Structures Along the GIWW

1 Calcasieu Lock: completed 1950; 75 feet wide, 1,200 feet long, -13 feet mean low gulf; operated 24 hours a day; 46 million tons passed annually, 13,000 average annual lockages.

2 Leland Bowman Lock: completed 1985; 110 feet wide, 1,200 feet long; -15 feet mean low gulf; operated 24 hours a day; 43 million tons passed annually, 10,000 average annual lockages.

3 Port Allen Lock: completed 1961; 84 feet wide, 1,200 feet long; -13.7 feet mean low gulf; operated 24 hours a day; 25 million tons passed annually, 6,000 average annual lockages.

4 Algiers Lock: completed 1956; 75 feet wide, 760 feet long, -13 feet mean low gulf; operated 24 hours a day; 19 million tons passed annually, 8,400 average annual lockages.

5 Harvey Lock: completed 1934; 75 feet wide, 415 feet long, -12 feet mean low gulf; operated 24 hours a day; 4.5 million tons passed annually, 8,500 average annual lockages.

6 Inner Harbor Navigation Canal Lock: completed 1921; 74 feet wide, 626 feet long; -31.5 feet mean low gulf (only ship lock in New Orleans District); operated 24 hours a day; 20 million tons passed annually, 13,500 average annual lockages.

7 Bayou Sorrel Lock: completed 1952; 56 feet wide, 790 feet long, -14.75 feet mean low gulf; operated 24 hours a day; 25 million tons passed annually; 9,300 average annual lockages; part of the Atchafalaya Basin Project.

8 Bayou Boeuf Lock: completed 1954; 75 feet wide, 1,156 feet long, -13.8 feet mean low gulf; operated 24 hours a day; 25 million tons passed annually; 15,400 average annual lockages; part of the Atchafalaya Basin Project.

New Orleans District Highlights

New Orleans District serves a 30,000 square mile area of south and coastal Louisiana.

We help make the ports of South Louisiana number one in the nation in total tonnage and number one in grain exports.

We maintain 2,800 miles of navigable waterways, including 400 miles of deep-draft channels (45 feet deep from the Gulf of Mexico to Baton Rouge), and operate 12 navigation locks.

We make it possible to live and work along the lower Mississippi River. The district has built 950 miles of levees and floodwalls, and six major flood control structures to protect against river and hurricane flooding.

We keep the Mississippi River on its present course. The district's Old River Control Structure, northwest of Baton Rouge, prevents the Mississippi from changing course to the Atchafalaya River Basin.

We care for the environment by regulating dredge and fill activities in all navigable waters and wetlands. The district also manages clean up of hazardous waste sites for the Environmental Protection Agency. We provide recreational opportunities in the Atchafalaya Basin, Bonnet Carré Spillway, and the Old River Control.

We are on the frontline of efforts to reduce the rate of coastal landloss. The district has completed two Mississippi River fresh water diversion structures at Caernarvon and Davis Pond to reduce saltwater intrusion by delivering fresh water to marshlands. We also create new wetlands and restore barrier islands with material dredged from navigation channels.

For additional information about the Gulf Intracoastal Waterway, call (504) 862-2201, or write to: U.S. Army Corps of Engineers, New Orleans District, Public Affairs Office, P.O. Box 60267, New Orleans, LA 70160-0267, or visit our Web site at:

www.mvn.usace.army.mil

US Army Corps of Engineers®
New Orleans District

The Gulf Intracoastal Waterway Project

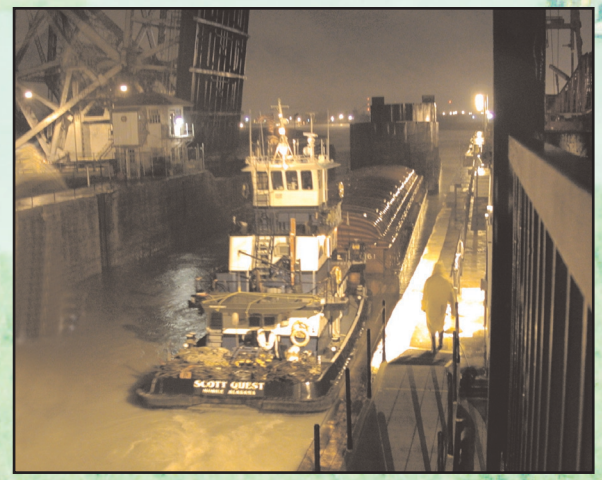
Port Allen Lock

Location and Size

The Gulf Intracoastal Waterway (GIWW) is often referred to as the most remarkable artery of transportation in America. Linking deep-water ports, tributaries, rivers and bayous, the GIWW stretches for more than 1,300 miles from the Mexican border at Brownsville, Texas, along the entire coast of the Gulf of Mexico to Apalachicola, Florida.

This vital inland waterway was constructed from the 1920s to 1949. The Louisiana segment stretches for 302.4 miles from the Texas-Louisiana state line in the west to the Louisiana-Mississippi state line in the east. The GIWW Alternate Route from Port Allen to Morgan City adds another 64 miles to its length for a total of 366.4 miles.

In Louisiana, the New Orleans District, U.S. Army Corps of Engineers, operates and maintains the GIWW and its six locks for both navigation and agricultural purposes. The Corps maintains channel dimensions in the GIWW to 12 feet deep and 125 feet wide from the Mississippi River west, and 12 feet deep and 150 feet wide from the Inner Harbor Navigation Canal (IHNC) to the Rigolets. Channel enhancements and additions continue to this day.



IHNC Lock is operated 24 hours a day.

Louisiana's coastal waters account for nearly 37 percent of the nation's total shrimp landings.

Navigation

The GIWW experiences its heaviest traffic along Louisiana's coast. The New Orleans District operates and maintains a series of locks to make this navigation possible. About 157 million tons of bulk cargo pass through these six locks annually: Algiers, Harvey, IHNC, Port Allen, Leland Bowman and Calcasieu. Bayou Boeuf and Bayou Sorrel locks are located on the GIWW but are part of the Atchafalaya Basin project.

The GIWW is the lifeline for industries in Louisiana, with both small and large craft using the route to reach the channels flowing into the Gulf. It is at the Port of New Orleans where the GIWW has its major connection with the interior of the country. There, it joins with the Mississippi River system. Combined, the Mississippi River ports of south Louisiana are rated number one in the nation in total tonnage and number one in the world in grain exports.

At Morgan City, traffic bound for Baton Rouge and other upriver Mississippi and Ohio ports has access to the shorter alternate route which connects the GIWW with Baton Rouge. Picturesque fishing vessels and graceful sailboats dot the channel, joining the bustling stream of barge traffic on the GIWW.

Diverse Environments

In Louisiana, the GIWW laces together the numerous isolated bayous and lakes which characterize the southern portion of the state. The bayous are essential to the shrimp, fishing and oyster industries of south Louisiana and serve as supply routes to the coastal and offshore drilling operations that feed the energy needs of the nation.

Live oaks grace the banks of the GIWW in Acadiana.

Wildlife refuges are interspersed with areas of historical importance and ethnic flavor. Between the busy ports of Lake Charles and New Orleans, the GIWW meanders through the unspoiled world of Acadiana, the moss-draped banks of Bayou Teche and a bird sanctuary on Avery Island before entering the vast wilderness area of the Atchafalaya Basin. Here, abundant waterbodies create an immense habitat for wildlife, as well as a huge resource for fishermen, hunters and naturalists. Just east of New Orleans are the scenic fishing villages of Barataria and Lafitte.

Barges provide low cost transportation for a variety of commodities.

The Structures

Algiers Lock is located just below New Orleans on the west bank of the Mississippi River at mile 88 above Head of Passes. The lock provides an alternate waterway connection from

Algiers Lock

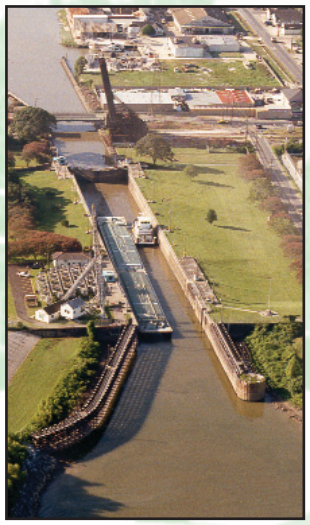
the Mississippi River to the GIWW at mile 6 west of Harvey Lock. It is also used to introduce fresh water into the coastal area west of the Mississippi when both gates are partially opened simultanously.

The **Calcasieu Lock** is located at the intersection of the Calcasieu River and mile 238 of the GIWW. It serves as a barrier preventing saltwater intrusion from the Calcasieu from entering the rice-growing areas of the Mermentau Basin via the GIWW. It operates in conjunction with Leland Bowman Lock, and Catfish Point and Schooner Bayou control

Calcasieu Lock

structures.

The **Harvey Lock** is on the west bank of the Mississippi River in Harvey, across the river from New Orleans. The lock connects the GIWW with the Mississippi River via the 6.5-mile-long Harvey Canal.



Harvey Lock

The **Inner Harbor Navigation Canal Lock** can be found at mile 92.7 above Head of Passes on the east bank of the Mississippi in New Orleans. This lock provides an important waterway link connecting the Mississippi River with the GIWW, Lake Pontchartrain, and the Mississippi River-Gulf Outlet. The lock also prevents the flooding of low areas east of the structure from high water on the Mississippi.

Inner Harbor Navigation Canal Lock

In southwest Louisiana, two miles west of Intracoastal City, the **Leland Bowman Lock** serves several purposes. It prevents salt water from entering the Mermentau River Basin. While used to pass flood flows from the low-lying area between the Vermilion and Calcasieu rivers, the lock also retains fresh water in that area for irrigation and enhancement of fish and wildlife. Leland Bowman is operated in conjunction with Calcasieu Lock and the Catfish and Schooner Bayou control structures to

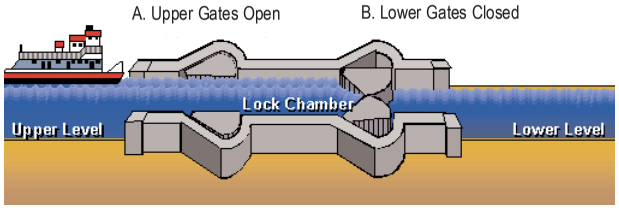
Leland Bowman Lock

achieve these purposes. On a side note, the Leland Bowman Lock staff are Cooperative Weather Observers, compiling daily temperature readings and rainfall amounts for the National Climatic Data Center, National Weather Service, and the secretary of the Mermentau Basin Association.

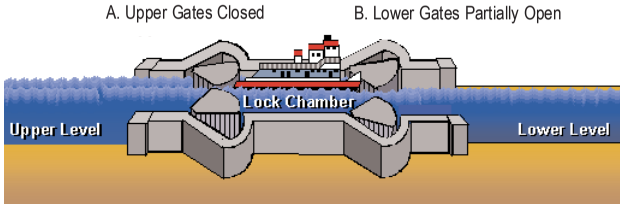
The **Port Allen Lock** is at the southern end of the Port of Baton Rouge on the west bank of the Mississippi River. The lock provides vessel and barge traffic between the Mississippi River and the Morgan City-to-Port Allen route of the GIWW. This route is 160 miles shorter than travelling the Mississippi River and taking the Harvey Lock at New Orleans to reach the GIWW. The Port Allen Lock prevents flooding of low areas southwest of the structure during high water stages on the Mississippi. It is also used to freshen the waterway southwest of the lock by diverting Mississippi River water through the structure.

Port Allen Lock

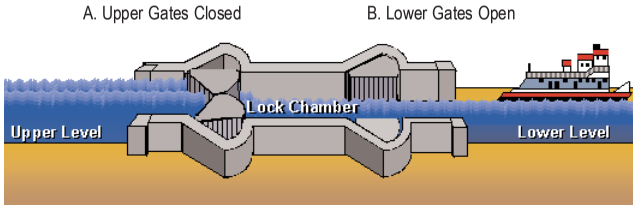
How Navigation Locks Work



The lower gates (B) are closed; the upper gates are partially opened allowing the chamber to fill to the upper level; and then the upper gates (A) are fully opened allowing the towboat to enter the lock chamber.



Once the towboat is in the lock chamber; the upper gates (A) are closed; the lower gates (B) are partially opened allowing the water to drain out into the lower level. The towboat is lowered as the water level lowers.



When the water level reaches the lower level, the lower gates (B) are fully opened allowing the towboat to leave the lock chamber and proceed along the waterway.

Fort Pike on the GIWW at Rigolets Pass is now a state historic site.

Cultural Resources

Southern Louisiana's 300-mile coast contains large tracts of marshes, swamps and many lakes and bayous. This extensive near-sea level area makes up the deltaic plain of the Mississippi River, created by deposition of river sediment. Deltaic areas have been important to man since earliest prehistoric times. They abound in wildlife and edible plants, and the many waterways provide natural routes of transportation.

More than 600 prehistoric and numerous historic sites are known in the Louisiana coastal zone where early economies depended on hunting-gathering or primitive agriculture. Some sites date to the Paleo-Indian Period (8000 B.C.). Of the many historical sites, Forts Pike and Macomb are the most significant, built between 1820-1828 as defenses against possible invasion of New Orleans.

More recently, archeological investigations of North Bend Plantation in St. Mary Parish represent the first excavation of a plantation site in the Atchafalaya Basin. The investigation uncovered a wealth of information on the virtually unknown African-American lifeways during the early-twentieth century. The site is eligible for nomination to the National Register of Historic Places.

Natural Resources

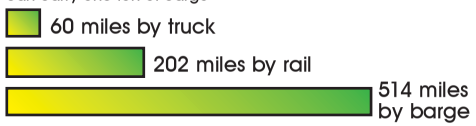
The GIWW spans the entire Gulf Coast, forming a network with the many feeder channels both north and south of the waterway. This network of waterways provides farm to market "roads" for the wealth of natural resources found in coastal Louisiana. From here, rice, cotton, soybeans, salt, lumber, seafood and sugarcane, in addition to billions of dollars in oil and gas products are barged upward and outward over much of the continental United States.

North Bend Plantation archeological site

Value to the Nation

Fuel Efficiency

Distance one gallon of fuel can carry one ton of cargo

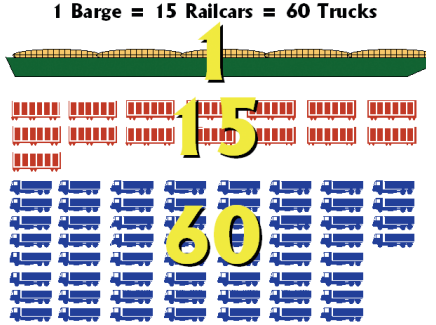


Capacity & Safety

Barges mean:

- ▸Less congestion and fewer accidents
- ▸Hazardous cargo is kept far from densely-populated areas

1 Barge = 15 Railcars = 60 Trucks



Environmentally Friendly

Pounds of Pollution Produced to Move 1 Ton of Cargo