## 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 are on the frontline of efforts to reduce the rate of coastal landloss. The district has completed one Mississippi River freshwater diversion structure at Caernarvon and is constructing another at 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 Corps of Engineers work in south central Louisiana, call (504) 862-2201, or write to: U.S. Army Corps of Engineers, New Orleans, LA 70160-0267, or visit our Web site at:

> > www.mvn.usace.army.mil



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> Eads' South Pass Jetties



Entrance to Eads' Jetties, drawn by J.O. Davidson for Harpers Weekly, 1883

About 18 miles below Ft. Jackson at Head of Passes, the Mississippi River branches into Southwest Pass, South Pass and Pass A L'Outre before emptying into the Gulf of Mexico. As early as 1723, French colonists found navigation difficult and looked for ways to deepen the passes. In 1875, the charismatic Captain James B. Eads, civil engineer, inventor and shipbuilder from St. Louis, proposed to Congress an innovative solution using jetties.



Eads offered not only to build jetties that would deepen South Pass but to maintain a 30-foot channel for the next 20 years. He promised to get results first and charge the government later. If he failed, he would be a ruined man; if he succeeded, the United States Government agreed to pay him \$8 million!

On June 14, 1875, Eads' crew began driving two lines of piles to extend the east and west banks of the pass and to serve as the outline for the jetties. Within two weeks, Eads' work extended 1,000 feet from land's end, and was advancing at the rate of 200 feet a day.

To build up a jetty wall on each side, Eads used willow "mattresses" that were piled on top of each other and held down with stones called "riprap." Sand and mud gradually filled the crevices between the logs and willow mattresses, forming a semi-permanent dike. Concrete slabs were placed atop the jetties in December 1878.

The partially-built jetties began forcing the river to scour out a deeper channel, reaching a 26-foot-depth by late December 1876. Less than a month later, it had scoured to a record depth of 30 feet. Eads successfully maintained the 30-foot-depth for 20 years, and in January 1901, his maintenance contract with the United States government expired.

Eads' jetties revived the declining Port of New Orleans and allowed the entire Mississippi Valley to prosper. In 1875, when Eads began work on the jetties, 6,875 tons of goods were shipped from St. Louis through New Orleans to Europe. In 1880, the year after he completed the jetties, 453,681 tons went by that route.

Commerce in the Port of New Orleans increased to such an extent that a deeper channel was proposed. Jetties, based on Eads' model at South Pass, were constructed at Southwest Pass between 1908 and 1923. The largest ships bound for New Orleans began to navigate Southwest Pass' 35-foot channel. Ship traffic in South Pass was finally discontinued in the 1970s.

Today, Southwest Pass is used by oceangoing vessels bound for the ports between New Orleans and Baton Rouge. The U.S. Army Corps of Engineers maintains the channel to a 45-foot depth.



Laborers construct willow "mattresses."