



# National Transportation Safety Board

## Marine Accident Brief

### Grounding and Sinking of Towing Vessel *Eric Haney*

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<b>Accident no.</b>	DCA17FM020
<b>Vessel name</b>	<i>Eric Haney</i>
<b>Accident type</b>	Grounding and sinking
<b>Location</b>	Upper Mississippi River, mile marker 13.4, near Cairo, Illinois 37°05.479' N, 89°16.263' W
<b>Date</b>	July 8, 2017
<b>Time</b>	2342 central daylight time (coordinated universal time – 5 hours)
<b>Injuries</b>	None
<b>Property damage</b>	\$4.3 million est.
<b>Environmental damage</b>	Oil sheen observed
<b>Weather</b>	Visibility 10 miles or greater, sky conditions clear, winds south at 5 knots (5.8 mph), air temperature 77°F, no precipitation reported in previous 24 hours
<b>Waterway information</b>	The Upper Mississippi River measured 27.7 feet high on the river gauge (at Cape Girardeau). The current was estimated at 3 mph.

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At 2342 local time on July 8, 2017, the uninspected towing vessel *Eric Haney* ran aground on a submerged portion of an erosion-control dike while pushing 15 empty barges upriver on the Upper Mississippi River by Cairo, Illinois, at mile marker (mm) 13.4.<sup>1</sup> All crewmembers climbed aboard one of the empty barges without any reported injuries. The towboat and barges were freed by the current, drifted downriver, and were pushed into the opposite bank by another towboat at mm 9.7. The barges broke free, and the *Eric Haney* partially sank. Minimal oil sheening was observed after the sinking. Damage to the vessel was estimated at \$4.3 million.



*Eric Haney* before the accident. (Photo by US Coast Guard)

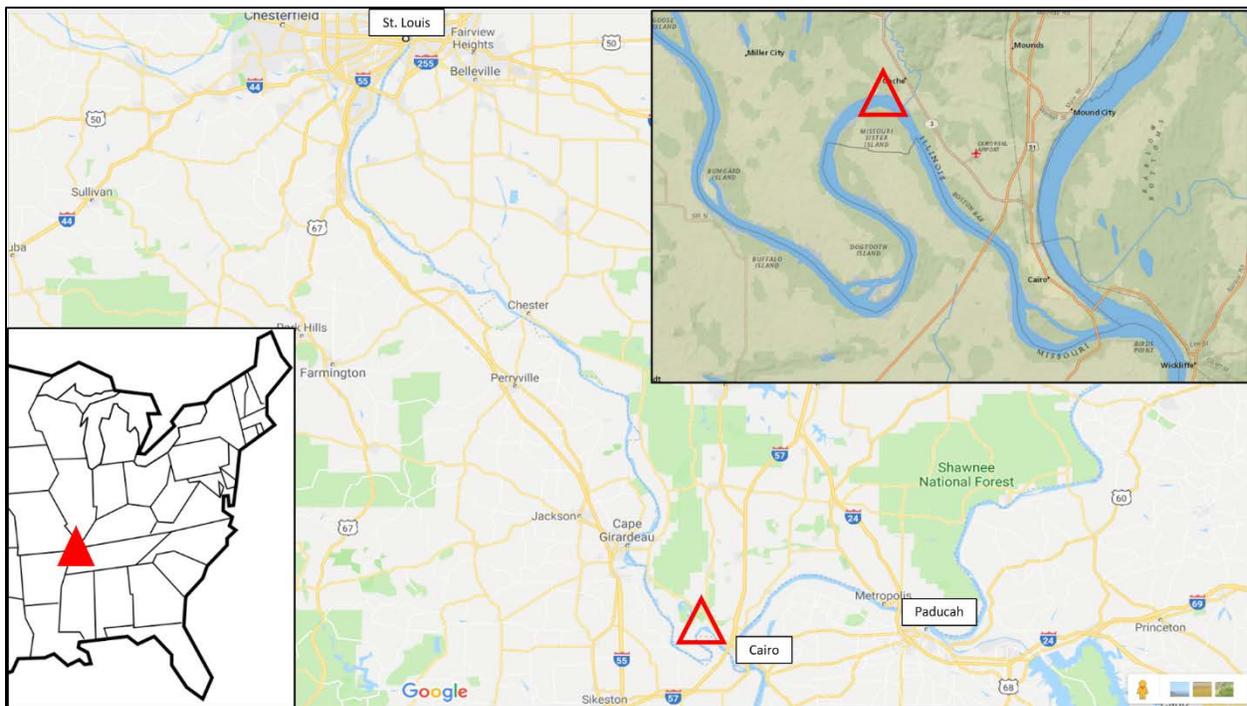
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<sup>1</sup> In this report, all miles are *statute miles* and speeds are *speed over ground*.

## Grounding and Sinking of Towing Vessel *Eric Haney*

The *Eric Haney*, a twin-screw towboat, was built in 1966 as the *Jack D. Wofford* by Jeffboat, Inc., in Jeffersonville, Indiana. American Commercial Barge Line, LLC owned the towboat until March 2012, when it was sold to Ingram Barge Company of Nashville, Tennessee. It was sold again to Tennessee Valley Towing and renamed the *Eric Haney* in March 2017. The *Eric Haney* was equipped with an electronic chart system (ECS), which was an electronic navigation system by Rose Point for inland vessels in the United States. The software had a graphical display of the waterway (including aids to navigation, hazards, and other vessels in the area), voyage planning tools, and a customizable instrument panel. The display could be zoomed in or out, with view settings ranging from 250 yards to over 5,000 miles, to show different levels of detail.

About 0830 on July 8, the *Eric Haney* departed Paducah, Kentucky, with nine crewmembers (a captain, a pilot, a mate, an engineer, a cook, and four deckhands) and one empty barge.<sup>2</sup> The plan was to transport empty barges to St. Louis, Missouri, making stops along the way to offload and pick up barges.



Maps at different scales of accident area, as identified by red triangles, where *Eric Haney* grounded and later sank in the Upper Mississippi River near Cairo, Illinois. (Maps from National Geographic Mapmaker and Google Maps)

After departing Paducah, the pilot, who was on his first trip aboard the *Eric Haney*, spent about an hour with the captain discussing the vessel and operations and then rested for about an hour. After resting, he stood the 1200–1800 watch on the bridge and operated the towboat from Paducah to Cairo, Illinois, with the empty barge. After his afternoon watch, the pilot went to bed about 1800.

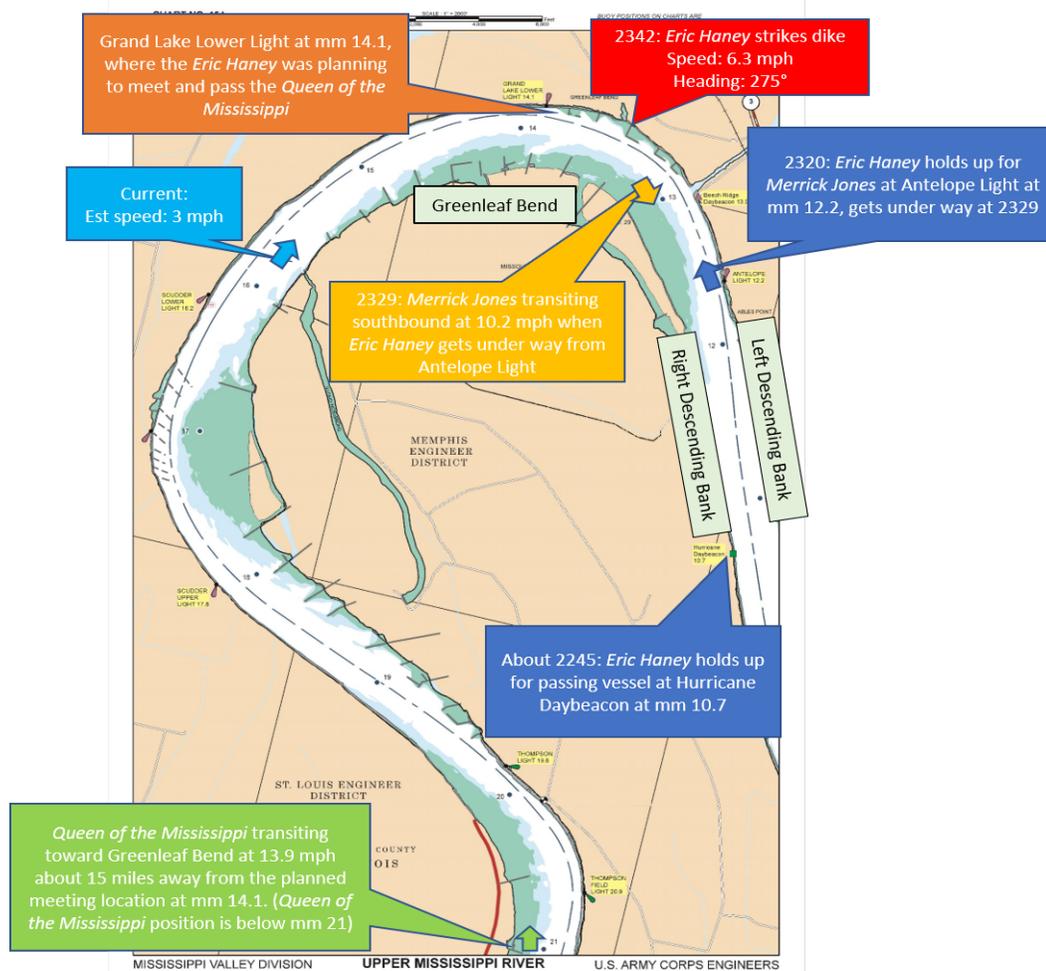
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<sup>2</sup> *Pilot* is a term used aboard towing vessels on inland waterways for a person, other than the captain, who navigates the vessel.

## Grounding and Sinking of Towing Vessel *Eric Haney*

While the pilot was resting, the *Eric Haney* stopped at a fleeting area in Cairo to build a tow of 15 empty barges with a configuration of 5 barges long by 3 barges wide, with the *Eric Haney* faced up (connected) behind. The towboat's draft was 9.5 feet, and the empty barges' draft was about 1.5 feet.

At 2245, the pilot relieved the captain. The *Eric Haney* and its tow of 15 barges were holding up (stopped by pushing the lead barges into the soft river bottom along the river bank) at Hurricane Daybeacon at mm 10.7 on the right descending bank to allow a southbound boat to pass through Greenleaf Bend.<sup>3</sup> After the vessel passed, the pilot got the *Eric Haney* under way and crossed the river to the left descending bank to wait at Antelope Light at mm 12.2 for the next southbound vessel, the towing vessel *Merrick Jones*, to pass.



**Chart of Greenleaf Bend area. Accident location identified by red callout box. (Map from US Army Corps of Engineers)**

<sup>3</sup> The banks of the Western Rivers are referred to as *left* and *right* when traveling downstream because the rivers meander and can flow in any direction—south, east, west, and even north. Thus, when a section of the river flows from north to south, the east bank of the Mississippi River is referred to as the left bank and the west bank as the right bank. To avoid confusion, commercial river traffic often calls the left bank the *left descending bank* and the right bank the *right descending bank*.

## Grounding and Sinking of Towing Vessel *Eric Haney*

At 2329, before the *Merrick Jones* and its tow passed, the pilot got the *Eric Haney* under way and began moving upriver along the left descending bank, as confirmed by the ECS. At 2332, the pilot steered the *Eric Haney* 10 degrees to starboard toward the left descending bank as the *Merrick Jones* passed.



**Screenshot of Rose Point ECS at 5-mile scale showing *Eric Haney* (trackline in red) after vessel departed Antelope Light at 2329 while *Merrick Jones* was upriver.**

Over the next several minutes, the pilot began steering the *Eric Haney* to the deeper water (toward the center of the channel) and discussed passing arrangements with the operator of the passenger vessel *Queen of the Mississippi*, which was heading toward Greenleaf Bend at about 14 mph. The vessels were expected to meet at the top of the bend near the Grand Lake Lower Light at mm 14.1. Although the operator of the *Queen of the Mississippi* suggested passing “on the 2” (that is, the vessels would pass starboard to starboard) because he thought the inboard bank (the right descending bank) had less current, the pilot of the *Eric Haney* wanted to pass “on the 1” (port to port). The *Eric Haney* pilot continued to transit along the left descending bank.

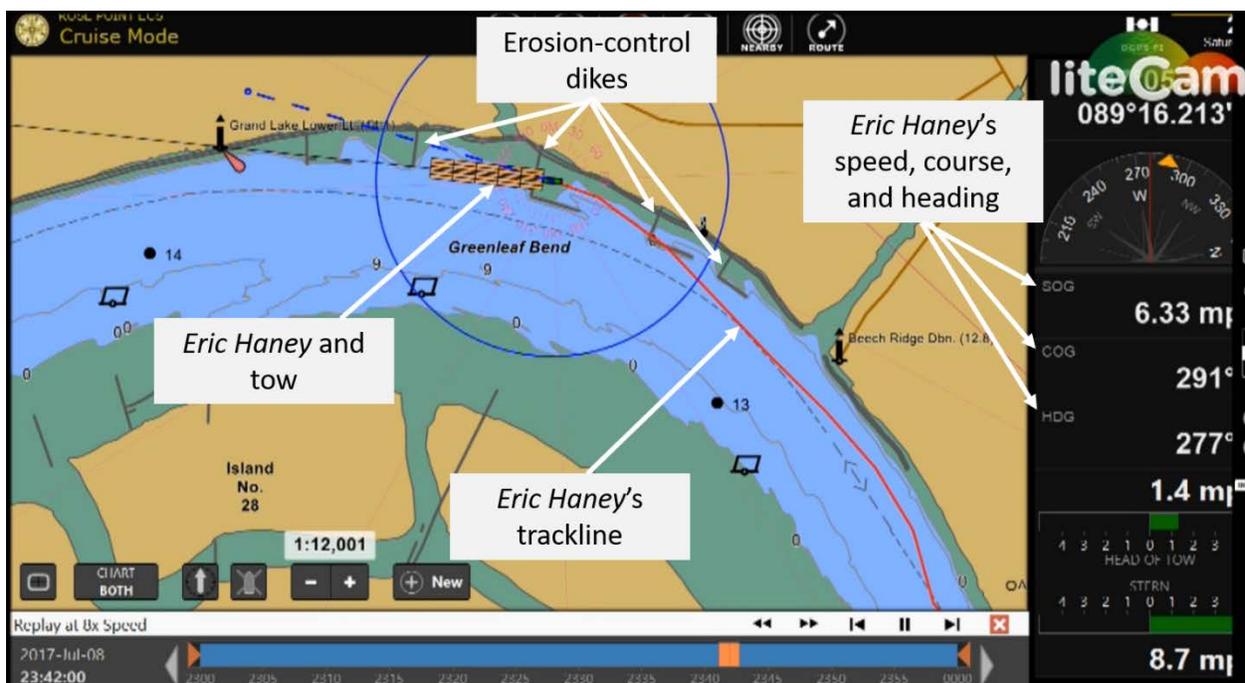
Along the left descending bank of the river between mm 13 and 14 in the bend, five partially submerged erosion-control dikes constructed of rock and stone protruded from the shoreline. The purpose of the dikes was to reduce strong currents around the river bend and prevent erosion of the riverbank. The pilot had set the ECS at a 3-mile scale; however, as he stated in a postaccident interview, he did not see the dikes on the display. Just before reaching the dikes, the pilot believed he was about 100 feet off the shoreline.

## Grounding and Sinking of Towing Vessel *Eric Haney*



At left, view of partially submerged erosion-control dike photographed on July 12, 2017, when river height was 28.5 feet. On the day of the accident, the river was 27.7 feet high, according to river gauge at Cape Girardeau. At right, aerial view photographed on March 3, 2017, when river height was 22.5 feet. (Satellite image from Google Earth)

As the *Eric Haney* proceeded upriver along the left descending bank at about 6 mph, the pilot felt the boat strike something and stop abruptly. He stopped the engines and then put them in reverse, but the vessel would not move. The captain came to the wheelhouse and stated that he thought the vessel was on a dike. When the captain zoomed in the view on the ECS display, the dikes appeared larger on the screen.



Screenshot of Rose Point ECS at 2-mile scale showing *Eric Haney* seconds before vessel struck dike.

## Grounding and Sinking of Towing Vessel *Eric Haney*

The captain and pilot ensured that all crewmembers were awake and accounted for. After determining that the towboat was taking on water in the forward hold, the pilot contacted nearby vessels to inform them of the ingress of water and made a distress call to the US Coast Guard. Crewmembers started pumps to remove the water, but the pumps could not keep up with the incoming flow. All crewmembers boarded one of the barges, which were still attached to the *Eric Haney*. A few minutes later, the current freed the *Eric Haney* and its barges from the dike, and they began to drift downriver. About an hour and a half later, a towboat came alongside the drifting *Eric Haney* and barges. After the crew of the *Eric Haney* climbed onto the assisting towboat, the other vessel pushed the sinking *Eric Haney* into the right descending bank near mm 9. The vessel continued to take on water and partially sank, but the bridge and part of the stern remained above the waterline. The barges broke free and were later recovered.



*Eric Haney* after sinking. (Photo by Coast Guard)

The *Eric Haney* was brought to the surface by a salvage team on July 22 and drydocked later that day for inspection and repairs. The bottom hull plating in the area of the bow was punctured over a length of 5.5 feet, as was the plate under the potable water tanks located in the deck locker compartment. Also sustaining damage were 7 transverse bottom frames supporting the bottom plate and the starboard tow knee. All interior spaces, except for a section of the pilothouse and steering compartment, were water-damaged and contaminated with diesel fuel and oil. The total damage was estimated at \$4.3 million. However, none of the barges were damaged in the accident.

After the accident, all crewmembers submitted to drug and alcohol tests: the results were negative. The captain was off watch and in bed at the time of the accident. The pilot, who had worked in the industry for nearly 50 years, was credentialed as master of towing vessels. He worked a 6-hours-on/6-hours-off schedule. In a postaccident interview, the pilot stated that he had been aboard other vessels similar to the *Eric Haney* in the past and that he felt he had enough time “to feel things out” during his first day on the vessel. He also indicated that he was comfortable with the equipment, including the radar and the Rose Point ECS. According to the pilot, the towboat was functioning properly with no reported equipment failures.

## Grounding and Sinking of Towing Vessel *Eric Haney*



**Damaged bottom hull plating of the *Eric Haney* after the accident. (Photo by Coast Guard)**

The pilot of the *Eric Haney* was dealing with several issues as he approached Greenleaf Bend: the reduced speed of his tow, an opposing current, the approaching traffic, an upcoming bend in the river, and shallow water. The pilot stated that he was concerned that his speed was being affected (reduced) by the opposing current, which could possibly preclude him from reaching the next light to await oncoming vessels. The pilot also told investigators that due to the opposing current, he brought the head of the tow toward the left descending bank after departing Antelope Light to avoid being “set out” into the stronger current. He indicated that “the “Queen [of the Mississippi] was on my mind, getting up there.” The pilot recalled that he was not aware that the dikes were located in the bend and that if he had known, he would have steered into the center of the river to avoid them.

The pilot indicated in a postaccident statement that he was looking at the ECS display, the scenery, and the radar as he was navigating through the bend. The pilot also told investigators that he was using the ECS on a 3-mile scale to better track other vessels and allow himself time to react to what he saw on the screen. He indicated that he did not identify the dikes because he did not see them on the screen. Shortly after the towboat stopped, the captain came to the wheelhouse and zoomed in the ECS display to enlarge the details on the screen. The pilot stated that they zoomed in the display “way down from three miles so we could see the dikes,” yet added, “I don’t know if it was too bright or I didn’t pay attention to them, but I didn’t see those dikes.” Investigators noted that because the accident occurred at night and the dikes were unmarked, they would not have been visible from the wheelhouse; in addition, they would not have been shown on radar.

Although the pilot indicated that he was not aware of the dikes in the bend and that he did not see them on the ECS, the pilot had previously operated vessels around the accident location. He made a trip on another towing vessel through the same area about a month before and had been through the area in years past. The pilot indicated that, after the towboat grounded, “I thought I was off the bank enough.”

## Grounding and Sinking of Towing Vessel *Eric Haney*

After the accident, investigators viewed a display of the accident area at different levels of detail using a shoreside version of Rose Point ECS. At the 6-mile scale the dikes were removed from the display, but at the 3-mile scale they were visible on the display.

### Probable Cause

The National Transportation Safety Board determines that the probable cause of the grounding and subsequent sinking of the *Eric Haney* was the pilot's failure to identify a charted navigation hazard (erosion-control dike) during towing operations.

#### Identifying Navigation Hazards

Mariners using electronic chart systems (ECS) should be aware that aids to navigation, hazards, and other map features may not be represented on the displays at certain range scales. Mariners should use appropriate range scales for their routes on ECS displays to identify potential hazards while navigating.

## Grounding and Sinking of Towing Vessel *Eric Haney*

### Vessel Particulars

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Vessel	<i>Eric Haney</i>
Owner/operator	Tennessee Valley Towing LLC
Port of registry	Paducah, Kentucky
Flag	US
Type	Towing vessel
Year built	1966
Official number (US)	504813
IMO number	N/A
Classification society	N/A
Construction	Steel
Length	157.5 ft (48 m)
Draft	9.5 ft (2.9 m)
Beam/width	40 ft (12.2 m)
Gross tonnage (GRT)	627
Engine power/manufacturer	2 @ 2,500 hp (1,864 kW each)/ALCO-16-215B diesel engines; total 5,000 hp (3,729 kW)
Persons on board	9

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**NTSB investigators worked closely with our counterparts from Coast Guard Marine Safety Unit Paducah throughout this investigation.**

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For more details about this accident, visit [www.nts.gov](http://www.nts.gov) and search for NTSB accident ID DCA17FM020.

### Issued: June 21, 2018

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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*, 1131. 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*, 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*, 1154(b)

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