



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

April 27, 2026

MIR-26-14

Contact of *LCPL Phillip C George* Tow with Terminal Dolphin, Power Transmission Pole, and Pelican Island Bridge

On May 15, 2024, about 0941 local time, the towing vessel *LCPL Phillip C George* was departing the Texas International Terminal, in Galveston, Texas, pushing two loaded tank barges, when the port quarter of the *LCPL Phillip C George* struck a terminal dolphin and one of the barges, *MMLP 321*, separated from the tow and contacted a power transmission pole and the Pelican Island Bridge in the Galveston Channel (see figure 1 and figure 2).¹ There were no injuries, and about 20,000 gallons of vacuum gas oil was released into the waterway. Damage to the *MMLP 321* and the Pelican Island Bridge, salvage operations, the value of the lost cargo, and the cost of the oil spill response was estimated at \$8.4 million.



Figure 1. *LCPL Phillip C George* underway after the casualty.

¹ (a) In this report, all times are central daylight time, and all miles are statute miles. Unless otherwise specified all speeds are referenced in miles per hour over the ground. (b) Visit [ntsb.gov](https://www.ntsb.gov) to find additional information in the [public docket](#) for this NTSB investigation (case no. DCA24FM040).

Casualty Summary

NTSB casualty category	Contact
Location	Galveston Channel, Galveston, Texas 29°18.76' N, 094°49.34' W
Date	May 15, 2024
Time	0941 central daylight time (coordinated universal time -5 hrs)
Persons on board	3 (LCPL Phillip C George), 1 (MMLP 321)
Injuries	None
Property damage	\$8.4 million est.; \$1.2 million est. (property damage, cargo, and salvage); \$7.21 million (oil spill response)
Environmental damage	Est. 20,000 gal vacuum gas oil released; all but 129 gal recovered
Weather	Visibility 10 mi, clear skies, winds south 5-10 kts, air temperature 82°F, water temperature 81°F
Waterway information	Harbor; depth 30-45 ft at mean lower low water, flood current 1-1.8 mph est.



Figure 2. Area where the contacts occurred, as indicated by a circled X. (Background source: Google Maps)

1 Factual Information

1.1 Background

The 81.8-foot-long steel-hulled towing vessel *LCPL Phillip C George* was owned and operated by Martin Operating Partnership L.P. Two 1,645-hp diesel engines, each connected to a four-bladed, fixed-pitch propeller by a set of reduction gears, provided vessel propulsion. The vessel had two steering rudders and two flanking rudders.

The drawbridge that carried Seawolf Parkway between, and connected, Galveston and Pelican Island, was commonly referred to as the Pelican Island Bridge (see figure 3). Owned and operated by the Galveston County Navigation District No. 1, the bridge, built in 1960, was 3,239 feet long. An abandoned railway bridge ran parallel to the bridge.²

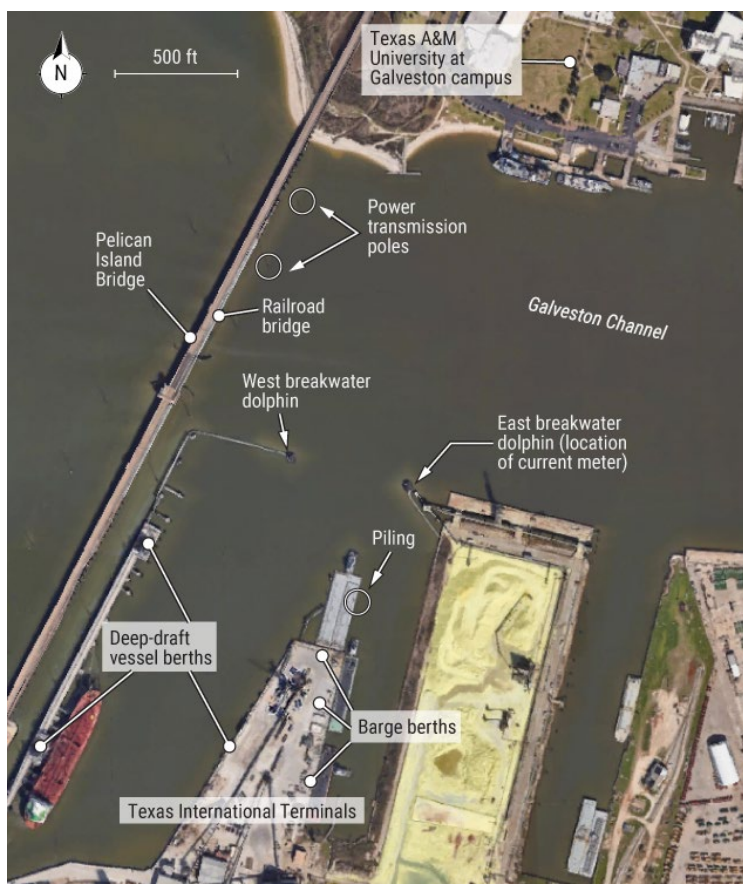


Figure 3. Area surrounding the Pelican Island Bridge. (Background source: Google Earth)

² According to the Galveston County Navigation District in 2024, the railway bridge “has never been used.” See *Texas Tribune*, [“Barge hits, damages bridge in Galveston, causing an oil spill.”](#)

Overhead electrical power transmission lines with a vertical clearance of 85 feet ran parallel to the causeway. The lines, which were owned by CenterPoint Energy, were supported by poles located in the water about 85 feet to the east side of the bridge.

The Texas International Terminal (TXIT) was a liquid- and dry-bulk facility located on the south of the Galveston Channel, on Pelican Island. TXIT was comprised of three deep-draft vessel berths, three barge berths, and an east and west breakwater. A dolphin was located at the end of each breakwater, and the distance between the west and east breakwater dolphins was about 440 feet.

1.2 Event Sequence

On the morning of May 15, 2024, the towing vessel *LCPL Phillip C George* was moored at TXIT, with two tank barges, *MMLP 321* and *MMLP 322*, strung out.³ Each barge was loaded with about 24,000 barrels of vacuum gas oil (VGO), a thick heavy petroleum byproduct of the crude oil refinement process. The tow was oriented northerly, toward the Galveston Channel. The towboat was faced up to the rake end of the *MMLP 322*, with the *MMLP 321* as the lead barge (see figure 4).

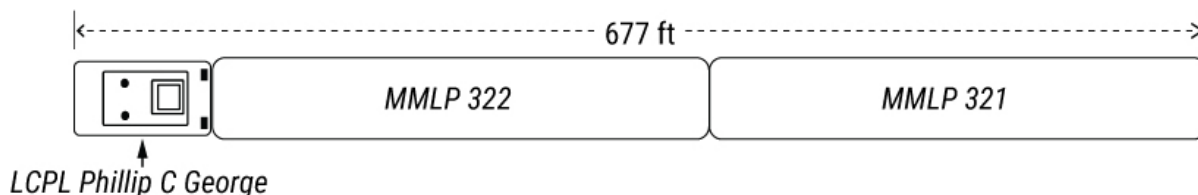


Figure 4. Simplified diagram of the *LCPL Phillip C George* tow (scale approximate).

The barges were identical, each measuring 297.5 feet long and 54 feet wide. The overall length of the tow was about 677 feet, and the deepest draft was 10 feet (the barges). The barges were made up to each other with a port and starboard coupling. Each coupling consisted of four steel wires and a fiber center line at the center levels between the two barges.

On board the *Phillip C George* were a captain and three other crewmembers. The captain explained she had decided to have the barges strung out (versus a breasted tow) since it would occupy less space in the Galveston Channel, alleviating the potential of the tow impeding other ship traffic.⁴

³ A *strung-out tow configuration* is one where multiple barges are connected, end to end, in a single line.

⁴ A *breasted tow configuration* is one where barges are towed alongside each other.

While alongside a barge berth at TXIT, the captain, who was on watch at the time, completed a pre-voyage navigational assessment. She checked the weather; winds were from the southeast at 8 knots, with gusts to 14 knots, and skies were mostly sunny. She also checked the tide level prediction for the area. At the planned time of departure, the tide was flooding (moving to the west) to a predicted level of 1.4 feet (low water was 0.3 feet at 0440). The predicted tidal current was 0.5 mph (0.4 knots) at the western end of the Galveston Channel.

Just before getting underway for a transit to Corpus Christi, Texas, the captain checked in with US Coast Guard Vessel Traffic Service (VTS) Houston-Galveston. Based on the weather and predicted tidal current information, the captain had no concerns maneuvering the tow in a strung-out configuration into the Galveston Channel.

About 0935, clear of any traffic ahead, the captain of the *LCPL Phillip C George* began maneuvering the tow out of TXIT.

About 0937, when the stern of the *LCPL Phillip C George* was clear of the end of the barge berth, the captain came full ahead on the propulsion. She intended to steer the tow through the breakwater and turn to starboard (east) for the planned transit outbound through the Galveston Channel (see figure 5). However, the captain had to wait for the stern of the towboat to clear a nearby piling on the port side before she could begin the starboard turn into the channel.

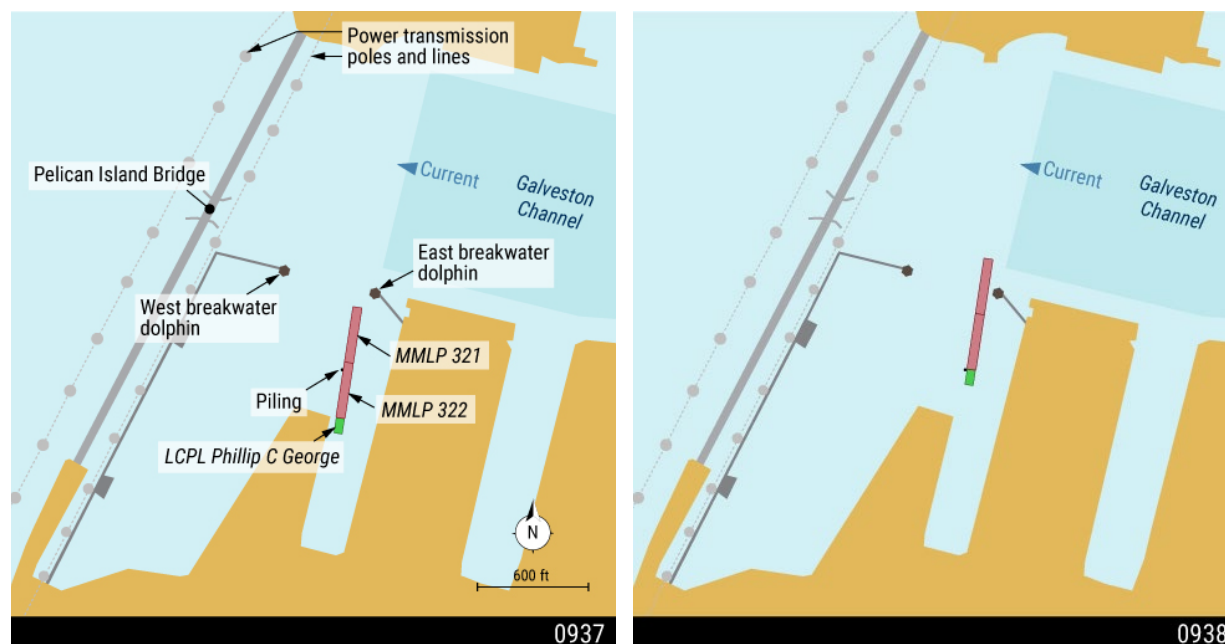


Figure 5. Left to right: The automatic identification system (AIS) positions of the *LCPL Phillip C George* tow at 0937 and 0938. (Background source: National Oceanic and Atmospheric Administration [NOAA] Electronic Navigation Chart [ENC] US5TXDB as viewed on Made Smart)

About 0938, at a speed of 2.8 mph, the head of the lead barge, *MMLP 321*, passed the breakwater and entered the Galveston Channel. The deckhand, who was positioned at the head of the tow, said the starboard side of the barge cleared the east breakwater by about 50 feet.

As more of the tow entered the channel, the captain saw that the tow was being set to the west, sliding sideways in the direction of the Pelican Island Bridge and the west breakwater dolphin. About 0939, with the stern clear of the piling, the captain was able to turn toward the channel (see figure 6). She turned the steering rudders to starboard, left the port engine full ahead, and backed on the starboard engine.

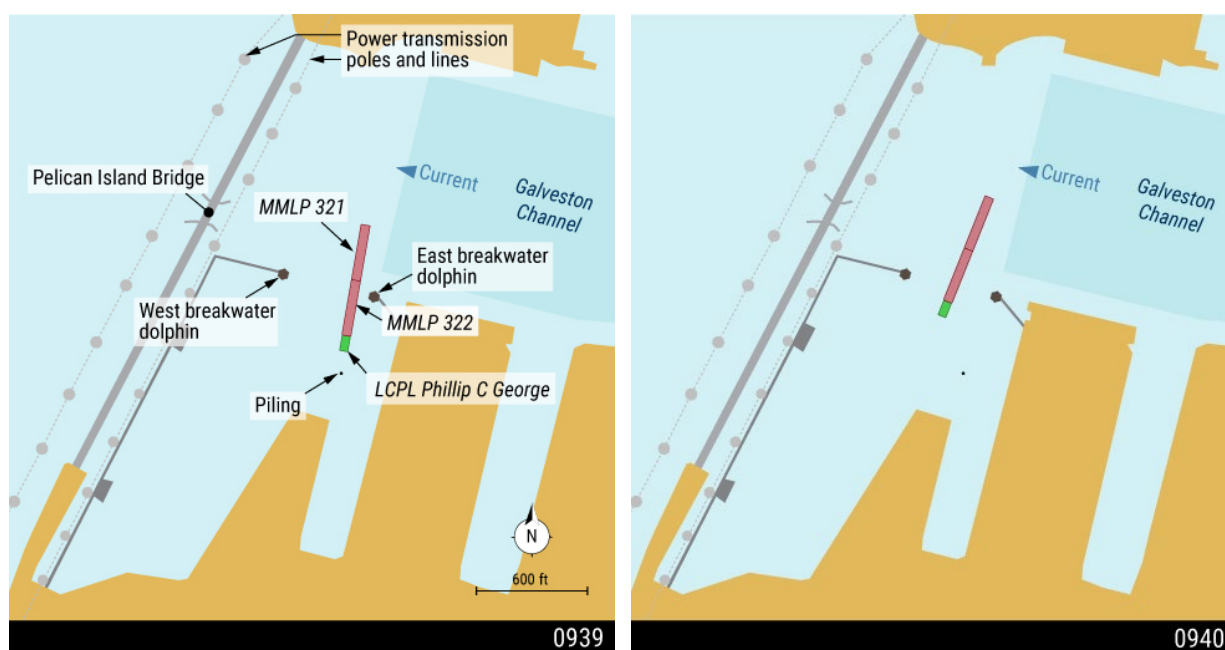


Figure 6. Left to right: AIS positions of the LCPL Phillip C George tow at 0939 and 0940. (Background source: NOAA ENC US5TXDB as viewed on Made Smart)

These efforts to turn to starboard were unsuccessful. The force of the current continued setting the tow to the west and, at 0941, at a speed of 2.7 mph, the port quarter of the *LCPL Phillip C George* contacted the west breakwater dolphin (see figure 7 and figure 8). On the *MMLP 321*, the deckhand was on his way to check the couplings between the barges and apply the safety lines when he felt the towboat contact the west dolphin.⁵ The port coupling and the center line broke, but the starboard coupling remained intact. The deckhand said he heard a rumble as the port coupling's wires and the center line parted.

⁵ Safety lines are lines that are put on top of wired barge couplings as a precaution to protect the integrity of the tow in case of bumping a bridge or going aground and the wire breaks. (C.F. Lehman, *A Riverman's Lexicon* [J.R. Simpson and Associates, 2009], 378.)

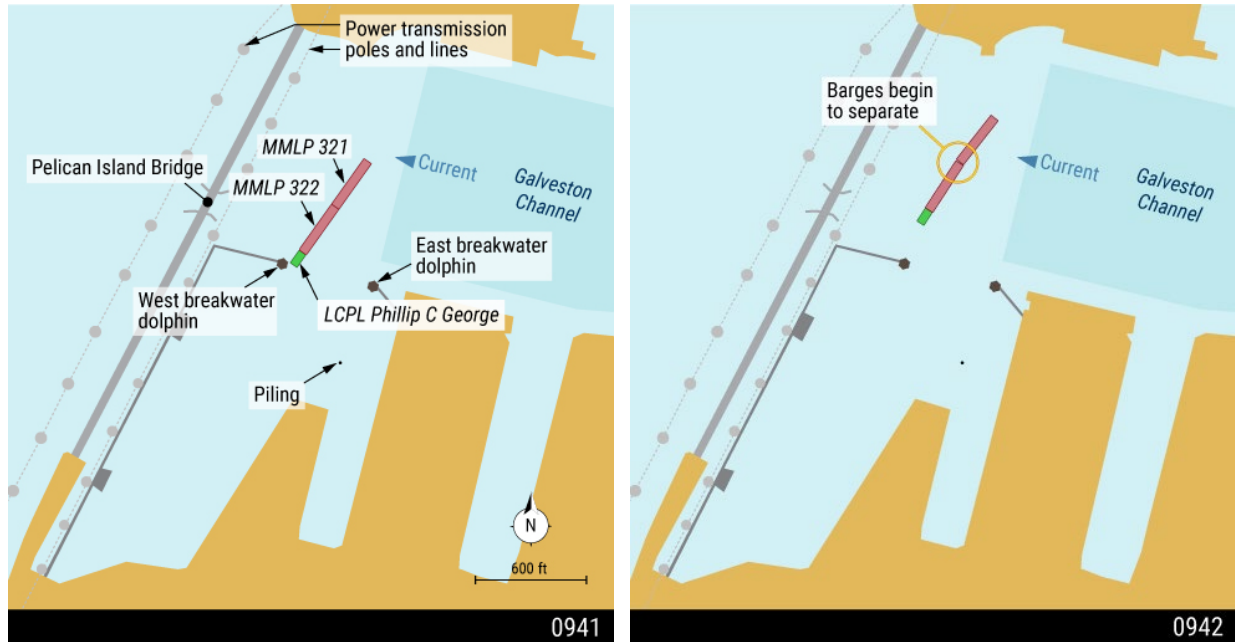


Figure 7. Left to right: AIS positions of the LCPL Phillip C George tow at 0941 and 0942. (Background source: NOAA ENC US5TXDB as viewed on Made Smart)



Figure 8. From top: The LCPL Phillip C George tow moving across the breakwater entrance from 0939 to the time of contact with the west breakwater dolphin at 0941, and the location of the portside coupling where the wires fractured (circled). (Background source: Texas A&M University at Galveston)

In the pilothouse, the captain saw that the barges were coming apart at the portside coupling and sounded the general alarm. Hoping to top around the *MMLP 321* and bring the barges side by side, she called the deckhand aboard the *MMLP 321* and asked him whether he could get a line to the *MMLP 322*. However, by the time the deckhand got to the stern of the *MMLP 321*, the gap between the barges was too wide for him to get a line to the *MMLP 322*. The captain came full ahead on both engines in an attempt to close the gap between the barges so the deckhand could attempt to get a line across to the *MMLP 322*.

The tow slowly turned to starboard as it advanced toward the Texas A&M University at Galveston dock on Pelican Island. About 0944, seeing that the tow could not be oriented in the direction of the Galveston Channel, the captain backed down on both engines to arrest the tow's headway toward the dock.

The LCPL Phillip C George remained faced up to the *MMLP 322* as it backed away nearly parallel to the Pelican Island Bridge. The *MMLP 321*, which was still attached to the tow by only one wire of the starboard coupling, was nearly perpendicular to the bridge and the power transmission lines and poles.

The deckhand on the *MMLP 321* was able to get a line over to the *MMLP 322*. As the *MMLP 321* continued drifting toward the power transmission poles, the deckhand moved to safety near the center of the *MMLP 321*. He was unable to tie off the line before leaving the stern.

The captain saw that the *MMLP 321* was drifting toward the Pelican Island Bridge and broadcasted a "Pan-Pan" message over the radio to warn that the barge was drifting toward the bridge.⁶ She also contacted VTS Houston-Galveston to report the situation.

At 0946, the aft port corner of the *MMLP 321* struck a power transmission pole adjacent to, and on the east side of, the Pelican Island Bridge (see figure 9). One end of the power transmission cable fell to the deck, about 60-70 feet from the deckhand, and the other end fell into the water. The deckhand noted that the cables were sparking.

⁶ *Pan-Pan* is a VHF radio transmission indicating that there is an urgent situation but no immediate danger to a person's life or to the vessel. The vessel or station transmitting the message begins by saying "Pan-pan, Pan-pan, Pan-pan" and follows with the urgent message.



Figure 9. The LCPL Phillip C George tow (after separation), when the MMLP 321 struck the power transmission pole at 0946:11. (Background source: Texas A&M University at Galveston)

The deckhand recalled that once the barge hit the power transmission pole, the last wire on the starboard-side coupling parted. The MMLP 321 continued to drift west, and, less than a minute later, the aft port corner of the barge contacted a pier and footing for both the abandoned railroad bridge and the Pelican Island Bridge.

A concrete section of the railroad bridge deck, including some of the track, fell onto the barge (see figure 10). The debris punctured the main deck, penetrating the no. 3 port cargo tank, which held VGO. VGO flowed onto the deck and into the water from the hole in the cargo tank. See section 1.3.1 for more information on the VGO release.



Figure 10. The MMLP 321 after contact with the Pelican Island Bridge. Inset shows the aft of the MMLP 321 with a deck and track section of the rail bridge lodged on it. (Background source: Coast Guard)

The *MMLP 321* came to rest where it had struck the bridge pier and its footing, with the barge's port bow grounded in the sand on Pelican Island. A boat from Texas A&M at Galveston proceeded to the bow of the *MMLP 321*. About 0951, the boat's crew recovered the deckhand, uninjured, and later returned him to the *LCPL Phillip C George*.

The pilot of the *LCPL Phillip C George*, who had relieved the captain at the helm, returned to the TXIT terminal and dropped the *MMLP 322* off before returning to the *MMLP 321* to aid in containment operations. After being relieved at the helm, the captain notified the Coast Guard and company personnel of the casualty.

1.3 Additional Information

The captain of the *LCPL Phillip C George* held a Coast Guard-issued credential as a master of towing vessels upon Western Rivers since 2003. The captain said she had been working on the Western Rivers for about 30 years and had been steering vessels since 1997.

The captain of the *LCPL Phillip C George* told investigators there were no problems with the vessel's propulsion and steering control, navigation, or communication systems at the time of the casualty. The wires used for the port coupling were less than 6 months old, with no previously observed damage.

1.3.1 Damage

The *LCPL Phillip C George*, which was protected by its rubber fendering, was not damaged when it contacted the west breakwater dolphin. The west breakwater dolphin remained undamaged as well. The *MMLP 322* was not damaged.

The barge *MMLP 321* sustained damage on the main deck aft on the port side. Damage included main-deck penetration of the no. 3 port tank top, and indentations and scrapes. Deck equipment, cargo piping, insulation, coamings, and framing inside the port stern void tank were also damaged. The barge damage totaled about \$257,913, and the cost of salvage operations was about \$621,383.

About 20,000 gallons of VGO were released from the no. 3 port cargo tank. The VGO drifted in a westerly direction past the bridge (see figure 11). Containment and cleanup operations recovered all but an estimated 129 gallons of VGO. The cost for the oil spill clean-up was about \$7.21 million. The cost of the lost cargo was about \$22,225.



Figure 11. View from the Pelican Island Bridge, looking west, about 1045 on the day of the casualty. Released VGO (black) drifts away from the casualty site in a westerly direction. (Source: Coast Guard)

CenterPoint Energy, the owner of the power transmission poles and line, did not respond to requests for repair cost totals.

The Texas Department of Transportation had originally estimated the cost of permanent repairs to the bridge was \$306,250. Galveston County Navigation District No. 1 did not provide final repair costs by the time of this report's publication.

1.3.2 Related Casualties

On July 13, 2023, about 0130 local time, the towing vessel *Duke*, in conditions of darkness, backed out of TXIT with two empty tank barges (breasted), with a current setting towards the Pelican Island Bridge at a velocity of about 0.9 mph. One of the barges in the tow contacted three power transmission poles near the bridge, and the towboat subsequently contacted the bridge, resulting in damage but no injuries or pollution. The National Transportation Safety Board (NTSB) determined that the probable cause of the contact of the *Duke* tow with the power transmission poles and the Pelican Island Bridge was the captain's focus on staying clear of a nearby moored

cargo vessel and not recognizing how close the tow was getting to the power poles and bridge.⁷

On January 16, 2025, about 1840 local time, the towing vessel *Albert* was departing TXIT with two loaded tank barges (breasted) during a flood tide with a current velocity of about 1 mph. As the tow backed into the channel, the *Tensaw*, which was assisting, contacted two power transmission poles near the Pelican Island Bridge. The center propeller of the *Albert* was fouled with a wire. There were no injuries or pollution. The power transmission poles, the power line, and the *Albert* were damaged. At the time of this report's publication, this NTSB investigation into *Tensaw's* contact with the power transmission poles remained open.⁸

As a result of these casualties, on February 25, 2025, VTS Houston-Galveston included restrictions in their VTS Policy for Restricted Mooring, Bunkering, and/or Lightering Locations for the TXIT docks. Tows can no longer be strung out for flood departures, an assist boat is required for all flood movements, and there are to be no transits on a flood greater than 0.5 knots (0.6 mph).

1.3.3 Currents Near the Galveston Channel

The captain estimated the tidal current was "running every bit about three [miles per hour]," and she said she was not expecting to be pushed down so far toward the bridge. She said that had she been aware that the current was running strong in that area, she would have waited for slack water or called for an assist boat to help the tow into the Galveston Channel. The captain was under no pressure to depart, and she noted that no one from the company would have questioned any captain's call for the use of an assist boat.

The nearest National Oceanic and Atmospheric Administration tidal current prediction station (Galveston Channel, West End, g09010) was located on the east breakwater dolphin. On May 15, at 0742, the station predicted slack water, with the peak of the flood being at 1209 at 0.9 knots (1.0 mph). The nearest harmonic station (Galveston Pier 21, 8771450), located about 1.7 miles east of the TXIT breakwater entrance, showed on May 15 that low water was at 0440 at 0.32 feet with high water predicted at 1335 at 1.4 feet (a tidal range of 1.1 feet).

⁷ See [Contact of Duke Tow with Power Transmission Poles and Pelican Island Bridge, Galveston Ship Channel, Galveston, Texas, July 13, 2023, MIR-25-25.](#)

⁸ See [Contact of Towing Vessel Tensaw with Power Utility Poles and Towing Vessel Albert with Texas International Terminals Break Wall, Galveston Harbor, Galveston, Texas, January 16, 2025.](#)

At 0935, when the LCPL Phillip C George departed, the predicted current speed for the Galveston Channel, West End station, was about 0.5 knots (0.6 mph). The measured current speed was 0.97 knots (1.12 mph). Table 1 provides the currents recorded from about the time of departure until the time of the casualty.

Table 1. Station recorded data for NOAA Current Prediction Station Galveston Channel, West End (g09010), from departure to accident.

Time	Speed (kts)	Speed (mph)	Direction (true)
0929	0.74	0.85	Westerly (271°)
0935	0.97	1.12	Westerly (271°)
0941	0.85	0.98	Westerly (270°)
0947	0.88	1.01	Westerly (272°)

1.3.4 Postaccident Study

The NTSB conducted a video study based on the footage from two CCTV cameras in order to estimate the speed of the MMLP 321 as it was approaching the bridge.⁹ One camera was located on the Texas A&M University at Galveston campus on Pelican Island (looking in the direction of TXIT), and the other was located at the bridge tender control station (looking in the direction of Pelican Island).

The video study, which used the MMLP 321's speed as an estimate of the velocity of the current at the casualty time and location, estimated that the barge drifted into the power transmission pole and bridge at 1.8 mph (± 0.1 mph). The video study noted possible differences between the estimated speed at the sites of the casualty and the recorded speed at the east breakwater dolphin, and, as a result, the estimated water velocity should be considered the lower limit of the actual water velocity in the area of the casualty.

⁹ See the National Transportation Safety Board Office of Research and Engineering's Video Study in the public docket for this casualty investigation (case no. DCA24FM040).

2 Analysis

On May 15, 2024, the towing vessel *LCPL Phillip C George* was pushing two loaded tank barges out of TXIT when the vessel struck a breakwater dolphin, and the port coupling and center line between the two barges broke. Afterward, the *MMLP 321* (the lead barge) contacted a power transmission pole, and the remaining coupling broke. The *MMLP 321* drifted west and contacted a portion of the Pelican Island Bridge and the abandoned railroad bridge next to it.

The captain of the *LCPL Phillip C George* told investigators there were no problems with the vessel's propulsion and steering control, navigation, or communication systems. The port coupling's wires were less than 6 months old, with no known defects.

The recorded tidal current at the time of departure was about two times faster than the predicted current the captain had referenced for her pre-voyage navigation assessment. Based on the predicted current, the captain was comfortable keeping the barges strung out (instead of breasted) and not using an assist tug. After positioning the tow to maneuver through the dolphins, the captain would need to turn the tow to starboard to enter the channel. However, due to the tow's strung-out configuration, the captain had to clear a nearby piling to port of the tow before she could initiate this turn.

As the head of the tow began leaving the protection of the breakwaters, the current immediately began setting the head of the tow to the west. The set of the tow increased to the west as more of the tow exited the protection of the terminal basin, but the captain was still unable to earlier initiate the starboard turn until clear of the nearby piling. Once clear, the captain attempted, but was unable, to steer the tow to starboard due to the force of the current against the tow, resulting in the port quarter of the *LCPL Phillip C George* contacting the west breakwater dolphin.

With the exception of a single wire in the starboard coupling, all wires and lines between the barges broke when the towboat struck the dolphin. The single wire was all that was left connecting the lead barge, the *MMLP 321*, to the rest of the tow as the force of the current continued setting the tow westward, toward other nearby infrastructure. This made the captain's continuing attempts to reorient the broken tow in a strong flood more difficult and, ultimately, unsuccessful.

About 5 minutes after the *LCPL Phillip C George* contacted the west breakwater dolphin, the aft port corner of the lead barge, the *MMLP 321*, struck a power transmission pole. The remaining coupling wire between the barges broke, setting the lead barge adrift. The *MMLP 321* contacted a pier and footing for the Pelican Island Bridge and the abandoned railroad bridge next to it soon after.

At the time of the casualty, there were no restrictions on vessels departing TXIT during any tidal condition. Three major marine casualties involving tows operating out of TXIT (including the *LCPL Phillip C George* tow casualty) occurred within 18 months (see section 1.3.2). Although the circumstances of each casualty were different, all took place during flood tides. On February 25, 2025, VTS Houston-Galveston included restrictions in their VTS Policy for Restricted Mooring, Bunkering, and/or Lightering Locations for the TXIT docks. As applied to the *LCPL Phillip C George* casualty, for flood departures, tows can no longer be strung out, an assist boat is required for all flood movements, and there are to be no transits on a flood greater than 0.5 knots (0.6 mph).

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the contact of the *LCPL Phillip C George* tow with a terminal dolphin, a power transmission pole, and the Pelican Island Bridge was the captain not being able to overcome the effect of the tidal current, which was stronger than predicted, as the strung-out tow exited the protection of the terminal breakwater and entered the channel.

Vessel Particulars

Vessel	<i>LCPL Phillip C George</i>	<i>MMLP 321</i>
NTSB vessel group	Towing/Barge (Towing vessel)	Towing/Barge (Tank barge)
Owner/operator	Martin Operating Partnership, LP (Commercial)	Martin Operating Partnership, LP (Commercial)
Flag	United States	United States
Port of registry	Rosedale, Mississippi	Beaumont, Texas
Year built	2011	2010
Official number	1234437	1223881
IMO number	N/A	N/A
Classification society	Sabine Surveyors (third-party organization)	N/A
Length (overall)	81.8 ft (24.9 m)	297.5 ft (90.7 m)
Breadth (max.)	42.0 ft (12.8 m)	54.0 ft (16.5 m)
Draft (casualty)	9.0 ft (2.7 m)	10.0 ft (3.0 m)
Tonnage	267 GRT	1,619 GRT
Engine power; manufacturer	2 × 1,645 hp (1,227 kW); Mitsubishi S12R-T2MPTK2 engines	N/A

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

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable cause of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for any accident or event investigated by the agency. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident 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 investigating accidents and incidents 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)).

For more detailed background information on this report, visit the [NTSB Case Analysis and Reporting Online \(CAROL\) website](#) and search for NTSB accident ID DCA24FM040. 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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