NATIONAL TRANSPORTATION SAFETY BOARD
Virtual Meeting of October 20, 2020
(Information subject to editing)

Fire Aboard Small Passenger Vessel Conception, Platts Harbor, Channel Islands National Park, Santa Cruz Island, 21.5 miles South-Southwest of Santa Barbara, California
September 2, 2019
DCA19MM047

This is a synopsis from the NTSB's report and does not include the Board's rationale for the conclusions, probable cause, and safety recommendations. NTSB staff is currently making final revisions to the report from which the attached conclusions and safety recommendations have been extracted. The final report and pertinent safety recommendation letters will be distributed to recommendation recipients as soon as possible. The attached information is subject to further review and editing to reflect changes adopted during the Board meeting.

Executive Summary

About 3:14 a.m. Pacific daylight time on September 2, 2019, the US Coast Guard received a distress call from the *Conception*, a 75-foot-long small passenger vessel operated by Truth Aquatics, Inc. The vessel was anchored in Platts Harbor on the north side of Santa Cruz Island, 21.5 nautical miles south-southwest of Santa Barbara, California, when it caught fire. When the fire started, 5 crewmembers were asleep in their bunks in the crew berthing on the upper deck, and 1 crewmember and all 33 passengers were asleep in the bunkroom below. A crewmember sleeping in an upper deck berth was awakened by a noise and got up to investigate. He saw a "glow" outside. Realizing that there was a fire rising up from the salon compartment directly below, the crewmember alerted the four other crewmembers sleeping on the upper deck.

The captain was able to radio a quick distress message to the Coast Guard. Crewmembers jumped down to the main deck and attempted to access the salon to assist the passengers and crewmember in a bunkroom below the main deck but were blocked by fire and overwhelmed by thick smoke. The five surviving crewmembers jumped overboard. Two crewmembers swam to the stern, re-boarded the vessel, and found the access to the salon through the aft corridor was also blocked by fire, so, along with the captain who also had swum to the stern, they launched the vessel's skiff and picked up the remaining two crewmembers in the water. The crew transferred to a recreational vessel anchored nearby where the captain continued to radio for help, while two crewmembers returned to the waters around the burning *Conception* to search for possible survivors.

The Coast Guard and other first responder boats began arriving on scene at 4:27 a.m. Despite firefighting and search and rescue efforts, the vessel burned to the waterline and sank just after daybreak, and no survivors were found. Thirty-three passengers and one crewmember died. The surviving crew were transported to shore, and two were treated for injuries. Loss of the vessel was estimated at $1.4 million.

The safety issues identified in this accident, some of which have been identified in previous accidents involving passenger vessels, include the following:

- **Lack of small passenger vessel regulations requiring smoke detection in all accommodation spaces.** In accordance with the fire safety regulations applicable to the *Conception* in Title 46 *Code of Federal Regulations* Subchapter T, the only compartment that was required to be fitted with smoke detectors was the passenger bunkroom, since it was the vessel's only overnight accommodation space. The *Conception* was equipped with two modular smoke detectors in the bunkroom—one mounted on the overhead of each of the port and starboard aisles. The *Conception* had no smoke detectors anywhere in the main deck salon area where crewmembers reported seeing the fire. The nearest heat detector was well forward in the galley, a deck above the bunkroom, and was not intended to be utilized as a fire detector for the entire salon. Additionally, all detectors aboard the vessel only sounded locally. Although the *Conception* met the regulatory compliance for smoke detectors in the bunkroom where the passengers and crewmember slept, the fire above them in the salon would have been well-developed before the smoke activated these detectors.

- **Lack of a roving patrol.** NTSB investigators found that, prior to the accident, the *Conception* and other Truth Aquatics vessels were regularly operating in contravention of the regulations and the vessel's Certificate of Inspection, which required a roving patrol at night and while passengers were in their bunks to guard against, and give alarm in case of, a fire, man overboard, or other dangerous situation. During the investigation, NTSB staff visited other dive boats operating from Southern California ports and harbors and spoke with their owners/operators. During informal discussions, all owners/operators stated that night patrols were assigned whenever passengers were aboard, but the procedures for the patrols varied greatly. When asked by investigators, US Coast Guard inspectors stated that they could not verify compliance with the roving patrol requirement, since inspections were not conducted during overnight voyages with passengers embarked.

- **Small passenger vessel construction regulations for means of escape.** The *Conception* was designed in accordance with the regulations in Subchapter T in force at the time of construction. As such, the vessel was required to have at least two emergency egress pathways from all areas accessible to passengers. The *Conception* had two means of escape from the bunkroom: spiral stairs forward and an escape hatch aft, accessible from either port or starboard aisles by climbing into one of the top aftermost inboard bunks. However, both paths led to the salon, which was filled with heavy smoke and fire, and the salon compartment was the only escape path to exterior (weather) decks. Therefore, because there was fire in the salon, the passengers were trapped, and the crew was not able to reach them. If regulations had required the escape hatch to exit to a space other than the salon, optimally directly to the weather deck, the passengers and crewmember in the bunkroom would have likely been able to escape.

- **Ineffective company oversight.** During the investigation, the NTSB found several unsafe practices on company vessels, including a lack of crew training, emergency drills, and the roving patrol. In reviewing the company's policies and procedures, along with the US Coast Guard regulations, it is clear that Truth Aquatics had been deviating from required safe practices for some time. If the company had been actively involved in ensuring the safe

practices required by regulations were enforced, most notably the requirement for a roving patrol, it is likely this accident would have not happened. Had a safety management system been in place at Truth Aquatics, it would have likely included procedures for roving patrols that complied with regulations and a company-involved audit process for identifying and correcting when non-conformities with the patrol requirements existed.

Investigative Constraints

The Office of the US Attorney is conducting a criminal investigation of this accident. The Assistant US Attorney assigned to the case requested the NTSB not interview the captain of the *Conception* out of concern that the interview could hinder the ability of their office to bring criminal charges against the captain. The NTSB obtained significant information from the other crewmembers; however, the *Conception*'s captain had many years of experience on the same vessel, so the owner and surviving crewmembers referred many of investigators' questions to the captain, which remain unanswered. The Office of the US Attorney also requested that NTSB investigators not interview the first galley hand, who was hospitalized at the time, or any Truth Aquatics employee responsible for operations.

From September 8–10, 2019, the Office of the US Attorney served search warrants on the offices and two remaining vessels of Truth Aquatics; the NTSB was not invited to participate. The search warrants resulted in the seizure of thousands of pages of documents and records. Computers, security camera servers, and items, such as fans, smoke detectors, and heat sensors from each vessel, were also seized. Truth Aquatics was not able to provide records or information to NTSB investigators after the search warrants were executed. Scans of the seized documents and records were not provided to NTSB investigators until February 2020, and no electronic evidence recovered from computers and servers was included in the materials provided.

These impediments delayed and complicated the NTSB's investigation, but they did not affect its quality, as investigators used the factual information collected to complete an accurate, safety-focused investigation.

Findings

1. Weather and sea conditions were not factors in the accident.

2. The use of alcohol or other tested-for drugs by the *Conception* deck crew was not a factor in the accident.

3. The origin of the fire on the *Conception* was likely inside the aft portion of the salon.

4. Although a definitive ignition source cannot be determined, the most likely ignition sources include the electrical distribution system of the vessel, unattended batteries being charged, improperly discarded smoking materials, or another undetermined ignition source.

5. The exact timing of the ignition cannot be determined.

6. Most of the victims were awake but could not escape the bunkroom before all were overcome by smoke inhalation.

7. The fire in the salon on the main deck would have been well-developed before the smoke activated the smoke detectors in the bunkroom.

8. Although the arrangement of detectors aboard the *Conception* met regulatory requirements, the lack of smoke detectors in the salon delayed detection and allowed for the growth of the fire, precluded firefighting and evacuation efforts, and directly led to the high number of fatalities in the accident.

9. Interconnected smoke detectors in all accommodation spaces on Subchapter T and Subchapter K vessels would increase the chance that fires will be detected early enough to allow for successful firefighting and the evacuation of passengers and crew.

10. The absence of the required roving patrol on the *Conception* delayed detection and allowed for the growth of the fire, precluded firefighting and evacuation efforts, and directly led to the high number of fatalities in the accident.

11. The US Coast Guard does not have an effective means of verifying compliance with roving patrol requirements for small passenger vessels.

12. The *Conception* bunkroom's emergency escape arrangements were inadequate because both means of escape led to the same space, which was obstructed by a well-developed fire.

13. Subchapter T (Old and New) regulations are not adequate because they allow for primary and secondary means of escape to exit into the same space, which could result in those paths being blocked by a single hazard.

14. Although designed in accordance with the applicable regulations, the effectiveness of the *Conception*'s bunkroom escape hatch as a means of escape was diminished by the location of bunks immediately under the hatch.

15. The emergency response by the Coast Guard and municipal responders to the accident was appropriate but was unable to prevent the loss of life given the rapid growth of the fire at the time of detection and location of the *Conception*.

16. Truth Aquatics provided ineffective safety oversight of its vessels' operations which jeopardized the safety of crewmembers and passengers.

17. Had a safety management system been implemented, Truth Aquatics could have identified unsafe practices and fire risks on the *Conception* and taken corrective action before the accident occurred.

18. Implementing safety management systems on all domestic passenger vessels would further enhance operators' ability to achieve a higher standard of safety.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the accident on board the small passenger vessel *Conception* was the failure of Truth Aquatics, Inc., to provide effective oversight of its vessel and crewmember operations, including requirements to ensure that a roving patrol was maintained, which allowed a fire of unknown cause to grow, undetected, in the vicinity of the aft salon on the main deck. Contributing to the undetected growth of the fire was the lack of a United States Coast Guard regulatory requirement for smoke detection in all accommodation spaces. Contributing to the high loss of life were the inadequate emergency escape arrangements from the vessel's bunkroom, as both exited into a compartment that was engulfed in fire, thereby preventing escape

Recommendations

New Recommendations

To the US Coast Guard

1. Revise Title 46 *Code of Federal Regulations* Subchapter T to require that newly constructed vessels with overnight accommodations have smoke detectors in all accommodation spaces.

2. Revise Title 46 *Code of Federal Regulations* Subchapter T to require that all vessels with overnight accommodations currently in service, including those constructed prior to 1996, have smoke detectors in all accommodation spaces.

3. Revise Title 46 *Code of Federal Regulations* Subchapter T and Subchapter K to require all vessels with overnight accommodations including vessels constructed prior to 1996, have interconnected smoke detectors, such that when one detector alarms, the remaining detectors also alarm.

4. Develop and implement an inspection procedure to verify that small passenger vessel owners, operators, and charterers are conducting roving patrols as required by Title 46 *Code of Federal Regulations* Subchapter T.

5. Revise Title 46 *Code of Federal Regulations* Subchapter T to require newly constructed small passenger vessels with overnight accommodations to provide a secondary means of escape into a different space than the primary exit so that a single fire should not affect both escape paths.

6. Revise Title 46 *Code of Federal Regulations* Subchapter T to require all small passenger vessels with overnight accommodations, including those constructed prior to 1996, to provide a secondary means of escape into a different space than the primary exit so that a single fire should not affect both escape paths.

7. Review the suitability of Title 46 *Code of Federal Regulations* Subchapter T regulations regarding means of escape to ensure there are no obstructions to egress on small passenger vessels constructed prior to 1996 and modify regulations accordingly.

To the Passenger Vessel Association, Sportfishing Association of California, and National Association of Charterboat Operators

8. Until the US Coast Guard requires all passenger vessels with overnight accommodations, including vessels constructed prior to 1996, to have smoke detectors in all accommodation spaces, share the circumstances of the *Conception* accident with your members and encourage your members to voluntarily install interconnected smoke and fire detectors in all accommodation spaces such that when one detector alarms, the remaining detectors also alarm.

9. Until the US Coast Guard requires small passenger vessels with overnight accommodations to provide a secondary means of escape into a different space than the primary exit, share the circumstances of the *Conception* accident with your members and encourage your members to voluntarily do so.

To Truth Aquatics

10. Implement a safety management system for your fleet to improve safety practices and minimize risk.

Recommendation Reiterated in this Report

As a result of its investigation of this accident, the National Transportation Safety Board reiterates Safety Recommendation M-12-3, which is currently classified as "Open—Unacceptable Response":

To the US Coast Guard

Require all operators of U.S.-flag passenger vessels to implement SMS, taking into account the characteristics, methods of operation, and nature of service of these vessels, and, with respect to ferries, the sizes of the ferry systems within which the vessels operate. (M-12-3)