



National Transportation Safety Board

Marine Accident Brief

Collision of Towing Vessel *St. Rita* and Tow with Moored Barges, and Subsequent Sinking

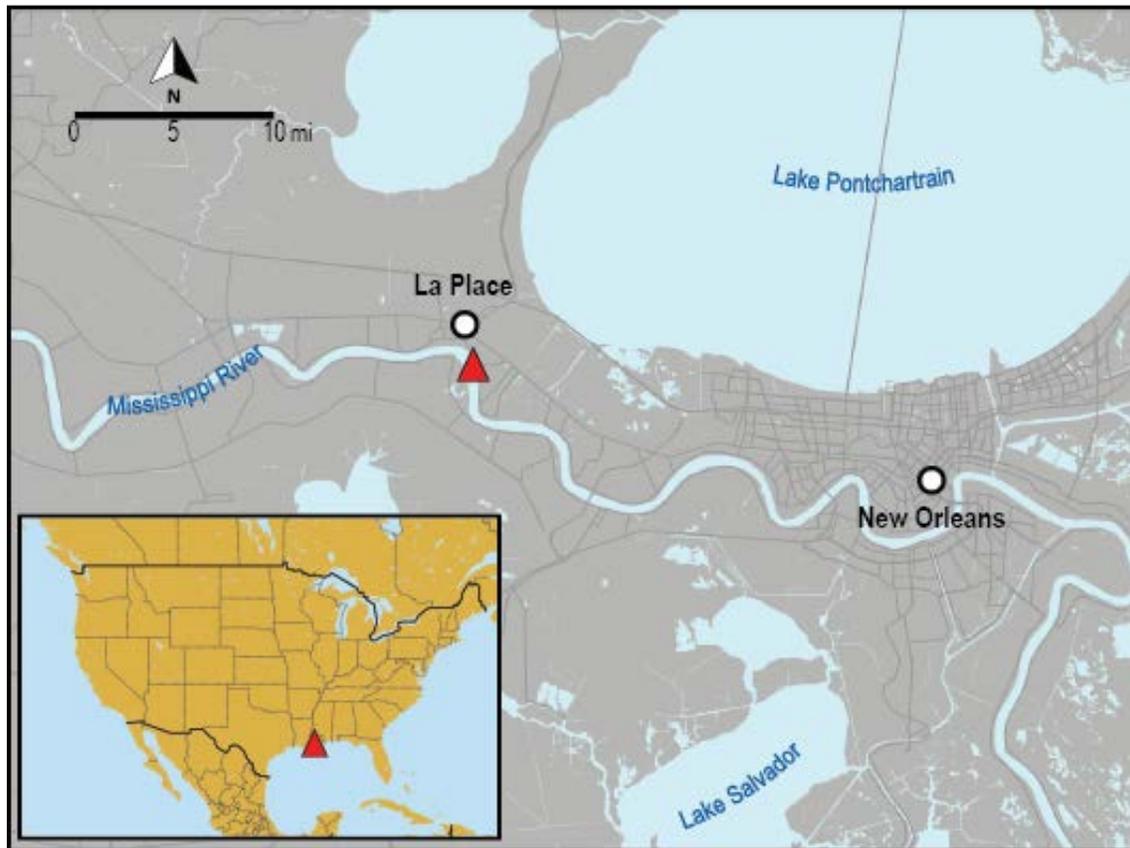
Accident type	Collision	No. DCA19FM022
Vessel name	<i>St. Rita</i>	
Location	Lower Mississippi River, mile 132, near New Orleans, Louisiana 30°02.0' N, 090°28.4' W	
Date	March 7, 2019	
Time	1430 central standard time (coordinated universal time – 6 hours)	
Injuries	Minor	
Property damage	\$1.5 million est.	
Environmental damage	No environmental damage reported	
Weather	Partly cloudy, visibility 10 miles, winds south 13 knots, small chop, current 5-6 knots, air temperature 73°F, water temperature 47°F	
Waterway information	The Mississippi River at the La Place fleeting area was at flood stage with an estimated current of 5-6 knots.	

On March 7, 2019, about 1430 local time, the towboat *St. Rita* was shifting the hopper barge *LTD 14161* across the Mississippi River to the Cooper Consolidated La Place fleeting area, about 23 miles west of New Orleans, Louisiana, when the towboat collided with moored barges and became pinned against a barge block broadside to the current, heeled over, and sank. The five crewmembers on board abandoned the *St. Rita* by climbing aboard the *LTD 14151* and were later rescued by a Good Samaritan towing vessel. No pollution or injuries were reported. The submerged vessel was considered a total constructive loss and was valued at \$1.5 million.



The *St. Rita* under way before the accident. (Source: M. Haury)

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Area of accident where the *St. Rita* flooded and sank as indicated by the red triangle. (Background source: Google Maps)

Background

The *St. Rita* was a US-flagged, twin-engine, twin-propeller, inspected towing vessel with two primary rudders and four flanking rudders. The vessel was used mainly for moving small groups of barges over short distances on the rivers and canals that connected to the Gulf of Mexico and in and around fleeting areas. It had two forward “pusher knees,” which allowed the vessel to push barges ahead of it.

On the accident date, the *St. Rita* was chartered by Cooper Consolidated and was operating as a fleet boat that moved barges in and around the La Place fleeting area, which was owned and operated by Cooper Consolidated, LLC. Job orders were given by Cooper Consolidated, but the vessel was crewed by the towing vessel’s owner, Marquette Transportation Corporation.¹ The crew operated under the guidelines of the owner’s safety management system (SMS).

The Mississippi River at the La Place fleeting was experiencing high-water conditions. The river gage at Reserve, Louisiana, located about 6.7 miles downstream from the accident site was at 23.61 feet (flood stage is 22 feet). The Baton Rouge gage about 96 miles upstream read about 43 feet (flood stage is 40 feet).

¹ A *fleeting area* is a geographic location where a group of barges, or fleets, are moored and later assembled to comprise a tow.

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Accident Events

On the morning of March 7, the date of the accident, the *St. Rita*'s captain started his work shift at 0300, and the two on-duty deckhands started their shift at 0530 (there were also two off-duty deckhands on board who had just completed their shift and were scheduled to start their next shift at 1730). During the morning hours, the towboat shifted barges in the La Place fleeting area, moved an empty hopper barge from the left descending bank of the river to the right descending bank, and moved barges from a cargo ship to shore.² After refueling about 0900, the *St. Rita* began making room in the fleeting area to assemble barges for another towing vessel. The captain finished "clearing up room" about 1300, and afterwards, the *St. Rita* received orders from the captain of the lead towboat of the fleeting area to move the empty hopper barge *LTD 14161*, which was about 200 feet long, from a group of barges moored on the right descending bank, called Block 2, to the left descending bank of the river, where they were building a tow.³



Picture of a barge similar to the *LTD 14161*. (Source: Cooper Consolidated, LLC)

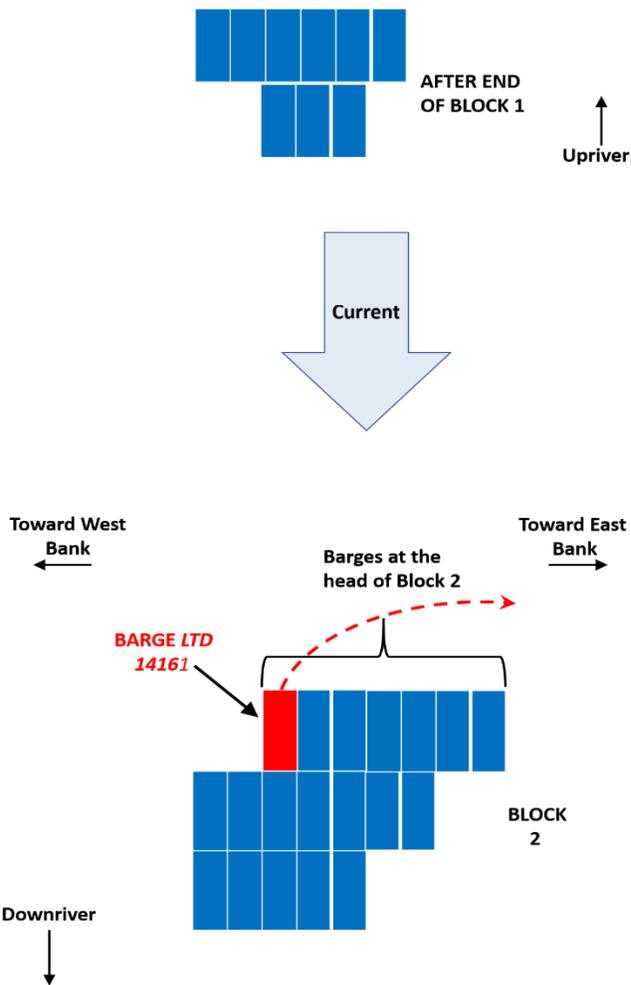
The *LTD 14161* was located on the head of Block 2, which was the row of barges on the upriver part of the block, facing the current. The *LTD 14161* had another barge on its starboard side and a barge tied up astern of it. There was no barge on its port side.

According to the *St. Rita*'s captain, he had his deckhands make fast a single headline from the towboat onto the middle cavel (cleat) of the port side of the *LTD 14161*, and he positioned the towboat so that the barge was on its hip. He then worked the barge back and forth to obtain enough slack in the wires so that his deckhands could untie and release the wires from the other barges in the block. The captain said that he had difficulty moving the *LTD 14161* because the current kept

² The inland towing industry refers to the shorelines of western rivers as the left and right banks when traveling (facing) downstream. The left bank is called the *left descending bank*, and the right bank is called the *right descending bank*.

³ The La Place fleeting area had 4 blocks of barges, numbered one through four, which were moored in the river near the shore. The blocks were arranged in ascending numerical order, starting with Block 1 upriver.

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Location of barge *LTD 14161* within Block 2 of La Place fleeting area on the date of accident. A red dashed line shows the approximate intended movement of barge *LTD 14161* (the distance between blocks is approximate).

pushing the barge back against the other barges of Block 2. The captain said that he could not face up to the *LTD 14161*, thereby using two facing wires and the *St. Rita*'s push knees, because of the barge's position in the block and because it would be a "downstreaming" maneuver, which was forbidden by the company, and he could not take the barge out of the block and then face up to it because this also would have been considered downstreaming.⁴

After about 15 minutes, the two on-duty deckhands were able to release all the wires, except for one that they had to cut, and they went to the galley. With the barge now completely free from the block (and still tied to the *St. Rita* by a single headline and positioned on the hip), the *St. Rita* began its move with the barge toward the left descending bank and into the faster current in the center of the river. About 1,200 feet upstream of Block 2 was another block of nine barges on the west side of the river, called Block 1. The captain said that the space between Blocks 1 and 2 offered the greatest distance between the several blocks of the fleet on the west side. Due to the strong current, the captain could not head directly across the river but had to point/head the tow upstream to directly cross the river without being set down.

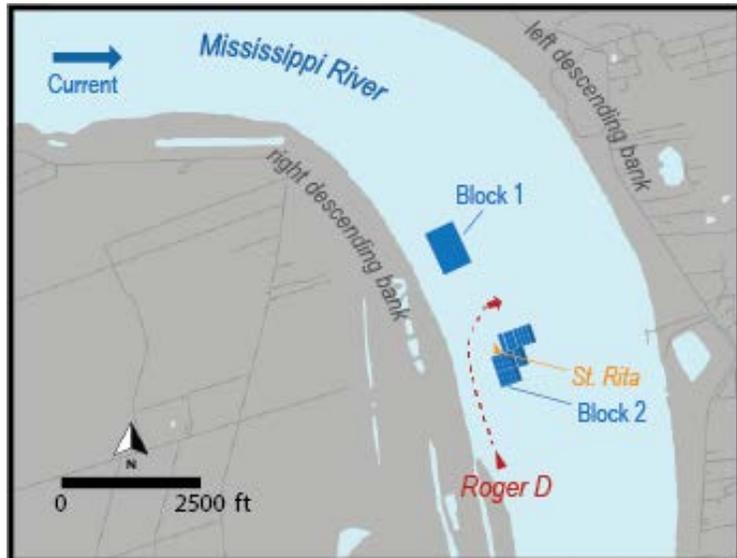
The *St. Rita*'s captain noticed another fleet towing vessel, the *Roger D*, nearby (just downriver and closer to the right descending bank). He told investigators that he believed the other vessel was heading upriver. He also stated that the other vessel's Automatic Identification System (AIS) information was visible on his Rosepoint electronic charting system. The *St. Rita*'s captain called the captain of the *Roger D* because it was not moving as he had expected and found out that the *Roger D* was instead "shooting across to the east [left descending] bank" ahead of him upriver between blocks 1 and 2. Believing that the *Roger D* had slowed down and worried that it was "falling," or moving downriver with the current, the captain turned the *St. Rita* to starboard, and eventually the current grabbed the barge, and he lost control of the tow. The *LTD 14161* collided with the barges moored at the head of Block 2 and became pinned (starboard-side to) against their bows. The *St. Rita* starboard side was pushed against the *LTD 14161* by the current. The *St. Rita*

⁴ *Downstreaming* is the practice in which a towing vessel makes a landing on a pier or barge when the vessel is heading with the current.

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immediately began listing to port. The captain sounded the general alarm and announced over VHF that the *St. Rita* was “going over” about 1420.

Upon hearing the general alarm, the on-watch deckhands assisted the two off-watch deckhands, who had been asleep in their cabins, and made their way toward the wheelhouse. Due to the increasing list and falling equipment that blocked their way, it took the four deckhands about two minutes to make it to the wheelhouse. All arrived with their lifejackets, except for one deckhand who had to drop his lifejacket in the passageway below in order to climb up to the wheelhouse. With the *St. Rita* now listing about 40° and water pouring over the port-side bulwark, the captain ordered the crew to abandon the vessel to the *LTD 14161* barge, which remained tied to the *St. Rita*. According to crewmember accounts, the total elapsed time from the sounding of the general alarm to their abandoning the towboat was 4–5 minutes.



Approximate trackline of the towing vessel *Roger D* as it approached the *St. Rita* and Block 2. (Background source: Google Maps)

The captain of the towing vessel *Rod C* heard the *St. Rita*'s distress call on his VHF radio and immediately directed his boat toward the listing vessel. He witnessed the crew of the *St. Rita* climbing aboard barge *LTD 14161*. The captain of the *Rod C*, who had about 3 years of experience as captain aboard towing vessels engaged in fleeting work, said that he believed the current was 5–6 knots in the vicinity of the sinking. As he approached the vessel and barge, he also noted that the watertight doors on the vessel appeared to be closed. After ascertaining that all the *St. Rita*'s crew were safely aboard the barge, the *Rod C*'s captain approached the barge and took the *St. Rita*'s crewmembers aboard his vessel. A *Rod C* deckhand told investigators that he observed the *St. Rita* settling by the stern and that the upper decks began to disappear. After the captain of the *Rod C* put a line from his vessel to the barge, the line from the *St. Rita* (which was mostly underwater) to the *LTD 14161* parted. The vessel sank and settled at the bottom of the river about 1430. The captain of the *Rod C* brought the *LTD 14161* to the left descending bank and secured it there; he then brought the rescued crew to shore around 1500. Salvage of the *St. Rita* began on October 15, 2019, and the vessel was lifted out of the water on October 29.

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The *St. Rita*, post-salvage, sitting atop a barge (Source: US Coast Guard)

Additional Information

The crew of the *St. Rita* consisted of two captains and four deckhands. One captain worked a 12-hour watch from 0300 until 1500; and the other captain worked a 12-hour watch from 1500 until 0300 the next morning. On the date of the accident, the off-duty captain went home at the end of his watch. The deckhands stood 12-hour watches, which changed at 0530 and 1730. The deckhands generally slept aboard the vessel during their off-duty times. The entire crew worked a 20/10 rotation, which meant they worked for 20 days and then had 10 days off work.

On February 28, about a month before the accident, the company port captain for the *St. Rita* sent an email to the captains of the company's towing vessels that were operating on the Lower Mississippi River, including the captain of the *St. Rita*, advising them of expected high-water conditions and directing them to review the company's SMS and its high-water/downstreaming policy.

The accident captain had about 23 years of experience as a captain or relief captain on tugboats that worked offshore and on towboats that moved barges on short voyages up and down rivers and canals. He first came to work on the *St. Rita* in October 2018, and at that time, he was evaluated to determine his suitability to captain a company towing vessel by the captain of another company towing vessel, the *Good Shephard*. The captain's evaluation, called a "check ride," was performed aboard the *Good Shephard* while the vessel was working on canals. The captain then went to work on the *St. Rita* while it was performing canal work, and in January 2019, he shifted with the vessel to work in fleeting operations for Cooper Consolidated.

The captain started his most recent 20-day shift at the end of February. He stated that he made numerous trips up and down the river in the vicinity of the accident, but these trips occurred when he was on a towing vessel that was pushing oil barges, not performing fleeting work. He also stated that this was an area of the river where the current was "horrendous" and that upbound tows would almost come to a halt because of the strong current. Additionally, the *St. Rita*'s captain told investigators that the current was strong in the deeper water of the channel and that it increased as

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one approached the channel side of a block of barges but lessened in the shallower waters near shore.

The port captain for the *St. Rita*, who had about 12 hours of experience working on a fleet boat at La Place, stated that he discussed the duties of a captain aboard a fleet boat with the *St. Rita*'s captain. The port captain also stated that the *St. Rita*'s captain said that he was comfortable with fleeting and that he was "good to go." Based on this representation, the port captain believed that *St. Rita*'s captain was competent to handle fleeting work at La Place.

On the day after the accident, the company instituted a new policy that restricted operations during high-water conditions. One of the directives in this new policy was to restrict the use of a single headline to fleet towboats to breaking a barge out of a barge tier. Once the barge was out, the captain then needed to face up to a barge with two head wires before transiting with it. The policy also required a towboat wheelsman to cross a tier of barges at the downriver end of the block (not at the head of the block, or upriver end).

Analysis

The captain knew that the crew was having difficulties breaking barge *LTD 14161* from its mooring at Block 2 due to the strong current, yet he started his transit across the head of the block where the current was strongest, rather than push further up, closer to the upriver Block 1, where the current was not as strong, which would have given him more room to maneuver or to fall back in the current.

The captain of the *St. Rita* intended to directly cross the river, but to do so he had to point upstream. When he turned to starboard to avoid taking the same path as the *Roger D*, which was crossing the river ahead, the current overwhelmed his tow and swept it onto the head of the barge block. The captain of the *St. Rita* said that he was aware that the *Roger D* was nearby but chose not to call the towing vessel via VHF prior to getting under way with barge *LTD 14161*. His assumption that the other vessel would continue heading upriver would have been dispelled if he had called the *Roger D*. He then could have waited to move free of Block 2 with his barge, rather than attempt to change the tow's heading to keep clear of the *Roger D* while coping with a strong current.

The captain's sounding of the general alarm, when he felt he was losing control and before the boat listed, gave the crew additional time to muster and a warning of the dangerous situation. This action mitigated the occurrence of serious injury and loss of life.

Based on the captain's limited experience in fleeting operations, it would have been beneficial for the company to ensure that his check ride was by a seasoned captain familiar with fleeting operations and in a fleeting area with heavy currents and greater vessel traffic, rather than rely on the *St. Rita* captain's representation that he could handle fleet towboat work because he said he was "comfortable" with it.

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Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision of towing vessel *St. Rita* and tow with moored barges and subsequent sinking was the captain's inexperience in executing a fleeting operation on a single headline in heavy river current conditions in close proximity to the head of a block.

Check Rides

A check ride is a practical evaluation in which a new captain demonstrates proficiency and experience in a specific route and/or type of towing. Owners/operators of towing vessels should consider having a check ride for a captain that simulates scenarios that are comparable to the routes and operations in which the captain will be serving.

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Vessel Particulars

Vessel	<i>St. Rita</i>
Owner/operator	Marquette Transportation Co.
Port of registry	New Orleans, Louisiana
Flag	United States
Type	Towing vessel
Year built	1997
Official number (US)	1060043
IMO number	8635928
Classification society	NA
Construction	Steel
Length	66 ft (20.1 m)
Draft	10 ft (3.0 m)
Beam/width	26 ft (7.9 m)
Tonnage	114 GRT
Engine power; manufacturer	2 x 750 hp (559 kW); Caterpillar 3412 diesel engines
Persons on board	5

NTSB investigators worked closely with our counterparts from Coast Guard New Orleans, Louisiana throughout this investigation.

For more details about this accident, visit www.nts.gov and search for NTSB accident ID DCA19FM022.

Issued: March 16, 2020

The NTSB has authority to investigate and establish the probable cause of any major marine casualty or any marine casualty involving both public and nonpublic vessels under Title 49 *United States Code*, Section 1131(b)(1). This report is based on factual information either gathered by NTSB investigators or provided by the Coast Guard from its informal investigation of the accident.

The NTSB does not assign fault or blame for a marine casualty; rather, as specified by NTSB regulation, “[NTSB] investigations are fact-finding proceedings with no formal issues and no adverse parties . . . and are not conducted for the purpose of determining the rights or liabilities of any person.” Title 49 *Code of Federal Regulations*, Section 831.4.

Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by conducting investigations and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report. Title 49 *United States Code*, Section 1154(b).
