May 29, 2025 MIR-25-22

Sinking of the Industrial Vessel *Cape Douglas*

On November 6, 2024, about 1255 local time, the industrial vessel *Cape Douglas* was transiting Chiniak Bay, about 4 miles southeast of Kodiak, Alaska, when the captain observed flooding in the engine room (see figure 1 and figure 2).[1] Unable to control the flooding, the captain and crewmember abandoned the vessel into a towed skiff and were rescued by a Good Samaritan vessel. There were no injuries. The vessel later sank with an estimated 400–600 gallons of diesel fuel on board. The vessel was not recovered and was a total loss, valued at $250,000.[2]

Figure 1. *Cape Douglas* docked in 2022. (Source: Alaska Marine Surveyors, Inc.)

[1] (a) In this report, all times are Alaska 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. DCA25FM003).

Casualty Summary

Casualty type	Flooding/Hull Failure
Location	Chiniak Bay, 4 nm southeast of Kodiak, Alaska 57°43.93' N, 152°20.86' W
Date	November 6, 2024
Time	1255 Alaska standard time (coordinated universal time –9 hrs)
Persons on board	2
Injuries	None
Property damage	$250,000
Environmental damage	400-600 gal diesel fuel on board
Weather	Visibility 9+ mi, overcast, winds south-southeast 12–20 kts, seas 2–4 ft, air temperature 41°F, water temperature 45°F
Waterway information	Bay; depth 370 ft, current <1 kt

Figure 2. Area where the *Cape Douglas* flooded and sank, as indicated by a circled *X*. (Background source: Google Maps)

1 Factual Information

The *Cape Douglas* was built in 1944 as *landing craft tank-1443* (*LCT-1443*) for the US Navy. By 1947, the vessel was out of military service and was registered as a commercial fishing vessel in Kodiak, Alaska. In 2000, the North Bay Corporation purchased the *Cape Douglas* and used the vessel for contracted work to haul heavy equipment, operating as an industrial vessel; occasionally, the vessel was also used to haul and dispose of fish byproduct, thereby operating as a fish tender.

On November 6, 2024, the 110-foot-long steel *Cape Douglas* was docked in Saint Paul Harbor in Kodiak.[3] At 0400, the captain and a deckhand boarded the vessel to prepare for a contracted job with a local fish meal plant to haul and dispose of fish byproduct offshore. The captain checked the propulsion and steering systems; one of the vessel's three engines was out of service (a pre-existing issue), but the other two were in working order. The captain also verified that the vessel's running lights were operational. About 0700, the captain and deckhand moved the vessel to the nearby fish meal plant (just outside of the marina) to begin loading the fish byproduct.

Once the *Cape Douglas* arrived at the plant dock, dump trucks loaded about 30 tons of fish byproduct into two bins secured to the forward deck. Each bin was about 6 feet tall and, together, the bins ran "almost the length of the deck." The captain told investigators that, after loading, the aftmost bin was full and the forwardmost bin was about three-quarters full. According to the captain, this was a moderate load.

At 1100, the loading was complete, and the vessel was even keel with a draft of about 5.5 feet. The captain and deckhand got the *Cape Douglas* underway from the fish meal plant dock en route to the disposal site in Chiniak Bay, about 4 miles southeast of Kodiak (the coordinates for the disposal site were provided to them as part of the contract for the job, and disposal was allowed within a specified radius of these coordinates). According to the captain, the vessel transited at 5.5 knots, and there were no issues with vessel handling or stability. About 1200, the captain went below to check the engine room and noted no issues.

At 1240, the *Cape Douglas* approached the area of the disposal site. Typically, the crew used the vessel's deck washdown system to loosen the byproduct and wash it overboard to dispose of it. An electrically driven seawater pump drew in seawater

[3] The *Cape Douglas* was an uninspected vessel subject to the regulations in Title 46 *Code of Federal Regulations*, Chapter I, Subchapter C; the vessel was not required to obtain a certificate of inspection issued by the Coast Guard. According to the Coast Guard, the *Cape Douglas* did not participate in any voluntary examination program administered by the Coast Guard.

through a sea chest and supplied the water to an 8-inch perforated aluminum pipe that was mounted to the deck near the bins. Once the bins were flooded with seawater and the byproduct loosened, the byproduct could be washed overboard through open sliding doors on the starboard side of the deck. Both the pump and the inlet valve to the pump were below the main deck, off a portside passageway in individual spaces each separated by a watertight bulkhead and a watertight door (see figure 3). The entrance to the passageway (also separated by a watertight bulkhead and door) was through the engine room. The captain told investigators that all watertight doors remained open during the transit (as was typical) to help with ventilation in the engine room.

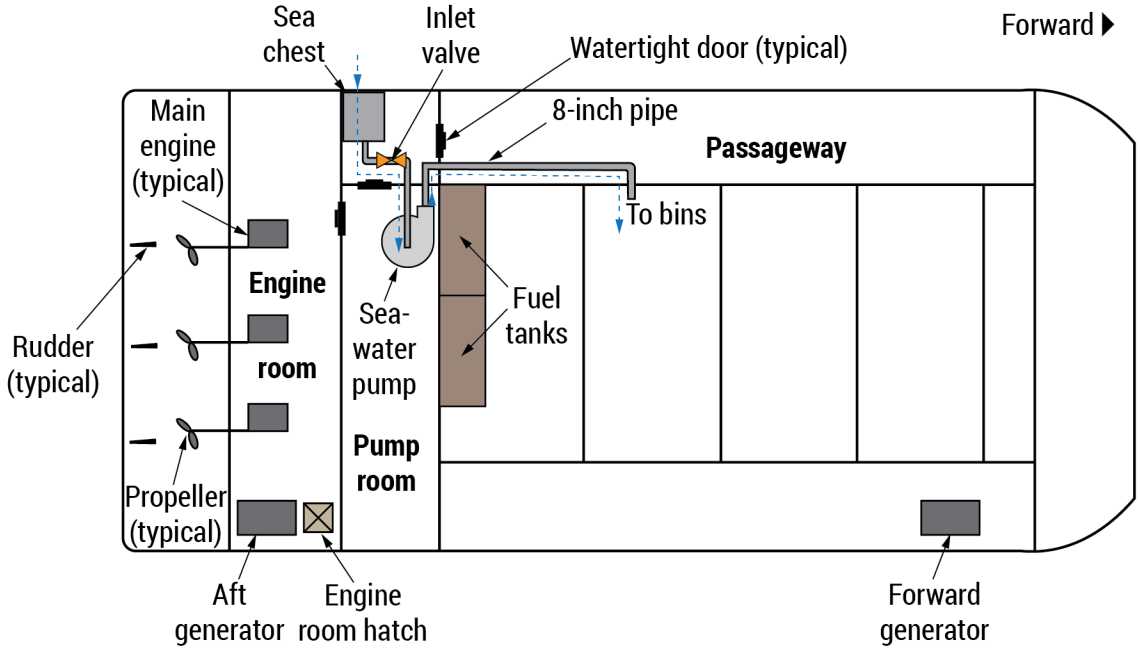

Figure 3. Simplified representation of the below-deck spaces of the *Cape Douglas* (not to scale) showing the inlet valve and seawater pump that supplied the 8-inch bin flooding line. Also shown are the vessel's portside watertight doors. (Background source: *Cape Douglas* captain)

The deckhand took the helm while the captain went below deck to open the inlet valve to the seawater pump. Next, the captain attempted to start the seawater pump locally, but the pump would not start. He noted that this problem was not uncommon due to a known issue with the pump motor starter. To resolve it, the captain needed to reset the starter. He decided to leave the pump off temporarily and went back to the wheelhouse to see how close they were to the disposal site.

About 15 minutes later, the captain approached the engine room hatch (on the starboard side of the vessel) to enter the engine room and again attempt to start the pump. Through the hatch, he saw that water had flooded the space, so he was unable

to enter. The deckhand later estimated that there were about 4 feet of water in the engine room. The captain told investigators that there was a high-water bilge alarm in the center of the engine room; however, it did not activate. (The captain could not recall the last time it was tested and did not know if it was functional.)

The captain turned on one of the vessel's two manual bilge pumps near the engine room entrance (the other bilge pump was inaccessible due to the flooding). He and the deckhand opened the starboard-side sliding doors to dump the fish byproduct overboard to reduce the weight on the deck. However, the product was "like peanut butter" because the seawater pump had not started and there was no water available to loosen the product, so they could not dump it. The captain told investigators that, based on his experience with the *Cape Douglas*, "the water [in the engine room] seemed to be coming in awfully quick."

About 1315, the captain and deckhand decided to abandon the sinking vessel. They donned survival suits and got into the vessel's towed skiff. The deckhand reported 6–8 inches of water on the aft deck as they boarded the skiff. Once in the skiff, the captain and deckhand waved down a nearby Good Samaritan vessel.

About 1330, the crew on the fishing vessel *Red Sky* picked up the captain and deckhand. Once the *Cape Douglas* crew was aboard, the *Red Sky* captain notified the US Coast Guard. The captain and deckhand remained on scene aboard the *Red Sky,* and, about 40 minutes later, they witnessed the *Cape Douglas* sink by the port stern. The deckhand noted that, as the "upper deck corner" (near the port quarter of the vessel) went underwater, the *Cape Douglas* "rolled on its side" before sinking. Shortly after, the *Red Sky* returned to Kodiak and dropped off the captain and deckhand.

The *Cape Douglas* was not salvaged and was a total loss valued at $250,000.

Over 2 years before the sinking, in August 2022, the *Cape Douglas* underwent a drydock survey and audio gauge hull testing. The survey concluded that the vessel was suitable for local, "limited fish waste product dumping" in Chiniak Bay, but "would require extensive refit for any heavy load/freight operations." Photos included in the survey report showed signs of rust and deterioration in below-deck areas, including the engine room and adjoining passageways. The audio gauge hull test showed that the majority of hull sections examined exhibited wastage greater than 15%, with many of these sections exceeding 25% wastage (see figure 4).[4] The hull test report showed that the reference bottom plating thickness on the *Cape Douglas* was 0.312 inches.

[4] *Plate wastage* occurs when material is lost from a vessel's hull, deck, or other plates due to corrosion. It is typically expressed as a percentage of the original/installed plate thickness.

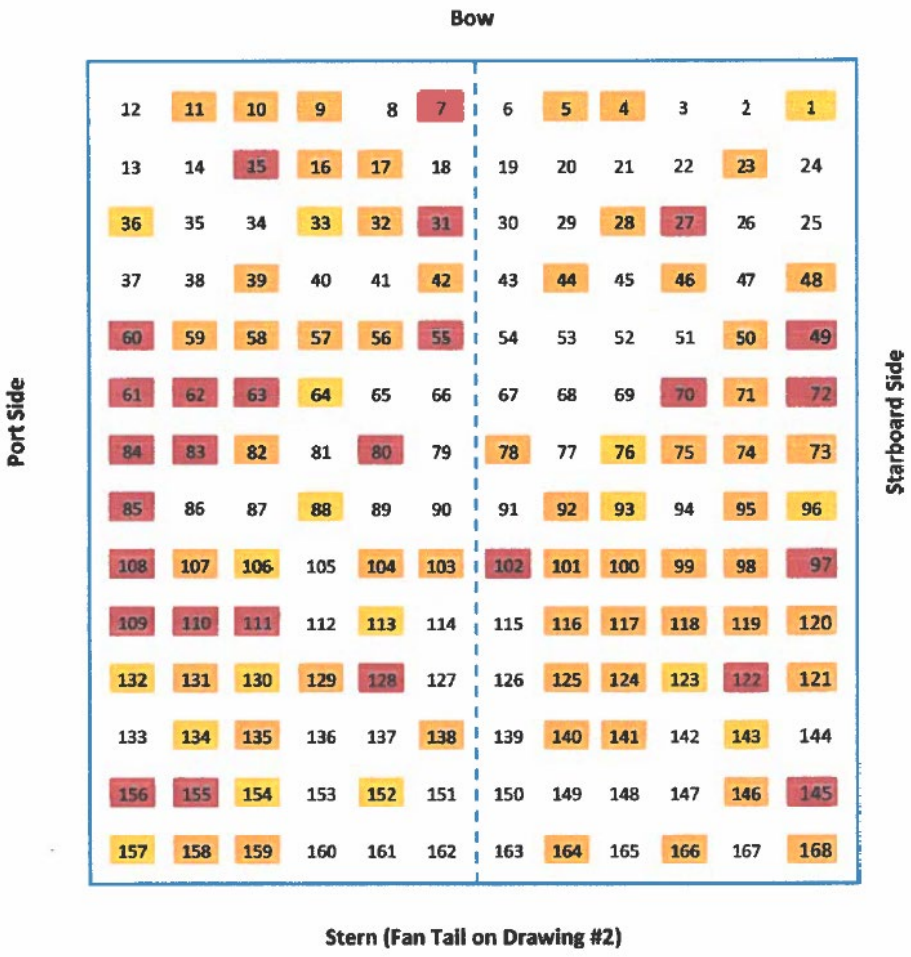

Figure 4. Results of the 2022 audio gauge hull testing on the bottom plating of the *Cape Douglas* (numbers shown are survey audio gauge locations). Hull wastage between 15–18% is shown in yellow, 18–25% wastage is shown in orange, and wastage exceeding 25% is shown in red. (Source: Alaska Marine Surveyors, Inc.)

In April 2024, the City of Kodiak harbormaster notified the operating company of concerns over the vessel's seaworthiness, citing "significant marine growth" and "indications of disrepair." The operating company resolved the complaint by providing proof of vessel insurance to the harbormaster.

In August 2024, ahead of anticipated jobs for the fish meal plant, the captain got the *Cape Douglas* underway for the first time since 2022. The captain, who was also responsible for vessel maintenance, told investigators that the system used to flush the fish byproduct from the deck was on the vessel when it was purchased in 2000 and was last used in 2022. He noted that jobs with the fish meal plant were infrequent (the *Cape Douglas*'s last job was in 2017), and that the North Bay Corporation had been trying to sell the vessel for several years. The captain also stated that, because of his second job, he did not "have enough time to put into [the *Cape Douglas*]."

2 Analysis

While the *Cape Douglas* was operating as a fish tender, transiting in Chiniak Bay about 4 miles southeast of Kodiak, en route to dispose of fish byproduct, the captain discovered flooding in the engine room. The captain and deckhand were unable to control the flooding and abandoned the vessel into a towed skiff before being rescued by a nearby Good Samaritan vessel; the *Cape Douglas* ultimately sank.

Photos from a 2022 survey of the *Cape Douglas* showed evidence of rust and deterioration below deck in the engine room and passageway. (The passageway housed the sea chest and associated pump, valves, and piping for the deck washdown system used to flush overboard the fish byproduct in the vessel's fish bins.) The accompanying audio gauge hull testing revealed wastage greater than 25% in multiple areas of the vessel's 0.312-inch-thick bottom plating, including along the port side of the vessel near the deck washdown system components. Coast Guard guidance generally allows for 25% corrosion in steel plating but specifies that for converted landing crafts "originally built to less than commercial scantlings," (0.375 inches or less), the plating "should generally be replaced when wasted more than 15%."[5] Additionally, about 7 months before the sinking, the City of Kodiak harbormaster had raised concerns about the vessel's condition.

The vessel's age (80 years old), visual signs of rust and deterioration, and documented hull wastage suggest a general degradation of the vessel and onboard systems, such as the deck washdown system. However, because the vessel was not salvaged, investigators could not determine the condition of the components of the deck washdown system, including the inlet valve between the sea chest and the seawater pump, the pump, or the associated piping. Based on the captain's statements, these components were over 25 years old and had not been used or tested for at least 2 years before the sinking. On the day of the sinking, the system was not tested before getting underway, so the captain would not have identified any issues with it. As the *Cape Douglas* neared the disposal site, the captain did not observe any flooding below deck while opening the inlet valve for the seawater pump and attempting to start the seawater pump. The flooding was only observed by the captain when he returned to the engine room about 15 minutes after opening the valve. Because the flooding occurred shortly after the valve was opened, the flooding was likely caused by a failure of the deck washdown system piping or the system's components downstream of the open valve.

[5] Coast Guard, "Navigation and Vessel Inspection Circular No. 7-68," (October 28, 1968), NVIC 7-68, 28Oct1968 (uscg.mil), 18–19.

While the *Cape Douglas* was equipped with watertight doors in the engine room and companionway spaces, these doors remained open during the transit. Maintaining watertight integrity of a vessel is a fundamental principle of safe operations on water. Within the hull, watertight bulkheads and watertight doors are designed to prevent progressive flooding by containing any incoming water to the compromised space. Had the watertight doors for the engine room, passageway, pump room, and sea chest room been secured, they may have contained the flooding.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the sinking of the industrial vessel *Cape Douglas* was flooding of a below-deck passageway or the pump room from an undetermined failure in the vessel's deck washdown system. Contributing to the sinking were open watertight doors, which allowed progressive flooding into the engine room and other below-deck spaces.

Vessel Particulars

Vessel	*Cape Douglas*
Type	Fishing (Fish tender)
Owner/Operator	North Bay Corporation (Commercial)
Flag	United States
Port of registry	Kodiak, Alaska
Year built	1944
Official number	251821 (US)
IMO number	N/A
Classification society	N/A
Length (overall)	110.0 ft (33.5 m)
Breadth (max.)	32.0 ft (9.8 m)
Draft (casualty)	5.5 ft (1.7 m)
Tonnage	149 GRT
Engine power; manufacturer	2 x 440 hp (328 kW); Lugger Komatsu 6152 diesel engines 1 x 350 hp (261 kW); Detriot Diesel 8V71NA diesel engine

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