



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Issued April 28, 2022

MIR-22/14

## Grounding and Sinking of Fishing Vessel *Sage Catherine Lane*

On June 9, 2021, about 0915 local time, the fishing vessel *Sage Catherine Lane* was transiting outbound on the St. Marys River, south of Cumberland Island, Georgia, when the vessel grounded on the north jetty of the St. Marys Entrance and, shortly afterward, began to flood.<sup>1</sup> The crew of three abandoned the vessel and were rescued by the crew of a nearby Good Samaritan vessel. The *Sage Catherine Lane* later sank; about 2,300 gallons of fuel, engine oil, and hydraulic oil were on board, with roughly 800 gallons recovered. A sheen was observed following the breakup of the vessel, 3 days later. One minor injury to a crewmember was reported. Loss of the vessel was estimated at \$1 million.



**Figure 1.** *Sage Catherine Lane*, under previous name and ownership, before the casualty.  
(Source: US Coast Guard)

---

<sup>1</sup> (a) In this report, all times are eastern 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. DCA21FM030). Use the [CAROL Query](#) to search investigations.

---

<b>Casualty type</b>	Grounding/Stranding
<b>Location</b>	St. Marys Entrance, near Cumberland Island, Georgia 30°42.97' N , 081°25.11' W
<b>Date</b>	June 9, 2021
<b>Time</b>	0915 eastern daylight time (coordinated universal time -4 hrs)
<b>Persons on board</b>	3
<b>Injuries</b>	1 minor
<b>Property damage</b>	\$1 million est.
<b>Environmental damage</b>	1,500 gallons fuel, engine oil, and hydraulic oil est.
<b>Weather</b>	Clear, visibility 10 mi, winds southeast 6 mph, air temperature 83°F, water temperature 73°F
<b>Waterway information</b>	Channel, depth 14 ft, width 500 ft



**Figure 2.** Area where the fishing vessel *Sage Catherine Lane* struck the St. Marys Entrance north jetty, as indicated by a red X. (Background source: Google Maps)

---

## 1. Factual Information

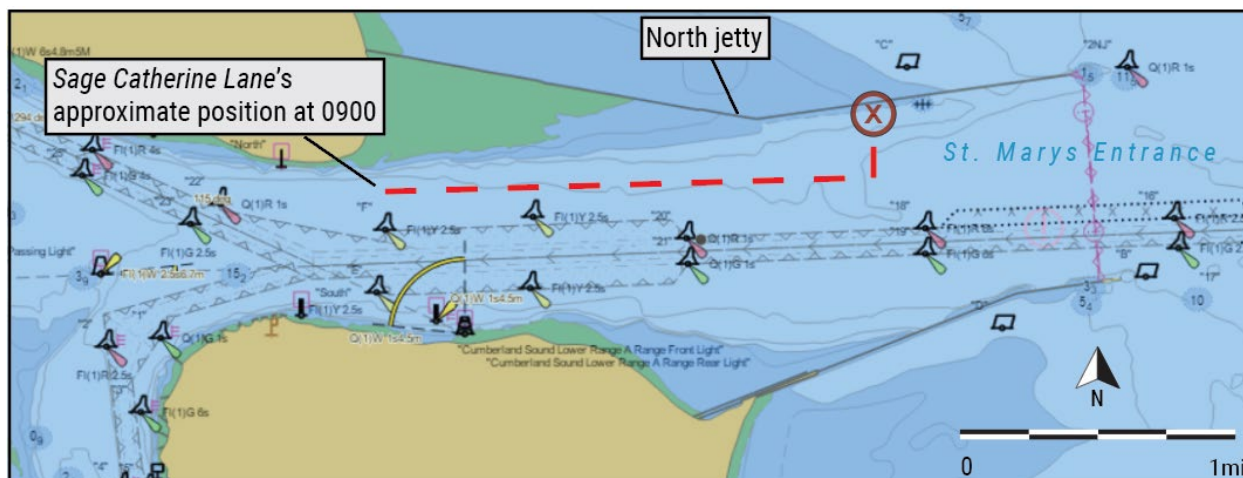
### 1.1 Background

The *Sage Catherine Lane* was built in 1966; the owner, Sage Catherine Lane LLC, purchased the vessel in 2019. The owner employed a manager to coordinate the vessel's schedule and other activities. The vessel was a 78.7-foot-long, wooden-hulled, single-propeller commercial fishing vessel powered by a 600-hp Cummins diesel engine. 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 with dry supplies, an engine room, a hold to store shrimp, and a lazarette, which contained the rudder post and steering system.

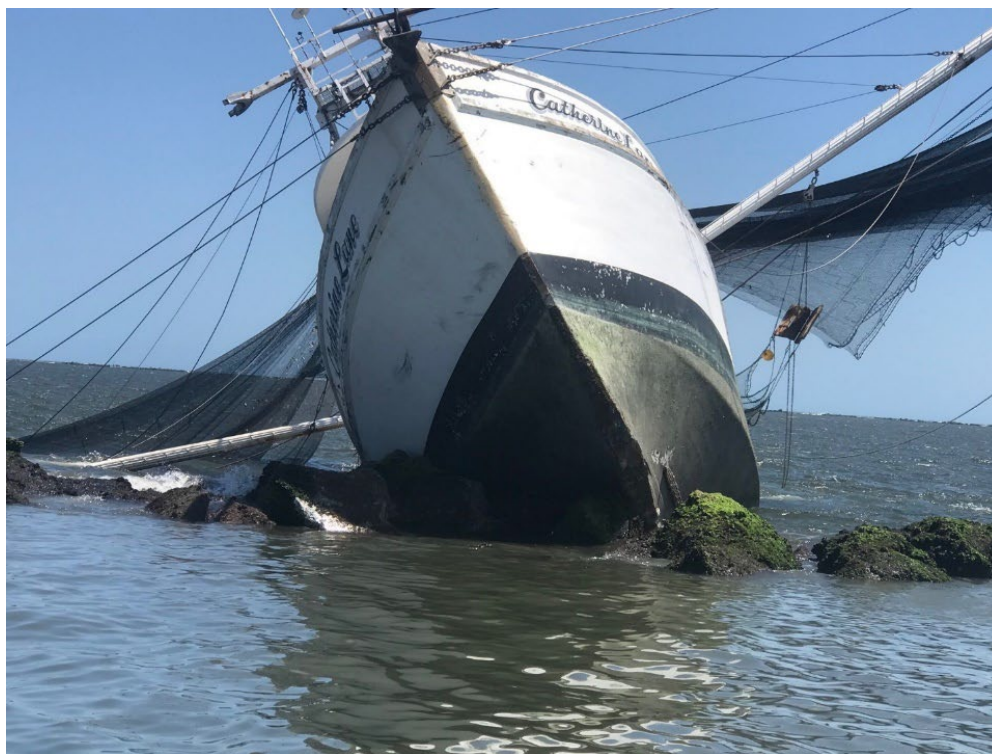
The crew of the *Sage Catherine Lane* consisted of a captain, who had 30 years of experience sailing on fishing vessels, and two crewmembers, who were skilled fishermen and had joined the vessel a month before the casualty. This trip was the captain's second on board the *Sage Catherine Lane*. He had previously sailed on the vessel as captain 4 years before. He would normally navigate the vessel while trawling for shrimp, and the crewmembers would sort and stow the shrimp while the vessel was trawling or stand by for the net to be raised.

### 1.2 Event Sequence

On June 9, 2021, at 0800, the crew of the *Sage Catherine Lane* left the anchorage in Cumberland Sound and began transiting outbound on the St. Marys River to engage in shrimping offshore. About 0900, the captain maneuvered the vessel outside of the navigation channel and continued on an easterly course between the red buoys and the northern jetty, due to high traffic within the channel. As the vessel transited parallel to the channel outbound, crewmember 1 went to the bow to secure the anchor, and crewmember 2 went to his room. The captain, who was alone in the wheelhouse, set the vessel's autopilot to maintain the vessel's heading out of the inlet to open water as the vessel started passing the jetty. The vessel was transiting at a speed of 9 knots. He answered a cell phone call and then proceeded down to his bunk room. About 0915, while the captain was still on the cell phone and in his room, he felt the vessel turn abruptly to port. The captain returned to the wheelhouse to investigate, and as he arrived, he saw that the vessel was heading toward the northern jetty. The captain attempted to turn away from the jetty, and he put the vessel's engine in reverse, but the *Sage Catherine Lane* struck the jetty and grounded before his actions could sufficiently stop or turn the vessel.



**Figure 3.** Chart with red dotted line showing the estimated path of the *Sage Catherine Lane* and the casualty location on the north jetty of the St. Marys Entrance, as indicated by a red X. (Background source: National Oceanic and Atmospheric Administration)



**Figure 4.** *Sage Catherine Lane* aground on the St. Marys Entrance north jetty. (Source: Coast Guard)

After the vessel grounded, crewmember 1 checked the engine room and other below-deck spaces and did not find any flooding. The captain tried to back the vessel off the jetty. At first, the vessel started to move astern, but then it began to rock back and forth before heeling to starboard. The captain stopped the engine; the two

crewmembers checked the engine room again and found that it was starting to flood. The captain and crew donned life jackets and abandoned the vessel, and the crew of a Good Samaritan vessel, who witnessed the incident, rescued them from the water. Crewmember 2 sustained a minor laceration to his right hand while abandoning the vessel but did not seek additional medical care. The vessel remained on the jetty for 2 days, and then it broke apart and sank following a thunderstorm on the third day.



**Figure 5.** *Sage Catherine Lane* following the grounding on the jetty (left), and after being broken apart on the jetty 3 days later (right). (Source: Coast Guard)

### 1.3 Additional Information

Two days before the grounding, on June 7, the casualty captain was transiting aboard the *Sage Catherine Lane* on the Matanzas River to St. Augustine, Florida, to unload shrimp. The captain had the autopilot engaged. When he pressed the standby button to shift to hand steering the vessel, the autopilot did not switch into standby mode and release helm control to the captain (in standby mode, the autopilot system is powered on but not engaged). To regain steering control, the captain unplugged the autopilot. After the vessel docked, the captain examined the autopilot system and noted that the rudder post was contacting the autopilot rudder angle sensor, causing the autopilot's rudder angle indicator lever to bend. The captain also noted that the autopilot rudder angle sensor was loosely mounted, which caused the autopilot system rudder angle input to be 4-5° off from the actual rudder angle. The captain straightened the autopilot rudder angle indicator lever, remounted the rudder angle sensor, and secured it in place with plastic zip ties. The captain informed the vessel's manager of the problems with the autopilot system and his actions to correct them. The vessel manager and captain decided that the system was fixed and there was no need to have a technician evaluate the autopilot system or replace it.

The *Sage Catherine Lane* departed St. Augustine on June 7 at 2030 and headed to engage in shrimping just offshore Amelia Island. During this transit, the autopilot

operated with no issues, and it properly released the helm to the captain when he pushed the standby button to disengage the autopilot. After catching 900 pounds of shrimp, the vessel entered the St. Marys River with the autopilot engaged and anchored in Cumberland Sound on June 8 at 2100 with no problems.

A postcasualty exam of the autopilot or other vessel systems was not possible since the vessel broke up and sank 3 days after the *Sage Catherine Lane* grounded.

## 2. Analysis

The vessel autopilot's reliability was brought into question 2 days before the casualty, when the captain was unable to disengage the autopilot and gain control of the helm as the vessel was proceeding into St. Augustine. Following that incident, the captain examined the autopilot system and found problems with the rudder angle indicator and rudder angle sensor at the rudder post. He straightened the bent rudder angle indicator lever and secured in place the loose rudder angle sensor that provided the autopilot with the rudder position.

The vessel's reported sharp turn to port (about 90°) while transiting outbound on autopilot indicated that the system failed. The sudden sharp turn likely resulted from the helm/autopilot receiving a signal that the vessel was far from its programmed heading and required significant rudder correction to return to the original heading. Based on the information provided to investigators (due to the sinking, a postcasualty exam was not possible), this sudden change could have been caused by the loosening or detachment of the autopilot rudder angle sensor, which resulted in the transmission of incorrect rudder position data to the autopilot that subsequently commanded a large port rudder angle. The captain had previously tried to repair the rudder angle sensor 2 days earlier by tightening it with zip ties.

Navigating in channels and harbors requires quicker reaction times due to traffic, currents encountered, and frequent course changes. It also requires more rudder due to slower speeds. Therefore, autopilot use is often discouraged or prohibited in restricted waters. Because the *Sage Catherine Lane* was operating outside the channel and closer to the northern jetty, there was very little time to gain control of the vessel when the autopilot failed. However, the captain was not in the wheelhouse—he had left it unattended to go below. Leaving the wheelhouse unattended is imprudent, especially when navigating areas like the St Marys Entrance, which included a narrow navigation channel, two jetties, and vessel traffic. Had the captain stayed in the wheelhouse after engaging the autopilot, he would have been able to respond and take control of the vessel after the autopilot system failed and caused the rudder to turn to port.

## 3. Conclusions

### 3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the grounding of the fishing vessel *Sage Catherine Lane* was the captain's decision to leave the wheelhouse unattended as the vessel transited the St. Marys Entrance on autopilot, leaving insufficient time to respond when the autopilot failed and caused the vessel to go off the set course.

### 3.2 Lessons Learned: Safe Navigation with Autopilot

Autopilot use does not relieve the operator of responsibility to conduct a proper navigation watch. Use of autopilot should not be a justification for an operator to leave the wheelhouse or bridge unattended in confined waters. Navigating in channels and harbors requires quicker reaction times due to traffic, currents encountered, and frequent course changes, and more rudder due to slower speeds. Therefore, autopilot use is often discouraged or prohibited in a harbor entrance or narrow channel.

Vessel	<i>Sage Catherine Lane</i>
Type	Fishing (Fishing vessel)
Flag	United States
Port of registry	Clearwater, Florida
Year built	1966
Official number (US)	505137
IMO number	N/A
Classification society	N/A
Length (overall)	78.7 ft (24.0 m)
Beam	20.4 ft (6.2 m)
Draft (casualty)	7.0 ft (2.1 m)
Tonnage	103 GRT
Engine power; manufacturer	1 x 600 hp (447.4 kW); 1150 Cummins diesel engine

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

The National Transportation Safety Board (NTSB) is an independent federal agency dedicated to promoting aviation, railroad, highway, marine, and pipeline safety. Established in 1967, the agency is mandated by Congress through the Independent Safety Board Act of 1974, to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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 investigations website and search for NTSB accident ID DCA21FM030. 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—

National Transportation Safety Board  
 Records Management Division, CIO-40  
 490 L'Enfant Plaza, SW  
 Washington, DC 20594  
 (800) 877-6799 or (202) 314-6551