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Skipper overboard

Could your crew cope?

Suppose you, the skipper, have a heart attack or fall in, what can your crew do to save you? Here **Duncan Wells** looks at what you need to do to prepare an ordinary family crew for an emergency and how they could make the difference between life and death.

It is taken as read that all crew are briefed fully on all aspects of safety when they join a boat – lifebuoys, danbuoys, liferaft deployment, throwing lines, fire extinguishers, gas, calling a Mayday, the DSC button and VHF voice message and the location of the first aid kit – and that they will be wearing lifejackets, but can they use all this gear to save a casualty and can they handle the boat to get her to where she needs to be to help? To make the scenario in this sequence as ‘real’ as possible, the novice sailors really were complete beginners.

The theory

The unthinkable has happened and you have fallen in. There is no one on the helm, you are swimming in the wake and the boat is sailing on at 5kn. What does your crew need to do to save you?

First, stop the boat. The best way of

doing this is to crash tack into the hove to position. Heaving to will calm things down and the boat may be stopped close enough for someone to get a throwing line or lifebuoy to you, but can all your crew heave the boat to?

You need to make sure they can (Pic 1). Apart from making sure your crew can run the boat, we need a man overboard (MOB) strategy tailored to our boat. Ours goes like this: crash tack the boat (Pic 2) into the hove to position to stop her and see if we can throw a line or a lifebuoy to the MOB (Pic 3). At the same time, one person should hit the MOB button (Pic 4) on the GPS to mark the position and another should point at the MOB (Pic 5). We should also start the engine just in case (Pic 6). I always brief the crew on starting and stopping the engine before we leave the dock and the newest member starts the engine and shows the

others how it is done and how to shift in and out of gear. If we’ve managed to get a line to the MOB and he is able to help, all well and good. If not, with the engine running we need to centre the main, furl the headsail and motor back to a position just upwind of the MOB – keep the engine out of gear while the MOB is beside the boat. If you have a boarding ladder and he can climb up it at the stern, then fine, but if not we need to rig our MOB tackle. This is kept ready to deploy in a cockpit locker. We hoist it on the



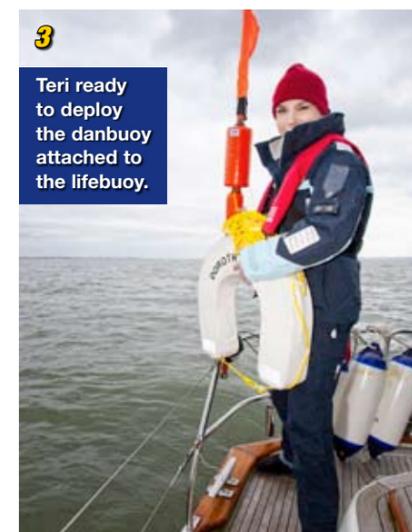
PHOTOS: ROD LEWIS



Hove to and stopped.



Sally goes for the crash tack.



Teri ready to deploy the danbuoy attached to the lifebuoy.



Ellie hits the MOB button on the GPS.



Pointing to MOB.



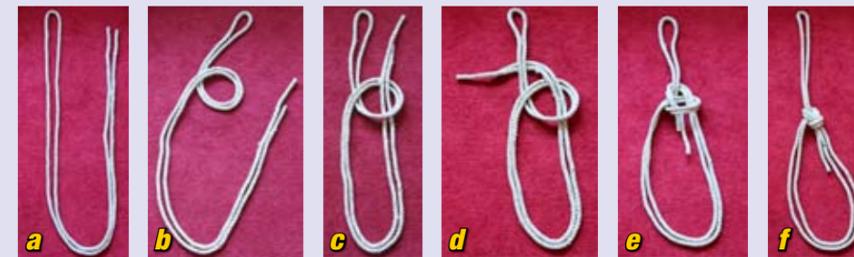
Ellie starts the engine.



The two bights and the guard rail down.

Heaving To

If you are on port tack. Put the wheel hard a-port, (starboard, hard a-starboard) until the bow goes through the wind. Or if you don't know which tack you are on, facing the bow, if the boom is on your right turn the wheel to the left, and vice versa. Don't touch the sheets. The bow will go through the wind and the headsail will back, the boom will come across and you will be hove to on the opposite tack and stopped. Now you need to turn the helm hard over to the side of the tack you are on (again if you don't know which tack you are on just turn the wheel in the opposite direction to the side where the main is set) now every time the main powers up the boat will start to turn and the backed headsail will force it back. With a tiller you go into the heave to position by putting the helm down (a-lee) until the bow goes through the wind. Again leave the jib sheets. You will now be on the opposite tack, so just put the tiller down and the boat will remain hove to, moving very slowly ahead and downwind through the water.



Bowline with two loops

Take a line, double it (Pic a) and take the two ends across the standing part of the doubled line to form a '6' (Pic b). Bring them up through the hole (Pic c), around the tree (Pic d) and back down the hole again (Pic e) and tighten (Pic f). You now have two large loops, one for the shoulders and one for the legs, plus a handy loop at the top for attaching the lifting tackle.

Calling the Mayday

An MOB is almost always justification for calling a Mayday. If you have a DSC radio, lift the cover and press the emergency button before making the voice call on Channel 16. For ordinary VHF, turn to Channel 16 and call a voice Mayday. The Mayday voice call card must be close to hand.

Hydrostatic Squeeze

Pulling a casualty vertically out of the water can increase the effect of blood flowing away from the heart, causing heart failure. Keep the lift gradual and the casualty horizontal if time and circumstances allow. Learn more in our previous MOB article in ST141 (p109).

spinnaker halyard and clip the carabiner from the bottom block onto the D ring or webbing of the MOB's lifejacket harness.

We are told we need to keep the MOB as horizontal as possible as we lift to avoid the onset of hypothermia (see hydrostatic squeeze section above).

Lifting from the D ring will be a vertical lift; crotch/thigh straps just stop the lifejacket slipping over his head. For a guaranteed sitting position recovery, one can use a double bowline with one loop to go under the MOB's armpits and the other to go behind his knees (Pic 7). You

also end up with a convenient loop on the top to which you can attach the carabiner from the tackle.

The Practice

How did it go? We showed our three novices – Sally, Teri and Ellie – how to



8 First the instruction.



9 Then they were on their own.



10 Our novices get the way off her nicely.



11 Ellie gets the line some distance.



12 Sally gets it further – with some help from the F5 we had at the time.



17 Testing the rig with a 12 stone man.



18 Winching was effortless.



19 The skipper's not moving!

heave to (Pic 8) and (Pic 9) and they all did well (Pic 10). They were surprised to see how close they were able to stop to the MOB.

We practised our routine

Stop – Crash tack into the heave to position.

Point – One crew member points at the MOB.

Mark – One crew member marks the position by hitting the MOB button on the GPS.

Throw – One crew member heaves the throwing line at the MOB.

Deploy – One crew member throws in the danbuoy and lifebuoy.

Engine on – One crew member starts the engine.

The throwing line was a great success and even our youngest, Ellie (12) (Pic 11) was able to get it some distance to the

MOB, once she stood on the aft cabin hatch so she could clear the guard wire. Sally threw the furthest and was able to get it well beyond the MOB (Pic 12).

Now with the MOB attached to the boat, the boat hove to and making just over a knot through the water (Pic 13), we needed to get him back on board. Teri hauled the MOB in while Sally called the VHF Mayday. Teri made short work of cutting through the lashing for the guard wires (Pic 14) which reminds us that we always need a sharp knife nearby; there is usually one in the galley, but a bosun's kit – including sharp knife – by the companionway might be an idea. Then she and Sally set up the tackle (Pic 15).

We got Ellie to lie in the scuppers and Teri lifted her (Pic 16) and showed how easy it was with this tackle, although of course Ellie weighs nothing. I have checked this on a 12 stone man (Pic 17) and I could have pulled him in by

hand, but putting the line on a winch (Pic 18) made it very easy.

Lessons learnt

Crash tacking stops the boat very close to the MOB if you react as soon as someone has gone in.

Under engine with a centred main you have good control.

There wasn't time for the rescuing crew to attach their lifelines for every job.

Trying to get the two loops of the bowline in the doubled line round an MOB who can't help is very difficult. It would be quicker to get the carabiner onto the D ring on the lifejacket. The lift would be closer to vertical, which is not ideal, but they would get out of the water faster. Get them out quickly and don't worry too much about hydrostatic squeeze if they've not been in the water long.

Make sure the throwing line is to hand

at a moment's notice. Make sure the tackle is reeved, coiled nicely, preferably in its own bag and ready to deploy.

Having a MOB strategy and a modest amount of instruction made all the difference. The crew now feels fairly confident that they would be able to do something positive to help – and that could save your life. Now all we need to do is keep practising.

We also briefed the crew on anchoring. A medical emergency on board (Pic 19) might mean that stopping the boat and

anchoring was the best approach – the Coastguard will tell you what they want you to do. A card by the chart table to remind everyone of the anchoring procedure might be a good idea, but like the Mayday procedure, everybody aboard needs to know about it.

There are plenty of techniques for returning to MOB's under sail and under engine. You have to decide what suits you, your boat and your crew best, but the crash tack and heave to works for me and this Hallberg Rassy.

MIRPDANIO

Mayday = "Mayday Mayday Mayday."

Identify yourself = Identify yourself – "This is yacht *Merlin*, *Merlin*, *Merlin*."

Repeat your identification = "Mayday this is yacht *Merlin*. My MMSI number is 123456789 (for DSC)."

Position = "My position is..."

Distress = State the nature of your distress, such as man overboard.

Assistance = State the assistance required.

Number = State the number of persons on board or overboard, including you.

Information = Give any other info, such as "taking to the liferaft".

Over = End the message with "Over".

...And finally...

There is no one answer to any of this. Stopping the boat and returning to a MOB is one thing, getting them out of the water is quite another. Every boat and crew will be different but, if nothing else, this article is designed to get everyone thinking about a strategy and what might work for them. The key, as with all boat handling is to practise with the boat and crew in question. There are no excuses for not trying this stuff out with your crew: the laughter that reverberated round the boat between the serious parts of this photo shoot shows that such experimentation need not be a chore.



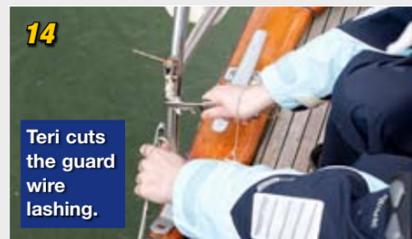
13 Fore-reaching at just over 1kn.



15 Teri and Sally rig the lifting tackle.



16 Teri in the cockpit winches and Sally steadies the MOB.



14 Teri cuts the guard wire lashing.



20 Moving block with large carabiner and move the block on the genoa track...



22 ...to the forward end of the track. Feed the load line through this...



24 ...through the second block and up to a cockpit winch.

Assembling the tackle

We used a two block, four strand tackle. The moving block had a large carabiner attached to clip onto the D ring on the MOB lifejacket (Pic 20) or to take the top and spare bight of the double bowline rigged system. We used the spinnaker halyard to raise the tackle almost to the spreaders and the hauling part came off the fixed block at the top, so the tackle was 'rigged

to disadvantage' and gave us an advantage of 4:1. Bear in mind when buying or finding rope to use with this tackle that an advantage of 4:1 means that you will use 4m of rope to raise the block 1m. We need to run the load line of the tackle through a block on the deck to turn the pull from vertical to horizontal and for this we use the forward of the two genoa blocks. Move the car to the forward end of the track (Pic

21) and (Pic 22) take the line through it (Pic 23), then through the second genoa block and up to a cockpit winch (Pic 24). Now, with a 4 part tackle, a 16 stone man (14 stone of man and 2 stone of waterlogged clothing) would appear to weigh only 4 stone and could be winched quite easily by a child. Sixteen stone direct through the halyard and winch could be too much for even a strong man.