

## SYNOPSIS



At about 1345 on 13 March 2005, Angus Buchanan and his daughter Holly were thrown overboard from their rigid inflatable boat (RIB) while travelling at high speed on Loch Lomond. Despite extensive surface and underwater searches, their bodies have not been found at the time of publication.

On the day of the accident, the father and his two teenage daughters launched their 6.4m RIB from the Loch Lomond and the Trossachs National Park Authority's slipway at Balloch. The RIB was fitted with a 150 hp outboard engine, giving a top speed of 50 knots.

The water temperature was 3°C, the air temperature was about 5°C and the strength of the wind was force 4 from the west, which produced waves of about 30cm in height. They were all wearing warm clothing, but were not dressed for entering the water and were not wearing lifejackets, as these had been accidentally left at home.

While on passage to one of the islands in Loch Lomond, the father allowed his elder daughter to steer. However, she found this task difficult and the father took over again. After they had a picnic on the island, they re-boarded the RIB to return to Balloch.

The father was sitting at the steering wheel on the forward of two fore and aft seats, the younger daughter was sitting directly behind him and the elder daughter was standing behind her sister holding on to a back rest. Soon after leaving the island, at the request of his daughters, the father weaved the boat from side to side, after which he steadied the RIB on a course for Balloch and set the throttle at full speed. Soon afterwards, the RIB unexpectedly lurched to port, throwing the father and younger daughter overboard into the water.

Because the outboard engine ignition cut-out kill cord had not been attached, the RIB carried on travelling away from the two people in the water. The elder daughter, who had been thrown to the bottom of the RIB, managed to reach the engine throttle control and to stop the boat. Then, despite problems steering the RIB, she was able to drive it back to the area where her father and sister had been thrown into the water.

A passing cruiser had seen the RIB at a distance and saw the elder daughter raise an arm. However, the people on the cruiser mistook this gesture as a greeting, and not one of alarm, and they continued on passage, oblivious to the emergency.

The elder daughter manoeuvred the RIB close to her sister and then entered the water. However, despite courageous attempts to rescue her sister, the effects of cold water forced the elder daughter to re-board the RIB, after which she lost sight of both her younger sister and her father. She then drove the RIB over to two fishermen in a boat in Milarrochy Bay to seek help, and they called the emergency services. On-water and shoreline searches began and these were later joined by two helicopters. However, the father and the younger daughter were not seen again.

The report concludes that:

- The condition of the hull, tubes and outboard engine was not a causal or contributory factor to the accident.
- The steering system was in poor condition and in need of maintenance or replacement.
- The cause of the accident was the loss of a significant quantity of hydraulic oil from the steering system.
- The effects of loss of hydraulic oil, the introduction of air into the steering system and damaged non-return valve springs combined to cause a sudden uncontrolled movement of the outboard engine, with the result that the RIB lurched violently to port.
- An in-water test showed that the steering system functioned satisfactorily when it had been topped up with hydraulic oil.
- Cold water shock severely reduces a person's ability to stay afloat, so the wearing of a lifejacket is essential to extend survival time and hence improve the chances of being rescued.
- It was essential for the father and his younger daughter to be rescued quickly before the debilitating symptoms of cold water shock took effect. Had any or all of a number of safety items been in place (kill cord, lifejackets and means of alerting others to an emergency), their chances of survival would have been greatly enhanced.
- Attendance on an RYA powerboat course would provide boat owners with the practical skills required for operating a RIB. It would also educate them on the safety issues relating to powerboats.
- Waterway authorities can assess the general risks caused by leisure craft activities, and they have the powers to put in place control measures to reduce those risks.

This report recommends that:

- The RYA extensively promulgates the lessons learnt from this tragic accident, both to its instructors and trainees.
- The Waterway Authorities ensure that procedures are put in place to establish and/or regularly review the general risks posed by the various leisure activities on their waters, and identify and then implement appropriate control measures, if required, that will reduce such risks to an acceptable level.