MISSISSIPPI RELIES ON THE DIGITAL COAST

*That's because the **Digital Coast** has a lot to offer **Mississippi.***
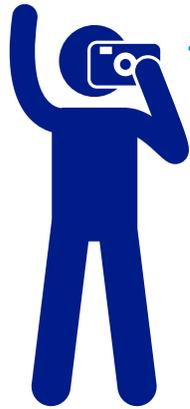
5,961
Mississippi visitors to the Digital Coast.
(763,454 nationwide)

DATA
11,243 gigabytes of high-resolution elevation data available for Mississippi.

TOOLS
50+ decision-support tools applicable for Mississippi challenges.

TRAINING
9 leaders in the state used a Digital Coast training program.

GEOSPATIAL SERVICES
Over **$440,000** in private-sector geospatial services awarded for the Gulf region.

INFORMATION

- Fourty-one percent of the population in Jackson County lives in a floodplain.
- The state experienced 24.9 percent of coastal change from 1996 to 2010, mostly related to forest losses and growth.
- Tourism and recreation is the largest employer among the state's ocean-dependent economic sectors.

SAVING TIME AND MONEY
411% was the return on investment calculated for the Digital Coast.

IT'S A WEBSITE.
NOAA owns the Digital Coast, but the resources inside, while vetted by NOAA for applicability and quality, come from various organizations with one common but important thread: content is solely focused on coastal community needs. The site contains not only data, but also the tools, training, and information communities need to make data truly useful. Three out of four Digital Coast users surveyed say they couldn't do their jobs without this important resource!

The short report that follows highlights Digital Coast interactions with the State of Mississippi.

Digital Coast
coast.noaa.gov/digitalcoast

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Mississippi Recap

NOAA and the Digital Coast are devoted to supplying Mississippi with the data, tools, and information most needed by coastal communities. This report highlights the resources frequently used during this reporting period. Please visit the website (coast.noaa.gov) to learn more or contact NOAA (coastal.info@noaa.gov) with your questions or suggestions.

DATA

Data represent the core component of the Digital Coast. For Mississippi, data holdings include elevation, land cover, aerial imagery, and county-level socioeconomic data. Examples are highlighted below.

Coastal Lidar
coast.noaa.gov/digitalcoast/data/coastallidar

Over 11,243 gigabytes of high-resolution elevation data covering Mississippi's entire coastal zone are available. These types of data are critical for all types of modeling, including those that predict flooding potential.

Land Cover
coast.noaa.gov/digitalcoast/data/ccapregional

This satellite imagery is used to inventory and categorize the landscape—coastal intertidal areas, wetlands, adjacent uplands, development, agriculture use, etc. Nothing provides a big picture view of a region like land cover data. These data are used to identify high-priority landscapes for Mississippi's coastal protection and restoration efforts. Comparing one year to another is also a good way to spot and document trends.

Economics
coast.noaa.gov/digitalcoast/data/enow

Information about the ocean-dependent economy in Mississippi helps people understand how the decisions that impact the coast can also impact the bottom line.

TOOLS

"Data alone is not enough" is a frequent Digital Coast refrain. Going the extra step and including the tools and training needed to make data truly useful is a hallmark of the Digital Coast website. Users have access to over 50 data analysis, visualization, and other decision-support tools. Examples are highlighted below.

Coastal County Snapshots
coast.noaa.gov/digitalcoast/tools/snapshots

Pick a county and hit a button to generate easy-to-understand handouts. Behind the simple charts and graphs are complex county-level data about flooding, wetlands, and economics. Local officials use the snapshots as a planning and communication tool.

Land Cover Atlas

coast.noaa.gov/digitalcoast/tools/lca

This tool makes land cover data easier to access and understand by eliminating the need for desktop GIS software. General trends in land cover change (such as forest losses or new development) are summarized, and specific changes (salt marsh losses to open water, for instance) can be documented. This type of information is useful for planning purposes. Mississippi officials found it particularly helpful as they worked to assess ecosystem health after Hurricane Katrina.

Economics: National Ocean Watch Explorer

coast.noaa.gov/digitalcoast/tools/enow

This tool makes economic data easier to use. The economic data provided by the Digital Coast focus on six business sectors dependent on the oceans and Great Lakes: living resources, marine construction, marine transportation, offshore mineral resources, ship and boat building, and tourism and recreation. This tool helps users discover which sectors are growing and declining, and which account for the most jobs, wages, and gross domestic product for coastal communities, the state, and the nation.

OpenNSPECT

coast.noaa.gov/digitalcoast/tools/opennspect

This tool is often used to investigate potential water quality and flooding impacts from climate change, development, and other land uses. Communities also use this information to reduce these impacts by identifying suitable areas for restoring wetlands and developing riparian buffers.

TRAINING

Coastal officials have to stay on top of their game, which is why the Digital Coast's "training academy" provides over 125 learning resources, from online courses to training brought to your location. A few examples are provided below. To see the full suite, visit *coast.noaa.gov/digitalcoast/training/home*.

Coastal Inundation Mapping

coast.noaa.gov/digitalcoast/training/inundationmap

This classroom course provides baseline information about the various types of flooding and teaches methods for mapping current and potential flooding scenarios. The course offers 16 hours of continuing education credits for the GIS Professional (GISP) and American Institute of Certified Planners (AICP), and Certified Floodplain Manager (CFM) professional certifications.

Green Infrastructure Practices and Benefits Matrix

coast.noaa.gov/digitalcoast/training/gi-practices-and-benefits

Green infrastructure (also called natural infrastructure) is the way to go for communities looking to reduce flooding. This quick handout provides important information about some of the most common techniques in use.

Seven Best Practices for Risk Communications

coast.noaa.gov/digitalcoast/training/risk-communication

The title alone speaks to most people—this is a skill everyone benefits from. The Digital Coast has many resources devoted to this topic, but this online training course is particularly popular.

GEOSPATIAL CONTRACTING

Through the Digital Coast, coastal organizations in need of geospatial data or services benefit from the use of the Coastal Geospatial Services Contract (*coast.noaa.gov/idiq/geospatial.html*). This contracting vehicle provides a way for local, state, and federal agencies to use a streamlined process to obtain services from the nation's top geospatial firms. In fiscal year 2017, over $440,000 was awarded to private geospatial firms to conduct mapping projects in the Gulf region, including the acquisition and processing of GIS data.

DIGITAL COAST IN ACTION

The following stories illustrate how Digital Coast users are applying geospatial information resources to address coastal issues in Mississippi.

Examining Flood Exposure Data along the Mississippi and Louisiana Coasts
coast.noaa.gov/digitalcoast/stories/flood-exposure

Mississippi and Louisiana coastal communities are vulnerable to natural and man-made hazards. Many of the residents in these areas are at an increased risk due to age, income, disability, or other factors that require special assistance when these events occur. Having data on these demographics helps city managers plan for hazard response. The Red Cross used the NOAA Office for Coastal Management's Coastal County Flood Exposure Snapshot to easily gather this demographic information, coupled with flood exposure data, and communicate it to stakeholders. The Coastal County Snapshot saved the Red Cross time and money by not having to hunt down this valuable information independently.

Planning for Future Flood Hazards in Mississippi
coast.noaa.gov/digitalcoast/stories/ocean-springs

Communities along Mississippi's Gulf Coast are vulnerable to flood hazards from a variety of causes, making stakeholder engagement essential. The City of Ocean Springs, Mississippi, conducted a survey to assess residents' knowledge of coastal change and priorities for hazard mitigation. Managers shared the survey results along with a demonstration of NOAA's Sea Level Rise Viewer at a follow-up workshop. The viewer helped workshop participants think about current and future flood impacts and discuss project ideas to mitigate those impacts. In response, the county changed a previous hardened shoreline plan to put in place a living shoreline project to lessen flooding and erosion.

The Digital Coast Partnership

One of the goals of the Digital Coast is to unify groups that might not otherwise work together. As a result, the Digital Coast Partnership is building not only a website, but also a strong collaboration of coastal professionals intent on addressing common needs. Currently, the eight members of the Digital Coast Partnership include the American Planning Association, Association of State Floodplain Managers, Coastal States Organization, National Association of Counties, National Estuarine Research Reserve Association, National States Geographic Information Council, Nature Conservancy, and Urban Land Institute. The responsiveness of these organizations and the direct lines of communication fostered by the effort have proven essential for ensuring the success and continuing relevance of the Digital Coast, and for allowing the platform to evolve and adapt to changing needs and priorities.