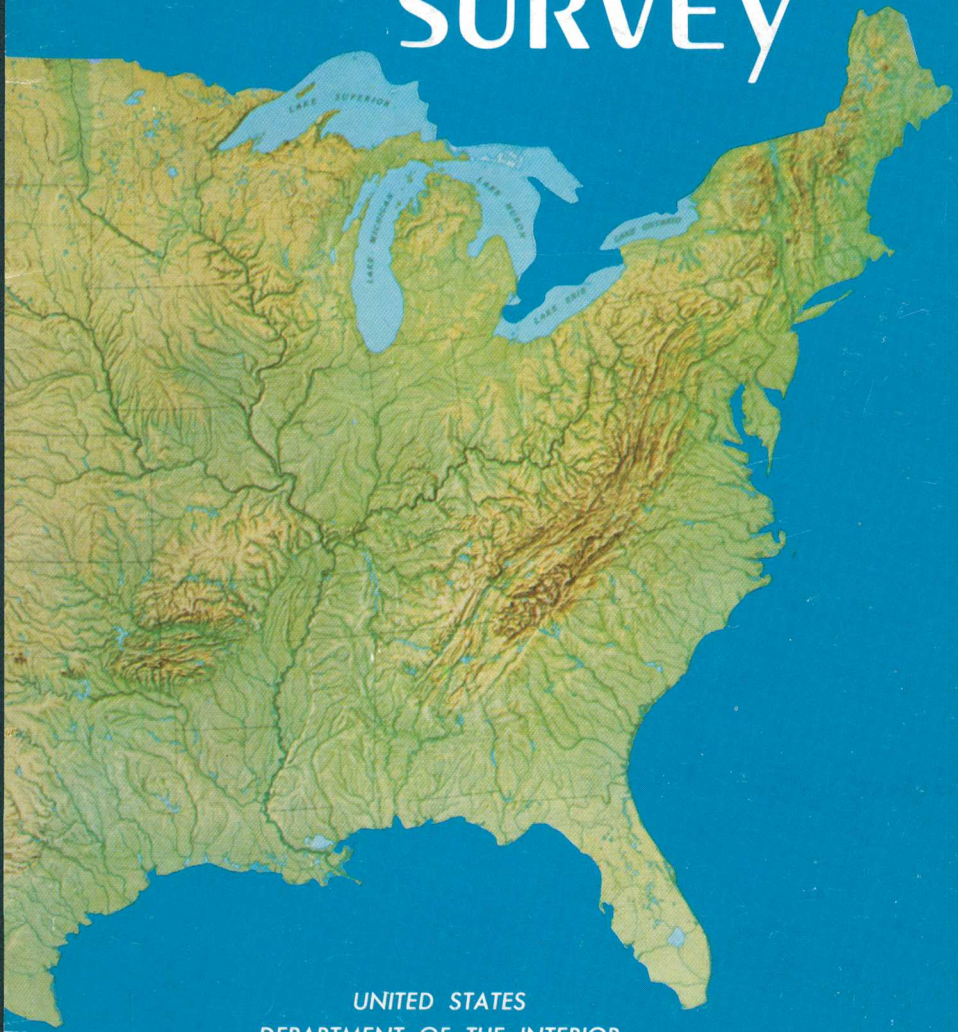
THE UNITED STATES GEOLOGICAL SURVEY

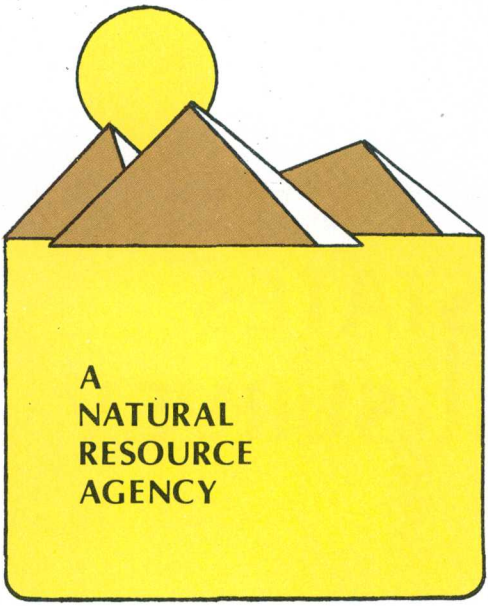


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

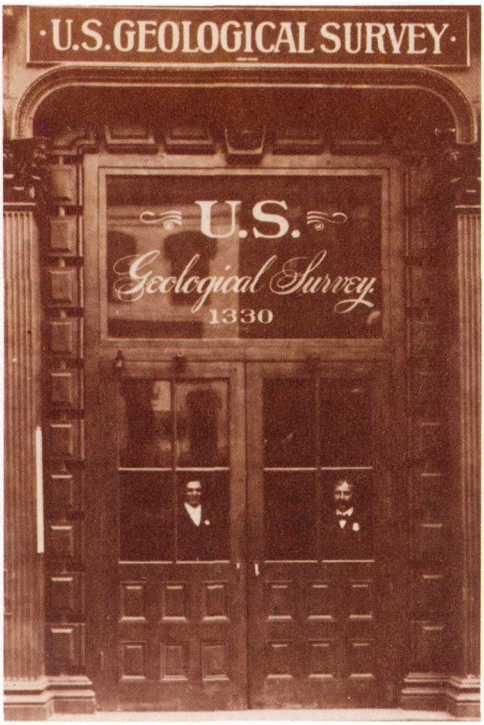
THE UNITED STATES GEOLOGICAL SURVEY

The Geological Survey is a Federal research and fact-finding agency that provides for the people of the United States:

- Accurate maps—valuable in nearly all activities related to the land including land-use planning and outdoor recreation—which show the slope of the land surface, the location of man-made features, and present land use.
- Information on the composition and structure of rocks that is useful in prospecting for minerals and fuels, designing engineering and construction works, and identifying natural hazards such as earthquakes and landslides.
- Data on surface and ground water essential to the development and conservation of water supplies, the determination of water quality, and the reduction of damage from floods.
- Knowledge of earth history and natural processes important in maintaining environmental quality and achieving a harmonious balance with nature.
- Appraisal of the Nation's potential energy and mineral resources to aid resource policymakers and to identify targets for exploration and technologic research.
- Classification of the Federal lands for mineral and water power potential to guide wise stewardship of the public domain.
- Supervision of oil, gas, and mineral lease operations on Federal and Indian lands and on the Outer Continental Shelf to assure resource and environmental conservation and fair return of revenues to the public.
- Maps and reports that make available the results of these activities.



Entrance to Iron Hooe Building, Washington headquarters for the U. S. Geological Survey from 1885 to 1917.



During the post-Civil War years, migration westward brought forth the need for more detailed knowledge of the nature and resources of the vast stretches of western lands. To meet this need, Congress authorized four Territorial Surveys to explore the various parts of the West and gain a measure of its natural features and resources. These surveys came to be known as the King, Hayden, Powell, and Wheeler Surveys, each named after its respective leader.

In 1879, the 45th Congress, following a recommendation of the National Academy of Sciences, acted upon legislation to establish the Geological Survey as a bureau in the Department of the Interior. On March 3 of that year, President Rutherford B. Hayes signed the act that abolished the four Territorial Surveys and consolidated their functions in the new Geological Survey. Clarence King was appointed the Survey's first Director.

The growth of the Survey's scientific and engineering research programs has paralleled and contributed to the growth of the United States as a great industrial nation. The expansion of the Survey's programs reflects a continuing and increasing need for its surveys, investigations, research, and supervisory functions.

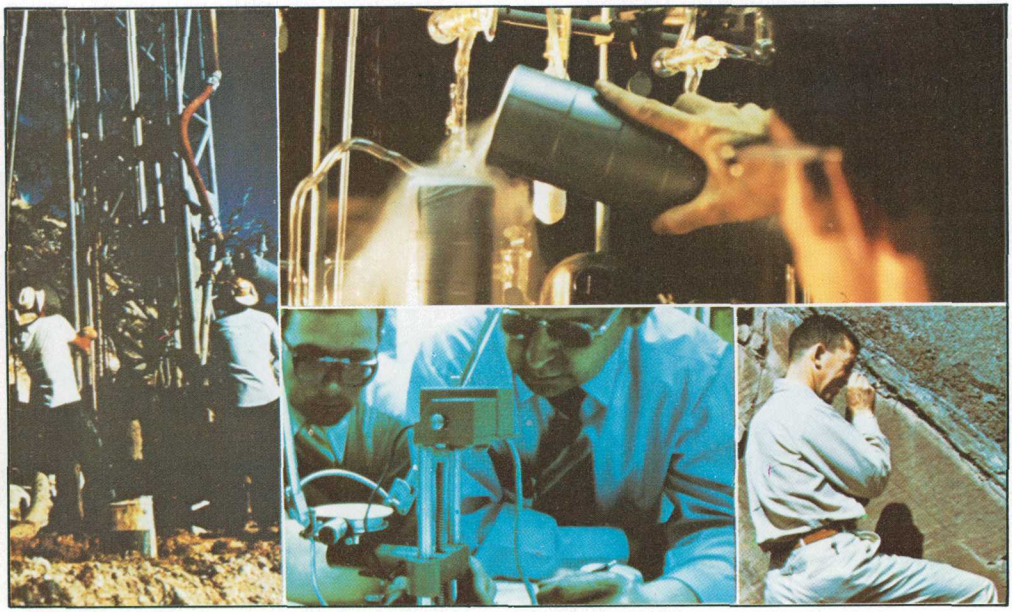
The Survey's broad and highly diversified research programs aid in management of the mineral, energy, and water resources of the land area of the United States and of the adjacent continental margins. These programs play a vital role in furthering the Nation's welfare by providing information on the character, magnitude, location, and distribution of minerals and ores, and sources and supplies of water, as well as on natural earth processes that must be understood to maintain environmental quality. This information pro-

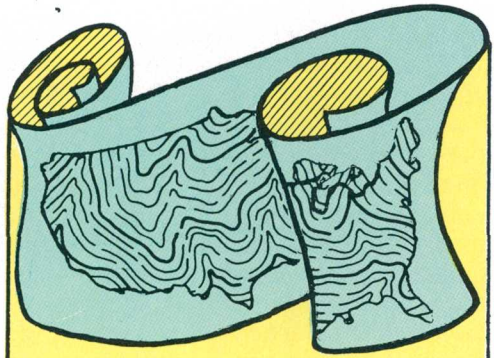
vides a sound basis for making critical decisions and actions regarding mineral resource exploration and development, water resources utilization, wise land management, avoidance of risk from earthquakes and other natural hazards, enlightened urban planning, sound construction practices, and environmental and health problems.

Keeping pace with space-age technology, the Survey is conducting studies to determine the nature of the lunar surface and extraterrestrial materials. It is also gathering and interpreting data on Earth features and natural resources obtained by remote-sensing devices installed in high-altitude aircraft and Earth-orbiting satellites.

These scientific investigations require the concerted efforts of many kinds of scientists, engineers, and technical assistants. The results of the Survey's investigations are published in its bulletins, professional papers, water-supply papers, and circulars; and in its topographic, geologic, and hydrologic maps. A series of popular publications is produced to inform the lay public about Survey activities and a new Survey periodical, the *Journal of Research of the U. S. Geological Survey,* was introduced in January 1973. This periodical contains papers written by members of the Survey Staff and their professional colleagues on various subjects in geology, hydrology, topography, and related earth sciences. The results of Survey research and investigations are also published in technical and scientific journals, and in publications of cooperating Federal and State agencies.

The primary work of the Survey is divided among four divisions—Topographic, Geologic, Water Resources, and Conservation. Support services for the entire Bureau are provided by Administrative, Publications, and Computer Center Divisions. The three regional headquarters for Survey operations are Reston, Virginia; Denver, Colorado; and Menlo Park, California; with numerous local offices scattered throughout the country.





MAPPING THE NATION

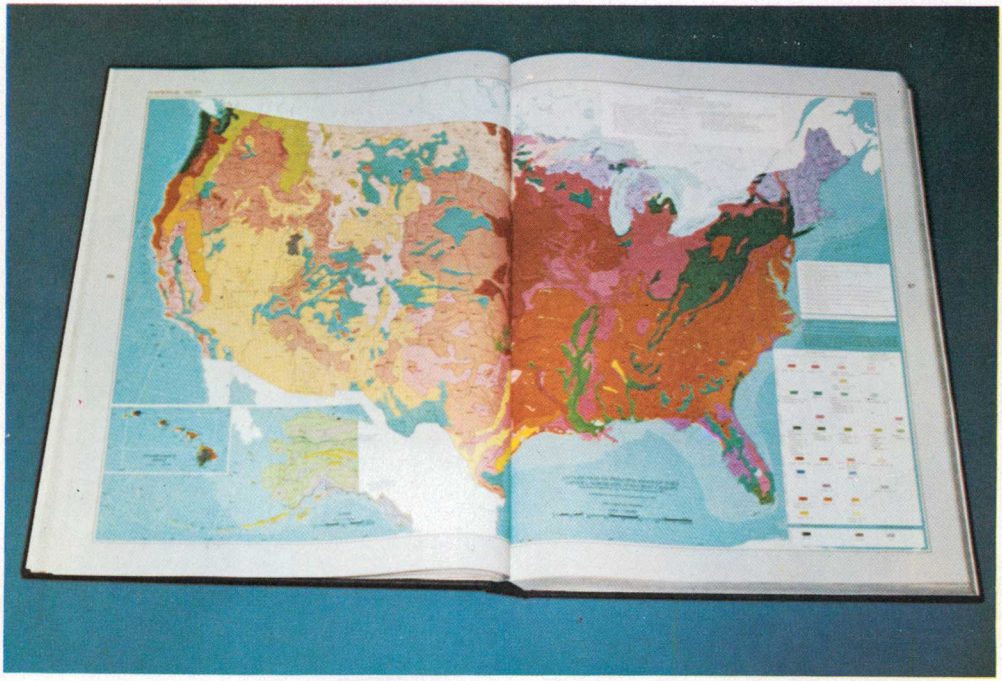
One of the major responsibilities of the Geological Survey, carried out through its Topographic Division, is the preparation and maintenance of topographic maps, which show both the natural and man-made features of the Nation's land surface. These maps provide a starting point for evaluating many of the Nation's natural resources and for land-use planning. They are basic requirements for many kinds of geologic and hydrologic studies such as comparing and selecting dam sites; planning and installing communication and highway systems; and developing programs for flood control, soil conservation, and reforestation. Topographic maps are also popular for recreationists in planning their activities.

The Survey has developed a versatile, new kind of map product—the orthophoto map—on which land features are portrayed by color-enhanced photographic images and selected cartographic symbols. Because it depicts an area in greater detail than a conventional line map, the orthophoto map is ideally suited for transportation planning, urban renewal and development, and geologic, hydrologic, and engineering studies.

The orthophotoquad, a basic type of photoimage map, is prepared in standard map format and printed in shades of gray with little or no image enhancement or cartographic symbolization. Orthophotoquads can be prepared quickly and serve as map substitutes in otherwise unmapped areas and as complements to existing line maps.

Modern mapmaking requires teamwork among field survey engineers, who obtain the data necessary to position the features on the map; plus photogrammetric specialists, who obtain accurate map detail from aerial photographs through use of photogrammetric instruments; and cartographers, who edit the map manuscripts and prepare final copy for reproduction. To prepare maps that meet today's required accuracy in the least amount of time, Survey engineers and technicians are continually working to develop new instruments and techniques such as advanced stereoplotting

Field surveys are but one of the steps taken to produce accurate maps.



This map describing soil features of the United States is one of the many maps and charts presented in the National Atlas.

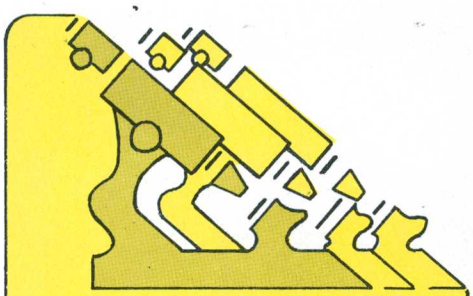
devices for laboratory use, and new instruments and better methods for compiling data in the field.

The topographic mapping activity of the Survey, conducted in part in cooperation with State and local government agencies, produces standard quadrangle and special maps which constitute the National Topographic Map Series. These maps depict the 50 States, American Samoa, Guam, Puerto Rico, and the Virgin Islands of the United States. Because maps become out of date, revision is necessary to show changes in terrain and additions to man-made features. The Survey carries out a continuous program to update its map series using photorevision and other modern techniques.

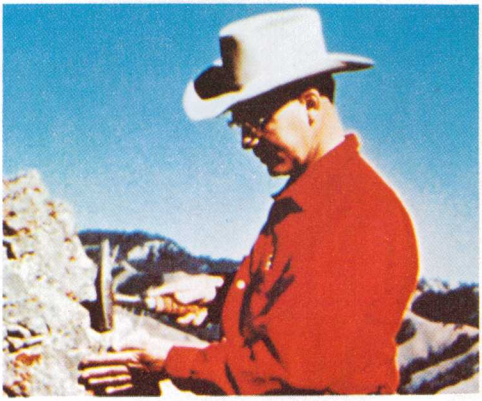
Index maps of the National Topographic Map Series are prepared for each State, American Samoa, Guam, Puerto Rico, and the Virgin Islands of the United States. These indexes are free upon request. They show areas covered by published maps and contain price information and instructions for ordering maps.

The National Atlas of the United States, produced in cooperation with other Federal agencies and private organizations, is a bound collection of full-color maps and charts showing physical features such as landforms, geology, soil, vegetation, and climate. Economic, social, and cultural data are also presented. The present volume is being revised and should be ready for distribution in 1980. Selected National Atlas maps have been published in separate sales editions and may be purchased individually.

In support of the U.S. Antarctic Research Program, the Survey prepares special topographic maps for use in the scientific exploration of the polar continent.



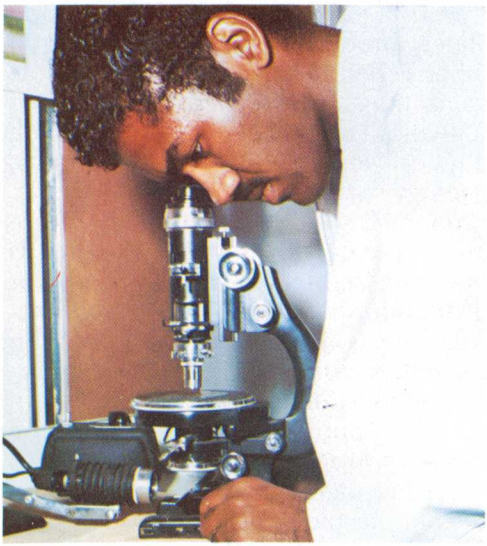
GEOLOGIC RESEARCH AND INVESTIGATIONS



Field geologist taking a rock sample for later study.

Through its Geologic Division, the Geological Survey conducts a broad program of field and laboratory research on the geology of the United States, as well as the Antarctic region and along the submerged edges of the continent. Some Survey investigations, both at home and in foreign areas, are undertaken on behalf of other Federal agencies, and some are carried out in financial cooperation with States, counties, and municipalities.

Here, a Survey scientist uses a microscope in the laboratory to measure precise optical properties of minerals.



The Survey's geologic research activities generally fall into several major categories which include: environmental geology, mineral and energy resources, geochemistry and geophysics, and marine geology. Astrogeology, a relatively new field of research, applies the methods and principles of the geological sciences to studies of the Moon, planets, and other celestial objects.

The systematic study, mapping, and analysis of the geology of the United States provides a knowledge of the environment that is a framework for the general appraisal of mineral, ore, and fuel resources and for developing geologic principles that can be applied to solving engineering and land-use problems arising from unstable ground conditions and natural hazards.

Through regional geologic studies, knowledge is obtained about the distribution, structure, and potential use-

fulness of rocks. As segments of the regional studies are completed, knowledge of the relationship of the geologic features is extended and the geologic history of the country becomes better known.

During the course of the work, paleontologists study the nature and distribution of fossils in the rocks to gain information on both the time and the environment in which the various sedimentary formations were deposited. Geophysical techniques that measure variations in the Earth's gravity, magnetic field, and electrical sensitivity help to trace geologic features across covered areas and to project surface features downward.

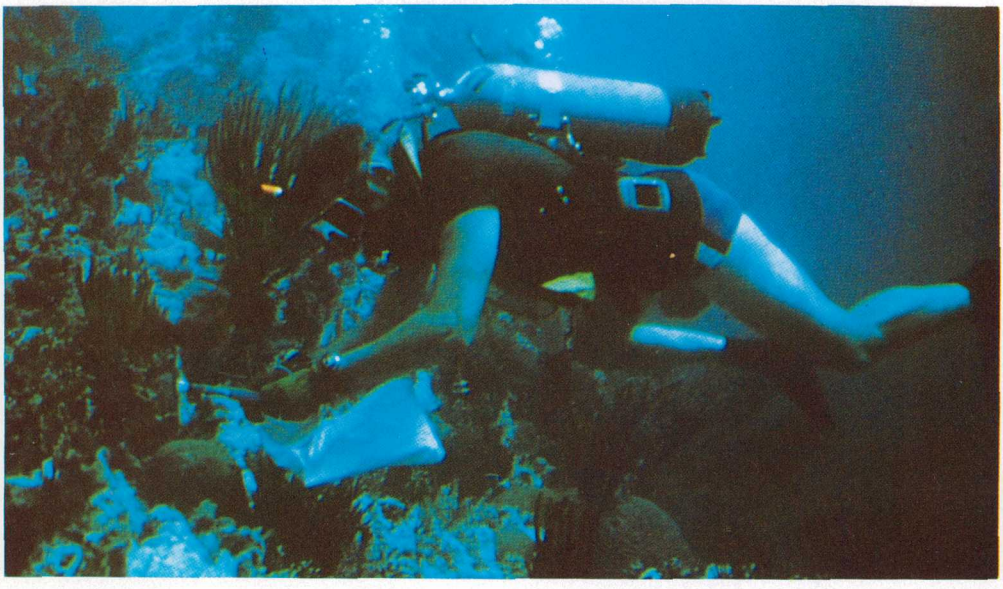
Research in the geology of minerals and mineral fuel resources provides new knowledge of the factors that control the occurrence of minerals and fuels. Also, new tools and methods useful in the search for these mineral raw materials are developed to help find and evaluate the resources needed to sustain the Nation's economy.

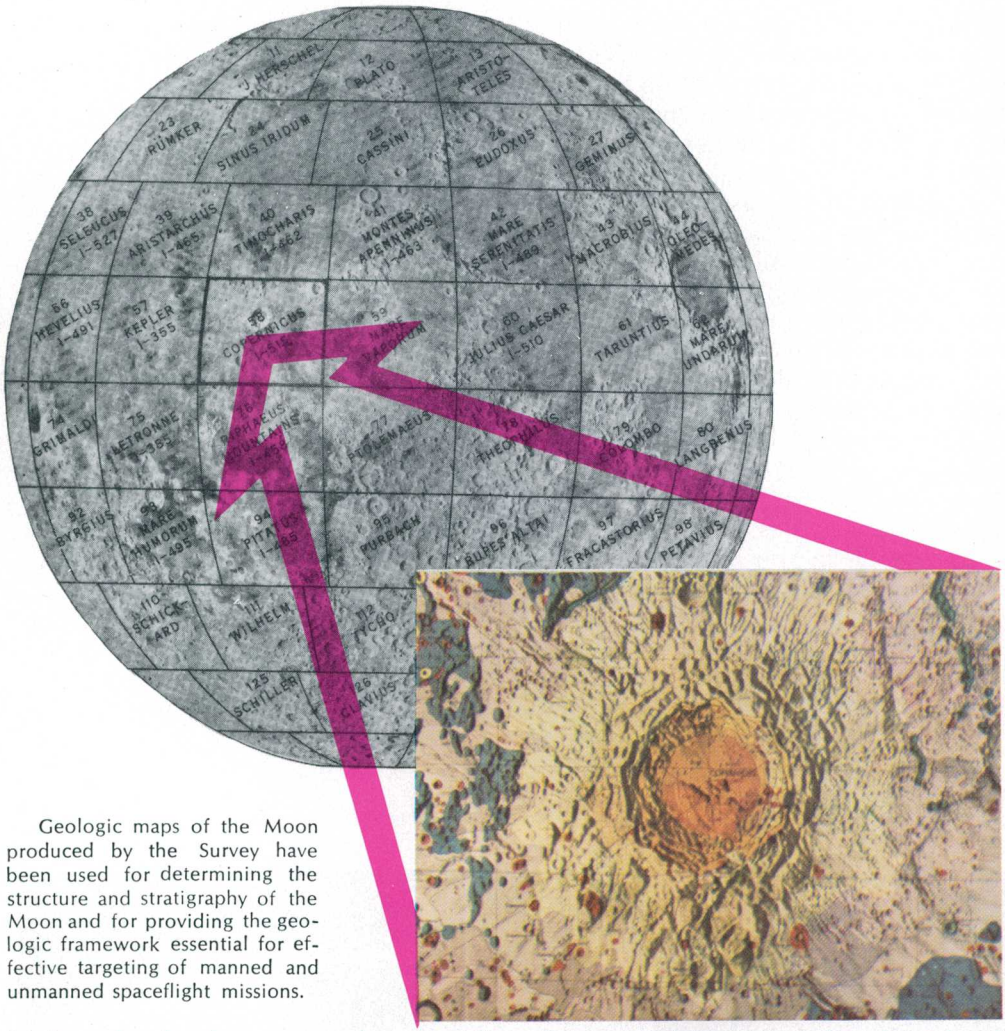
Survey research on ore controls and guides, the definition of target areas for prospecting, and the characteristics and extent of marginal resources provide a basis for the more detailed work necessary for further exploration and development.

A program to encourage domestic exploration for certain critical mineral commodities is administered by the Survey's Office of Minerals Exploration. The program provides exploration funds on a participating basis that are repaid by a royalty on subsequent mineral production.

Geochemical and geophysical research, both in the field and in the laboratory, is directed toward the solution of geologic problems. These activities include the determination of the distribution of elements in the Earth's mantle and crust and the processes leading to their concentrations to form ore

Marine geologists of the Survey probe the ocean floors to help determine underseas mineral resource potential.





Geologic maps of the Moon produced by the Survey have been used for determining the structure and stratigraphy of the Moon and for providing the geologic framework essential for effective targeting of manned and unmanned spaceflight missions.

bodies; the development and testing of new concepts and theories on processes of rock formation; studies of isotopes and their application to determining the ages of rocks; the analyses of rocks, minerals, and ores; and studies of the Earth's crust by ground and aerial geophysical methods.

Two of the Survey's special geologic research projects are studies of volcanic and earthquake phenomena. To aid in its studies of volcanic activity, the Survey maintains the Hawaiian Volcano Observatory at the summit of Kilauea Volcano on the Island of Hawaii. Here, teams of geologists, geophysicists, and geochemists are systematically and continuously studying volcanic activity to learn more about the internal structure of the Earth and to develop methods for predicting eruptions.

A major research effort is directed toward a detailed study of earthquakes along active fault zones at selected localities, with special emphasis on the San Andreas fault zone in California. Historical earthquake sequences are

Kilauea Volcano serves virtually as an earth sciences clinic for studies of volcanic phenomena.

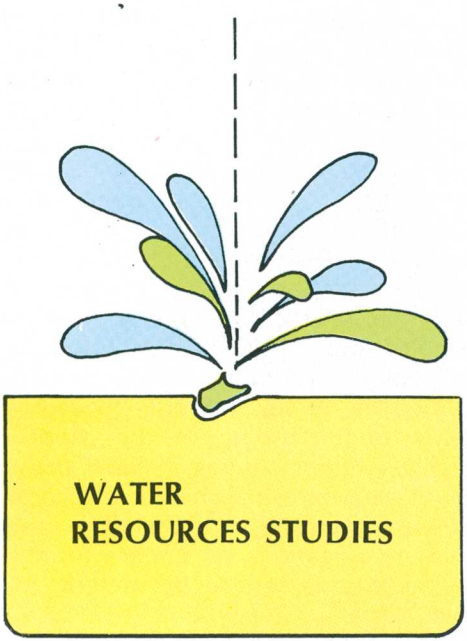
studied and fault segments are monitored by sensitive instruments designed to detect and measure the slightest crustal movements. From such data an understanding of the nature and movements of the Earth's crust along faults and the details of the resulting seismic activity can be gained which may eventually lead to the development of techniques for earthquake prediction. Earthquake specialists are also exploring the possibility that man ultimately may be able to modify or control large earthquakes.

The geologic study of the Continental Shelf and ocean floor extends the geologic knowledge of the adjacent land masses. Such studies, carried out through the Survey's marine geology program, provide information on the mineral resource potential of the submerged lands. Techniques used in geologic surveys and studies of submerged lands are similar to techniques used for geologic studies on land but are considerably modified so that they can be used to probe through the concealing layer of water.

Systematic geologic mapping of the Moon's surface features was undertaken by the Survey on behalf of the National Aeronautics and Space Administration (NASA) to prepare for man's lunar exploration. Also, part of the Survey's work was to train astronauts in applied geologic science and to help develop tools and techniques specially adapted for use during exploration of the lunar surface. Rock samples and other data gathered by the Apollo program astronauts are studied by Survey scientists to gain a better understanding of the Moon's geology. Other studies include analyses of extraterrestrial materials such as meteor fragments and tektites, and field investigations of craters formed on the earth's surface by meteor impact.

Similarly, on behalf of NASA, Survey specialists are providing support for the Mariner Program through the preparation of maps and geologic interpretations of Mars' surface.

Damage to downtown Anchorage, Alaska, after the Alaska Earthquake in 1964.

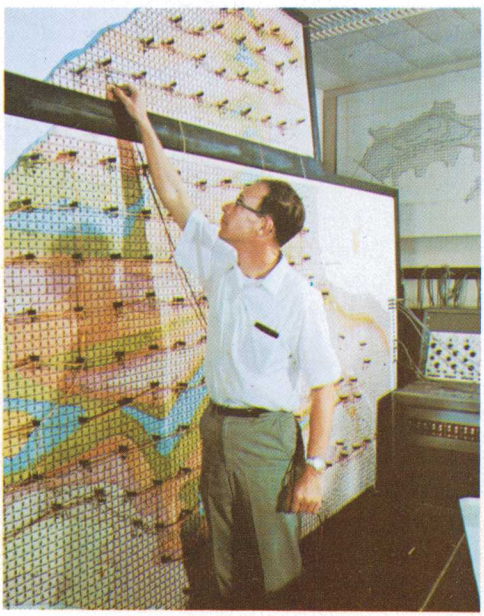


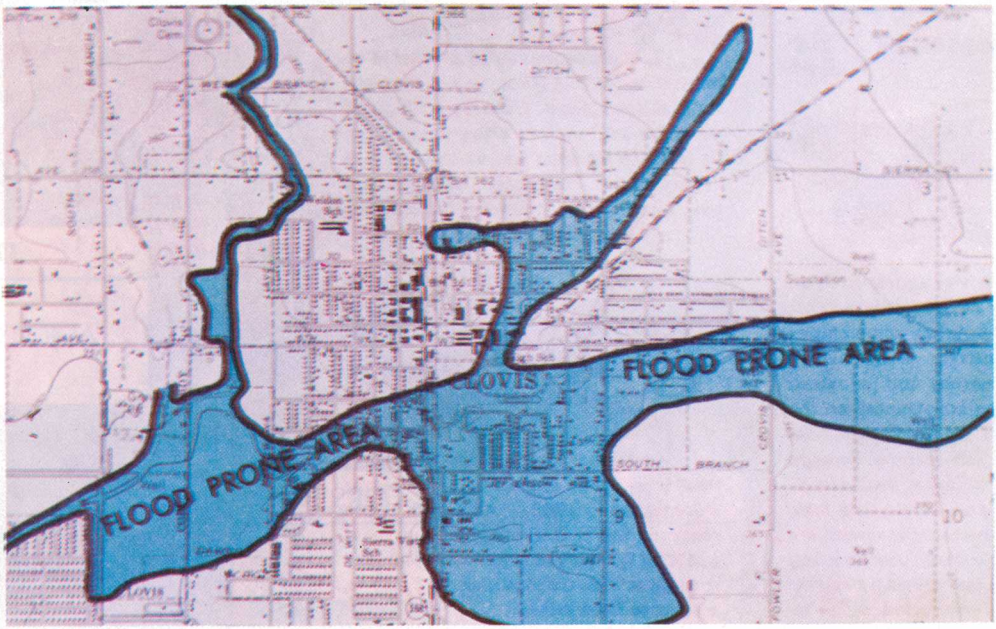
As the Nation's largest water resources investigating agency, the Geological Survey, through its Water Resources Division, is responsible for appraising the quantity and quality of the Nation's water resources and for research on hydrologic problems related to the occurrence and distribution of both surface and ground water. Since 1894, Survey data have been a basic source for resolving many water disputes; neither a regulatory agency nor a development agency, the Survey has evolved as the independent scientific agency concerned only with gathering and interpreting water facts.

The Survey monitors and evaluates surface- and ground-water resources through a nationwide array of water stations and series of resource investigations with the cooperation of State, Federal, and other public agencies. More than 18,000 continuous and part-time stream-gaging stations and 28,500 ground-water observation wells provide data on the height, flow, and volume of water moving through the Nation's streams and aquifers; and more than 5,000 water-quality stations monitor the natural and man-influenced quality of the Nation's water resources.

The enormous amount of data gained from this network of stations, in combination with special water resources studies, is translated by Survey hydrologists into over 800 reports and maps a year. Ranging from data tabulation to theoretical discussion, the reports help water managers correlate the available supply with man's water demands and are widely used by those concerned with the availability and use of water—Federal, State, and municipal officials; engineers; economists; industrialists; and community planners. To make the water data even more readily available to users, the Survey transferred to computer tape about 245,000 station-years of records, and infor-

Survey hydrologist using a computer to "model" a hydrologic system.





Flood plain maps are among the valuable products of Survey hydrologic investigations.

mation on more than 40,000 groundwater wells and 5,000 water-quality stations.

To coordinate the effort among water data-gathering agencies and to develop a central depository of information on water data, the Survey has organized the Office of Water Data Coordination (OWDC). One of the first acts of OWDC was to compile into a single catalog information about more than 70,000 sites throughout the country where 200 Federal, State, and local agencies collect data on water quality and quantity. OWDC has also initiated interagency activities to develop a National Water Data Exchange, to recommend standard methods of data gathering and reporting, and to define areas where additional data are needed, as for example, in the smaller watersheds.

As water problems have multiplied, overlapped, and grown more complex, data collection, interpretive studies, and research are necessarily more comprehensive. Studies are carried on to acquire more scientific knowledge of the complex system through which water moves, from the time it reaches the earth as precipitation until it returns to the atmosphere through evaporation or reaches the seas by way of rivers or underground seepage. As Survey investigations continue, the intricate relationship of the surface waters and ground water is becoming better understood, and new knowledge is being acquired about various factors that affect the quality of water—the amount of sediment, chemicals, bacteria, and radioactive and other wastes. These studies contribute a wealth of information to the hydrologic sciences and water resources development, as do analyses of conditions such as the quality of rainwater and snowmelt and the movement and extent of glaciers. In other studies, research workers probe for answers to problems caused by intrusions of salt

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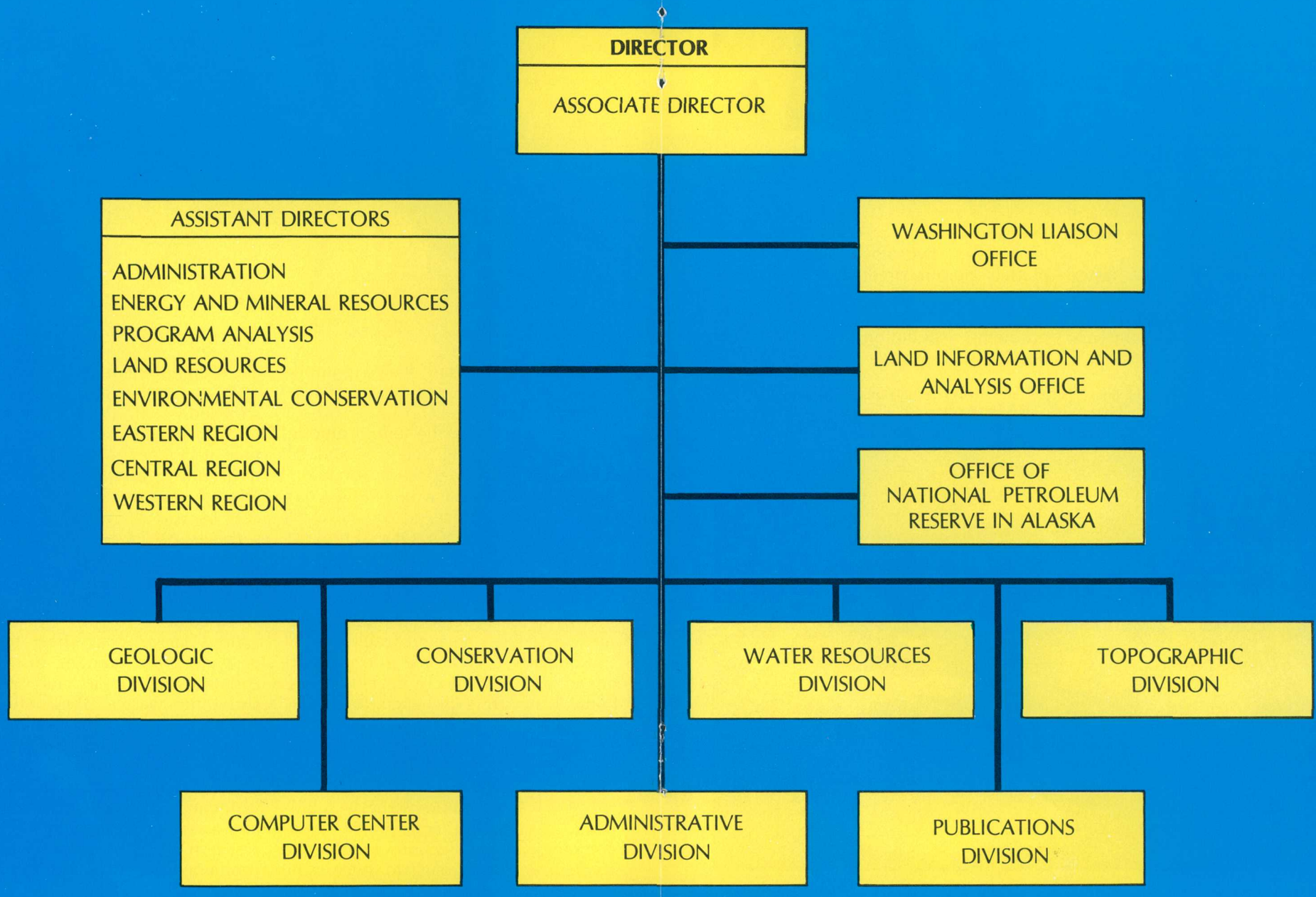


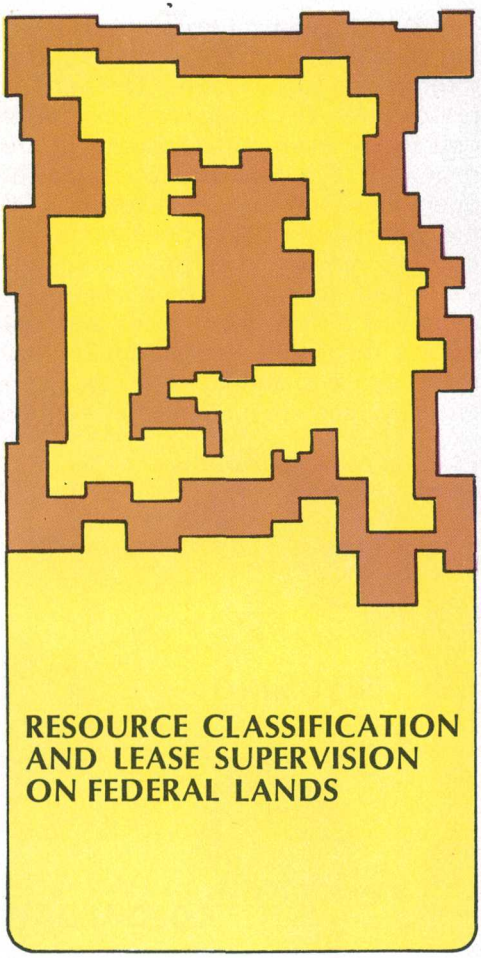
water into fresh ground-water supplies near the seacoasts. The Survey's flood frequency analyses and mapping of areas subject to inundation by floods aid planning of flood plain use.

Work in various aspects of water research touches many fields. It requires the individual, as well as the combined efforts of hydrologists, geologists, physicists, mathematicians, chemists, ecologists, engineers, and other specialists. For example, in the appraisal of water supplies, geologists determine the character and extent of the rock aquifers in which water occurs; engineers measure streamflow, floods, and changes in stream channels; and chemists analyze the water to determine its quality.

Special equipment and faster methods of obtaining results from data-collection systems have been developed and are being used. One important breakthrough in water studies is the use of analog and digital computers to "model" hydrologic systems. Such models permit prediction of various changes within the system, and have many uses in coping with water-supply problems, pollution control, and floods.

The enormous amount of data about the Nation's water resources gathered by the Survey is widely used by those concerned with the availability and use of water.

Survey scientists have injected a harmless red dye into a river to help study the stream's characteristics. Field investigations, such as the one shown here, aid in monitoring the natural and man-changed quality of our water resources.



RESOURCE CLASSIFICATION AND LEASE SUPERVISION ON FEDERAL LANDS

Survey engineers and inspectors are responsible for ensuring personnel safety, pollution prevention and the best equipment maintenance procedures on some 1900 offshore oil and gas platforms.

Huge areas in the United States (over 700 million acres in all, or about twice the size of Alaska), rich in mineral and water resources, are in Federal ownership.

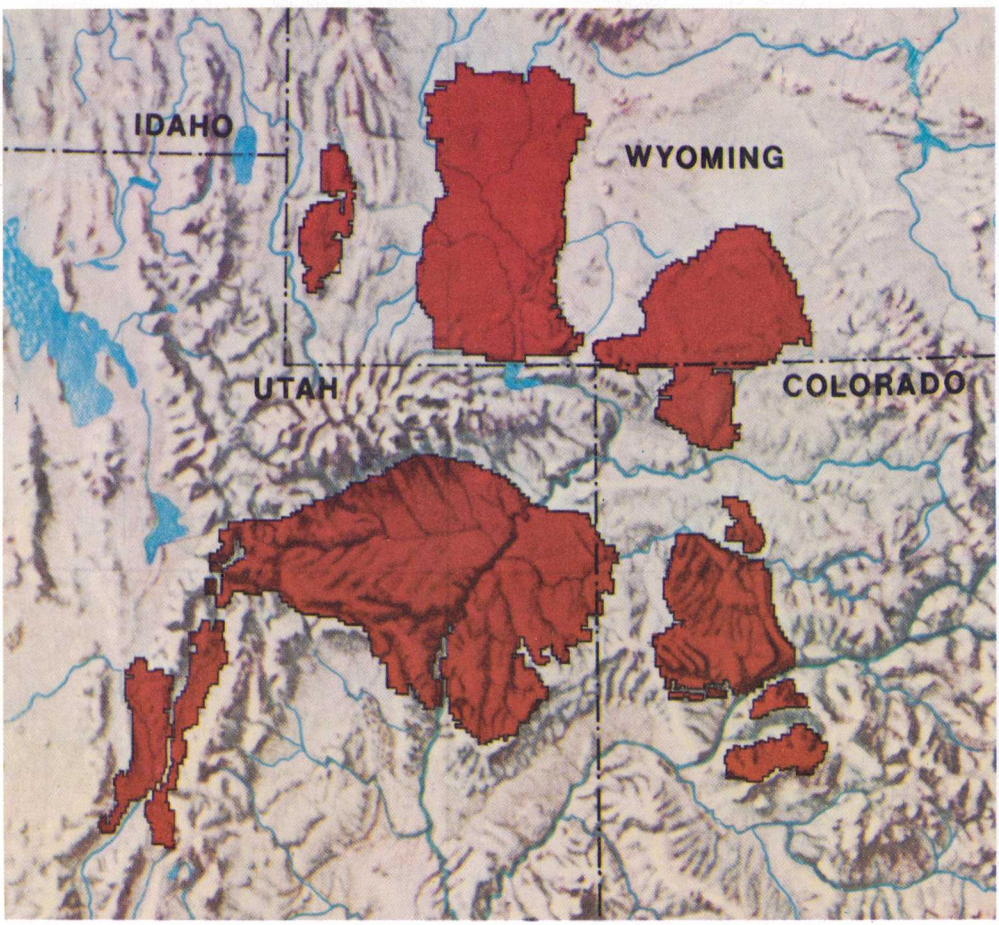
The Geological Survey, through its Conservation Division, is responsible for classifying the public lands as to their value for certain leasable fuels and minerals such as natural gas and oil, oil shale, geothermal steam and associated geothermal resources, coal, phosphate, potassium and sodium compounds, and identifying those lands that are favorable for waterpower and geothermal energy development. Those parts of the public lands that are found to have value for any of these products or uses are given a mineral, waterpower, or geothermal classification. Such classification serves to set aside these resources for the Government in the event of the disposal of the land and also serves as a factor in establishing values that determine whether

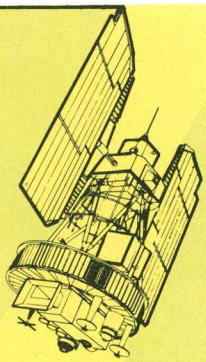
lands are available for a competitive or noncompetitive lease or in some instances are eligible for a prospecting permit.

Most public lands and Outer Continental Shelf lands are available for lease by private individuals or corporations for the purpose of extracting oil, gas, geothermal steam, or minerals. The Government is compensated through rentals and royalties on the substances produced and in some cases by the payment of bonuses as a result of bidding for a lease.

When a mineral lease or prospecting permit is issued, the Survey, also through its Conservation Division, is responsible for supervising extractive operations. Plans for development are reviewed to ensure safe and efficient operations with maximum recovery of the mineral product. Operations are carefully monitored to protect the environment, to ensure compliance with approved development plans and operating regulations, to maximize ultimate recovery, and to verify that correct royalties are paid by lessees.

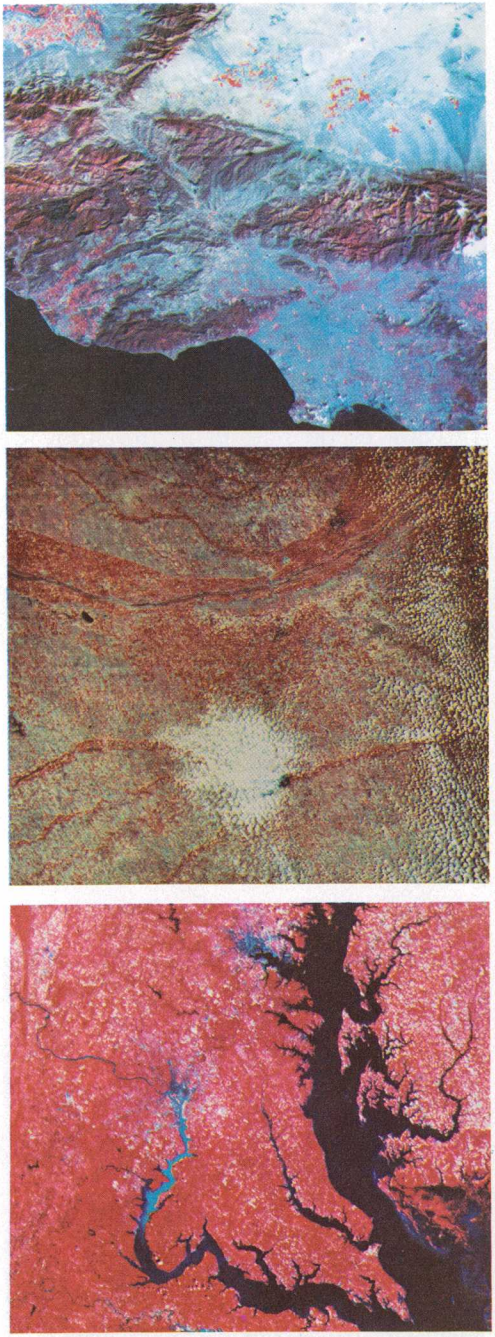
As new energy sources are needed the Survey's work in classifying Federal lands for oil shale—a potential source of hydrocarbons—has become increasingly important. Extensive deposits of oil shale are found in the areas shown here.





REMOTE-SENSING ACTIVITIES

Adequate resource data to guide policy decisions is of paramount importance in providing the resource needs of expanding industrial and urban societies in a way that best protects the environment. In recent years, scientists of the Geological Survey, in cooperation with the National Aeronautics and Space Administration (NASA), have been working to improve techniques for collecting information about natural resources through remote-sensing techniques and devices. The Department of the Interior's Earth Resources Observation Systems (EROS) Program, administered by the Survey, is aimed at applying data obtained from high-altitude aircraft and satellites to a variety of environmental and resource problems. Landsat, dedicated solely to Earth resources investigations—formerly Earth Resources Technology Satellite (ERTS-1)—was launched in July 1972. Data acquired by this satellite will be supplemented by thermal infrared data

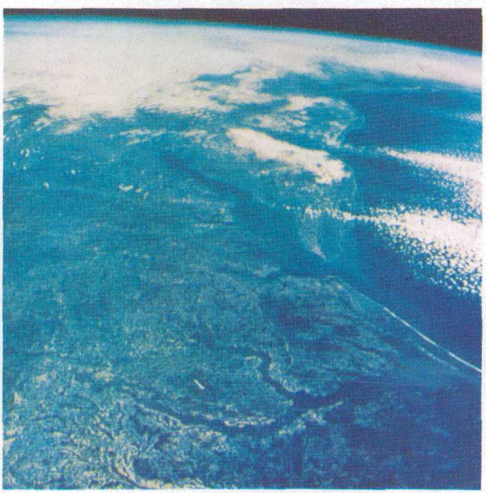


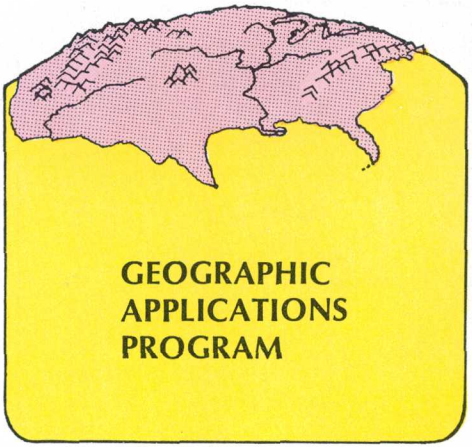
Landsat (false color) imagery: (top) Los Angeles, California; (middle) Grand Island, Nebraska; (bottom) upper Chesapeake Bay area, Washington-Baltimore.

acquired by Nimbus V and by data to be obtained as part of the Earth Resources Experiments Package on NASA's Skylab project.

Images of remarkable clarity, obtained from orbital altitudes, provide the means for studying and relating such factors as environmental conditions, Earth features, resources, population, and a wide range of natural phenomena and human activities. Space imagery, supplemented by infrared imagery, radar imagery, and magnetometer readings from aircraft, are proving to be helpful in the study of earthquake-prone areas and regions of incipient volcanic activity. Remote sensing from satellites provides comprehensive, repetitive coverage, and the capability of recording scenes illuminated by a nearly constant sun angle. These qualities enhance photointerpretation and facilitate the correlation of information gained from the vantage point of space with conventional highly detailed aerial photographs. The information gained from this program is being made readily available to all interested users.

View of east coast of United States from space.





GEOGRAPHIC APPLICATIONS PROGRAM

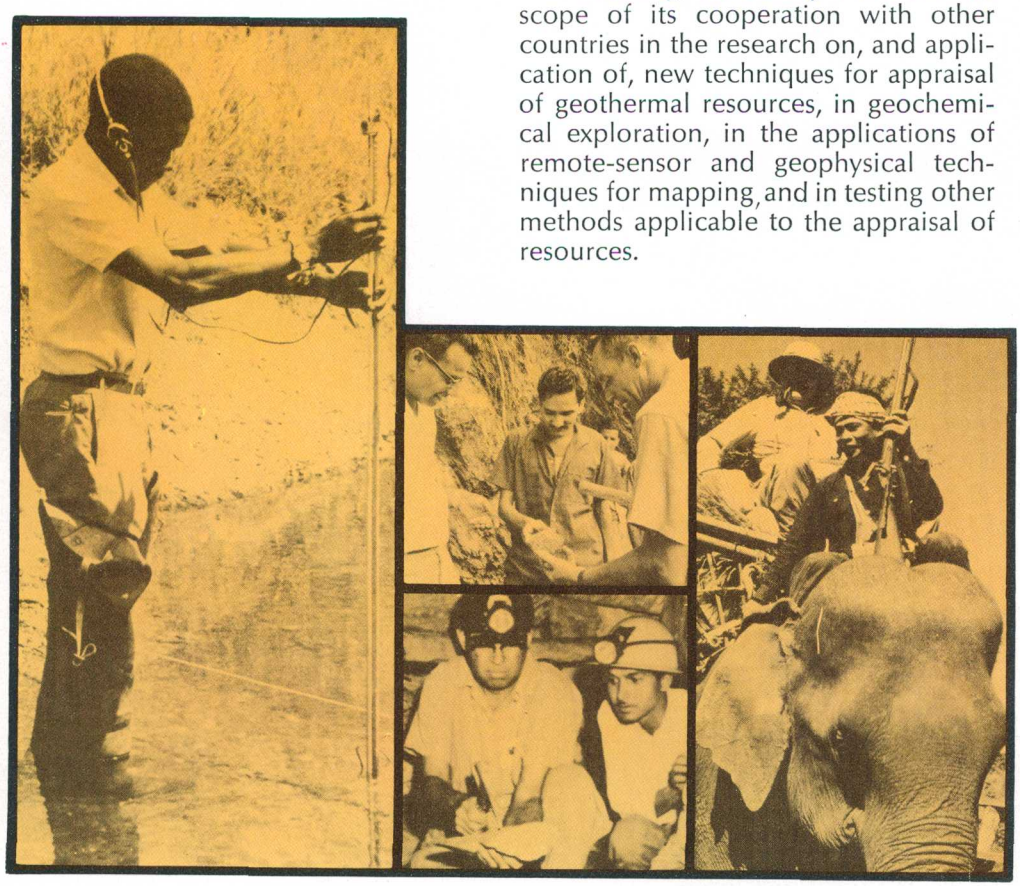
The Office of the Chief Geographer, in the Office of the Director of the Geological Survey, was established in 1967 to initiate and carry out geographic research and to provide advisory, planning, liaison, and coordination functions in the field of geography among the Survey's Divisions, Bureaus of the Department of the Interior, and with other Government agencies, as well as with national and international organizations.

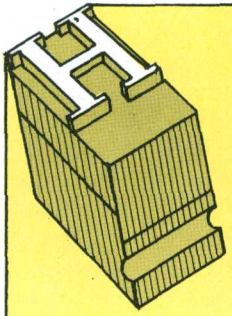
Research in the geography program is presently focused particularly on land-use analysis which consists of an inventory of current land uses, monitoring of land-use changes, and explanation of present patterns and changes in land use that occur. Currently, several projects demonstrating the value and uses of remote-sensor data received from high-altitude aircraft and satellite platforms are being carried out. Among these are: experiments in urban change detection; regional mapping and updating of land-use information; development of a two-level, land-use classification system for use with remote-sensor data; and analysis of the effects of land-use patterns and changes on environmental quality.

INTERNATIONAL ACTIVITIES

In response to growing interest in scientific and resource problems that extend beyond the limits of the United States and growing involvement with international agencies or programs on behalf of the U.S. Department of State, the Geological Survey has increased its participation in scientific research, technical assistance, and representational activities abroad. On most of these technical assistance assignments, Survey specialists work in the field and laboratory with counterpart scientists from host-country institutions. Also, student scientists from many countries have received training in the United States under the guidance of the Survey's staff.

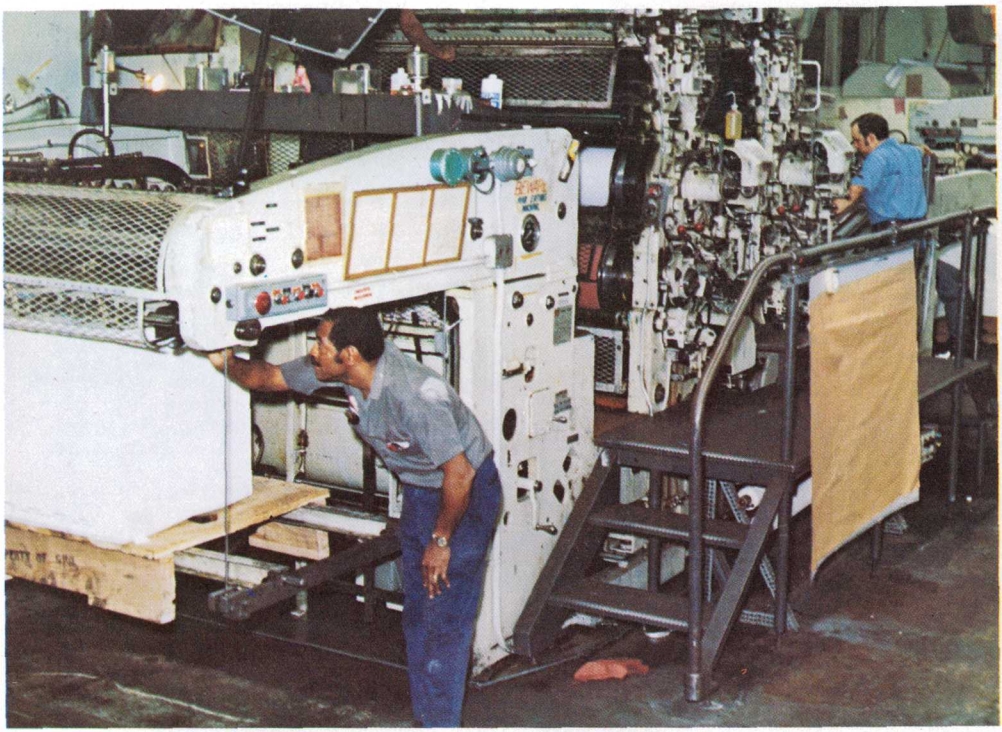
Recently, the Survey increased the scope of its cooperation with other countries in the research on, and application of, new techniques for appraisal of geothermal resources, in geochemical exploration, in the applications of remote-sensor and geophysical techniques for mapping, and in testing other methods applicable to the appraisal of resources.

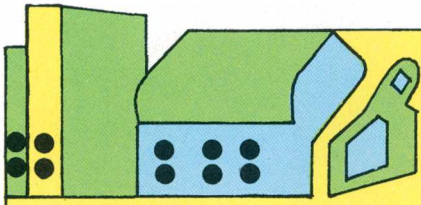




PUBLICATIONS ACTIVITIES

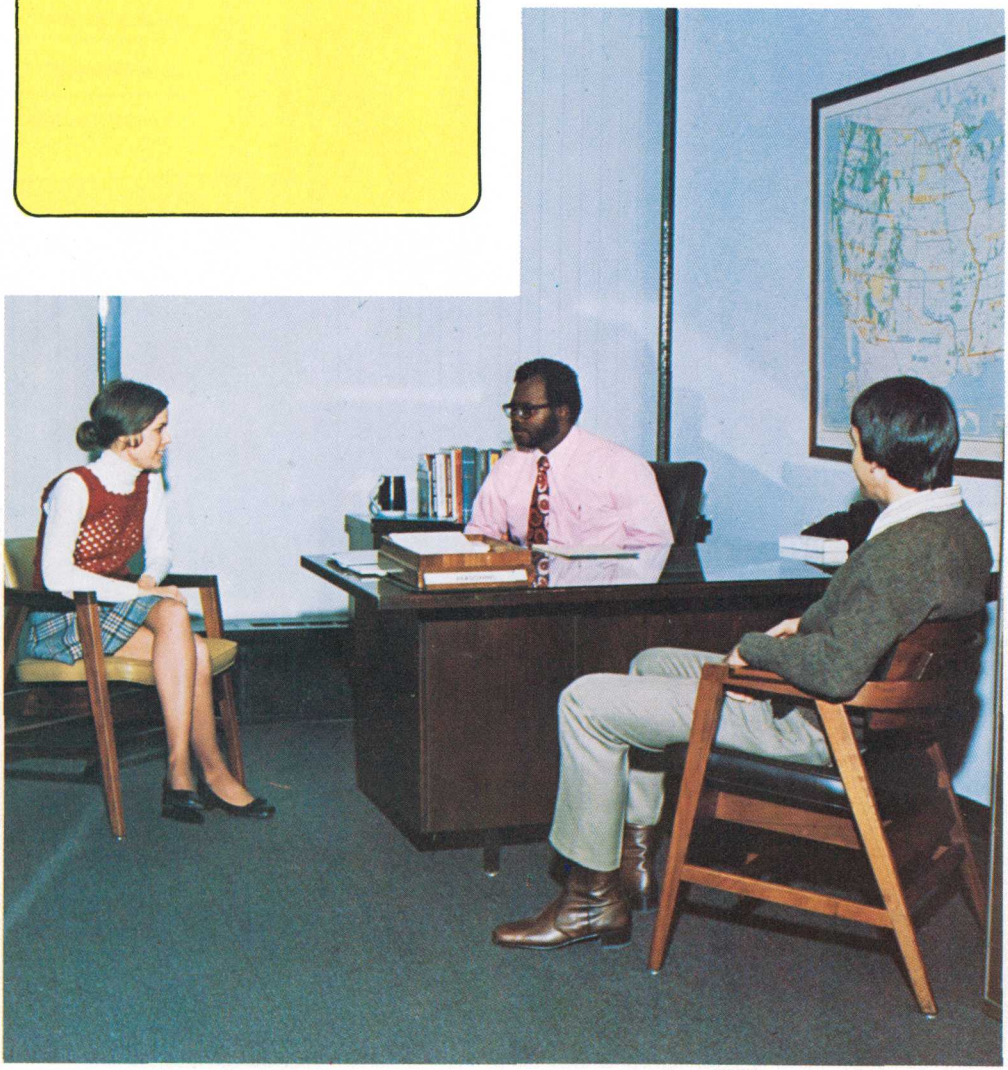
The Geological Survey's Publications Division is responsible for preparing and processing the printed materials — maps, bulletins, professional papers, water-supply papers, circulars, and the *Journal of Research of the U.S. Geological Survey*—through which the information gained by research and investigations is made available for public use. Material for book publications is transmitted to the Government Printing Office for reproduction and distribution. Maps and atlases are reproduced in the Survey's printing plant. The Survey sells its maps to the public by mail, over-the-counter sales, and through more than 1,400 authorized commercial dealers. From an inventory of 88 million copies of 49,000 maps, the Survey distributes more than 10 million copies per year. About 1/2 million copies of technical reports are distributed annually by the Survey.

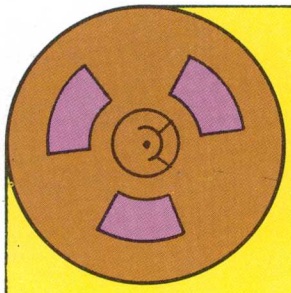




ADMINISTRATIVE SUPPORT

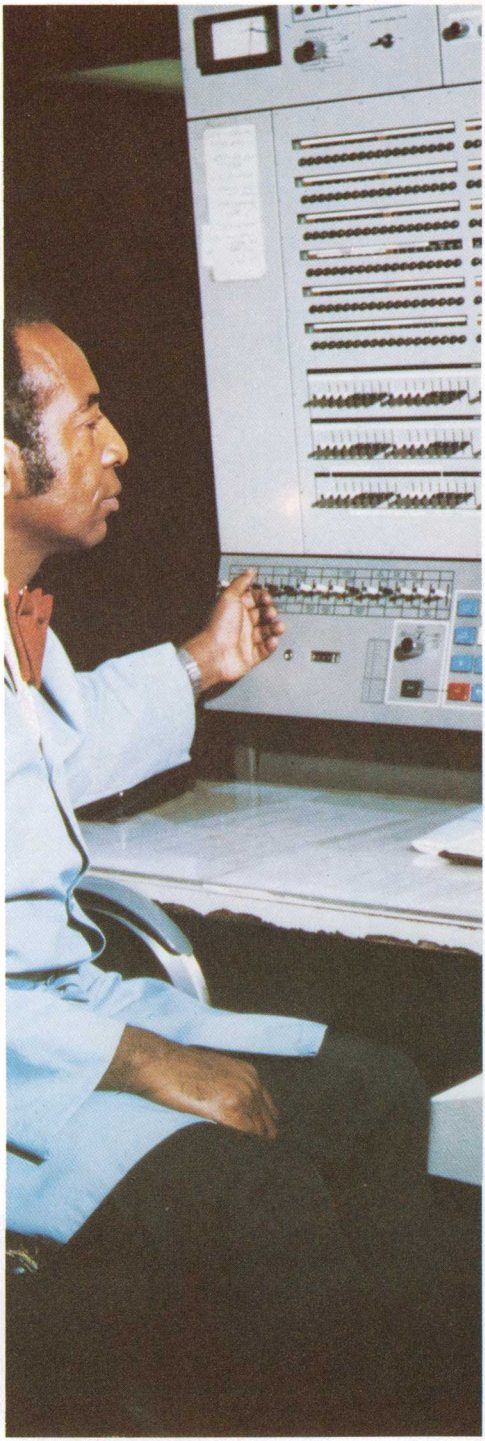
The Administrative Division supports the varied scientific and engineering programs of the Geological Survey through its management analysis, accounting, budgeting, personnel, contracting, property, and supply services.

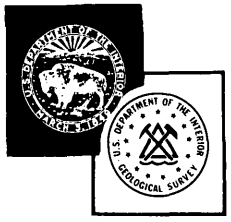




COMPUTER TECHNOLOGY

Through its Computer Center Division, the Geological Survey operates a nationwide earth science computing system. The system consists of a central computer at the Reston headquarters, supplemented by additional computer equipment in Washington, D.C.; Denver, Colorado; Flagstaff, Arizona; Menlo Park, California; Rolla, Missouri; Sioux Falls, South Dakota; and more than 60 terminals located throughout the United States. The central computer and its terminals comprise an interdependent nationwide computing system which enables scientists and engineers to submit data from field terminals and receive printed results from the Reston computer within a short time. Additionally, the system stores and retrieves basic earth science information. For example, a vast accumulation of water data can be stored and made promptly available for use in water-resources management. Other applications include cartographic and photogrammetric work, as well as offshore drilling activities.





GENERAL INFORMATION

Headquarters functions of the Geological Survey, as well as the Library, National Cartographic Information Center, and the Information Office, are located in its National Center, Reston, Virginia 22092 (near Washington, D.C.). Regional centers maintained at field locations in Denver, Colorado, and Menlo Park, California, serve the administrative and technical functions of the Survey. In each State, there are one or more offices that serve as local bases of operation for technical activities.

LIBRARY: A reference library, located on the fourth floor of the National Center in Reston, Virginia, and three branch libraries in Denver, Colorado; Menlo Park, California; and Flagstaff, Arizona, contains nearly 600,000 bound volumes; 300,000 pamphlets, articles, and documents; and 200,000 maps including geologic maps for areas throughout the world. The libraries, containing earth-science research and reference materials, are open to the public daily.

NATIONAL CARTOGRAPHIC INFORMATION CENTER: This office provides a central source of information on cartographic publications and activities of the Geological Survey and other agencies of the Federal Government and selected State and local agencies. This information covers maps, charts, aerial photography, space imagery, geodetic control, and related data.

EXHIBITS ACTIVITY: Exhibit panels, illustrating and explaining technical and scientific aspects of the work of the Survey, are prepared for use at scientific meetings and in connection with official presentations of technical subjects. For further information about these exhibits and how they may be borrowed, write to the Exhibits Office at the National Center or at either of the regional offices in Denver, Colorado, or Menlo Park, California.

INFORMATION OFFICES: Information Offices, located in the National Center, Reston, Virginia; the Central Region, Denver, Colorado; and the Western Region, Menlo Park, California, prepare press and feature releases and related visual material pertaining to Survey activities and programs.

Sound/color, 16mm films on earth-science subjects are distributed to the general public as an auxiliary function of the Reston Information Office. Requests for information on the loan use or purchase of these films may be made to that office.

MUSEUM: Displays on many activities of the Geological Survey are housed in the Department of the Interior Museum near the south (C Street) entrance of the Department of the Interior Building, between 18th and 19th Streets NW., Washington, D.C. The Museum is open to the public.

PHOTOGRAPHIC LIBRARY: Over 140,000 photographs of subjects relating to Survey programs, including about 8,000 color transparencies, are indexed and maintained by the Photographic Library, Geological Survey, Federal Center, Denver, Colorado 80225. Copies of photographs maintained by this library are available for purchase.

EROS DATA CENTER: Photography and imagery of the Earth from spacecraft and aircraft, acquired by the National Aeronautics and Space Administration,

the Geological Survey, and the Bureaus of Reclamation and Land Management, are available for purchase at the EROS Data Center, Sioux Falls, South Dakota 57198. Browse files, 16mm films of the available data, can be viewed at 20 locations maintained by the EROS Program throughout the United States in order to evaluate the coverage prior to purchase.

DISTRIBUTION OFFICES: Maps are sold over-the-counter and by mail from three main distribution centers. Maps of areas east of the Mississippi River, including Minnesota, Puerto Rico, and the Virgin Islands, are distributed by mail from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202. Maps for areas west of the Mississippi, including Alaska, Hawaii, Louisiana, Guam, and American Samoa, are distributed from the Branch of Distribution, U.S. Geological Survey, Box 25286 Federal Center, Denver, Colorado 80225. Residents of Alaska may order directly from the Distribution Section, U.S. Geological Survey, Federal Bldg., Box 12, 101 12th Avenue, Fairbanks, Alaska 99701. Circulars and Popular Publications are also distributed by mail from the Arlington, Virginia, address given above. Bulletins, water-supply papers, professional papers, and many Popular Publications of general interest are sold by the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

PUBLIC INQUIRIES OFFICES: The Geological Survey maintains Public Inquiries Offices in several cities across the Nation. Each has a library of Survey publications and is a depository for selected open-file reports pertaining to the area which it serves. Each office also maintains a stock of Survey-prepared maps of neighboring areas that are available for purchase. They also serve as agents for the Superintendent of Documents in selling book reports that present the results of Survey activities. Sales at Public Inquiries Offices are made over-the-counter.
Their locations are as follows:

★ **ALASKA**
108 Skyline Building
508 Second Avenue
Anchorage, AK 99501

★ **CALIFORNIA**
7638 Federal Building
300 North Los Angeles Street
Los Angeles, CA 90012

504 Custom House
555 Battery Street
San Francisco, CA 94111

★ **COLORADO**
169 Federal Building
1961 Stout Street
Denver, CO 80294

★ **DISTRICT OF COLUMBIA**
1028 General Services Building
19th and F Streets NW.
Washington, DC 20244

★ **TEXAS**
1C45 Federal Building
1100 Commerce Street
Dallas, TX 75242

★ **UTAH**
8105 Federal Building
125 South State Street
Salt Lake City, UT 84138

★ **VIRGINIA**
302 National Center, Room 1C402
Reston, VA 22092

★ **WASHINGTON**
678 U.S. Court House
West 920 Riverside Avenue
Spokane, WA 99201

National Center at Reston, Virginia.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.