

# Flooding and Sinking of Fishing Vessel

## *North American*

On May 14, 2024, about 0550 local time, vessel representatives for the fishing vessel *North American*, which was uncrewed and docked on the Lake Washington Ship Canal, in Seattle, Washington, were notified that the vessel was flooding. Salvors arrived on scene and attempted to dewater the vessel but were unable to keep up with the flooding, and the vessel eventually sank (see figure 1 and figure 2).<sup>1</sup> There were no injuries, and no pollution was reported. Damage to the vessel was initially estimated at \$3 million.



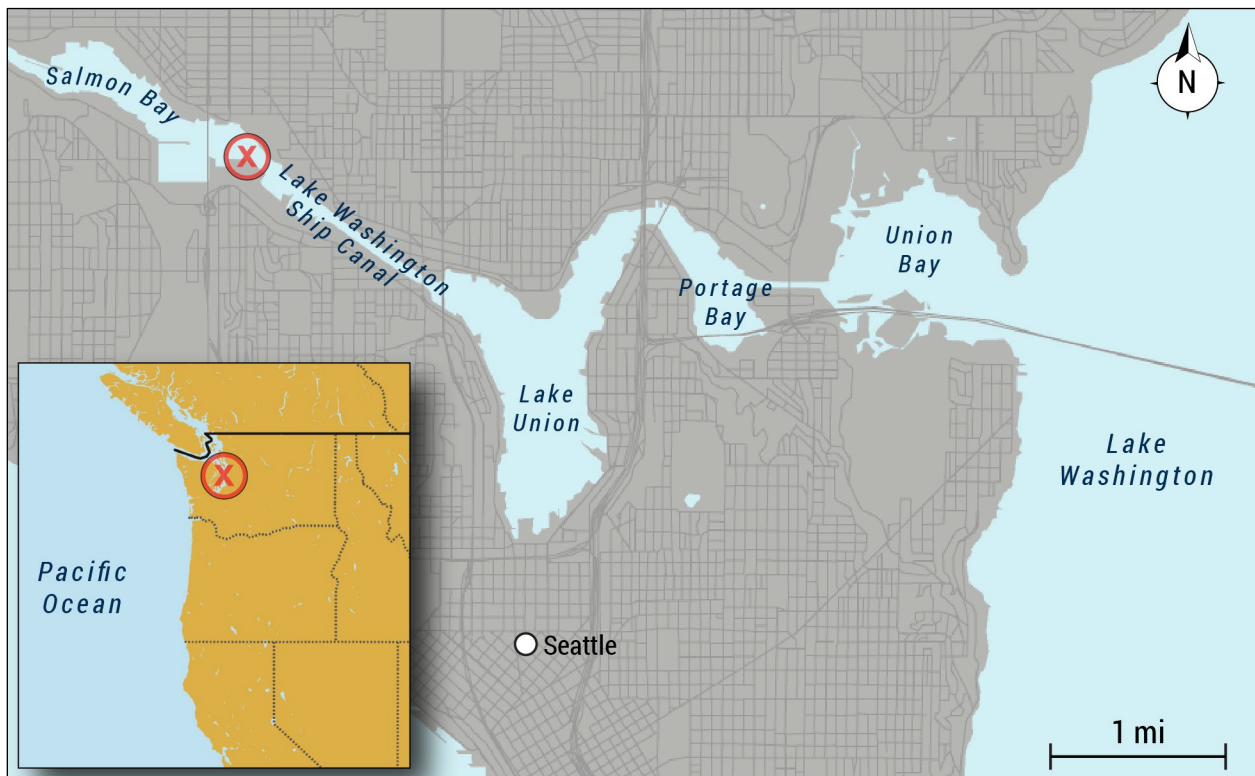
**Figure 1.** Fishing vessel *North American* moored at unknown date. (Source: Daniel Ramirez)

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<sup>1</sup> (a) In this report, all times are Pacific 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. DCA24FM039).

**Casualty Summary**

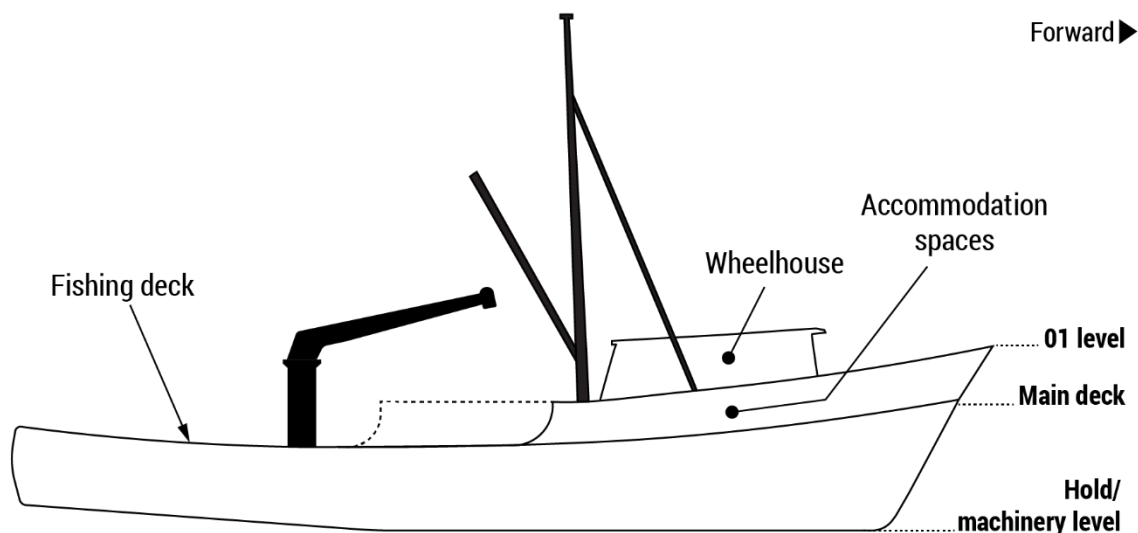
<b>NTSB casualty category</b>	Flooding/Hull Failure
<b>Location</b>	Lake Washington Ship Canal, Seattle, Washington 47°39.47' N, 122°22.28' W
<b>Date</b>	May 14, 2024
<b>Time</b>	0550 Pacific daylight time (coordinated universal time -7 hrs)
<b>Persons on board</b>	None
<b>Injuries</b>	None
<b>Property damage</b>	\$3 million est.
<b>Environmental damage</b>	None
<b>Weather</b>	Visibility 10 mi, mostly cloudy, light winds, air temperature 52°F, water temperature 53°F, morning twilight 0345, sunrise 0535
<b>Waterway information</b>	Canal



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

## 1 Factual Information

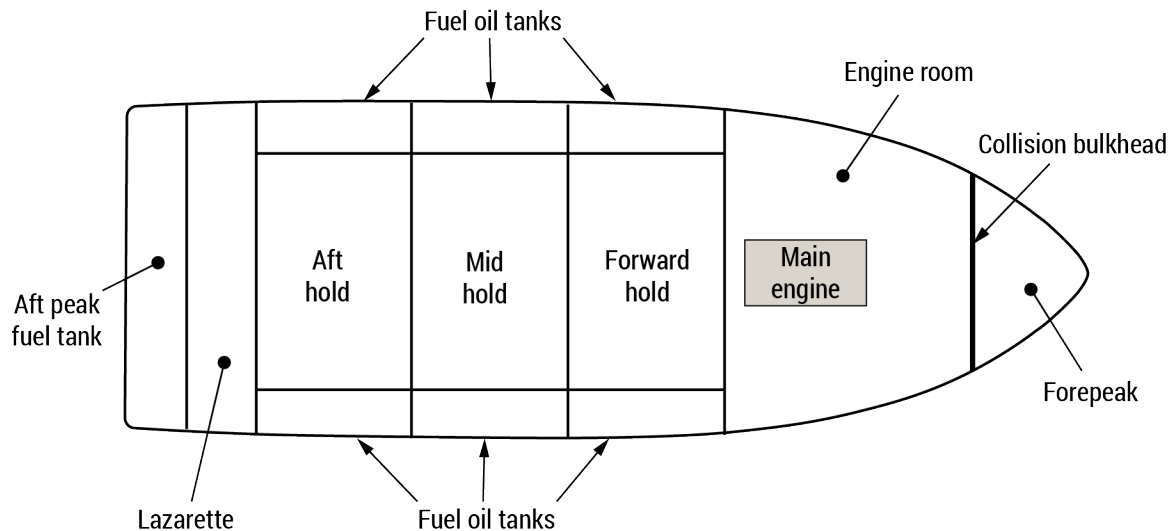
The 91-foot-long, steel-hulled commercial fishing vessel *North American* was built in 1975 and owned by North American, Inc. The vessel was arranged with three decks: the 01 level, main deck, and hold/machinery level (see figure 3).



**Figure 3.** Representation of the *North American* based off precasualty survey and photos. (Not to scale.)

The 01 level contained a raised, full-width, steel forecastle and raised forward wheelhouse. Below the 01 level, the main deck was open aft on the fishing deck and enclosed forward where the accommodation spaces with two staterooms, a head, and a galley were located.

The hold/machinery level (below deck) was divided by six transverse watertight bulkheads into seven compartments (see figure 4). Forward was a forepeak with the engine room aft; the two spaces were separated by a collision bulkhead. Aft of the engine room was the first of three centerline floodable holds (forward, mid, and aft), and fuel oil tanks in the wings and double bottoms below them.



**Figure 4.** Representation of the *North American* hold/machinery level based off precasualty survey and photos. (Not to scale.)

A shaft alley for the propulsion shaft ran from the aft side of the engine room beneath all three fish holds on centerline. All three fish holds had access hatches to shaft alley. Next aft was the lazarette containing steering gear with aft fuel oil wing tanks outboard, followed by an aft peak fuel tank.

The vessel had a single Caterpillar D399 TA main diesel engine driving a 7.5-inch centerline shaft and propeller. The shaft exited the hull through a stern gland and stern tube.

On May 13, 2024, the *North American* was moored starboard side to a pier at the OBI Seafoods facility on the south side of the Lake Washington Ship Canal in Seattle, Washington. The vessel had been laid up (moored) there over the winter.<sup>2</sup>

The owners had received a contract for salmon-tendering in Kodiak, Alaska, and were familiarizing a new crew with the vessel in preparation to head to Alaska. The vessel had gotten underway twice in the previous month—once to drop off lifesaving equipment to a vessel moored in South Lake Union, and another time to get fuel. No issues were noted on either of those trips.

Shortly after 0900, the vessel got underway for a sea trial to Lake Washington with four crewmembers: A previous captain and the vessel owner's son (who was an engineer) were on board to familiarize the new captain and chief engineer with vessel

<sup>2</sup> In recent years, the vessel had salmon-tendered in southeast Alaska during summer months and spent the remaining 9 months docked in Seattle.

systems. While transiting out to Lake Washington, they completely filled the vessel's three floodable fish holds and were operating the chillers.

While maneuvering on Lake Washington, a bilge alarm sounded for the engine room. The crew went to investigate and found water coming from the shaft alley into the engine room bilge. They told investigators they suspected that there could have been a leak from one of the fish holds into the shaft alley, so they pumped the water from the three fish holds overboard using the installed pump for each hold. All three floodable fish holds were pumped dry. They also began pumping out the engine room bilge and shaft alley, using installed bilge pumps located in the engine room.

While the pumps were operating, the crew completed their planned sea trial. The two engineers reported that, by the time they started heading back to the dock, they had the bilge pumped out and no longer saw water coming from shaft alley.

On the way back to the dock, the crew noticed water again coming into the engine room bilge from shaft alley, so they began pumping out the bilge again. The vessel returned to the dock about 1530, and the crew reported that, shortly afterward, water had stopped entering the engine room bilge.

At the dock, the crew entered the aft fish hold and opened the access cover to the shaft alley to examine the propulsion shaft's stuffing box below. The owner's son stated that there was "nothing ... just a little drip coming out." The owner's son left the access cover off; he told investigators that he had planned to re-check the stuffing box the next morning. The captain, previous captain, chief engineer, and owner's son departed the vessel; the owner's son was the last to depart, about 1830. He stated that about 5 minutes before he departed, he had checked the engine room bilge and shaft alley and had seen no further flooding. He had also verified that all thru-hull valves were closed.

About 0550 on May 14, a crewmember from the fishing vessel *Gulf Ranger*, which was moored nearby, heard an alarm from the *North American* and went to investigate. He noticed that the bow was down, so he called the *North American's* previous captain and told him the vessel was "bowed out ... it's taking on water."

About 0600, the *Gulf Ranger* crewmember boarded the vessel to investigate and found that water nearly filled the engine room. Water had reached the top rung of the ladder down into the space from the main deck accommodation spaces above. A local salvage company was called and arrived on scene about 0615. Salvors attempted to dewater the vessel using a 50-gallon-per-minute pump, but the pump was unable to keep up with the flooding. The vessel eventually sank at the dock.

A dive survey was conducted after the sinking. The diver noted that there did not appear to be any issues with the rudder post or shaft, stern tube, or the cutlass bearing for the propeller shaft. He also checked all the sea chests and found no problems. While examining the hull, he found three wastage holes, “all smaller than a silver dollar,” located 56 inches to the port of the keel and 99 inches aft of the outboard sea chest, placing them in the shaft alley (see figure 5).



**Figure 5.** Wastage holes discovered in hull during postcasualty survey. (Background source: Global Diving)

The diver noted:

The paint on and around this area was found to be in excellent condition. No dishing or deflections were found in this area either. No witness marks or any type of damage from a potential grounding were found in this area or anywhere on the vessel ... .

The vessel owner was aware of corrosion issues with the vessel. During a 2020 vessel survey, a small wastage hole was discovered on the port side of the vessel “resulting from internal corrosion of the double bottom tank.” During repairs, the portside double bottom tank internals were inspected. Based on observations, “It was indicated that internal localized corrosion of the tanks was a continuing concern and additional surveys were recommended.”

The vessel owner conducted external hull surveys in June 2021 and May 2023. Areas of potential concern were identified, but immediate repair of these areas was not deemed necessary.

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## 2 Analysis

On the morning of May 14, 2024, the commercial fishing vessel *North American* was found to be taking on water while moored uncrewed at its dock in Seattle, Washington. Responding salvors attempted dewatering, but the vessel sank at the dock.

The previous day (May 13), the vessel had been underway for about 6 hours on a sea trial to familiarize the new captain and chief engineer with the vessel and its systems. Other than a short trip to get fuel and another trip to drop off equipment at a nearby dock (both in the previous month), the vessel had been laid up for the entire winter at its dock. While underway, a bilge alarm alerted the crew to flooding in the engine room.

Crewmembers stated that the flooding was coming from the shaft alley, which ran beneath the vessel's three floodable fish holds. Crewmembers emptied all the water from the three fish holds, successfully pumped the bilge, and reported that water was no longer coming from shaft alley. When they returned to the dock that afternoon, crewmembers attempted to identify the source of the flooding into the shaft alley without success. When the last crewmember left about 1830, he reported there was no visible flooding and that there was no water in the bilges.

A postcasualty dive survey found three wastage holes in the hull. The diver found no other potential sources of water ingress after examining the entire hull, the rudder, propeller, and all thru-hull fittings (including the stern tube). The crewmembers did not report striking any objects or grounding during their sea trial, and the dive survey confirmed that there were no signs of collision or grounding. Therefore, it is likely that the source of the flooding into the shaft alley, and subsequently the engine room, was the three holes in the hull, which were located beneath the shaft alley.

The vessel's owner had been aware of corrosion within the double bottom areas since 2020, when a hole in the hull was found during a survey. The owner conducted additional hull surveys in 2021 and 2023 in an attempt to identify and address any areas needing repair. The survey found potential areas of concern, but immediate repair of the areas was not deemed necessary. It is likely that localized corrosion within the shaft alley resulted in the holes identified postaccident, and that the holes manifested or worsened during the sea trial on May 13.

The crewmembers attributed the flooding on the day of the sea trial to water coming from the floodable fish holds, and were comfortable leaving the vessel unattended that evening because they had emptied the holds of water and did not

see additional flooding. It is likely that the flooding continued through the evening, and without pumps running to remove water from the shaft alley, water would have entered the engine room. Because the crew left off the access cover from the aft fish hold to the shaft alley overnight, flood water would have progressed upward into the aft fish hold. Once the engine room filled, flood water would have progressed upward into the accommodation spaces, ultimately causing the vessel to sink.

## 3 Conclusions

### 3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the flooding and sinking of the fishing vessel *North American* was hull corrosion, which resulted in wastage holes that allowed water ingress into the engine room overnight while the vessel was unattended.

**Vessel Particulars**

Vessel	<i>North American</i>
NTSB vessel group	Fishing (Fishing vessel)
Owner/operator	North American, Inc. (Commercial)
Flag	United States
Port of registry	Seattle, Washington
Year built	1975
Official number	566067 (US)
IMO number	7518082
Classification society	N/A
Length (overall)	108.0 ft (32.9 m)
Breadth (max.)	27.3 ft (8.3 m)
Draft (casualty)	11.0 ft (3.4 m)
Tonnage	199 GRT
Engine power; manufacturer	1 × 1,125 hp (839 kW); Catepillar D399 TA diesel engine

NTSB investigators worked closely with our counterparts from **Coast Guard Sector Puget Sound** 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 [NTSB Case Analysis and Reporting Online \(CAROL\) website](#) and search for NTSB accident ID DCA24FM039. 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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