



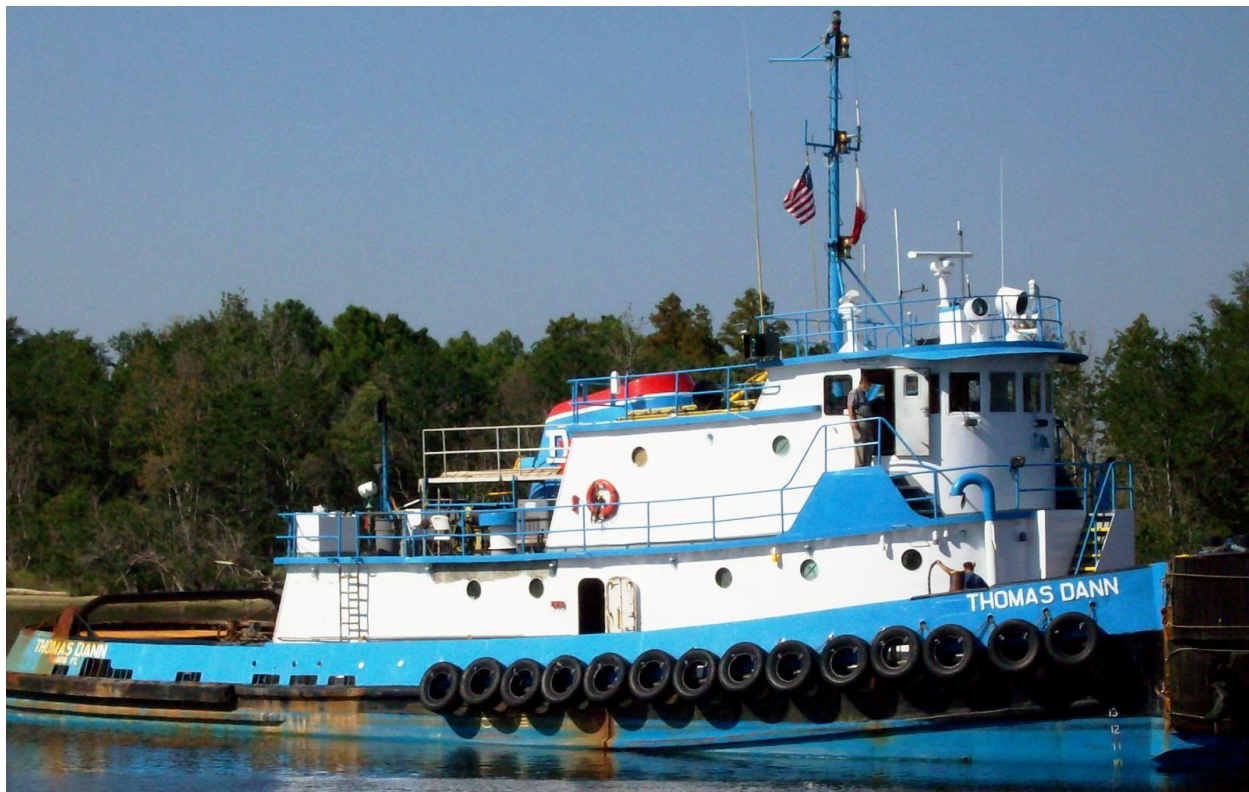
National Transportation Safety Board

Marine Accident Brief

Fire aboard Towing Vessel *Thomas Dann*

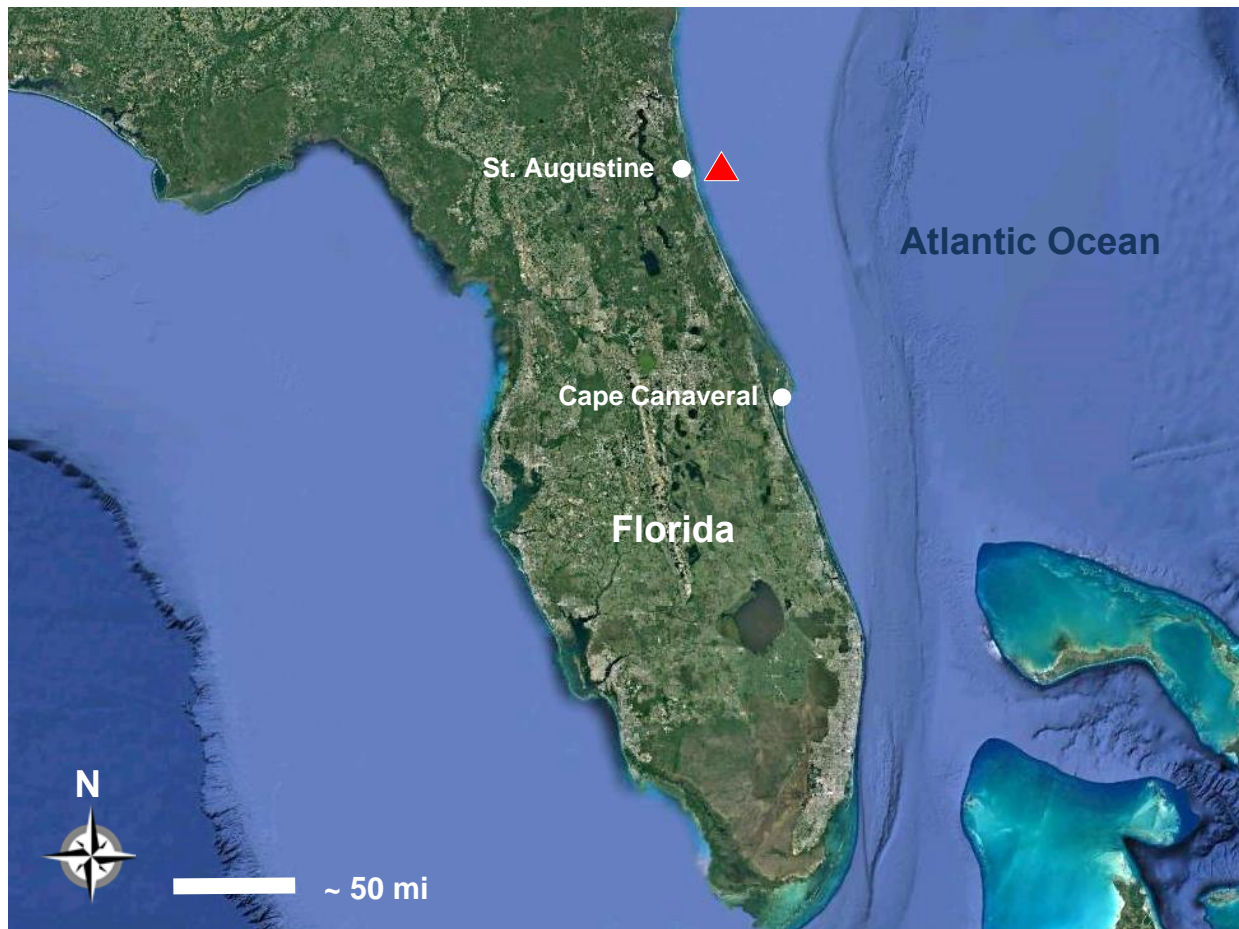
Accident no.	DCA16FM048
Vessel name	<i>Thomas Dann</i>
Accident type	Fire
Location	Atlantic Ocean, about 9 nautical miles east of St. Augustine, Florida 29°41.0' N, 081°04.3' W
Date	July 22, 2016
Time	1700 eastern daylight time (coordinated universal time – 4 hours)
Injuries	None
Property damage	\$2.5 million est.
Environmental damage	None
Weather	Partly cloudy, clear visibility, east winds at 5–10 knots, seas at 2–3 feet, air temperature 88°F, sea temperature 87°F.
Waterway information	Atlantic Ocean

On July 22, 2016, at 1700 local time, a fire broke out in the upper engine room aboard the towing vessel *Thomas Dann* while it was engaged in towing operations offshore near St. Augustine, Florida, en route to Cape Canaveral, Florida. No one was injured, nor was any pollution reported. However, due to the extent of the fire damage, the vessel, which was valued at an estimated \$2.5 million, was declared a constructive total loss.



Thomas Dann before the accident. (Photo courtesy of Dann Ocean Towing)

Fire aboard Towing Vessel *Thomas Dann*



Satellite image of the Florida peninsula, with the accident location off St. Augustine marked by a red triangle. (Background by Google Earth)

The vessel was operated by Dann Ocean Towing, and its tow, the single 343-foot-long barge *EMI-1152*, was owned by Express Marine, Inc. Dann Ocean Towing operated a fleet of 14 vessels engaged in coastwise and ocean towing along with miscellaneous harbor-assist projects such as tunnel or bridge construction. On July 17, 2016, the *Thomas Dann* and barge *EMI-1152*, which was loaded with cement, left Brooklyn, New York. The barge was towed behind the vessel on an approximately 1,300-foot-long tow line. Six people—a captain, a mate, two able-bodied seamen, an engineer, and a barge attendant—were on board the *Thomas Dann*. After transiting down the East Coast, the tow was nearing the end of the journey with an estimated arrival in Cape Canaveral at 0600 on the morning of July 23.

At the time of the accident, the *Thomas Dann* had aboard an eight-person inflatable liferaft as well as personal flotation devices and immersion suits. The vessel was also equipped with portable fire extinguishers, a fireman's outfit, and a fire pump; extra hoses for the fire pump were stored in the upper engine room.

At 1700 on July 22, a fire alarm for the upper engine room activated on the wheelhouse panel. The mate, who was at the helm, tried to reset the alarm and verify whether it activated falsely, but the alarm continued to alert. Moments later, one of the deckhands yelled up to the wheelhouse about seeing smoke.

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***Thomas Dann* ablaze and abandoned near barge *EMI-1152*. (Photo by Daytona Fire Department)**

The captain, who was off duty and resting in his stateroom when the alarm activated, went to the wheelhouse. Within a minute of his arrival there, the rest of the crew arrived with lifejackets and immersion suits in hand.

The captain instructed the mate to take a radio and investigate the fire in the space. The mate was away for only a minute or two before reporting that the space was inaccessible and to get an extinguisher or start the firepump due to the severity of the smoke. In the meantime, the captain radioed the US Coast Guard and, while he was on the call, the mate returned with smoke following him into the wheelhouse.

The fire had spread to the dining room, galley, and several staterooms located on the main deck. The captain attempted to slow the vessel and maneuver in a way to prevent barge *EMI-1152* from overrunning them as well as prevent the fire and smoke emanating from the upper engine room from being carried aft. However, within the first minute or so of this attempt, the vessel lost power. According to their interviews, the crewmembers did not attempt to fight the fire because of how quickly it grew in heat and intensity.

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Fire damage to *Thomas Dann*, with barge *EMI-1152* in the background. (Photo by Coast Guard)

The captain informed the Coast Guard that the vessel was on fire and provided its position. He then instructed the mate to start closing vents. The mate (assisted by both deckhands) reported that he could get only the starboard vent covered due to the extent of the fire. The crewmembers decided to get the liferaft into the water. In preparation, they removed the raft canister from the side of the vessel and brought it around to the bow. There, they secured the canister to the railing, but no one abandoned the vessel at that time, nor did they inflate the raft.

With the vessel now dead in the water, the captain was worried about the fire and smoke engulfing the entire vessel and crew. He gave the order to abandon ship, which the crewmembers followed. They inflated and boarded the liferaft and then maneuvered away from the *Thomas Dann* to escape the extreme heat and explosions occurring aboard the vessel.

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Thomas Dann's wheelhouse after the fire, showing the aft starboard bulkhead. (Photo by Coast Guard)

The crewmembers were picked up by the nearby private sport fishing vessel *Roothless* and taken to Coast Guard Station New Smyrna, Florida. That same afternoon, two tugboats—the *El Puma Grande* and the *Ybor City*—transited out to tend to the *Thomas Dann*. When the fire burned itself out the following morning, July 23, they towed it back to port. The towboat *Elsbeth III* arrived that morning and took barge *EMI-1152*, which did not sustain any fire damage, in tow to Cape Canaveral. The *Thomas Dann* was towed to Green Cove Springs, Florida, for the ensuing investigation and repairs.

As soon as the crewmembers came ashore, they were alcohol-tested at Coast Guard Station New Smyrna; drug-testing was conducted the following morning. All results were negative. The crewmembers were also medically assessed at various facilities; no injuries were reported.



The upper engine room where the fire was determined to have originated. (Photo by Coast Guard)

The fire investigation was conducted by the Coast Guard and a fire inspector whom the vessel owner hired. The greatest fire damage was located at the central portion of the upper engine room, with severe heat damage to the steel structural members. In addition to the extra hoses for the fire pump that were stored there, a drum of waste oil had also been placed in the upper engine room, providing combustible material to stoke the fire. The insulation wrap around the exhaust system also demonstrated heavy fire damage. All wiring in this area was brittle and damaged due to fire. The deckhouse, crew quarters, wheelhouse, and galley also sustained significant fire, heat, and smoke damage; the lower engine room suffered moderate damage.

An electrical fuse box that was located on a vertical post in the central portion of the upper engine room bore evidence of electrical arcing at its aft side. There was also evidence of electrical arcing to wiring in this area. As a result of the heat damage, the source of those wires could not be traced. Arc mapping of all electrical wiring, which is a systematic evaluation of fire-damaged electrical circuits, further indicated that the electrical fuse box was the general area of origin.

In addition, electrical cables and other equipment (including fuse and switch boxes, extension cords, electrical tools, and lights) located in and around the area could not be ruled out as an ignition source. However, two freezer units and a washing machine and dryer were ruled out as potential causes of the fire. Due to the amount of damage to the area of origin, the precise cause of the fire could not be determined.

The *Thomas Dann*'s insurance company determined the vessel, valued at an estimated \$2.5 million, to be a constructive total loss.

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Probable Cause

The National Transportation Safety Board determines that the probable cause of the fire aboard towing vessel *Thomas Dann* was an ignition originating near an electrical fuse box in the upper engine room. Contributing to the intensity of the fire was the presence of combustible materials in the upper engine room.

Vessel Particulars

Vessel	<i>Thomas Dann</i>
Owner/operator	Thomas Dann, Inc./Dann Ocean Towing, Inc.
Port of registry	Tampa, Florida
Flag	United States
Type	Towing vessel
Year built	1975
Official number (US)	566365
IMO number	7621786
Construction	Steel
Length	105 ft (32 m)
Draft	12.8 ft (3.9 m)
Beam/width	30 ft (9.1 m)
Gross tonnage	183 gross tons
Engine power; manufacturer	2 EMD 12-645-E6 diesel reduction engines, 2 x 4 bladed fixed-pitch propellers, 3,000 hp
Persons on board	5 crewmembers, 1 barge attendant

NTSB investigators worked closely with our counterparts from Coast Guard Sector Jacksonville throughout this investigation.

For more details about this accident, visit www.nts.gov and search for NTSB accident ID DCA16FM048.

Issued: August 10, 2017

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).