SAVE A LIFE

IF YOU'RE SAILING TWO-UP, GETTING A MOB OUT OF THE WATER AND ON TO THE BOAT IS FAR FROM EASY, CLIVE LOUGHLIN PUTS METHODS AND KIT TO THE TEST

> ith a bit of practice most people can get a boat back to a man overboard

but in a real situation this represents only about 10 per cent of the task of getting them safely back on board.

Articles and training courses often describe techniques that make an assumption about having many people on board to help, but the reality – when many couples cruise just two-up – can be very different.

Here we demonstrate a few methods that I consider will give you the best chance of achieving a happy outcome if you are the only person left on board and are not especially strong. We tried them out with a crew of two, with the woman having to haul a man out of the water.

WHAT TO DO

- Keep the casualty in sight. Send a Mayday if you can

 the DSC button on your
 VHF will be quickest
- 2. Stay close to the MOB this takes precedence
- 3. If sailing, heave-to
- Under engine, aim to get back to the casualty and either drift down on to them amidships or within 3m (10ft) of them so they can come to you
- **5**. Throw a line
- Clip the bottom end of a handy-billy to the lower guard wire to hold it in place
- 7. Cut the upper guardwire
- 8. Raise the top of the handybilly with the main halyard
- 9. Attach MOB to handy-billy (this may be by using a specific lifesaving device)
- **10.** Haul in handy-billy to raise MOB

THE EASY OPTIONS

If conditions are mild, and the casualty is up to it, the quickest and easiest thing is to use a stern boarding ladder or an amidships ladder – although the steps must go down to well below the waterline.

If your tender is inflated, you can use it as a stepping-stone to getting the person out of the water. It can help to partially deflate the tender to reduce freeboard.

LIFTING THEM OUT

I can't stress enough how good a 6:1 handy-billy is for this purpose. I have tried other combinations of winches, halyards, parbuckles and 4:1 handy-billys and find that nothing comes close to a 6:1 suspended from the main or spinnaker halyard, with the bottom end clipped initially to the lower guardwire so it is





THE SHROUDS GIVE BOTH RESCUER AND MOB SOMETHING TO HANG ON TO

> • ABOVE With conditions rough on the Solent, our MOB drill was performed on the Beaulieu River

• LEFT "Nothing comes close" to a 6:1 handy-billy configuration



on-hand for attaching to the MOB. This configuration (see diagram) can be rigged quickly by a single person, and means that the whole lifting operation can be accomplished at the shrouds. The rescuer is on hand to help the MOB get safely on deck and working at the shrouds gives both the rescuer and the MOB something to hang on to.

The handy-billy needs a line of at least 21m (70ft) long and 8mm diameter so it can be pulled by hand and can raise the MOB by 3m (10ft), above the lower guardwire and on to the deck. It must include a quick method for attaching to the MOB, for example a snap-on carabiner hook, and a cam on the top fiddle to grip the retrieved line.

Forget using the boom or mainsheet block and tackle. Do you really want to be messing around with the boom at such a time?



GUARDWIRES

Guardwires make getting an MOB on board more difficult, but do keep them more secure once there. As a compromise, release the upper guardwire by cutting it where it is lashed with rope – usually at the pushpit. The whole length of wire will sag when you do this, so you don't need to haul the casualty so high. When setting up your boat, you might consider having another lashing point near the shrouds, which can be cut easily and quickly in an emergency. \rightarrow • ABOVE You may consider a lashing point near the shrouds that can be cut easily and quickly in an emergency

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CONNECTING TO THE MOB

Lifejackets have a strong piece of webbing, called a lifting becket, designed for clipping to and hauling out. Pass the casualty a line and get them to clip it to the becket. However, the becket is often located behind the now-inflated bladder, and the MOB might struggle. If the MOB is unconscious then you really have a job on your hands.

We tested a new invention from Duncan Wells called a LiveSaver. This is a length of very strong, fluorescent dyneema that is attached to the becket and stored within the cover of the lifejacket. It floats free when the bladder inflates. The rescuer can retrieve the floating line using a boathook and attach it to the handy billy while standing on the side deck.

The LiveSaver works equally well with a conscious or unconscious MOB but has the disadvantage that it shares with many recovery aids, that the MOB is raised vertically from the water. This should not be much of a problem if the MOB has been in relatively warm water for a short time (30 mins).





• ABOVE The Coastline MOB Trapeze is simple but effective

BELOW A boathook picks up the LiveSaver's floating line

HYDROSTATIC PRESSURE

When the human body is subjected to prolonged cold, its survival mechanism reduces flow to the extremities and concentrates on keeping the vital organs in the core and head warm.

If the MOB is floating vertically in the water then water pressure on the legs will further force blood into the core. All this is fine and works to prolong the life expectancy of the MOB. The problem comes when the MOB is raised out of the water. The hydrostatic pressure is removed and the legs are then instantly flooded with blood, which leads to a rapid reduction in blood pressure in the heart. In a hypothermic MOB, especially one with a history of heart problems, this can lead to cardiac arrest.

HORIZONTAL LIFTS

We investigated two methods for lifting a casualty horizontally. The first was the Coastline MOB Trapeze from Jimmy Green Marine. The MOB balances on a rigid horizontal plastic tube as they are lifted out of the water, which allows them to use their legs to help scramble back on board. \rightarrow

HYPOTHERMIA

A reduction in body temperature of just 2°C is sufficient for hypothermia to set in. Once it has, the MOB will be unable to help him or herself because muscles become inoperative and an MOB without a lifejacket will begin to drown.

HOW LONG HAVE THEY GOT?

Water Temp	Hypothermia	Death
0°C	10 mins	1hour
5℃ eg UK in winter	30 mins	2 hours
10°C eg Orkneys in summer	1hour	4 hours
15°C eg Med in winter or UK in summer	2 hours	8 hours
20°C eg Med summer or Caribbean or Indian Ocean year-round	safe	safe



What the MOB should do

- 1. Don't panic
- 2. Retain all clothing and boots
- Try to float horizontally or hug knees to retain heat

Keep them safe

- 1. Wrap them up warm but do not apply external heat i.e. no hot showers
- 2. Give them a hot drink and energy bars
- 3. Get them to hospital. Even if they appear to have no ill effects, secondary drowning (if they inhaled even a little water into their lungs) is a possibility



THE MOB CLAMBERS INTO THE MODULE WHILE THE BOAT RETURNS TO RESCUE THEM

The second was the Jonbuoy Recovery Module from Ocean Safety. This is essentially a mini liferaft that auto-inflates when it is released and floats free from the boat. The MOB clambers into it while the boat prepares to return and rescue them.

The Jonbuoy Recovery Module includes a drogue and flooding ballast to reduce drifting, and an inflatable post that holds the hoist lines at deck level, where they can be easily attached to the handy billy.

LIFERINGS

We also tested a Jonbuoy Rescue Sling, which is a compact selfinflating lifering that is permanently attached to the boat with 30m (100ft) of floating line. This can be either thrown directly to the MOB or towed behind the boat as it circles into position. Once the MOB has secured him or herself within the sling they can then be pulled back to the boat and winched vertically aboard.

ST'S VERDICTS

LiveSaver: This is a great, simple device and is now a permanent feature on my own lifejacket. Coastline MOB Trapeze: This has to be the lowest-cost way of recovering a conscious MOB horizontally, and has the added benefit that they can use their legs to help protect themselves during recovery and for getting over the guardwires. Jonbuoy Recovery Module: This gives the MOB a refuge out of the water while waiting to be rescued. Highly visible and can be fitted with an AIS beacon. Jonbuoy Rescue Sling: A compact package that can be quickly deployed. Must be thrown or dragged close to the MOB. 6:1 Handy Billy: The best solution for raising someone out of the water. Much better than using winches as the single person doing the recovery is on hand to help the MOB, rather than in the cockpit.

GOOD PRACTICE

No amount of safety equipment will keep you safe unless you know how to use it, and it was only by practising MOB recovery under mild conditions that we had any hope of a successful outcome.

Develop a solution for your own boat and be sure to store the selected equipment so it is ready for immediate use at all times. \Rightarrow • ABOVE LEFT The Jonbuoy Recovery Module includes a post that holds the hoist lines at deck level

• ABOVE RIGHT Jonbuoy's Rescue Sling attaches to the boat with 30m of floating line

Thanks to:

Crew Keith, Kate,

The Beaulieu River

provided a safe and

scenic location for

our trials while the

School for the loan

TomFoolery. Southern

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Thanks also to Southern Sailing

Solent was too rough.

Steve, Neil and Louise.



The following special offers have been arranged for Sailing Today readers quoting this article.

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The author has no financial interest in any of the above products.