Fog M-337B

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: March 14, 1988

In reply refer to: M-88-17

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On June 22, 1987, at approximately 1800, two commuter ferries operated by Direct Line Commuter Service, Inc., collided in Lower New York Bay during fog. The JACK W, a 110-foot aluminum ex-crew boat, was southbound from Manhattan to Highlands, New Jersey, with 126 passengers aboard. The JAMEY DOWNEY, a similar 99-foot boat, was northbound with only two passengers aboard. The operators of the vessels established a meeting agreement by VHF radio before they came in sight of each other. When they were about 150 feet apart, the JAMEY DOWNEY was sighted directly in the path of the JACK W. The port bow of the JACK W struck the port bow of the JAMEY DOWNEY. The JAMEY DOWNEY was traveling at an estimated speed of about 10 knots while the JACK W was traveling at an estimated speed of 17 to 18 knots. Each boat was able to proceed to the passenger terminal at Highlands under its own power. Sixteen passengers aboard the JACK W and 1 passenger aboard the JAMEY DOWNEY were injured. 1/

As the JACK W and the JAMEY DOWNEY approached each other on nearly reciprocal courses, apparently neither operator doubted that he had identified the other either by radar or by voice radio. At 1802, the operator of the JACK W knew where the JAMEY DOWNEY was located even before he identified it on radar as a result of his communication with the operator of the JAMEY DOWNEY. The JAMEY DOWNEY's operator anticipated that he would meet the JACK W near the West Bank Light Tower as he had frequently in the past. He stated that he first detected the JACK W on radar on the 3-mile range scale on the left side of the heading flasher approximately 2 1/2 miles away. After he identified the other vessel, he switched his radar to the 1 1/2-mile range and observed the image move from the left to the right side of the radarscope crossing the heading flasher.

If the JAMEY DOWNEY's operator was correct in his assessment of the relative motion of the JACK W, that the bearing was opening to the right for a starboard-to-starboard meeting, then the vessels should have passed clear of each other. The apparent relative motion of the JACK W to the right probably triggered his decision to propose a starboard-to-starboard meeting rather than the port-to-port meeting that he first had in mind. Although he testified that the image was crossing his heading flasher as he was transmitting on the VHF radio, he still changed course to the left to "open the

1/ For more detailed information, read Marine Accident Report--"Collision of the Commuter Ferries JACK W and JAMEY DOWNEY, Lower New York Bay, June 22, 1987" (NTSB/MAR-88/02).

gap." However, it is unclear whether the radar's image continued to drift to the right because the JAMEY DOWNEY changed course or because the JACK W's relative motion continued to move to the right. The JAMEY DOWNEY's operator recalled that when he looked away from his radar, the JACK W's image was about 15 degrees to the right of the heading flasher. Given the speeds of each vessel as estimated by the respective operators, the relative speed of approach was about 27 to 28 knots or about 2 minutes 13 seconds per mile.

The circumstances of the accident and the statements of the operators indicate that neither operator understood or made effective use of all the radar information that was available to operate the vessels safely in the restricted visibility. The operator of the JACK W stated his agreement to a starboard-to-starboard meeting with the JAMEY DOWNEY constituted his "appropriate action." Despite the fact that from his earlier radar observations the other vessel appeared to be on a collision course and therefore a definite risk of collision existed, he believed he would pass clear and took no further action. The Safety Board believes that the operator of the JACK W should have reduced speed and navigated with caution until risk of collision was over. Moreover, he failed to continue to monitor the radar during those last critical moments in which he could have taken decisive action to avoid collision. With two additional persons in the JACK W wheelhouse as lookouts, the JAMEY DOWNEY was sighted as soon as it emerged from the fog. However, the relative speed of the vessels left little time for the JACK W to steer clear of the approaching vessel.

With few waves present, the chances that the radar image was obscured in any sea return 2/ were slim. The Safety Board believes that the operator of the JACK W, because of his lack of formal radar training, failed to realize the importance of continuously monitoring the radar as the vessels approached each other and failed to take appropriate action to avoid a close quarters situation that ultimately resulted in a collision.

The operator of the JAMEY DOWNEY, on the other hand, was proceeding northbound on a nearly reciprocal course and had watched the radar image of the JACK W drift to the right across his heading flasher before he looked away from his radar. In his testimony, he stated that he changed his course about 4 degrees to the left to "open the gap." If he did change course to the left, at some point before sighting the JACK W, the heading of the JAMEY DOWNEY must have drifted to the right since the JACK W was sighted slightly on the JAMEY DOWNEY's port bow and the JAMEY DOWNEY was struck on its port bow. This also supports the testimony of the JACK W's operator that he believed that he would pass clear with no avoiding action. Coupled with the operator's testimony, that he did not touch the helm as he pulled back the throttles to full astern, it can be concluded that the JAMEY DOWNEY's heading drifted to the right of its intended course shortly before the vessels came in sight of each other. The testimonies of the lookouts on both vessels support this conclusion.

The JAMEY DOWNEY's operator testified that when he looked away from his radar, he checked his compass and looked ahead for floating debris. Although it could not be determined how long he took his eyes off the compass to look ahead, frequent observations of compass or radar are necessary to maintain a steady course in limited visibility with no reference point ahead to sight on. Since he looked at neither the compass nor the radar while searching for floating debris, the vessel probably strayed off course during this period.

2/ Clutter on a vessel's radarscope by radar signals reflected by nearby waves.

The Safety Board also believes that a reduction in speed by the JACK W when the meeting agreement was established would have given both operators sufficient time to "see and avoid" each other. Rule 8(e) of the Inland Navigation Rules clearly states that a vessel must slacken its speed or take all way off by stopping or reversing its propulsion to allow more time to assess the situation. Furthermore, Rule 8(d) of the Inland Navigation Rules states that the effectiveness of the action shall be such as to result in passing at a safe distance and shall be carefully checked until the other vessel is past and clear; merely establishing a meeting agreement does not satisfy the intent of this section of the rule. The Safety Board believes that if both operators had complied with these navigation rules, the vessels would have met and passed each other safely despite the restricted visibility.

Both operators stated that they did not routinely ask their deckhands to brief the passengers on the location of safety equipment or emergency procedures nor did they conduct a safety orientation on the day of the accident. Instead, they assumed that, because most of the passengers were regular commuters, they were already familiar with the safety features of the vessels. Copies of a pamphlet describing the vessel's design criteria, its compliance with Coast Guard standards for inspection and equipment, and a request that passengers familiarize themselves with the location of the nearest lifejacket storage locker were readily available in a wood rack attached to a bulkhead for those interested. An emergency checkoff list was posted in the main passenger compartments of both vessels with instructions to crewmembers on the procedures to follow for rough weather, man overboard, and fire at sea. In addition, a placard was posted showing how to don a lifejacket correctly. However, Safety Board and Coast Guard investigators did not see any posted instructions to passengers concerning exit doors, evacuation procedures, or precautions to be taken during docking or undocking, such as remaining seated until the ferry had been made fast at the terminal.

Both vessel operators acknowledged that safety announcements were not made to the passengers at the beginning of the voyage. Despite the fact that many of the passengers were regular commuters and perhaps were familiar with the vessels, it should not be assumed that each possessed adequate levels of familiarity. To ensure that each passenger is aware of the safety features and emergency procedures, safety announcements should be made at the beginning of each voyage. The posted placards and safety notices, including pamphlets, should be used to supplement the information given in the announcements. The Safety Board believes that safety announcements should be routinely given to passengers at the beginning of each voyage.

Therefore, the National Transportation Safety Board recommends that the National Association of Passenger Vessel Owners:

> Circulate to the members of your organization, particularly those who operate small commuter type passenger vessels, the details of the accident in the Lower New York Bay on June 22, 1987. Stress the importance of making verbal safety announcements to passengers aboard commuter vessels at the beginning of each voyage. (Class II, Priority Action) (M-88-17)

Also, the Safety Board issued Safety Recommendations M-88-9 through M-88-12 to the U.S. Coast Guard and M-88-13 through M-88-16 to Direct Line Commuter Service, Inc.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-88-17 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER, NALL and KOLSTAD, Members, concurred in this recommendation.

By: Jim Burnett
Chairman