



# National Transportation Safety Board

## Marine Accident Brief

### Foundering of the Fishing Vessel *Moonlight Maid*

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<b>Accident no.</b>	DCA-12-LM-027
<b>Vessel name</b>	<i>Moonlight Maid</i>
<b>Accident type</b>	Foundering
<b>Location</b>	About 55 miles south of Seward, vicinity of Seal Rocks, Chiswell Islands, Gulf of Alaska 59° 10.2' N, 149° 30.0' W
<b>Date</b>	September 20, 2012
<b>Time</b>	Sank about 2100–2130 Alaska daylight time (UTC – 8 hours)
<b>Injuries</b>	None
<b>Damage</b>	Vessel loss, est. \$400,000
<b>Environmental damage</b>	No sheen reported or sighted from the est. 2,500 gallons marine diesel fuel on board
<b>Weather and sea conditions</b>	Cloudy skies, light rain and blowing spray, winds south to southeast 10 to 25 knots, air temperature about 50°F, water temperature 50°F, south swell with significant wave heights 9–12.5 ft
<b>Astronomical data</b>	Sunset 2001, nautical twilight ending 2131
<b>Waterway</b>	Gulf of Alaska, open ocean

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The wooden-hulled uninspected fishing vessel *Moonlight Maid* was transiting to Kodiak, Alaska, in heavy seas when the vessel sprung a plank and began flooding on September 20, 2012. The vessel's bilge pumps were unable to keep up with the rate of flooding, so the crew of four made a Mayday call, donned survival suits, and abandoned ship into a life raft as the boat foundered. All were later hoisted to safety by a US Coast Guard helicopter without injury. The sinking resulted in an estimated loss of \$400,000.

The *Moonlight Maid* was home ported in Valdez, Alaska, and had been operating as a fish tender for about 30 years in the Prince William Sound salmon fishery. A tender in this fishery typically takes salmon from gill-netters or other fishing vessels by using an onboard fish pump at sea. This allows the fishing vessels to fish uninterrupted for longer periods. The tender operator weighs the fish while off-loading and then takes them to the dock for processing. This method can also be used to unload garbage or other items. The tender also supplies fuel to fishing vessels, either from dedicated cargo tanks or directly from its main fuel tanks, as was the case with the *Moonlight Maid*. In addition, the tender may take food or other items to the fishing boats.

## Foundering of the Fishing Vessel *Moonlight Maid*



Fishing vessel *Moonlight Maid* docked in Whittier, Alaska, in March 2011.  
(Photo © Clayton M. Paddock, [www.marinetraffic.com](http://www.marinetraffic.com))

The current owner also served as *Moonlight Maid*'s master. He owned the tender for about 2 years prior to the sinking, operating it in Prince William Sound during the salmon season from late May to early September. The boat also served as an available asset in the oil spill response program in the Valdez, Alaska, area. After an initial training period, the master called in weekly to confirm the vessel's availability for marine pollution response emergencies.

In 2012, the salmon season for the *Moonlight Maid* finished in early August with its last fish offload in Seward, and the vessel stayed in Seward through mid-September while a wooden-ship specialist from Port Townsend Shipwright's Co-op performed repairs. The *Moonlight Maid* departed Seward about 1000 hours on the morning of September 20 to travel the 175 nautical miles through the Gulf of Alaska to Kodiak, where the vessel was to be inspected by canneries in preparation for off-season contract work. The crew consisted of the 46-year-old owner, who acted as master, and three deckhands.

As the boat left Seward and the more sheltered waters of Resurrection Bay, rough weather and seas lay ahead in the Gulf of Alaska. Weather buoy 46076, 50 miles east of the accident site, reported significant wave heights, up to 12.5 feet, and southeast winds between 9 and 22 knots with wind gusts as high as 27 knots for 18 hours before the foundering. Given the wave period and direction at this buoy and at another buoy 100 miles south of the foundering, the swell direction would have been from the south during the transit. The Coast Guard also

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reported weather at the time the vessel sank as 20–30 mph winds and 13-foot seas. (See chart below.)



Arrow indicates snow-covered rub rail on *Moonlight Maid*.

and down the port side shell of the engine room near the battery banks. About 2030, the master determined the engine room was becoming unsafe and the pumping would not succeed. He began preparations to abandon the vessel by telling the crew to don survival suits, get flares and the survival bag, retrieve personal gear, and ready the life raft.

At 2101, the master made a Mayday call on VHF marine radio channel 16, and Coast Guard Sector Anchorage responded. A few minutes later, the *Moonlight Maid* lost electrical power and then main propulsion power, and the master informed the Coast Guard that the vessel was sinking. The vessel's crew boarded the 10-person life raft, taking with them a handheld VHF radio and the vessel's emergency position indicating radio beacon (EPIRB), which they activated when they were away from the vessel.

At 1700, with the vessel east of Seal Rocks, the master had the watch crewmember take the wheel so he could check the engine room. He discovered a “fair amount of water” in the tool room, a space forward of the engine room. The master put both bilge pumps online and said the situation was then “OK.” When he returned to the wheelhouse through the engine room, he noticed that a 3- to 4-foot section of hull planking in way of the port rub rail was missing, and another section 10 to 12 feet long was loose.

At 1800, the watch crewmember doing a bilge check saw the water level was rising and a bilge pump had stopped working. The master called the remaining crew on deck to assist, and they found the electrical breaker to the pump had tripped. They reset the breaker and observed the bilge water levels again begin to decrease. At 1930, during now-routine bilge water level checks, the water in the engine room was high enough to spill directly into the tool room. The crew unclogged the bilge pump intakes, which improved pumping. Then they noticed water was cascading from the area directly below the damaged hull planking



Southern Alaska and accident location. (Map by Google Earth)

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The master did not see the boat sink but recalled that its emergency lights could be seen for a short time from the life raft. Coast Guard Sector Anchorage watchstanders communicated with the master of the *Moonlight Maid* and coordinated with Air Station Kodiak to launch an MH-60 Jayhawk helicopter for the search-and-rescue (SAR) effort. The helicopter crew located all four *Moonlight Maid* crewmembers in their life raft at 2251. The Coast Guard crew hoisted them off the life raft and returned them to Seward, where they were reported to be in good condition with no injuries. The effective SAR can be partially attributed to the crew's successful planning and execution of abandoning the vessel in an emergency.

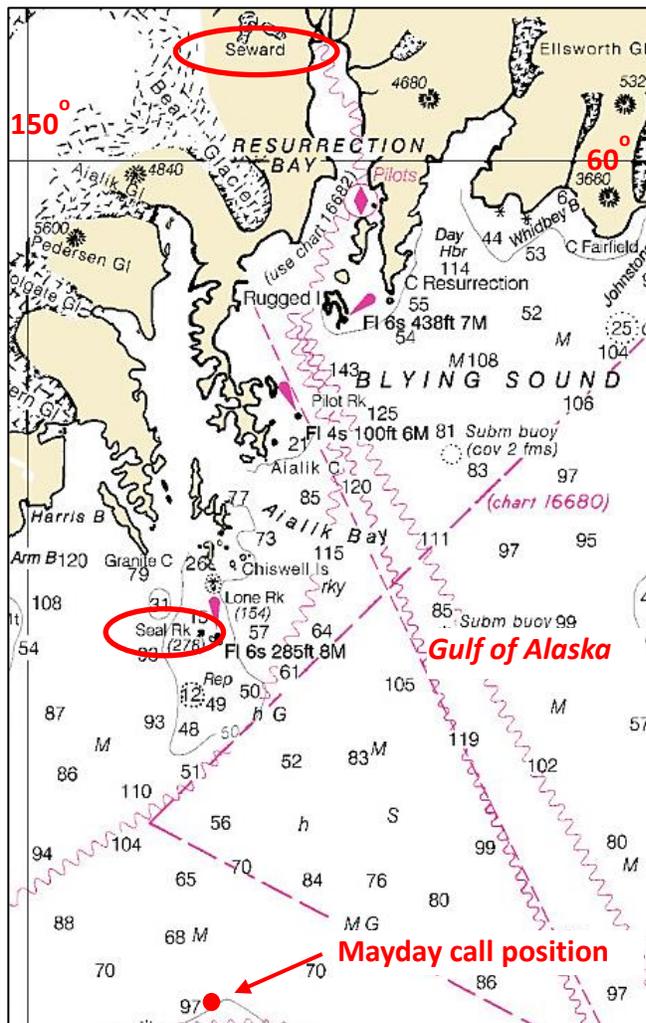
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*"They were prepared for an emergency and did exactly what they needed to do ... with the proper survival suits, life raft, an emergency position beacon and proper communications gear."*

—Sector Anchorage watchstander

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The *Moonlight Maid*, valued at \$400,000, was not salvaged. The vessel had two 1,500-gallon diesel tanks and two 300-gallon gasoline tanks and was carrying about 2,500 gallons of diesel fuel when it sank. The water depth was about 100 fathoms at the site, and the Coast Guard saw no evidence of pollution.



Position of *Moonlight Maid* when Mayday call was made. (Excerpt from NOAA Chart 16013, Cape St. Elias to Shumagin Islands)

After the accident, the crew was directed to undergo alcohol and drug testing. Alcohol testing was not conducted due to the inability to test within the allotted time, but the master and a deckhand directly involved in the dewatering were tested for drugs with negative results.

As an uninspected vessel, the *Moonlight Maid* was not required to meet Coast Guard inspection regulations, but the owner voluntarily participated in the Coast Guard's commercial fishing vessel safety examination program. The last safety exam was conducted in March 2011 and was current at the time of the foundering. Commercial fishing vessel safety exams deal primarily with lifesaving equipment on board the boat and do not include hull or other machinery assessments that are required for Coast Guard-inspected vessels.

The previous and current owners of the *Moonlight Maid* used the same shipwright from Port Townsend Shipwright's Co-op for repairs. In

## Foundering of the Fishing Vessel *Moonlight Maid*

September 2010, the former owner had 16 days of work completed in Seward, including replacing 40 planks and the transom.

The shipwright stated that these repairs “addressed the worst rot and damage the boat currently had but did not address everything.” About a year later, the current owner had the shipwright conduct a “one-day assessment of the boat’s condition,” which resulted in a list of recommended repairs the owner verbally committed to addressing the following year.

The shipwright and a colleague performed 10 days of deck repairs to the *Moonlight Maid* in Seward in September 2012 at the request of the owner, who was not present. However, the work focused only on the owner’s request to “prevent water from leaking into the engine room” and did not address the shipwright’s “most serious recommendations” from his 2011 assessment. The shipwright felt this work done in 2012 would successfully stop the leaks, but he said he explained to the owner that the repairs “in no way addressed the structural needs we had discussed in 2011.” The owner’s statement to the Coast Guard did not address structural issues.

During the repair work, evidence was found of severely rotted deck beams that supported planking (see photo at right). This rot may have extended to the adjacent hull frames, which would have compromised the frames to which the rub rail and hull planking were fastened. The Coast Guard investigation report for this accident also found the port rub rail was attached to planking and structural members that were in need of replacement.



***Moonlight Maid* portside deck under repair, Seward Dock, September 2012. The top arrow indicates an area of rot found in structural member. (Photo provided by Coast Guard Sector Anchorage)**

## Probable Cause

The National Transportation Safety Board determines that the probable cause of the foundering of the wooden-hulled fishing vessel *Moonlight Maid* was the detachment of portside hull planking in heavy weather, which resulted in uncontrolled flooding. Contributing to the hull failure was inadequate maintenance of the aging wooden vessel.

## Foundering of the Fishing Vessel *Moonlight Maid*

### Vessel Particulars

<b>Vessel</b>	<b><i>Moonlight Maid</i></b>
<b>Owner</b>	Moonlight Maid
<b>Managing owner</b>	M/V Moonlight Maid LLC
<b>Port of registry</b>	Valdez, Alaska
<b>Flag</b>	United States
<b>Type</b>	Fish catching vessel
<b>Built</b>	1942
<b>Official number (US)</b>	261389
<b>IMO number</b>	7307213
<b>Construction</b>	Wood
<b>Length</b>	107.3 ft (37.7 m)
<b>Breadth</b>	18 ft (5.5 m)
<b>Depth</b>	9.3 ft (2.8 m)
<b>Gross registered tonnage</b>	138
<b>Net tonnage</b>	94
<b>Propulsion type</b>	Diesel
<b>Cargo</b>	None
<b>Persons on board</b>	4

(Main engine power, steering, and service speed data unavailable.)

**Adopted: March 14, 2014**

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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 49 *United States Code* 1131. This report is based on factual information provided by the US Coast Guard from its informal investigation of the accident. The NTSB did not conduct its own on-scene investigation.

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### History of the *Moonlight Maid*

The owner of the *Moonlight Maid* said that before the vessel began operating in Prince William Sound, it was engaged in fishing operations in southeast Alaska and the US mainland west coast. The vessel was launched and delivered as *USS PC-0536* in 1942 by Peterson Boat Works in Sturgeon Bay, Wisconsin, as one of a class of 438 110-foot World War II US Navy Sub-Chasers (SC). After World War II, the boat was transferred to the Coast Guard and renamed the *Air Cormorant (WAVR 415)*.



Photo courtesy Historical Collections of the Great Lakes, Bowling Green State University.

In 1951, the boat was converted by a Seattle owner to a 107-foot fishing craft of 138 gross registered tons named *Moonlight Maid*. The boat would keep this name, tonnage, and dimensions to the time of the accident. However, ownership changed again in 1969 to Petersburg Processors in southeast Alaska and then to additional owners as the vessel worked Prince William Sound as a salmon fishery tender up to the sinking. Several other SCs were converted, and several are still in varied service today. Another SC converted to a fishing vessel, the *Pacific Laurel (SC-504)*, sank 126 miles off Hawaii in 2006 after it began flooding. The Coast Guard dropped dewatering pumps with a C-130, but the crew of four eventually had to be rescued by helicopters from nearby US Naval vessels.

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