June 11, 2025 MIR-25-23

Grounding of Towing Vessel *Tom Frazier*

On February 10, 2024, about 1855 local time, the towing vessel *Tom Frazier* was pushing 15 empty hopper barges upbound on the Ohio River, near Portsmouth, Ohio, when the vessel grounded on a submerged jetty while maneuvering to meet a downbound tow (see figure 1 and figure 2).[1] The nine crewmembers aboard the towboat were safely evacuated to shore. There were no injuries. An estimated 5 gallons of oil were released from the *Tom Frazier*. Damage to the vessel was $258,737.[2]

Figure 1. The *Tom Frazier* underway in 2008. (Source: Billy Smith)

[1] In this report, all times are eastern standard 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. DCA24FM024). Use the CAROL Query to search investigations.

Casualty Summary

Casualty type	Grounding/Stranding
Location	Ohio River, mile 355.1, Portsmouth, Ohio 38°43.65′ N, 082°59.32′ W
Date	February 10, 2024
Time	1855 eastern standard time (coordinated universal time –5 hrs)
Persons on board	9
Injuries	None
Property damage	$258,737
Environmental damage	Light sheen, est. 5 gal
Weather	Visibility 10 mi, overcast, winds west 3 kts, air temperature 60°F, water temperature 43°F, sunset 1730
Waterway information	River; width 1,000 ft, depth 9 ft, flow 73,000–99,000 cfs, river gage at Portsmouth (mile 355.5) 19.2 ft

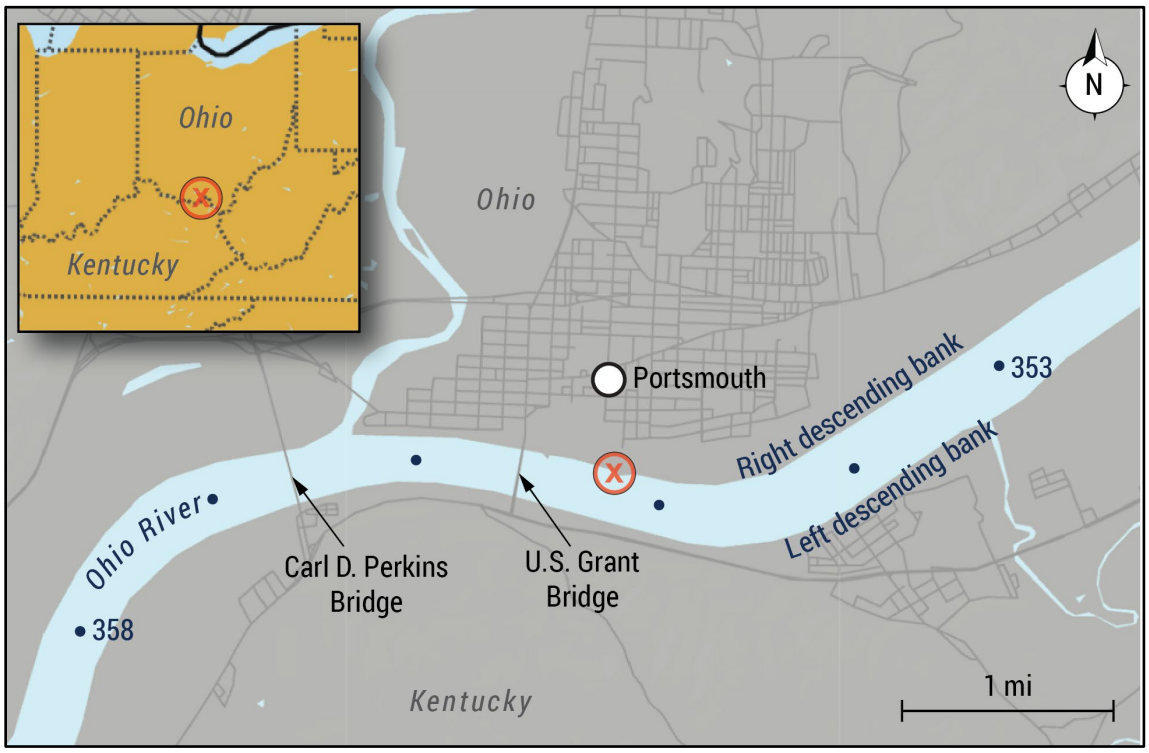

Figure 2. Area where the *Tom Frazier* grounded, as indicated by a circled *X*. (Background source: Google Maps)

1 Factual Information

1.1 Background

The *Tom Frazier* was a 136-foot-long towboat built in 1979 by Jeffboat Inc. in Jeffersonville, Indiana, and operated by McNational Inc. in the line haul service. The vessel had a valid US Coast Guard-issued certificate of inspection documenting compliance with Title 46 *Code of Federal Regulations* Subchapter M; the vessel was certificated for rivers routes.

1.2 Event Sequence

On February 2, 2024, the towing vessel *Tom Frazier* departed Cairo, Illinois, pushing 15 empty hopper barges—arranged in three strings of five barges each—en route to South Point, Ohio, upbound on the Ohio River.[3] The tow's total length was 1,135 feet, and its width was 112 feet (see figure 3). The draft of the *Tom Frazier* was 11.2 feet, while the draft of the barges ranged from 1.5 to 2 feet. The vessel had a crew of nine.

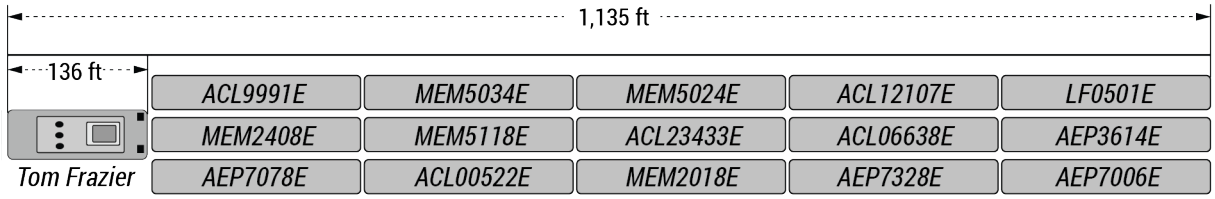

Figure 3. *Tom Frazier* towing arrangement (scale approximate).

On February 10, at 1830, the tow approached Portsmouth, Ohio, in darkness. Upbound vessels had to transit through two bridges connecting Portsmouth and Greenup County, Kentucky, coming out of the 90° bend in the Ohio River near Portsmouth: the Carl D. Perkins Bridge at mile 356.8 and the U.S. Grant Highway Bridge at mile 355.5.

At 1838, with the captain at the helm, the *Tom Frazier* successfully transited through the Carl D. Perkins Bridge. As the *Tom Frazier* tow transited through the U.S. Grant Bridge, the captain contacted the operator of the 113.3-foot-long towing vessel *Debi Sharp*—which was downbound 1.5 miles away, pushing 25 barges

[3] The Ohio River runs 981 miles from Pittsburgh, Pennsylvania, to Cairo, Illinois, where it meets the Mississippi River.

(19 loaded and 6 empty)—to make passing arrangements. The captain of the *Tom Frazier* and operator of the *Debi Sharp* agreed to meet starboard-to-starboard, and, about 1847, the *Tom Frazier* tow cleared the U.S. Grant Bridge slightly left of the sailing line in preparation for this passing arrangement. Once clear of the U.S. Grant Bridge, the captain of the *Tom Frazier* maneuvered farther to port toward the right descending bank to give the *Debi Sharp* more room to maneuver, since the *Debi Sharp* was downbound making 5.5 mph in a following current.[4] According to the US Army Corps of Engineers, this location was a common area for upbound vessels to move over to avoid downbound vessels, which have the right-of-way and must line up to navigate the two bridges.

About 0.5 miles upriver from the U.S. Grant Bridge, jetties, made of stone, extended out about 55 feet (at datum) from the right descending bank of the river. The jetties, co-located with a boat ramp, protected marinas near the bridge from current and flotsam and were charted (see figure 4). When the *Tom Frazier* tow passed through the two bridges, the river level was 19.2 feet (at the Portsmouth gage), and the jetties were submerged (see section 1.3.2).

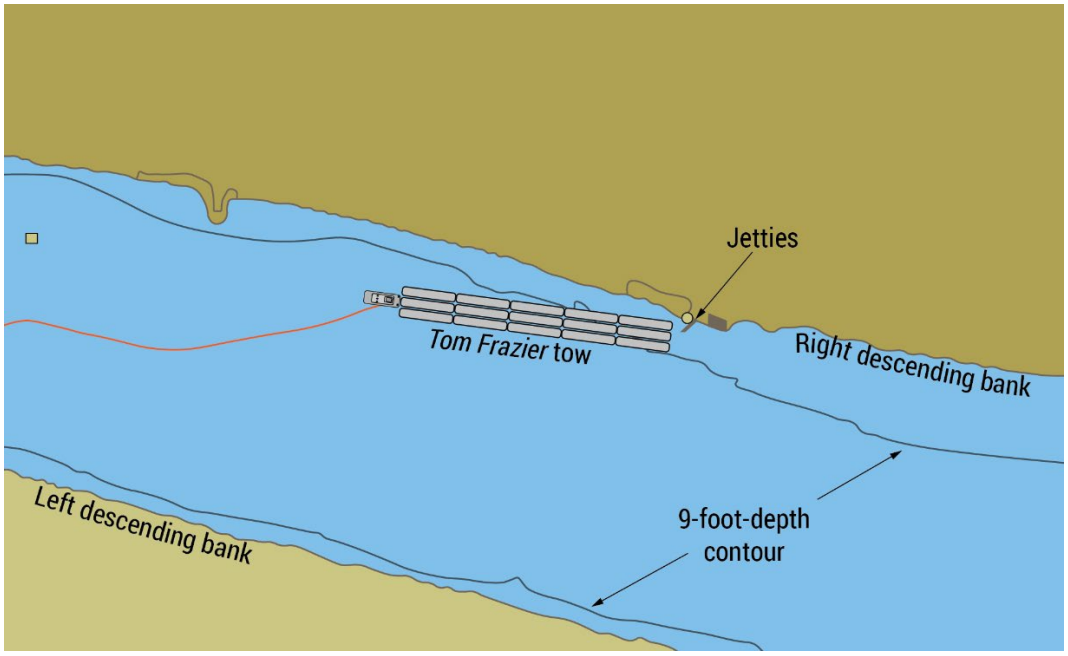

Figure 4. Re-creation of electronic navigation chart (ENC) showing stone jetties, with *Tom Frazier* tow arrangement and trackline overlaid. (Background source: ENC U370H332; trackline source: *Tom Frazier* automatic identification system)

[4] 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*.

While the *Tom Frazier* tow was running close to and parallel with the right descending bank, outside the charted 9-foot-depth contour line, about mile 355, the empty barges passed over the jetties. At 1855, as the captain of the *Tom Frazier* attempted to maneuver the tow back into the channel while making a speed of about 4 mph, the *Tom Frazier* grounded on one of the jetties, puncturing the bottom plating and flooding a forward compartment (see figure 5).

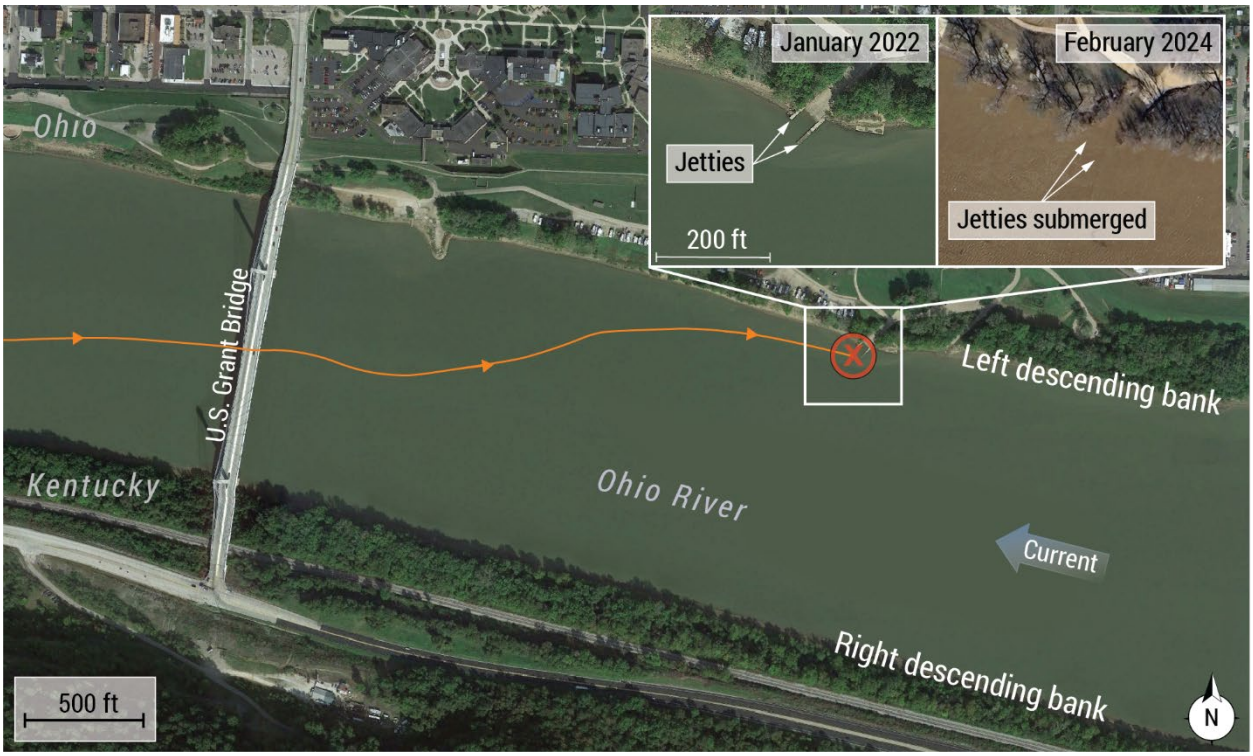

Figure 5. Trackline of *Tom Frazier* tow as the vessel transited through the U.S. Grant Bridge and toward the right descending bank. Inset satellite photos show the jetties visible on January 26, 2022 (17.4 to 18.5 feet at the Portsmouth gage) and submerged on February 14, 2024 (28.7 to 31.6 feet at the Portsmouth gage). (Background source: Google Earth; trackline source: *Tom Frazier* automatic identification system; gage data: United States Geological Survey)

The *Tom Frazier* began listing to starboard, and the engine room flooded (see figure 6). The captain of the *Tom Frazier* notified US Coast Guard Sector Ohio Valley, via VHF radio, that they were taking on water and had nine people aboard. The Coast Guard notified Greenup County, Kentucky, officials, who launched the Southshore, Lloyd, and Portsmouth Fire Departments, among others, to the scene. Local first responders, individuals ashore, and crews from nearby vessels evacuated the crew to shore. The *Tom Frazier* tow was transferred to the towing vessel *Marty B*, which towed the empty barges to McGinnis' Debi Jo Dock (mile 334) in Greenup, Kentucky.

Figure 6. *Tom Frazier* aground and listing to starboard on February 11, 2024. (Source: Coast Guard)

The *Tom Frazier* remained aground until salvors, aided by rising water levels, freed the vessel on February 13 (3 days later). According to National Response Center records, 5 gallons of unspecified oil were released during engine room dewatering. (The *Tom Frazier* had 71,694 gallons of diesel fuel, 1,038 gallons of lube oil, and 589 gallons of hydraulic oil on board at the time of the grounding.) The *Tom Frazier* was towed to a drydock in South Point, Ohio (mile 317), arriving at 2112 on February 13.

1.3 Additional Information

1.3.1 Damage

The *Tom Frazier* sustained damage to its bottom hull plating, deck plating, and headlog, as well as to transverse and longitudinal frames, inboard bulkheads, and a ballast tank (see figure 7). Damage was $258,737.

Figure 7. *Tom Frazier's* engine room, looking forward. The oil-coated bulkheads show the height of water and angle of list before dewatering. (Source: Coast Guard)

1.3.2 Waterway Conditions

In January 2024, the Ohio River water level at Portsmouth, mile 355.5, rose from less than 20 feet, peaking at 45.6 feet on January 31 (see figure 8). The water level then receded, reaching 19.2 feet at the time of the grounding (February 10). On February 13 (the day the vessel was refloated), the water level rose from 18.5 feet to 28.7 feet. According to the United States Geological Survey, as of June 9, 2025, the Ohio River mean (average) water level at Portsmouth for the previous 14 years was 18.1 feet.

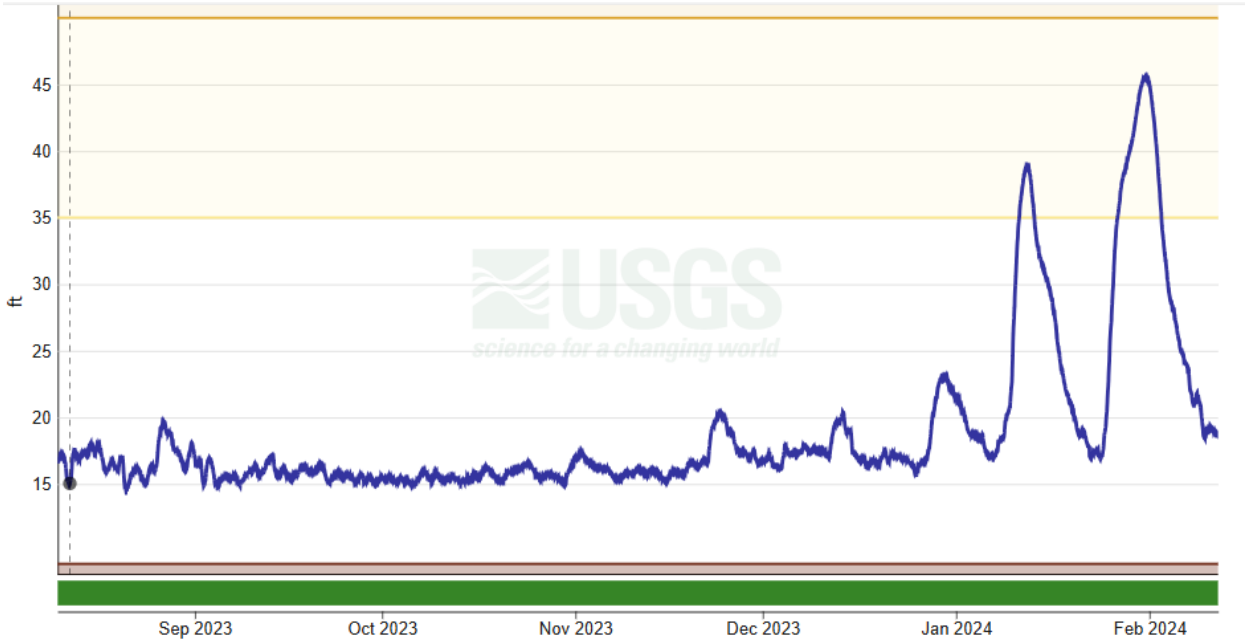

Figure 8. Ohio River water levels at Portsmouth between August 10, 2023, and February 11, 2024. (Source: US Geological Survey)

1.3.3 Crew

The *Tom Frazier* captain held a Coast Guard-issued credential as master of towing vessels on the Western Rivers. He had worked in the industry for 23 years and with the operating company for 3 years. He stated that he had frequented the area many times in his career but not in the previous 2 or 3 years.

2 Analysis

On February 10, while the captain of the *Tom Frazier* was maneuvering a tow upbound on the Ohio River, the *Tom Frazier* grounded on a submerged rock jetty, damaging the vessel's hull plating, framing, and bulkheads, and flooding several spaces, including the engine room. The vessel remained aground until refloated by salvors and rising water levels.

As the 15-barge *Tom Frazier* tow approached the U.S. Grant Bridge, the captain made passing arrangements with the larger, downbound *Debi Sharp* tow; they agreed to a starboard-to-starboard passing. As the upbound tow transited through the bridge, the captain maneuvered the tow to port toward the right descending bank to facilitate the passing, as was common for upbound vessels meeting downbound vessels in this area. However, the captain maneuvered the tow so that it passed very close to the right descending bank, outside the charted 9-foot-depth contour line. Two stone jetties that extended about 55 feet out from the bank were on the right descending bank about 0.5 miles upriver from the bridge. At the time of the casualty, the river level was 19.2 feet (at the Portsmouth gage, about 0.4 miles downstream from the jetties), and the jetties were submerged. Given the nighttime conditions and water level, the jetties would not have been visible. Although the jetties were charted on electronic navigation charts and thus were visible on the *Tom Frazier*'s electronic charting system, the captain did not identify the hazard ahead as he maneuvered the vessel toward the bank to make room for the downbound tow, and the vessel grounded on the jetties.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the grounding of the towing vessel *Tom Frazier* on submerged jetties was the captain maneuvering his tow too close to the bank in order to avoid a downbound tow, and not identifying the hazard posed by the charted jetties.

Vessel Particulars

Vessel	*Tom Frazier*
Type	Towing/Barge (Towing vessel)
Owner/Operator	ACBL Vessels Inc. / McNational Inc. (Commercial)
Flag	United States
Port of registry	Jeffersonville, Indiana
Year built	1979
Official number	606669 (US)
IMO number	N/A
Classification society	Towing Vessel Inspection Bureau (Third-party organization)
Length (overall)	135.6 ft (41.3 m)
Breadth (max.)	46.9 ft (14.2 m)
Draft (casualty)	11.2 ft (3.4 m)
Tonnage	932 GRT
Engine power; manufacturer	2 x 3,070 hp (2,289 kW); EMD 16-645E7C

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