



National Transportation Safety Board

Marine Accident Brief

Grounding of Fishing Vessel *St. Dominick*

Accident no.	DCA17FM008
Vessel names	<i>St. Dominick</i>
Accident type	Grounding
Location	Pumicestone Bay on the northwest side of the long west extension of Unalaska Island, Alaska, 53° 32.2' N, 167° 06.0' W
Date	March 6, 2017
Time	0009 Alaska standard time (coordinated universal time – 9 hours)
Injuries	None
Property damage	\$1.1 million
Environmental damage	None reported
Weather	Good visibility, winds south gusting to 25 knots, air temperature about 39°F
Waterway information	Pumicestone Bay is 7 miles long and runs in a generally east direction when coming from sea, but has an abrupt north and east S-turn about 4 miles from the entrance. The bay is 1.5 miles wide at the entrance but narrows rapidly to less than 0.5 mile.

On March 6, 2017, about 0009, the uninspected commercial fishing vessel *St. Dominick* grounded in Pumicestone Bay, Alaska. The engine room flooded within 10–20 minutes of the grounding, and the four crewmembers abandoned the vessel a short time later. None of them were injured, and no pollution was reported. The vessel, valued at \$1.1 million, was deemed a constructive total loss.



St. Dominick at Dutch Harbor, Alaska, postaccident. (Photo by US Coast Guard)

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Background

The commercial cod fisheries in Alaska state waters are managed by the Alaska Department of Fish and Game under regulations developed by the Alaska Board of Fisheries. Cod fishing in waters within 3 miles of Unalaska Island are governed by the regulations for the Dutch Harbor Subdistrict.¹ For vessels 58 feet or less, the 2017 cod season ran from February 9, 2017, to April 8, 2017, and fish could only be caught by using fish pots—rectangular, pyramidal, or conical-shaped rigid steel mesh cages with lines and buoys attached. There was no limit to or quota for the number of fish caught by a particular boat; rather, the quota was based on the entire number of fish caught in the Dutch Harbor Subdistrict. This type of season is known as “open access” or “derby” fishing, because fishing vessels attempt to catch as many fish as possible within time or subdistrict quota limitations. The Alaska Department of Fish and Game set the 2017 Dutch Harbor Subdistrict cod fishery quota at 33.7 million pounds of fish.



Rectangular fish pot. (Photo courtesy of Deborah Laska Middleton)

The *St. Dominick* typically fished the entire cod fishing season. During this 8-week period, the vessel and crew would fish off Unalaska Island, bring the caught fish to a tender vessel to offload, and return to the fishing grounds to start the cycle over again. A roundtrip tender-to-tender cycle was about 48 hours. At certain times, the *St. Dominick* would alter the 48-hour schedule by visiting Dutch Harbor, Alaska, instead of going to a tender.

According to statements obtained from the captain and crew, the 48-hour fishing cycle consisted of about a 4-hour trip from the tender to the fishing area, 36 hours of fishing, a return trip to the tender, and a few hours to offload the fish. While on the fishing grounds, the crew normally fished from about 2 or 3 in the morning to about midnight. While fishing, the crew baited, lowered, retrieved, and emptied the fish pots. This took about 4–5 hours. The crew then took about a 1.5-hour break before continuing to bait, lower, retrieve, and empty fish pots.

¹ Fitch, Heather and Janis Shaishnikoff, *Annual Management Report for Groundfish Fisheries in the Bering Sea-Aleutian Islands Management Area, 2013-2014*, Fishery Management Report No. 15-43, Alaska Department of Fish and Game, 2015.

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During the 2–3-hour break that began at midnight, the deckhands slept. The captain remained in the wheelhouse during the break and usually maneuvered the vessel, sometimes sleeping in the helm chair for 1–2 hours. After completing the 36-hour fishing period, the captain piloted the vessel to the tender and the deckhands slept. The captain slept while the vessel was alongside the tender and the deckhands were offloading the catch and also during the trip back out to the fishing grounds. According to the captain, he got about 4–6 hours' sleep per 48-hour fishing cycle.

On January 21, 2013, about 4 years before this accident occurred, the *St. Dominick* grounded on the east side of Hog Island in Unalaska Bay while returning to Dutch Harbor. The vessel's crew, as in this accident, had been fishing for cod during a similar derby season. Weather conditions were calm and visibility was unrestricted. The same captain was aboard the *St. Dominick* for both the 2013 and 2017 groundings. According to the captain's 2013 accident statement, a watch alarm was set at 5-minute intervals. He fell asleep on watch, and he awoke when the vessel grounded. There was no structural damage to the vessel.

Accident Events

According to information provided to investigators, the *St. Dominick's* bridge equipment included a bridge watch alarm system, very high frequency (VHF) radios, two radars, a depth sounder, and a personal computer loaded with Furuno TimeZero navigation software. The captain had joined the vessel about 2 months prior to the accident. He and the three deckhands had sailed together often and, according to the captain, got along well.

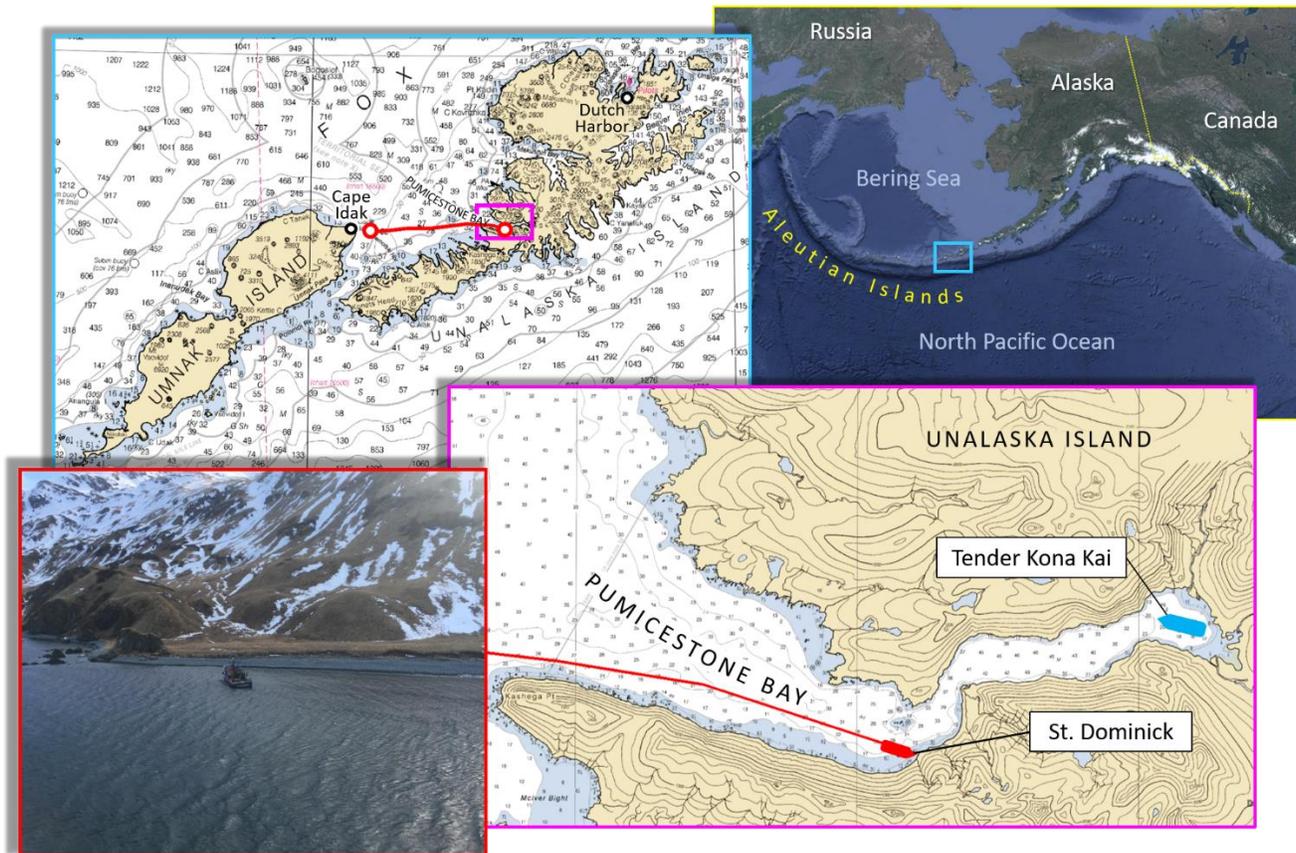
The *St. Dominick's* last port call was in Dutch Harbor on February 22, 2017. From February 22 onward, the vessel completed numerous 48-hour cod fishing cycles up until the accident date. On the accident voyage 48-hour fishing cycle, the *St. Dominick* left the tender *Kona Kai* on March 4, transited to the fishing grounds, and fished until about 0200 on the morning of March 5. The crew then took a 2–3-hour break while the vessel was at anchor. The captain believes that during this period he slept in the helm chair for 1–1.5 hours. About 0430, he resumed operating the vessel, and, about 0530, the crew resumed fishing.

Fishing continued until about 2100. The crew then went below to eat and sleep while the captain navigated the *St. Dominick* from a position off Cape Idak on Umnak Island toward the *Kona Kai*, which was anchored near the head of Pumicestone Bay. According to the captain, the *St. Dominick's* watch alarm was normally turned off while the vessel was fishing, set to alarm at 10-minute intervals while not fishing and further away from land, and set to alarm at 3-minute intervals when the vessel was within 3 miles of land. However, on this trip, he did not change the interval from 10 to 3 minutes because he "felt pretty good."

Chart tracings received from the *St. Dominick's* electronic charting system and confirmed by National Oceanic and Atmospheric Administration (NOAA) fisheries tracking showed a straight-line track from off Cape Idak into Pumicestone Bay of about 093 degrees. Somewhere between the fishing area and the grounding site, the captain set the auto-pilot (which kept the vessel on a heading) and fell asleep. Pumicestone Bay predominantly trends to the east when proceeding from sea but contains an S-turn about 4 miles from the entrance. With the captain asleep, the *St. Dominick* failed to negotiate this turn and, while making a speed of about 7 knots, grounded on the southern shore of the bay about 0009 on March 6. According to the captain and a deckhand, the watch alarm sounded sometime after the vessel grounded.

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After the grounding, the engine room began taking on water. The captain contacted three nearby vessels on VHF radio and apprised them of the situation. The crew began pumping water from the engine room, but the water level continued to rise. According to one deckhand, the engine room was fully flooded in 10–20 minutes. After assessing the situation, the captain decided to abandon the vessel. The crew inflated the liferaft, tied it off to the stern of the *St. Dominick*, and disembarked in an orderly fashion. About 0100, the crew was rescued from the liferaft by the fishing vessel *Cascade*.



Track of the *St. Dominick* from fishing grounds off Cape Idak to grounding location in Pumicestone Bay. (Charts by NOAA [16011, 16515]; location data from NOAA fisheries tracking; satellite image by Google Earth Pro; photo by Coast Guard)

Analysis

Investigators could not determine from crew statements precisely when the bridge watch alarm sounded after the vessel grounded. According to the captain, resetting the bridge watch alarm to 3 minutes, as was normal practice when the vessel completed fishing and was operating near land, could have prevented the accident.

Crewmembers also stated that they were tired and that the accident was caused by a “general lack of sleep.” A deckhand said that the crew, on average, got about 4–5 hours of rest per day. Investigators noted that this rest was spread between the daytime breaks from fishing and the nighttime cessation of all fishing operations.

The captain said he would average between 4 and 6 hours of rest in a 48-hour period, which equates to about 2–3 hours per day. Further, the amount of sleep in a given day varied as did the

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times that he slept. On March 4, he slept while the vessel offloaded and proceeded to the fishing area. Then, during the early morning of March 5, he slept for 1 to 1.5 hours.

In December 2014, the fishing vessel *Titan* grounded in the Columbia River and eventually sank near Cape Disappointment, Washington. As with the *St. Dominick* accident, the captain of the vessel had fallen asleep at the helm while the vessel was navigating through a bend in the channel. The NTSB investigated and determined that the captain failed to monitor the vessel's track as a result of falling asleep due to an accumulated sleep deficit. Contributing to the accident was the nature of the derby-style fishing that the *Titan* was engaged in.

The circumstances in the *St. Dominick* accident were similar to the February 2015 grounding of the fishing vessel *Savannah Ray*, which was also investigated by the NTSB. The *Savannah Ray*, while returning from a cod pot-fishing trip, grounded near the entrance of St. Paul Harbor, Kodiak Island, Alaska. Investigators determined that the captain fell asleep and failed to negotiate a critical turn. Investigators noted that the captain's fatigue was likely attributable to insufficient sleep and because his sleep cycle was interrupted or non-consecutive.

As found in other NTSB investigations, open-access, derby-style fishing encourages working longer hours to increase the vessel's portion of the overall quota set by state regulators. The *St. Dominick* captain and one of the deckhands stated that the rules for the cod fishery in which the vessel operated promoted around-the-clock operations and contributed to inadequate rest.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the grounding of the *St. Dominick* was the captain's failure to monitor the vessel's track as a result of his fatigue due to an accumulated sleep deficit. Contributing to the accident was the nature of the derby-style fishing that the *St. Dominick* was engaged in and the captain's failure to properly set the bridge watch alarm.

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Vessel Particulars

Vessel	<i>St. Dominick</i>
Owner/operator	Private citizen
Port of registry	Unalaska, Alaska
Flag	United States
Type	Fishing vessel
Year built	1970
Official number (US)	525586
IMO number	N/A
Classification society	N/A
Construction	Steel
Length	58 ft (17.7 m)
Depth	11.2 ft (3.4 m)
Beam/width	22.1 ft (6.7 m)
Gross/net tonnage	94 gross tons/65 net tons
Engine power; manufacturer	John Deere 6125AFM75 diesel engine, 400 hp, single screw
Persons on board	4

NTSB investigators worked closely with our counterparts from Coast Guard Marine Safety Detachment Dutch Harbor, Alaska, throughout this investigation.

For more details about this accident, visit www.nts.gov and search for NTSB accident ID DCA17FM008.

Issued: January 18, 2018

The NTSB has authority to investigate and establish the probable cause of any major marine casualty or any marine casualty involving both public and nonpublic vessels under Title 49 *United States Code*, Section 1131. This report is based on factual information either gathered by NTSB investigators or provided by the Coast Guard from its informal investigation of the accident.

The NTSB does not assign fault or blame for a marine casualty; rather, as specified by NTSB regulation, “[NTSB] investigations are fact-finding proceedings with no formal issues and no adverse parties . . . and are not conducted for the purpose of determining the rights or liabilities of any person.” Title 49 *Code of Federal Regulations*, Section 831.4.

Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by conducting investigations and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report. Title 49 *United States Code*, Section 1154(b).
