

Accident Report

Matakana

Capsize

Totaranui Beach, Abel Tasman National
Park on 1 September 2004

KEEPING YOUR SEA SAFE FOR LIFE



Maritime Safety

MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Maanu Kia Ora



REPORT NO: 04 3554

VESSEL NAME: MATAKANA

CASUALTY DETAILS:

Date of Casualty: 1/9/2004
Time of Casualty: 1500 hours (NZST)
Casualty Type: Capsize
Casualty Location: Totaranui Beach Abel Tasman National Park
Weather Forecast Area: Abel
Date MSA Notified: 1/9/04
Date Investigation Started: 2/9/04
Date Investigation Completed: 06/05/05
Investigator: Domonic Venz



REPORT NO: 04 3554

VESSEL NAME: MATAKANA

VESSEL DETAILS:

Ship Name:	<i>Matakana</i>
Ship Category:	Passenger
Certified Operating Limit:	Nelson & Marlborough Inshore Limits
Overall Length (m):	7.4
Flag:	New Zealand
Registered Owner:	Abel Tasman Seafaris
Ship Operator:	Aqua Taxi Ltd
SSM Company:	Survey Nelson



SUMMARY

During the morning of 1 September 2004, Aqua Taxis Ltd cancelled all water taxi trips due to poor weather conditions.

During the course of the early afternoon of 1 September, the weather moderated. At 1330 hours New Zealand Standard Time (NZST), the water taxi *Matakana* departed its Marahau base with 10 passengers onboard. The Skipper made several passenger drop offs and pick ups throughout the Abel Tasman National Park, in moderate swell conditions. At 1500 hours, *Matakana* arrived off Totaranui Beach. The Skipper positioned the vessel immediately outside the Information Centre, in the middle of the bay and anchored the vessel by the bow. He exited the vessel via the stern and started to help the first of three passengers, from the beach, onto the vessel. The bow of the vessel was pitching about 1 to 1 ½ metres while at anchor, as the waves passed underneath the hull. Shortly after the first passenger embarked a series of larger waves struck the vessel.

In commenting on the draft report, Passenger 1 stated that he had no recollection whatsoever of a passenger boarding the vessel at Totaranui. In his opinion, the only people that approached the vessel were a couple who were wading up to their shoulders in the waves. Passenger 1 stated that the Skipper screamed at them to return to shore as the vessel was being severely tossed around in the breaks and the couple were in danger from being struck by the vessel.

*The above views of Passenger 1 were strongly disputed by the Skipper of **Matakana**, for which see his comments in the body of the report .*

The Skipper then embarked *Matakana* in an unsuccessful attempt to move the vessel out of the shore break. At this point, the vessel was capsized by a third larger wave.

In commenting on the draft report, Passenger 1 disputed that the Skipper attempted to move the vessel from the shore break, as he had no time to do this before the vessel capsized.

In reply to the above, the Skipper stated that he was at his station when the vessel rolled onto its side.

Passenger 1 also disputed that there was a third larger wave. It is his evidence that the vessel was constantly being thrown around, lifted and dumped by the waves of a size and strength that they had experienced throughout their journey. According to Passenger 1, any greater intensity of wave action at that time could have been reasonably predicted given the position of the vessel in relation to the shore break and the geological contours of Totaranui Beach.

In commenting on the above, the Skipper stated it was clear to him that a larger set of waves than any others did occur at the time of the accident. He flatly denied that these could have been reasonably predicted. Further, that if he had had foreknowledge of the situation, he would never have attempted to land off the Information Centre.

The Passengers, save for Passengers 1 and 2, and the Skipper, were thrown out of the vessel. Passengers 1 and 2 and the Skipper were trapped underneath the canopy area for a period of time before managing to free themselves.

In commenting on the above, the Skipper stated that Passengers 1 and 2 exited the boat with him close behind, before the vessel fully capsized on its side.

All passengers were eventually able to reach the beach at Totaranui.

1. KEY EVENTS

- 1.1 During the morning of 1 September 2004, the water taxi *Matakana* departed Marahau in the Abel Tasman National Park in Tasman Bay.
- 1.2 On board were the Skipper and six passengers. Due to the rough weather at the time, the Skipper and owning company decided not to proceed around and to the north of Abel Head. By about 1100 hours New Zealand Standard Time (NZST), the Skipper had made his drop offs and returned to base in Marahau, with the vessel empty. The Owner's then cancelled any more sailings that morning due to poor weather conditions throughout the area.
- 1.3 The Skipper then helped out in the booking office over lunchtime.
- 1.4 During this lunch period the weather improved enough for a scheduled trip at 1330 hours to be undertaken. Other water taxi operators were operating at the northern end of the Abel Tasman Park National Park that afternoon.
- 1.5 At 1330 hours, the Skipper boarded ten passengers onto the vessel, departed Marahau and headed north into the Abel Tasman National Park.
- 1.6 At 1400 hours, they arrived at the anchorage in Torrent Bay where one passenger disembarked the water taxi and boarded another vessel that was anchored in the Bay.
- 1.7 The Skipper then steamed further north and stopped at Awaroa Bay, arriving there at about 1430 hours. He turned the bow of the vessel seawards and backed in, letting the bow anchor run out and slowly raising the outboard as the available depth of water decreased. He stopped the outboard motor, went to the stern and exited the vessel. He then put out a stern anchor by hand and disembarked five passengers and embarked another five.
- 1.8 The Skipper then retrieved the anchors and departed for Totaranui.

In commenting on the draft report, Passenger 1 stated that the Skipper at this time was having great difficulty in handling the vessel because of the prevailing sea conditions. He said the Skipper struggled physically to try and stabilise the vessel and remain in control whilst at the same time, utilising the stern anchor. Added to this was the need for the Skipper to try and control the movement of passengers on and off the vessel. It was the opinion of Passenger 1 that the above should have been an indicator that similar problems were likely to occur at the next landing and accordingly the need for a decision to be made to cease all activities for the safety of passengers, until weather conditions abated.

The Skipper flatly denied the above, stating that at no time was he was struggling to control the vessel at Awaroa. That whilst waves were present,

they were not unusual or dangerous and not indicative of the likely conditions at a totally different location namely, Totaranui.

- 1.9** On passage to Totaranui, Passenger 2 recalled that her feet were lifting off the floor from a seated position, as the vessel rode over the waves. Passenger 2 stated that earlier, on the journey into Awaroa Bay, the Skipper had forewarned the passengers that the sea conditions would be rough and that passengers should sit down. Passenger 2 recalled that whilst at Awaroa, seawater was shipped inside the vessel, soaking her down one side, as the vessel yawed in the rough seas.
- 1.10** At 1455 hours, the vessel arrived at Totaranui Beach. According to Passenger 2, the approach to Totaranui was worse than at Awaroa. Passenger 2 recalled being very scared and was having difficulty balancing, due to the rough movement of the vessel. The Skipper then turned the vessel in a circle outside the beach break area while assessing the wave and beach conditions. He observed the three pre booked passengers waiting on the beach near the Information Centre (*See Diagram 1 - Chart Excerpt*). The Skipper erroneously decided that conditions were acceptable enough to make a landing at the regular landing area, near the Information Centre.

In commenting on the draft report, Passenger 1 stated that after the accident, he was told by Aqua Taxi personnel that the regular landing area was at the north end of the beach and not opposite the Information Centre as stated above. Passenger 1 cited support for this view on the basis that some passengers were contacted by Aqua Taxi personnel and told to wait at the north end of the beach because of the sea conditions. According to Passenger 1, the only reason why others were waiting opposite the Information Centre was because the Aqua Taxi team could not contact them.

In reply to the above, the Skipper stated that the regular landing area was at the Information Centre and, when assessed from offshore, was considered by him to be good enough to land. He freely accepts that this was the point where his judgement call was shown to be lacking. The company confirmed that the regular landing point at Totaranui was in front of the Information Centre.

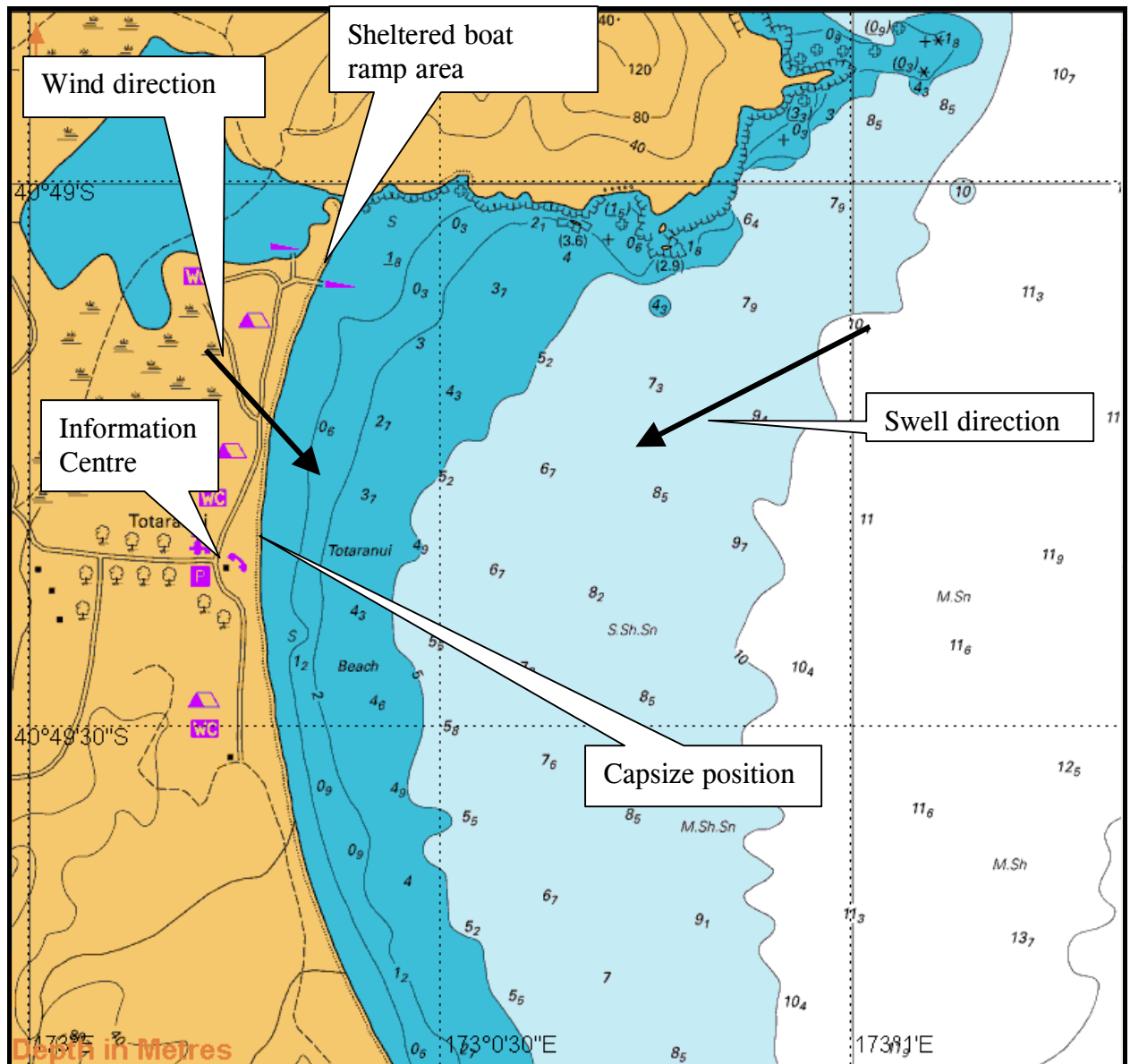


DIAGRAM 1 – CHART EXTRACT

1.11 At 1500 hours, the Skipper approached the beach, turned the bow of the vessel seawards, facing the incoming waves, and started to reverse the vessel whilst paying out the anchor and chain. As the depth of water decreased, he raised the outboard motor until he was at the desired depth for disembarkation with regard to the swell conditions.

In commenting on the draft report, Passenger 1 stated that his perception at the time was that the anchor was not dropped from the vessel far enough out from the beach break and therefore did not find a good enough purchase. He went on to say that combined with the highly erratic movement of the vessel, the anchor was eventually dislodged, contributing in the unusual slewing of the bow and eventually the capsizing of the vessel.

The Skipper considered the above remarks of Passenger 1 to be pure speculation and totally incorrect. The anchor was set correctly and at no

time did it drag or dislodge.

Passenger 1 stated further that the vessel never reached the desired depth for disembarkation as the sea and waves were too rough and the vessel too unstable.

In response the Skipper stated that when he disembarked the vessel, the depth of water was calf deep. The engine had to be lifted and switched off.

According to Passenger 2, waves were being consistently shipped on board the vessel. She could not measure how many times, or the amount of water that came into the vessel, save to say that she was by then, completely saturated. She heard shrieks coming from the other passengers, whom she presumed were also frightened.

The Skipper denies that water was constantly being shipped on board and states that this was restricted to the time when the first in the larger set of waves came through. Up to that time, only water spray was coming on board. No waves entered the vessel until it rolled over. This was witnessed by passengers on the beach.

- 1.12** The Skipper then made his way to the stern of the vessel. At this stage, the vessel was pitching from time to time due to the passing remnant north- east swell. One of the passengers that had been waiting on the beach, met him, then climbed onboard and was seated.

In commenting on the draft report, Passenger 1 disputed that anyone had boarded the vessel at Totaranui as the conditions were far too extreme.

In reply, the Skipper stated that the first of the passengers on the beach boarded just before the first set of larger waves came through. The passenger who boarded did so without difficulty and got wet only to just over knee level. This was witnessed by the passengers on the beach.

- 1.13** The Skipper exited the vessel and stood in the water waiting for the other two passengers to come out to the vessel. He then looked out to sea and saw a number of larger waves approaching the beach. He yelled out to the passengers ashore telling them to hurry up. Passenger 2 recalled thinking at the time how unsafe it would be to even consider permitting anyone else to board in the given conditions.

- 1.14** Shortly after this the first of a series of waves, larger than the average height at the time, struck the bow. The vessel rode up over it with some spray entering the vessel.

In commenting on the draft report, Passenger 1 stated that reference to a “first... series of waves” was misleading as the wave conditions were constant and severe.

The above is disputed by the Skipper. He stated that anyone who had dealings with the sea and wave action would appreciate that sets of waves are a well known fact. (The company also stated this to be the case). Further, that if he had observed one of these wave sets, whilst still offshore, the landing would have been aborted. The Skipper, on arrival at Totaranui and before deciding to land, had assessed the wave sets/conditions and did not witness any set of waves as large as the one's at the time of the incident.

Passenger 1 stated that at this point the vessel was being "uncontrollably rolled, raised and dumped in the waves".

- 1.15** A number of passengers became concerned at this time due to the rough nature of the movement of the vessel but were not overly concerned.

Passenger 1 stated that reference to "minor spray" entering the vessel was untrue and that in reality a considerable large amount of water and spray repeatedly entered the vessel before the eventual capsize. He went on to say that the amount of water was significant enough to cause passengers to scream, panic and attempt to grab anything to stabilize themselves.

- 1.16** During this time, the stern of the vessel started to swing to starboard and the bow to go to port. The Skipper looked out to sea again and observed more waves approaching the beach. He yelled at the two remaining passengers to get back to the beach as he was going to take the vessel back out to sea to reassess the conditions. At this point there were 13 passengers and the Skipper onboard. As the boat rose and fell sharply, Passenger 2 felt extremely frightened and wondering when the 'nightmare' would end.

- 1.17** A second wave struck the vessel as the Skipper was entering the stern area. The bow rode over this and the stern was pushed further to starboard. The Skipper made it to the helm position just as a larger wave struck the vessel.

- 1.18** Shortly after this a third wave struck the bow lifting it and lowering the stern where the port quarter boarding ladder struck the seabed. The vessel then started to capsize, turning over through an arc of 90° in a fore and aft direction and ending up resting on the radar stand, on the bottom, about 8-10 metres from the shore.

In reply to the above, the Skipper stated that as the boat rolled over to rest on the radar arch, the motor was never fully submerged. Further, that the stern of the vessel was lying on the beach and not 8-10 metres as stated above. To have been 8-10 metres offshore would have meant the vessel was floating in about 3 metres of water at the height of tide at the time of the incident. For the vessel to roll onto its side would require the pontoon to be grounded. It was at this time that the boarding ladder was damaged.

In commenting on the draft report, Passenger 1 stated that “Based purely on mechanics and the design of the craft, if this was the case; because of the length of the boarding ladder when compared to the depth of the engine or the hull at the stern of the vessel, the angle the bow would have to be lifted or the stern lowered for this to occur would have to be almost vertical.”

- 1.19** During this time, a number of the passengers were thrown out of the vessel into the water. Another wave swept over the hull completely overturning *Matakana* by 180° and, in so doing, leaving Passengers 1 and 2, and the Skipper, under the canopy of the vessel. The two passengers and the Skipper were eventually able to extricate themselves from under the capsized vessel and, together with the other passengers, were able to make their way up to the beach and clear of the water (See Appendix 2 – Photograph 1 - Upturned vessel after the accident with a lowered state of tide).

In reply to the above, the Skipper maintained that the vessel had not yet completely overturned when he and Passengers 1 and 2 exited the vessel. This was witnessed by one of the passengers who was waiting on the beach.

In commenting on the draft report, Passenger 1 stated that this photograph did not show the true position of the vessel immediately post accident. He estimated the photograph would have been taken about 1½ to 2 hours post the accident.

- 1.20** A head count was conducted on the beach.

In commenting on the draft report, Passenger 1 stated that the Skipper played no role in commencing this critical emergency procedure. Passenger 1 stated that this task was instigated by himself whilst the Skipper stayed with the vessel. According to Passenger 1, the Skipper had no idea of the number of passengers on board.

In commenting on the above remarks, the Skipper stated that he asked if every person had members of their group with them. His main concern was that nobody was still trapped under the hull. It was for this reason he was beside the vessel on the beach while a head count was done by other passengers. A double check was conducted later by the Skipper to confirm that numbers were correct. The Skipper checked the passengers for injury and no serious injuries were reported. On this basis the decision was made that emergency services were not required.

Passenger 1 counted a total of 13 persons when he conducted his head count on the beach. Passenger 2, who was a nurse, initiated the triage medical assessment of the passengers together with Passenger 1. Passenger 1 stated that he sustained abrasions and bruising to his arms and legs together with an abrasion to his forehead and a cut on his scalp. He said that other passengers also sustained injuries.

- 1.21** The Skipper described the assistance provided by Passengers 1 and 2, after the accident, as very helpful.

Passenger 1 stated that “As no emergency services were mobilized to the scene and therefore no emergency treatment was available; anyone that had suffered from a more serious injury, an undetected internal injury or if any other medical emergency had developed, i.e. diabetes, hypothermia shock, the result would of undoubtedly resulted in one or more fatalities.”

- 1.22** The Skipper then went to the Information Centre which was closed. He used the pay phone and called the Owners for them to arrange pickup.

In commenting on the draft report, Passenger 1 stated that he had to ask the Skipper to go and initiate emergency and assistance procedures, as all the Skipper’s concerns were directed at trying to refloat the vessel.

In reply to the above remark, the Skipper flatly denied this was the case. His main concern was to seek assistance and that he has no recollection of being directed to do so by Passenger 1.

- 1.23** Later, eight people were taken by van to Awaroa Lodge; two were taken by boat to Bark Bay and three returned to Marahau by boat.

In commenting on the draft report, Passenger 1 stated that he collated all the contact details of the passengers and passed on this information to Aqua Taxis and the Investigator.

It was the recollection of the Skipper that the collation of the above contact details was done by other Aqua Taxi staff at the scene and through Awaroa Lodge. This was confirmed by the company.

- 1.24** The vessel was salvaged later that evening using an excavator. A large amount of damage was sustained to the vessel during the salvage.

In commenting on the draft report, Passenger 1 stated that whilst accepting some damage was caused by the salvage of the vessel, it was quite obvious, in his opinion, from the photographic evidence that the majority of the damage was occasioned during the accident. He questioned whether the damage had been blamed on the salvage excavation in an effort to minimise or cover up the forces that impacted on the vessel during the accident (See Appendix 2 – Photos 2 - Photographs of damaged vessel taken some time after the capsizing).

In reply to the above, the company stated that the water damage to the vessel and the damage to the window screen and radar arch was caused directly as a result of the accident. The damage to the port and starboard pontoons was sustained during the salvage of the vessel. The company stated that this was confirmed by staff and the digger driver who were present during the course

of the salvage and is supported by the attached photographic evidence to the report. Appendix 2, photograph 1, starboard side backs up this evidence as no damage can be seen pre-salvage. Photographs 3 and 4 show the post salvage damage to the vessel.

2. KEY CONDITIONS

2.1 Vessel Details

- 2.1.1 *Matakana* is an aluminium rigid pontoon designed vessel of 7.4 metres in length. She was designed by Osprey Boats and constructed by Alloyd Engineering. The vessel was powered by a 225 hp Honda outboard motor.
- 2.1.2 Abel Tasman Seafaris, trading as Aqua Taxi, owns *Matakana*. They, in turn, are owned by Shotover Jet Limited, Queenstown. Abel Tasman Seafaris own six other water taxis of the same design and length as *Matakana* (See Photo 1 - Photograph of vessel of same design and length).



PHOTO 1 – VESSEL OF SAME DESIGN & LENGTH

- 2.1.3 All the vessels in the fleet are launched off a tidal beach using a tractor and trailer.

2.2 Survey Audit and Inspection Details

- 2.2.1** At the time of the accident, *Matakana* had a valid Safe Ship Management (SSM) Certificate issued by Survey Nelson Ltd on 2 April 2004 and due to expire on 28 September 2008. The vessel was deemed fit to ply Nelson/Marlborough Inshore limits. The vessel's Ship Safety Manual stated under "Safety Policy," that in the conduct of its maritime operations, the owners "will protect the safety of passengers, employees, cargo and the protection of the environment."
- 2.2.2** Each vessel of Abel Tasman Seafaris, operating within a SSM system, was required to maintain a log book (which was kept in the company's office and completed by individual masters) covering such items as voyage details, passenger numbers and ship maintenance. *Matakana* operated a scheduled timetable and, as such, the times of arrival and departure at each loading point was not recorded separately in the log book. Any unusual weather conditions that arose during the course of a day's operation were diarised ashore at the end of each day. A passenger manifest was handed to each skipper at the start of the day. Any changes from this manifest were radioed in by a skipper and appropriate amendments made to the manifest. Maintenance for each boat was recorded in the log book.
- 2.2.3** Under the sub heading of "Emergency Preparedness," the Ship Safety Manual stated that it was the policy of the company that skippers were fully trained in all aspects of the vessels fire fighting, communications, pyrotechnics, EPIRB (Electronic Position Indicating Radio Beacon) use and the safe manoeuvring of the vessel.
- 2.2.4** Survey Nelson Ltd last inspected the vessel before the accident on 23 September 2003 and found one deficiency, relating to smoke floats on the vessel, which was rectified immediately. The Maritime Safety Authority last inspected the vessel before the accident on 23 October 2003 and found no deficiencies at that time.
- 2.2.5** *Matakana* operates within an ISO Management system and any changes to the Ship Safety Manual must be approved and authorised first by Survey Nelson. Survey Nelson has the responsibility of carrying out unscheduled audits in order to verify the continued safe operation of the vessel. In an audit conducted prior to the accident, it was reported that the training of ship personnel was well established, with a training manual, Safe Ship procedures and appropriate certification for skippers. On 18 February 2005, Survey Nelson conducted another audit of the vessel (at which the manager and operations manager of Aqua Taxis were present) pursuant to Maritime Rule Part 21 and the New Zealand Code of Practice for Safe Ship Management. Relevant actions arising from that audit were as follows:

The Training manual for the Skipper showed that retraining had occurred on 3 September 2004, with emphasis on beach landings. The training was signed off by a trainer and the operations manager of the company. Each skipper had his own training manual detailing the training they had received. The training manuals were introduced only a short time before the accident occurred.

Skippers' training is now reviewed every 3 months and senior skippers are required to observe and monitor other skippers on an on going basis.

Abel Tasman Seafarries have made up kits containing emergency equipment to be placed in bays etc., where considered practicable and where the Department of Conservation does not have existing kits/supplies available.

- 2.2.6** No corrective actions were required as a result of the audit conducted in February 2005.

2.3 Weather Details

- 2.3.1** The MetService forecast for sea area Abel, issued on the morning of 1 September 2004 stated:

'Gale warning in force, Northerly 20 knots rising to 35 knots this morning. Becoming northwest 15 knots but 25 knots north of Separation Point early afternoon. Sea becoming rough for a time. Northerly swell rising to 2 metres. Poor visibility in rain developing this morning, then clearing this afternoon.

Outlook northwest 15 knots but 25 knots in north'.

- 2.3.2** MetService stated that the actual weather conditions at the time of the capsizing consisted of a wind from the west north west at 20 knots with a swell from the northeast of between 1 to 2 metres.

In commenting on the draft report, Passenger 1 was of the opinion that if measured from the base of the trough to the top or crest of the wave, he would estimate the swell on average to have been between at least two to three metres.

- 2.3.3** The Skipper described the swell conditions as follows: - the first of the larger swells was about 1 metre, the second was 1½ metres and the third wave that capsized the vessel was described as being about 2 metres.

Passenger 1 disputes the three wave theory on the basis that the waves were constant and severe throughout.

The Skipper maintains that his evidence on the swell conditions is correct.

2.4 Manning Details

2.4.1 The vessel was correctly manned as required under **Maritime Rule Part 31B.9**

Passengers on board	Minimum required Qualifications	Minimum Crew
Less than 20	Master- LLO up to 20 m in length overall.	1

LLO Local Launch Operator

2.4.2 The Skipper was aged 35 of Nelson. He holds an LLO Certificate obtained in December 2000 and was endorsed with one vessel. The LLO was further endorsed in 2002 and 2004 to incorporate all Abel Tasman Seafaris vessels. The Skipper obtained a First Aid Certificate at the time of becoming the holder of an LLO. Although there is currently no legal requirement for First Aid Certificates to be re-validated, the Skipper's First Aid Certificate was valid at the time the accident occurred. He was stood down from operations by the company for three days immediately following the accident.

2.4.3 The Skipper has a large amount of recreational experience within the Abel Tasman National Park and the season 2004/2005 will be his third as a commercial Skipper with Abel Tasman Seafaris.

2.5 Training Details

2.5.1 When he joined the company he read and signed the 'Aqua Taxi Training Manual' and given practical and theoretical training including the following general topics: -

- Customer relations
- Passenger safety
- Environment care code
- Customer complaints policy

He was also trained in more specific boat driving topics including: -

- Tractor and trailer
- Launching procedures
- Disembarking passengers
- Rocks in the Abel Tasman National Park
- General safety considerations for boat drivers
- Kayak pick-ups
- History and geology of the region

- Marine mammal protocol
- All Skippers who are holders of statutory maritime qualifications hold valid first aid certificates.

In commenting on the draft report, Passenger 1 felt strongly that all staff should receive training in emergency procedures and first aid. In reply, the Skipper stated that he held a valid first aid certificate that included response to emergency procedures. The company stated that first aid training of personnel was conducted biannually. The Skipper was fully trained and certified in first aid which accords with MSA/SSM requirements.

2.5.2 In the Training Manual under the section entitled ‘Disembarking Passengers’ it states in paragraph 1: - *“With any significant onshore wind or sea conditions use your main anchor to hold the bow in place”*. In paragraph 4 it states: - *“There are occasionally times when sea conditions mean it is not safe to land passengers on a particular beach. This is a judgment call that can only be made by the skipper on the spot but if you think a landing is not safe for the vessel or passengers, abort it”*. This section ended with the wording “In NO CIRCUMSTANCES compromise the safety of your passengers.”

2.5.3 Contained in the section entitled ‘Rocks’ the Training Manual states for Totaranui: - *“Exposed N, NE, E, SE (wind / swell)- Unload at headquarters building (Information Centre) or up past the boat ramp (i.e. at the northern end of the bay), never unload down the southern end, the beach is very steep here and dangerous in any swell”*.

2.5.4 The training undertaken by the Skipper on 3 September 2004, required him, amongst other things, to have full knowledge of the extreme weather conditions that can be encountered in the Abel Tasman Park; the difficulties that can be experienced when anchoring at Totaranui and other places and extensive retraining at the landing points at Totaranui, to include the effects of weather/tide.

2.6 Capsize Details

2.6.1 The sailings to the area north of Abel Head had been cancelled on the morning of the capsizing due to strong Northerly winds and associated swell. In the early afternoon the wind had backed to west northwest giving an offshore wind at Totaranui Beach.

2.6.2 The Skipper saw the three passengers on the beach at the Information Centre and chose to load there instead of moving further north where some shelter was available from the northeast swell (*See Diagram 1*). To gain access to

the beach at the Information Centre, the passengers had to walk past a large sign that stated the Skipper may signal for them to move up or down the beach if conditions dictate.

2.6.3 After the Skipper had anchored the vessel using the bow anchor he started to embark the passengers. During this process a number of large waves acted upon the bow of the vessel. The wind also acted on the port quarter, essentially pushing the stern to starboard. This presented the starboard bow to the incoming waves. As the bow rose the port quarter lowered which in turn dug the boarding ladder into the seabed enabling the wave to turn the vessel over (*See Photographs 2, 3 & 4 – Damaged Vessel*).



PHOTO 2 – DAMAGED BOARDING LADDER



PHOTO 3 – DAMAGED VESSEL



PHOTO 4 – DAMAGED VESSEL

2.7 Health and Safety in Employment Act 1992 (HSEA)

- 2.7.1** Pursuant to section 15 of the HSEA, every employer is required to take all practicable steps to ensure that no action or inaction of any employee (*in this case, the Skipper*) while at work harms any other person (*e.g. any passengers or other crew who may be on board*).
- 2.7.2** Further, pursuant to section 16 (2) of the HSEA, a person who controls a place of work (*in this case Aqua Taxis/the Skipper*) must take all practicable steps to ensure that no hazard that is or arises in the place (*in this case, the vessel*) harms people – who, amongst other things, are in the place with the express or implied consent of the person and who amongst other things, have paid the person (directly or indirectly) to be there or to undertake an activity there

3. CONTRIBUTING FACTORS

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

- 3.1** The Skipper chose not to use the secondary stern anchor to hold the vessel head into the waves. He thought that this would be more of a hindrance, as he wanted to load quickly due to poor weather.

In commenting on the draft report Passenger 1 states that the Skipper could not have placed the secondary anchor for two main reasons. One, the vessel was being severely tossed around as he clung on to the stern of the vessel, and two, the vessel was not near enough to the shore to allow him to do this.

In reply, the Skipper reiterated that he could have used the stern anchor but chose not to do so.

- 3.2** The Skipper was complacent when deciding his pick-up point. There is a boat loading sign ashore at the Information Centre, which directs passengers onto the beach for pick-up. This sign states that the Skipper may direct them up the beach (northern end) for safer embarkation (*See Photograph 5-Photograph of sign*). The company's Training Manual could have made it clearer that in swell conditions/heavy weather, landings should not be attempted except at the northern end of the beach, where some lee would have been afforded to the vessel.



PHOTO 5 – SIGN

- 3.3 The Skipper's lack of sufficient training as regards anchoring the vessel at Totaranui Bay in heavy weather conditions. Appropriate training by the company would have emphasised the dangers of attempting a landing at the Information Centre, in the prevailing sea conditions, given the paramount need to ensure passenger safety at all times and to comply with the requirements of an employer under section 15 of the HSEA (*see paragraph 2.7.1*) and under section 16 of the HSEA – “a person who controls a place of work must take all practicable steps to ensure that no hazard that is or arises in the place harms people who ... have paid the person to be there or to undertake an activity there.” In commenting on the draft report, the company stated the driver was well trained in the area in these in these conditions. The training manual that was supplied showed this, together with the two years experience the driver had in all sea conditions, in this area.
- 3.4 The comments of some of the passengers to the response of the Skipper following the capsizing, highlights the importance of the need for proper training in emergency response and first aid. Immediately following any emergency, there is likely to be a number of pressing and often conflicting matters, requiring the attention of a skipper. In such circumstances, it is vital that every skipper is fully trained to prioritise these to ensure the safety of life first followed by the environment and property. Section 8 of the New Zealand Safe Ship Management Code, requires the owner of a vessel to establish procedures to identify, describe and respond to emergency shipboard situations, such as the one that occurred here.

In commenting on the above the Skipper stated that his number one concern was the safety of the passengers.

4. CAUSE

Human Factor

<input type="checkbox"/> Failure to comply with regulations	<input type="checkbox"/> Drugs & Alcohol	<input type="checkbox"/> Overloading
<input type="checkbox"/> Failure to obtain ships position or course	<input type="checkbox"/> Fatigue	<input type="checkbox"/> Physiological
<input type="checkbox"/> Improper watchkeeping or lookout	Lack of knowledge	Ship Handling
<input type="checkbox"/> Misconduct/Negligence	<input checked="" type="checkbox"/> Error of judgement	<input type="checkbox"/> Other . . .

Environmental Factor

<input checked="" type="checkbox"/> Adverse weather	<input type="checkbox"/> Debris	<input type="checkbox"/> Ice	<input type="checkbox"/> Navigation hazard
<input type="checkbox"/> Adverse current	<input type="checkbox"/> Submerged object	<input type="checkbox"/> Lightning	<input type="checkbox"/> Other . . .

Technical Factor

<input type="checkbox"/> Structural failure	<input type="checkbox"/> Wear & tear	<input type="checkbox"/> Steering failure
<input type="checkbox"/> Mechanical failure	<input type="checkbox"/> Improper welding	<input type="checkbox"/> Inadequate firefighting/lifesaving
<input type="checkbox"/> Electrical failure	<input type="checkbox"/> Inadequate maintenance	<input type="checkbox"/> Insufficient fuel
<input type="checkbox"/> Corrosion	<input type="checkbox"/> Inadequate stability	<input type="checkbox"/> Other . . .

4.1 The vessel was turned by the wind so that the bow was no longer meeting the approaching waves. A series of waves, larger than the others, overwhelmed the vessel, causing the port quarter to dig into the seabed which contributed to the capsize.

4.2 The Skipper failed to correctly ascertain the conditions at the time and should have embarked the passengers further north where there was some shelter from the northeast swell.

5. OPINIONS & RECOMMENDATIONS

5.1 Opinions

- 5.1.1** The Skipper did not stop and observe/assess the swell conditions at the beach for long enough; as such, he could not make a fully informed decision about landing near the Information Centre.
- 5.1.2** The Skipper should have been more cautious/prudent about landing off the Information Centre having regard to the paramount importance of passenger safety and the fact that the Company had cancelled the morning sailings.
- 5.1.3** The Skipper should have indicated to the passengers on the beach to move further up the beach nearer the ramp, where there was some lee from the swell conditions. The sign at the Information Centre informed passengers that they could be asked to move by the Skipper if the weather conditions were poor.
- 5.1.4** Abel Tasman Seafaris and Shotover Jet Limited have taken this accident very seriously. They have been instrumental in overhauling the vessel operations and training as well as initiating a Safe Operational Plan for the aqua taxi operation.

Passenger 1 stated that Aqua Taxi and Shotover Jet did not take the matter seriously and that during the ensuing days they continually denied that the capsized incident had even occurred, until Passenger 1 spoke to a Director of Shotover Jet on 14 September.

In reply, the company reaffirmed that the accident was taken very seriously.

- 5.1.5** Passenger 2 was disappointed with the lack of emergency procedures in place both before and after the accident. She said the Skipper was unsure as to how many people there were on board. No notification or form of help arrived quickly, such as blankets, first aid/hospital treatment for cuts bruising/fractures and possible complications arising from the accident such as, shock, electrolyte imbalances/hypothermia. She said that passengers were left unattended for approximately 3 hours after the accident. Passenger 2 was “disgusted” that the fear induced from being on board an uncontrolled vessel; nearly drowning after being under the vessel; cold and wet from this; saturated belongings that were immersed in salt water and damaged and lost items worth a considerable amount to her, were not recognised and the fact that they were treated as nothing had happened as exemplified by the offer of another water taxi to take her/her partner back.

In commenting on the above, the Skipper stated that he and other staff members did all that they could in what were very trying circumstances. The offer of a return water taxi was made after a night spent at Awaroa Lodge.

The company stated that warm clothing and refreshments arrived within one hour of the accident.

- 5.1.6** A number of concerns were raised by the passengers regarding the emergency response by Aqua Taxis and also more broadly within the Abel Tasman National Park.

5.2 Recommendations

- 5.2.1** That the Skipper undergoes retraining with particular emphasis on beach landings (*This was carried out on 3/9/04 – see paragraph 2.5.4*). In this regard, it is further recommended that the Operations Division of the Maritime Safety Authority appoint a suitably qualified external auditor to audit the Skipper's knowledge of boat handling/anchoring in the Abel Tasman Park. This should include particular emphasis on anchoring in anchorages exposed to heavy weather.

- 5.2.2** A meeting has taken place chaired by Survey Nelson Ltd between the Park operators and Department of Conservation (DOC). It has been agreed that emergency resources already contained in the DOC huts around the Park could be augmented with extra resources supplied by the commercial operators. It is recommended that MSA monitors and supports this action through to completion. This has been since been actioned by Seafaris – (*see paragraph 2.2.5*).

- 5.2.3** It is recommended that the company, in conjunction with Survey Nelson, introduce a documented periodic peer review of **all** skippers (MSA emphasis) to ensure compliance with company procedures and practices for the on going safety of all passengers and vessels.

In reply to this recommendation, Survey Nelson stated that the results of an audit they conducted of the company's operation were as follows namely, the company training manual was found to have been fully implemented. The Operations Manager of the company, who was responsible for the training of all skippers, had completed a documented record of their training, to include knowledge of company procedures and technical matters, together with boat handling skills.

- 5.2.4** It is recommended that Aqua Taxis, in conjunction with Survey Nelson, develop and implement documented procedures for emergency response in situations such as the one that occurred in this instance. Further, that the company institutes a system to monitor/audit these procedures on a regular basis for compliance.

In reply to this recommendation, Survey Nelson stated that the company's Crisis Management Plan (CMP), covered the training of skippers involving an accident at sea (such as a collision, grounding, foundering or capsizing); a mechanical breakdown; the need for medical assistance; fire, radio communications and contact telephone numbers. Documented exercises, simulating these scenarios, will be conducted on a regular basis and audited by Survey Nelson for compliance and the review/updating of systems and procedures as required.

- 5.2.5** It is recommended that Aqua Taxis amend their Training Manual to reflect the fact that during periods of heavy weather and on the basis that a landing can still be safely executed, these should be restricted to the northern end of the beach at Totaranui and not also to the Information Centre as is currently stated.

In reply to this recommendation, Survey Nelson stated that the company training manual had been amended to include specific instruction that the landing of passengers at Totaranui, in heavier weather conditions, would take place at the northern end of the beach, always providing it was still safe for such a landing to be conducted.

- 5.2.6** It is recommended that in the light of this accident, Aqua Taxis critically review their assessment of the landings at all points that they visit, to ensure accuracy of the information set out in the company Training Manual.

In reply to this recommendation, Survey Nelson stated that the company's new training manual identifies all landing points and these have been reviewed to include safe landings and pick ups.

- 5.2.7** It is recommended that the Seafarer Licensing Division of the Maritime Safety Authority, who are currently involved in discussions with industry on the validity of First Aid Certificates, give critical consideration to the proposal that all ships, particularly those that carry passengers, be required to carry crew that hold a valid First Aid Certificate. As stated earlier in the report, the Skipper did hold a valid First Aid Certificate. Further, biannual first aid training of company personnel was conducted.

This recommendation is currently under review by the Seafarer Licensing Division.