June 12, 2025 MIR-25-24

Fire aboard Fishing Vessel *Tarka II*

On September 10, 2024, about 1600 local time, the commercial fishing vessel *Tarka II* was transiting in the Pacific Ocean about 4 miles southwest of Tatoosh Island, Washington, when the captain discovered a fire in the engine room (see figure 1 and figure 2).[1] The two crewmembers on board did not attempt to fight the fire. They abandoned the *Tarka II* into a liferaft and were rescued by the US Coast Guard. The fishing vessel later sank with an estimated 1,000 gallons of diesel fuel on board. There were no injuries. The vessel was not recovered and considered a total loss, valued at $460,000.[2]

Figure 1. *Tarka II* on unknown date before the fire. (Source: *Tarka II* captain)

[1] In this report, all times are Pacific daylight 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. DCA24FM060). Use the CAROL Query to search investigations.

Casualty Summary

Casualty type	Fire/Explosion
Location	Pacific Ocean, about 4 nm southwest of Tatoosh Island, Washington 48° 22.48' N, 124° 50.52' W
Date	September 10, 2024
Time	1600 Pacific daylight time (coordinated universal time –7 hrs)
Persons on board	2
Injuries	None
Property damage	$460,000
Environmental damage	1,000 gal diesel fuel
Weather	Visibility 13 nm, mostly cloudy, winds southwest 13 kts, seas 1 ft, air temperature 51°F, water temperature 51°F
Waterway information	Ocean; depth 160 ft, current less than 1 kt

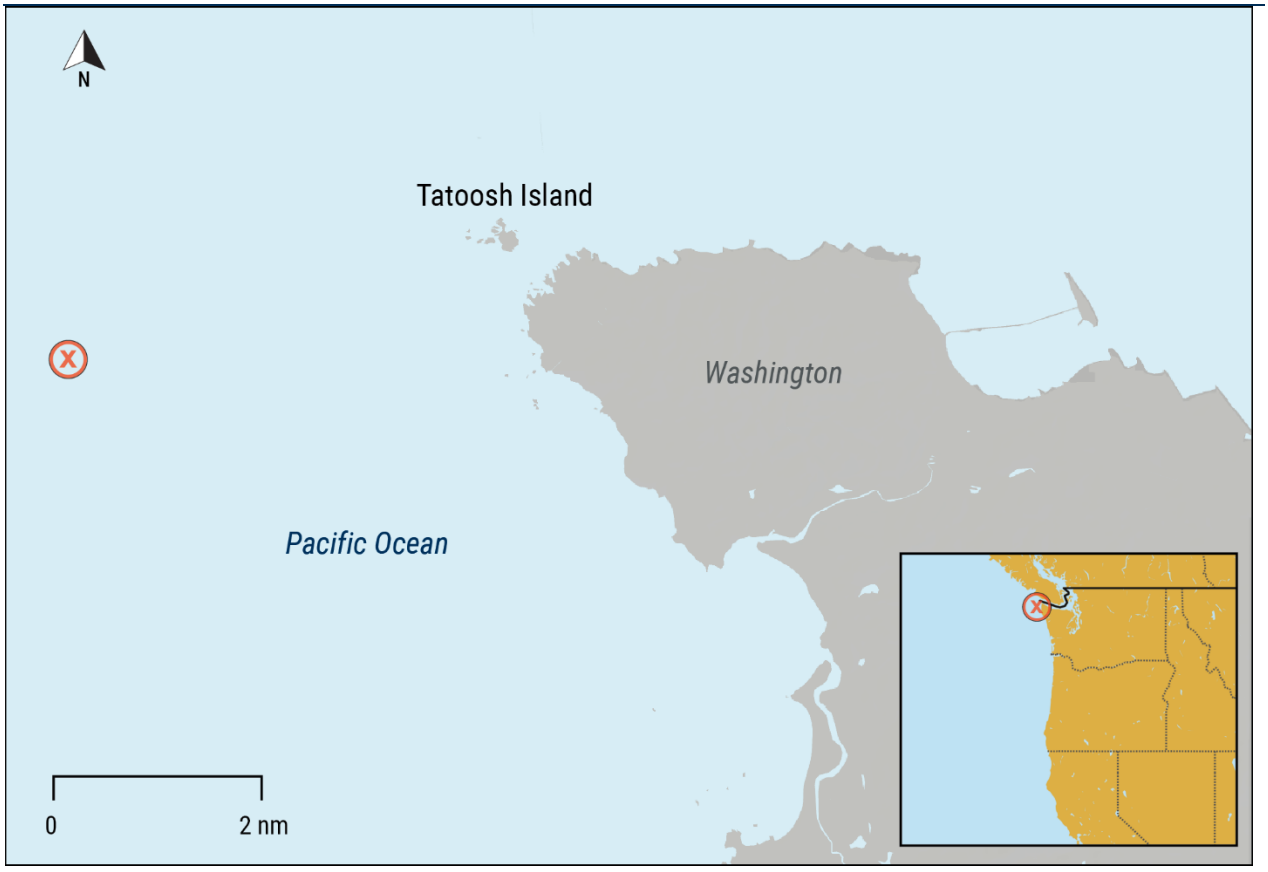

Figure 2. Area where the *Tarka II* fire occurred, as indicated by a circled *X*. (Background source: Google Maps)

1 Factual Information

1.1 Background

The 66-foot-long, 17-foot-wide commercial fishing vessel *Tarka II* was constructed of aluminum in 1972 by Nichols Brothers Boat Builders in Freeland, Washington. In 2021, the current captain purchased the *Tarka II* with a business partner and outfitted the vessel for king crab fishing. Propulsion was provided by a single 285-hp diesel engine driving a propeller through a reduction gear. A single rudder positioned behind the propeller provided steering.

The *Tarka II* was equipped with a crab pot davit (located on the starboard side of its working deck) and a hydraulically operated steering system. The systems each had a dedicated 20-hp hydraulic pump powering them and shared a hydraulic reservoir tank in the engine room. The engine room was also equipped with a closed-circuit television (CCTV) camera with a wheelhouse display, a refrigeration unit for the fish hold, and two auxiliary generators (see figure 3).

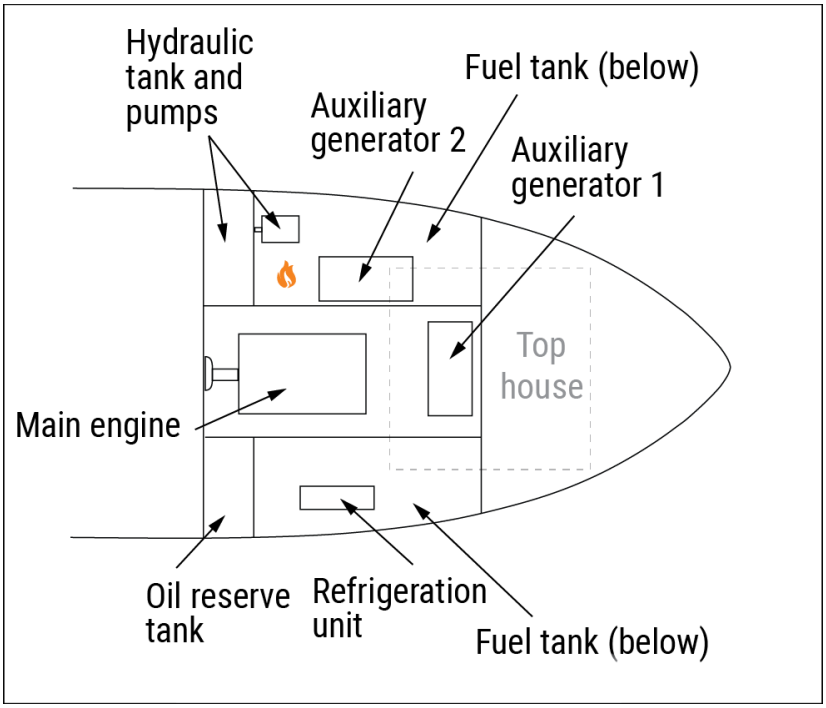

Figure 3. General layout of the *Tarka II* engine room (not to scale) with the location of the fire indicated by the flame symbol. (Background source: *Tarka II* captain)

1.2 Event Sequence

On September 10, 2024, at 0000, the *Tarka II* got underway with a crew of two from Westport, Washington. The captain and crewmember were transiting to a shipyard in Port Angeles, Washington, for annual vessel maintenance. The captain was at the helm from 0000–0700. At 0700, the other crewmember took the helm while the captain went to sleep. Around 1400, the captain woke up and relieved the other crewmember of the watch.

About 1600, while the *Tarka II* was about 4 miles southwest of Tatoosh Island, the captain was at the helm with the main engine and the no.1 auxiliary generator running when he noticed white smoke coming out of the side of the vessel's exhaust stacks located just aft of the wheelhouse. He put the engine in neutral and went to the engine room to investigate (the engine room CCTV camera was not in use at the time).

When the captain opened the engine room door, white smoke exited the space. A smoke detector just outside the engine room immediately activated; shortly after, another smoke detector in the galley activated (there were no smoke or fire detectors inside the engine room, nor were they required). The captain told investigators that the white smoke smelled like engine exhaust and that he believed there was an exhaust leak. He donned a mask that he typically used for shipyard work and entered the engine room.

Despite poor visibility from the smoke, the captain manually shut down the no. 1 auxiliary generator and main engine. Afterward, the lights in the engine room went out, and the captain noticed a smoldering fire on the port side near the vessel's hydraulic tank, hydraulic pump, and stores of spare gear oil and hydraulic fluid. The captain told investigators that the hydraulic equipment was 1–2 feet from the main exhaust and that hydraulic lines ran "inches" away from it. The hydraulic pump for the crab pot davit was not running or pressurized; however, the hydraulic pump for the steering system was running and its lines (pipes and hoses) were pressurized.

The captain estimated that he was in the engine room for 30–40 seconds. He told investigators that, as he exited the engine room, he saw a flash, and the smoke turned from white to black as the flames increased. The captain shut the engine room door to "try to cut oxygen" to the fire and went back to the wheelhouse.

Concerned about an explosion, the captain decided that he and the other crewmember should abandon the vessel. At 1604, using a VHF radio on channel 16, he made a Mayday call to the Coast Guard informing them of the vessel's position and his decision to abandon the vessel into a liferaft. The crewmember donned a survival suit (the captain was unable to retrieve his survival suit due to the fire), and

the captain deployed the vessel's liferaft from the stern. Using a rope, the captain lowered the crewmember down into the liferaft, and then he jumped into the liferaft.

Once in the liferaft, the captain and crewmember paddled away from the burning *Tarka II*. The captain told investigators that the "mast, everything was heating up … within a couple minutes of getting into the raft." At 1622, the captain used a cell phone to call 911. The 911 dispatcher connected the captain with the Coast Guard, who informed him that a boat crew from Station Neah Bay (about 12 miles away from the *Tarka II*) was responding to their location. At 1643, a Coast Guard 47-foot motor lifeboat and crew arrived on scene and brought the *Tarka II* captain and crewmember aboard. No injuries to the captain or crewmember were reported.

1.3 Additional Information

1.3.1 Postcasualty Actions

Later that evening, at 1903, a Coast Guard helicopter from Air Station Port Angeles conducted an overflight of the *Tarka II* to observe the condition of the vessel and mark its location. Around 2000, the captain returned to the *Tarka II* on another vessel and saw "a huge fire" from the engine room "all the way up to the top house" (see figure 4).

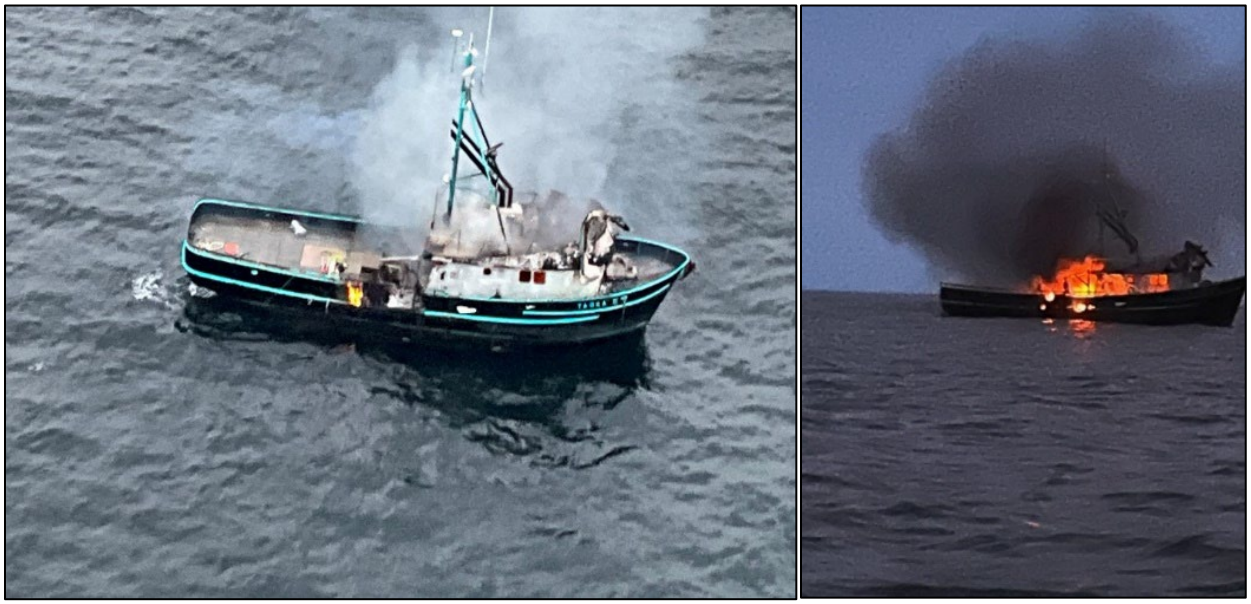

Figure 4. *Left to right*: The *Tarka II* as seen on the Coast Guard overflight and the *Tarka II* as seen by the captain upon returning to the vessel, both on the night of the fire.
(Sources: Coast Guard, *Tarka II* captain)

The following day (September 11), at 1635, a Coast Guard 47-foot motor lifeboat crew and two local firefighters transited to the still-burning *Tarka II* to assess the vessel's condition and extinguish the remaining fire. The fire department's report noted that "some spot fires were extinguished with water extinguishers." However, they could not access the main fire in the engine room because the door could not be opened. They also reported that the "lower decks and fish hold were flooded and inaccessible." At 1655, the firefighters and Coast Guard determined that it was unsafe to remain on board after hearing a "loud explosion" in the engine room, and they departed the scene.

Around 1800, the *Tarka II* captain and two crewmembers got underway on board the *Resolute*, a chartered fishing vessel, and returned to the vessel's last known location to tow the vessel back to shore. However, after searching for about 5 hours, they were unable to locate the vessel.

On the morning of September 12, a Coast Guard crew aboard the *USCGC Osprey* transited to the last known location of the *Tarka II* and were also unable to locate the vessel. In the area, the crew observed a 0.5-mile-long diesel sheen, presumed to be from the *Tarka II*, and the Coast Guard determined that the vessel had likely sunk. The vessel was a total loss at a value of $460,000.

1.3.2 Personnel

The *Tarka II* captain had worked in the commercial fishing industry for about 33 years on the US west coast, from Washington to Alaska, on crabbers, trawlers, and seiners. The captain submitted samples for alcohol and other drugs, with negative results. The captain reported that he had received about 7 hours of sleep on board before the fire, while the other crewmember stood watch.

1.3.3 Vessel Maintenance and Dockside Exams

The captain told investigators that there were no outstanding maintenance issues on the *Tarka II*. He had completed annual maintenance every year since purchasing the vessel.

The exhausts for the main engine and auxiliary generators (no. 1 and no. 2) all routed to the main exhaust stacks located aft of the wheelhouse (where the captain initially observed the smoke). The captain told investigators that the exhaust piping in the engine room was insulated with fiberglass wrap, or lagging, and the lagging was on board when the captain purchased the vessel in 2021. He noted that the lagging was in "great shape."

In May 2023, the *Tarka II* completed a Coast Guard dockside exam, and the only deficiency noted was for expired emergency flares, which the captain subsequently replaced.[3] Records showed that a dockside exam was also completed in 2020, and a pierside boarding was conducted in 2022. Neither record noted any deficiencies.

[3] Under the Coast Guard Authorization Act of 2010, commercial fishing vessel safety examinations are required once every 5 years for fishing vessels that operate 3 miles beyond shore. These safety examinations help ensure that all the required safety equipment and systems on board are in serviceable condition; examinations do not include the hull, electrical systems, or machinery as required for Coast Guard-inspected vessels.

2 Analysis

While the fishing vessel *Tarka II* was transiting in the Pacific Ocean, a fire began in the engine room. The two crewmembers on board abandoned the vessel into a liferaft and were rescued by the Coast Guard before the vessel eventually sank.

The captain observed smoke emanating from the sides of the exhaust stacks located just aft of the wheelhouse (likely from engine room vents on or near the main exhaust stacks). When he entered the engine room, he noticed white smoke that smelled like engine exhaust, and he believed there was an exhaust leak. After shutting down the generator and main engine, the captain then noticed a small, smoldering fire on the port side of the engine room near the hydraulic tank and hydraulic pump. Shortly after the captain observed the fire, the smoke turned black, and the flames intensified. The rapid growth of the fire and black smoke indicated a fuel source ignited, and opening of the engine room door introduced additional oxygen to the fire, further intensifying the fire.

The hydraulic lines for the davit were not pressurized at the time of the fire. However, the steering system's hydraulic lines (pipes and hoses) were pressurized. The captain noted that hydraulic lines ran "inches" from the engine exhaust pipes, which were protected by fiberglass lagging. Investigators were unable to verify the condition or arrangement of the exhaust lagging in the engine room because the vessel sank and there were no photos available of the engine room before the fire. The captain reported that the smoke initially looked and smelled like engine exhaust. It is possible that exhaust pipe heat, or an exhaust leak, either from the main engine or the running no. 1 auxiliary generator, ruptured one of the pressurized hydraulic lines, causing the hydraulic fluid to spray and ignite on a nearby, unprotected hot surface, and spread to nearby combustibles. However, because the *Tarka II* sank and was not recovered, the exact source of the fire could not be determined.

The captain had no indication of the fire before he saw smoke coming from the sides of the vessel's exhaust stacks. The *Tarka II* engine room was equipped with a CCTV camera that displayed on a monitor in the wheelhouse, but it was not in use at the time of the fire. Additionally, there were no smoke or fire detectors installed in the engine room, nor were any required. The two smoke detectors on board were located just outside of the engine room door and in the galley, and they only activated after the captain opened the engine room door to investigate the smoke. It is unknown how long the fire had been burning before the captain noticed smoke; however, had the engine room CCTV system been on or had smoke or fire detectors been installed in the engine room, the captain would have likely been alerted to the fire sooner.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the fire aboard the fishing vessel *Tarka II* was an unknown source within the engine room.

3.2 Lessons Learned

Effective Placement of Smoke and Fire Detectors

Installation of smoke and fire detectors in spaces that are typically uncrewed when underway, such as the engine room, allows for the earliest detection and notification of a fire, maximizing the time for operators to respond to the fire or take actions to abandon the vessel. Vessel operators can improve fire safety by installing detectors in all areas susceptible to fire (such as the engine room and galley, and spaces that contain machinery, hot exhaust tubing, and fuel sources). Additionally, the detectors should be capable of notifying crewmembers throughout the vessel of fire or smoke and be routinely checked to ensure they are in good working order.

Vessel Particulars

Vessel	*Tarka II*
Type	Fishing (Fishing vessel)
Owner/Operator	Tarka II LLC (Commercial)
Flag	United States
Port of registry	Westport, Washington
Year built	1974
Official number	557686 (US)
IMO number	N/A
Classification society	N/A
Length (overall)	66.0 ft (20.1 m)
Breadth (max.)	17.0 ft (5.1 m)
Draft (casualty)	9.0 ft (2.7 m)
Tonnage	68 GRT
Engine power; manufacturer	285 hp (212 kW); John Deere diesel engine

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