

MARINE OCCURRENCE REPORT

SWAMPING AND SINKING

FISHING VESSEL "NANCY PAULA"  
OFF NOTION ISLAND LIGHTHOUSE, TRINITY BAY, NEWFOUNDLAND  
01 JULY 1996

REPORT NUMBER M96N0063

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**

While the "NANCY PAULA" was en route to Gooseberry Cove to land her catch of approximately 11 tonnes of capelin, she was swamped by two heavy seas. The fishing vessel lost all reserve buoyancy and sank so quickly that the crew had no time to don life jackets or call for assistance before abandoning the vessel.

*Ce rapport est également disponible en français.*

**OTHER FACTUAL INFORMATION**

**Particulars of the Vessel**

Name	"NANCY PAULA"
Port of Registry	St. John's, Nfld.
Flag	Canada
Official Number	329075
Type	Fishing vessel
Gross Tonnage	25
Length	14.6 m
Propulsion	Cummins diesel engine, 228 kW
Built	1967, Fortune Bay, Nfld.
Owner/Operator	Mr. G. White, Newville, Nfld.

The "NANCY PAULA" was a vessel of Cape Island design with a beam of approximately 4 m amidships. The afterdeck, some 7.6 m in length, was surrounded by an 83 cm-high bulwark fitted with freeing ports. She had a valid Safety Inspection Certificate (SIC 29), with an expiry date of 09 April 1999.

The vessel departed Catalina on 01 July 1996 at 0500, which coincided with the start of the local permissible time for capelin fishing. In preparation for carrying capelin, pen boards extending from the bottom of the fish hold to within approximately 0.3 m of the deckhead had been fitted to divide the area of the fish hold into nine non-watertight pens, each measuring approximately 1.3 m x 1.3 m. The fuel tanks had been topped up at Catalina and contained approximately 1,325 litres of marine diesel.

Approximately 11,340 kg of capelin were caught in an area off Deer Harbour and evenly distributed in the fish hold. The hatch to the fish hold was covered, but was neither weathertight nor secured. When full, the fish hold could accommodate approximately 19,050 kg of capelin.

The "NANCY PAULA" was on a south-westerly course, pitching slightly as she headed into the seas, bound for Gooseberry Cove, where the catch was to be landed. The weather was fine with a south-westerly wind of 25 to 30 knots and seas of approximately two metres.

Suddenly, at about 1600, when the "NANCY PAULA" was abeam of Notion Island Lighthouse and approximately 900 m off, two heavy confused seas on the port beam were encountered in quick succession. Water

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<sup>1</sup> All times are NDT (Coordinated Universal Time (UTC) minus 2.5 hours) unless otherwise stated.

shipped from these seas filled the afterdeck and caused the vessel to trim by the stern and list heavily to port. The vessel then downloaded through unsecured openings to the fish hold and to other under-deck compartments, and sank.

The owner/operator had no time to use the very high frequency (VHF) radiotelephone to request assistance as he and the others on board were up to their thighs in water when they abandoned the vessel in favour of the work boat. The work boat was being towed astern from the starboard quarter.

The crew of the "NANCY PAULA" was picked up from the work boat by another fishing vessel. Once in the work boat, the owner/operator had headed in the direction of another fishing vessel rather than toward the nearby land, which, in that area of Trinity Bay, is sparsely populated.

At the time of the sinking, there was a crew of five on board the "NANCY PAULA" as well as the owner/operator's son who was not taking part in the fishing venture. There was a sufficient number of life jackets for all on board although, in this instance, none was used in the hasty abandonment.

The vessel sank in approximately 172 m of water and there was no visible sign of pollution.

Prior to the sinking of the "NANCY PAULA", investigations into the sinking of the "MISS STEPHANIE II" (TSB Report No. M94C0016) and of the "MARWOOD" (TSB Report No. M94W0065) had identified the non-watertightness of fish hold covers as a causal factor in both occurrences. Marine Safety Advisories Nos. 05-94 and 05-96, concerning the need to re-assess the requirements for fish hold hatch covers to ensure the seaworthiness of fishing vessels, were forwarded to the Canadian Coast Guard and to the Department of Fisheries and Oceans.

The potential dangers associated with non-watertight hatches have again been highlighted by the sinking of the "NANCY PAULA".

### **Capelin Fishery**

The dangers of carrying capelin are widely recognized. It is a very slippery fish, and unless stowed in pens, can cause a free surface effect similar to that of water. As a small fishing vessel of greater than 15 gross tons engaged in capelin fishing, the "NANCY PAULA" was required to submit trim and stability calculations to the Canadian Coast Guard for approval, but this had not been done.

### **ANALYSIS**

The pen boards in the fish hold extended to about 0.3 m below the

deckhead, but the catch was reportedly evenly distributed in the hold. Therefore, it is likely that the heavy list and settling by the stern, which occurred after the sudden swamping of the afterdeck, would have been experienced regardless of the type of fish being carried. It was calculated that, with the freeing ports under water, the afterdeck could contain some 20 tonnes of water.

The non-watertight hatch to the fish hold would allow the water shipped on the afterdeck to enter that compartment. This, together with the downflooding of the engine compartment and the cuddy, would overcome the vessel's reserve buoyancy.

#### **FINDINGS**

1. The vessel was swamped by two heavy confused seas from a direction not consistent with the weather pattern.
2. The non-watertight cover on the fish hold hatch contributed to the sudden sinking of the vessel as the fish hold filled with water when the afterdeck was under water.
3. Downflooding also occurred through the unsecured openings to other under-deck compartments.
4. The "NANCY PAULA" lost all reserve buoyancy and sank.

#### **CAUSES AND CONTRIBUTING FACTORS**

The "NANCY PAULA" sank quickly when she lost all reserve buoyancy after two heavy seas filled her afterdeck with water which downloaded into the fish hold and other under-deck compartments.

*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 15 October 1997.*