

SYNOPSIS



At 1320, on 19 June 2005, a 13 year old boy suffered serious head injuries when the powerboat in which he was co-driver was struck by another race boat during a K-200 class Junior Offshore National Championship race at Portland Harbour.

The collision occurred as a fleet of 9 boats, each with a maximum speed of about 31mph, was rounding the first 90° left turn marker buoy of an "M" shaped course. The boats were still bunched as the first mark was only 600 metres from the start line. The injured boy's boat, which was being driven by a 10 year old boy who was in his first season of powerboat racing, "hooked" and came to a sudden and unexpected stop directly in the path of a following boat. The other boat, which was being driven by an 11 year old who was also in his first season of racing, had no time in which to take avoiding action. Its bow struck the port side of the stopped boat at or near right angles and, due to its momentum, over rode its side, striking the co-driver who was in the left-hand seat. It then continued to rise vertically into the air, ejecting its two crew into the sea, before coming down stern-first into the water.

The race was stopped very quickly, and first-aid was administered to the injured boy by a paramedic who was a member of the race supervision team. Due to the seriousness of the boy's injuries, he was airlifted by a coastguard helicopter to a local hospital, where he was found to be in a coma. After the collision, the injured boy's safety helmet was retrieved from the sea a short distance away.

K-200 racing involved head-to-head racing by children aged 8 to 16 years of age, divided into two age groups, driving Sorcerer 373 or 375R boats equipped with a 25hp outboard engine. K-class, or junior offshore powerboat racing, had been started by Wanda Offshore Racing Klubb (WORK) 3 years before the accident. WORK is affiliated to the Royal Yachting Association (RYA), which is the governing body for all offshore powerboat racing in the UK, including K-class. The RYA produces an annual racing handbook detailing the rules, regulations and racing calendar for all classes of offshore powerboat racing. The RYA also approves the race officials, requires the individual clubs to send them accident reports, and generally oversees the governance of the sport. This is largely achieved by way of a hierarchical committee/working group system comprising volunteer members who are usually drawn from the powerboating community.

WORK did not carry out detailed risk assessments for the new class, and the interaction of factors like the course design, type of boat to be used, race rules and training requirements were not fully considered. The RYA was not pro-active in monitoring WORK's safety management and development of the class. K-class racing was innovative in that organised junior offshore powerboat racing did not exist previously anywhere in the world.

There were no minimum training requirements to qualify children to participate in K-class racing, although many people believed that 40 hours tuition had been stated and agreed. The children were trained by members of WORK mostly during the winter months and, once judged competent by the instructors and passed fit to race, they were issued with a personal racing licence by the RYA.

The amount of training given to beginners had apparently reduced during the 3 years the class had been in existence. The injured co-driver was an experienced racer. However, the two drivers and the other co-driver, who were directly involved in the accident, were all new entrants for the 2005 season, and had all been signed off as 'ready to race' after receiving fewer than 10 hours tuition. It is believed this inexperience and lack of training had a significant bearing on the circumstances of the accident.

The 3.6 metre Sorcerer boat type was originally designed in the 1960s as a ski boat, with turtle decks and low freeboard to enable skiers to be easily pulled from the water. The boat was widely raced with various sizes of outboard engine and with a great deal of success during the 1970s and 1980s. Production of the boat ceased in 1985. The original Sorcerer 373 and the new 375R were chosen by WORK because they were a good size, provided a stable platform for children to race and there were plenty of cheap secondhand boats available. During the development of the racing class, little attention was paid to the fact that a child would be left unprotected in the event of two boats colliding and one overriding the other.

The value of accident and incident reports was not fully recognised by either WORK or the RYA, and minimal attention was paid to them by both organisations. Some reports, which were required by the RYA for K-class racing, were found to be poorly completed and, in some cases, were received weeks after the RYA's 7 day deadline. The fact that no reports were received from the 2004 racing season went unnoticed at the RYA. The RYA also paid little attention to a letter and enclosed safety assessment which were sent to the organisation in 2004 by the boat's original designer, in which he warned of the dangers associated with the sort of accident that occurred on 19 June 2005.

Better attention to good safety management practices by WORK and the RYA, both during the setting up and development of the class, might well have prevented the accident.

During examination by the MAIB, the dislodged helmet worn by the co-driver was found to have no apparent impact damage. The chin strap was fastened, and the inflatable bladder, which ensured a comfortable fit, was partially inflated, however a sleeve on the chin strap was found to be missing. The MK10 Gecko Marine Safety Helmet was worn by the majority of K-class competitors, and some adults in other powerboat racing classes. It had been designed and manufactured by Gecko Head Gear Ltd, initially for the Royal National Lifeboat Institution (RNLI) to protect its boat crews. It had not been the subject of a detailed assessment to determine its suitability in powerboat racing.

It was also found that, despite a widespread belief that the helmet was “one size fits all”, and therefore appropriate for use by children, the helmet had only been tested in line with the British Standards Institute specification for an adult male head size. The protection afforded by the helmet to persons with head sizes outside this range had therefore not been established.

During the investigation, MAIB issued Safety Bulletin 3/2005, which strongly advised all users of marine safety helmets to ensure helmets are of the correct fit and properly worn at all times. It also recommended that the RYA should conduct a risk assessment to identify a safe helmet to be used by all powerboat racers.

Separate recommendations have now also been made to WORK and the RYA regarding the need for the adoption of good safety management and risk assessment practices in order to help ensure the future safety of the children competing in K-class racing.

Figure 1



Photograph of powerboat K11