



The National Park Service

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GIS IN THE NATIONAL PARK SERVICE (UPDATED)

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Since 1995, the focus of GIS (Geographic Information System) in the National Park Service has been on cartographic data acquisition for parks, GIS training, and technical and administrative support for the growing number of GIS and GPS (Global Positioning System) operations in parks. More than 250 NPS units use GIS today. GIS applications range from studies of effects on parks by visitors to assistance with the re-creation of historic battlefield landscapes.

Current Status

Organization

The Information Telecommunications Division was recently given national level management of GIS by moving the national GIS coordinator position from natural resources and adding technical GIS staff. This was done to align Internet and library programs with GIS technology and to broaden the GIS support and outreach to other programs such as cultural resources, land resources, and national rivers and trails. Like these programs natural resources also maintains a GIS coordinator position.

Also since 1995, eight regional technical support centers were funded and improved and the National Park Service entered into a cooperative agreement for national GIS support with the North Carolina State University.

Functions

The GIS Coordinator of the Natural Resource Information Division provides

leadership on GIS and spatial data issues in the National Park Service and assists with implementation of GIS in national parks; represents the National Park Service to the Interior Geographic Data Committee; and coordinates data requirements, satellite imagery, and other spatial data for base cartography by the service.

The North Carolina State University assists parks and the regional technical support centers with applications of GIS, provides training of park personnel in GIS, and serves as a clearinghouse for data that are posted on the Internet.

The Regional Technical Support Centers:

- assist parks and programs with planning, developing, and implementing GIS technology
- coordinate GIS activities and issues with NPS GIS staff, especially with staff in their respective field areas
- coordinate GIS partnerships with other agencies and organizations
- create thematic data layers for parks
- organize spatial data archives for parks
- assist parks with data documentation and management

- provide national parks with technical support for GIS operations and training of personnel

- provide parks and other entities of the National Park Service with services for the development of GIS applications and with products, including full services for parks without on-site GIS capabilities.

GIS Implementation

The implementation of GIS requires the acquisition of data, computer hardware, software, and staff. The Natural Resource Inventory and Monitoring program of the Natural Resource Information Division provides national parks with standard 1:24,000 elevation, hydrography, boundary, and other base cartographic data. Parks purchase the hardware and software for GIS operation and the maintenance agreements for the UNIX work stations. The most commonly used GIS software in the National Park Service is the ARC/INFO family of GIS software products. ARC/INFO, produced by the Environmental Systems Research Institute, provides several levels of GIS software products that range from CAD (Computer Aided Drafting) and desktop to complex work stations and Internet map servers.

GIS implementation in the National Park Service tends to be with desktop personal computers. Several staff members can access the system over a local area net-

