

**Investigation into
Scotch Oakburn College Rowing Incident
North Esk River
4 April 2010**

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Summary

An unattended rowing coach's Rigid Inflatable Boat (RIB) was boarded by a 16 year old student/rower and taken for a short distance under power in the North Esk River, Launceston. His actions were to investigate what he thought was clothing near the reeds in the water.

He claims the RIB hit a submerged object and he was thrown out into the water. The unmanned vessel circled and he attempted to reboard the vessel unsuccessfully, he was struck by the outboards rotating propeller.

The injured student swam ashore; the alarm was raised by passing pedestrians, ambulance called and the student taken to hospital.

Injuries sustained were lacerations to face and chest.

The circling vessel was captured and returned to the rowing shed soon after.

Preparation of Report

Interviews were conducted. All interviewees co-operated fully and answered all questions and requests consistent with what they believed happened on the day of the incident.

Sources of information

Student: unlicensed

Director of rowing Scotch Oakburn College:

Volunteer rowing coach: Licensed (MAST Motor Boat Licence)

Various websites

Vessel Details:

Owner: Scotch Oakburn College (SOC)

Aquapro Rigid Inflatable Boat (RIB)

Length 3.48M

Beam 1.65M

Power: 18 HP Tohatsu outboard tiller steer

Recreational boat registration number 40537 valid for 2010

Vessel equipment , anchor , bailer, oars , first aid kit , fire extinguisher , throw lines , 2x thermal blankets, navigation lights, PFDs, coaches carry a mobile phone

Tide: Last of flood tide.

Weather conditions: Calm

Rowing Pontoon position:

Southern shore of the North Esk River approximately 300m east of Tamar Street Bridge, Launceston.
Width of North Esk River at this point approximately 50m at high tide.

Findings of Investigation

Sunday April 4th 2010, 1600 hrs the student in a single scull and the coach in the Scotch Oakburn College coaches RIB departed the SOC rowing pontoon for a 1.25hr training session.

Returning to the pontoon at approximately 1715 the RIB was tied to the pontoon by its painter. The student carried the scull up the pontoon ramp to the rowing shed and returned to the pontoon for the oars. At this point he claims he saw a piece of clothing amongst the reeds in the distance. Assuming it may have been a person requiring assistance; student returned oars to the boatshed, took a Personal Flotation Device (PFD) from the shed, walked down the ramp donning the PFD and boarded the unattended RIB. The coach during this time was out of sight in the change rooms inside the boatshed.

The student started the outboard motor, untied the painter and proceeded in a downstream direction (heading west). He was kneeling on the aft floor /bottom of the vessel looking forward. At a distance of approximately 150m from the pontoon the student claims to have hit a submerged object possibly a log and he was thrown out of the vessel. The outboard swung to full lock on about $\frac{3}{4}$ throttle and circled in a clockwise direction. The student tried unsuccessfully to reboard the oncoming vessel, slipped under the vessel being struck by the propeller in the face and chest by the rotating propeller. He then swam to the southern shore calling out to the coach, he called several times and the coach ran down to the pontoon. A person on the opposite bank called 'someone needs help down the river'. The coach seeing the student swimming strongly ashore and appearing to be unharmed set about to procure another dinghy from the boatshed to retrieve the circulating RIB. It was only when he neared the student now on the bank with 4-5 helpers that he realised the student was injured, he then returned to the pontoon and ran to the scene as there is nowhere to disembark on the riverbank. An ambulance was called and the student was taken to hospital.

Injuries sustained from propeller strike: lacerations to the face at the side of left eye, approximately 30 stitches, fractured eye socket and fractured skull above the eye. Left eye was within $\frac{1}{4}$ of a millimetre of severe damage. He also received a small laceration to the upper chest cutting through the PFD.

The student is recovering well and should be back at school full time after June school holidays.

Conclusion

Against SOC rowing policies and procedures and without consent the student took the vessel having little or no operating experience.

The incident was probably due to the vessel hitting a submerged object. As there were no known witness/witnesses to the vessels movements before and at the time of the incident it is hard to confirm the vessels speed. The coach claims he heard the outboard start and it was about 10 to 20 seconds later he heard the shouting. The student is unsure of how long it took to travel the 150 m from the pontoon to the position he was thrown out of the vessel, he suggests 1-2 minutes.

10 seconds= 29 knots speed

20 seconds = 14.5 knots speed

1minute= 4.8 knots speed

2minutes= 2.4 knots speed

The injuries to the student would have been avoided if he wore the kill switch lanyard that was fitted to the outboard. Kill switch lanyards are attached to the operator's wrist/body, the other end of the lanyard to the outboard motor kill switch. The action of the lanyard being pulled and disengaged from the outboard stops the motor immediately, bringing the vessel to a stop with just a short distance to swim to reboard the vessel. Had the student swam for the river bank after initially being thrown out instead of trying to reboard the vessel he may have avoided injury.

Comments and Analysis

Kill switch lanyards be removed from all school vessels after use and stored in a secure place only to be accessed by trained authorised licensed personnel e.g. coaches. An outboard motor with a correctly operating kill switch will not start with the lanyard removed. The above would mitigate unauthorised use of the outboard powered vessel.

SOC are currently acting on this option.

If SOC adopt the above, the new directive should be reflected in the Rowing Handbook and Sports Policies and Procedures Manual regarding information to existing coaches and to induction of new coaches.

If the vessels outboard motor had been fitted with a propeller safety guard injuries would have possibly been only bruising.

SOC are currently investigating this option.

The student is now acutely aware and remorseful for his actions, he realises his injuries could have been far worse or even fatal. He claims to have learnt a 'huge lesson'.

Since the accident he has attended a MAST Practical Training course and attained a Provisional Motor Boat Licence.

Recommendations

Kill Switch Lanyards

Operators of tiller steered outboard motors be educated and encouraged to use kill switch lanyards. This is mandatory with PWCs. In many states of USA it's regulated that the operator of a tiller steered outboard powered vessel use a lanyard or wireless device for emergency motor cut off. E.g. in Louisiana this applies to Class A vessels less than 16ft and Class 1 vessels 16-24 ft with outboard motors greater than 10hp

Propeller safety guards

Boating Organisations should be encouraged to fit propeller safety guards to powered rescue vessels where risk of propeller strike is high e.g. Surf lifesaving, Sailing, Rowing, Sea Scouts etc.

Surf Lifesaving Australia has a policy of fitting the PESA propeller safety guard to their outboard driven rescue vessels.

Royal Australian Navy is currently fitting PESA propeller safety guards to outboard powered vessels. The PESA is an enclosed cage type construction giving protection to objects in the forward path of the propeller as well as circumferential protection.

There are various types of propeller guards on the market, some are simply a circumferential ring that are designed to protect the propeller and would offer little protection to a person's hand or foot.

A typical outboard motor running at 5000 revolutions per minute with a three blade propeller will have a potential of 7500 propeller strikes per minute or 125 per second.

Australian ABC Inventor of the Year, Colin Chamberlain has designed a safety propeller with rounded leading and trailing edges on the blades, this type of propeller would lessen propeller injuries as yet this propeller is not in production.

The Scotch Oakburn College Rowing Incident Report was prepared by Rob Cassidy with all relevant available information gathered and no responsibility can be taken for misinformation given or information withheld by others.

Rob Cassidy has been associated with recreational and commercial boating for over 50 years. Junior dinghy sailing at the age of 11 through to owning and skippering ocean racing/cruising yachts and commercial cruise vessels, has also served at sea as ships engineer.

Current Qualifications: Master class 5, MED1

Casual Lecturer at the Australian Maritime College



Aquapro RIB



18 HP Tohatsu outboard



Kill switch lanyard



Registration sticker



Scotch Oakburn College rowing pontoon



Scotch Oakburn College pontoon 150 metres

Incident scene

Student came ashore at this point

