

MARINE OCCURRENCE REPORT

DISAPPEARANCE

**OF THE FISHING VESSEL "JESSIE MARIE"
OFF LAMALINE, NEWFOUNDLAND
BETWEEN 0900 ON 11 OCTOBER 1995
AND 1300 ON 13 OCTOBER 1995**

REPORT NUMBER M95N0049

The Transportation Safety Board of Canada (TSB) investigated this occurrence for the purpose of advancing transportation safety. It is not the function of the Board to assign fault or determine civil or criminal liability.

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Summary

The small Canadian fishing vessel "JESSIE MARIE" departed St. Lawrence, Newfoundland, early on the morning of 11 October 1995 to fish for scallops. The owner/operator with two crew members had been in radiotelephone contact with another fishing vessel at about 0900 that day. The "JESSIE MARIE" was not heard from again and failed to return to port by noon on 13 October 1995. An official search was initiated, but no trace of the vessel or her crew was found. On 19 October, the Royal Canadian Mounted Police (RCMP) was advised by officials of the French islands of Saint-Pierre-et-Miquelon that a body had been found on the beach on the western side of Miquelon. That body was positively identified as one of the crew members of the "JESSIE MARIE".

Ce rapport est également disponible en français.

Other Factual Information

Particulars of the Vessel

Name	"JESSIE MARIE"
Flag	Canadian
CFV Number	091608
Type	Longliner
Gross Tons	10
Crew	3
Length	12 m
Built	1981, Bay D'Espoir, Newfoundland
Propulsion	Diesel, 135 BHP
Owner	Robert D. Stacey, St. Lawrence, Nfld.

The vessel, built in 1981 for her previous owner, was a typical small Newfoundland-style longliner constructed of wood to a popular 10.66 m model design.

This vessel was acquired in 1984 and had fished successfully since that time, the owner/operator having held licences for groundfish, herring, capelin, squid, crab, and more recently, scallop.

With the 1992 Cod Moratorium, vessel owners faced the need to diversify and go farther from home ports and further offshore to get catches. New equipment and fishing methods were required. In order to meet those needs and the general requirement of keeping the vessel maintained to the highest standard, the vessel underwent considerable upgrading and retrofitting in 1994 and 1995.

In September and October 1994, the wheel-house and main deck were renewed, and in order to have more stern buoyancy and bearing surface, a 1 m section was added to the transom as a totally watertight compartment prior to the entire hull structure being fibreglassed. This addition increased the hull length to 11.66 m. This work was done by the owner and his crew.

In the spring of 1995, a refurbished 135 HP marine diesel, keel-cooled engine together with transmission, dash and wiring harness was purchased and installed, followed by the purchase and installation of a drum winch with a cable.

A scallop licence was acquired in January 1995, and rigging for that fishery was required. In fitting out for the scallop fishery, it was necessary to fabricate a 3.05 m scallop drag bucket (rake) which was constructed of angle and rod steel, fitted with a bag made up of rope for the upper portion and chain link for the lower portion. A dumping table, measuring 3.05 m by 1.52 m, constructed of wood and steel was built on the stern of the vessel. An A-frame consisting of steel pipe reinforced with steel flat bar was then bolted to the

deck near the stern.

Although not required for the scallop fishery operation, a paravane stabilization unit was fabricated consisting of aluminium pipe booms reinforced with aluminium flat bar. These booms were fitted at each corner of the after wheel-house top. Paravanes (fish), one for each side for suspension in the sea, measuring 0.9 m by 0.6 m, were constructed of steel and lead. This stabilization system was fitted in order to reduce the vessel's rolling.

A drum winch, with 365 m of 1.27 cm steel wire cable, was fitted forward of the fish hold hatch, for use in dragging (towing) the scallop buckets. The weight of these items, together with the required staying cables/chain, and fastenings, all of which were fitted at and above deck level, was estimated to be about 2000 to 2200 kg. The vessel was reportedly considered top-heavy by some experienced fishermen in the area.

An aluminium lifeboat was replaced by a new, six-person, inflatable liferaft. The vessel carried four immersion suits stowed in the engine-room space, as well as the other required life-saving and fire-extinguishing equipment. Electronic equipment carried on board consisted of Loran C, GPS, radar, VHF and CB radiotelephones, and a depth-sounder.

The "JESSIE MARIE" had made only five scallop-fishing voyages before she departed from St. Lawrence on 11 October 1995 in search of scallop beds south of Lamaline, Nfld. The owner/operator, with one of the vessel's regular crew members, was accompanied by another crew member who had some previous experience on board. The crew member who had served on board since this owner took possession of the vessel in 1984 had strained his back on the previous trip and was directed by a physician to rest for a week.

The owner/operator intended to fish until the night of 12 October 1995, and the vessel was in contact with the fishing vessel "AUBREY & PAUL III" by VHF radiotelephone on channel 6, at about 0900 on 11 October. The radio call advised that the "JESSIE MARIE" was about nine miles distant and might transit to the area near the "AUBREY & PAUL III" later that day. Nothing further was heard from the "JESSIE MARIE" nor was the vessel seen. Weather conditions were reported good from 09 October to 13 October and continued to be good during the following several days.

When, on 13 October 1995, the vessel had not returned to port by 1330, concern mounted and the "JESSIE MARIE" was reported overdue and missing. When a communications search failed to locate the vessel, the Search and Rescue (SAR) section of the Canadian Coast Guard (CCG) initiated an official search.

The ensuing search by SAR air and sea resources, local fishing vessels, local ground crews and the RCMP failed to find any trace

of either the vessel or her crew. The search area covered some 8,000 square miles.

On 16 October, at 2100, the search was downgraded and turned over to the RCMP as a missing persons case. Because the French islands of Saint-Pierre-et-Miquelon are nearby, authorities there were contacted and advised of the missing vessel. However, they reported that the "JESSIE MARIE" had not entered any ports there. The RCMP at St. Lawrence received a call from the authorities at Saint-Pierre at 0830 on the morning of 19 October reporting that a body had been discovered on the beach at Cape Blanc, on the western side of Miquelon, near the tip of the island, earlier that morning. The body, found without clothing, fitted the description of, and was later positively identified as being, one of the missing crew members from the "JESSIE MARIE". No further trace of the vessel or of the two remaining crew members has been found.

On 02 November 1995, a resident of the community of South East Bight, Nfld., found a buoy from the missing vessel, to the northward near Channel Harbour in Paradise Sound. That buoy has been identified as being from the "JESSIE MARIE". It was reportedly kept unsecured in the vessel's fish hold.

The "AUBREY & PAUL III", the last known vessel in contact with the "JESSIE MARIE", was equipped with two VHF radiotelephones and reported monitoring both VHF channel 6 and VHF channel 16. It was reported that the normal procedure on board was to monitor VHF channel 16 on one set while monitoring channel 6 on the other. Channel 6 is used locally as a working channel and the reported practice on board the "JESSIE MARIE", fitted with a single VHF radiotelephone, was to monitor channel 16 while transitting to and from the fishing grounds and channel 6 while on the grounds fishing. Any transmission on either channel would have been picked up on board the "AUBREY & PAUL III". This vessel reported no further transmissions received or heard from the "JESSIE MARIE". There was a report that a resident of Lamaline, while attending to normal household duties at about 0930 on the morning of 11 October, heard what sounded like a "MAYDAY" interrupting the regular commercial FM radio station programming. There was no other report of a similar nature.

Being under 15 tons gross tonnage, the "JESSIE MARIE" was not required to be inspected pursuant to the Small Fishing Vessel Inspection Regulations. There was a requirement to comply with the Regulations for Small Fishing Vessels of closed construction, not over 15 tons gross tonnage, over 7.92 m but not over 12.19 m in length.

There had not been any stability data generated for this vessel nor is such data required for vessels of her size.

Because the "JESSIE MARIE" was a vessel under 20 m in length and under 150 gross tons, she was not required to carry on board an emergency position indicating radio beacon (EPIRB), and did not carry

such a device.

The hull of the "JESSIE MARIE" had undergone major renovations, including renewal and fibreglassing, before the 1995 fishing season, and thus, was reportedly in excellent condition. No hull structural problems had been reported since that work was completed.

On board the "JESSIE MARIE", the following procedure was used during the fishing operation: Once on the scallop grounds, the drag bucket was dropped off the stern dumping table with the towing warp in a sheave block at the top of the A-frame. The vessel would then steam ahead until approximately 150 fathoms of cable was payed out. The vessel would then be stopped and the cable removed from the top of the A-frame and placed in another sheave block attached to the tow bar located 2.14 m above the deck. The vessel would then be put in gear and steam ahead towing the drag bucket which was then on the sea-bed about 45 to 50 fathoms below the surface. After 10 to 15 minutes, towing the vessel would again be stopped and the strain taken off the towing cable such that it could be placed back in the upper sheave block at the top of the A-frame. The winch would then be engaged to pull the drag bucket back to and up on board the vessel. A marker on the cable seven fathoms from the bucket indicated that the bucket was near, and the crew would prepare to take it up on the dumping table, where the contents were dumped, and the process was repeated again. While towing, the crew removed any scallops from what was dumped on the table, discarding everything else overboard.

The vessel's first few voyages in the scallop fishery were conducted as above, towing with a 2.4 m bucket. It was then decided to increase the width of the bucket to 3.05 m as it was felt that a larger catch could be taken. However, the larger bucket seemed prone to snag when towed from the tow bar, so towing was tried from the top of the A-frame and was found better, but an occasional snag was still experienced. On several occasions, the vessel had been brought to a full stop when the bucket caught in the sea-bed causing the stern of the vessel to be pulled under momentarily.

There also was a noticeable quickness of roll associated with towing from the top rather than the tow bar. One term used to describe this condition was "cranky", even though the stabilizers were in use.

Analysis

All indications are that whatever befell the "JESSIE MARIE" was sudden. Reportedly, during a towing leg, while the two crew members on deck were jettisoning all bucket contents except the scallops dumped from a previous tow, and were shucking those, the owner/operator would proceed to the forecastle, especially at mealtime, and leave the helm unattended for short periods. Were the vessel to deviate from her course at such a time, the effect of the

bucket being towed from the top of the A-frame on a port or starboard swing would greatly increase the chances of capsizing.

The addition of a drum winch and other new fittings above the vessel's normal waterline would have affected considerably the vessel's intact stability. Without design stability data, the degree to which the additional weight would have affected the stability cannot be determined.

The broadcast which was thought to have been a "MAYDAY" message heard over the FM band of a household radio in Lamaline was discounted. Radio communication specialists were very doubtful as to the possibility of such a transmission from a VHF channel 6 or channel 16 being received over a household radio unless there existed another independent frequency at the same transmission time which caused a net frequency output of 96 MHz. This possibility was believed to be highly unlikely.

There were no other vessels known to be in the immediate area of the "JESSIE MARIE" nor did any vessel return from sea reporting or showing damage. Thus, collision could be ruled out as a possible cause of her disappearance. The absence of any debris having been found tends to lend credence to that conclusion.

In the event of a fire on board, unless it was a major explosion, there normally would be time to transmit a distress call or to abandon ship. A major explosion would likely leave some debris. Similarly, were the vessel to have developed a leak, there normally would be time to transmit a distress message or abandon ship.

Thus, the most probable cause is sudden capsizing and sinking. Similar incidents have been reported in the past. Survivors of these incidents attested to the suddenness of these occurrences.

Had an EPIRB been on board and become activated when the vessel was in difficulty, the authorities would have been alerted and the probability of rescue would have increased.

Although the vessel was carrying immersion suits located in the engine-room space and life-jackets located in the forecabin space, the one body, recovered from a beach on Miquelon some eight days after the last known contact with the vessel, was found unclad. There are several possible explanations for this situation but no proof of any is available.

Having been recovered on French islands, the body was taken to the local hospital at Saint-Pierre, where death was attributed to drowning. No autopsy was performed.

Findings

1. The "JESSIE MARIE" was an uninspected vessel.
2. The vessel neither was required by regulations to carry, nor did she carry, an emergency position indicating radio beacon (EPIRB). No distress message from the vessel was heard.
3. The "JESSIE MARIE" was not required by regulations to comply with the intact stability criteria requirements nor to carry a stability book on board.
4. The vessel was known to roll quickly after she was rigged for scallop fishing.
5. On a previous occasion, when the scallop bucket had become fouled on the sea-bed, the vessel's stern had been pulled under momentarily.
6. The practice of towing from the top of the A-frame is considered dangerous.
7. As none of the three crew members of the "JESSIE MARIE" survived the occurrence, and as there was no other observer in visual or radio contact with the fishing vessel, no direct information is available as to the manner in which the vessel disappeared.

Causes and Contributing Factors

The exact cause of the disappearance of the "JESSIE MARIE" with her crew of three has not been determined.

Safety Action Taken

Rigging for scallop fishing and the practice of towing on the "JESSIE MARIE" apparently adversely affected the vessel's period of roll and her stability. The crew members of the "JESSIE MARIE", like many other crews on fishing vessels, may not have fully appreciated that their day-to-day operating procedures and practices were creating unsafe conditions. In its report on the sinking of the fishing vessel "PACIFIC BANDIT" (TSB Report No. M95W0005), the Board therefore recommended that:

The Department of Transport, in conjunction with other government departments, agencies, and organizations, immediately undertake a national safety promotion program for operators and crews of small fishing vessels to increase their awareness of the effects of unsafe operating practices on vessel stability.

(M96-13, issued December 1996)

This report concludes the Transportation Safety Board's investigation into this occurrence.

Consequently, the Board, consisting of Chairperson Benoît Bouchard, and members Maurice Harquail, Charles Simpson and W.A. Tadros, authorized the release of this report on 23 April 1997.