



GEOGRAPHIC AND GEOLOGICAL RESOURCES

ALABAMA MAPS

The University of Alabama

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OVERVIEW

Alabama Maps is an ongoing project of the Cartographic Research Laboratory, which operates under the auspices of the College of Arts and Sciences at the University of Alabama. Alabama Maps is a large collection of maps from the University of Alabama's Cartographic Research Laboratory.

PROGRAMS AND SERVICES

This web site is divided into three sections: the Contemporary Map Index, the Historical Map Archive, and the Aerial Photography Index.

- Contemporary Map Index: features maps generated by the Laboratory. The Cartographic Research Laboratory (CRL) has been creating computer generated maps since the early 1990s. Rather than maintaining these maps in digital archives, CRL felt that it would be more useful to itself and the public if it made these maps freely available on the Internet. CRL believes that the maps will be particularly valuable to educators and the business community while, at the same time, allowing CRL a means of communicating its services to potential clients.
- Historical Map Archive: a digitized collection of selected map holdings from the University of Alabama Map Library, the W. S. Hoole Special Collections Library, the Rucker Agee Collection of the Birmingham Public Library, the Geological Survey of Alabama, and the Alabama Department of Archives and History. These maps are not necessarily limited to Alabama, but from Alabama-based collections)
- Aerial Photography Index: contains a digitized selection of historic aerial photography found at the Geological Survey of Alabama and the University of Alabama Map Library. The photos found in this index are but a small part of the total collection of nearly 150,000 photographs housed in these facilities.

NATIONAL SPATIAL DATA INFRASTRUCTURE

Consistent means to share geographic data among all users could produce significant savings for data collection and use and enhance decision making. Executive Order 12906 calls for the establishment of the National Spatial Data Infrastructure defined as the technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community.

The goal of this Infrastructure is to reduce duplication of effort among agencies, improve quality and reduce costs related to geographic information, to make geographic data more accessible to the public, to increase the benefits of using available data, and to establish key partnerships with states, counties, cities, tribal nations, academia and the private sector to increase data availability.

The NSDI has come to be seen as the technology, policies, criteria, standards and people necessary to promote geospatial data sharing throughout all levels of government, the private and non-profit sectors, and academia. It provides a base or structure of practices and relationships among data producers and users that facilitates data sharing and use. It is a set of actions and new ways of accessing, sharing and using geographic data that enables far more comprehensive analysis of data to help decision-makers choose the best course(s) of action. Much has been accomplished in recent years to further the implementation of the NSDI, but there is still much to be done to achieve the vision of current and accurate geographic data being readily available across the country.

GEOLOGICAL SURVEY OF ALABAMA (GSA)

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MISSION

The Geological Survey of Alabama, established in 1848, provides service and information to Alabama and its citizens as a natural resource data gathering and research agency. As part of its mission, GSA explores and evaluates the mineral, water, energy, biological, and other natural resources of the State of Alabama and conducts basic and applied research in these fields.

PROGRAMS AND SERVICES

GSA Programs:

- Geologic Investigations Program conducts basic geologic and coastal research, monitors and investigates geologic hazards, and directs the geologic mapping program. It also maintains and manages the core and well sample warehouse and sample viewing facility, the paleontology collection, the library, the Publications Sales Office, and publishes Geological Survey of Alabama and State Oil and Gas Board reports. The program includes three sections:
 - Coastal Resources Section: http://beta.gsa.state.al.us/gsa/coastal/coastal_resources.html
 - Geologic Mapping and Hazards: http://beta.gsa.state.al.us/gsa/geo_mapping.html
 - Resources Information: http://beta.gsa.state.al.us/gsa/res_info.html

- The Water Investigations Program of the Geological Survey of Alabama conducts basic water resource investigations of ground- and surface-water quantity and quality. The Water Investigations Program consists of four groups:
 - Hydrogeology: <http://beta.gsa.state.al.us/gsa/hydrogeology/hydrogeology.html>
 - Biological Systems: <http://beta.gsa.state.al.us/gsa/biological.html>
 - Geochemical Laboratory: <http://beta.gsa.state.al.us/gsa/h20nfo.html>
 - Water Information Section: <http://beta.gsa.state.al.us/gsa/h20nfo.html>
- Energy Investigations Program: Geologists at the Survey are currently evaluating the distribution and quality of deep coal resources in the Black Warrior basin. Identifying prospective areas for future development will aid Alabama's mining industry. Survey geologists study the coalbed methane reserves in the Black Warrior basin, Cahaba coal basin, and Coosa coal basin and the use of carbon dioxide to enhance methane production in conjunction with carbon sequestration research. These studies help identify new areas for development and help the industry produce gas more efficiently and practically. Oil and gas research at the Geological Survey focuses on characterizing the petroleum reservoirs in Alabama. The research above falls into the following categories.
 - Coal Systems & Technology: http://beta.gsa.state.al.us/gsa/coal_sys.html
 - Petroleum Systems & Technology: http://beta.gsa.state.al.us/gsa/petro_sys.html
 - Carbon Sequestration: <http://beta.gsa.state.al.us/programs.html##>

3 Major Operational Divisions:

- Hydrogeology Division
- Economic Geology Division
- Environmental Geology Division

Each of these divisions has unique areas of responsibility that together facilitate the ability of the survey to successfully achieve its mission of service to the state of Alabama.

Other Programs and Services:

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|--------------------------------|----------------------------|
| • Educational Outreach Efforts | • Publications Group |
| • Geochemistry Lab | • Publication Sales Office |
| • Library | |

USGS GEOLOGIC INFO ABOUT THE SOUTHEASTERN STATES

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OVERVIEW

The U.S. Geological Survey (USGS) serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

MISSION

As the Nation's largest water, earth, and biological science and civilian mapping agency, the USGS collects, monitors, analyzes, and provides scientific understanding about natural resource conditions, issues, and problems. The diversity of USGS's scientific expertise enables it to carry out large-scale, multi-disciplinary investigations and provide impartial scientific information to resource managers, planners, and other customers.

PROGRAMS

"Geologic Information about the Southeastern States" highlights selected research on the States of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee and offers links to other online resources for each State.

USGS Offices in Alabama

1. Water Science Center - Montgomery

Athena Clark
Director
AUM TechnaCenter
75 TechnaCenter Drive
Montgomery, AL 36117
Phone: (334) 395-4120
Web: http://pubs.water.usgs.gov/al_water

2. National Spatial Data Infrastructure Partnership Office

(Liaison for: AL, FL, GA, MS, PR, VI, Gulf Coast)
U.S. Geological Survey
Florida Mapping Partnership Office
2010 Levy Avenue
Tallahassee, FL 32310
Phone: (850) 942-9500 x3034

3. USGS Alabama Cooperative Fish and Wildlife Research Unit

108 White Smith Hall
Auburn University
Auburn, AL 36849-5418
Phone: (334) 844-4796