



# Historic Waterways

## The Dismal Swamp and the Albemarle and Chesapeake Canals

The Dismal Swamp Canal (DSC) and the Albemarle and Chesapeake Canal (ACC) form alternative routes along the Atlantic Intracoastal Waterway (AIWW) between the Chesapeake Bay and Albemarle Sound. The canals and the rest of the waterway are maintained and cared for by the United States Army Corps of Engineers. The AIWW provides pleasure boaters and commercial shippers with a protected inland channel between Norfolk, Va. and Miami, Fla. The history of these two canals, which contain the only locks along the AIWW, paints a vivid picture of the development of transportation that goes back more than 200 years. It is also a fascinating tale rich in folklore and literature.



Atlantic Intracoastal Waterway

More than 200 years ago, as it is today, transportation was the lifeblood of the North Carolina sounds region and the Tidewater region of Virginia. The landlocked sounds were entirely dependent upon poor overland tracks or shipment along the treacherous Carolina coast to reach further markets through Norfolk.

The first to propose the "advantage of making a channel to transport by water-carriage goods from the Albemarle Sound into the Nansmond and Elizabeth Rivers" was Colonel William Byrd II of Virginia in 1728. He had just returned from making a survey of the Virginia-North Carolina border for the English Crown. During the expedition, he and his party had to struggle through the dense undergrowth and forests of the great swamp. Byrd, finding the place repulsive, is said to be responsible for the addition of "Dismal" to the name.

**The Dismal Swamp Canal**

It would be nearly 60 years, following the Revolutionary War, before a canal was started. The nation desperately needed good roads connecting the isolated towns and villages with larger cities. If the country was to grow and prosper, an effective means of internal transportation had to be developed. Both George Washington and Patrick Henry felt that canals were the easiest answer and favored a route through the Dismal Swamp. Although Washington was not involved in the canal's construction, he was familiar with the region. He and a group of business "adventurers" owned some 50,000 acres in the Dismal Swamp that they were logging. Washington Ditch, a separate cut through the swamp, was built to transport their timber. The remnants of it are still visible today.

Finally, in 1793, construction began on both ends of the Dismal Swamp Canal. The canal had to be dug completely by hand so progress was slow and expensive. Most of the labor was done by slaves hired from nearby landowners. It is interesting to note that the slaves became so familiar with the swamp during this period that it eventually became a haven for runaways. Later, in the anti-slavery era prior to the Civil War, "Harper's Weekly" artist David Strother visited the area and reported that there were large colonies of runaway slaves in some sections of the swamp. Harriet Beecher Stowe patterned her main character in the novel, "Dred: A Tale of the Great Dismal Swamp," on one of Strother's sketches. Henry Wadsworth Longfellow was inspired to pen his poem, "The Slave in the Dismal Swamp," based on Stowe's character.

By 1796, the costs of building the canal had far exceeded the projected estimates. The company halted work and began a road to connect the two canal sections. The road was completed in 1802. The famous Irish poet, Sir Thomas Moore, visited the area soon after and immortalized "The Lake of the Great Dismal" in a ballad about a legendary love affair.

The completed canal would eventually open in 1805, 12 years after it was started. Because it was so shallow, its use was limited to flat boats and log rafts that were manually poled or towed through. Shipment consisted mainly of logs, shingles, and other wood products taken from the swamp's great stands of cedar and juniper. Needless to say, this was a far cry from what farmers, lumbermen and merchants originally envisioned as a regional trade route. Throughout its history, the Dismal Swamp Canal has experienced hard times.



Great Bridge Reservation and Lock

The owners would give up trying to maintain it, let it fall into disrepair and eventually sell it. The maintenance problems were the result of flaws in the canal's original concept and design. Water levels between its beginnings in Deep Creek and its original end in Joyce's Creek were not correctly measured. This left the canal without an adequate source of water and subject to natural rainfall and drainage conditions. Even with the feeder ditch built to supply water from Lake Drummond, the canal was still dry in periods of low rainfall and drought. The problem remains even today. To preserve water levels in the federally protected Great Dismal Swamp National Wildlife Refuge, the feeder ditch is periodically shut off during dry spells. This prevents the canal from draining waters of the swamp and damaging its fragile ecosystem.

Floating Theatre, where Edna Ferber got the idea to write the novel "Showboat," upon which the famous musical is based.

Today, the Dismal Swamp Canal is on the National Register of Historic Places as a Historic Landmark, and is also noted as a National Historic Civil Engineering Landmark. In February 2004, the Dismal Swamp Canal was included in the National Park Service's Underground Railroad Network to Freedom Program. It is maintained by the Norfolk District, U.S. Army Corps of Engineers as a navigational resource along the Atlantic Intracoastal Waterway.

**The Albemarle and Chesapeake Canal**

The second headwater canal is the Albemarle and Chesapeake. First authorized in 1772, 15 years prior to the Dismal Swamp Canal, its early history can be characterized as all "acts" and no action. No less than 10 acts were passed in both Virginia and North Carolina over a period of 83 years before construction finally began in 1855.

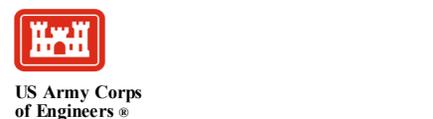
By that time, however, the Dismal Swamp Canal was firmly established. The state of Virginia owned quite a bit of stock in the canal company and a new canal was viewed as a competitive threat. The man who carefully put the pieces together to begin the canal was Tidewater Virginian, Marshall Parks Jr. Parks' father had been superintendent and chief engineer of the Dismal Swamp Canal during its first major period of reconstruction in the late 1820's. The younger Parks had also been an official with the Dismal Swamp Company and was thoroughly familiar with the canal's problems. He visualized the Albemarle and Chesapeake Canal as the answer to more efficient commercial trade between the two regions.

The new canal would be wider and deeper than most others of its day. Parks planned for it to handle the larger steamers and future growth. It would also have only one lock, instead of the Dismal's then seven, considerably reducing passage time.

Construction of the Albemarle and Chesapeake Canal was accomplished by seven steam dredges on floating platforms. Had an attempt been made to dig the canal prior to steam-powered technology, it would have failed. The dredges had to gouge the canal out of low-lying mucky ground, scooping up huge tree trunks and petrified logs that lay beneath the surface. When the canal was finished in 1859, it was an engineering marvel. It consisted of only one lock and two relatively short man-made channels, the Virginia Cut and the North Carolina Cut. The single lock, which balanced lunar tides of the southern branch of the Elizabeth River with the wind driven ones of the North Landing River and Currituck Sound, was 40 feet wide and 220 feet long, the longest along the Atlantic coast and the second largest in the entire U.S. The reversible gate heads, allowing ships to lock up or down depending on water levels, were probably the first of their kind. In addition, four times a day when the levels were equal and the winds favorable, the gates were left open to permit clear passage.



Cruising along the AIWW



**The Corps of Engineers and Navigation**

Established in the earliest days of our nation as part of the Continental Army, Army engineers blazed trails for westward migration and cleared waterways and harbors for commerce. Today, the U.S. Army Corps of Engineers is engaged in flood risk management, hydropower, coastal storm damage reduction, water supply, emergency operations, ecosystem restoration, recreation and navigation projects such as the Atlantic Intracoastal Waterway.

Corps facilities are carefully planned to promote the use of project land and water while conserving the natural environment.

Many areas are maintained in as close to their natural state as possible, consistent with the purposes of the project.

**Protect Your Waterways**

While navigating the canal, boaters should have both bow and stern lines ready when going through the locks. They should also reduce their speed so that no wake is produced while approaching, motoring through and leaving the locks, bridge structures, and traveling the canals. Complete guidelines are available from the addresses listed on the reverse. Violations are subject to citation and federal laws.

Corps recreation areas belong to you and all Americans. You can help take care of your public lands and waters in many ways. Observe rules designed for your safety and for the protection of the project and its natural resources. Remember to be alert to natural hazards such as submerged stumps, logs or rocks. Information on hunting, trapping, and fishing can be found at <http://www.nao.usace.army.mil/Missions/CivilWorks.aspx>. Enjoy yourself and have a safe visit.



Deep Creek Lock

- THE DISMAL SWAMP CANAL**
- 1728 Colonel William Byrd II first proposes a canal.
  - 1787 Virginia authorizes canal construction.
  - 1790 North Carolina authorizes canal construction.
  - 1793 The Dismal Swamp Canal Company begins digging.
  - 1804 The causeway road opens, eventually becoming U.S. 17.
  - 1805 The full length of the canal opens.
  - 1812 The Feeder Ditch supplying water is cut. Number of locks is expanded from two to five or six.
  - 1814 A 20-ton decked vessel passes for the first time.
  - 1818 President James Monroe visits.
  - 1820 Canal built connecting Dismal Swamp to Northwest River and Currituck Sound. Some remnants still exist.
  - 1827 Canal widened and deepened. Locks converted from wood to stone. President Andrew Jackson visits.
  - 1829 Lake Drummond Hotel, the "Halfway House," opens.
  - 1843 Gilmerton Canal, no longer in use, is made north of Deep Creek.
  - 1856 Turner's Cut completed, eliminating twists of Joyce's Creek.
  - 1859 Albemarle and Chesapeake Canal opens.
  - 1861 Civil War takes toll on both canals. Ships sunk to block Albemarle and Chesapeake Canal.
  - 1866 Passenger service starts on Dismal Swamp Canal.
  - 1878 Company is nearly bankrupt, canal deteriorates, and assets are sold.
  - 1892 Lake Drummond Canal & Water Company takes over.
  - 1896 Major improvements made, locks cut to two. The United States Government is in the process of establishing a toll-free inland waterway along the East Coast.
  - 1899 U.S. Army Corps of Engineers takes over the Albemarle and Chesapeake Canal.
  - 1913 Congress authorizes purchase of Dismal Swamp Canal. Purchase is finally made for the same price as the Albemarle and Chesapeake Canal, \$500,000.
  - 1925 Canal Dredged to 50 feet wide, 9 feet deep.
  - 1933 New U.S. 17 drawbridges completed at Deep Creek and South Mills.
  - 1934 New Control spillway built on feeder ditch.
  - 1935 New concrete and steel locks built at Deep Creek and South Mills.
  - 1940 Great Dismal Swamp National Wildlife Refuge established by Congress. Navigational needs of the canal are made secondary to water conservation needs of the swamp.
  - 1941 Dismal Swamp Canal placed on the National Register of Historic Places, and is also noted as a Historic Civil Engineering Landmark.
  - 1974
  - 1988



Kayaking on the Dismal Swamp Canal



Great Bridge Bridge Replacement

- 2000 Deep Creek Lock chamber dewatered and major repairs performed to the lock and gates.
  - 2004 Dismal Swamp Canal included in the National Park Service's Underground Railroad Network to Freedom Program.
  - 2008 Portion of U.S. 17 converted to Dismal Swamp Canal Trail
- THE ALBEMARLE AND CHESAPEAKE CANAL**
- 1772 Virginia passes the original act authorizing the canal.
  - 1774 Two separate feasibility and cost studies made on canal routes.
  - 1776 Revolutionary War delays action.
  - 1793 Construction begins on the Dismal Swamp Canal, eliminating the immediate need for the Albemarle and Chesapeake Canal.
  - 1809 Another act passed in Virginia incorporating "The Great Coastwise Canal and River Navigation Company" to cut the canal.
  - 1812 The War of 1812 delays further action.
  - 1812-1854 Numerous acts passed establishing companies and enabling construction. Lack of interest and funds caused further delays.
  - 1855 Construction begins at last.
  - 1859 Canal is completed and steamboat service begins. Plans are already underway to deepen the canal from six to eight feet.
  - 1862 Both Confederate and Union forces sink ships in North Carolina Cut to block the canal.
  - 1865-1866 Great Bridge Lock closed for three months due to leakage.
  - 1873 New iron gates replace wooden ones at Great Bridge.
  - 1870's First suggestions made that the federal government take over the canal, make improvements and provide an inland waterway.
  - 1913 United States buys Albemarle and Chesapeake Canal for \$500,000 as part of its inland waterway plans.
  - 1917 Lock gates removed at Great Bridge to allow passage of larger ships.
  - 1932 New lock, built by U.S. Army Corps of Engineers, opens.
  - 1992 Great Bridge Lock Area bulkheads and fender systems upgraded.
  - 2004 Great Bridge Bridge replaced and operations taken over by the City of Chesapeake. Albemarle and Chesapeake Canal placed on National Register of Historic Places.



AIWW Information Available From Other Districts:

Information similar to that contained in this brochure may be obtained for other portions of the Atlantic Intracoastal Waterway by addressing the following Districts of the Corps of Engineers.

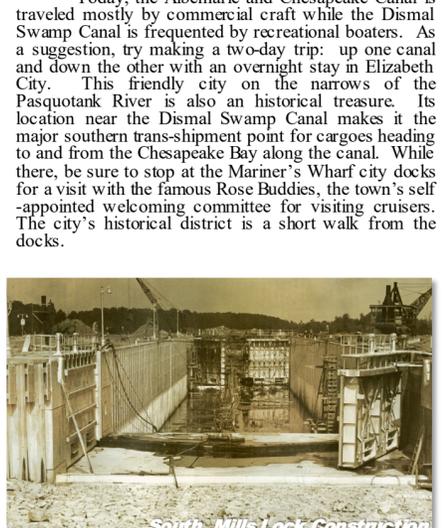
| Section of Waterway                     | FROM                         | TO   | District |
|---|------------------------------|--|----------|
| ACC: Virginia-North Carolina State Line | Little River, South Carolina | Wilmington District Army Corps of Engineers P.O. Box 1890 Wilmington, NC 28402-1890 www.sa.usace.army.mil      |          |
| DSC: Mile Marker 68 Pasquotank River    | Beaufort, South Carolina     | Charleston District Army Corps of Engineers 69-A Hagood Avenue Charleston, SC 29403-5107 www.sa.usace.army.mil |          |
|   | Beaufort, South Carolina     | Savannah District Army Corps of Engineers P.O. Box 889 Savannah, GA 31402-0889 www.sa.usace.army.mil           |          |
|   | Fernandina, Florida          | Jacksonville District Army Corps of Engineers 701 San Marco Blvd Jacksonville, FL 32207 www.saj.usace.army.mil |          |
|   | Fernandina, Florida          | Key West, Florida  |          |

The opening of the Albemarle and Chesapeake Canal gave the Dismal Swamp Canal serious competition. The two coexisted for 54 years, with the Albemarle and Chesapeake carrying most of the traffic. There was only a short period when the older canal stole away a significant amount of the commercial shipping. This occurred in the years following 1899 when the Dismal reopened after being entirely rebuilt at a cost of more than \$1 million. The triumph was short-lived, however.

The final blow was delivered when the United States government chose to buy the Albemarle and Chesapeake in 1913. Both canals were considered for purchase, along with building one of the two new routes, as part of the government's plan to establish a continuous inland waterway as provided for in the River and Harbor Act of 1910. The Albemarle and Chesapeake Canal had defaulted on a bank loan and was sold at foreclosure in 1910. Three years later it sold for only half a million dollars.

Following the sale, the U.S. Army Corps of Engineers went to work making improvements, and the Albemarle and Chesapeake was made toll free. For the next 16 years, in a reversal of roles, the Dismal Swamp Canal wavered on the edge of bankruptcy. Finally, in 1929, the government also purchased the Dismal in an act of fairness.

Today, the Albemarle and Chesapeake Canal is traveled mostly by commercial craft while the Dismal Swamp Canal is frequented by recreational boaters. As a suggestion, try making a two-day trip: up one canal and down the other with an overnight stay in Elizabeth City. This friendly city on the narrows of the Pasquotank River is also an historical treasure. Its location near the Dismal Swamp Canal makes it the major southern trans-shipment point for cargoes heading to and from the Chesapeake Bay along the canal. While there, be sure to stop at the Mariner's Wharf city docks for a visit with the famous Rose Buddies, the town's self-appointed welcoming committee for visiting cruisers. The city's historical district is a short walk from the docks.



South Mills Lock Construction

**Atlantic Intracoastal Waterway (AIWW) General Information**

Accommodations including complete supply and repair facilities together with hotels, restaurants, and other attractions are located along the Hampton Roads waterways, the Dismal Swamp Canal, and the Albemarle and Chesapeake Canal. Excellent anchorage and docks are available in Chesapeake, Va. and Elizabeth City, N.C. Bridge and lock operators in this portion of the AIWW monitor marine radio channel 13. Additional information on the AIWW, including navigation updates and cruising news, is available online.

**Dismal Swamp Canal Traveling Information**

While maintained to a depth of 6 feet, boaters must verify the latest channel conditions, obey the no wake requirements, and watch for underwater and floating debris. Our locks and bridges have minimum operating staff on duty from 8:00 a.m. to 4:30 p.m., seven days a week, 365 days a year.

Deep Creek and South Mills Locks normal operating schedule is: openings at 8:30 a.m., 11:00 a.m., 1:30 p.m., and 3:30 p.m., seven days a week, 365 days a year. The schedule is subject to change during droughts or adverse weather conditions; call to confirm before transiting the canal. Both Deep Creek and South Mills Locks have controlling dimensions of 52' wide and 300' long.

Drawbridges at Deep Creek and South Mills are unmanned and open in conjunction with the lock operating schedule. The lock operator also serves as bridge operator, therefore some delays in bridge openings can be expected, as they will be coordinated with the adjacent locks. Deep Creek lock and bridge operators can be reached at (757) 487-0831, the South Mills lock and bridge operators can be reached at (252) 771-5906 or marine radio channel 13.

Vessels can anchor or moor overnight in the canal; limited tie-up facilities are located along the canal including The City of Chesapeake piers near Deep Creek Lock and Douglas Landing. Vessels can stay at tie-up facilities along the canal longer than overnight during adverse weather conditions in Hampton Roads or when approved by the Norfolk District, U.S. Army Corps of Engineers.

The Dismal Swamp Canal Welcome Center, operated by the North Carolina Department of Transportation, is located near mile marker 28 on the canal. The Welcome Center has a variety of published brochures and pamphlets with information on accommodations and attractions. It also has a 150' dock, restrooms, vending machines, picnic tables and grills. Call (252) 771-8333 or visit [www.dismalswampwelcomecenter.com](http://www.dismalswampwelcomecenter.com) for additional Welcome Center information.

The Dismal Swamp State Park Visitor Center and Great Dismal Swamp Canal Bridge are also located near mile marker 28 on the canal. Visitors can access the Center by parking in the State Park parking area on the east side of the canal or by mooring vessels at the Welcome Center and crossing the pedestrian bridge. The park provides access and parking for the canoe/kayak launch during regular daily park hours. The park is open daily. Call (252) 771-6593 or visit [www.ncparks.com](http://www.ncparks.com) for additional information.

**Albemarle and Chesapeake Canal Traveling Information**

While maintained to a depth of 12 feet, boaters must verify the latest channel conditions and obey the no wake requirements. Our lock and bridge have operating staff on duty 24 hours a day, seven days a week, 365 days a year.

Great Bridge Lock opens on demand, but works in conjunction with the Great Bridge Bridge openings. The schedule is subject to change during adverse weather conditions. Mooring is limited to 24 hours near Great Bridge Lock and Great Bridge Bridge. The Great Bridge Bridge is operated by the City of Chesapeake and opens every hour from 6:00 a.m. to 7:00 p.m. and on demand after 7:00 p.m. Great Bridge Lock operators can be reached at (757) 547-3311 or marine radio channel 13. The controlling dimensions for Great Bridge Lock are 72' wide and 530' long.

North Landing Bridge opens every hour and half hour from 6:00 a.m. to 7:00 p.m. On demand openings are provided for commercial traffic as needed and for private vessels after 7:00 p.m. North Landing Bridge operators can be reached at (757) 482-3081 or marine radio channel 13.



**US Army Corps of Engineers®**  
Norfolk District

**The Atlantic Intracoastal Waterway's  
Dismal Swamp Canal, Virginia and  
North Carolina, and Albemarle and  
Chesapeake Canal, Virginia**

How Are We Doing?  
Please Send Your Comments To:  
[DLL-CENAO-DSC@usace.army.mil](mailto:DLL-CENAO-DSC@usace.army.mil)



**CRUISING INTO HISTORY**

Corps District Office

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