Interstate 10, Louisiana

Twin Span Bridge, New Orleans

2006, 2011



On August 29, 2005, Hurricane Katrina struck New Orleans and its vicinity causing devastation to life and property. Significant damage was caused to the roadway infrastructure, including the 5.5-mile Interstate 10 Twin Span Bridge that crosses Lake Pontchartrain and connects New Orleans to Slidell. The winds and water surge caused by Katrina ripped sections of the bridge off their support and into Lake Pontchartrain.

Aerial view of a flooded New Orleans neighborhood as a result of Hurricane Katrina.

A total of 64 spans, each weighing over 255 tons, had fallen into the lake, and another 473 spans were misaligned. Given that the Twin Span Bridge is a vital link for transportation in the region, performing emergency repairs on this bridge was a top priority for the Louisiana Department of Transportation and Development (DOTD). Funded through the Federal Highway Administration's (FHWA's) emergency relief program, within 12 days DOTD had accepted a \$30.9 million bid to repair the bridges. Undamaged portions of the westbound bridge were used to fill gaps in the eastbound bridge, which was opened to two-way traffic on October 14, just 47 days after Katrina and 17 days ahead of schedule. Prefabricated steel panels were used to repair the westbound bridge, which was opened on January 6, 2006, just 130 days after Katrina, returning four lanes of traffic to I-10.

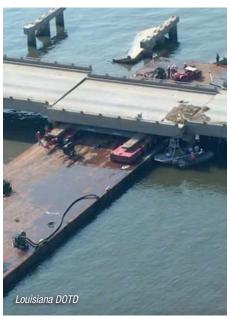
Although temporarily repaired, DOTD determined that the bridges were extensively damaged and too vulnerable to storm surges in the future. Within a year of Katrina, DOTD secured \$803 million in federal funds for the construction of a new Twin Span Bridge, just before the one-year anniversary of Katrina. The new bridges were constructed in five years, and all approaches and lanes were fully opened by September 2011.



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Sections of the I-10 Twin Span Bridge (left) slid off their moorings due to the winds and waters of Hurricane Katrina.

Emergency repairs being performed (above) on I-10 bridge in the weeks following Hurricane Katrina.

Quick Facts

- The original Twin Span Bridge was constructed in 1965 with 433, 65-foot concrete spans in each direction.
- The destruction of the Twin Span Bridge, combined with damage to nearby U.S. 90, left the two-lane U.S. 11 bridge as the only eastern route into New Orleans.
- Repairs were accelerated thanks to a flexible contract
 with incentives that rewarded early completion and discouraged missing project deadlines. The FHWA assisted
 DOTD in streamlining the contracting process to allow
 work to begin as soon as possible.
- "We cut red tape and provided the flexibility needed to get the Twin Spans reopened ahead of schedule so people could get to work, shipments could make it to stores, and hope could return to the hearts of Gulf Coast residents. Restoring roads, bridges, and transit systems is the best way to get the region back up and running again."
 - —Norman Y. Mineta, Secretary of Transportation, 2005.

- The original Twin Span Bridge consisted of two eastbound and two westbound travel lanes. The new bridge consisted of two parallel spans, each 60 feet wide and capable of supporting three 12-foot travel lanes with 12foot shoulders on both sides.
- The new Twin Span Bridge is designed to withstand powerful storm surges and unexpected events, and it is equipped with a complex monitoring system that includes sensors to detect when the structure has been hit by a barge or a storm surge, enabling DOTD to take immediate action to ensure safe travel for drivers and monitor the bridge structure over its life.
- Construction of the new Twin Span Bridge was completed ahead of schedule and well within budget. Approximately 12 percent of the original \$803 million was returned back to the hurricane relief fund.

Reference and Additional Information