Class B Accident Report

Legacy Grounding

At Fiordland on 3 December 2004

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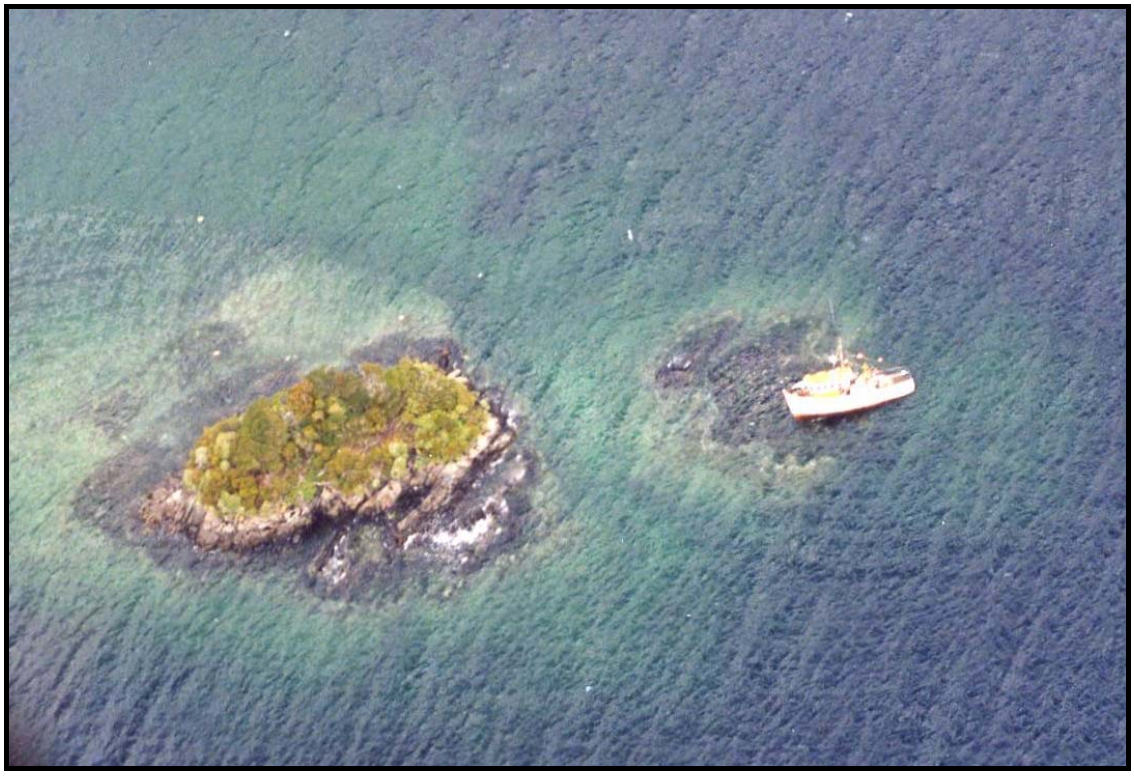
REPORT NO: 04 3614

LEGACY – GROUNDING

At about 1230 hours New Zealand Daylight Time (NZDT), on 3 December 2004, the fishing vessel ***Legacy*** grounded on a partially submerged rock off the south-eastern side of Small Craft Harbour Islands in Chalky Inlet, Fiordland. The vessel sustained damaged to the keel and took on water. The vessel was re-floated on the high tide with the assistance of the passenger vessel ***Cindy Hardy***. There were no injuries and no fuel was spilled.



Details of Vessels, Owner & Management, Classification, Navigational Equipment, Manning & Crew:

Name of Vessel:	***Legacy***
Vessel Type:	Fishing vessel
Built:	1995
Construction Material:	Wood
Length Overall (m):	13.8
Draft (m):	6 foot
Propulsion:	Saab Scania Diesel Engine
Accident Investigators:	Ian Howden & Zoe Brangwin

- **Owner/Skipper Details**
  Legacy is owned by the Bluff fishing company, Urwin and Company Limited. The vessel had a valid Safe Ship Management (SSM) Certificate with SGS-M&I. The vessel was fit to ply offshore limits out to 100 nautical miles off the coast of New Zealand.

  The Skipper held a Skipper Coastal Fishing Boat (SCFB), obtained in 1976. He had 22 years experience of operating vessels for Urwin and Company Limited. He had been the Skipper of ***Legacy*** for three years.

  The Skipper and two deckhands were onboard at the time of the grounding.

  The vessel was fishing for cod and crayfish using pots.

- **Navigation and Safety Equipment onboard *Legacy***

  - Radar
  - GPS Chart plotter
  - Echo sounder
  - VHF radio
  - HF radio
  - Magnetic compass
  - Auto pilot
  - 3 Life jackets
  - 4-man life raft
  - Flares

The GPS and chart plotter were switched on and operational at the time of the accident. There was no off track alarm on the GPS.

The echo sounder was switched on. No depth alarm was set.

The Skipper was navigating visually, using his local knowledge.

Pumping Arrangement

Legacy was equipped with:

- Deck hose
- Two 24-volt submersible rule pumps

Fuel

There was approximately 2 200 litres of diesel fuel onboard. In addition, 30 litres of lube oil and 200 litres of hydraulic oil were stored in the engine room. No fuel was spilled during the grounding.

Safe Ship Management

Legacy had sound SSM procedures in place. This included a flow diagram detailing procedures required in a grounding situation. The vessel maintenance plan showed regular inspections of all equipment on board including safety gear and pumps.

Damage

On slipping at Bluff, it was found that hull damage was slight. The false keel was damaged and required 6 metres of replacement. A minor leak at the stern required attention.

NARRATIVE

At approximately 0900 hours on Wednesday 1 December 2004, ***Legacy*** departed Bluff for fishing grounds off Fiordland.

On Thursday 2 December, after attending to cray pots, the crew sheltered in Chalky Inlet as the weather was rough. They anchored in North Port for the night *(See Diagram 1)*.

On Friday 3 December, the weather was still poor with a forecast for 40 knots southwesterly easing. After talking to the crew the Skipper decided they would not fish due to weather conditions. They anchored near the ***Stellar*** wreck in North Port. At midday the Skipper decided to go deer stalking at Cunaris Sound.

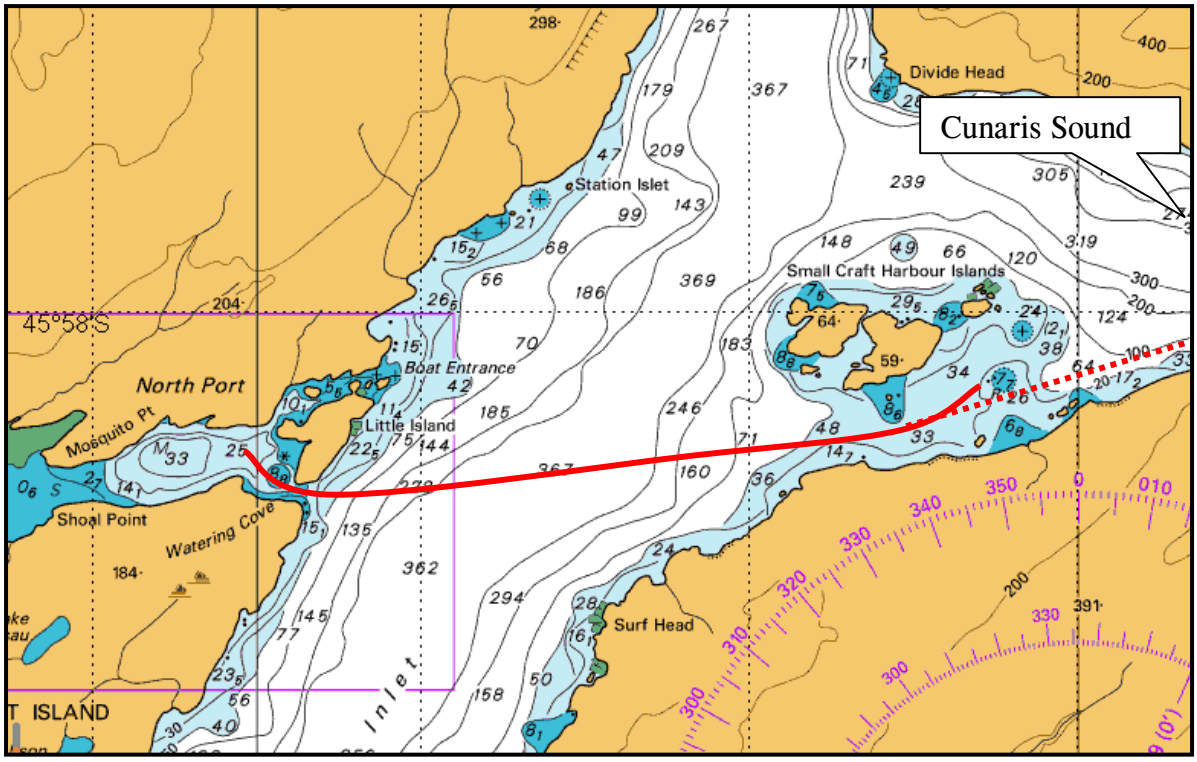


DIAGRAM 1 - CHART EXTRACT FROM LINZ CHART NZ7654
(NOTE – C = CABLES)

As ***Legacy*** crossed Chalky Inlet her course took her south of the Small Craft Harbour Islands *(See Diagram 1 – Showing track of vessel)*. The Skipper was at the helm. The crew were resting below. The vessel was travelling at about 7½ knots on autopilot. The Skipper had set the autopilot on a course that would keep the vessel clear of all hazards. He left the bridge and went into the engine room to pump the live wells. He thought it would take about 30 seconds. After pumping the live wells he decided to grease a bearing in the engine room. The approximate time spent away from the helm position was a minute and a half.

From the chart, it would appear that the two "dots" either side of the $^{7}_{7}$ soundings are rocks that are partially "dry" i.e., they are above MHWS (Mean High Water Springs) at all times.

At about 1230 hours, the Skipper returned to the helm and saw a rock ahead of the vessel. He pulled the engine out of gear but did not have time to slow the vessel. ***Legacy*** grounded on a partially submerged rock south east of the Small Craft Harbour Islands *(See Diagram 2)*.

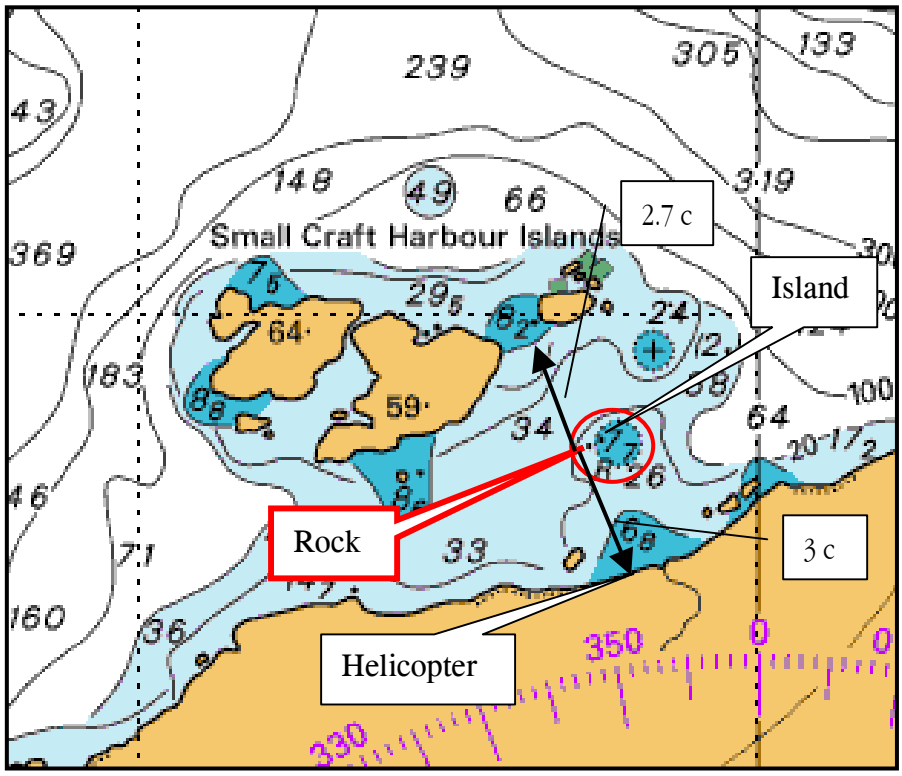


DIAGRAM 2 - CHART EXTRACT FROM LINZ CHART NZ7654

The vessel's bow rode up on the rock and settled with about a 35 degree list to starboard. The Skipper tried to reverse clear of the ground but the vessel did not move. The area has a tidal range of one and a half metres. At the time of the grounding the tide was flooding. Low tide was at 1039 hours. High tide was predicted for 1645 hours.

The Skipper checked the vessel for damage. He could see a small amount of water ingress near the propeller shaft in the engine room. He checked the freezer compartment and saw the water rising at a moderate rate. He attempted to pump the water out of the freezer compartment with the deck hose, but could not get suction. The engine room 24-volt submersible pump was operating from the engine room but was not very effective.

Both Deckhand One and Two woke up and when the vessel hit the rock. Deckhand One checked the freezer hatch to see if there was any water coming in. He saw water starting to flood the compartment. He told the other Deckhand to collect warm clothes and supplies. They then got the dingy and took the supplies and clothing to shore and then returned to the vessel to assist.

At about 1245 hours, the Skipper sent out a Mayday on VHF Channel 16. This was acknowledged by Taupo Maritime Radio on 4125 kHz. At 1246 hours Puysegur Maritime Radio contacted ***Legacy*** on channel 16. The Skipper explained the situation. He advised the vessel was not in immediate danger but requested pumps to cope with the possible ingress of water at high water. Taupo Maritime Radio attempted unsuccessfully to contact the vessel ***Cindy Hardy*** (a passenger vessel based in Fiordland), which was the nearest vessel in the area. Following the recommendations of Bluff Fisherman's Radio, the National Rescue Coordination Centre (NRCC) at Avalon, Lower Hutt determined the vessel required helicopter assistance.

After the grounding Deckhand One donned a wetsuit and inspected the hull to assess the damage. He observed the vessel's false keel had been ripped off from the bow to midships. As the tide came in the vessel started moving and more damage was sustained to the starboard hull due to the vessel working on the rocks.

The crew pushed the craypots off the stern to reduce the weight at the stern.

The Skipper attempted to call ***Cindy Hardy*** as he believed the vessel to be nearby in Preservation Inlet. He received no reply.

At 1258 hours Invercargill Police received a call from the NRCC advising of the situation. Te Anau Police were contacted. They sourced pumps and contacted Southern Lakes Helicopters.

At 1325 hours a Southern Lakes Helicopter with pumps and rescue personnel on board departed Te Anau.

At approximately 1405 hours the helicopter arrived and landed on a nearby beach with a fire officer, policeman and pumps. The pumps were taken across to ***Legacy*** by sling from the helicopter. There were three pumps, two petrol and one 230 volt pump with a generator. All three pumps were used to pump out the freezer compartment. The water at this stage was about 1.5 metres deep.

The helicopter pilot contacted ***Cindy Hardy*** radio to provide assistance.

At about 1700 hours, ***Cindy Hardy*** arrived from Long Sound. At high water, she assisted the Skipper and crew of ***Legacy*** pull the vessel off the rocks, by the stern, and then pump her dry.

By 1720 hours a temporary repair had been carried out on the hull and the Mayday was cancelled. The vessel was pumped dry. ***Legacy*** was towed to North Port and anchored for the night.

The next day ***Legacy*** was taken in tow to Bluff.

Legacy arrived in Bluff on Sunday 5 December at about 0400 hours.

FINDINGS

The Skipper was not on the bridge prior to the grounding. He had left the bridge to go down to the engine room, for what he thought would be about 30 seconds. He left the vessel on autopilot on a course he believed would keep the vessel clear of danger. The Skipper did not plot the vessel's position but estimated that he was just under a mile from the island before he went below. The island was bearing approximately 15-20 degrees on his port bow, when the Skipper went below.

The course line ran south of rocks on the southeast side of Small Craft Harbour Islands.

The Skipper lined up the course by eye, midway between the island, marked on *Diagram 2*, and the coast to the south.

The Skipper should not have left the bridge given the restricted sea room in which he was navigating.

It is believed that after the Skipper left the bridge, the vessel was subjected to significant leeway from the prevailing wind conditions, which the Skipper had not allowed for when setting the course to steer. The resultant course made good, caused the grounding to occur.

The Skipper stated that going to the north of the Small Craft Harbour islands was an option but that it was further and there was a reasonable amount of sea room through his intended passage to the south.

Human Factors

The Skipper and crew were well rested. Fatigue was not a factor in this accident.

The Skipper was navigating visually and using his local knowledge.

The Skipper had been up to Cunaris Sound about a dozen times and admitted that he may have been complacent regarding the operation of his vessel in the Inlet.

Environmental Factors

Legacy was not fishing at the time of the accident due to weather conditions.

Low water at Bluff was at 1221 hours.

There is negligible tidal stream through the area.

The weather forecast for the area was for "40 knots south-westerly easing".

The Skipper described the weather conditions inside Chalky Inlet at the time of the accident as 25 knots south-westerly, overcast with fair visibility.

The water was clear and the rock could be seen under the water.

The Skipper admitted to making a mistake by leaving the helm unattended for what he thought would be a quick and simple task.

By leaving the helm unattended the Skipper failed to keep a proper look out in accordance with **Maritime Rule Part 22 5- Lookout**:

Maritime Rule 22.5 Look-Out

Every vessel must at all times maintain a proper look -out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions, so as to make a full appraisal of the situation and the risk of collision.

Technical Factors

- **Autopilot**

  The Skipper had not had any problems with the autopilot in the past.

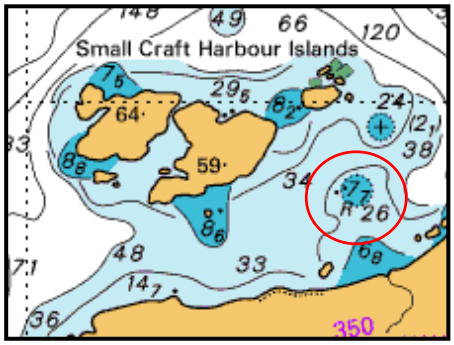
  The Skipper stated that it was not a particularly reliable brand of autopilot.

  The Skipper stated that he miscalculated the amount of time spent below.

  A defect in the autopilot or a gust of wind may have altered the course of the autopilot prior to the accident. No test of the autopilot was conducted following the grounding to determine whether or not this was causative.

- **Chart**

  The chart shows the two rocks as small dots on the chart as below.



Care must be taken when studying charts before transit. On this occasion the Skipper did not consult the chart beforehand. The Skipper had transited this area before and was aware of the rock and its location.

SAFETY RECOMMENDATIONS

1. It is recommended that the Skipper of ***Legacy*** be censured for failing to ensure the safe navigation of his vessel and subsequently endangering life and property. The bridge should never be left unattended, particularly in areas of restricted sea room**.**

2. Autopilots should not be used and relied upon in areas where navigational hazards such as rocks may endanger the safety of the vessel. This is especially the case where strong gusts of wind may unexpectedly affect the vessel's course made good. Strong gusts from unexpected quarters are a common factor in fiords when conditions outside are adverse. In such cases special attention needs to be paid to the safe navigation of the vessel.

3. It is recommended that the owners ensure the vessel's autopilot is tested and that if it is found not to perform satisfactorily they are to replace it with a more reliable model.

   In commenting on the draft report the Managing Director of Urwin and Company Limited stated, "Urwin and Company Ltd has engaged the supplier of the autopilot to look into the matter raised in your report. We will take action if technical analysis deems unreliability is an issue."

4. Rescue efforts in remote areas of New Zealand are often compromised by inadequate radio coverage due the adverse terrain. In such cases it is prudent for rescue services to seek advice from local mariners and stations such as Bluff Fisherman's Radio who are often in a position to render assistance and advice.