

Flooding and Sinking of Fishing Vessel *Captain Alex*

On November 25, 2022, about 0030 local time, the commercial fishing vessel *Captain Alex* was fishing in the Gulf of Mexico about 15 nautical miles south-southwest of Galveston, Texas, when the vessel began flooding.¹ The four crewmembers on board were unable to stem the flooding, and they abandoned the vessel to a responding US Coast Guard boat. The *Captain Alex* later sank, and an oil sheen and debris field were visible; a reported 17,000 gallons of diesel fuel were on board. There were no injuries. The *Captain Alex*, with a value of \$500,000, was a total loss.



Figure 1. The *Captain Alex* precasualty. (Source: Coast Guard)

¹ (a) In this report, all times are central standard time, and all miles are nautical miles (1.15 statute miles). (b) Visit [nts.gov](https://www.nts.gov) to find additional information in the [public docket](#) for this NTSB investigation (case no. DCA23FM008). Use the [CAROL Query](#) to search investigations.

Casualty type	Flooding/Hull failure
Location	Gulf of Mexico, 15 nautical miles south-southwest of Galveston, Texas 29°02.48' N, 94°52.38' W
Date	November 25, 2022
Time	0030 central standard time (coordinated universal time -6 hrs)
Persons on board	4
Injuries	None
Property damage	\$500,000 est.
Environmental damage	Oil sheen and debris field 1.5 to 2.5 mi (17,000 gallons diesel oil reported on board)
Weather	Visibility greater than 6 nm, partly cloudy, winds east-southeast 7-10 kts, seas 2-4 ft, air temperature 65°F, water temperature 56°F
Waterway information	Gulf, depth 57 ft



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

1 Factual Information

1.1 Background

The *Captain Alex* was an 86.7-foot-long, 165-gross-ton, steel-hulled freezer trawler built in 1996. The privately owned and uninspected fishing vessel was rigged for shrimping and homeported in Galveston, Texas. The twin propeller, twin rudder vessel was powered by two 450-hp Caterpillar engines. The vessel's main deck had a working deck aft; a single-level deckhouse consisting of crew quarters, a galley, and storage areas covered the machinery space. The wheelhouse was located forward, above the deckhouse.

1.2 Event Sequence

On November 22, about 0830, the *Captain Alex* departed Galveston and proceeded offshore to fishing grounds in the Gulf of Mexico. After midnight on November 25, the vessel was fishing about 11 miles south of Galveston Island. Three crewmembers were working on deck, and the captain was in the wheelhouse. The captain told investigators that, sometime between 0015 and 0030, he heard an alarm sound from the engine room. When he went to investigate, he found that a "high-water alarm" had activated, and water was present. He later told investigators that the water depth in the area was about 57 feet, and, at the time of the casualty, the draft was 12 to 13 feet. He also told investigators that the vessel had not hit anything. He informed the crew on deck of the flooding, and they hauled in the vessel's nets.

The captain returned to the engine room, where he found a 3- to 4-inch-wide hole in the bottom of the vessel, near the reserve fuel tank and underneath a fuel line, as the source of the water entry. The captain said the location of the hole made it difficult to access. He could not reach the hole with his arm, so he stepped on the hole with a rag under his foot to try and slow the water ingress, but the water level in the engine room continued to rise.

The captain told investigators that, at that time, the vessel's two bilge pumps were operating and pumping water but could not keep up with the flooding (neither the owner nor the captain knew the bilge pumps' capacities). At 0057, the captain called the owner of the *Captain Alex* and informed her of the flooding. At 0101, the owner called Coast Guard Sector Houston-Galveston and informed watch personnel that the *Captain Alex* was taking on water and needed assistance.

Coast Guard Sector Houston-Galveston watchstanders notified personnel at Station Galveston, who responded with a 45-foot response boat-medium (CG 45630),

and personnel at Air Station Corpus Christi, who responded with an MH-65 helicopter (CG 6514).

About 0315, CG 45630 arrived at the *Captain Alex*. The crew of the *Captain Alex* requested a dewatering pump, so the coxswain of CG 45630 had his three crewmembers rig lines to a P6 dewatering pump.² They floated the pump to the *Captain Alex*; once the pump was on board, the *Captain Alex* crew set up the pump to dewater the engine room. One of the *Captain Alex* crewmembers told investigators that he was able to get the pump engine started, but it would not pump any water.

The *Captain Alex* crew told the crew of CG 45630 that they were not able to get the pump to work, so the coxswain sent a Coast Guard machinery technician (MK) (qualified to inspect and maintain P6 pumps) and another crewmember (bosun's mate) to assist with the pump. The bosun's mate recalled that, when they boarded, the *Captain Alex* was higher out of the water than the response boat. Once aboard the *Captain Alex*, the MK found that the pump was not pumping any water because it had not been primed. He attempted to use the priming handle, but the handle and the cap came off the pump. He reported to the coxswain that the pump was broken. The coxswain determined that there was nothing else they could do, so he ordered his crew to pack up the pump and recommended that the crew of the *Captain Alex* evacuate the vessel.

² A P6 dewatering pump is a gasoline engine-powered emergency pump, stowed in a waterproof canister, that has a rated output of 250 gallons per minute at a 12-foot suction lift.

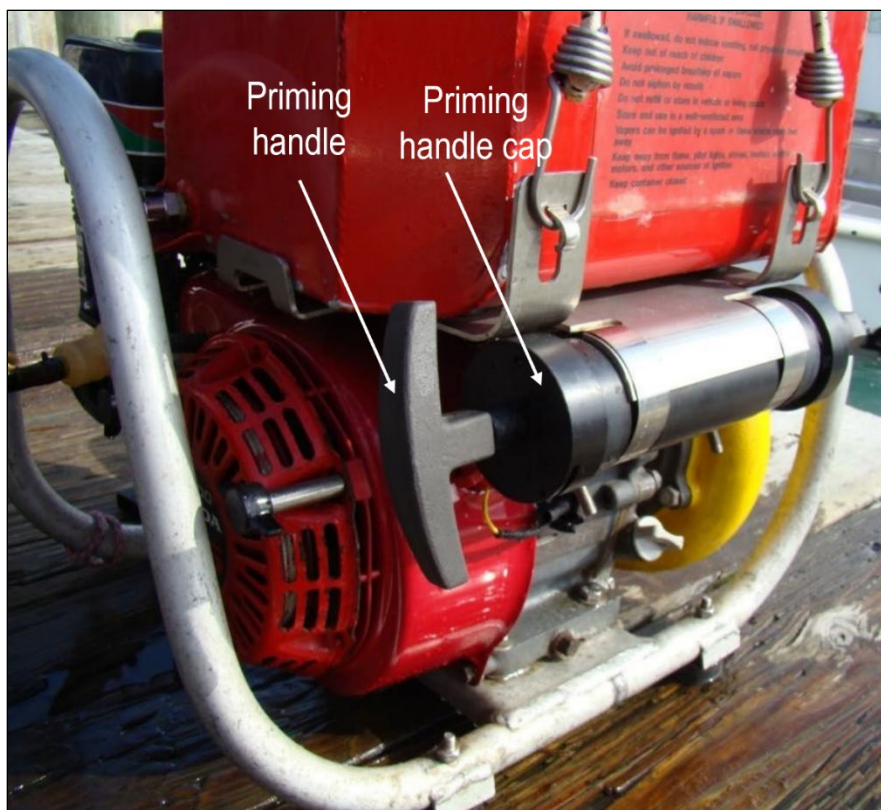


Figure 3. A P6 pump like the one sent to the *Captain Alex* showing the priming handle and cap. (Source: Coast Guard)

About 0325, the MK looked into the engine room from the main deck and saw the captain of the *Captain Alex* below. He instructed the captain to vacate the engine room. At the time he made this request, the MK saw that the water was up to the starboard main engine. (By the time the captain evacuated the vessel, the water was up to the top of the main engine.) The Coast Guard crew packed up the inoperable P6 pump. The crew of the *Captain Alex* dropped the vessel's anchor at the recommendation of the Coast Guard coxswain.



Figure 4. Looking down into the engine room of the *Captain Alex* at 0326, with the water midway up the starboard main engine and the captain of the vessel on the stairs. The suction hose to the portable dewatering pump (on deck) is on the left. (Source: Coast Guard)

The coxswain told investigators that, at some point, he saw the *Captain Alex* do a “really slow, sluggish roll,” with water flowing onto the main working deck through its freeing ports. He said he yelled to his crew on the *Captain Alex* that it was time to “get everyone off immediately.” The Coast Guard crew stopped packing the P6 pump and went to the stern of the vessel, where the *Captain Alex* crew were waiting with their personal belongings. The coxswain pulled up to the starboard stern of the *Captain Alex*, and all on board stepped onto CG 45630. The Coast Guard MK said that he saw the lights on the *Captain Alex* flicker while the Coast Guard crew assisted the *Captain Alex* crew onto CG 45630, an indication to him that the vessel’s electrical power generation and distribution system was in danger of failing.

The bosun’s mate was the last to disembark the *Captain Alex*. He recalled that, when the *Captain Alex* rolled, it was slow for it to return upright. Two other Coast Guard crewmembers estimated the *Captain Alex* sank 4 to 5 feet deeper in the water during their time on scene.

About 5 minutes after the crew of the *Captain Alex* was on board CG 45630, the coxswain said the lights on the *Captain Alex* flickered and then went out. At 0341, the coxswain, not knowing whether the vessel had sunk or was still afloat because it was dark, got underway to return to base. About 0525, CG 45630 arrived at Station Galveston, where the crew of the *Captain Alex* were offered emergency medical

services; all refused. They were taken to the Galveston Yacht Basin, where they were dropped off at their vehicles.

At 0719, the *Captain Alex's* float-free emergency position indicating radio beacon (EPIRB) activated near where the vessel had been anchored. That same morning, a Coast Guard aircraft conducted an overflight of the last known position of the *Captain Alex* and the EPIRB position. They observed a 1.5- to 2.5-mile oil sheen and debris on the water. The Coast Guard determined that the *Captain Alex* sank and determined the hull did not pose a hazard to navigation. The *Captain Alex* was not recovered or surveyed underwater.

1.3 Additional Information

None of the *Captain Alex's* crewmembers held a merchant mariner credential, nor were they required to by regulations.

1.3.1 Vessel Maintenance

The owner of the *Captain Alex* told investigators that the boat was last hauled out of the water in September 2022 for a propeller repair. No hull inspection or maintenance was performed, and the owner said the hull and paint looked "totally fine." There was no information about the last time any inspection, gauging (measuring the hull's steel plate thicknesses), or maintenance was carried out on the hull. The owner told investigators that all the boat's documentation and records were on board the vessel when it sank.

In July 2021, a marine surveyor conducted a condition valuation survey of the *Captain Alex* while the vessel was moored at a dock. As such, the surveyor was not able to inspect the underwater areas of the hull and noted that no recent gauging report or maintenance records were available during the valuation survey. The surveyor's report commented on main deck and above deck paint coatings being "intact, faded and chalky with scattered rust areas."

1.3.2 Dewatering

When CG 45630 arrived on scene, a stream of water could be seen coming from the port side of the *Captain Alex*; during his interview with investigators, the *Captain Alex* captain identified the stream as discharge from the bilge system (see Figure 5). The Coast Guard crew told investigators that, later, while the captain of the *Captain Alex* was on board CG 45630, he communicated that the vessel's bilge pumps were working intermittently.



Figure 5. The *Captain Alex* with discharge stream from bilge system (indicated by red circle) at 0317, just after CG 45630 arrived on scene. (Source: Coast Guard)

The Coast Guard’s P6 pump operation graphical instructions specified that, after setting up the suction and discharge hoses, the pump should be primed 50 times by moving a priming handle on the side of it before the engine is started. The P6 pump sank with the *Captain Alex* and was not recovered for examination.



Figure 6. An excerpt of the instructions included with the P6 pump like the one sent to the *Captain Alex*. The instructions show the priming sequence and include steps written in four languages: English, Spanish, French, and Vietnamese (the native language of the *Captain Alex* crew). (Source: Coast Guard)

There were no other dewatering pumps available on CG 45630. The Coast Guard helicopter on scene had a smaller P1 dewatering pump on board, capable of a rated output of 120 gallons per minute (versus the P6 pump’s 250 gallons per minute). However, the helicopter pilot told investigators that, due to the *Captain Alex*’s rigging, they would have had to first lower the P1 pump to the response boat before passing it to the *Captain Alex*.

2 Analysis

While fishing on the night of November 25, the *Captain Alex's* engine room bilge alarm sounded. When the captain investigated, he noticed the seawater level rising in the engine room bilge and found a 3- to 4-inch hole in the bottom of the vessel. The crew's attempt to plug the hole and dewater the vessel was unsuccessful, and the crew evacuated the vessel, which eventually sank.

The *Captain Alex* was offshore in deep water at the time of the flooding. The captain told investigators the vessel had not hit anything, and there was no evidence of any other sources of flooding. The wreckage was not salvaged, so a postcasualty examination of the vessel did not occur.

The Coast Guard states in Navigation and Inspection Circular 7-68 (NVIC 7-68), Notes on Inspection and Repair of Steel Hulls, that "deterioration of the metal structure is probably the most common, single defect in steel vessels."³ According to the circular, the causes of deterioration include age, inadequate maintenance, and electrolysis. The Coast Guard notes that "the only practical way of determining the degree of deterioration is to measure the thickness of the member in question and compare it with the original thickness." Investigators were unable to obtain information about previous inspections, hull plate gaugings, or maintenance carried out on the hull. Further, a surveyor noted in a July 2021 condition valuation survey that no recent gauging report or maintenance records were available during the survey. Without evidence that the vessel was damaged or flooding originated from another source, it is possible that the flooding was caused by deterioration of the hull steel plating.

The responding Coast Guard boat crew, who arrived on scene about 3 hours after the captain first discovered the hole in the engine room, sent a P6 dewatering pump with instructions to the crew of the *Captain Alex*. However, while the *Captain Alex* crew was able to get the engine to start, they could not get the pump to pull water from the engine room below it to discharge overboard. The on-scene Coast Guard MK noted that the *Captain Alex* crew did not prime the pump, and when the MK tried to prime the pump, the priming handle broke. Since the pump was not recovered, investigators were unable to determine why the handle broke.

³ Coast Guard, "Navigation and Vessel Inspection Circular No. 7-68," (October 28, 1968), [NVIC 7-68, 28Oct1968 \(uscg.mil\)](https://www.uscg.mil/7-68_28Oct1968).

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the sinking of the fishing vessel *Captain Alex* was uncontrolled flooding through a hole—possibly caused by steel hull plating deterioration—beneath the engine room.

3.2 Lessons Learned

Hull Examination and Maintenance

Periodic out-of-water examinations by qualified individuals such as a marine inspectors or surveyors can help determine the material condition of the vessel's hull and identify areas of corrosion and fatigue. For steel-hulled vessels, regular gauging of the hull using ultrasonic testing is an effective nondestructive testing method for identifying material deterioration of plating.

Vessel	<i>Captain Alex</i>
Type	Fishing (Fishing vessel)
Owner/Operator	Private
Flag	United States
Port of registry	Biloxi, Mississippi
Year built	1996
Official number (US)	1047030
IMO number	8940799
Classification society	N/A
Length (overall)	86.7 ft (26.4 m)
Breadth (max.)	26.0 ft (7.9 m)
Draft (casualty)	12.5 ft (3.8 m)
Tonnage	165 GT ITC
Engine power; manufacturer	2 × 450 hp (336 kW); Caterpillar 3412 diesel engines

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

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For more detailed background information on this report, visit the [NTSB Case Analysis and Reporting Online \(CAROL\) website](#) and search for NTSB accident ID DCA23FM008. 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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