

SP-20

Log M-295

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: 1 OCT 1985

Forwarded to:

Admiral James S. Gracey
Commandant
U.S. Coast Guard
Washington, D.C. 20593

SAFETY RECOMMENDATION(S)

M-85-94

About 1300 e.s.t. on December 12, 1983, the fishing vessel LIBERTY rolled over completely to port in Manasquan Inlet, New Jersey. Of the nine persons onboard, five survived, two died of hypothermia, and two are missing and presumed dead. The LIBERTY had departed Cape May, New Jersey, about 0630, on December 10, 1983, with a crew of nine consisting of the master, mate, engineer, cook, and five deckhands, for a 12-day fishing trip. According to the master, this trip was the first time the LIBERTY had been to sea since its conversion from a fishing trawler to a scallop dredger, which was completed earlier in December 1983. The seas were calm and the vessel was handling well. The master said that the winds were forecast to increase to 30 knots from the southeast, but that the weather gave him no concern. While en route to a position about 34 miles east of Barnegat Light, New Jersey, the vessel began dredging for scallops. 1/

Shortly after the dredges were secured about 0400 on December 12, the master noticed that the vessel was not handling properly. He checked the lazarette and found that it was flooded to a depth of about 4 feet. The engineroom electric bilge pump was started, but the water level showed no significant change. The master suspected that the strainer in the lazarette bilge drain was clogged. He entered the lazarette and attempted to clear the strainer, but he was not successful. According to the master, the vessel had a trim by the stern, and he attempted to raise the stern by draining water from the after ballast tanks into the engineroom bilges. Meanwhile, the master called the U.S. Coast Guard Station at Manasquan Inlet, New Jersey, on channel 16 VHF-FM and reported his situation. He then changed the vessel's course and headed toward Manasquan Inlet. While en route, the engineroom bilge pump lost suction, and the water level in the bilge rose to a depth of about 2 feet. There was no operable backup bilge pump.

About 0647, a Coast Guard 44-foot motor lifeboat was underway from Manasquan Inlet to deliver a dewatering pump to the LIBERTY. Also, about 0655, a Coast Guard helicopter departed Brooklyn, New York, to deliver a pump to the LIBERTY. Meanwhile, the engineroom bilge pump was repaired and pumping of the engineroom bilge was resumed. The master informed the Coast Guard Group Sandy Hook, New Jersey, that the engineroom was being pumped out, but the lazarette was still flooded. When the

1/ For more information read Marine Summary Report--"Fishing Vessel LIBERTY, Manasquan Inlet, New Jersey" (NTSB/MAR-85/02/SUM).

helicopter arrived onscene at 0748, the master told the pilot that he was afraid to turn the vessel into the wind because the LIBERTY was not stable with water in the lazarette. Thus, the helicopter had to deliver the pump with the wind and seas at the LIBERTY's stern. The Coast Guard pump was started and used to pump out the lazarette. As the water in the lazarette and engineroom was removed, the handling of the vessel improved. The Coast Guard pump continued to work well until the water level in the lazarette was reduced to about 9 inches, at which time it began to lose suction. In an effort to keep the pump primed, it was lowered into the lazarette. It was submerged accidentally in the water, which rendered it inoperable for the remainder of the voyage.

About 0851, the crew aboard the Coast Guard motor lifeboat sighted the LIBERTY. The master of the LIBERTY told the lifeboat coxswain that the flooded lazarette had been pumped out and that the flooding was under control. Additionally, he said that he intended to remain at sea until the seas subsided before attempting to transit Manasquan Inlet. The fishing vessel VICTOR, which had heard the initial transmissions, also arrived onscene to stand by and assist. At this time, the LIBERTY was about 7.5 miles offshore. The duty officer at Coast Guard Group Sandy Hook suggested to the master of the LIBERTY over the VHF-FM radio that he proceed toward the Manasquan Inlet Entrance Buoy to wait out the storm. He told the master that he did not want to keep the lifeboat's crew at sea all day, and that he would like to have the LIBERTY closer to shore in case they had to respond again to a distress call from the LIBERTY. The master concurred and proceeded toward Manasquan Inlet Entrance Buoy along with the Coast Guard motor lifeboat and the VICTOR. About 1035, the LIBERTY and VICTOR arrived at the Manasquan Inlet Entrance Buoy. About 1049, the lifeboat arrived at the buoy and, after communicating with the master of the LIBERTY concerning the time of high tide, proceeded through the inlet en route to the Coast Guard station. According to the coxswain, visibility was about 1 mile at that time, and he encountered 12- to 16-foot seas while transiting the inlet.

After waiting at the Manasquan Inlet Entrance buoy for about 2 hours, the LIBERTY's master decided to enter the inlet shortly after the next high tide which would occur at 1301. The master discussed the current weather and the forecast weather with the VICTOR's master. Learning that the weather conditions would not improve that day, they decided to enter the inlet about the same time. The master ordered the decks cleared and all loose gear secured in preparation for transiting the inlet. The rudder post packing gland continued to leak, and by this time the water depth in the lazarette had reached about 2 feet; the hatchcover to the lazarette was closed.

The LIBERTY's master testified that he discussed with the mate and the engineer whether to raise the outriggers and go through the inlet with them up. Although the engineer opposed entering the inlet with the outriggers up, the master decided to raise them. He made two or three approaches to the inlet to check the sea conditions with the outriggers down. The outriggers then were raised on the final approach, and the master maneuvered the vessel near Manasquan Inlet Entrance Buoy to see how the vessel would handle. The master stated that the vessel handled significantly different with the outriggers up, but he did not think there was any danger because he had taken two boats through the inlet successfully in similar weather conditions with the outriggers up.

According to the master, the LIBERTY was being pounded by 15- to 18-foot seas as it entered the inlet between two jetties. He testified that the waves were striking the vessel slightly on the starboard quarter as he steered it toward the north jetty on the approach. After the LIBERTY was inside the jetties, a wave laid the vessel over about 60 degrees onto its port side. The master testified that he advanced the throttle and turned the helm hard to starboard. According to the master, he eased off on the throttle and the vessel righted itself slightly. Another wave struck the vessel slightly aft of its

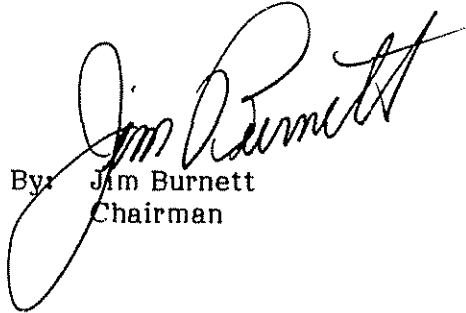
starboard beam, rolling the vessel until the port rail and the port outrigger went under the water. The master testified that he heard the dredges shift to the port side as a third wave struck. At 1300, the vessel rolled over completely to port.

The stability of a vessel depends on the location of its vertical center of gravity. The higher the center of gravity, the less able a vessel is to withstand the overturning effects of wind and waves. The outriggers on fishing vessels increase the stability of the vessel in their lowered position, but reduce the stability in their raised position. Most fishing vessels do not raise their outriggers until they have entered a safe harbor. The flooding of spaces such as a lazarette and engineroom bilges also will reduce the stability of a vessel. When the LIBERTY approached Manasquan Inlet, its stability had been reduced by the water in its lazarette and engineroom. Before the master attempted to enter the inlet, he raised the outriggers, which further reduced the vessel's stability. After the LIBERTY was inside the inlet jetties, the master turned the vessel parallel with the seas. The overturning effect of wind and seas exceeded the ability of the LIBERTY to right itself as the master proceeded through Manasquan Inlet, and the LIBERTY capsized.

Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

Publish information directed to commercial fishermen concerning the adverse effects on the stability of a vessel operating in heavy seas with the outriggers up. (Class II, Priority Action) (M-85-94)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in this recommendation.


By: Jim Burnett
Chairman