Yos M-337A

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: March 14, 1988

In reply refer to: M-88-13 through M-88-16

Mr. Walter Mihm
President
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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/

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.

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).

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During periods of reduced visibility, the operator must concentrate on interpreting the information on the radar. With other duties that must be performed, such as looking ahead for floating debris, monitoring the engine gauges, and watching the compass and steering, attention can easily be drawn away from the radarscope, perhaps at a critical time when the relative motion of a contact or multiple contacts must be closely observed to determine if a risk of collision exists. Without the ability to plot, the operator must rely on the systematic observation of radar contacts. Rule 7 of the Inland Navigation Rules explicitly states that "assumptions shall not be made on the basis of scanty information, especially radar information." From his last observation, the JACK W's operator concluded that both vessels would pass clear. He then shifted his attention to course keeping, looking ahead visually, and radar navigation, which left him little opportunity to concentrate on the progress of the rapidly approaching vessel.

Rule 19 of the Inland Navigation Rules clearly states that when a close quarters situation with another vessel forward of the beam is detected by radar alone and cannot be avoided, speed shall be reduced to the minimum at which course can be maintained. When an operator has identified a close quarters situation, the operator is obligated to take additional action, which in this case would have been to reduce speed until risk of collision was over. The relative speed of the two vessels in the reduced visibility left no margin for avoiding the collision despite the fact that the JACK W's speed had been reduced. The quick reaction by both operators, however, in slowing the vessels and by the JACK W's operator in applying right rudder probably reduced the amount of damage to the vessels. The Safety Board believes that had the speed of the vessels been reduced as they approached each other, each could have sighted the other in sufficient time to avoid the accident.

Rule 6 of the Inland Navigation Rules requires vessels to proceed at a speed whereby "proper and effective action can be taken to avoid collision and [the vessel can] be stopped within a distance appropriate to the prevailing circumstances and conditions." Rule 19 of the Inland Navigation Rules requires that "every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility."

The Safety Board 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.

Inland Navigation Rules also require the sounding of fog signals in areas of restricted visibility, but neither vessel did so. The operator of the JAMEY DOWNEY discontinued sounding fog signals after he cleared Sandy Hook Bay. The operator of the JACK W relied on radar to determine the presence of other vessels. He had concluded that fog signals were not necessary because the two commuter ferries were the only vessels around. Rule 35 of the Inland Navigation Rules does not offer any option as to whether or not sound signals should be made while underway in fog. The sounding of fog

signals is required by all vessels underway without exception. Under the previous inland rules, fog signals were sounded every 1 minute, which allowed signals to be heard by the approaching vessels more often. At a closing speed of almost 28 knots or about 2 minutes a mile, the JACK W's and the JAMEY DOWNEY's whistle signals would have been audible only once if the audible range of the whistles was about a mile (a fairly normal range under the conditions of this accident). However, fog signals are required to warn others of a vessel's proximity regardless of whether there are other vessels in the area or not. The value of fog signals is their ability to indicate the presence of and the direction of another vessel in fog.

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.

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 and that Direct Line should provide in an operating manual instructions to the operating personnel concerning such announcements.

A Direct Line official stated that he rode the vessels periodically to observe their operation. When questionable practices were found, memoranda and directives were issued to correct the problems. No company operating manual existed at the time of the accident for the guidence of vessel operating personnel. The company official also said that it was the company's policy to have all captains (operators) read and sign the company's standing orders and at all times they were to comply with all applicable Federal, State and local regulations including "rules-of-the-road" to ensure the safety of the passengers, the crew, and the vessel.

In March 1987, a company directive was distributed to the crews of all Direct Line vessels with instructions concerning emergency evacuation procedures. The directive contained information about the Coast Guard's role in responding to a medical emergency aboard a commuter ferry, specifically the availability of an emergency medical technician (EMT) aboard each Coast Guard vessel. In the event of a medical emergency aboard one of the ferries, a call to a Coast Guard station would initiate the dispatching of a Coast

Guard vessel with an EMT aboard to administer first aid and the dispatching of an ambulance to the terminal to await the arrival of the ferry. This procedure, however, was not followed on the day of the accident. Instead, the company office was notified first and company officials arranged to have the ambulances meet the vessel on arrival at Highlands.

Direct Line's process for providing guidance to vessel operating personnel, through directives and memoranda, is time-consuming, lacks continuity, and appears to be after the fact. A properly developed company operating manual would enhance the operation by clearly informing operating personnel what the company expects of them in a consistent manner. As an example, suggested ferry routes could be described in a navigation section of the operating manual, including the procedures to be followed in adverse weather conditions and participation in the Vessel Traffic System (VTS) in New York Harbor. The suggested northbound and southbound routes could be separated in the area where the ferries normally meet, i.e., between Swinburne and West Bank Light Tower. The buoys at the western edge of the Ambrose Channel could be used to separate the routes. The manual, however, should not prohibit a departure from the prescribed company policies when circumstances make it necessary. An example of a failure to follow established company practices occurred when the ferry operator did not immediately notify the Coast Guard of the accident and the injuries aboard according to the instructions in the company directive issued in March 1987. Instead, the company office was notified first. The procedure, mutually agreed upon by both Direct Line and the Coast Guard, should have been adhered to following the accident. If each of the Direct Line vessels were furnished with an operating manual, the operating crews would have a single source of information. The Safety Board believes that Direct Line should develop a company operating manual to give guidance to its vessel operating personnel in a clear and concise manner consistent with company policy.

It is difficult for a commuter ferry operator to satisfy the on-time schedule demands of the traveling public. Safety demands that schedules be allowed to slip when necessary. Direct Line should impress upon its passengers that when visibility is poor or sea conditions are not favorable to high-speed operation, schedules cannot be met. This policy should be clearly understood by the ferry crews and it should be carried out in a consistent manner.

The Coast Guard operates the voluntary VTS in New York Harbor from the Vessel Traffic Center located on Governor's Island. In addition to the radar coverage of Upper and Lower New York Bay, there is television surveillance of several portions of the upper harbor, particularly in the Kill Van Kull and Newark Bay areas. There is no television coverage of the Lower Bay. According to the Coast Guard, Direct Line vessels were not participants in the New York Harbor VTS. A company official testified that he believed that company vessels did not use the VTS, and there was no company policy requiring the commuter ferry operators to use it. Since the accident, a representative of Direct Line has stated that their vessel operators have attended at least two seminars on the use of the VTS and now regularly use the service. (On February 2, 1988, the Safety Board learned that the New York Harbor Vessel Traffic Service is to be discontinued in this fiscal year as a result of a reduction in the Coast Guard's operating budget. Until the VTS is discontinued, Direct Line should take advantage of this service.)

Therefore, the National Transportation Safety Board recommends that Direct Line Commuter Service, Inc.:

> Develop a company operating manual to give guidance to your vessel operating personnel on, but not limited to: navigational procedures commensurate with the Inland Navigational Rules, procedures to be followed in adverse weather conditions, procedures to be followed if there is a medical emergency aboard, communication requirements, emergency procedures, and safety recommendations. (Class II, Priority Action) (M-88-13)
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> Require that all your licensed operators attend a recognized radar training school similar to that required by the Coast Guard for obtaining a radar observer endorsement. (Class II, Priority Action) (M-88-14)
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> Instruct your operating crews to routinely give verbal safety announcements to passengers aboard company vessels at the beginning of each voyage. (Class II, Priority Action) (M-88-15)
>
> Require your licensed operators to participate in the New York Harbor Vessel Traffic Service (VTS). (Class II, Priority Action) (M-88-16)

Also, the Safety Board issued Safety Recommendations M-88-9 through -12 to the U.S. Coast Guard and M-88-17 to the National Association of Passenger Vessel Owners.

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 recommendations in this letter. Please refer to Safety Recommendations M-88-13 through -16 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER, NALL and KOLSTAD, Members, concurred in these recommendations.

By: Jim Burnett
Chairman