

Accident Report

Fire & Subsequent Foundering

Ava

8 February 2007

Class A





Photograph 1
Ava

SUMMARY

On 8 February 2007, the fishing vessel **Ava** was anchored at Moturua (Rabbit) Island off the west coast of the Coromandel Peninsular. At approximately 0100 hours, the Skipper awoke to discover that the vessel was on fire.

The crew members were not able to reach any fire fighting or life saving appliances, and so they jumped into the sea and swam ashore.

The wooden vessel suffered major fire damage and subsequently sank.

There were no injuries to the two crew members.

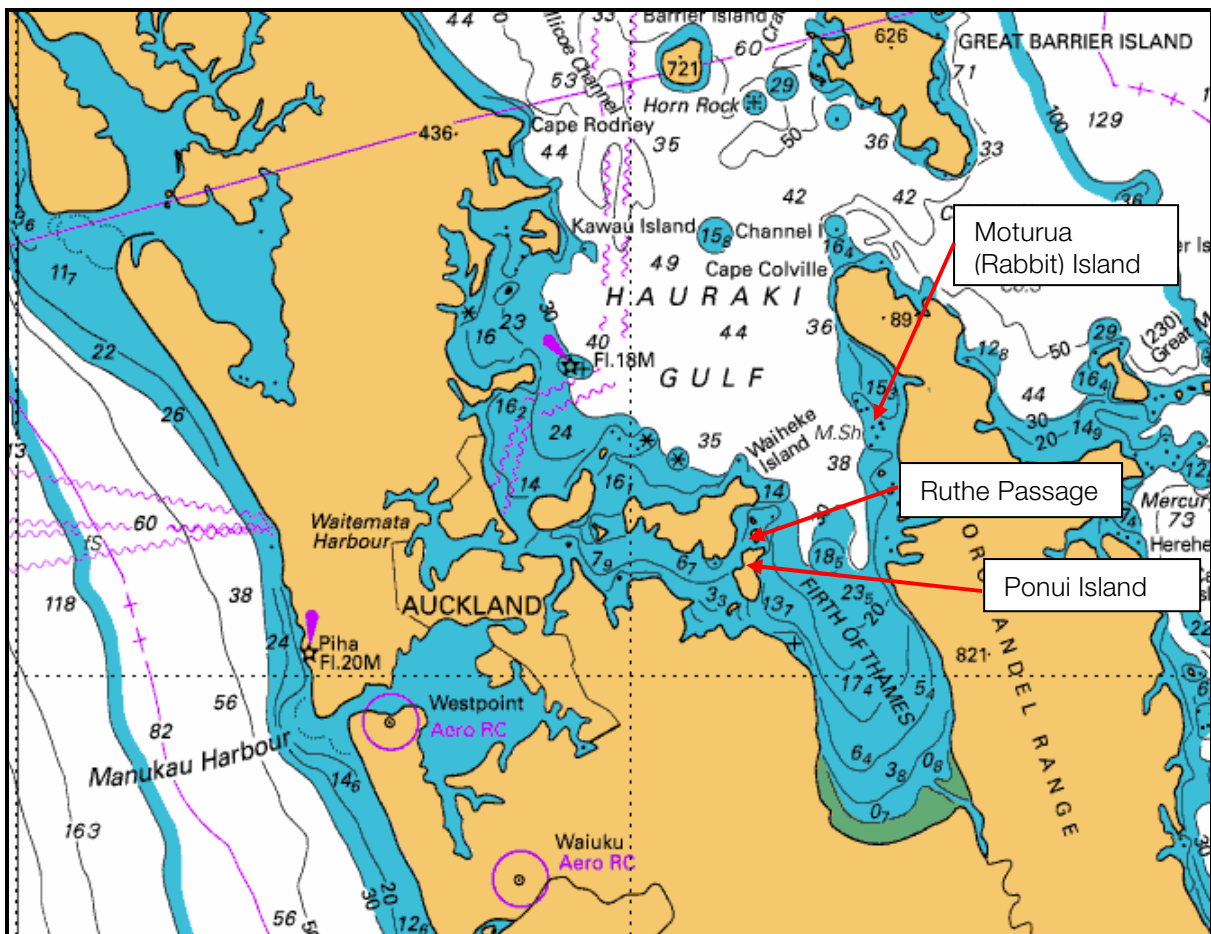


Figure 1

NARRATIVE

At approximately 1200 hours on Tuesday 6 February 2007, the fishing vessel **Ava** departed Westpark Marina, Auckland bound for fishing grounds in the Hauraki Gulf. Onboard were the Skipper and a crewmember. They were joint owners of the vessel.

Whilst steaming in an easterly direction in the Tamaki Strait, the vessel encountered 30-40 knots of easterly wind and choppy seas. Because of these weather conditions, the Skipper decided to anchor for the night in the lee of Ponui Island.

Ava weighed anchor early the next morning and proceeded easterly through Ruthe passage. The Skipper intended to trawl in a line between Happy Jack Island and Kawau Island. Halfway through setting the net, the vessels auto pilot malfunctioned causing the vessel to turn hard to starboard. This sudden turn caused the net to become caught on the trawl drum, ripping the net in the process. The Skipper turned the auto pilot off and proceeded to Moturua (Rabbit) Island in manual steering in order to repair the net. Whilst at Moturua Island, the skipper discovered that the auto pilots' malfunction was as a result of a blown fuse. The Skipper replaced the fuse and the auto pilot resumed functioning normally.

At approximately 1400 hours on Wednesday 7th February, **Ava** sailed from Moturua Island and continued fishing operations. The vessel completed two trawls and as the wind was increasing in strength, the Skipper decided to return to anchor in the lee of Moturua Island. The vessel arrived at approximately 1800 hours and anchored in approximately seven meters of water approximately 150 meters offshore.

After anchoring the vessel, the Skipper and crewmember had dinner, after which the Skipper went into the engine room for routine checks and, as was his practice, to close the sea cocks.

Ava's crew both went to bed in the forecastle at approximately 2140 hours after first ensuring the at the vessels anchor light was on and after switching on a fluorescent light inside the wheelhouse.

At approximately 0100 hours on Thursday 8th February, the Skipper awoke. He could sense that something was wrong. He climbed the stairs onto the deck and observed dark smoke emanating from beneath the wheelhouse doors. He quickly returned to the forecastle space and awoke the other crew member. He then attempted to turn the forecastle light on, but it was not working. He got dressed and grabbed a flashlight.

The Skipper proceeded to the port side wheelhouse door. As he got closer, he could see the paint blistering and when he touched the grab rail on the door, found it to be extremely hot; however he could see no sign of any flames. He decided that it was too dangerous to open the wheelhouse door so went back towards the forecastle and told the other crewmember that they would probably have to abandon ship.

The crewmember put some dry clothes and a torch in a waterproof bag and got a couple of old lifejackets that were stowed in the forecastle. Meanwhile, the Skipper returned to the wheelhouse to see if there was anything that he could do to fight the fire. He noticed that the anchor light and wheelhouse light were not functioning. He thought about blocking off the engine room air vents, but it was too hot to do so. He also noted that there was steam coming off the wheelhouse roof which was where the life raft and dinghy were stowed. He determined that there was nothing that he could do to fight the fire.

The Skipper returned to the forecastle and together with the deck hand donned one of the spare life jackets. As he was doing so, one of the wheelhouse windows was blown out. The two crew members then jumped over the port bow of the vessel into the sea.

After swimming for approximately 5-10 minutes, they managed to reach the shore at Moturua Island at 0128 hours. When he looked back at **Ava**, the Skipper could see flames emanating from out of one of the forward facing wheelhouse windows and the windows of the wheelhouse doors.

COMMENT & ANALYSIS

Vessel

Ava was a wooden hulled fishing vessel built in 1948.

At the time of the accident, it was correctly manned by a Skipper and a deck hand.

The vessel had a valid Safe Ship Management (SSM) certificate which had been issued on 12 December 2006 and which was valid until 17 November 2010.

Ava had spent approximately two and a half weeks on the slipway at Westpark marina during November 2006 at which time the tail shaft was pulled, the vessel painted and the vessel inspected by a SSM surveyor for its four yearly inspection. No electrical or mechanical work was carried out during this time.

The vessel had last been inspected by Maritime New Zealand on 5 May 2005. At this inspection, the vessel had been issued with two deficiencies. One relating to wrong information in the SSM manual and the other deficiency being that the engine room bilge was found to be oily.

The vessel had been substantially rebuilt by its owner in 2000. A vast percentage of the vessel was rewired and a new auxiliary engine was installed.

The vessel had a 9V92 GM main engine and a 200hp John Deere auxiliary engine.

The vessel had four fuel tanks located in the engine room. At the time of the accident, there was approximately 3000 litres of diesel remaining in these tanks. There were no remote fuel shut offs outside of the engine room. Also within the engine room was the hydraulic oil tank which contained approximately 250 litres, four 6v starting batteries for the main engine and two 12v batteries for starting the auxiliary.

No paint was stored onboard and only small quantities of cleaning products.

The construction of the vessel was such that sleeping quarters were located in the forecabin. This space was only accessible via a ladder from deck.

The fish hold occupied all of the below deck space between the forecabin and the wheelhouse. At the time of the accident, there was approximately 2500kg of ice and 10-15 bins of fish onboard.

The engine room was accessible by ladder via a hatch in the starboard side deck of the wheelhouse. This hatch was wooden and not watertight.

There was a lazarette containing the steering gear. This space was accessible via a hatch on the after deck.

The cooking facilities and mess room were located aft of the wheelhouse. The cooking facilities consisted of a gas powered stove and three gas rings. There were two 9kg gas bottles located on top of the wheelhouse. The deckhand remembers switching off the stove after cooking dinner on evening prior to the fire.

There were two cowl type engine room ventilators directly in front of the wheelhouse. There were also four ventilators on top of the wheelhouse. The ventilators were not equipped with dampers.

One of the windows on the port side of the mess room was capable of being opened, as was a porthole on the starboard side. At the time of the accident, the port side window was closed, but it is unknown if the starboard side porthole was open or closed. Both wheelhouse sliding doors were closed.

The wheelhouse contained four 6 volt deep cycle batteries.

There were two fuse boxes located in the wheelhouse. One for the navigational equipment was under the dashboard and the other, for lights etc was on the port side bulkhead. The Skipper had repaired the blown autopilot fuse earlier the previous day. The fuse was of the older type which required a fuse wire being refitted to the fuse block.

Crew

The Skipper held a valid Inshore Fishing Skipper Certificate of Competency which was issued in 1982. He had been a commercial fisherman for 30 years, all of those as a self employed Skipper.

The deckhand, who was the wife of the Skipper, possessed no formal maritime qualifications, but had been a commercial fisherman for a number of years.

The Skipper and deckhand were joint owners of *Ava*. They had owned the vessel for approximately eight years.

Although not a requirement, neither crewmember had ever attended a formal marine fire fighting course.

The crew regularly discussed what they would do in the event of a fire. These discussions formed the basis of the vessels' required fire drill. The last such discussion took place in November 2006 in the presence of the SSM surveyor.

Safety Equipment

Ava was equipped with three fire extinguishers. There was a CO2 and a foam extinguisher located next to the port side wheelhouse door and a CO2 extinguisher located in the wheelhouse near the engine room hatch

The vessel was not equipped with smoke detectors.

The deck hose required the main engine to be running in order to function.

The vessels life raft was stowed on top of the wheelhouse roof, as was a dinghy.

There was an EPIRB stored inside the wheelhouse. Also in this space were the vessels radio, pyrotechnics and lifejackets, along with the crews' cell phones.

There were two old additional lifejackets stored in the forecastle. These lifejackets were not equipped with either whistles or lights.

Weather Conditions

At the time of the accident, there was an east south-easterly wind of approximately 5-8 knots. The sea conditions in the anchorage were calm with no swell.

Fire

At the time the vessel was abandoned, there were no visible flames. Dark smoke was emanating from beneath the wheelhouse doors and it was impossible to see through the wheelhouse windows due to the quantity and density of the smoke inside. The Skipper could hear no noise associated with a fire.

The Skipper describes the smoke as smelling 'toxic'. He did not think that the smoke smelt of burning wood or oil.

Once onshore, the Skipper describes the flames as being yellow in colour. There were a couple of extremely violent explosions as the vessel burnt. These can probably be attributed to the gas cylinders on top of the wheelhouse exploding. No pyrotechnics were seen exploding.

The Skipper had a somewhat unusual habit of closing the sea cocks prior to going to bed. Had the sea cocks been left open, there is a possibility that the heat fire would have eventually destroyed hoses on the engine, the resulting water ingress flooding the engine room and extinguishing the fire.



Photograph 2

Aft section of hull (engine room and lazarette) on barge after salvage



Photograph 3
Forward section of hull (fish hold) after salvage

CONCLUSIONS

Ava suffered major fire damage during this incident; the extent of this damage causing her to sink. The vessel was salvaged a few days later. The salvage necessitated the remains of the vessel being cut into small sections in situ before being raised, and brought back to Auckland

As a result of the extensive damage to the vessel, there was insufficient evidence to pinpoint the cause of the fire.

RECOMMENDATIONS

1. It is recommended that Maritime New Zealand review Maritime Rule Part 40D to determine whether to make it a requirement to position a proportion of the vessels fire fighting and lifesaving appliances outside of the wheelhouse and engine room spaces.
2. It is recommended that Maritime New Zealand amends relevant Maritime rules to make it mandatory for smoke detectors be fitted to all 'live aboard' commercial vessels.

VESSEL INFORMATION

Ship Type:	Fishing Vessel
Certified Operating Limit:	Inshore
Flag:	New Zealand
MSA No.:	101190
Built:	1948
Construction Material:	Wood
Length Overall (m):	14.81
Gross Tonnage:	38
Net Tonnage:	14.71
Registered Owner:	G & S Heath
SSM Company:	Maritime Management Services
Accident Investigator:	Andrew Hayton