November 14, 2023 MIR-23-24

# Sinking of Commercial Fishing Vessel Carol Jean

On March 21, 2023, while anchored with no one on board, the commercial fishing vessel *Carol Jean* flooded and sank in the Atlantic Ocean near Tybee Island, Georgia.<sup>1</sup> After the vessel's emergency position indicating radio beacon activated at 1903, the US Coast Guard responded and found a debris field where the beacon's signal originated. There was no pollution reported. The loss of the *Carol Jean* was estimated at \$250,000.



Figure 1. Commercial fishing vessel Carol Jean precasualty. (Source: US Coast Guard)

<sup>&</sup>lt;sup>1</sup> (a) In this report, all times are eastern daylight time, and all miles are statute miles. (b) Visit <u>ntsb.gov</u> to find additional information in the <u>public docket</u> for this NTSB investigation (case no. DCA23FM021). Use the <u>CAROL Query</u> to search investigations.

Casualty type Flooding/Hull Failure

**Location** Atlantic Ocean, about 13 miles east of Tybee Island, Georgia

31°56.6′ N, 080°37.9′ W

**Date** March 21, 2023

Time 1903 eastern daylight time (EPIRB signal)

(coordinated universal time -4 hrs)

Persons on board None

**Injuries** None

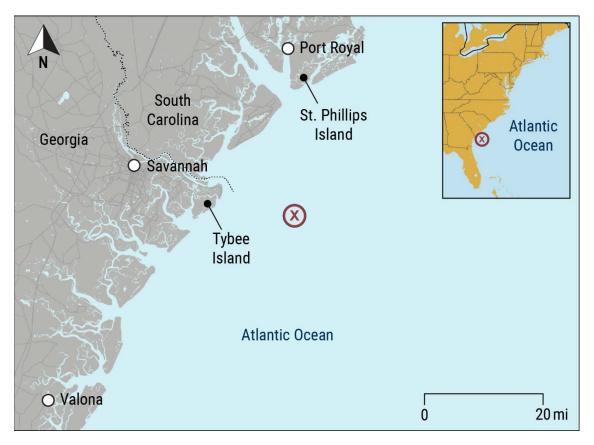
Property damage \$250,000 est.

Environmental damage None

Weather Cloudy, visibility 2 mi, winds northeast at 15-20 kts, air temperature

61°F, water temperature 62°F

Waterway information Ocean, about 120 ft deep (at location of EPIRB signal)



**Figure 2.** Area where the *Carol Jean* sank as indicated by a red *X*. (Background source: Google Maps)

# 1 Factual Information

# 1.1 Background

The 71.9-foot-long, wooden-hulled commercial fishing vessel *Carol Jean* was built in 1981. The vessel's captain had owned and operated the vessel for over 5 years and used it "every once in a while" to catch shrimp. The vessel was powered by a 600-hp diesel engine driving a single propeller. It was normally docked in Valona, Georgia.

The deckhouse included a wheelhouse, crew's quarters, and access to the engine room via an internal door. Deck gear included a boom, outriggers, winch, and nets for shrimping. Below-deck compartments from forward to aft included a forepeak, an engine room, a hold to store shrimp, a second crew cabin, and a lazarette.

# 1.2 Event Sequence

On March 14, 2023, the captain of the *Carol Jean* sailed the vessel from Valona to Port Royal, South Carolina, to purchase the 66.4-foot-long commercial fishing vessel *Having Faith*, which had not been operated for many years and did not have an engine installed. After purchasing the *Having Faith* on March 15, the captain intended to tow the vessel back to Valona to remove any valuable or useful parts or materials.

On the morning of March 16, the captain of the *Carol Jean* began preparations to tow the *Having Faith* from Port Royal to Valona, with the assistance of a friend. The captain found a 100- to 150-foot-long rope in a forward



**Figure 3.** Commercial fishing vessel *Having Faith* precasualty. (Source: Drew Martin, *Island Packet*)

compartment on the *Having Faith* that he used as the tow line. The rope had been stored on the *Having Faith* for an unknown period of time. The captain stated that he believed it was an anchor line, and since it was "big," he and his friend thought it would suffice (he did not know what material comprised the rope or the rope's diameter). The captain and his friend connected the tow line to the aft boom on the *Carol Jean* and then passed the other end through the *Having Faith*'s anchor chute (chain pipe), into an open hatch, and tied it around two fuel tanks located within the forward compartment.

The captain anticipated that the voyage to Valona would take about 6 hours, and his review of the weather forecast indicated partly cloudy skies, light winds, and no swells for that period. The *Carol Jean* departed the dock about 1130 with the *Having Faith* in tow.

About 1800, when the vessel was about 11.5 miles east of Tybee Island, Georgia, the tow line to the *Having Faith* parted. The captain told investigators that he thought the line had chafed at the anchor chute, causing it to become weakened and part after being in use for 5.5 hours. As the captain and his friend were attempting to reestablish the tow, the tow line became entangled in the *Carol Jean*'s propeller, preventing the propeller from turning. Once the captain realized that they were unable to operate the vessel, they let go the *Carol Jean*'s anchor in about 17 feet of water (investigators were unable to determine how much anchor line was payed out) and were able to secure the *Having Faith* to the side of the *Carol Jean*.

After anchoring, the captain called his daughter by cell phone to inform her of the situation. The captain also tried to arrange for a commercial diver to come out to remove the tow line from the propeller, but there were no divers available at the time.

At 2127, the captain's daughter contacted the command center at Coast Guard Sector Charleston to express her concern about her father and the crewmember on board the *Carol Jean*. Sector Charleston directed Coast Guard Station Tybee to launch a small boat to investigate. The boat arrived on scene at 2245 and found the *Carol Jean* at anchor with the *Having Faith* alongside it. Both the *Carol Jean* captain and his friend decided to stay with the vessel, and the Sector Charleston command center arranged a communication schedule with the crewmembers to monitor their status. The Coast Guard small boat returned to Station Tybee at 2309.



**Figure 4.** The *Carol Jean* at anchor with the *Having Faith* secured by tow line about 2245 on March 16. (Source: Coast Guard)

Weather forecasts for the evening of March 16 indicated winds 5 to 10 knots, with seas from 1 to 2 feet. The captain stated that, although he attempted to keep the *Having Faith* secured to the *Carol Jean*, he could not, and it "ended up floating away." Throughout the night and into the early morning hours of March 17, the *Carol Jean* dragged anchor; according to the vessel's automatic identification system (AIS) data, at 0713, the *Carol Jean* was about 7.5 miles northwest of where it had originally anchored.

Throughout the day on March 17, the *Carol Jean* captain and the Coast Guard continued to try to arrange for a diver to come out to remove the tow line from the *Carol Jean*'s propeller, and still none were available.

Weather forecasts that day indicated the possibility of storms, and the weather started to deteriorate in the early evening. At 1632, there were winds from the south at 13 knots, with gusts up to 25 knots and seas from 6 to 7 feet. The captain called the Coast Guard via cell phone to request to be evacuated from the *Carol Jean*.

The Coast Guard launched a helicopter from Savannah, Georgia, which arrived on scene about 1733 to rescue the *Carol Jean* captain and his friend. The *Carol Jean* captain and his friend donned lifejackets and, to avoid the helicopter's rescue basket tangling in the vessel's gear, they jumped into the water and swam away from the vessel. The Coast Guard helicopter crew picked up both the captain and his friend, and the captain informed the Coast Guard that the *Having Faith* had broken free at some point

on March 17. At 1818, the Coast Guard transported the captain and his friend to a local hospital, where they were evaluated and released.



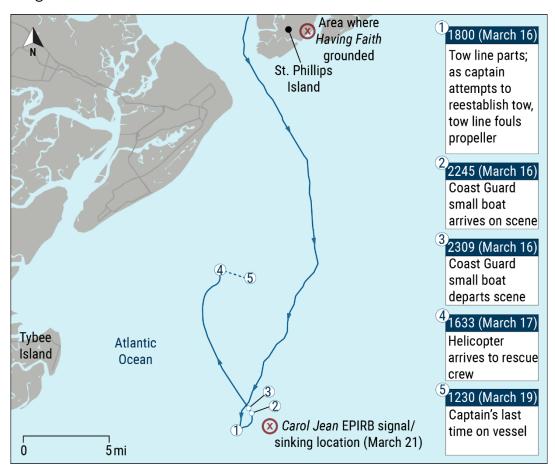
**Figure 5.** Aerial view of the *Carol Jean* from the responding Coast Guard helicopter on March 17 before the captain and his friend were rescued. (Source: Coast Guard)

On March 18, at 1418, while patrolling the area to ensure the *Carol Jean* did not pose a risk to navigation, a Coast Guard helicopter located the *Carol Jean*, still at anchor about 0.6 miles from where the Coast Guard had evacuated the captain and his friend (and about 8.5 miles from where the vessel had originally anchored). The same day, a Coast Guard helicopter located the *Having Faith*, which was aground on a jetty at St. Phillips Island, Georgia. The *Having Faith* broke apart on the shoreline the next day.

On March 19, the captain found and contracted a diver, and he returned with the diver on the diver's vessel to the anchored *Carol Jean* around 1030. The diver successfully removed the tow line, but the captain discovered that the engine could not be engaged to the propeller. The captain determined that the engine clutch had been damaged when the propeller was entangled with the tow line. The captain and the diver removed the clutch, and, about 1230, they departed the vessel with the removed clutch to take it to a local repair shop.

On March 21, at 1903, the Coast Guard Sector Charlestown command center received a signal from the emergency position indicating radio beacon (EPIRB)

registered to the *Carol Jean*. At the time, winds were 15 to 20 knots with 3- to 4-foot seas. The Coast Guard launched a helicopter from Savannah to investigate. Once the helicopter arrived at the location of the EPIRB's last signal, about 9 miles from the *Carol Jean*'s last known position (when the captain departed on March 19), Coast Guard personnel discovered a debris field. Based on the discovery of the debris field, the Coast Guard determined that the *Carol Jean* had sunk. The captain stated that, before the casualty, the *Carol Jean* did not have any problems with flooding in any of the vessel's compartments, and when he was last on board on March 19, there were no indications of flooding.



**Figure 6.** Timeline showing events leading to the sinking of the *Carol Jean*. (Background source: Google Maps; trackline data: *Carol Jean* AIS)

#### 1.3 Additional Information

#### 1.3.1 Vessel Information

The *Carol Jean* had a valid Certificate of Documentation. The captain told investigators that, during the 5 years he owned the vessel, he had invested about \$150,000 into improving it.

The Coast Guard last conducted a dockside safety examination of the *Carol Jean* in February 2023. Under the Coast Guard Authorization Act of 2010, commercial fishing vessel dockside safety examinations are required once every 5 years for fishing vessels that operate 3 nautical miles beyond the baseline, like the *Carol Jean*. These examinations help ensure that all the required safety equipment and systems on board are in serviceable condition; examinations do not include the hull, electrical systems, or machinery as required for Coast Guard-inspected vessels. The Coast Guard issued ten deficiencies for the *Carol Jean* relating to the vessel's high-water (bilge) alarms, AIS, navigation lights, and VHF radio, among other items. The captain told investigators that he had corrected the majority before the casualty and he had planned to correct the remaining deficiencies (obtaining a Federal Communications Commission license, installing guards on the generator's exposed belts, and repainting the homeport name) after towing the *Having Faith* back to Valona.

#### 1.3.2 Crew

The *Carol Jean* captain had primarily worked in law enforcement but told investigators that he had sailed on fishing vessels for most of his life. He also stated that he had previously owned two other fishing vessels.

According to the captain, his friend also had previous experience working on fishing vessels. Neither the captain nor the crewmember held a Coast Guard-issued credential (nor were they required to do so).

# 2 Analysis

The owner/captain of the *Carol Jean* purchased the commercial fishing vessel *Having Faith* and planned to use the *Carol Jean* to tow the *Having Faith* to Valona, Georgia. When arranging the tow, the captain chose to use a rope that had been stored on board the *Having Faith* as a tow line. The captain did not know the particulars of the rope, including how long it had been stored, what it was made of, or its diameter. Without knowing this information, the captain could not have known whether the towing arrangement was sufficient for the tow. Additionally, the captain did not use chafing gear to protect the tow line during the casualty voyage, likely causing the line to chafe against a structure, such as the edge of the hatch entrance through which the tow line passed, causing it to fray and eventually part. Had the captain adequately planned the tow—by ensuring the tow line was in good condition and of adequate strength to tow the *Having Faith* and using chafing gear—the risk of a tow line failure would have been reduced.

As the captain and crewmember attempted to reestablish the tow on March 16, the tow line fouled the propeller of the *Carol Jean*, preventing the vessel from moving. The following day the weather deteriorated, and the Coast Guard evacuated the *Carol Jean* crew. The vessel remained anchored off the coast of Georgia with no one remaining on board to monitor its status. The captain returned to the vessel on March 19 with a diver to untangle the tow line from the vessel's propeller; he stated that the vessel was in good condition at the time, with no flooding noted before he departed again. The vessel remained unattended offshore until March 21, when the vessel's EPIRB activated. Because the Coast Guard found a debris field at the location of the EPIRB's signal, the vessel likely sank at some point between the captain's departure from the vessel on March 19 and the activation of the vessel's EPIRB on March 21. Although the *Carol Jean* presumably flooded, because the vessel was not recovered, investigators could not determine how or why the vessel sank.

# 3 Conclusions

### 3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the sinking of the commercial fishing vessel *Carol Jean* was likely flooding from an unknown source while the vessel was anchored offshore and unattended. Contributing to the loss of the vessel was the captain's inadequate planning for a tow, leading to the *Carol Jean* being anchored after the tow line failed and fouled its propeller.

Vessel	Carol Jean
Туре	Fishing (Commercial fishing vessel)
Owner/Operator	Private citizen (Commercial)
Flag	United States
Port of registry	Darien, Georgia
Year built	1981
Official number (US)	642785
IMO number	N/A
Classification society	N/A
Length (overall)	71.9 ft (21.9 m)
Breadth (max.)	20.4 ft (6.2 m)
Draft (casualty)	6.0 ft (1.8 m)
Tonnage	107 GRT
Engine power; manufacturer	1 x 600 hp (447.4 kW); Cummins diesel engine

NTSB investigators worked closely with our counterparts from **Coast Guard Marine Safety Unit Savannah** 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 FAA.

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For more detailed background information on this report, visit the <a href="NTSB Case Analysis and Reporting Online (CAROL) website">NTSB accident ID DCA23FM021</a>. Recent publications are available in their entirety on the <a href="NTSB website">NTSB website</a>. Other information about available publications also may be obtained from the website or by contacting—

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