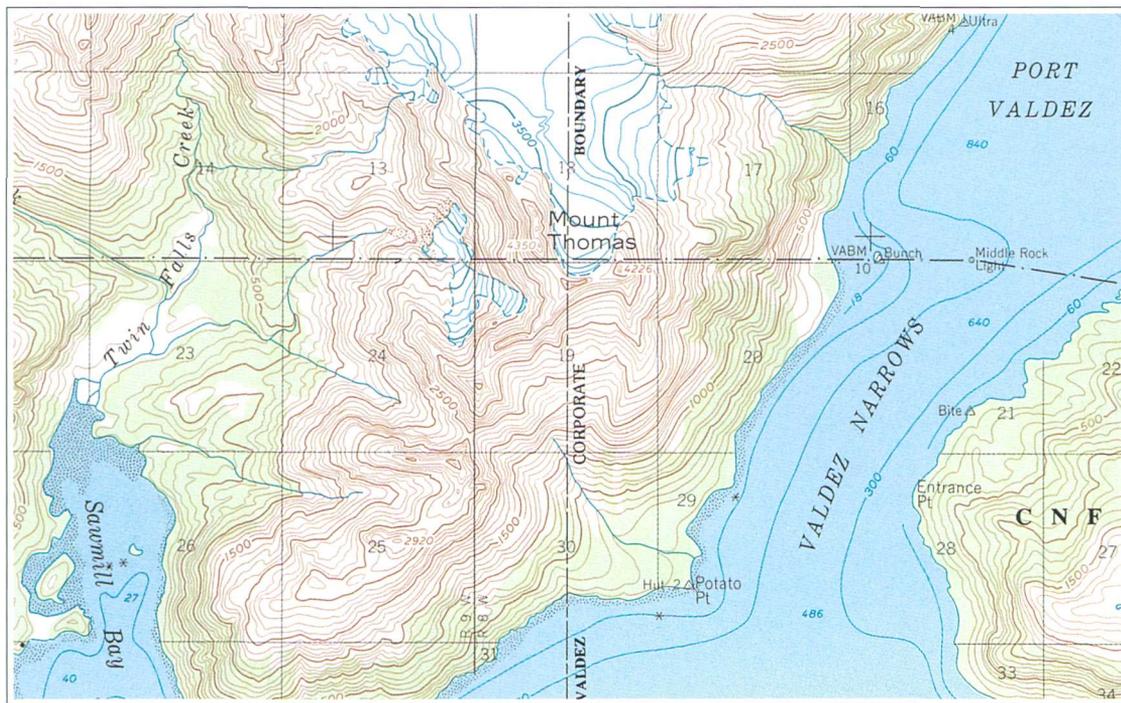
The 15-minute map series at a scale of 1:62,500 (1 inch = approximately 1 mile) has been abandoned. The USGS 7.5-minute topographic quadrangle map series is the official replacement for the 1:62,500-scale series.

DMA maps. Some parts of the United States are covered by 15-minute maps published in cooperation with the Defense Mapping Agency. The maps have a scale of 1:50,000 and show distances and contour intervals in meters.

U.S. 1:100,000-scale series

Virtually all of the conterminous United States and Hawaii are covered by 30- x 60-minute quadrangle maps at a scale of 1:100,000. Most of these maps are derived from 1:24,000-scale maps, but they show distances and contour intervals in meters. Contours are at intervals of 5, 10, 20, or 50 meters, depending on terrain relief. (Also see County Maps.)

Some 1:100,000-scale quadrangle maps are published in planimetric editions, without contours. Bureau of Land Management editions showing Surface Management Status and Surface Minerals Management Status are also available. Transportation and hydrography data shown on these maps are available in CD-ROM format from any ESIC.



Part of the 15-minute map "Valdez (A-8) Quadrangle, Alaska," 1960, reprinted 1986, 1:63,360, Universal Transverse Mercator projection, 18 x 22 inches.



Part of "Hebgen Lake, Montana-Idaho-Wyoming," 1993, 1:100,000, Universal Transverse Mercator projection, 40 x 24 inches.

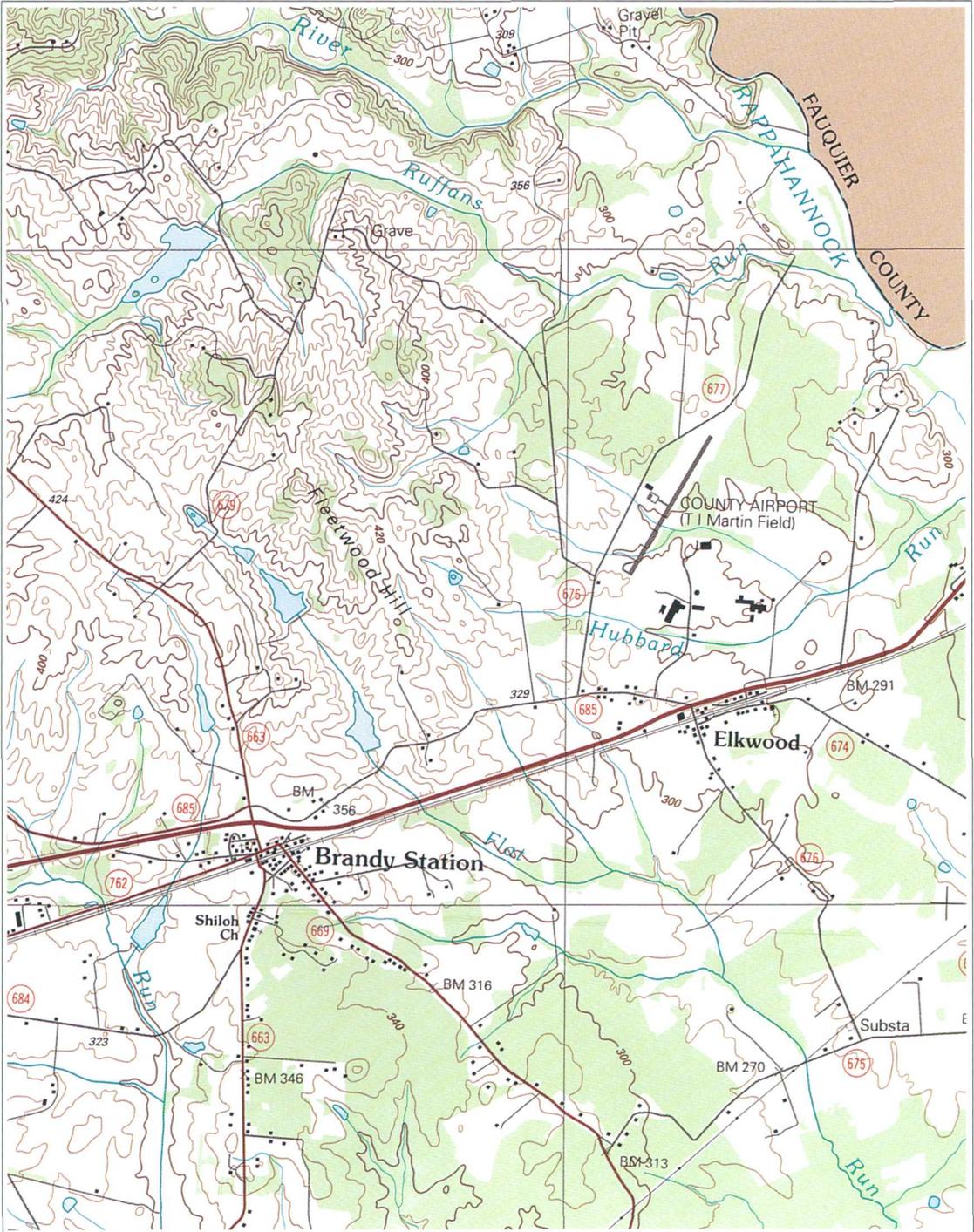
County map series

A county map may consist of one or more sheets, depending on the size of the county.

1:50,000. County maps at this scale correspond closely in content to the 1:24,000-scale quadrangle

maps. However, some county maps have contours in meters; these maps are also derived from the 1:24,000-scale maps.

1:100,000. Less detail is shown on these county maps because of space restrictions at the smaller scale.



Part of "Culpeper County, Virginia," 1992, 1:50,000, Universal Transverse Mercator projection, 49 x 38 inches.

U.S. 1:250,000-scale series

Maps in the 1:250,000-scale series are available for the entire United States. They were originated by the U.S. Army Map Service during the 1950's, but are now maintained by the USGS.

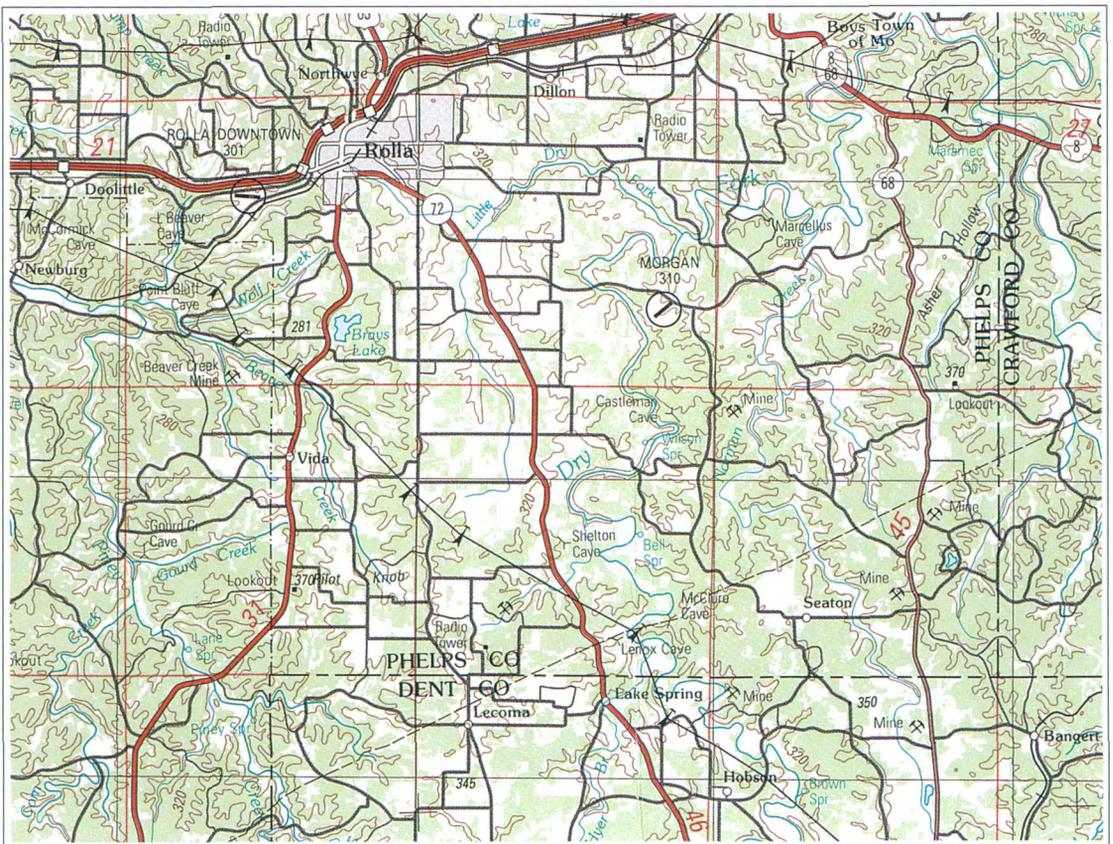
This series serves as base maps for aeronautical charts and geologic maps, for geographic reference, and in planning regional land use, transportation, and utility systems. Elevation data, derived from the contours on these maps, are available on magnetic tape from any ESIC.

Conterminous United States. Quadrangles are 1 degree of latitude by 2 degrees of longitude. Along the coasts dimensions are modified to fit land areas. The series consists of 489 sheets. Ground area shown varies with latitude, from 8,218 square miles at 30 degrees north to 6,222 square miles at 49 degrees north. Sheet size is about 32 x 22 inches. About 8 percent of these sheets have been replaced by folded metric maps, about 36 x 22 inches in size.

Hawaii. Quadrangles are 1 degree of latitude and from 1 degree 30 minutes to 1 degree 35 minutes of longitude. Ground area mapped is from 6,645 to 6,990 square miles. Sheet size is about 29 x 22 inches.

Alaska 1:250,000-scale series. Quadrangles, ground areas, and sheet size match those in the reconnaissance series but the source data is more accurate. Hypsographic (terrain relief) information is more generalized than that on 7.5- and 15-minute USGS maps. Because the contour interval is 50, 100, 200, or 500 feet, many small relief features are not shown on this 153-sheet series.

Alaska reconnaissance series. This 153-sheet series covers the mainland and adjacent islands. It is being superseded by the Alaska 1:250,000-scale series. Quadrangles are 1 degree of latitude and from 2 to 3 degrees of longitude. Ground area mapped is from 5,105 to 6,030 square miles for 1- x 2-degree quadrangles and from 4,580 to 7,310 square miles for 1- x 3-degree quadrangles. Sheet size is about 32 x 22 inches.



Part of "Rolla, Missouri-Illinois," 1989,
1:250,000, Universal Transverse Mercator
projection, 36 x 22 inches.

State map series

The State maps in this series are usually published in three separate editions: (1) base map, (2) highway and contour map, and (3) shaded-relief map. Most are at a scale of 1:500,000, but a few have been released at 1:1,000,000 or other scales.

The features shown are limited to areas within the State. No areas of adjoining States are shown except for shorelines in coastal States and major streams and other water areas that form State boundaries.

Most maps in the series show one State per sheet, but some sheets show more than one State—New Hampshire and Vermont; Connecticut, Massachusetts, and Rhode Island; Delaware and Maryland. (There is also a separate sheet for Connecticut at 1:125,000 scale.)

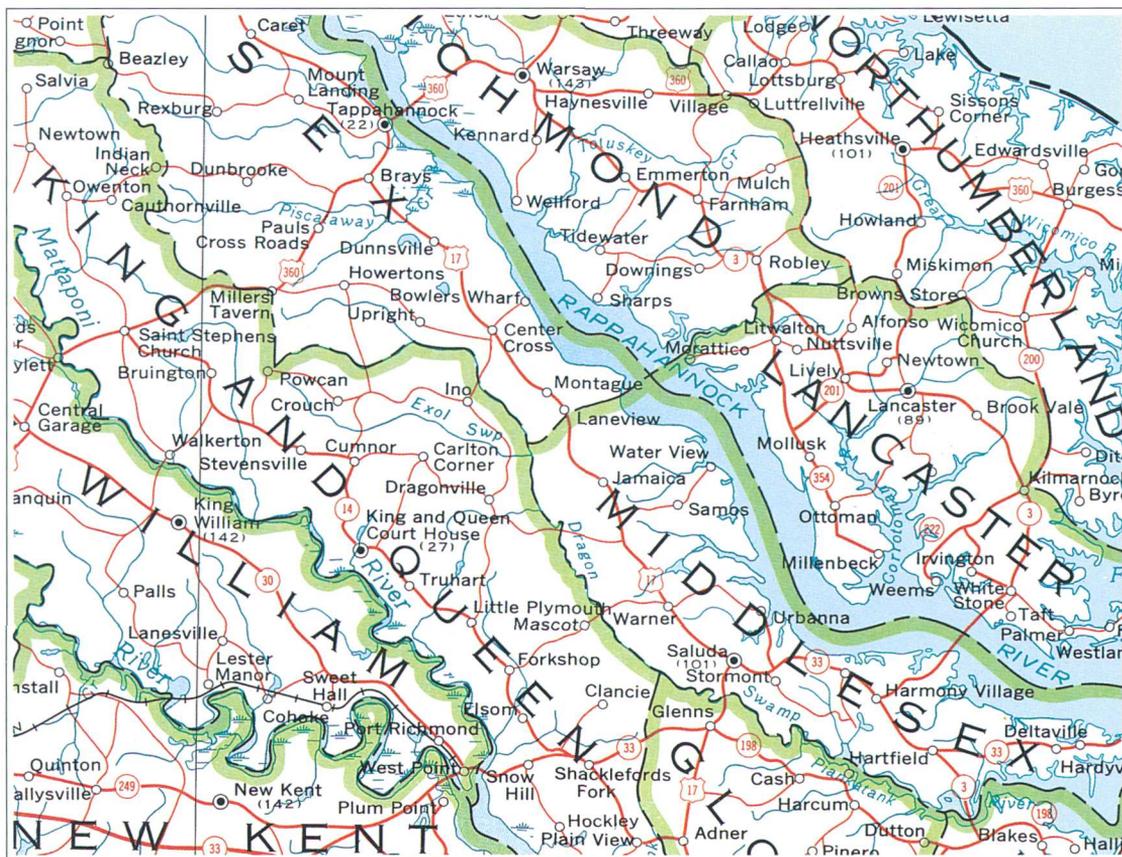
Four States have more than one 1:500,000-scale sheet: California (2), Michigan (2), Montana (2), and Texas (4).

Two maps of the State of Alaska show Alaska National Interest Lands: shaded relief at 1:5,000,000 and planimetric at 1:2,500,000. Alaska State maps are available at scales of 1:1,584,000, 1:2,500,000, 1:5,000,000, and 1:12,000,000. Alaska is the only State for which there is no 1:500,000-scale map.

National park map series

Each of these topographic maps, some of them with shaded relief, feature a national park, national monument, or other National Park System unit. The maps are much like the standard quadrangle maps at the same scale, but they highlight recreational features.

Scales range from 1:960 for the map of the Franklin D. Roosevelt National Historic Site, New York, to 1:250,000 for the map of the Denali National Park, Alaska. Sheet size ranges from about 21 x 17 to 61 x 46 inches.



Part of "State of Virginia," 1973, 1:500,000, Lambert conformal conic projection, 62 x 30 inches.

Part of "Grand Canyon National Park and Vicinity, Arizona," 1962, 1:100,000, polyconic projection, 60 x 38 inches.



Shaded-relief maps

USGS publishes shaded-relief editions of certain topographic maps to accentuate physiographic features of special interest and for some State, Antarctic, and national park maps. These maps use shaded relief, as well as contour lines, to represent the shape of the terrain.

The pictorial effect of such maps is emphasized by relief shading—a halftone overprint that simulates the appearance of sunlight and shadows on the terrain and creates the illusion of three-dimensional topography.

Topographic-bathymetric maps

These USGS maps show in one format and one edition the data for a land-water area previously shown separately as a topographic map and a bathymetric map.

On topographic-bathymetric maps, contour lines show elevations of the land areas above sea level, and isobaths (bathymetric contours) show the form of the land below the water surface.

Some bathymetric maps show magnetic and gravity data in addition to water depths.

Because coastal zones include both land and water, maps of such areas include both topographic and bathymetric data. In order to produce these coastal maps, the National Ocean Service provided bathymetric data to be added to USGS topographic maps. The combined map serves the needs of oceanographers, marine geologists, land use planners, physical scientists, conservationists, and others having an interest in management of the coastal zone, the wetlands, and the offshore environment. Topographic-bathymetric maps at a scale of 1:24,000 are also popular with people who enjoy fishing.



Part of "Grand Canyon National Park and Vicinity, Arizona," shaded-relief edition of 1972, 1:62,500, polyconic projection, 59½ x 37½ inches.

Part of the topographic-bathymetric map "Kedges Straits Quadrangle, Maryland," 1972, bathymetry added 1987, by the USGS and the National Ocean Survey, 1:24,000, Lambert conformal conic projection, 22 x 28 inches.



K E D G E S S T R A I T S

Solomons Lump Lighthouse

Light

Bards Pt

Fog Point Cove

Bridge

Creek

Abrahams Pt

Back Cove

Fish Pt

Gunl Pt

S M I T H I S L A N D

M A R T I N

N A T I O N A L W I L D L I F E R E F U G E

Noah Ridge

Joes

Ridge

Joes

Fishing

Creek

Lighting Knot Cove

Sawney Cove

Lookout Tower

Maddox I.

Channel Pt

Channel Pt Gut

Silver I.

Boat I.

Swan I.

Light

Troy Is

Barnes Creek

Big Thoro...

Antarctic maps

1:50,000. Topographic maps at this scale with 50-meter contour intervals are available in the Ross Island-Taylor Glacier area. This series presently totals 13 sheets, with shaded relief added to the most recent maps.

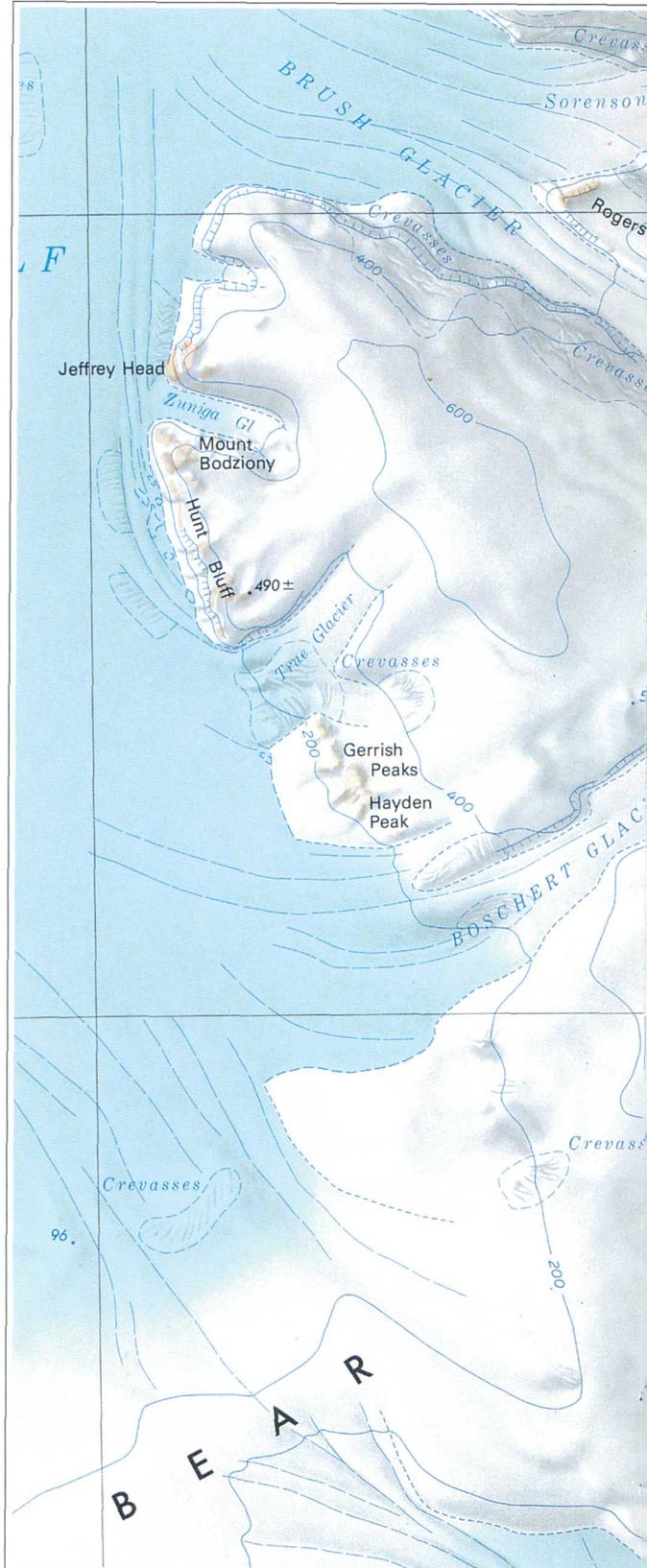
1:250,000. A topographic shaded-relief reconnaissance and a geologic reconnaissance series at this scale have contour intervals of 200 meters and also show bathymetric information for coastal areas. The topographic series is the primary map source for the planning, logistic support, and multidisciplinary investigations of the U.S. Antarctic Research Program. There are 13 satellite image maps at this scale available in the Ross Island-Dry Valley and the Siple Coast areas.

1:500,000. Two series of maps—topographic shaded relief and sketch—are published at this scale. The topographic maps, which show coastal areas of Wilkes Land and Enderby Land, were made for the International Geophysical Years (1955-58). There are also two satellite image maps at 1:500,000 scale.

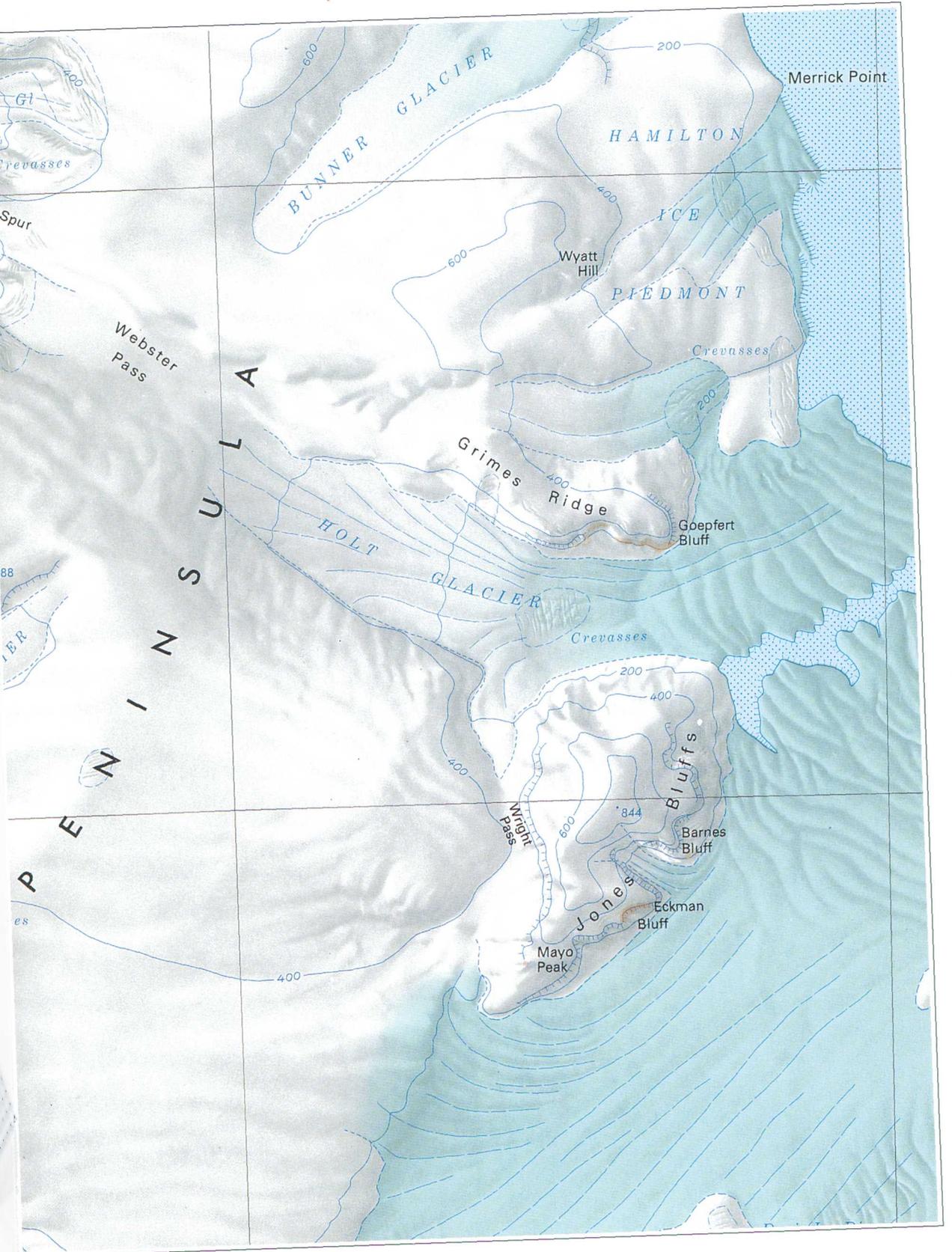
1:1,000,000. A limited number of topographic maps and Landsat image maps have been published at this scale. Topographic maps are in the International Map of the World (IMW) format and have contours at 100, 300, or 500 meters.

1:2,188,800. A reconnaissance sketch and topographic map of the Ross Ice Shelf at this scale was made in support of the Ross Ice Shelf Geophysical and Glaciological Program.

1:5,000,000. Image map of the Antarctic continent using advanced very high resolution radiometer (AVHRR) data from the National Oceanic and Atmospheric Administration satellites.



Part of "Bear Peninsula, Antarctica," 1978, by USGS in cooperation with the National Science Foundation, 1:250,000, polar stereographic projection, 29 x 26 inches.



Photoimage Maps

Orthophotomaps

Orthophotomaps are multicolored, distortion-free, photographic image maps. They are produced in standard 7.5-minute quadrangle format from aerial photographs, and they show most of the names, symbols, and patterns found on 7.5-minute topographic quadrangle maps. Most of these maps are at a scale of 1:24,000, but some are at 1:25,000.

They show subtle topographic detail in areas of very low relief, such as marshlands and coastal zones. For that reason, they are published as the topographic quadrangle maps for some coastal areas.

Some orthophotomaps of high relief areas also have been published.

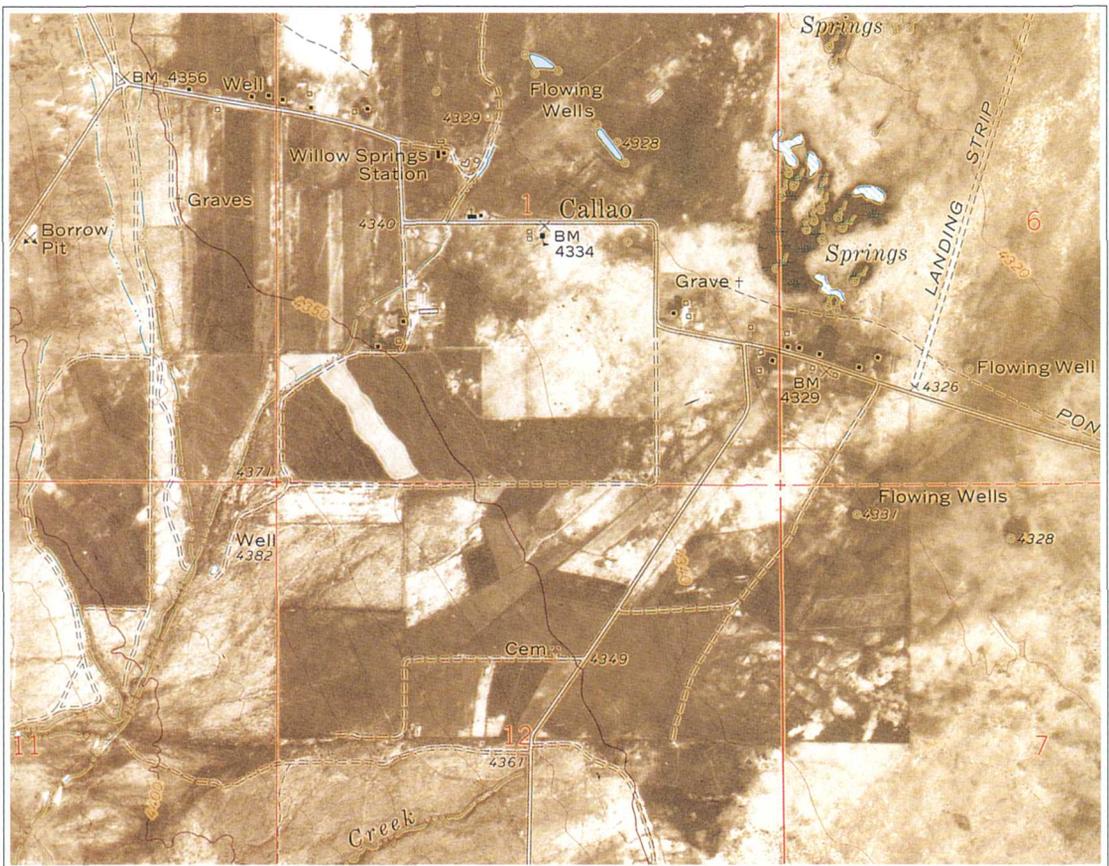
Coverage is mainly along the Gulf and Atlantic coasts (Texas to Maryland), the Mexican border, and in some areas of Alaska, Minnesota, New Mexico, Nevada, and Utah.

They show State, county, and local boundaries; names of cities and towns; roads and highways with symbols and color; railroads; names of rivers, streams, and lakes; and topographic contours.

Orthophotoquads

Orthophotoquads are multicolored, distortion-free, photographic image maps that are produced in standard 7.5-minute quadrangle format from aerial photographs, but have no contours and only minimal cartographic treatment. They include only a few names and symbols.

Orthophotoquads are available for selected areas along the east coast of the United States and supplement standard 7.5-minute topographic maps in these areas.



Part of "Callao Quadrangle, Utah," 1972, 1:24,000, 7.5-minute orthophotomap, Lambert conformal conic projection, 22 x 27 inches.



Part of "Lewes Quadrangle, Delaware," 1980,
1:25,000, orthophotoquad, Universal Transverse
Mercator projection, 22 x 27 inches.

Border maps

U.S.-Mexico. 203 natural color photoimage maps at a scale of 1:25,000 have been printed, bracketing the U.S.-Mexico border and covering the entire international boundary from the Pacific Ocean to the Gulf of Mexico.

U.S.-Canada. A set of maps is available that provides natural color photoimage coverage for a 180-kilometer (about 110-mile) strip along the U.S.-Canada border from Massena, New York, to East Richford, Vermont. These maps are formatted as 7.5-minute, 1:25,000-scale quadrangles that are centered approximately on the border and cover areas of 10 kilometers (about 6.2 miles) east-west and 11 kilometers (about 6.8 miles) north-south.



Part of "Las Conchas, Texas-Chihuahua," 1983, by the USGS in cooperation with the Department of the Treasury, U.S. Customs Service, 1:25,000, Universal Transverse Mercator projection, 28 x 22 inches.



Part of "Rouses Point Port of Entry, Vermont-New York-Quebec," 1977, by the USGS in cooperation with the Department of the Treasury, U.S. Customs Service, 1:25,000, Universal Transverse Mercator projection, 19 1/2 x 22 1/2 inches.

Satellite image maps

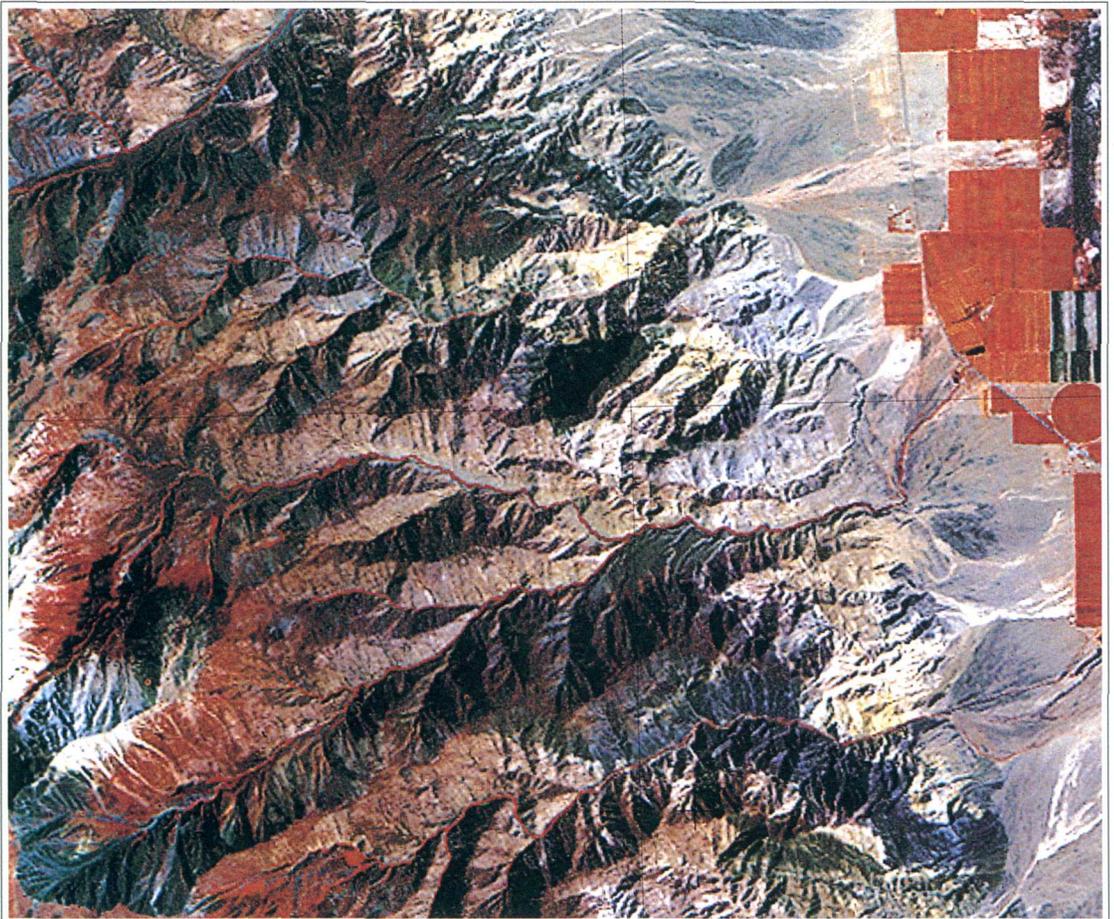
Satellite image maps are multicolor or black-and-white photograph-like maps made from data collected by Earth resources satellites. They are a diverse group of experimental maps printed in a standard edition and variety of scales and sizes, ranging from 1:24,000 for Point Loma, California, to 1:7,500,000 for the conterminous 48 States.

Most satellite image maps are printed to simulate color-infrared photography by combining imagery that was scanned in red, green, and infrared wave lengths of light.

On color-infrared imagery, growing crops, grasses, and woodlands usually appear in shades of red; conifer forests in shades of reddish brown; clear water as dark blue or black; turbid water as light blue or gray; and cultural features such as cities and highways as steely blue-gray.

Satellite image maps are available for selected areas in about half of the States and the District of Columbia and such areas as Antarctica, the Bahamas, and Iceland. They are also available for the conterminous United States as a National Atlas sheet, and the entire States of New Jersey, Georgia, Arizona, and Florida.

Many standard editions at 1:250,000 scale have topographic maps printed on the reverse sides. Each map is identified by its latitude and longitude and is given a distinctive name, for example, "Upper Chesapeake Bay," or the name of the comparable topographic map of the area. Major water bodies are used for map names when appropriate because they show the greatest contrast and are easily recognized.



Part of "Benton Range, California-Nevada, Landsat 5," 1987, 1:100,000, Universal Transverse Mercator projection, 42 x 24 inches.

Geologic Maps

Geologic maps use a combination of lines, symbols, and colors to show the composition and structure of earth materials and their distribution across and beneath the Earth's surface. They generally show bedrock formations like granite or limestone, surficial units such as sediment deposited by glaciers or rivers, and structures like folds and faults. Geologic maps can be used to identify geologic hazards, locate natural resources, and facilitate land-use planning.

The USGS makes many kinds of geologic maps. These maps are available as single or multiple sheets, many of which are folded and placed in a paper jacket. Other geologic maps are enclosed in envelopes bound with USGS book reports such as professional papers, bulletins, and water-supply papers. The texts of these reports contain descriptive and interpretive matter that supplements the information on the geologic maps.

USGS geologic maps are typically plotted on topographic or planimetric bases. They range in scale from 1:20,000 to 1:2,500,000, depending on the type of information to be shown and the purpose of the map.

USGS Geologic Map Indexes are a State-by-State summary of published geologic mapping by Federal, State, academic, professional, and other organizations.

Oil and gas investigations maps and charts

The Oil and Gas Investigations Maps (OM) Series and Charts (OC) Series show the subsurface structure and stratigraphy and surface geology of selected oil and gas fields and of other areas having hydrocarbon potential. They are black and white or multicolor.

Most maps and charts have an explanatory text printed on the margin or in a separate pamphlet. Some are on multiple sheets. Sheet sizes and projections vary. Each map or chart is folded and placed in a paper jacket.

Maps. Each map is plotted on a topographic or planimetric base. Typically included are cross sections, columnar sections, correlation diagrams, and well logs. Maps numbered 1 to 109 in the series are designated preliminary; those from number 110 onward carry the prefix OM. Most maps in this series were published before 1965.

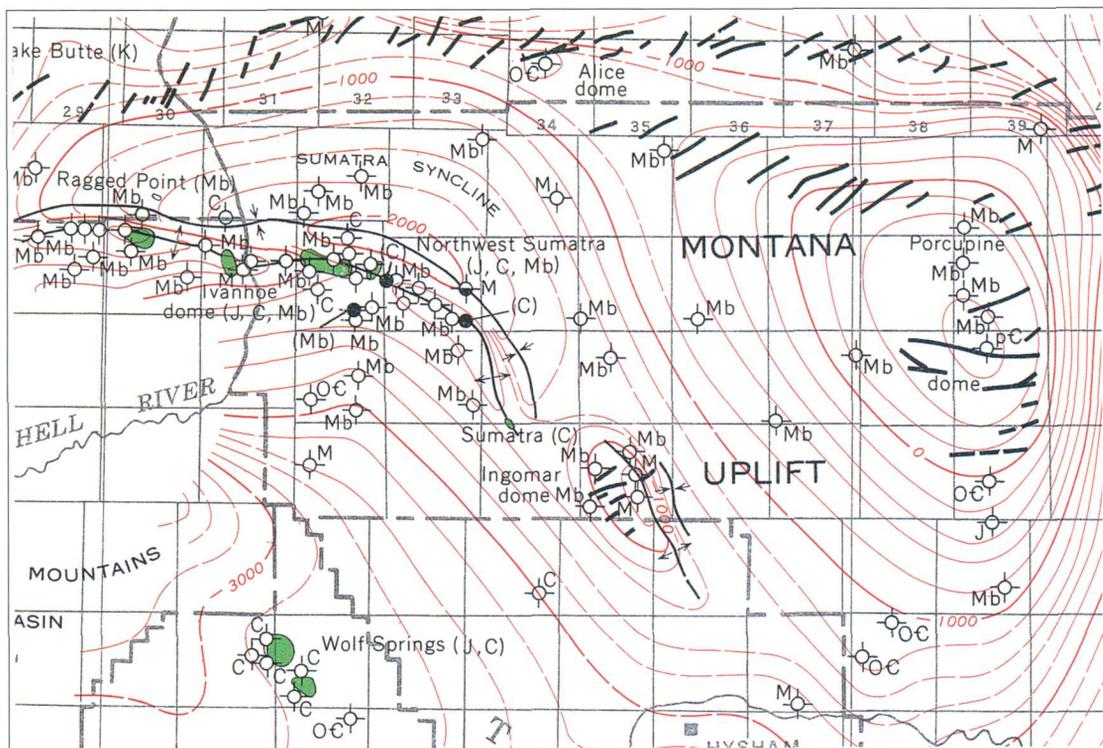
Charts. Charts generally consist of well logs, correlation diagrams, graphs, and tables. Some charts include seismic data or maps. Charts numbered 1 to 39 in the series are considered preliminary; those from number 40 onward carry the prefix OC.

Geologic quadrangle maps

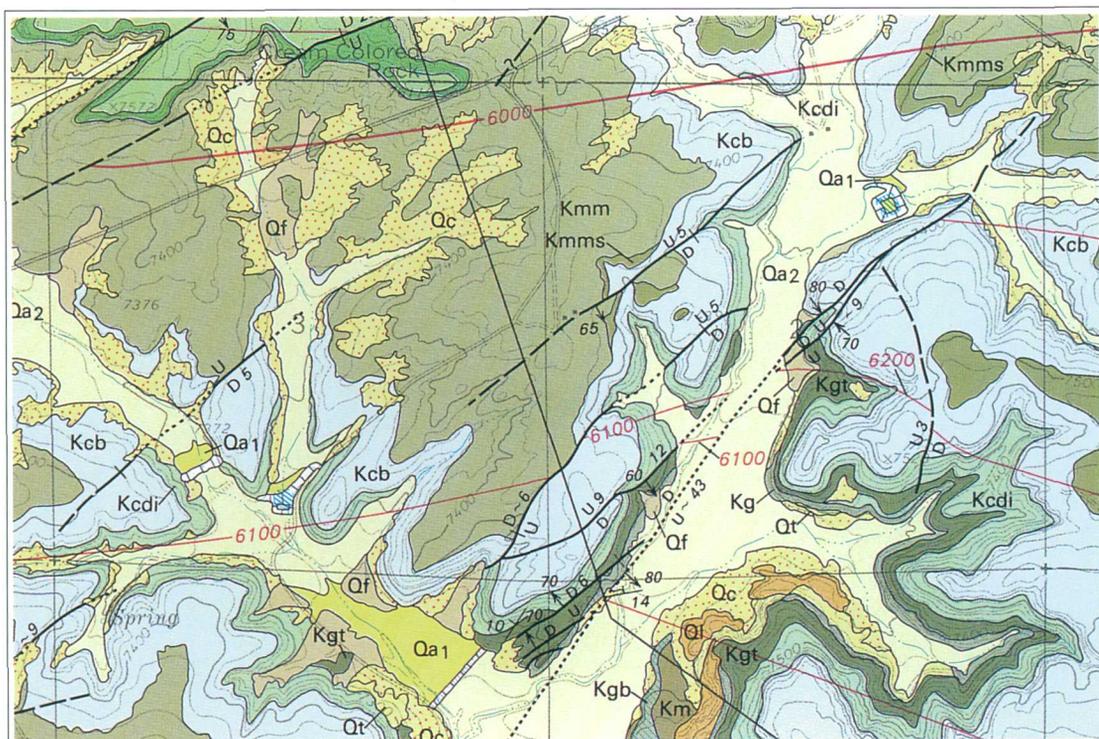
The Geologic Quadrangle (GQ) Series has more than 1,700 multicolor maps that show the bedrock, surficial, or engineering geology of selected 7.5- or 15-minute quadrangles in the United States. The series, begun in 1949, is a continuation of the earlier Folios of the Geologic Atlas of the United States (1894 to 1945).

Each map is accompanied by an explanatory text printed on the map margin or occasionally as a separate pamphlet. Some maps include cross sections for clarity and to show relations at depth; some contain columnar sections describing stratigraphy; some maps show structure contours.

Sheet size and projection depend on the base map on which the geology is plotted. The most common scale is 1:24,000; some are at 1:31,360, 1:62,500, or 1:63,360 (Alaska). Each map is folded and placed in a paper jacket.



Part of "Structure Contours Map on Top of the Middle Member of the Piper Formation of Middle Jurassic Age in the Williston Basin and Adjacent Areas in Montana, North Dakota, and South Dakota," 1959, 53 1/2 x 39 inches.



Part of "Geologic Map of the Casamero Lake Quadrangle, McKinley County, New Mexico," 1993, 1:24,000, Universal Transverse Mercator projection, 44 x 34 inches.

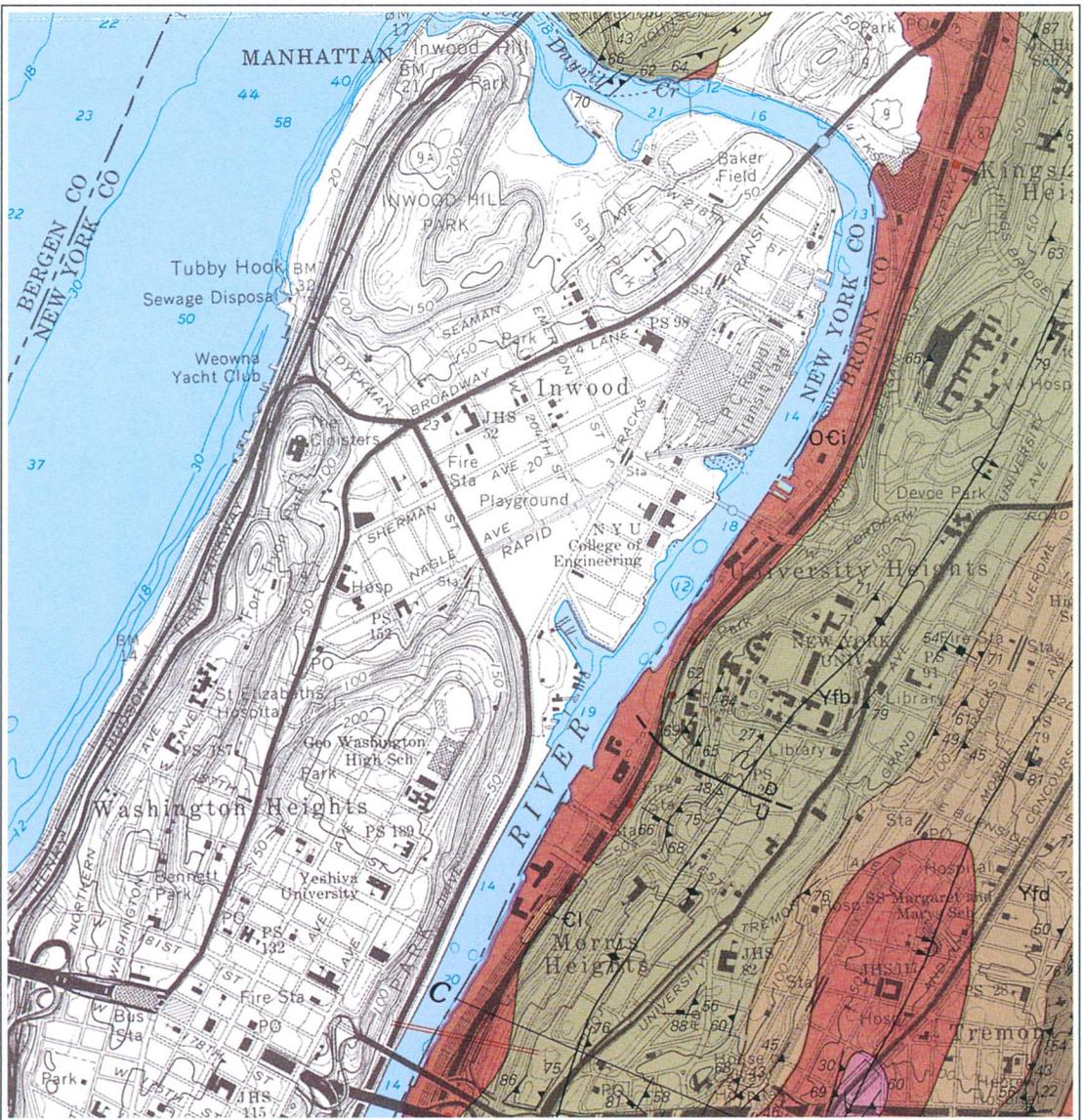
Miscellaneous investigations series maps

The Miscellaneous Investigations (I) Series contains mostly multicolor maps covering diverse topical material such as bedrock and surficial geology, marine geology, mineral and energy resources, and geophysics and geochemistry. The series also includes maps of the Earth's Moon and other planetary bodies, hydrogeology, landforms, earthquake epicenters, map projections, and oblique-view maps.

Maps cover both quadrangles and irregularly shaped areas and are usually shown on a topographic or planimetric base at a variety of scales and in a variety of formats. Many pre-1961 I Series maps are photogeologic maps that were compiled from aerial photographs with little or no field checking.

Most maps have explanatory texts printed on the map margin or in a separate pamphlet. A few are on multiple sheets.

Sheet sizes and projections vary. Each map is folded and placed in a paper jacket.



Part of "Bedrock and Engineering Geologic Maps of Bronx County and Parts of New York and Queens Counties, New York," sheet 1, 1992, 1:24,000, polyconic projection, 54 x 41 inches.

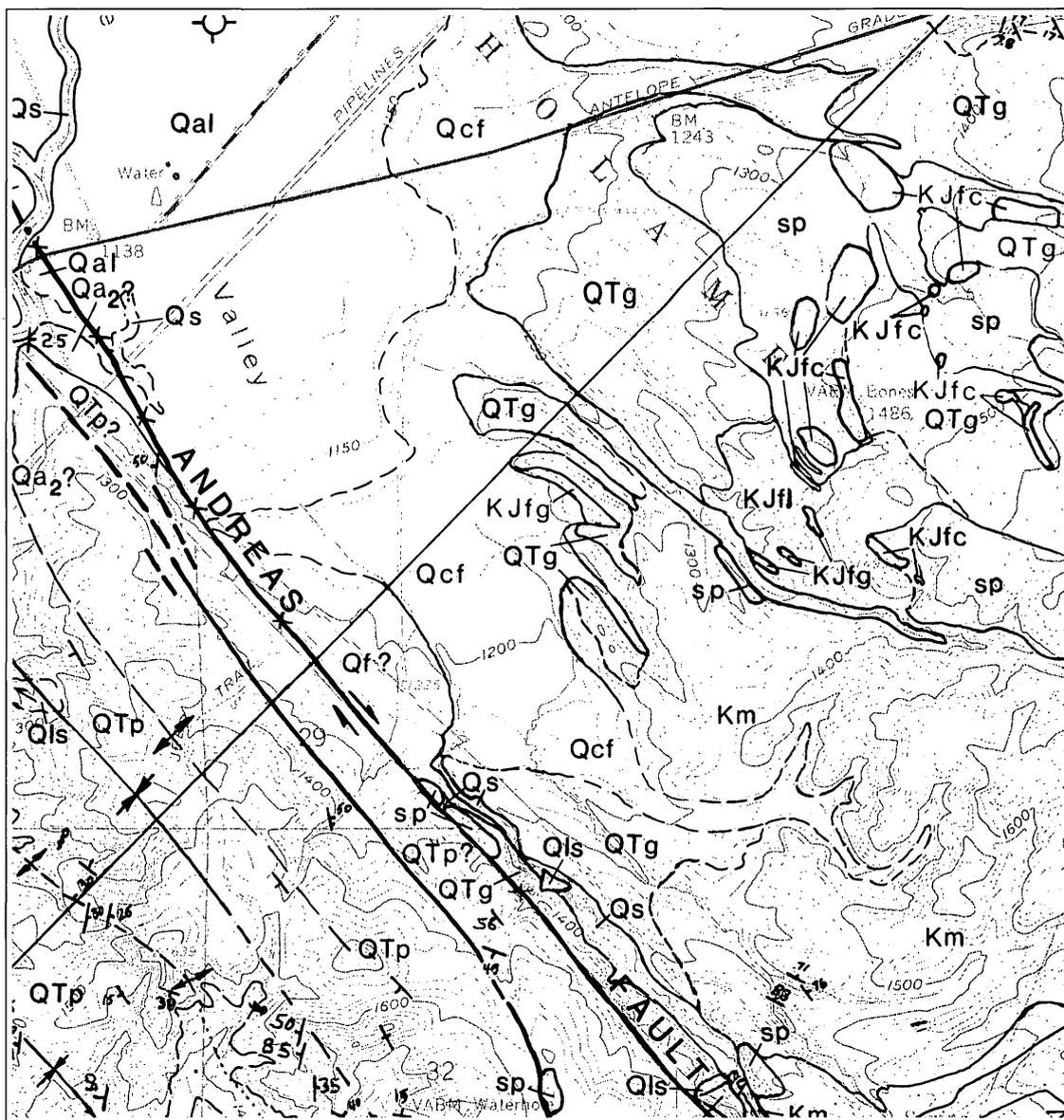
Miscellaneous field studies series maps

The Miscellaneous Field Studies (MF) Series contains more than 2,200 mostly black-and-white maps that cover nearly all aspects of USGS investigations and research. The series, begun in 1950, had been known earlier as the Mineral Investigations Field Studies Series. Pre-1971 maps show geology in relation to specific mining or mineral-deposit studies; later maps are on various subjects such as bedrock and surficial geology, offshore geology, mineral resource assessments, geophysical and geochemical surveys, and environmental studies.

The maps are either the preliminary results of ongoing studies or the final results of studies that lack the scope necessary for the I and GQ Series. They are intended for rapid publication and are mostly author prepared.

MF maps cover both quadrangles or irregularly shaped areas and are usually plotted on topographic or planimetric bases. Most maps are accompanied by a text on the map margin or in a separate pamphlet. Some are on multiple sheets.

Scale, sheet sizes, and projections vary. Each map is folded and placed in a paper jacket.



Part of "Geologic Map of the Cholame Quadrangle, San Luis Obispo County, California," 1991, 1:24,000, polyconic projection, 35 x 46 inches.

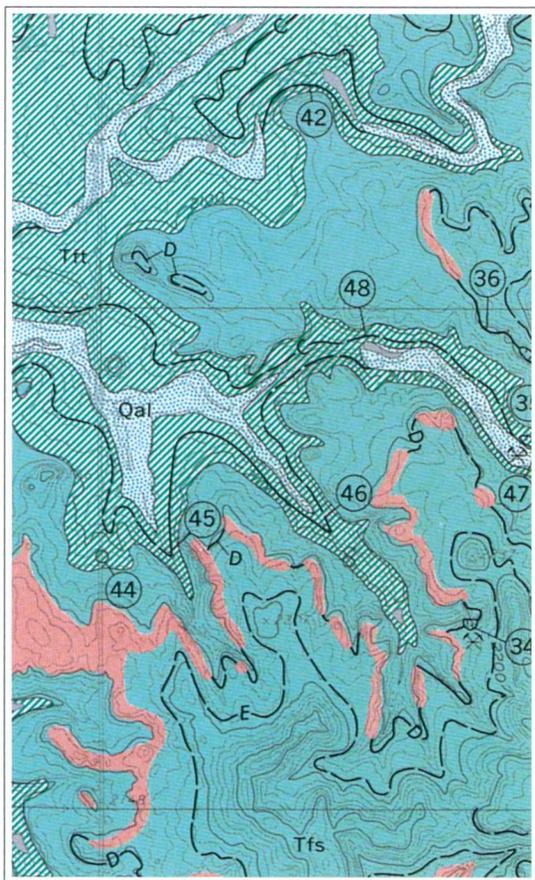
Coal investigations series maps

The Coal Investigations (C) Series contains multicolor or black-and-white geologic maps that show bedrock geology, stratigraphy, and structural relations of selected coal resource areas of the Nation. The numbering of these maps began in 1950; a few unnumbered maps were produced as early as 1935.

Each map has an explanatory text printed on the map margin or in a separate pamphlet. Maps also typically show cross sections, columnar sections, structure contours, and measured sections of coal zones.

C Series maps cover both quadrangles or irregularly shaped areas. The maps are plotted on topographic or planimetric bases at a variety of scales. The most common formats are individual 7.5-minute or 30- by 60-minute quadrangles.

Sheet size and projection vary. Each map is folded and placed in a paper jacket.



Part of "Geologic Map and Lignite Deposits of the New Salem Quadrangle, Morton County, North Dakota," 1992, C-62, 1:24,000, Universal Transverse Mercator projection, 34 x 28 inches.

Hydrologic maps

The Hydrologic Investigations Atlases (HA) Series contains either black-and-white or multicolor maps showing a wide range of water-resources information, such as depth to ground water, floods, irrigated acreage, producing aquifers, water availability, surface-water discharge, chemical or mineral content of water, surface impoundments, and water temperature.

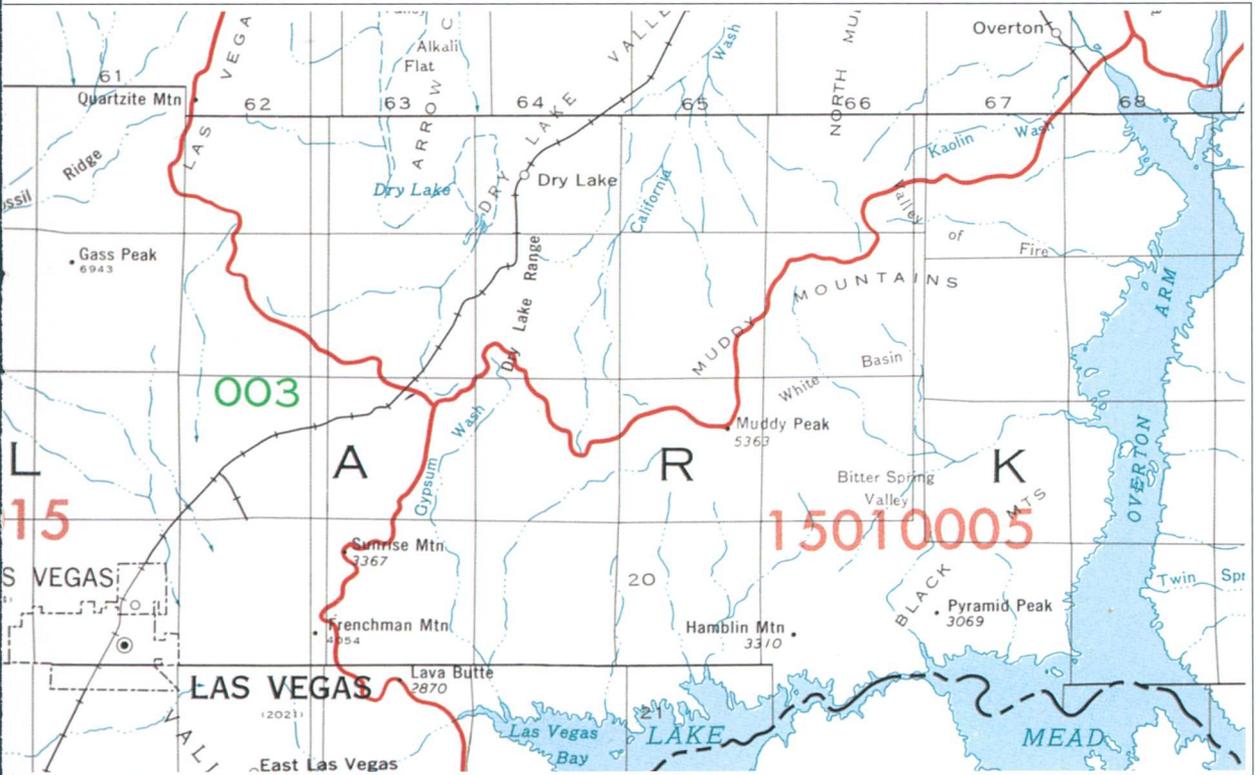
More than 700 hydrologic atlases have been published; most HA maps have been prepared in cooperation with State, county, and municipal agencies. Maps vary in sheet size, number of sheets, and scale. Principal maps are most frequently presented at a scale of 1:24,000; however, much smaller scales like 1:250,000 are used for larger areas of study.

Flood-prone areas are outlined on standard USGS 1:24,000-scale topographic quadrangle maps as part of the Federal program for managing flood losses in urban areas. Flood-prone area maps, although not a published series, are available, by quadrangle name, from the Water Resources Division District Office in the State of interest. Locations of these offices can be obtained by contacting the Hydrologic Information Unit, Water Resources Division, U.S. Geological Survey, 419 National Center, Reston, VA 22092.

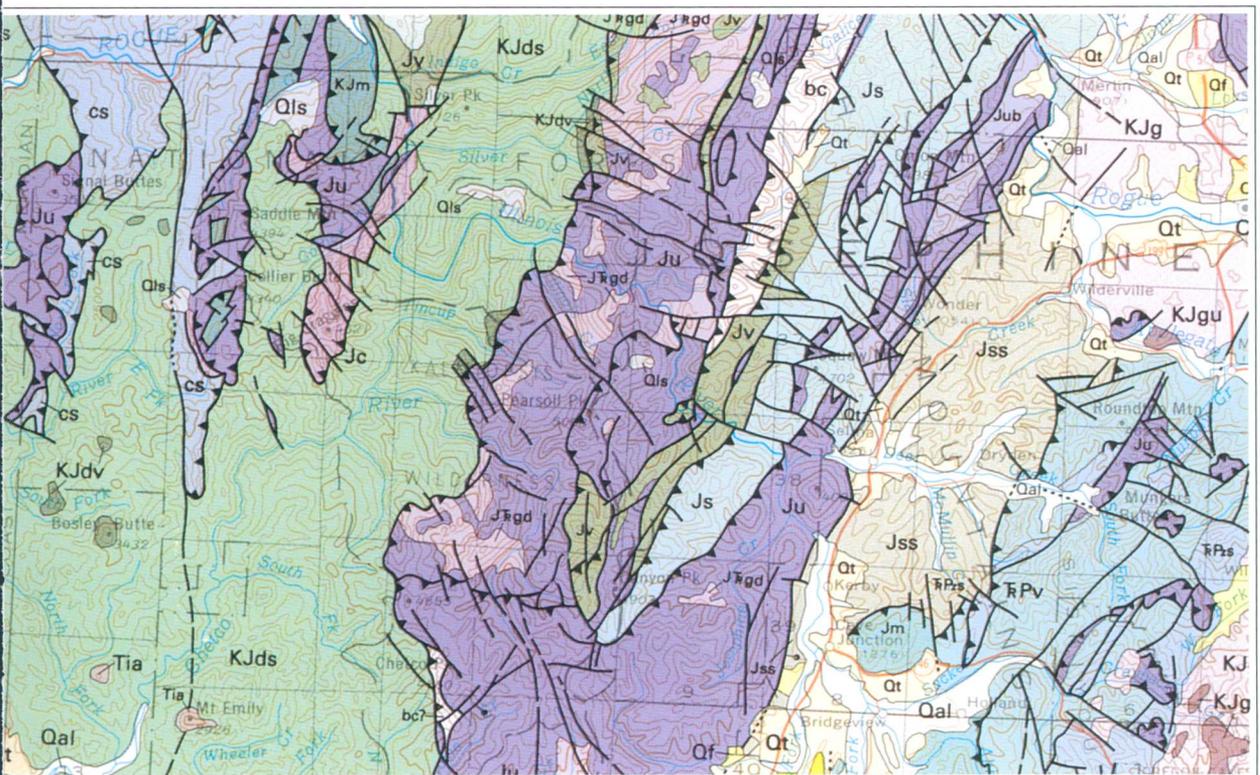
State geologic maps

The USGS has compiled multicolor geologic maps in cooperation with about a third of the States. Most other States have prepared and made available their own State Geologic maps. USGS State geologic maps currently available are Alaska (1980), Arkansas (1976, revised 1993), Colorado (1980), Kentucky (1981 at 1:250,000; 1993 at 1:500,000), Massachusetts (1983), Nevada (1978), New Mexico (1965, reprinted 1984), North Dakota (1980), Oklahoma (1954, reprinted 1991), Oregon (1991), and Wyoming (1985).

USGS State geologic maps are plotted on USGS standard topographic bases. Scales vary from 1:125,000 to 1:2,500,000, although 1:250,000 and 1:500,000 are the most common. Sheet sizes vary widely; some maps are on multiple sheets. Projections also vary.



Part of "Hydrologic Unit Map-1974, State of Nevada," 1:500,000, Lambert conformal conic projection, 45 x 65 1/2 inches.



Part of "Geologic Map of Oregon," 1991, sheet 1 of 2, 1:500,000, Lambert conformal conic projection, 54 x 42 inches.

Maps of the planets and moons

In 1960, the USGS established an astrogeology program on behalf of NASA to support lunar and planetary exploration. A prime activity of the program is the systematic mapping of the stratigraphy and structure of the Moon, Mars, Venus, Mercury, and the moons of the outer planets.

Many USGS maps of the Moon, Mars, Mercury, Venus, and the moons of Jupiter and Saturn are now available for purchase by the public. These maps are in the Miscellaneous Investigations (I) Series.

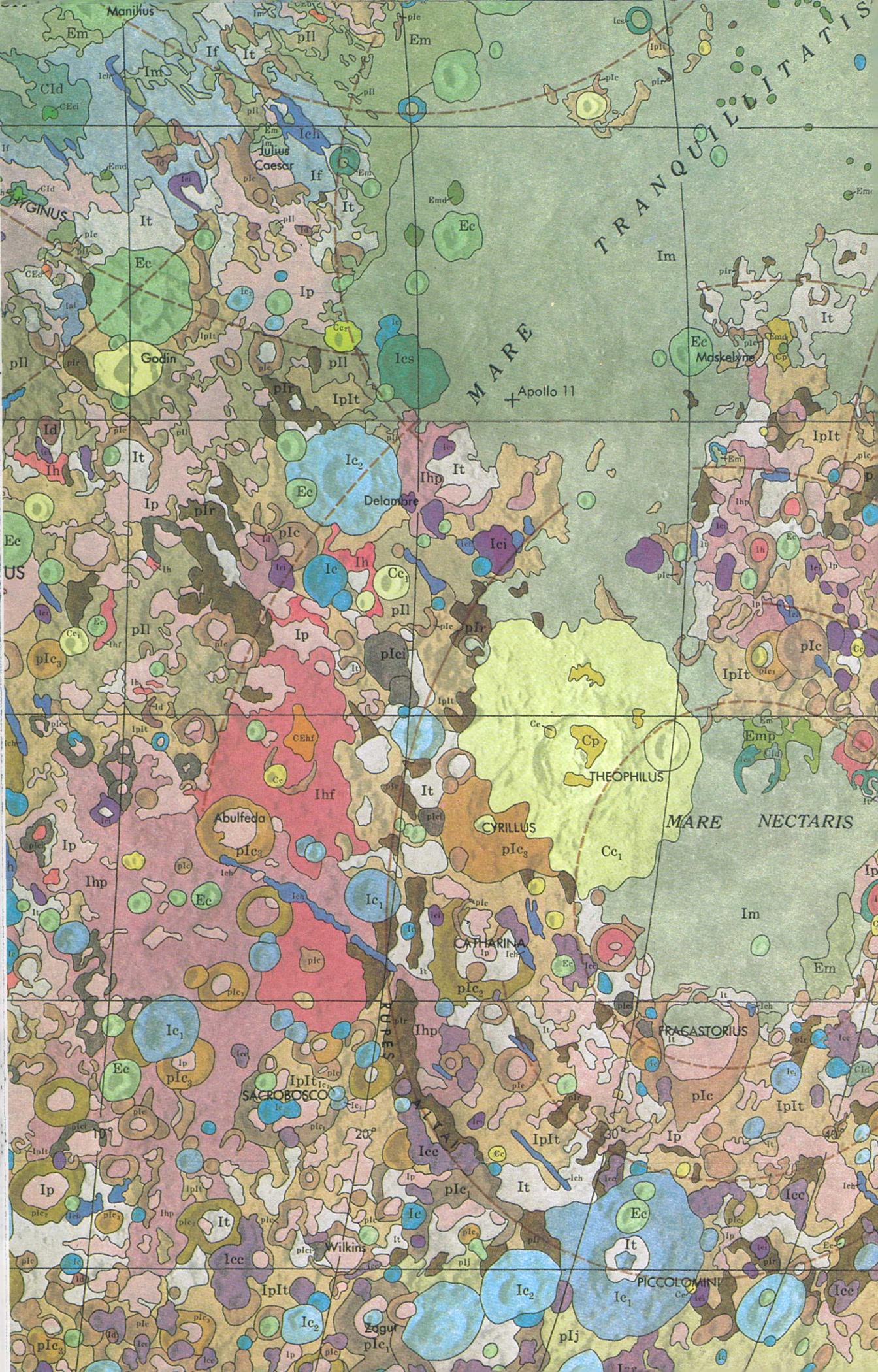
The maps include geologic, topographic, photomosaic, and shaded-relief maps.

The scales, projections, and sheet sizes of these maps vary widely.



Part of "Geologic Map of the South Side of the Moon," 1979, 1:5,000,000, polar stereographic projection, 41 x 33 inches.

Part of "Geologic Map of the Near Side of the Moon," 1971, 1:5,000,000, orthographic projection, 54 x 36 inches.



National Atlas Maps

The National Atlas of the United States of America (1970) contains 765 maps and charts on 335 pages. It is out of print but can be found in many libraries.

Separate sheets of selected reference maps and thematic maps from the Atlas are available from the USGS. Some of the sheets have been updated.

Reference maps

One set of multicolor planimetric (no contours) maps (also available singly) shows the United States in 21 sections at 1:2,000,000 scale. Another available map shows the United States at 1:7,500,000 scale, with insets for Alaska and Hawaii. The Alaska inset is shown at 1:17,000 scale. Also available are transparent plastic overlays at various scales to permit overlaying reference information on thematic maps. Each map is printed on one side of a 28- x 19-inch sheet.

Thematic maps

Special-subject maps at scales of 1:7,500,000, 1:17,000,000, and 1:34,000,000 occupy 281 pages of the 1970 Atlas. Some special-subject maps recently added to this series were not in the 1970 Atlas and may be at different scales. Among the maps now available as separates are:

United States Shaded Relief (1969)

Alaska Shaded Relief (1969)

Physiography and Physiographic Divisions (four maps, 1968)

Land-Surface Form (1968)

Classes of Land-Surface Form (1964)

Tectonic Features, Alaska (1968)

Tectonic Features, U.S. (1967)

Geology (1966)

Surficial Geology (1979)

Potential Natural Vegetation (1985)

Monthly Sunshine (1965)

Annual Sunshine, Evaporation, and Solar Radiation (1969)

Monthly Average Temperature (1965)

Monthly Minimum Temperature (1965)

Monthly Maximum Temperature (1965)

Major Forest Types (1967, 1987 revisions to Alaska)

Federal Lands (1968)

Networks of Ecological Research Areas (1983)

Principal Lands Where Exploration and Development of Mineral Resources are Restricted (1981)

Population Distribution, Urban and Rural: 1960

Population Distribution, Urban and Rural: 1970

Early Indian Tribes, Culture Areas, and Linguistic Stocks (1967)

Congressional Districts for the 100th Congress (1987)

Territorial Growth (1986)

Engineering Aspects of Karst (1984)

Population (1970)

Surface Water (1965)

Surface Water (1988)

Soils (1985)

National Wilderness Preservation System (1987)

Counties (1987)

Presidential Elections 1789-1968 and 1972-1984
Highways (1987)

Coastal Erosion and Accretion (1985)

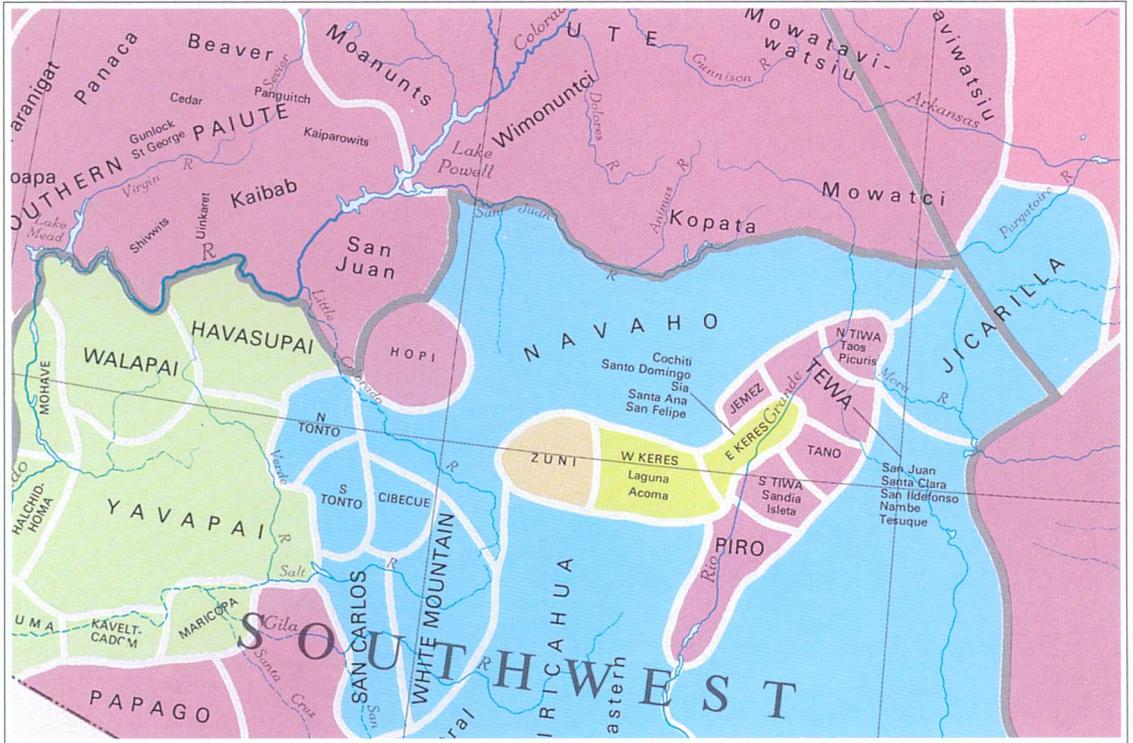
Coastal Hazards (1985)

Electing the President 1789-1988

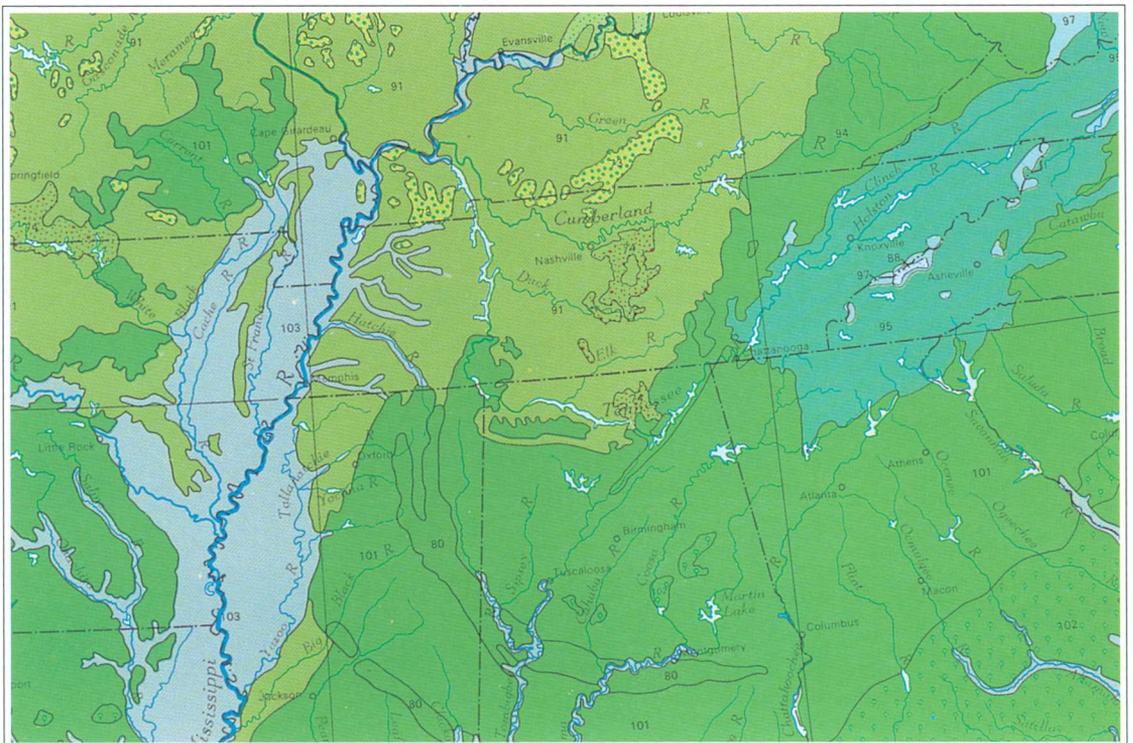
Presidential Election of 1988 (1989)

U.S. Satellite View (1990)

National Wild and Scenic Rivers System (1992)



Part of the thematic map "Early Indian Tribes, Culture Areas, and Linguistic Stocks," William C. Sturtevant, Smithsonian Institution, 1967, National Atlas, 1:7,500,000, Albers equal area projection, 28 x 19 inches.



Part of the thematic map "Potential Natural Vegetation," 1966, revised 1985, National Atlas, 1:7,500,000, Albers equal area projection, 28 x 19 inches.

Ordering Information

By mail

1. Use this general booklet "USGS Maps" to determine which type of map you want to order.
2. Write to USGS Map Distribution (address listed below) or call 1-800-USA-MAPS for the appropriate index, price list, and order form for the type of map you want. Please note that, for topographic maps, both an index and a catalog are provided for each State.
3. When you receive an index and catalog, follow the instructions on how to use them, determine the name and identification number of the specific map you want, and fill out the order form that appears in the catalog.
4. If you do not have an order form, record the name and identification number of the specific map, along with your mailing address.
5. Prepare a check or money order made out to "Department of the Interior—USGS." Prepayment is required. For map orders of less than \$10, add an extra \$1 for handling.
6. Send your order and prepayment to:
USGS Map Distribution
Box 25286
Denver, CO 80225

Delivery. The USGS tries to fill orders for maps within 3-5 weeks. Various circumstances, however, may prevent prompt filling of an order or part of an order. If the need for your map is pressing, the USGS suggests that you buy over the counter or from a local commercial distributor.

Over the counter

Visit the nearest USGS Earth Science Information Center (ESIC) for answers to your questions about USGS map indexes, catalogs, and order forms or for over-the-counter purchase of locally stocked USGS maps. Maps are also sold over the counter at USGS Map Distribution in the Denver Federal Center, Building 810, West 6th Ave. and Kipling St.

From a commercial distributor

Check your local yellow pages for local commercial outlets that sell USGS maps.

Obtaining assistance

If you need assistance in deciding which type of map you want, getting or using indexes, or identifying and ordering the specific map you want, call or write to one of the ESIC offices or call 1-800-USA-MAPS. Assistance also can be provided by State ESIC Offices and local map depository libraries.

New maps

Availability of new USGS maps is announced in the monthly list, "New Publications of the U.S. Geological Survey." A free subscription to this list is available from USGS New Publications, 582 National Center, Reston, VA 22092.

Discounts

On an order of maps amounting to \$500 or more at the list price, the USGS gives a discount of 50 percent.