

September 29, 2026

MIR-26-31

Breakaway of Barge *MPC 1056* and Subsequent Contact with Marina Docks

On March 19, 2025, about 1900 local time, the petroleum barge, *MPC 1056*, loaded with ethanol, broke free from an Evansville Marine Service fleeting area at mile 795.5 on the Ohio River, near Evansville, Indiana, drifted downriver, and contacted two marina docks near mile 797 (see figure 1 and figure 2).¹ There were no injuries, and no pollution was reported. Damage to the two docks was estimated at \$900,000. There was no reported damage to the barge.



Figure 1. Barge *MPC 1056* adrift in the Ohio River and contacting the Nu Plaza Yacht Club dock on the day of the casualty. (Source: John G. Dyer, facebook.com)

¹ (a) In this report, all times are central daylight time, and all miles are statute miles. (b) Visit [nts.gov](https://www.nts.gov) to find additional information in the [public docket](#) for this NTSB investigation (case no. DCA25FM027).

Casualty Summary

NTSB casualty category	Contact
Location	Ohio River, mile 797, Evansville, Indiana 37°55.51' N, 087°37.69' W
Date	March 19, 2025
Time	1900 central daylight time (coordinated universal time –5 hrs)
Persons on board	None
Injuries	None
Property damage	\$900,000 est.
Environmental damage	None
Weather	Visibility 7 mi, partly cloudy skies, southwest winds 25 mph, gusts 38 kts, air temperature 70°F, sunset 1902, civil twilight 1928
Waterway information	River; width 3,700 ft, current 2.6 kts est.

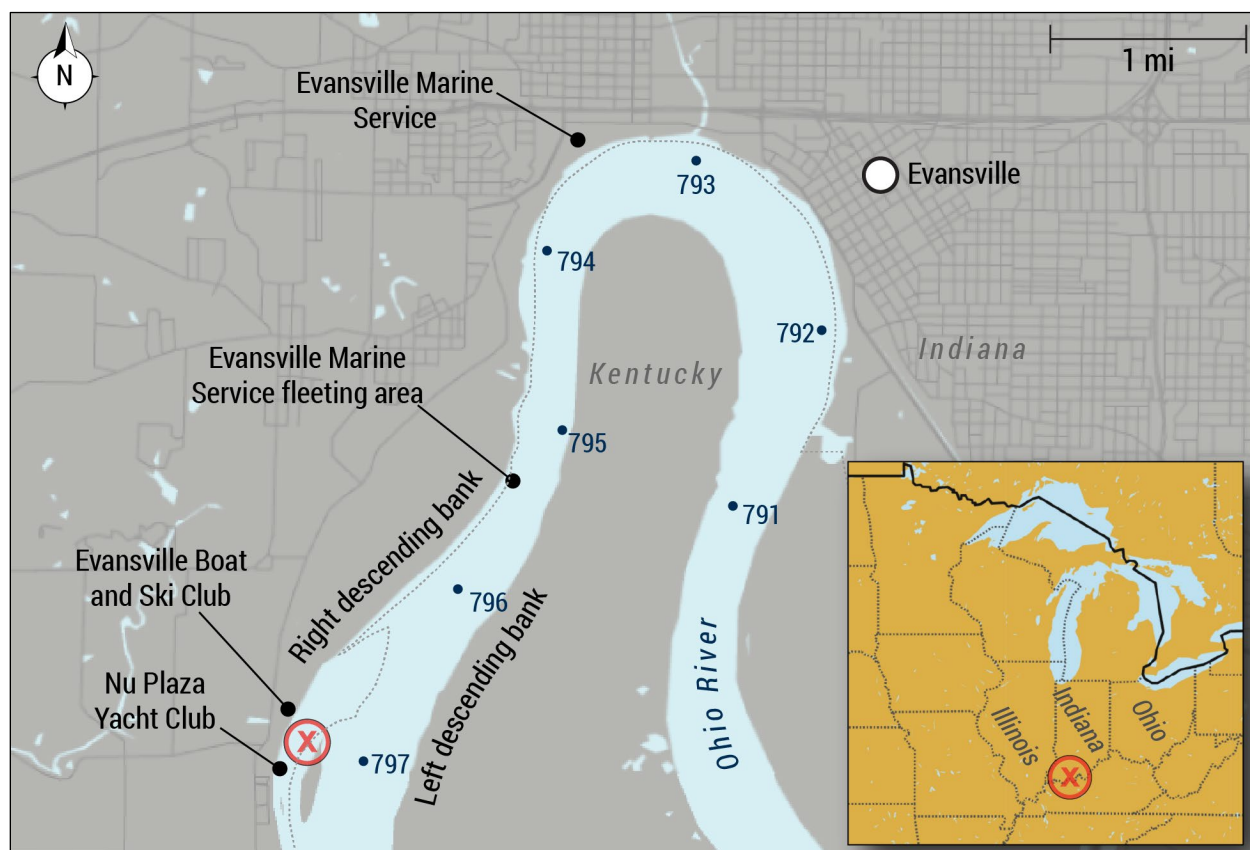


Figure 2. Area where the loaded petroleum barge *MPC 1056* contacted marina docks, as indicated by a circled X. (Background source: Google Maps)

1 Factual Information

1.1 Background Information

The 200-foot-long barge *MPC 1056* was owned and operated by Marathon Petroleum Company. The barge was primarily operated on the Ohio River transporting petroleum and liquid cargo.

Evansville Marine Service (EMS) is a marine transportation company operating on the Ohio River and the Green River. With over 20 vessels in operation, EMS provides several services, including fleeting, shifting, and towing.

1.2 Event Sequence

On March 19, 2025, about 1415, the towing vessel *Nashville* dropped off the petroleum barges *MPC 1056* and *MPC 637*, which were loaded with ethanol, at an EMS fleeting area located at mile 795.5 on the right descending bank of the Ohio River near Evansville, Indiana.²

Five days earlier, on March 14, the EMS safety and compliance director had emailed all employees and crewmembers, notifying them of a severe thunderstorm warning and tornado watch for the area from March 14 to March 19. The email instructed boat crews to:

- secure all barges in their area of responsibility,
- ensure fleets were “squared up and thinned down,” and
- position vessels to quickly respond to breakaway barges, dock damage, and man-overboard victims.

On March 19, the 54-foot-long EMS towing vessel *Brantley B* was assigned to secure and monitor the *MPC 1056* and *MPC 637*. The *Brantley B* had a crew of three, including the captain, who had 18 years of experience working on the river, and two deckhands (one in training). The crew moored the *MPC 637* with wires to the shore. They then moored the *MPC 1056* to the *MPC 637* using two winch wires: one five-part breast wire on the head of the barge (headline) and one four-part breast wire on

² (a) A *fleeting area* is a geographic location (staging zone) where a group of barges, or fleets, are moored and later assembled to comprise a tow. (b) 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. (c) The Ohio River runs 981 miles from Pittsburgh, Pennsylvania, to Cairo, Illinois, where it meets the Mississippi River.

the stern (sternline).³ The mooring wires were 1-inch Gorilla Super strand with a normal (tested) breaking strength of 93,651 lbs. The wires were run from winches forward and aft on the *MPC 1056* and secured to bitts on the *MPC 637* and cleats on the *MPC 1056* (see figure 3). This mooring arrangement complied with the company's procedure for securing barges in both normal and high-water conditions, and no mooring lines or extra wires were added (see section 1.3.2).

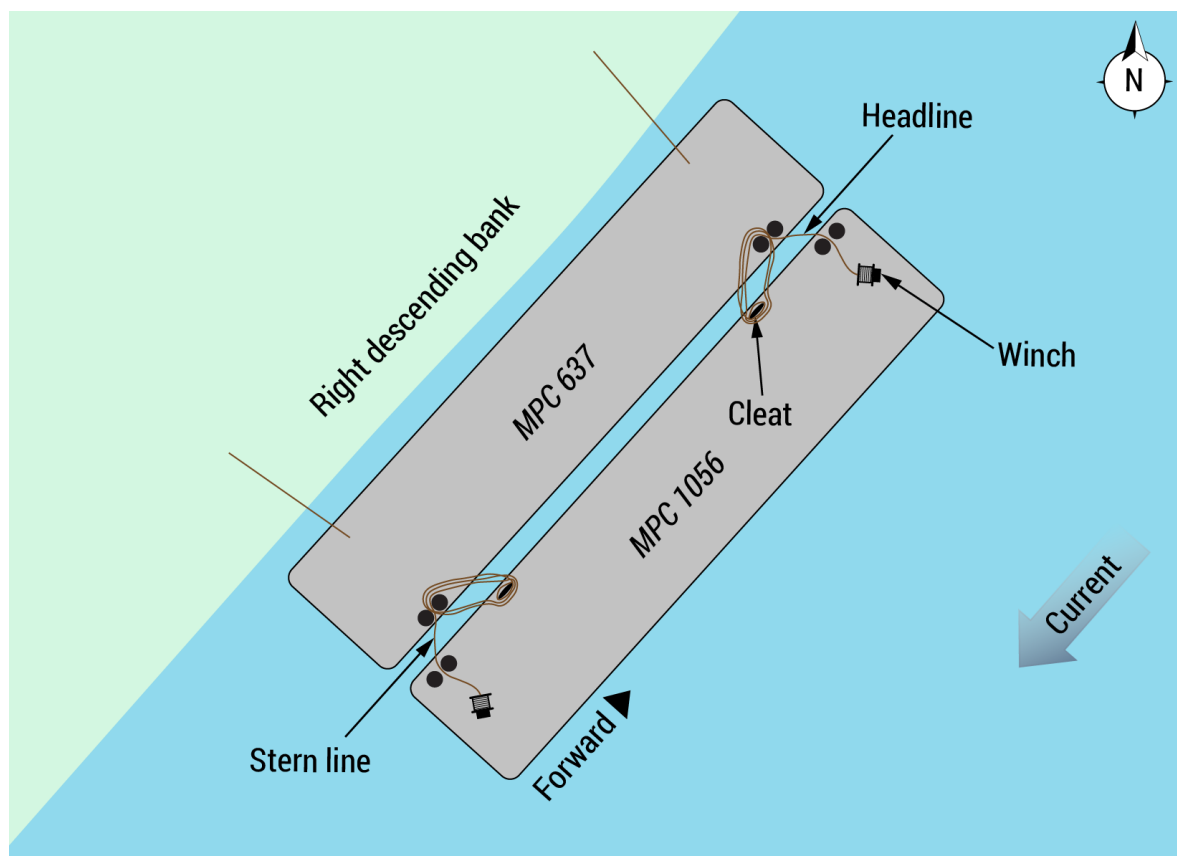


Figure 3. Representation of the mooring configuration of *MPC 637* and *MPC 1056* at the fleeing area.

At 1525, the National Weather Service issued a Hazardous Weather Outlook for portions of western Kentucky and southwest Indiana, including the Evansville area,

³ According to Marathon Petroleum Company (the barge owner and operator), "part" refers to the number of lays around the barge fittings (bitts or cleats). (Seen in Deckhand Training PowerPoint intro to tow work 2021).

stating that “damaging winds are a primary hazard.”⁴ A tornado watch remained in effect, and a previously issued wind advisory also remained in effect.⁵

Between 1520 and 1640, the *Brantley B* crew responded to another barge (*ART 24109*) that required repairs to its starboard face wire after the wire broke due to wind and waves. During that time, about 1600, severe weather impacted the area of Evansville, with winds at the Evansville Regional Airport station (about 10 miles northeast of the fleeting area) measuring between 18-25 mph and gusts exceeding 38 mph.

About 1800, the prevailing southerly winds veered to the southwest and were accompanied by heavy precipitation. According to the *Brantley B* captain, the *MPC 1056* and *MPC 637* remained moored at the fleeting area at the end of his watch at 1800, when he turned over with the next crew (a captain and deckhand).

About 1900, the owner of the Nu Plaza Yacht Club at mile 797.3 witnessed a barge contacting the docks at his marina and reported it to a local contractor in the area.

About 1930, after a private citizen called (by cell phone or VHF channel 16) the *Brantley B* to report a breakaway barge near Nu Plaza Yacht Club, the *Brantley B* responded, and the crew located the *MPC 1056*.⁶ The crew found the headline (on the port bow) had parted, and the sternline was hanging over the side of the barge (see figure 4). At the time, the Ohio River level gage at Evansville was 28.92 feet and falling. The recorded level was in the lowest of the flood stages, the “action stage,” which begins at 24 feet.⁷

⁴ A Hazardous Weather Outlook “is intended to provide plain language information on weather phenomena that are considered hazards. The threshold is the potential for a particular weather phenomenon to require an outlook, watch, warning, or advisory from the National Weather Service.” See [Description and Definition of HWO Terms](#).

⁵ The initial wind advisory was issued by the National Weather Service at 0333 on March 19, 2025, for gusts of 35-50 mph.

⁶ EMS told investigators that staff at some of the docks knew the phone number directly to the *Brantley B* and the caller was likely a dock worker.

⁷ The “action stage” is followed by the “minor flood” stage at 42 feet. The gage recorded 30.45 feet the previous day (March 18, 2025) at 1615.



Figure 4. Left to right: Damaged port bow winch wire (headline) located forward on *MPC 1056*. (Source: Coast Guard.)

The *Brantley B* crew worked to secure the barge to the towing vessel, then returned to the EMS fleeing area with the *MPC 1056*. The crew moored the barge alongside the *MPC 637* about 40 minutes later. The *Brantley B* crew checked the *MPC 1056* for damage and worked to clear debris (tree limbs) from the barge's deck.

About 2130, EMS contacted US Coast Guard Sector Ohio Valley's Command Center to report the casualty while the crew of the *Brantley B* assisted in efforts to survey the damage to the Nu Plaza Yacht Club. According to the Coast Guard, while surveying the damage, they also identified damage to the Evansville Boat and Ski Club gangway dock, located at mile 797.6. The Coast Guard attributed the damage to the breakaway of the *MPC 1056*.

1.3 Additional Information

1.3.1 Damage

There was no internal or external damage to the structure of barge *MPC 1056*.

The Evansville Boat and Ski Club gangway dock sustained damage that required it to be replaced. The Nu Plaza Yacht Club sustained damage to its docks, crossover walks, accommodation docks, boatlifts, and several other items. Total damages for both locations were estimated at \$900,000.

1.3.2 Towing Safety Management System

At the time of the casualty, EMS's towing safety management system procedures listed minimum mooring procedures for barges breasted up in an EMS fleet or facility. The procedures required either a six-part headline and sternline or a four-part headline and sternline, depending on the type of line available.

Both configurations required that the head and sternlines be opposite leads. The policy further stated that a port captain, marine superintendent, or operations manager would have to approve either configuration, and "any wire laid shall be in addition to the minimum lines." This guidance applied to all barges regardless of their cargo designation. The company's safety and compliance director told investigators, "Rather than trust the crews to remember two ways to tie off, we require that our fleets just stay ready for everything at all times, so our 'daily' practice IS our high-water practice."

2 Analysis

On March 19, 2025, the loaded petroleum barge *MPC 1056* broke away from its moorings at a fleeting area on the Ohio River near Evansville, Indiana, drifted downriver, and contacted two marina docks.

Earlier that day, the *Brantley B* crew moored the *MPC 1056* in a breasted mooring arrangement with another barge, the *MPC 637*, which was secured to the right descending bank. The two barges were moored together with two lines (both winch wires) in accordance with the operating company's towing safety management system requirements for breasted barges. The headline served to prevent the *MPC 1056* from moving aft (downriver), and the sternline served to hold the *MPC 1056* flush to the *MPC 637*. When the *Brantley B* crew located the *MPC 1056* after the breakaway, the captain found the headline had parted; the sternline was hanging over the side of the barge.

According to the *Brantley B* crew, the exact condition of each mooring line was unknown but showed normal signs of use. After securing the two barges, the *Brantley B* crew responded to assist another barge that required repairs, but the crew otherwise remained moored at the fleeting area with the two barges until 1800, when they turned over the watch to the next crew. None of the crewmembers noticed any issues with the mooring arrangement between the two barges at the time.

While the two barges were moored, severe weather moved through the area, including gusts exceeding 38 mph, and the nearest river gage at Evansville was at 28.9 feet (within action stage, the lowest of the flood stages). These factors would have created severe strain on the mooring lines connecting the *MPC 1056* to the *MPC 637*. The loaded barge sat deep in the water at its full draft of 10 feet. This exposed the underwater surface area of the hull at the head of the barge to the force of the river current. Additionally, the area of the river where the barges were moored was narrow compared to the bend upriver, which likely resulted in an increase in water velocity near the fleeting area. It is likely that these two environmental factors (wind and current) acting on the barge placed a strain on the headline that exceeded the wire's breaking strength, causing it to part. As a result, the *MPC 1056* was no longer flush with the *MPC 637*, allowing the *MPC 1056* to pivot downriver, connected to *MPC 637* by only the stern wire.

As the *MPC 1056* pivoted downriver, the direction of the stern wire's holding force connected to the bitts on the *MPC 637* changed. After the casualty, the sternline was found undamaged, hanging from the side of the *MPC 1056*. Therefore, the sternline likely slipped from its moorings after the headline parted. With no other lines securing the *MPC 1056* to the *MPC 637*, the barge drifted downriver about 1.5 miles and into the marina docks.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the breakaway of barge *MPC 1056* and its subsequent contact with downriver marina docks was severe weather and strong current acting on the moored barge, which exceeded the holding capacity of its mooring arrangement.

3.2 Lessons Learned

Mooring Arrangements in Severe Weather

Severe weather at barge fleeting areas can include strong winds, wave chop, and high currents associated with higher river levels at flood stages, increasing the likelihood of mooring failures. Single-point mooring failures can ultimately result in vessels breaking away and causing damage to other downstream vessels and infrastructure. Operators should identify failure modes of mooring arrangements and implement controls, such as more frequent inspections and additional lines.

Vessel Particulars

Vessel	<i>MPC 1056</i>
NTSB vessel group	Towing/Barge (Barge)
Owner/operator	Marathon Petroleum Company (Commercial)
Flag	United States
Port of registry	Ashland, Kentucky
Year built	2009
Official number	1218134 (US)
IMO number	N/A
Classification society	N/A
Length (overall)	200.0 ft (61.0 m)
Breadth (max.)	35.0 ft (10.7 m)
Draft (casualty)	10.0 ft (3.0 m)
Tonnage	735 GRT
Engine power; manufacturer	N/A

NTSB investigators worked closely with our counterparts from **Coast Guard Sector Ohio Valley** throughout this investigation.

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For more detailed background information on this report, visit the [NTSB Case Analysis and Reporting Online \(CAROL\) website](#) and search for NTSB accident ID DCA25FM027. Recent publications are available in their entirety on the [NTSB website](#). Other information about available publications also may be obtained from the website or by contacting—

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