



It's cold out there...

A few years ago I was instructing on a course when we heard a Mayday go out over the VHF, reporting a person in the water...

We were about five minutes away, so we called up the harbour master and requested permission to exceed the speed limit to the scene. It was late June and the end of a stunning summer's day. We arrived at the reported location within three to four minutes, along with a couple of other boats, and found a man of about 55 in the water. Sadly, we were too late and he was already dead.

Despite a stunningly warm day, the gentleman had fallen from his dinghy en route to his yacht, which was only 200 metres from the shore. Whether or not he had any existing condition that made him more likely to suffer when he entered the water is irrelevant: sadly, for him and his family, entering the water unexpectedly had catastrophic consequences.

As skipper, your job is to keep your crew safe, ensuring you don't lose them overboard, but also to look after them so that you reduce the chances of them getting cold and becoming hypothermic. Being a competent and proactive skipper may mean you prevent such a sad occurrence on your boat.

Before we look at what you can do as a skipper to keep your crew safe and well, it is worth looking at some of the background to surviving in cold water, and the subject of hypothermia. Contrary to popular opinion (and much reporting in various publications), the majority of people that enter the water don't die from hypothermia – they drown.

Worldwide, drowning is reported as the third most common cause of dying. Drowning occurs when water

prevents you from breathing; however, you don't need to be fully underwater to drown, and ingesting water by breathing it in (as would occur with spray in your face) can be just as serious. Indeed, an average person ingesting just 1.5 litres of water into their lungs is likely to die!

When an individual enters cold water, the sudden reduction in the temperature of the skin and the impact on the circulation of blood leads to a rapid rise in heart rate, which in some individuals could give rise to a cardiac arrest. Coupled to the effects on the heart, there is also a change to breathing, in the form of an initial gasp followed by rapid short breaths. These rapid short breaths can lead to dizziness and panic. Rapid short breaths in close proximity to the surface of the water, or coupled to a repeated submerging of

As a skipper, you must take a very proactive stance to ensuring the safety of your crew and boat, and know what to look for to spot the symptoms of issues such as hypothermia.

the head, mean that there is a greater chance of water being ingested, increasing the likelihood of drowning. The effects on the heart and the rapid breathing are collectively known as cold-water shock. These effects peak in the first 30 seconds and tend to last for a few minutes. Those in the water will hopefully have a life jacket on, or some other form of personal buoyancy (more of

which later), since if they need to swim to keep afloat they will also lose warmth more quickly and be more likely to dislodge trapped air from their clothing, which may be affording them some support.

Having survived their initial period in the water, the person then faces the onset of hypothermia. Hypothermia doesn't tend to kick in for about 30 minutes for the average person, even in quite cold water. The cooling of the body leads to the body shutting down, increasing the chances of the casualty drowning, and ultimately leading to a point where the individual will die. How long this takes depends on many factors, but the onset of hypothermia for someone in the water increases the chances of them drowning, reinforcing the earlier point that most people drown in the water rather than die from hypothermia itself.

So, skipper, what part do you play in all of this? As we have addressed in previous articles, your job is to keep your crew and yourself safe, well and happy when on board your craft. At a very simple level, a great way to prevent drowning is to not let anyone fall in in the first place! Obvious, of course, but often the simplest solutions are the best ones! If



The cooling of the body leads to the body shutting down, increasing the chances of the casualty drowning...

someone is going to be at risk of falling in, then make sure they are properly kitted. In any weather in a RIB, a life jacket is a must, as the support it gives you if you go in accidentally is critical. As we have already addressed, cold-water shock can hit anyone really hard and not having to worry about trying to stay afloat massively increases your chances of survival. Like any item, life

jackets come in all shapes and sizes, but there are some standard accessories that you should consider adding to them. Crotch straps prevent a life jacket riding up round your ears if you do fall in, while a hood to cover your face could prevent you ingesting water in rougher seas – your body will naturally turn to face the waves, increasing the chances of you drowning. On the life

jacket that I use in rougher conditions, or when alone, I've added a personal flare and a GPS-based personal locator beacon. If there is any chance whatsoever that you will ever be afloat at night, then fit a light and leave it on the life jacket.

We often go out in RIBs when perhaps we should be tucked up with a mug of coffee in front of the fire watching a rugby match. If it's rough and cold, then a drysuit merits serious consideration to increase survival time if you did go in; however, I find that the major benefit is that, in contrast to

LIFE JACKETS - AUTOMATIC OR MANUAL GAS INFLATION?

I'm often asked which I recommend - manual or automatic gas inflation life jackets. My view, and that of the vast majority of instructors, is automatic, unless you are very very sure that you need a manual version. As I see it, unless you are going to be entering the water on purpose, an automatic life jacket does the job for you with no downside. As touched on elsewhere, cold-water shock is debilitating and could lead to you failing to be able to deploy your manual life jacket, as also would be the case if you banged your head on the way out. Two common fallacies often quoted to advocate manual lifejackets are: i) Automatics can go off when they get damp. In my experience

this is simply not true - and I have about 80 which spend their life wet. While the older salt capsule-based life jackets were susceptible, the versions made for the last 5-10 years do not suffer in this way; ii) If you get trapped under an upturned boat it would be better to have a manual life jacket on. While there may be some truth in this, the simple solution is don't helm your RIB in such a way that there is any chance that it will turn over. Also, I'd much rather have an automatic on to address the more likely scenario of a standard MOB (falling off a boat or pontoon) than what should be a very unlikely occurrence (the boat going over).





We often go out in RIBs when perhaps we should be tucked up with a mug of coffee in front of the fire watching a rugby match.

Assuming you have adequately kitted yourself and your crew, you still need to take a really proactive stance to ensure you prevent things going wrong. On one level this is about managing and keeping an eye on the boat, but also, particularly, on the people on board. In rougher and colder conditions where wind and spray combine to chill those on board, are they getting cold? Are they showing signs of hypothermia?

Hypothermia is the cooling of the body below its normal temperature. The signs of hypothermia include: shivering, less dexterity, an apparent slowing of reactions and speech, pupils dilating, unconsciousness. To help a hypothermic casualty, replace wet clothes with dry ones, get them in a thermal bag (another person with them helps), and

RYA ONE DAY FIRST AID COURSE

The RYA's one day first-aid course is a great course taught by instructors who are already RYA boating instructors, ensuring the focus of the course is a realistic approach to applying first-aid techniques in a water-based environment.

give them warm drinks and carbohydrates. Do not give alcohol and seek urgent medical attention. If you are recovering someone from the water that you suspect is hypothermic, they should be recovered horizontally to prevent a rapid rush of blood away from the core area, which could give rise to cardiac arrest.

In summary, there is much you can do to ensure that your RIB is a safe and happy place to be. As a skipper, you must take a very proactive stance to ensuring the safety of your crew and boat, and know what to look for to spot the symptoms of issues such as hypothermia. Do make sure you have fun boating, though!

Paul Glatzel is an RYA Powerboat Trainer and is author of the RYA Powerboat Handbook. He is based in Poole. www.powerboattraininguk.co.uk

If there is any chance whatsoever that you will ever be afloat at night, then fit a light and leave it on the life jacket.

all the waterproofs I've ever owned, they actually keep you properly dry, whereas with even the best waterproofs the water manages to sneak

in somewhere. Helmets, too, like the Gecko, are well worth investing in for those playing when it is a bit colder and rougher.

THE INCIDENT PIT

I was introduced to the idea of the incident pit on an instructors' course and believe the concept to emanate from the world of diving, but it is hugely relevant to all walks of life - not least of all, boating. As a general statement it could be said that accidents that occur as a product of one unique event are unusual, and more often than not it is the cumulative effect of many seemingly minor things that lead to an incident. Imagine a large pit. As you walk towards the pit you start to walk down a shallow gradient. At any time you can stop, turn round and walk back the way that you came. As you walk on, though, the gradient gets steeper, and returning gets increasingly difficult until you cannot climb back up and inexorably slide towards the bottom of the pit. Take the example of a man overboard in rougher seas. You decided to go out in a force 6 and it was the first time

you'd used the RIB this year. You were a bit unsure about the engine but thought it should be fine. You decided waterproofs would be fine whereas perhaps drysuits would have been a safer bet. Your crewman had only been boating a few times and never in seas like these. You're blasting along; you've got the steering wheel and throttle to hold onto - your crew hasn't. You misjudge a wave and your crewman is pinged out of the RIB. Getting back to him is tough. You're alongside and kill the engine; he's struggling and panicking. You finally get him on board but you can't restart. You'd forgotten to charge your VHF, so you can't call for assistance. Your crewman collapses... Addressing any one of these seemingly small issues might have made the difference - the cumulative effect could be catastrophic.

BOOKS

The RYA Sea Survival Handbook is worth a read if you are keen to learn more generally about the subject, but if you really want to understand the mechanics of surviving at sea, then the book to buy is Essentials of Sea Survival by the acknowledged experts in this area - Michael Tipton and Frank Golden.