June 24, 2025 MIR-25-26

Collision of *William B Klunk* Tow with Moored Barges

On April 17, 2024, about 1655 local time, the towing vessel *William B Klunk* was pushing 22 barges downbound on the Lower Mississippi River at mile 227, near Baton Rouge, Louisiana, when the tow collided with moored barges at a fleeting area (see figure 1 and figure 2).[1] Thirteen barges broke away from the *William B Klunk* tow, and three barges broke away from the fleeting area, resulting in damage to the barges, a fleet crew boat, and two mooring dolphins. There was one minor injury, and no pollution was reported. Total damages were estimated to be $810,000.[2]

Figure 1. *William B Klunk* underway at unknown date before the collision. (Source: American Commercial Barge Line)

[1] In this report, all times are central daylight time, and all miles are statute miles.

[2] Visit ntsb.gov to find additional information in the public docket for this NTSB investigation (case no. DCA24FM033). Use the CAROL Query to search investigations.

Casualty Summary	
Casualty type	Collision
Location	Lower Mississippi River, mile 227, Baton Rouge, Louisiana 30°24.99′ N, 091°11.89′ W
Date	April 17, 2024
Time	1655 central daylight time (coordinated universal time –5 hrs)
Persons on board	10
Injuries	1 minor
Property damage	$810,000 est.
Environmental damage	None
Weather	Visibility 10 mi, clear, winds south 5–13 kts, air temperature 77°F
Waterway information	River; width 0.5 mi, depth 46 ft, current 5 kts

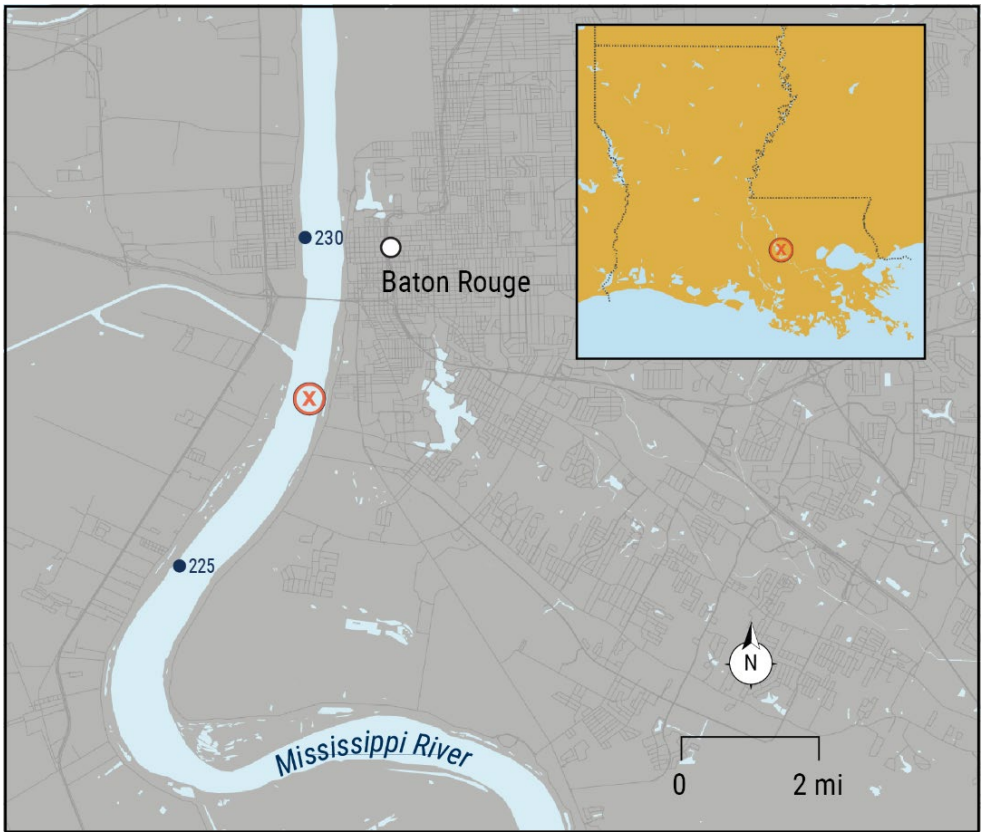

Figure 2. Area where the *William B Klunk* and tow collided with moored barges, as indicated by a circled *X*. (Background source: Google Maps)

1 Factual Information

1.1 Background

The *William B Klunk* was a 170-foot-long towing vessel constructed of steel by Quality Shipyards in Houma, Louisiana, in 1998. The vessel was operated by American Commercial Barge Line and was primarily used to transport barges on the Mississippi River.

Two 4,000-hp diesel engines, each driving a fixed-pitch propeller through a reduction gear, provided propulsion. Two rudders, one positioned behind each propeller, as well as flanking rudders positioned forward of each propeller, provided steering.

The *William B Klunk* operated under its company's towing safety management system (TSMS) and had a valid US Coast Guard-issued certificate of inspection documenting compliance with Title 46 *Code of Federal Regulations* Subchapter M.

1.2 Event Sequence

On April 13, 2024, the *William B Klunk* and tow departed from Cairo, Illinois, bound for Convent, Louisiana. The towing vessel was pushing 22 hopper barges loaded with dry cargo with a maximum draft of 12 feet on the barges and an overall tow length of 1,180 feet (see figure 3). Ten crewmembers were on board, including a captain, pilot, engineer, cook, and six deckhands.[3] The captain and pilot alternated 6-hour wheelhouse watches. The captain was assigned to the 0500–1100 and 1700–2300 watches, and the pilot was assigned to the 1100–1700 and 2300–0500 watches.

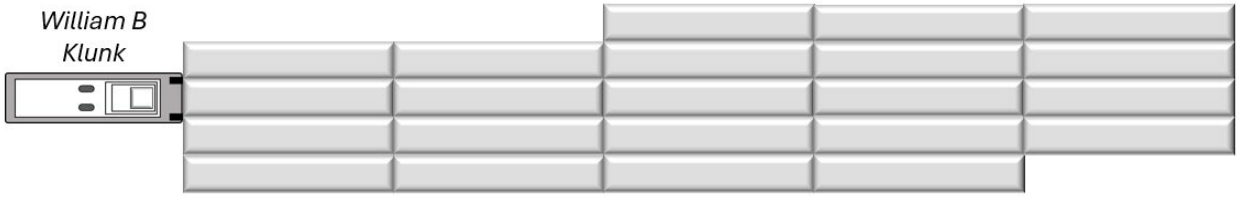

Figure 3. *William B Klunk* tow arrangement on the day of the collision (scale approximate).

[3] *Pilot* is a term used aboard towing vessels on inland waterways for a person, other than the captain, who navigates the vessel.

On April 17, at 1050, the *William B Klunk* moored at a fleeting area near mile 237 on the Lower Mississippi River to take on supplies and to change pilots.[4] At 1330, the oncoming pilot boarded the *William B Klunk* and relieved the departing pilot, assuming the ongoing 1100–1700 pilot watch. This was the oncoming pilot's first time serving on board the *William B Klunk* (his normal vessel, the *Capt Rodney E Stokes*, was a sister vessel to the *William B Klunk*).

At 1440, the captain and pilot completed a voyage plan risk assessment covering potential hazards, including river conditions, weather, vessel mechanical condition, navigational hazards, and crew fitness for duty. In accordance with the operating company's TSMS, the captain and pilot assigned a risk rating of green (minimum risk), amber (moderate risk), or red (high risk) for each item. Any item rated as moderate or high risk required them to notify the port captain and implement mitigation strategies before getting underway. The captain and pilot rated all items as green and noted the upcoming bridge transits, "swift currents," and "lots of traffic" as potential concerns.

The captain, who had previously worked on the *Capt Rodney E Stokes*, informed the pilot that the steering on the *William B Klunk* was "slower" than the *Capt Rodney E Stokes*'s steering (meaning the rudders would take longer to respond to the pilot's inputs made in the wheelhouse). When discussing his fatigue level, the pilot told the captain that he had been awake since early in the morning to drive to meet the vessel, but that he had stopped along the way due to thunderstorms and was able to nap. The captain told investigators that, after his discussion with the pilot, he was not concerned with the effects of fatigue on the pilot's ability to safely navigate.

Because the pilot had joined the vessel late in the day and the *William B Klunk* was over 6 hours ahead of schedule, the company port captain approved the vessel and tow to remain at the fleeting area until the captain began his next scheduled watch, at 1700. The captain told investigators that, while he felt that the pilot was fit for duty, he recommended that the pilot not get the tow underway during his first watch. The captain noted that it was ultimately the pilot's decision, but that he assumed the pilot would remain at the fleeting area.

After completing the risk assessment, the captain departed the wheelhouse. The pilot remained in the wheelhouse, while the deckhands checked the tow wires on

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

the barges. He told investigators that he felt no pressure to depart the fleeting area and that he "was in a good state to leave the fleet and successfully transit."

At 1530, the pilot got the *William B Klunk* underway and proceeded downriver. At 1625, he received a call on the company phone, or "boat phone," from a company safety officer. To take the call, the pilot turned the volume on the VHF radio down "a little bit" but noted that he could still hear the radio. On the call, the company safety officer informed the pilot that he violated the company's dress code upon joining the vessel (he was wearing shorts) and was going to be written up.

About 1635, the lead deckhand, or leadman, joined the pilot in the wheelhouse to introduce himself. When the leadman entered the wheelhouse, the pilot was still on the phone with the company safety officer. The pilot told investigators that the call was "every bit of 15 minutes" and ended several minutes after the leadman got to the wheelhouse. The leadman told investigators that the pilot was awake and alert but seemed "flustered" from the phone call.

After the phone call, the pilot turned the VHF radio volume up and heard a New Orleans-Baton Rouge Steamship Pilots Association (NOBRA) pilot on an upbound, 597-foot-long chemical and oil products tanker, *Pennsylvania* (draft of 29.9 feet), hailing him to propose a passing arrangement. At this time, the *William B Klunk* was about 1 mile north of the Interstate 10 bridge.

The NOBRA pilot on board the *Pennsylvania* told investigators that he and an apprentice pilot had been attempting to contact the *William B Klunk* pilot for about 15 minutes with no response. During this time, the NOBRA pilot observed the *William B Klunk* "swing towards the Baton Rouge side [of the river]" and then "towards the [Interstate 10] bridge," and that "something was out of the ordinary."

Initially, the pilot on board the *Pennsylvania* intended to propose a port-to-port arrangement but instead proposed a starboard-to-starboard passing, to which the *William B Klunk* pilot agreed. The NOBRA pilot preferred the starboard-to-starboard passing arrangement because he "didn't like the way [the *William B Klunk*] was positioned."

About 1647, the leadman was still in the wheelhouse as the *William B Klunk* transited under the Interstate 10 bridge (see figure 4). As the tow approached the bridge, the leadman told investigators, "The way he was set up, it didn't look right to me," and that, as the tow went under the bridge, it was pointed directly at two buoys on the downriver side of the bridge. When the leadman asked the pilot about the buoys, the pilot told the leadman that the tow would "slide" off them. Shortly after, both the leadman in the wheelhouse and the NOBRA pilot on board the *Pennsylvania*

observed the barges contact the buoys. The leadman noted that the *William B Klunk* pilot did not say anything or otherwise react after contacting the buoys. Shortly afterward, the leadman departed the wheelhouse.

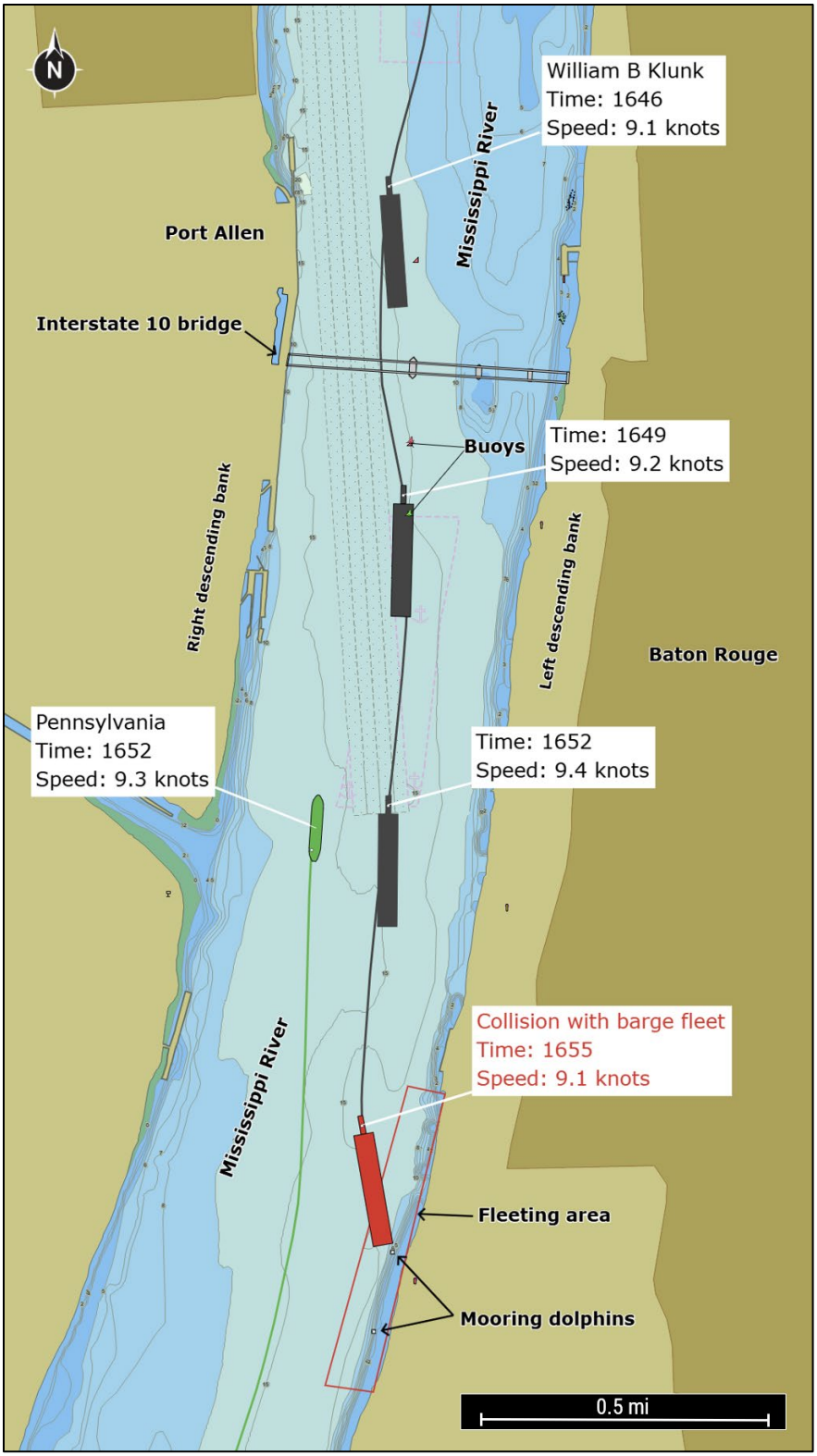

Figure 4. Track of the *William B Klunk* before the collision. (Background Source: National Oceanic and Atmospheric Administration Electronic Navigation Chart US5BPGFB as viewed on Made Smart automatic identification system)

At 1648:43, the onboard image recorder system positioned over the wheelhouse operating console showed the pilot move the steering tillers for the stern rudders to midships; the recorder system also captured the rudder angle indicator for the stern rudders responding to the pilot's input. About 1651, the *William B Klunk* and tow began to swing to port, toward the left descending bank, and, about 1 minute later, automatic identification system (AIS) data showed the *William B Klunk* pass the upbound *Pennsylvania* starboard-to-starboard.[5] The pilot did not make any additional steering or throttle inputs. For the next several minutes, the onboard image recorder system showed the pilot moving in the wheelhouse, and, about 1654, the pilot was holding a cell phone with the screen illuminated.

At 1654:38, the onboard image recorder system showed the pilot move the steering tillers for the stern rudders to starboard; the rudder angle indicator responded to the pilot's inputs. About 15 seconds later, the pilot pulled the throttles back toward neutral before moving them astern. The captain was exiting his stateroom to report for his scheduled 1700 watch when he noticed that the tow was pointed "directly into a fleet no more than a couple hundred feet [away] … [with] no change in engine speed." At 1655, another onboard image recorder system pointed toward the head of the tow showed the lead barges in the *William B Klunk* tow colliding with three moored barges (two hopper barges and one container barge) at a fleeting area on the left descending bank. The captain felt the impact and went to the wheelhouse.

The tow continued into the fleeting area, pushing the container barge it had just struck. At 1655:46, the pilot activated the general alarm. The pilot later told investigators that about this time he believed that the *William B Klunk* had lost steering and went to the steering control panel located in the aft part of the wheelhouse to resolve the issue. The pilot "turn[ed] the knob once, and then back to its original position," but recalled that he "didn't really know what it would do." At 1656:37, the onboard image recorder system in the wheelhouse showed that the rudder angle indicator for the stern rudders was not responding to steering inputs from the pilot.

At 1657, the captain arrived at the operating console. About a minute later, the tow began to break apart (see figure 5). The captain took the helm from the pilot, and he noticed that the rudders were not responding to steering inputs. The captain radioed the chief engineer to notify him that the vessel had lost steering. The chief

[5] The inland towing industry refers to the shorelines of Western Rivers as the left and right banks when traveling (facing) downriver. The left bank is called the *left descending bank*, and the right bank is called the *right descending bank*.

engineer advised the captain to switch to the other steering pump using the wheelhouse steering control panel. The captain relayed this information to the pilot, who switched to the other pump; steering was restored.

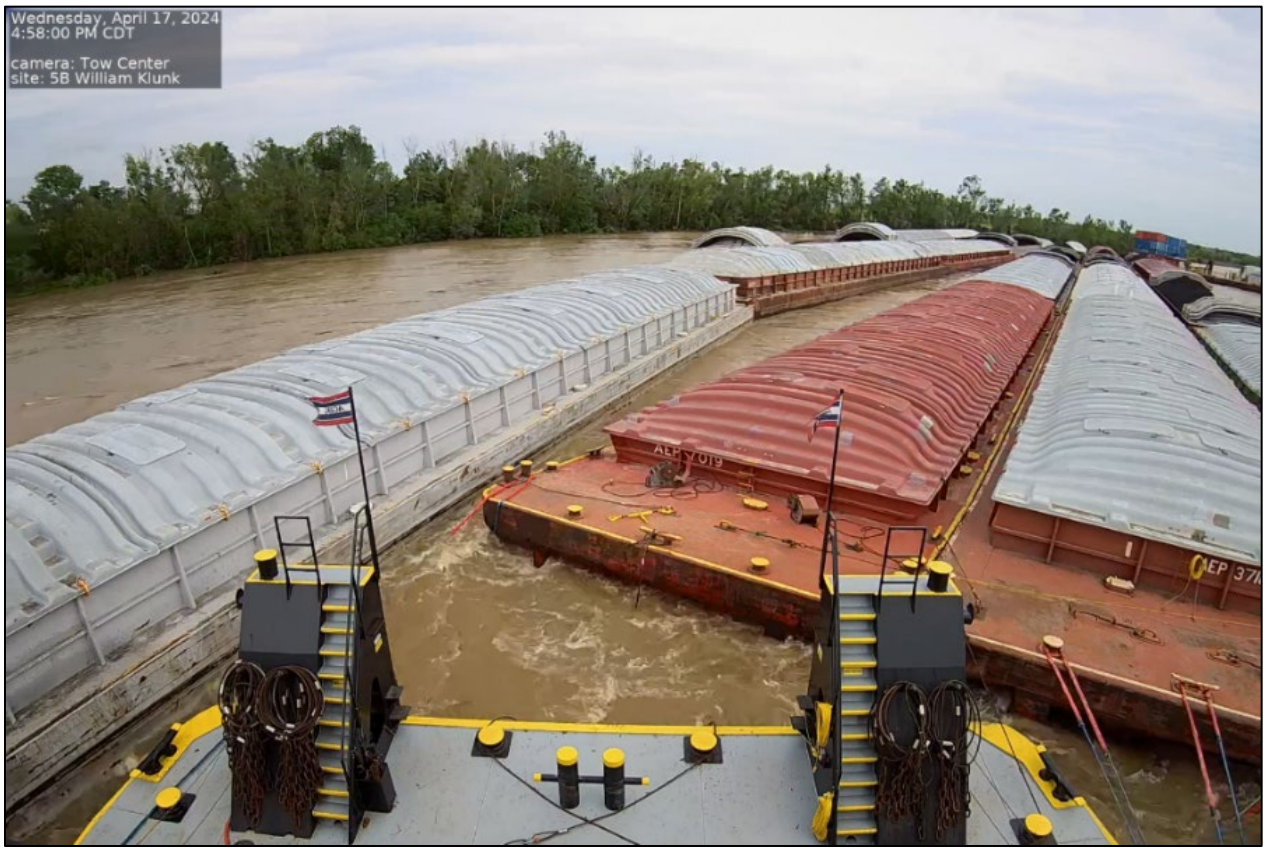

Figure 5. Screenshot from the onboard image recorder system at 1658 showing the *William B Klunk* tow beginning to break apart after the initial collision. (Source: American Commercial Barge Line)

The captain remained at the helm and, with assistance from tugs in the area, secured the *William B Klunk* at the fleeting area. One crewmember who was on board the towing vessel *Neil Martin* at the fleeting area was injured during efforts to recover barges that had broken away.

1.3 Additional Information

1.3.1 Damage

The operating company reported damage to the hulls of two barges in the *William B Klunk* tow and to a safety stanchion on board the *William B Klunk*. Also, a section of tow wire had become lodged in the vessel's port flanking rudder. A diver removed the wire the following day.

Three barges, a floating dock, a crew boat, and two mooring dolphins were damaged in the fleeting area. The container barge *BUNGE 746*, loaded with empty containers, was a total loss, and a fleeting area crew boat, *Mr. Bubba*, sank but was later recovered (see figure 6). Two mooring dolphins were destroyed. Total damages to the *William B Klunk* and tow, and the fleeting area (barges, floating dock, crew boat, and mooring dolphins) were estimated to be $810,000.

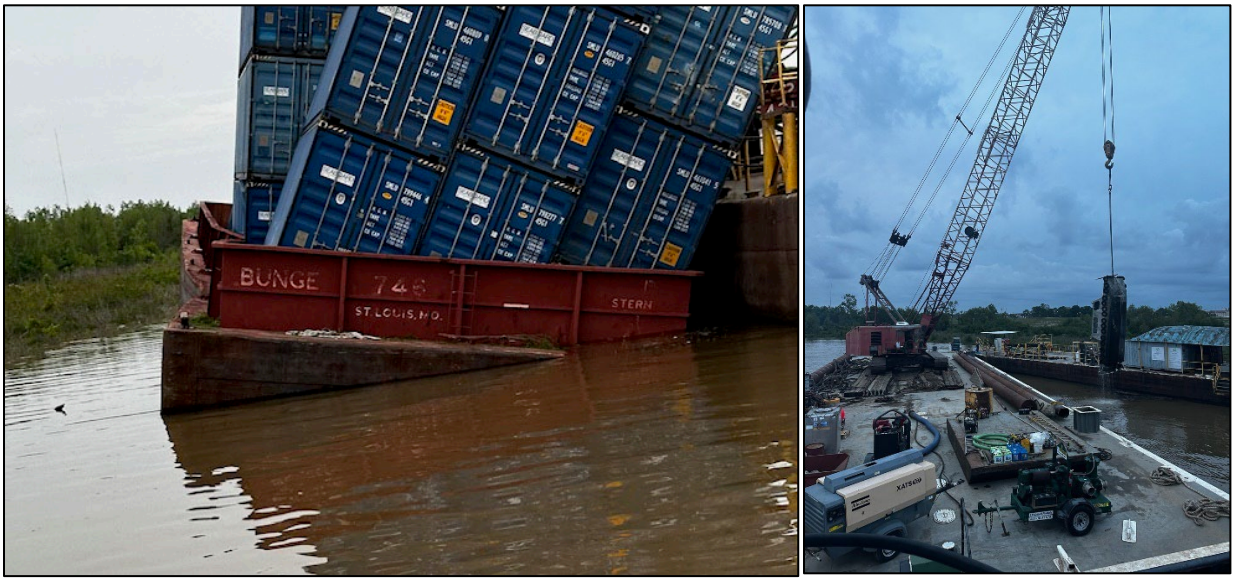

Figure 6. *Left to right*: Container barge *BUNGE 746* listing after the collision, and the fleeting area crew boat *Mr. Bubba* being recovered after it sank. (Source: Coast Guard)

1.3.2 Personnel

The *William B Klunk* pilot held a valid Coast Guard-issued credential as a master of towing vessels upon Western Rivers and had about 6 years of towing industry experience. He had worked as a pilot with the company for 2 years and had previously worked for another towing vessel company, also on the Mississippi River. The pilot told investigators that most of his experience was on the Lower Mississippi River and that he had transited through Baton Rouge several times before.

After the casualty, the pilot was tested for alcohol and other drugs, with negative results.

1.3.3 Work/Rest History

Before joining the *William B Klunk*, the pilot had been off for 28 days. He was notified on April 15 that he would be meeting the *William B Klunk* in Baton Rouge on April 17 to serve as pilot for 1 week. The pilot reported getting 7–10 hours of sleep

each night from April 13–15, and that he maintained a typical awake and sleep cycle. On April 16, the pilot woke up at 0600 and went to sleep at 2000. On April 17, the day of the casualty, he woke up about 0030 to drive from his home in Tennessee to Baton Rouge. When talking about the night before the casualty, the pilot told investigators that he "obviously didn't have any sleep that night."

The pilot departed his home about 0200. He expected the drive to take about 7 hours; however, due to severe weather and traffic, he did not arrive until 1245, 10 hours and 45 minutes after he left home. The pilot reported that, because of the severe weather, he stopped along the drive and took a 1.5-hour nap.

Per the operating company's TSMS, crewmembers were required to report on board "fit for duty," which included being "well-rested" and cautioned commuting crewmembers to "be aware of the potential for fatigue." Commuting hours were not counted toward work/rest hour limitations prescribed in the operating company's TSMS. The crew dispatcher who coordinated the pilot's travel to Baton Rouge reserved him a rental car for the drive, and, in accordance with the TSMS, because the drive was over 150 miles, the dispatcher asked if he needed a hotel, but the pilot declined.

The captain told investigators that, in the moments after the collision, the pilot seemed "confused" about what had happened, was "unable to communicate effectively," and was "overly concerned" and "angry" about the earlier call from the company safety officer. About 40 minutes after the collision, the pilot left the wheelhouse to sleep and did not wake up for his scheduled 2300 watch. The captain attempted to wake the pilot at 2315, 2330, and 2350, but was unsuccessful. The captain ultimately decided that the pilot was unfit for duty and requested a relief pilot from the company port captain.

1.3.4 Cell Phone Use

In addition to the call from the company safety officer on the boat phone, the pilot told investigators that he used his personal phone to send text messages throughout the transit, and that he also made a phone call. Investigators reviewed the onboard image recorder system footage from the wheelhouse, which showed intermittent cell phone use by the pilot throughout the 1.5-hour transit. The recorder system footage also showed that the pilot was using his personal cell phone about 40 seconds before the collision at 1655

The operating company's TSMS contained a section titled "Maintaining the Watch," which discussed the use of company and personal cell phones while on watch. The section stated, "Watch Officers are strictly prohibited from using personal

or company cell phones, computer, or any PED [personal electronic device] to make personal calls, send or receive personal text messages or e-mails, or access the internet other than for business purposes while operating the vessel."

The operating company investigated the casualty and found that the pilot was using his personal cell phone just before the collision and was distracted. According to the operating company's investigation report, the pilot did not make any steering inputs for about 6 minutes before the collision.

1.3.5 Steering System

The *William B Klunk* was equipped with two hydraulic pumps (referred to as "pump #1" and "pump #2") that could each be used to actuate the vessel's steering and flanking rudders. The day of the casualty, the *William B Klunk* was operating with pump #2 in "automatic mode," allowing pump selection from the wheelhouse via a three-way switch for "pump #1," "off," or "pump #2." When in "manual mode," the pump was selected locally in the engine room.

The chief engineer told investigators that there were no issues with the steering system before the collision. After the collision, he reviewed the steering system and did not find any issues indicating a failure. Additionally, the captain did not note any issues with the steering system during the voyage planning risk assessment, and the pilot told investigators that no alarms sounded during the transit. Further, investigators reviewed the wheelhouse image recorder system footage and found that the rudder angle indicators for the stern and flanking rudders responded to the pilot's inputs during the transit, including immediately before the collision.

When the captain reported that the vessel had lost steering, the chief engineer went to the engine room and found that both pumps were off. The chief engineer put the pumps in manual mode. Both pumps immediately turned on, but they immediately turned off when he switched back to automatic mode. The chief engineer determined that, for this to happen, the three-way switch in the wheelhouse was likely in the off position. The operating company's investigation also concluded that the pilot moved the pump selector switch to the off position.

The day after the collision, a third-party hydraulic services company evaluated the steering system and found no issues with the steering pumps, rudders, or electrical components. The report noted that nothing was found that would have caused a failure and that the system was in good working condition.

2 Analysis

On April 17, the towing vessel *William B Klunk* was pushing 22 loaded hopper barges on the Lower Mississippi River when the tow collided with moored barges at a fleeting area near Baton Rouge.

Immediately after the collision, the pilot believed that the *William B Klunk* had lost steering. However, after reviewing the onboard image recorder system footage, investigators found that the rudder angle indicators responded appropriately to the pilot's steering inputs before the collision. Additionally, postcasualty evaluations of the steering system by both the *William B Klunk* chief engineer and a third-party technician found no issues that would indicate a steering failure. Upon joining the vessel, the captain informed the pilot that the steering on the *William B Klunk* was slower than the towboat that the pilot normally navigated. Given the urgency to return the tow to a safe position after the collision, the steering system may not have responded as quickly as the pilot expected or desired, likely leading him to believe that the vessel had lost steering. To resolve the perceived issue, the pilot manipulated the wheelhouse steering control panel, despite his admitted unfamiliarity with the system. The operating company later determined that the pilot inadvertently turned the steering pumps off before the captain took the helm. Therefore, the steering system functioned normally during the transit, including in the moments leading up to the collision.

Investigators evaluated fatigue as a potential factor affecting the pilot's performance. The pilot only received about 4 hours of continuous sleep in the 36 hours before the collision. Although he reported taking a 1.5-hour nap break during the lengthy drive from his home in Tennessee to the vessel in Baton Rouge, his sleep quality was likely poor given that he was sleeping in a vehicle. The reported 4 hours of continuous sleep were about half of what the pilot typically received in each of the preceding days (reported between 7–10 hours), representing an acute sleep debt. Individuals typically require 7–8 hours of sleep each day to avoid the negative performance impacts of fatigue, which can include inattentiveness, slowed reaction time, decreased alertness, and reduced vigilance. The pilot's sleep debt was due to him waking up early the morning of the collision (0030) to drive to the vessel, which resulted in the pilot being awake for almost 14 hours when he reported on board and nearly 18 hours at the time of the collision. Research has shown that extended wakefulness exceeding 16 hours can affect an operator's alertness and performance and add to an individual's fatigue level, especially when there is existing sleep debt. Therefore, due to limited sleep and extended wakefulness in the 36 hours before the collision, the pilot was acutely fatigued and susceptible to the performance effects of acute fatigue.

The operating company expected the pilot to report on board fit for duty and well rested. In accordance with the operating company's TSMS, because the pilot's drive was over 150 miles, he was offered a hotel room, but he declined the offer. Had he left home earlier and obtained a hotel room, the pilot could have reported to the vessel on time and been well rested. Instead, he drove through the night to report to the vessel. The pilot was truthful with the captain about driving through the night, but he presented himself as fit for duty; the captain also assessed the pilot as fit for duty. Although the captain recommended that the pilot not get the tow underway during his first watch, he ultimately left the decision up to the pilot. While the pilot may have felt well rested enough to get underway, research has shown that self-assessment of fatigue is problematic due to the noted impacts to judgment and decision-making. These impacts result in a diminished ability of the fatigued individual to detect when their performance is declining.[6]

While navigating the *William B Klunk* tow down the Lower Mississippi River for about 1.5 hours before the collision, the pilot engaged in nonoperational, secondary tasks, including taking an administrative phone call from the company's safety officer, making a personal phone call, and sending text messages. The 15-minute call from the company safety officer was unrelated to the ongoing navigational task, and while on the phone, the pilot did not respond to a passing arrangement proposal from the upbound *Pennsylvania* until 15 minutes after the *Pennsylvania* operator started hailing him. The NOBRA pilot on the *Pennsylvania* noted that the movement of the *William B Klunk* during this time was "out of the ordinary." The NOBRA pilot's observation and the pilot's delay in responding to the proposed passing arrangement suggest that the pilot was distracted by the phone call.

The company safety officer called the boat phone when the pilot was navigating the vessel. Given the administrative nature of the call (notice of a disciplinary action that was distressing to the pilot), once the safety officer was aware that the pilot was navigating, and because the call was not immediately relevant to the ongoing operation, the safety officer could have postponed their conversation to a time when the pilot was not actively navigating the vessel. Likewise, the pilot could have ended the call earlier.

When an operator engages in non-navigational or secondary tasks, there is a risk that performance of the primary task will suffer or that the operator will become distracted from their primary task of navigation (which can persist even after the

[6]National Safety Council, "Fatigue in Safety-Critical Industries: Impact, Risks, & Recommendations," 2018, https://www.nsc.org/getmedia/4b5503b3-5e0b-474d-af19-c419cedb4c17/fatigue-in-safety-critical-industries.pdf.aspx?srsltid=AfmBOopZni-xEDx1-aWy07mTgI4g9QbeAdx3WZssL-aUaPC2NpO5oVzc, 8.

secondary task ends, in the form of cognitive distraction). The pilot's reaction to the phone call and continued frustration after the collision suggest that he may have also been cognitively distracted while navigating after the call ended. The risk of distraction increases when an individual is fatigued. Fatigue's impacts to attention, vigilance, and multi-tasking can increase the likelihood that an individual will disengage from their primary task and become distracted by a secondary task.[7]

The pilot reported using his personal cell phone during the transit—this was intermittently captured by the onboard image recorder system. In the almost 6 minutes leading up to the collision, as the tow moved toward the fleeting area, the pilot did not make any rudder or throttle adjustments, but was moving around near the operating console, indicating that he was not asleep. About 40 seconds before the collision, onboard image recorder system footage showed the pilot using a cell phone and not monitoring the tow's position. Therefore, due to the pilot's personal cell phone use, he was distracted and did not alter the *William B Klunk*'s course or speed as it approached the barge fleeting area.

[7] J.A. Horne, "Working throughout the night: Beyond 'sleepiness'—impairments to critical decision making," *Neuroscience and Biobehavioral Reviews* 36, no. 10 (August 2012).

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision of the towing vessel *William B Klunk* and tow with moored barges was the *William B Klunk* pilot becoming distracted due to cell phone use in the minutes leading up to the collision. Contributing was the pilot's fatigue due to limited sleep the night before the casualty, which decreased his attentiveness and vigilance while operating the vessel.

3.2 Lessons Learned

Distraction due to Cell Phones

Use of cell phones and other personal electronic devices by on-duty crewmembers in safety-critical positions has been a factor in casualties and accidents in all transportation modes. Using cell phones can be visually, manually, and cognitively distracting. Use of cell phones, including company cell phones (particularly for nonoperational conversations), should never interfere with a watchstander's primary task to safely navigate a vessel and maintain a proper lookout. To reduce the risk of cell phone distraction, operating companies should establish protocols regarding both personal and work-related cell phone use, and vessel personnel should understand the importance in following them.

Vessel Particulars

Vessel	*William B Klunk*
Type	Towing/Barge (Towing vessel)
Owner/Operator	American Commercial Barge Line (Commercial)
Flag	United States
Port of registry	St. Louis, Missouri
Year built	1998
Official number (US)	1072256
IMO number	N/A
Classification society	Towing Vessel Inspection Bureau (Third-party organization)
Length (overall)	170.1 ft (51.8 m)
Breadth (max.)	48.0 ft (14.6 m)
Draft (casualty)	11.6 ft (3.5 m)
Tonnage	1,062 GT ITC
Engine power; manufacturer	2 x 4,000 hp (2,983 kW); EMD 16-710 diesel engines

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