

Unsinkable? Maybe, but they can capsize

Following the capsize of a Dory and subsequent investigation, it was discovered that the ultimate cause of capsize was the weight and movement of trapped water on the deck. It should be noted that this water was on the deck and not trapped within the hull.

During a short passage out to sea the boat started to accumulate water on the port side, due to uneven loading. As more water entered, the list became more pronounced. Eventually, the helmsman instructed the crew to move to the starboard side. In doing so, the accumulated water rushed to that side and the gunwale became submerged, eventually overwhelming the craft, which subsequently capsized.

This incident has highlighted a number of points that instructors should consider when delivering powerboat courses in the future.

If there is no means of containment, trapped water will always run to the

lowest point. Imagine carrying a tray of six mugs of coffee. Not too difficult. However, try it without the mugs and just the coffee on the tray. Where does the coffee end up? This is known as the 'free surface effect'.

Some craft are affected more than others. For instance, boats with a low freeboard may be more susceptible. However, a RIB, with its huge amount of inherent buoyancy in the inflatable collar, will cope better.

Preventing water from accumulating on deck is essential and adequate water freeing arrangements should be considered. Electric bilge pumps are commonplace on sportsboats and

RIBs, as are 'elephant trunks' on the transom. If fitted, they should be open when the craft is underway, ensuring any water shipped will be evacuated. At the very least, a bailer should be carried, as specified in the standard safety kit to be carried on board.

The effect of an uneven load may not, at first, appear significant. However, when the weight of the water is added, the effect will become quite pronounced. So, remember to evenly distribute the load and secure it so it cannot shift in rough conditions.

More information on Stability and Buoyancy can be found in the RYA publication G23.