

Class A Accident Report

Tight Lines

Sinking

Albatross Point, North of Taharoa on
16 April 2004

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Maritime Safety

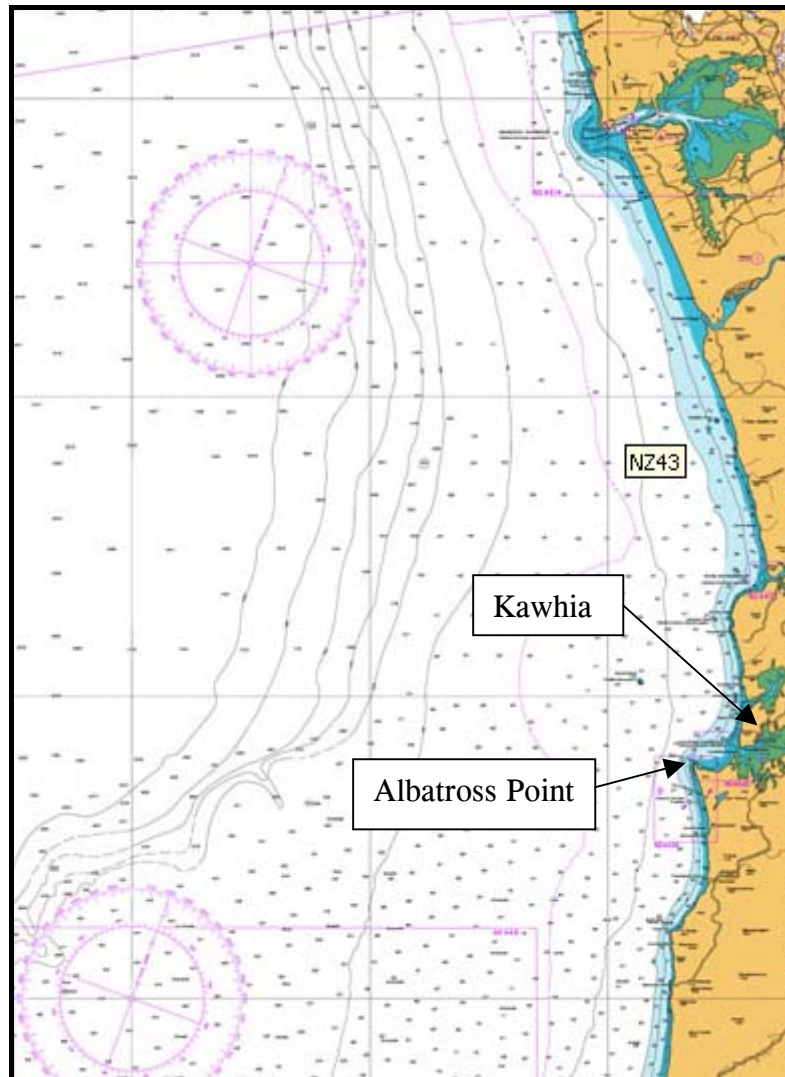
MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Maanu Kia Ora



REPORT NO:	05 1172
VESSEL NAME:	TIGHT LINES
Ship Type:	Recreational Ramco Fishmaster 600
Flag:	New Zealand
Built:	2001
Construction Material:	Aluminium
Length Overall (m):	6.2
Maximum Breadth (m):	2.3
Accident Investigator:	Andrew Hayton

SUMMARY

After departing Kawhia, the recreational vessel *Tight Lines* capsized and sank whilst anchored south of Albatross Point, after a large wave broke over it. The two men were thrown into the water. One of the men eventually managed to climb onto the rocks ashore, but unfortunately the other man could not make it ashore and died.



NARRATIVE

Tight Lines was a Ramco Fishmaster 600. South Waikato Marine of Putururu sold the brand new boat to the Skipper in 2001.

The vessel had a length overall of 6.217 metres (m) with a hull length of 5.575m. The maximum beam was 2.300m and the maximum freeboard was 0.85m. The approximate weight of the vessel was 900 kilograms. The maximum capacity of the vessel was the greater of 540 kg or 6 persons.

Tight Lines was constructed of aluminium. The bottom thickness of the hull was 4mm and the side thickness was 3mm.

The vessel was fitted with a 135 horsepower (HP) Johnson Ocean Pro outboard. A 15HP Johnson auxiliary motor was also fitted. The manufacturers recommend a maximum horsepower of 140HP.

Amongst other safety equipment, the vessel carried a Very High Frequency (VHF) radio, six lifejackets and a flare pack. No cell phone was carried.

The Skipper was a 55 year old male. The other crewmember was the son of the Skipper and was 29 years old. Both men had considerable recreational boating experience and were experienced with the area around Kawhia and Taharoa.

The two people onboard *Tight Lines* were wearing lifejackets. The Skipper was wearing a Hutchwilco life vest that incorporated a manually inflated collar and chest. The other crewmember was wearing a standard Hutchwilco life vest.

THE INCIDENT

At approximately 0900 hours on 16 April 2004, the recreational vessel *Tight Lines* was launched from the boat ramp near Kawhia Marae. There were two people onboard. The weather was reported as being good with approximately 10 knots of wind. *Tight Lines* left Kawhia Harbour via the southern boat channel thus avoiding the entrance bar. The Skipper intended to proceed to a position near Albatross Point where he would drop anchor and fish.

Once *Tight Lines* arrived off Albatross Point, the Skipper decided that as the sea was so calm, he would navigate around the point to a position approximately 400 metres south of the point.

At approximately 0930 hours, *Tight Lines* was anchored in approximately 8-10 metres of water, approximately 30 metres off the rocky shore. The boat laid beam on to the swell, which was estimated to be approximately one metre in height.

At approximately 1030 hours, both crewmembers observed a large wave bearing down on them. It was estimated it to be between 3 and 3.5 metres in height. Approximately two seconds later, the wave broke over the boat causing it to capsize. Both crewmembers were thrown into the water uninjured.

Tight Lines came to rest upside down with approximately one metre of the bow out of the water. The crewmembers stood on the bow rail to try and get out of the water.

Shortly after the capsize the crewmember attempted to swim the 20 – 30 metres to shore with a rope leaving the Skipper with the boat. He was unable to get onto the rocks due to the backwash and he returned to the boat.

At approximately 1100 hours, the men decided to raise the boat's anchor in order to drift to a sheltered area further north. They drifted but could not manage to reach the sheltered area.

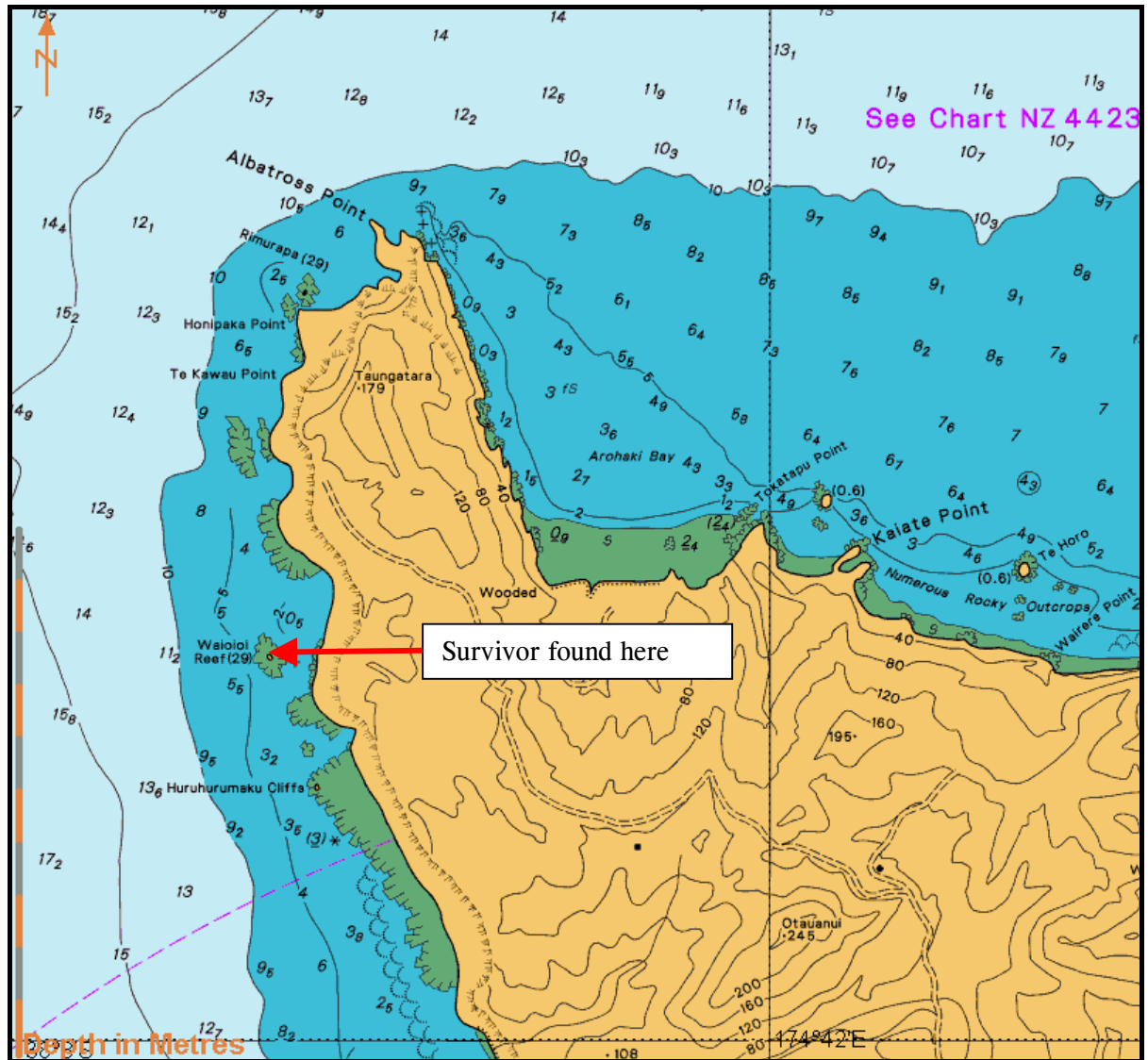
After approximately a further hour, both crewmembers decided to swim to the rocks ashore. However, the Skipper became tired after swimming about 20 metres and they returned to *Tight Lines*. The Skipper was feeling cold and was shivering.

An hour later, the crewmember once again attempted to swim for shore. After approximately 20 minutes, he managed to climb onto the rocks and after a further 40 minutes, he reached a position on the cliff where he expected to be able to see the vessel but *Tight Lines* had disappeared.

The crewmember remained on the rock overnight.

At approximately 0700 hours, the crew of *Margaret J.1* observed the survivor waving his arms in the air and they launched their rescue boat to recover him.

At 0926 hours, the body of the Skipper was sighted floating in the water approximately one mile west of Albatross point and was recovered by the rescue helicopter.



COMMENT & ANALYSIS

The survivor estimated the weather when they departed Kawhia to be good with approximately 10 knots of wind.

When they anchored, he estimated the swell to be approximately one metre in height.

The survivor estimated that the wave that broke over *Tight Lines* was approximately 3.5 metres in height. He thinks that an earthquake may have created the rogue wave.

National Institute of Water and Atmosphere Research (NIWA) data shows that there were no earthquakes at the time of the capsizing. There were two small earthquakes between 0610 hours and 0633 hours on 16 April. One was off the Bay of Plenty coast and the other was near Nelson. At midday there was another small quake at Ruapehu

A NIWA Natural Hazards Scientist states that:

Earthquakes don't have any affect on swell at all - it is only driven by distant winds. The only way an earthquake can affect the sea-state is when an offshore earthquake ruptures the sea floor causing local tsunami waves. A seabed rupture in the New Zealand region would show up within a few minutes to a couple of hours of the earthquake, depending how far away it is. None of the events on April 16th would have produced a local tsunami at Kawhia.

The nearest cell of the Wavewatch global wave model gave the below data for 16 April 2004. The cell is located at position 38° .000'N 173° .750' E

Time (NZST)	Hsig	T peak	Dir peak
0600	0.88	16.30	233.90
0900	0.95	16.20	233.59
1200	1.16	16.05	233.35

Hsig: Average of highest third of waves in metres.

Tpeak: Peak period in seconds

Dir peak: Direction of peak in degrees (True)

From this data it can be seen that at the time of the accident, the swell was approximately 1 metre in height from 233°(T) with an interval of 16 seconds.

The wind recorded at the New Plymouth weather station between 1000 hours and 1100 hours on 16 April was of steady 10 minute averaged speeds of 11-15 knots from 260°(T) gusting to 20 knots.

The Taharoa iron sands mooring buoy is fitted with instrumentation that records wave and wind data. The buoy is located approximately 3.5 miles south of where the accident occurred.

At the time of the accident, the buoy recorded the wave height to be 1.14 metres. This height is equivalent to the mean height of the largest 1/3 of waves. The largest measured wave over the period when the accident occurred was recorded as 2.24 metres. The actual wind recorded was 8.5 knots from a direction of 240°.

Tight Lines was a standard Fishmaster 600 type of vessel built by Ramco of Hamilton. Ramco vessels are constructed to the Coastguard approved New Zealand Boat Building Standard (CPC). The vessel has one sealed buoyancy compartment located beneath the main deck. This compartment is a void space. There are three plugs at the aft end of the space leading to a small bilge well, which is in turn fitted with a screw down hatch lid. One of the requirements to meet the CPC standard is that the boat must be 'Unsinkable- if swamped'.

CONCLUSIONS

A large breaking wave caused *Tight Lines* to capsize. The vessel then slowly sank. The cause of the wave is unknown. As the vessel has not been located or recovered, it has not been possible to establish why it sank.

SAFETY RECOMMENDATIONS

All Skippers should note that extreme care should be exercised when operating or anchoring a vessel close in to the shore. There is always a possibility that a large wave may break over or near the vessel. This is especially true of the West Coast of New Zealand.

An important thing to remember about waves is the fact that about one in every six waves are going to be higher than the significant wave height – in fact every ten minutes or so you must expect to receive a wave one and a half times the significant height (Occasional) and at least once an hour a wave is likely to reach 1.8 times the significant wave height (Maximum).

A forecast of a swell of 3 metres for example, must be interpreted as:

Significant height:	3.0 metres
Occasional (at least 1 in 10 minutes):	4.5 metres
Maximum (at least 1 in an hour):	5.5 metres

It is the last wave (5.5m) sometimes called a ‘rogue wave’ that you must be prepared for when you put to sea.