September 26, 2025 MIR-25-35

Contact of Tanker *Cosflourish Lake* with South Texas Gateway Terminal Dock

On November 14, 2023, about 1415 local time, the tanker *Cosflourish Lake* struck protective pilings and two breasting dolphins while docking at the east dock of South Texas Gateway Terminal (STGT) in Ingleside, Texas (see figure 1 and figure 2).[1] There were no injuries, and no pollution was reported. Damage to the terminal was estimated at $18 million.[2]

Figure 1. The *Cosflourish Lake* at anchor on November 15, after the contact. (Source: US Coast Guard)

[1] In this report, all times are central standard time, and all miles are nautical miles (1.15 statute miles).

[2] Visit ntsb.gov to find additional information in the public docket for this NTSB investigation (case no. DCA24FM011). Use the CAROL Query to search investigations.

Casualty Summary

NTSB casualty category	Contact
Location	Corpus Christi Bay, Ingleside, Texas 27°49.4' N, 97°11.6' W
Date	November 14, 2023
Time	1415 central standard time (coordinated universal time –6 hrs)
Persons on board	34 (31 crew and 3 pilots)
Injuries	None
Property damage	$18 million est.
Environmental damage	None
Weather	Visibility 10 mi, few clouds, winds northerly at 10 kts with gusts to 14 kts, seas 1 ft, air temperature 72°F, sunset 1737
Waterway information	Dock/basin; depth 55 ft, current ebb at 0.1 kts

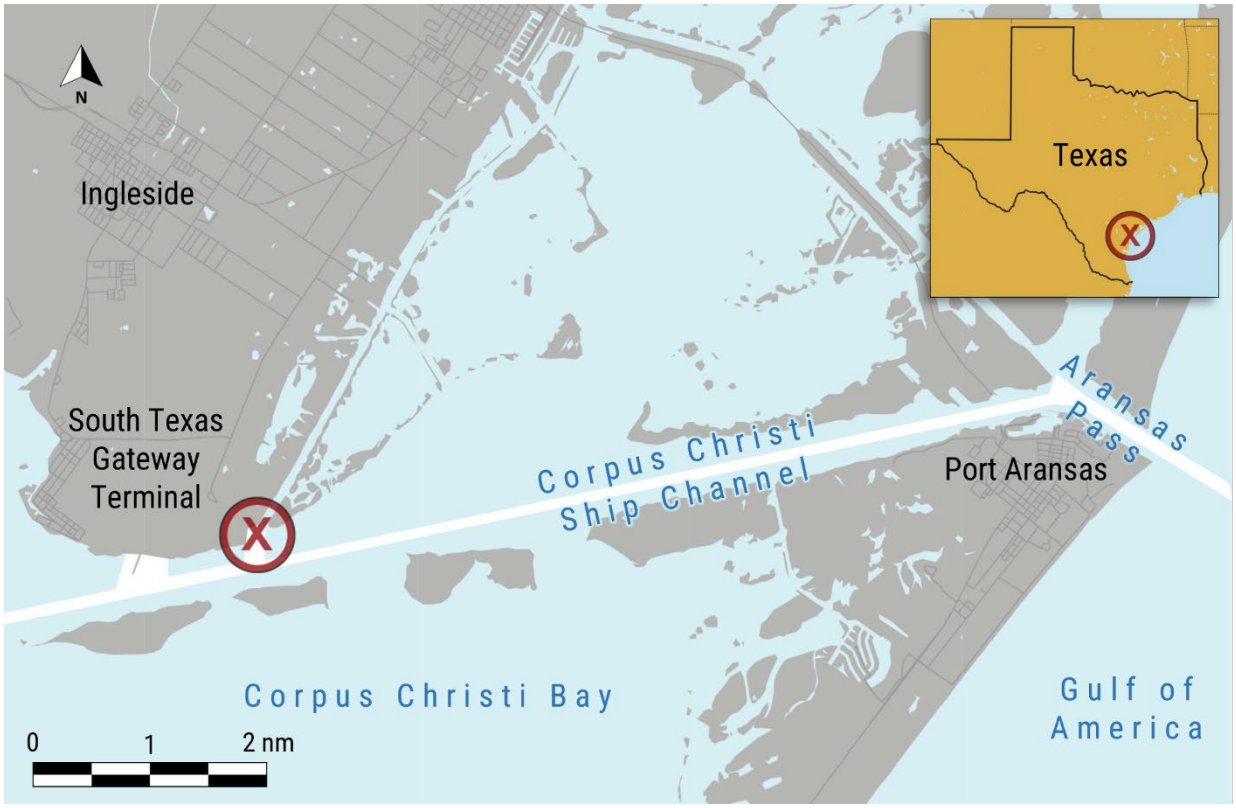

Figure 2. Area where the *Cosflourish Lake* contacted the South Texas Gateway Terminal east dock protective pilings and mooring dolphin, as indicated by a red *X*. (Background source: Google Maps)

1 Factual Information

1.1 Background

Owned by Cosflourish Lake Maritime of China and operated by Cosco Shipping Energy Transportation Company, the *Cosflourish Lake*, built in 2017, was a 1,092-foot-long, Hong Kong-flagged, steel double-hulled, very large crude carrier (VLCC). The tanker was outfitted with a single rudder and a fixed-pitch, right-hand turning propeller directly driven by a 34,866-hp, slow-speed diesel main engine.

Owned by Gibson Energy, the South Texas Gateway Terminal (STGT), located in Ingleside, Texas, was a crude oil export facility with a 47-foot-deep basin (see figure 3). The terminal had two docks, one on the east side and the other on the west side of the basin, each capable of accommodating ships of up to 46 feet in draft. Mooring dolphins, connected by catwalks, extended beyond each end of the east dock platform. Three pilings with large rubber tires protected the mooring dolphin closest to the channel. Overall, the length of the east dock, inclusive of the mooring dolphins, was 1,200 feet.

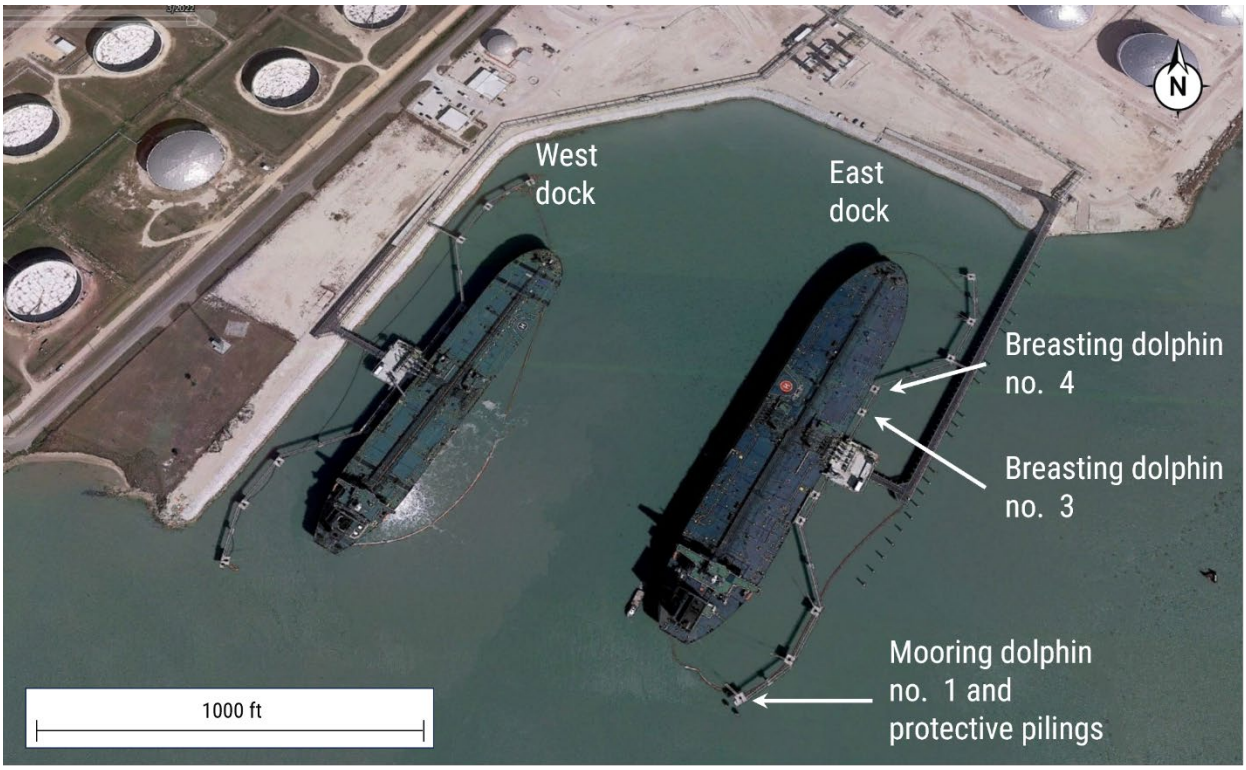

Figure 3. Overhead view of the STGT with two tankers (not involved in the casualty) moored at the east and west docks in 2022. The east dock protective pilings and breasting dolphins that were damaged are indicated. (Background source: Google Earth)

1.2 Event Sequence

On November 14, 2023, at 1018 local time, the *Cosflourish Lake* got underway from an offshore anchorage in a ballast condition, inbound to the STGT east dock (an 11-mile transit). At 1254, three Aransas-Corpus Christi pilots boarded the vessel at the nearby pilot station, and shortly after, during the master/pilot exchange, Pilot 1 confirmed with the master that there were no deficiencies with the *Cosflourish Lake*. (Pilot 3 told investigators that three pilots were required for a VLCC.)

About 1301, Pilot 1 took the conn. Pilot 1 briefed the master that the plan was to dock the tanker starboard-side-to using five tractor tugs: four 6,772-hp, tractor tugs would have a line to the tanker, and one 5,150 hp-tractor tug would be standing by to assist where needed (see figure 4). The pilots assigned numbers to the tugs from bow to stern, with the no. 1 tug (*Ted C Litton*) being the first tug at the bow, the no. 2 tug (*Connolly M*) on the port shoulder, the no. 3 tug (*Cooper K*) on the port quarter, the no. 4 tug (*Mercury*) at the stern, and the no. 5 tug (*Zeus*) as the standby tug. About 1308, the no. 4 tug was secured with a line on the stern through the center chock.

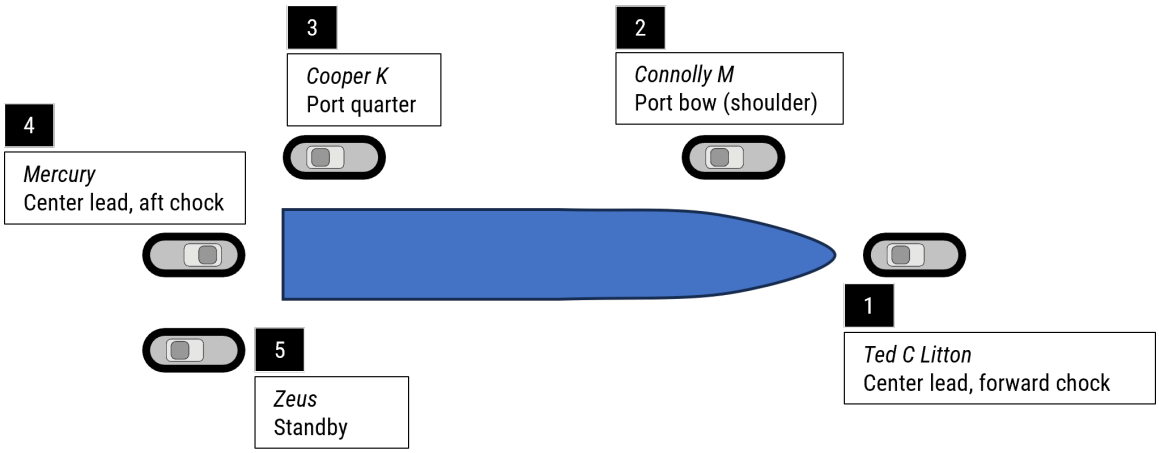

Figure 4. Planned tug positions for the docking. Tug positions and orientations are approximate (not to scale).

At 1327, after a 5-mile transit, Pilot 2 relieved Pilot 1 of the conn. Then, at 1353, after a 4.4-mile transit, Pilot 3 relieved Pilot 2, when the vessel was about 1.6 miles away from the dock to conduct the docking maneuver. The *Cosflourish Lake*'s voyage data recorder (VDR) captured audio from the bridge throughout the maneuver, including the following turnover discussion:

> PILOT 3: Ok captain, I've gotta relieve, I'll be doing your docking for you.
> MASTER: What?

PILOT 3: I'm gonna f––k the s––t out of this ship. I'm gonna go in there and I'm gonna be doing the god d––n docking, ok. You got it?
MASTER: Yeah.
PILOT 3: We're changing, ok. Don't f––k up, ok.
PILOT 1: [*To unknown person*] I told ya, you gotta watch him.
PILOT 3: [*To the other pilots*] Sometimes you gotta shock talk em.

Pilot 1 then left the bridge for the bow, and, at 1354, Pilot 2 requested tug no. 1 be made fast at the center lead forward. Tug nos. 2, 3, and 4 were all successfully made fast in their agreed upon positions. At 1404, Pilot 3 ordered the engine full astern to slow the ship in the channel so that tug no. 1 could be made fast.

About 1406, tug no. 1 was secured with a line to the bow. The *Cosflourish Lake* had a heading of 259° and a speed of 6.1 knots, which continued to decrease as the bow of the tanker moved to starboard and into the STGT basin.

At 1407, with tug no. 1 pulling to starboard at the bow as ordered, the *Cosflourish Lake* had a heading of 279° at a speed of 1.7 knots. Pilot 3 ordered tug no. 2 to push at full power on the port side. At 1408, at a slow ahead propulsion order, the vessel had a heading of 298°, and Pilot 3 ordered tug no. 1 to slack its line, and tug no. 2 to full power away to port. At 1409, the vessel continued to turn to starboard, and the pilot ordered the rudder hard to starboard while issuing multiple orders to the tugs. At 1410, on a heading of 336° at a speed of 0.6 knots, the pilot ordered tug no. 1 to port 90°. Seconds later, Pilot 3 ordered tug no. 1 to "back full."

At 1411, as the pilot continued to issue tug, engine, and rudder orders, the starboard side of the *Cosflourish Lake* struck two of three rubber tire-covered pilings at the end of the east dock. The vessel had a speed of 2.2 knots on a heading of about 354°.

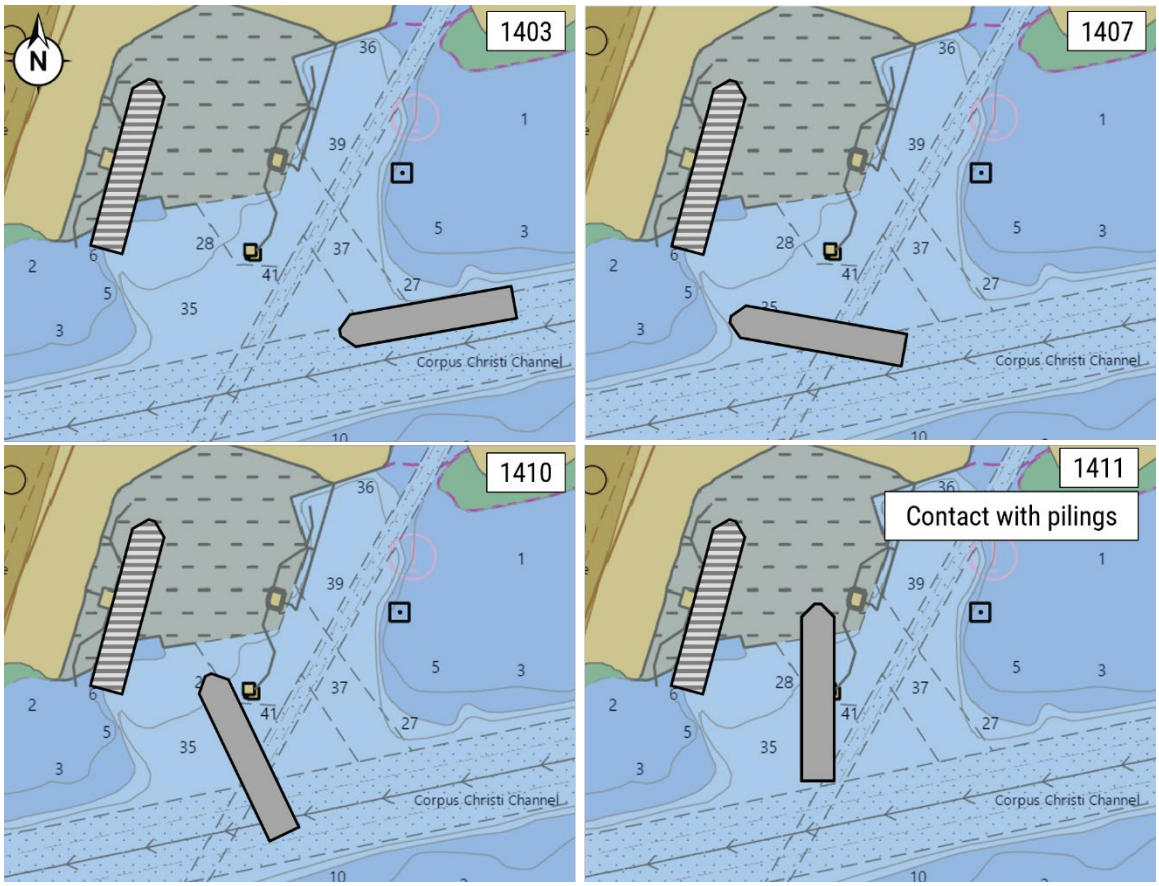

Figure 5. The *Cosflourish Lake*'s positions, relative to the east dock and the vessel at the west dock, leading up to the initial contact with the east dock's pilings. (Source: Electronic Chart Display and Information System from *Cosflourish Lake*. Background source: National Oceanic and Atmospheric Administration, Electronic Navigation Chart US5CRPBF as viewed on Made Smart automatic identification system)

Pilot 3 continued to issue orders to the tugs as he proceeded with the docking. At 1412, he ordered slow astern on the tanker's main engine with the rudder at hard to starboard, "slack line" for tug no. 1, and "full towards" for tug no. 2 (push at full power on the port side, toward the east dock). Two minutes later, he ordered the rudder hard to port and tug no. 1 to push "slow towards" (pushing on the port bow, toward the dock, at a slow rpm).

Figure 6. *Left to right*: Image recording system screenshot at 1415, the time of contact with the east dock breasting dolphins, from the port and starboard side of the *Cosflourish Lake*, looking forward. (Source: Cosflourish Lake Maritime Ltd)

At 1415, Pilot 3 ordered tug no. 1 to "half away" (pull the bow to port at half power away from the east dock) and, seconds later, tug nos. 1 and 2 to "full away up there" (pull the bow to port at full power, away from the east dock). Just after 1415, at a speed of 0.6 knots, the pilot ordered the rudder to midship, and the engine stopped. He again requested tug no. 2 to full away. The officer of the watch announced that the engine was stopped, and the pilot ordered tug no. 1 to "full away," to which tug no. 1 replied, "no. 1 full away." The pilot then again requested stop engine. At 1415:40, the starboard forward side of the *Cosflourish Lake* struck breasting dolphins nos. 3 and 4 of the east dock.

After the contact, the pilot used the tugs to hold the ship off the dock until dock personnel could complete a damage assessment; then they would continue with the docking. About 1540, a dock employee told the pilots that it was unsafe for them to dock due to the damage. Pilot 1 took the conn and maneuvered the vessel out of the basin and transited back out to the sea buoy, without further event.

At 1715, offshore, the master took the conn of the ship from the pilot, and the pilots disembarked the ship. At 1836, the vessel anchored at the offshore anchorage.

1.3 Additional Information

None of the pilots aboard the *Cosflourish Lake* reported observing any problems with the ship's navigation, communication, steering and propulsion control systems. Further, none of the pilots or assist tug operators reported any radio communication, propulsion, or steering control system issues with any of the tugs.

Investigators reviewed the engine order telegraph (EOT) log and the VDR of the *Cosflourish Lake*. All propulsion and rudder orders issued by the pilots were appropriately complied with by the officer of the watch and helmsman.

1.3.1 Damage

There was no structural damage to the *Cosflourish Lake*. A postcasualty survey by the ship's classification society determined that there were no hull plate deformations and only minor scratches on the hull.

The contact displaced two breasting dolphins, damaged the two connecting catwalks, and damaged two of three pilings for the mooring dolphin located at the south side of the dock closest to the ship channel. The contact shifted one of the breasting dolphins east by 3.5 feet; the other breasting dolphin had a slight lean to the east by about 3–4 inches. The middle pile had scarring below the waterline and was pushed over about 2–3 feet, and the westernmost pile was pushed over about 4–5 feet. The easternmost protective pile was not damaged.

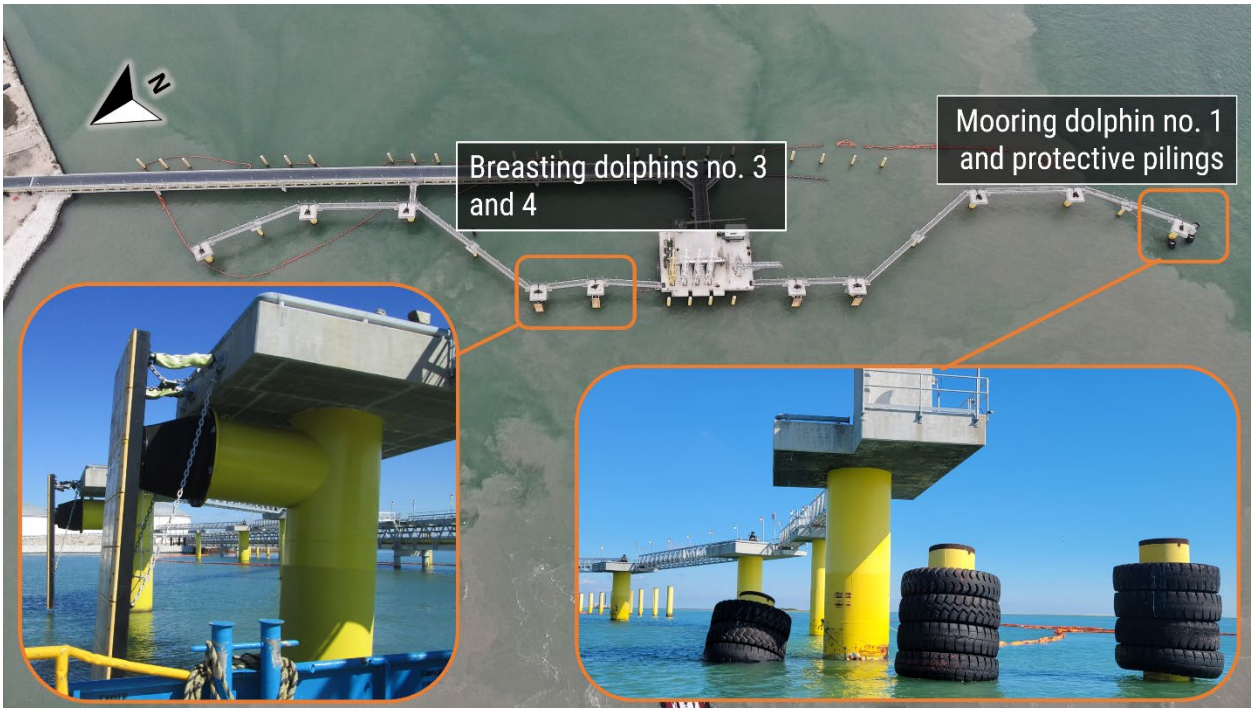

Figure 7. Drone photo of the STGT east dock postcasualty, with the left inset showing damaged breasting dolphin no. 3, and the right inset showing the displaced westernmost and middle protective pilings. (Background source: Gibson Energy. Left inset: Coast Guard. Right inset: Gibson Energy)

1.3.2 Personnel

Pilot 3 had worked as a pilot for 34 years and was the most senior pilot at the Aransas-Corpus Christi pilots. He obtained his state-issued pilot certificate in 1986. He estimated he had docked tankers at the STGT docks about 7 or 8 times since the docks had been placed in service in 2020. The port captain for G&H Towing, the operating company for the tugs, noted that Pilot 3 had "at times" been "adversarial" with tug operators and "belligerent" with the company dispatcher.

The master of the *Cosflourish Lake* held an unlimited tonnage certificate as a Master Mariner issued by the People's Republic of China. Neither he, nor any other member of the bridge team, was interviewed by Coast Guard investigators (due to a lack of official translators).

Following the casualty, the Aransas-Corpus Christi pilots, and the master, second officer, helmsman, and two other crew members aboard the *Cosflourish Lake* submitted to alcohol and other drug testing in accordance with Coast Guard regulations, and the results were negative.

2 Analysis

On November 14, 2023, the tanker *Cosflourish Lake* was docking with tugs when it contacted the STGT east dock's protective pilings and breasting dolphins.

There were no reported deficiencies with the ship's navigation, communication, propulsion, and steering control systems at the time of the casualty. The casualty occurred during daylight conditions, with good visibility, a moderate breeze, and low currents for the docking. None of the five assist tug operators reported any deficiencies with their communication, propulsion, or steering control systems; further, investigators reviewed all VDR recordings and found no evidence that the bridge team missed or were delayed in responding to any helm or propulsion orders.

Pilot 3 used five tugs and engine and rudder orders to turn the *Cosflourish Lake* to starboard to align the vessel with the STGT east dock. He ordered the two tugs at the vessel's bow to push the bow to starboard, toward the dock (tug no. 1 was pushing from the port bow slow toward and tug no. 2 was pushing at full power toward from the port shoulder) until about a minute before the contact with the breasting dolphins, when he ordered both tugs to pull the bow to port (away from the dock) at full power. However, Pilot 3's order came too late to arrest the bow's momentum to starboard, resulting in the contact.

Good bridge resource management principles call for clear, concise, and timely exchange of information in a professional manner, using standard maritime phraseology. Effective communication is vital in high-stress situations such as during a docking maneuver. However, starting at the handover from Pilot 2 and throughout the docking maneuver, Pilot 3 cursed at the master, used slang in his orders, and repeated orders that the vessel's crew had already confirmed had been carried out. Pilot 3's conduct was unprofessional and contrary to good bridge resource management principles.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the contact of the tanker *Cosflourish Lake* with the South Texas Gateway Terminal dock was the pilot at the conn not effectively using the tugs at the vessel's bow while docking.

Vessel Particulars

Vessel	*Cosflourish Lake*
NTSB Vessel Group	Cargo, Liquid Bulk (Tanker)
Owner/Operator	Cosflourish Lake Maritime Ltd/COSCO Shipping Energy Transportation Company, LTD
Flag	Hong Kong
Port of registry	Hong Kong
Year built	2017
Official number	HK 4912
IMO number	9783356
Classification society	China Classification Society (CCS)
Length (overall)	1,092.5 ft (333.0 m)
Breadth (max.)	196.9 ft (60.0 m)
Draft (casualty)	23.0 ft (7.0 m) fwd, 36.1 ft (11.0 m) aft
Tonnage	162,542 GT ITC
Engine power; manufacturer	1 × 34,866 hp (25,999 kW); MAN B&W 7S80ME-C9.2 diesel engine

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