



Accident Report

Fatality

Unnamed

23 October 2005

Class A



REPORT NO.: 05 1220

VESSEL NAME: *UNNAMED*

Ship Type:	Recreational Vessel
Built:	1970's
Construction Material:	Fibreglass
Length Overall (m):	4.87
Skipper/Owner:	Graeme Hall
Accident Investigator:	Zoe Brangwin



Photograph 1
Unnamed (Marlborough Rapier)

SUMMARY

On Sunday 23 October 2005, five families were having a picnic at Brod Bay, Lake Te Anau. They had four vessels between them.

At about 1700 hours, there were four children on two water ski biscuits that were being towed behind one of the vessels. There were two children in the double chamber biscuit and two children in the single chamber biscuit.

Initially, the witnesses could not confirm whether they were operating inside or outside the water ski lane but later stated that it did occur outside this area (See Figure 1 – Topographical Map of Te Anau & Brod Bay showing ski lane). There was only one other vessel on the water in the Bay and this had no influence on the outcome of the accident.



Figure 1
Topographic Map of Te Anau and Brod Bay showing ski lane

The towing vessel and water ski biscuits did a loop about 100-150 metres off the adjacent beach. On the second loop the Driver of the towing vessel could see that Kirsten Flynn (his daughter) was about to fall off the single chamber biscuit, so he slowed down. When Kirsten fell off the biscuit into the water, the Driver stopped the vessel.

The Skipper of a second vessel, the *Unnamed Vessel* (hereinafter referred to as *Marlborough Rapier*) that was part of the family group, was on his way back to Brod Bay from Te Anau and saw the towing vessel and the two biscuits stopped in the water. He counted three children namely, his son on the double chamber biscuit, his daughter on the single chamber biscuit and a third child on the double chamber biscuit. From the evidence gathered, this was the first time on this day that the towing vessel had towed four children together on the two biscuits. The Skipper of *Marlborough Rapier* was unaware that a fourth child, Kirsten, had fallen off the single biscuit and was in the water.

There is conflicting evidence as to whether Kirsten was stationary in the water or swimming back to the single chamber biscuit at the time when the Skipper of *Marlborough Rapier* was approaching the two ski biscuits and the towing vessel. *In commenting on the draft report, two witnesses who were on the beach stated that if Kirsten was swimming, it was not a freestyle stroke as they could not see her arms*

*moving above the surface of the lake. Another witness on the beach stated she saw Kirsten swimming before her view of Kirsten was blocked by the hull of the approaching **Marlborough Rapier**.*

The Skipper of **Marlborough Rapier** intended to go around the stern of the towing vessel and behind the two ski biscuits to say hello to his children and give them “a bit of wake”. Neither the Driver nor the Observer on the towing vessel warned the Skipper of **Marlborough Rapier** that Kirsten was in the water, as their attention was focused on her and they assumed that the Skipper of **Marlborough Rapier** had seen Kirsten. The Driver of the towing vessel initially thought the Skipper of **Marlborough Rapier** was heading for the beach and would keep clear. However, by the time the Driver realised **Marlborough Rapier** was coming close to the single chamber biscuit it was too late to shout out that Kirsten was in the water.

The Skipper of **Marlborough Rapier** came off the plane as he approached the two ski biscuits. There was no revolution counter or speedometer on board and therefore it is difficult to accurately determine the vessel’s speed at that time.

It is not clear which part of **Marlborough Rapier** first struck Kirsten or exactly where it was in relation to the towing vessel and the two biscuits at the time of impact. When interviewed by Maritime NZ after the accident, Kirsten’s parents and the Observer, who was in the towing vessel, were of the view that she had been struck at the back of **Marlborough Rapier**. In subsequent interviews with Maritime NZ, Kirsten’s parents believed the initial point of impact had been with the bow of the vessel very shortly after it had started to come off the plane. *In commenting on the draft report, two witnesses, who were on the beach, stated they could still see Kirsten after **Marlborough Rapier** had come off the plane and was nearly stopped in the water but that she disappeared from view when the Skipper of **Marlborough Rapier** increased speed.*

The Skipper of **Marlborough Rapier’s** evidence is that he struck Kirsten when he increased his speed as he accelerated away to give the children a wake. As soon as he did this, he said he heard a thump at the back of the boat and then heard yelling coming from the Driver and Observer in the towing vessel. He immediately stopped his vessel and, on looking over the stern, saw Kirsten floating face down in the water beneath the outboard motor stem. In the meantime, Kirsten’s father had dived into the water to assist his daughter.

A witness on the beach stated that the collision occurred as **Marlborough Rapier** accelerated away. Another witness on the beach saw **Marlborough Rapier** coming in from the direction of Te Anau and heading between the towing vessel and the shore. The vessel then turned towards the beach. The witness stated that she did not see what happened but that some part of the vessel struck Kirsten. The witness stated Kirsten was swimming in the water when the accident occurred.

After Kirsten had been struck by **Marlborough Rapier** she was unconscious. The emergency services were called. The members of the family group, including two nurses, tried in vain to revive Kirsten, but her injuries were too severe and she died at the scene of the accident.

NARRATIVE

Skippers & Vessels

The Driver and Owner of the towing vessel (See *Photograph 2 – Towing Vessel*) was the father of Kirsten. His vessel was a 4.9 metre fibreglass Sea Nymph with an 86kW Evinrude outboard motor. The Driver was an experienced Skipper and recreational boater. He had owned and crewed recreational boats for over 30 years.

The Observer in the towing vessel was also an experienced recreational boater who had his own vessel and over 15 years boating experience.



Photograph 2
Towing Vessel

The Skipper and Owner of *Marlborough Rapier* (See *Photograph 3 – Marlborough Rapier*) was a male aged 40. *Marlborough Rapier*, a 4.9 metre fibreglass vessel, is powered by a 86 kW Mercury outboard motor. The vessel had been in the Skipper's family since it was bought in the mid 1970's. The Skipper of *Marlborough Rapier* was also an experienced Skipper and recreational boater who had approximately 28 years of both lake and sea experience and would go out on an average of once or twice a month. He held a Marine VHF Radio Licence. He did not hold a Boatmaster's Certificate. Witnesses described him as being a very competent Skipper.



Photograph 3
Marlborough Rapier

Kirsten was 12 years old. She was a fit and healthy young girl who enjoyed sporting activities. She was a competent swimmer.

At the time of the accident she was wearing a swimsuit, a dark coloured wetsuit and a blue, red and white Hutchwilco Type 405 buoyancy garment (See Photograph 4 – Kirsten’s buoyancy garment).

Life Jackets

All of the children and adults on the water were wearing lifejackets or buoyancy garments.



Photograph 4
Kirsten Flynn’s Buoyancy garment

Ski Biscuits

The children had been having fun in two ski biscuits (See Photographs 5 & 6 – Single & Double ski biscuits). There was a single chamber and a double chamber biscuit.



Photograph 5
Single Chamber Ski Biscuit



Photograph 6
Double Chamber Ski Biscuit

THE ACCIDENT

On Sunday 23 October 2005, five families were having a picnic at Brod Bay, Lake Te Anau (See Figure 2 – Aerial Photograph of Lake Te Anau showing Brod Bay). They had four vessels between them.



Figure 2
Aerial photograph of Lake Te Anau showing Brod Bay

At about 1700 hours, there were four children on the water on two ski biscuits. There was only one other vessel on the water in the Bay and this had no influence on the outcome of the accident. There were two children in the double chamber biscuit and two children in the single chamber biscuit. There was an adult Observer with the Driver in the towing vessel.

The towing vessel and the two water ski biscuits were launched from the beach at Brod Bay. They did a large loop about 100-150 metres off the beach. The Observer on the towing vessel stated that they were not going fast as there was *“a bit of a chop and the girls were getting bounced around a bit”*. He also stated that a southerly wind had come up and that the water was dark.

The exact speed of the towing vessel is not known.

The Driver of the towing vessel, when interviewed by Police, stated that the surface of the Lake was a *“wee bit choppy”* and the two girls, who were on the single chamber biscuit, were bouncing around a bit as a result. Subsequently, in further interviews with Maritime NZ, it was Kirsten’s parents opinion that the water surface was smooth at the time of the accident.

The southerly breeze meant that the wake of the towing vessel was blowing in the children's faces, so they (the Driver and Observer) decided to pull them back to the beach. They started an anti-clockwise circuit. The towing vessel motored parallel to the beach, about 100 metres off at the edge where the water becomes deeper and the colour of the water darker. When they were level with the families who were positioned on the beach, the Driver of the towing vessel turned to port and out towards the centre of the Lake. He gave the vessel a touch of throttle and then eased off to let the two ski biscuits slide out. Kirsten and another girl were on the outside of the turn (See Figure 3 – Aerial Photograph showing approximate positions of towing vessel and ski biscuits).

The Driver stated that he had straightened up and was heading away from the beach. At this time, the Driver saw that Kirsten was about to fall off so he slowed down. When Kirsten fell off the biscuit into the water, the Driver stopped the vessel. Kirsten was about 80 metres off the beach at this time and, due to the continued ahead movement of the towing vessel after the outboard motor was stopped, was situated about 10-15 metres from the single chamber biscuit.

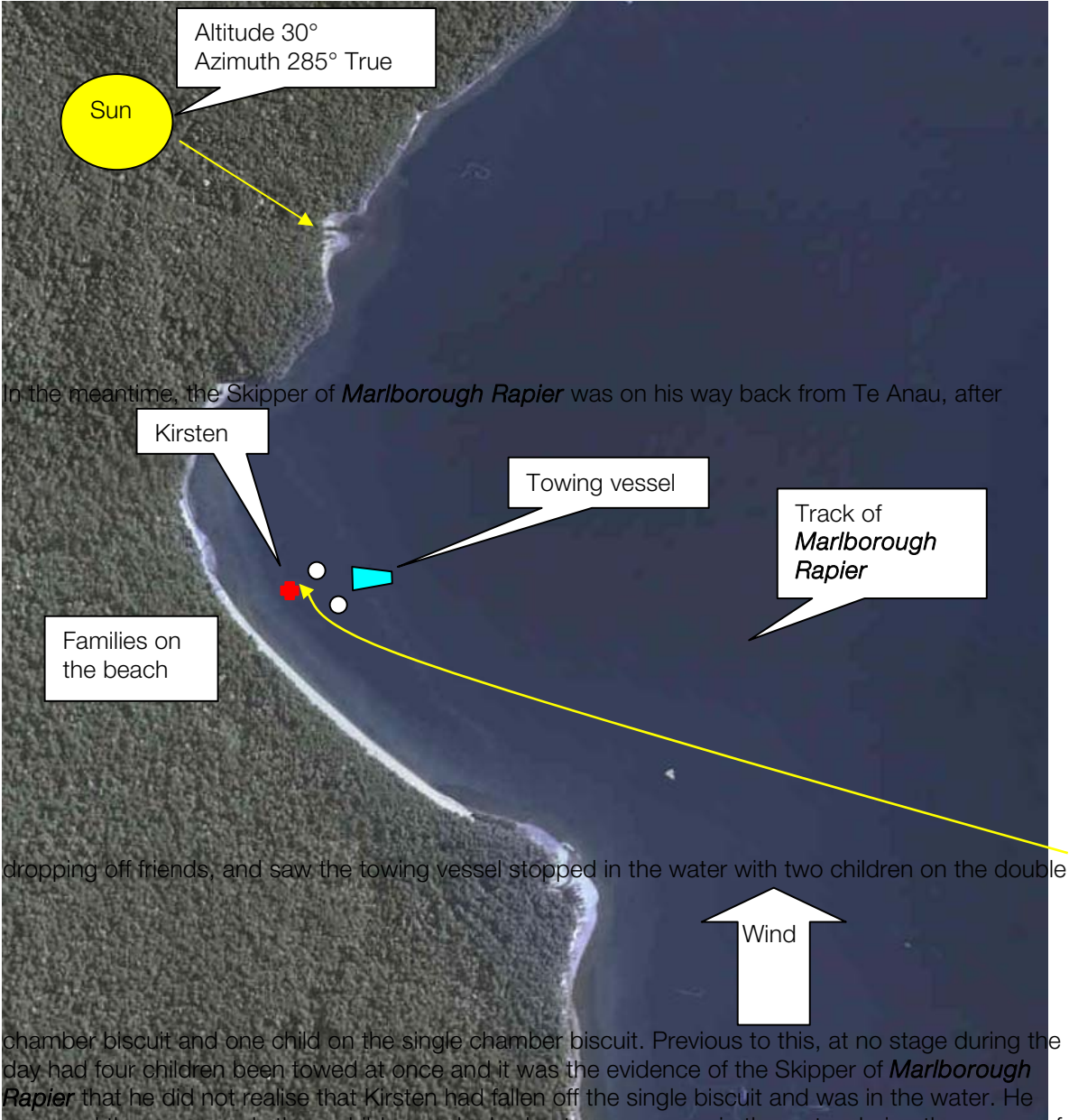


Figure 3 Aerial photograph of Brod Bay showing the approximate track of *Marlborough Rapier*, and the approximate positions of the towing vessel and the location of the two sea biscuits and Kirsten on the beach. It then turned to the left and stopped. He estimated that he was approximately 1.5 to 2

kilometres from the beach at this time and that it would have taken about 3-5 minutes to cover that distance. He kept his eye on the towing vessel that remained stationary for the entire time it took him to cover this distance. He expected that the towing vessel would have circled back to retrieve a person if they had fallen off. He was also expecting the towing vessel to move off before his arrival. Because the towing vessel was stationary, he was scanning the area in front of his boat with the main focus to the line of where he was travelling and to the right of where the two biscuits were located. He was not aware who was on the biscuits until he pulled in behind them.

Kirsten's parents stated she was swimming back to the single chamber biscuit just as **Marlborough Rapier** was approaching the group on the two ski biscuits and the towing vessel. They said Kirsten would have swum about only 4-5 strokes before the accident occurred. Some of the witnesses on the beach stated that from their position, they could clearly see Kirsten swimming back to the single chamber biscuit, as could the Driver of the towing vessel. The Driver of the towing vessel could especially see the red colouring on her buoyancy vest and was of the opinion that the Skipper of **Marlborough Rapier** should also have seen her. *In commenting on the draft report Kirsten's parents stated they had always maintained that after falling off the biscuit, Kirsten did sit in the water facing along the beach until she realised where the biscuit was located. This would have been for a maximum of 30 seconds. They saw Kirsten laughing at the other children who were looking at her and giving her a hard time for falling off. Her parents state that Kirsten then began to swim freestyle strokes towards the biscuits and, as such, a large area of her lifejacket was visible above the surface of the water. In commenting on the draft report, two other witnesses who were on the beach, stated that if Kirsten was swimming, it was not a freestyle stroke as they could not see her arms moving above the surface of the Lake.* Another witness on the beach saw Kirsten swim about three freestyle strokes before the accident occurred.

When the Observer of the towing vessel was interviewed by the Police shortly after the accident, he stated that as **Marlborough Rapier** was approaching the group, Kirsten was just bobbing in the water, that she had long black hair and was facing away from the towing vessel. It was the Observer's evidence to the Police that she would have been hard to see.

Subsequently, when he was interviewed by Maritime NZ, he confirmed that Kirsten was bobbing in the water after falling off the biscuit. He said she was laughing with one of the children on the double biscuit and that his son, who was standing on the biscuit, was 'yahooing' at Kirsten for falling off. She was side on to the towing vessel, facing the double biscuit and the Observer could see only the right hand side of her face and right shoulder. He remembered noting her long hair hanging down. Kirsten remained bobbing in the water with her head and shoulders above the water and facing the two children on the double biscuit. The Observer said that he did not particularly notice her lifejacket at this time.

It was the evidence of Kirsten's parents and some of the witnesses on the beach that Kirsten was still swimming back to the biscuit when the accident occurred. Her parents stated that her hair was tied back and she should have been clearly visible. Kirsten was about 5 metres from the biscuit when the Driver of the towing vessel saw **Marlborough Rapier** approaching from his starboard quarter. At this stage, the Driver of the towing vessel stated the bow of the vessel was still up but dropping as it came off the plane. The Driver of the towing vessel was looking towards Kirsten when he saw the approaching vessel apparently pass in front of her, as at this point she disappeared from his view. Kirsten's parents now believe that this was the initial point of impact. The Driver of the towing vessel then saw the Skipper of **Marlborough Rapier** talking to his children on the two biscuits and then, after having slowed further from coming off the plane, increasing speed. It was at this point that the Driver saw Kirsten at the back of the vessel lying face down in the water beneath the stern of the outboard motor. On sighting her, he immediately started yelling out before jumping into the water and swimming towards his daughter.

The Observer did not see the approaching **Marlborough Rapier** until it was virtually on top of Kirsten as he had been looking at her after she fell off the biscuit. In his interview with the Police he stated that the Skipper of **Marlborough Rapier** had his bow still up but that the vessel was losing speed as it came off the plane. He thought the Skipper of **Marlborough Rapier** had seen Kirsten but she just went under the back of the vessel as it carried on. He saw that Kirsten's lifejacket was caught on the fin of the outboard motor. Subsequently, the Observer stated that initially he thought the vessel had missed

Kirsten but then he saw her go under the vessel whilst it was still coming off the plane with its bow still up. At this point, he saw the Driver turn the towing vessel through an arc of about 180° to port to face the direction in which Kirsten had last been seen. Because of this, the Observer found it hard to judge distances and the orientation of **Marlborough Rapier** when Kirsten was observed, caught beneath the outboard motor stem of the vessel.

*In commenting on the draft report, two witnesses who were on the beach stated they were watching the two biscuits and the towing vessel intently as the group had been stationary for a while and they thought something might have happened. They then saw **Marlborough Rapier** approach and start to come off the plane. They stated that they could still see Kirsten after **Marlborough Rapier** had nearly stopped in the water but that she disappeared from view when the Skipper of **Marlborough Rapier** turned towards the beach and increased the speed of his vessel.*

The Observer did not hear what the Skipper of **Marlborough Rapier** said to his children just before the accident. He said that Kirsten would have had her back to the direction in which it was approaching and consequently she would not have seen the vessel before the collision occurred.

The Skipper of **Marlborough Rapier** stated that he intended to go around the back of the towing vessel and behind the ski biscuits to say hello to his two children and then to give them “a bit of wake”. He said he had slowed and almost stopped when he pulled in, about 5-6 metres behind the two biscuits. He stated that he had no idea who was in the biscuits until he was close to them. He had a clear recollection of both the Driver of the towing vessel and the Observer looking at him at this point. The Skipper stated there was no conversation between him and the occupants in the towing vessel and that no warning was given that Kirsten was in the water.

The Driver of the towing vessel stated that no one yelled out that Kirsten was in the water because their attention was concentrated on her swimming back to the biscuit and that any approaching vessel would be able to see her. The Driver initially thought the approaching vessel was heading for the beach. However, by the time he realised the Skipper of **Marlborough Rapier** was too close to the biscuit, it was too late to shout out a warning about Kirsten. The Driver of the towing vessel stated that the approaching vessel was about 20 metres distant from the two biscuits when he first observed **Marlborough Rapier**. He estimated that the time lapse from stopping the towing vessel until the accident occurred was not more than about two minutes.

The Skipper of **Marlborough Rapier** stated he started to come off the plane before he was about 20 metres from pulling up behind the two biscuits. By this time, he had slowed and was almost stopped. There was no speedometer or revolution counter on the vessel to be able to accurately determine its speed. The reason he made the decision to pull up to within about 5-6 metres of the biscuits was because of the length of time the towing vessel remained stationary. When he was about 5 metres astern of the two biscuits, he yelled out to his children and then put on a bit of speed to give them a wake. On doing so, he heard a thump at the stern and yelling coming from the occupants of the towing vessel. He stopped his vessel immediately and on looking over the stern, saw Kirsten floating face down beneath the stern of the outboard motor. He then saw the Driver of the towing vessel dive into the water.

Kirsten had been struck by the hull of **Marlborough Rapier** and was unconscious. The members of the family group, which included two nurses, called the emergency services and tried all they could to revive Kirsten. However, her injuries were too severe and she died at the scene of the accident.

COMMENT & ANALYSIS

Evidence

Maritime New Zealand commenced an investigation the day after the accident occurred when documentary evidence and witness statements that had been taken by the Police at Te Anau were obtained. The Investigator interviewed the Skipper of **Marlborough Rapier** and an accident site visit was conducted and further photographic evidence was obtained using this vessel. Later, after the first draft report was issued, Kirsten's parents and the Observer were also interviewed by Maritime NZ. This was followed by subsequent interviews of the Observer and Kirsten's parents by Maritime NZ.

Weather & Lake Conditions

At the time of the accident the weather was excellent. It was a warm sunny day with a light southerly breeze.

On observing the accident site, the Investigator was of the opinion that it would have been difficult, without any bright clothing or lifejackets being worn, to see a person in the water because of its colouration which was noted to be a dark black/inky colour, and that this would particularly be the case when facing the shoreline with the dark forest behind and when coming from a direction that was facing into the sun. Maritime NZ has concluded that the Skipper of **Marlborough Rapier** would not have been affected by 'sun strike' as its altitude would have been about 30° above the horizon at the time of the accident (See Figure 3). However, when looking in the opposite direction, (being the view from shore to Te Anau) Maritime NZ was of the opinion, due to the conditions at that time, that it would have been easier to see a person in the water from the shore.

The Observer stated that where the accident occurred, the water was dark in colour and that there was a bit of a chop on the surface. Kirsten's parents, in their statement to the Police, also stated there was a bit of a chop on the surface and it was these conditions that caused the biscuits to bounce around a bit and the need therefore to reduce speed. Subsequently, they stated that the lake surface was smooth at the time of the accident.

Kirsten's Visibility

The Driver of the towing vessel and some of the witnesses on the beach stated they could clearly see Kirsten while she was in the water and swimming towards the biscuit and that the two red segments of the lifejacket she was wearing were particularly noticeable. Kirsten's parents maintain that the environmental conditions would not have obscured her from anyone who was keeping a proper lookout.

In comparison, the Observer states that Kirsten was bobbing in the water with only her head and shoulders above the water and that she would have had her back to the direction in which **Marlborough Rapier** was approaching. His recollection was that Kirsten's hair was hanging down over her shoulders (Kirsten's parents state that her hair was tied back) and that he did not particularly notice her lifejacket. In his evidence to the Police, the Observer stated that Kirsten would have been difficult to see. If his evidence is correct, then she would have been more difficult to see by the Skipper of **Marlborough Rapier** when being approached from behind.

The Police evidence is that when Kirsten was seen at the hospital after the accident, her hair was tied back or in a bun. A hair tie was found amongst Kirsten's possessions.

Point of Impact

In his initial interview with Maritime NZ, the Driver of the towing vessel thought that she was probably struck when the Skipper of ***Marlborough Rapier*** increased speed to give his children a wake. Subsequently, Kirsten's parents thought that she was probably struck as the Skipper was coming off the plane with the bow of the vessel still up. This is supported by the Observer, who states he saw Kirsten go under the vessel as it was coming off the plane.

Throughout the course of the investigation, and during interviews with the Police and Maritime NZ, the Skipper of ***Marlborough Rapier*** was consistently of the view that the impact occurred when he accelerated away from the children.

Due to the conflicting evidence from the various parties, it is difficult to clearly identify the exact point of impact. However, considering all the evidence, Maritime NZ has concluded that there were probably two points of impact, the first, as described by the Observer, and the second occurring with the propeller of the vessel's outboard motor when the Skipper increased speed to give his children a wake. In the intervening period of time, Kirsten would have been pinned underneath the vessel. The Skipper of ***Marlborough Rapier*** may not have heard or felt the first impact as he was still coming off the plane and the bow of his vessel, although dropping, was still up.

Speed of *Marlborough Rapier*

Without a speedometer or a revolution counter, the exact speed of the vessel at the point of first impact will never be known. If the Skipper's recollection of the distance covered (1.5 to 2 kilometres) and the time that it took (3-5 minutes) as he approached the group on the water is correct, then it is calculated that the vessel's speed whilst on the plane would have been between 12 and 15 knots. The subsequent speed after coming off the plane would be dependent on how quickly or slowly the Skipper eased off the throttle. It is likely, however, given his relatively close proximity to the group when he started to come off the plane, that his speed at the time the first impact occurred could have been in excess of 5 knots.

Ski Lane

A pair of orange poles situated on the beach mark the ski lane. When the poles are aligned, they indicate the limits of the ski lane. There is also a small black plastic container in the water, which marks the outer extremity of the ski lane. This was very difficult to see. Initially, witnesses were unable to say whether or not the accident had occurred inside or outside the ski lane but later stated that it had been outside this area (See *Figure 1 – Topographical Map showing Ski Lane*).

Human Factors

The Skipper of ***Marlborough Rapier*** stated that he did not feel he was suffering from fatigue.

He was not on any medication at the time of the accident and did not require glasses.

At the time of the accident he had consumed three beers over the period of five hours at the beach. He subjected himself to a Police breathalyser test at the Te Anau Police station, which tested negative.

Southland Regional Harbour Bylaws

Lake Te Anau is under the Southland Bylaws. The Regional Council has erected signs at the two boat ramps stating the local rules (See *Figures 4 and 5 – Photographs of Safety Notices posted by Southland Regional Council*).



Figure 4
Safety Notice at the Boat Ramp, Issued by Southland Regional Council.

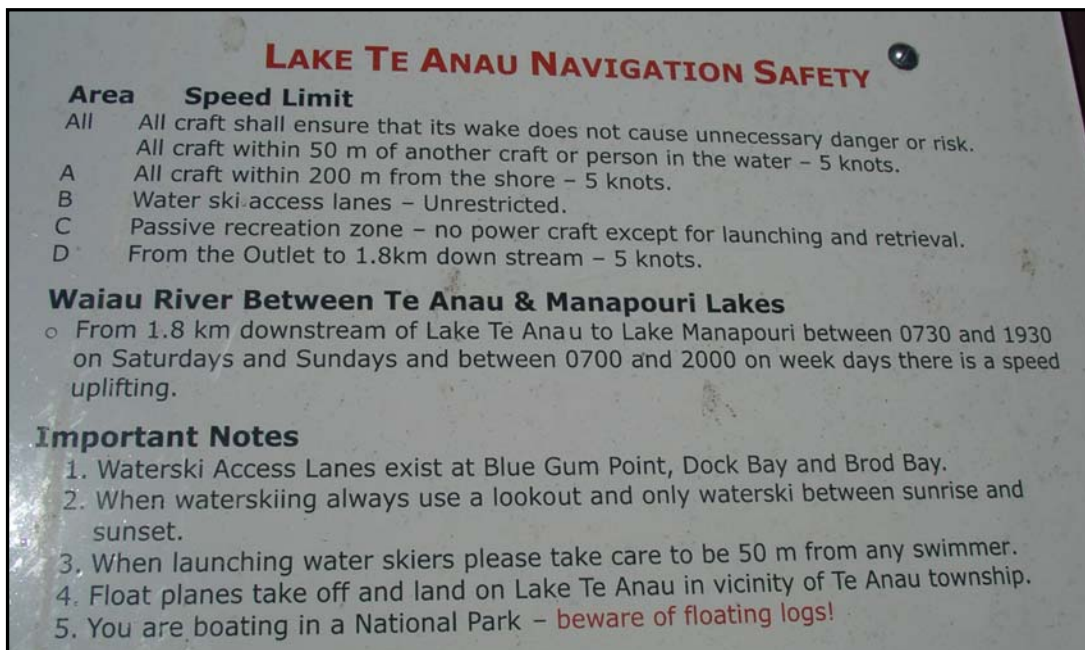


Figure 5
Enlarged portion of the Safety Notice at the Boat Ramp, Issued by Southland Regional Council

Southland Navigation Bylaws

3.2 Speed of vessels

- 3.2.1 *No person may, without reasonable excuse, propel or navigate a vessel (including a vessel towing a person or an object) at a proper speed exceeding 5 knots:*
- (a) *within 50 metres of any other vessel, raft, or person in the water; or*
 - (b) *within 200 metres of the shore or of any structure; or*
 - (c) *within 200 metres of any vessel or raft that is flying Flag A of the International Code of Signals (divers flag).*
- 3.2.2 *No person may propel or navigate a powered vessel at a proper speed exceeding 5 knots while any person has any portion of his or her body extending over the fore part, bow, or side of that vessel.*
- 3.2.3 *No person may cause himself or herself to be towed by a vessel (whether or not on a water ski, aquaplane, or other similar object) at a proper speed exceeding 5 knots in any circumstances specified in sub clause 3.2.1.*
- 3.2.4 *No person in charge of a vessel may permit the vessel to continue onwards, after any person being towed by that vessel has dropped (whether accidentally or otherwise) any water ski or similar object which may cause danger to any other person or vessel, without first taking appropriate action to immediately recover that water ski or similar object, unless the person has taken steps to ensure that the dropped ski or similar object is visible to other water users.*
- 3.2.7 *Subject to sub clause 3.2, every person who propels or navigates a recreational craft must ensure that its wake does not cause unnecessary danger or risk of damage to other vessels, persons or structures.*

It is the evidence of the Driver of the towing vessel that **Marlborough Rapier** was travelling at a speed in excess of 5 knots as it approached within 50 metres of the two ski biscuits. He stated that when he first saw **Marlborough Rapier**, it was about 20 metres distant from the biscuits. At that point it was still on the plane, which would have meant the vessel proceeding in excess of 5 knots. The vessel then slowed down until it was travelling at below displacement speed.

Based on the above, it was his evidence that the Skipper of **Marlborough Rapier** would have had limited time in which to ascertain the reason why the boat and biscuits were stopped in the water and observe the presence of Kirsten in the water ahead of his vessel.

The Skipper of **Marlborough Rapier** stated he approached the two ski biscuits at a slow speed and that he looked ahead but did not see anyone in the water.

This slow speed was also consistent with statements from some of the witnesses on the beach taken after the accident.

3.3 Lookouts on vessel used for water skiing and towing

- 3.3.1 *No person in charge of a vessel may use it to tow any person unless at least one additional person is on board who is responsible for immediately notifying the person in charge of every mishap that occurs to the person who is being towed.*
- 3.3.2 *No person may cause or allow himself or herself to be towed by or from any vessel unless at least one additional person is on board who is responsible for immediately notifying the person in charge of every mishap that occurs to the person who is being towed.*

There was an Observer on board the towing vessel.

It is the evidence of the Skipper of *Marlborough Rapier* that he was keeping a proper look out while approaching the ski biscuits.

It is the evidence of the Driver of the towing vessel that the Skipper of *Marlborough Rapier* was focusing his attention on his two children's biscuits and not keeping a lookout ahead of his vessel, where Kirsten was located in the water.

Maritime Rule Part 22.5 - Lookout states:

"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."

Water-Ski Rules – Overseas Examples

When considering safety recommendations for the report, the Investigator looked at examples of overseas water ski rules. The underlined rules below have been included in the recommendations of this report.

In a number of states of Australia there is a rule which states that vessels may only tow one biscuit at a time.

Example of South Australia (SA) water-ski rules:

- *waterskiing is not permitted before sunrise or after sunset except with written permission from the Marine Group of Transport SA*
- *no more than 3 people or only one device may be towed at any one time except with written permission from marine group.*
- *every water skier (or person being towed in any other manner) must wear an approved personal flotation device (PFD)*
- *a boat engaged in waterskiing must carry an observer in addition to the operator. In general, both the operator and the observer must be at least 16 years of age. However, a person between 12 and 15 years of age may act as an observer, provided that he or she holds a special boat operator's permit and the boat operator is at least 18 years of age*
- *the observer must continuously watch the skier and give the operator of the boat any directions necessary to ensure the safety of the skier*
- *0.05 blood alcohol limits apply to observers and waterskiers, in addition to boat operators*
- *a skier falling into the water must (unless injured) hold an arm or ski vertically in the air to signal his or her presence*
- *turns on leaving, approaching or in front of a take-off area must be made in an anti-clockwise direction, i.e., keep to the starboard side of the waterway*
- *boats leaving a take-off area must keep out of the way of boats arriving at a take-off area*
- *ski ropes or skis trailing from a boat must be removed from the water before arriving at a take-off area*

- *dropped skis must not be left in the water so as to present a hazard to other traffic*
- *applicable to all boats - a boat must not travel within 100 metres of and directly behind a person who is being towed by another boat.*

In the United States of America there is a rule stating that vessels must raise a flag while a skier is in the water to indicate to others that there is someone in the water.

Enforcement Action

Following extensive internal consideration of this accident by Maritime NZ, an independent expert was instructed to consider and give comment on evidence that had been obtained both by the Police and Maritime NZ, with the purpose of consideration of a possible enforcement action. On the basis of witness statements and the evidence collected, the expert was unable to draw any positive conclusion that the actions of the Skipper of ***Marlborough Rapier*** were irresponsible or negligent.

Following receipt of the independent experts report and further internal consideration, the Director of Maritime NZ decided that no enforcement action should be taken and instructed that a final report be issued.

CONCLUSIONS

N.B. These are not listed in order of importance

Considering all the evidence that has been obtained during the course of this investigation, it is the view of Maritime NZ that this tragic accident occurred because the Skipper of *Marlborough Rapier* did not see Kirsten in the water as he approached the children on the two ski biscuits. The fact that he did not see her raises the question that this was because he was not keeping a proper lookout, as appropriate to the prevailing circumstances and conditions, contrary to **Maritime Rule Part 22.5 – Lookout**. In determining whether a proper lookout was being maintained, the following must be borne in mind:

- Whilst this does not negate his responsibility to keep a proper lookout or the need to approach any stationary vessel with caution, the Skipper had no direct knowledge that a fourth child was being towed. During the day, and whilst he was driving the towing vessel, there had been no more than three children on the biscuits.
- With the above in mind, the fact that he saw three children may have triggered an ‘auto suggestion’ in his mind that all persons were accounted for. This may also have had a bearing on the degree to which he continued keeping a lookout ahead as he approached the two biscuits.
- The speed of the vessel, which could have been in excess of 5 knots at the time of the first impact with Kirsten, may have reduced the time in which to keep a proper lookout before the accident occurred.
- If, as stated by her parents and others, that Kirsten was swimming with her hair tied back and the red segments of her lifejacket could clearly be seen from the direction in which *Marlborough Rapier* was approaching, then she would have been more visible to the Skipper.
- If, however, Kirsten was stationary in the water, as stated by the Observer, with only her head and shoulders above the water, with her hair hanging down and with her back to the direction in which *Marlborough Rapier* was approaching, she would have been more difficult to see, particularly if there was any chop on the surface and the dark coloured water.

Other contributing factors include:

- The decision of the Skipper of *Marlborough Rapier* to approach within about 5 metres of the two biscuits.
- The assumption by the Driver and Observer of the towing vessel that the Skipper of *Marlborough Rapier* would not approach the biscuits and that he must have seen Kirsten.

COMMENTS OF KIRSTEN'S PARENTS

In commenting on the draft report, Kirsten's parents stated their major concerns with the Maritime New Zealand report were as follows:

- They strongly dispute the recollection of the Skipper of *Marlborough Rapier* as to the time the towing vessel and the two biscuits were stopped in the water namely, between three and five minutes. They maintain the time interval between Kirsten falling off the biscuit and being struck by *Marlborough Rapier* was closer to 1 minute and certainly no longer than 2 minutes.
- That the reference to the Observer not seeing Kirsten swimming indicates a number of factors namely:
 1. The Observer could not have been watching Kirsten all the time.
 2. Neither the Driver of the towing boat nor the Observer had any concern for Kirsten's safety (as otherwise they would have shouted out a warning).
 3. Kirsten was clearly obvious to anyone showing a reasonable duty of care and keeping a proper lookout.
- The Pathologist's report and the evidence of the Police is that Kirsten's hair was in a ponytail.
- During the day, the biscuits were being towed separately, sometimes with 1-2 children on the single chamber biscuit and at least 2 children on the double chamber biscuit. There were two runs at the end of the day when the two biscuits were towed together. On the first run there were 3 children on the two biscuits and 4 children on the final run.
- The speed of *Marlborough Rapier* when 50 metres from the towing vessel and the two biscuits was clearly over the 5 knot maximum and that if a speed of 5 knots had been maintained the accident would not have happened.

Maritime New Zealand has noted these concerns and has amended the report where it considers the evidence obtained from various witnesses supports them.

SAFETY RECOMMENDATIONS

1. It is recommended that Southland Regional Council undertake the following actions:
 - (a) Investigate replacing the signs at the boat ramps with larger signs so as to capture the attention of users of the boat ramps.
 - (b) Mark out the ski lanes in a manner that is readily apparent to all those on the water in the area.
2. It is recommended that Maritime New Zealand, in conjunction with the National Pleasure Boating Forum, investigate the possibility of implementing the following in a Maritime Rule:
 - (a) Vessels are only to tow one device at a time and a maximum of three people.
 - (b) Vessels are to carry a flag, which is raised by an observer during any period that a water skier or person on a biscuit is in the water (after falling off or before re-embarking).
 - (c) Applicable to all vessels – a vessel must not travel within 100 metres of, and directly behind, a person who is being towed by another vessel.
3. It is recommended that recreational boaties and water skiers consider the importance of purchasing and wearing brightly coloured lifejackets so they can more readily be seen both on top of and when in the water.
4. It is recommended that Maritime New Zealand liaise with the manufacturers of lifejackets and life vests in New Zealand with a view to their critically reviewing the colour of these garments and/or ensure the provision of fluorescent tape/stripes on or about the shoulders and around the top of the back/neck line of the wearer to ensure their maximum visibility to others on the water.