National Transportation Safety Board

Marine Accident Brief

Sinking of Fishing Vessel *Lady Gertrude*

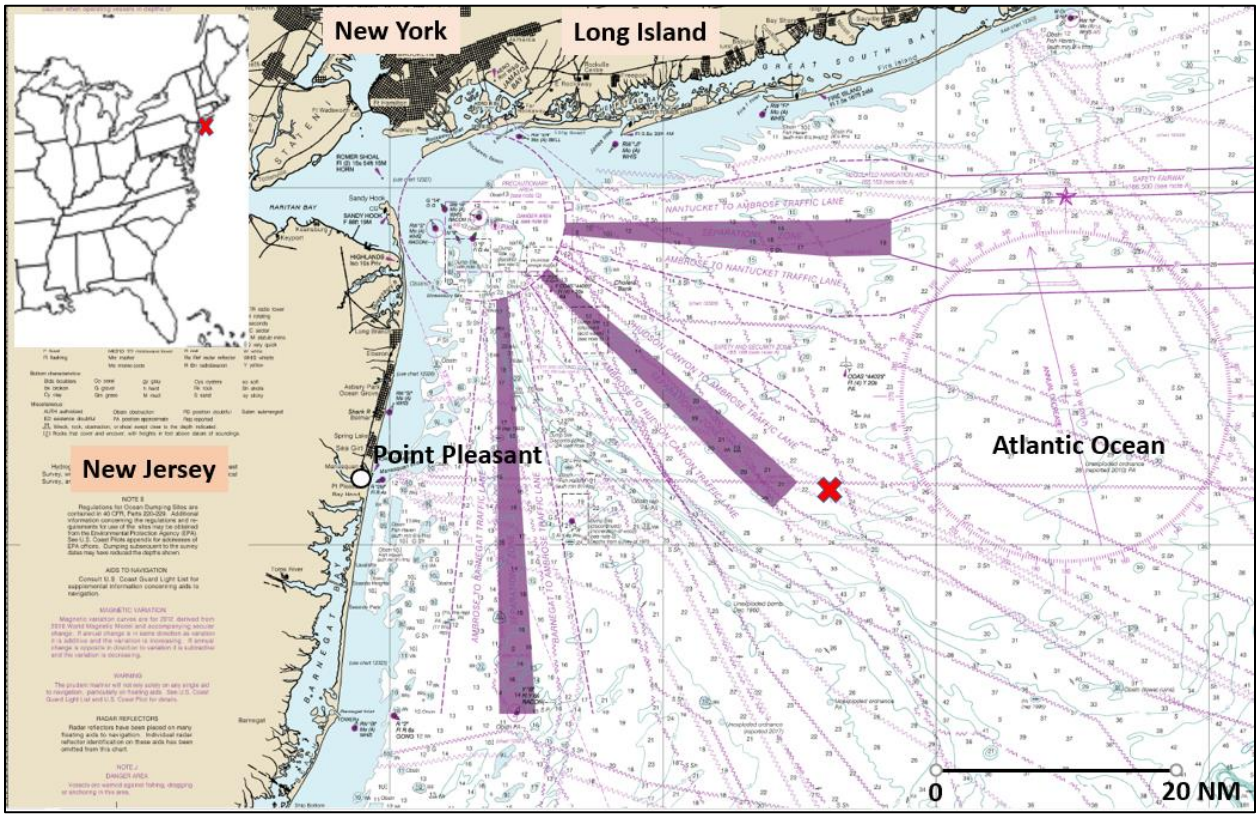
Accident no.	DCA16FM051
Vessel name	*Lady Gertrude*
Accident type	Sinking
Location	Atlantic Ocean about 40 nautical miles east-southeast of Point Pleasant, New Jersey 40°04.17'N, 73°16.77'W
Date	August 15, 2016
Time	0453 eastern daylight time (coordinated universal time – 4 hours)
Injuries	None
Damage	$400,000 est.
Environmental damage	Minimal; a light oil sheen was observed. An estimated 2,500–3,000 gallons of diesel fuel were on board the vessel
Weather	Clear visibility, southwest winds at 10 knots, seas 3–4 feet, air temperature 79°F, water temperature 77°F
Waterway information	Atlantic Ocean near the New York-New Jersey Bight; depth about 180 feet.

On August 15, 2016, about 0150 local time, the 119-gross-ton fishing vessel *Lady Gertrude* began flooding through its propulsion shaft stern tube while preparing to dredge for scallops. The captain contacted the Coast Guard, the three crewmembers abandoned ship, and they were rescued by a good Samaritan vessel before search-and-rescue assets arrived. The vessel sank at 0453. No one was injured. A light oil sheen was observed. The *Lady Gertrude* was valued at $400,000.

Pre-accident image of *Lady Gertrude* under way. (Photo provided by the owner)

Accident Events

About 2100 on August 14, 2016, the commercial fishing vessel *Lady Gertrude* got under way from Point Pleasant Beach, New Jersey, with a captain and two deckhands aboard. About 0100 on August 15, the vessel arrived at its intended fishing ground approximately 40 miles offshore, and the captain and one of the deckhands began preparing the vessel's gear to dredge for its 600-pound daily limit of scallops.



The red X marks the location of the *Lady Gertrude* accident, about 40 nautical miles off the New Jersey shoreline. (Section of NOAA Chart 12300)

From the aft steering station, the captain moved the throttle forward so that the dredges could be "flared" and lowered for scalloping. The engine rpm responded normally but the vessel did not accelerate. The captain then opened the fish hold and saw that the vessel's propeller shaft had fractured in front of the stern tube stuffing box. He told investigators that "the shaft was turning in the forward part of the space and churning the water, but the shaft was about 2 feet short of the stern tube." He said that there was water about 7 inches above the propeller shaft, and seawater was flooding through the 5-inch stern tube "like a fire hydrant."

The captain then went to the wheelhouse to stop the engine and saw that the fish hold bilge alarm had activated. At 0153, the captain made a distress call on VHF radio to the Coast Guard, activated the VHF distress button, and energized the emergency position-indicating radio beacon (EPIRB). The fishing vessel *Maizey James*, the Coast Guard cutter *Tybee*, and helicopters from the New York Police Department (NYPD) and the Coast Guard responded to the distress calls and converged on the *Lady Gertrude*'s position.

The *Lady Gertrude* crewmembers next saw flood water entering the engine room. The captain energized the vessel's two bilge pumps and a submersible bilge pump drawing water from

the fish hold, in which flood water had risen to about 4 feet. Crewmembers entered the fish hold and attempted to plug the stern tube with debris but were unable to stop the flooding. The captain told investigators he inserted his forearm into the stern tube and could not feel the shaft. He also said that after he was unable to plug the stern tube, it became apparent to him that the pumps were not keeping up with the flooding and the vessel was settling lower in the water. The captain was concerned that the vessel was becoming less stable, so he ordered the crewmembers to don their immersion suits and prepare to launch the liferaft.

About 0215, the *Maizey James* arrived on scene. At 0234, the flooding in the *Lady Gertrude* fish hold had increased to about 6 feet and the captain ordered abandon ship. All three crewmembers safely entered the liferaft and were subsequently picked up by the *Maizey James* crew at 0246. About 10 minutes later, the NYPD helicopter arrived on scene. At 0314, the Coast Guard helicopter arrived on scene and the NYPD helicopter departed. At 0332, cutter *Tybee* arrived, and the Coast Guard helicopter departed. The crew of the *Tybee* and the *Lady Gertrude* captain discussed boarding the *Lady Gertrude* with portable pumps and taking the vessel in tow. However, the *Lady Gertrude* captain determined that it was not safe to reembark as the stricken vessel was low in the water with a list, and there was a risk of entanglement from the fishing gear. About 0427, the *Tybee* departed the scene. The vessel continued to settle lower in the water and, at 0453, with its decks awash and listing to port, the *Lady Gertrude* rolled to port and sank stern first.

***Lady Gertrude* on the ocean floor. The propeller shaft has backed out of the stern tube and the shaft locking nut is jammed against the balanced rudder. (Photo by Depth Charge Marine)**

A diver inspected the wreck in 180 feet of water the day after the accident. The diver's video showed that the propeller had shifted aft and was jammed against the rudder. The diver

determined it was not safe to enter the fish hold. He did not note any other apparent breaches to the hull. The *Lady Gertrude* was valued at $400,000.

The vessel was built in 1979 at St. Augustine, Florida, and was fitted with transverse bulkheads subdividing the below-deck areas: forepeak/machinery room, engine room, fish hold, tankage/void, and lazarette/steering gear space. The forepeak/machinery room was watertight but the bulkheads separating the engine room, fish hold, and lazarette were not. A new bilge suction manifold was installed in 2015, which allowed water to be pumped from any of the vessel's bilges by the two electrically driven bilge pumps. The propeller shaft ran through the aft engine room bulkhead along the bottom of the fish hold to the stern tube packing gland at the bottom of the fish hold's aft bulkhead.

The owner purchased the vessel in 2013 and dry-docked it for a survey report in June 2013. The marine surveyor recommended that the vessel be dry-docked every 24 months for hull inspection. During August 2015, about a year before the sinking, the vessel was dry-docked for extensive repairs. One of the repairs was pulling the propeller shaft, straightening it, and filling a portion of the shaft where it had been worn down. There were no records to determine the age of the propeller shaft.

The captain had 11 years of experience in the fishing industry, the last 3 as captain of the *Lady Gertrude*. He stated he did not observe any issues with the vessel prior to seeing water flooding through the stern tube, nor were there any recent events (such as groundings, collisions, noise, or vibrations) before the accident.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the sinking of the *Lady Gertrude* was the fracture of the propeller shaft forward of the stern tube stuffing box, resulting in uncontrollable flooding of the vessel's fish hold and progressive flooding through non-watertight bulkheads of the engine room and lazarette.

Vessel Particulars

Vessel	*Lady Gertrude*
Owner/operator	Myklebust Enterprises Inc.
Port of registry	Toms River, New Jersey
Flag	United States
Type	Commercial fishing vessel
Year built	1979
Official number (US)	613723
IMO number	7947233
Construction	Steel
Classification society	N/A
Length	64.8 ft (19.8 m)
Draft	10.3 ft (3.1 m)
Beam/width	22 ft (6.7 m)
Gross/net tonnage	119 gross tons
Engine power; manufacturer	624 hp/465 kW, single 12-cylinder Caterpillar model 3412 diesel engine, single screw
Persons on board	3

NTSB investigators worked closely with our counterparts from Coast Guard Sector New York throughout this investigation.

For more details about this accident, visit www.ntsb.gov and search for NTSB accident ID DCA16FM051.

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