



LIFE ON THE WIRE

Paul Glatzel looks upwards at rescue helicopters.

In previous articles we've looked at how to search for a person if they've been lost overboard and then how to recover them into the craft when you find them. In this article we take it onto the next stage and look at what you as the skipper need to do when the rescue helicopter turns up to extricate your casualty.

Around the UK HMCG (Her Majesties Coast Guard) through its 19 MRCCs (Maritime Rescue Co-ordination Centres) provides a search and rescue (SAR) service to those in distress. Of course we're all aware of the very obvious presence and support provided by the RNLI, but depending on where you are based, you may see rescue helicopters somewhat less frequently. Around the UK SAR helicopter support to the Coastguard is provided by 4 Sikorsky Coastguard helicopters (the red and white ones – run under contract by Bristows) and 8 RAF/Royal Navy Sea Kings (some are yellow and some grey/red). Most of the helicopters operate day and night, however some (such as the Portland helicopter) only fly during daylight hours.

The flexibility and speed of helicopters makes them a massive asset, so whether it's the rapid evacuation of a casualty or getting quickly to an incident, our rescue helicopters are always likely to be tasked alongside the RNLI to any serious incident.

Because helicopters are likely to turn up when the messy stuff hits the fan, you as a RIB skipper should know how to work with them so that when that day arrives you can be as effective and efficient as possible when

working with the helicopter. The flexibility of RIBs, their use as dive vessels and the fact that they are often out when others are moored up snugly in their berths, means too that RIBs are often around when things do go wrong, so increasing their chances of working alongside helicopters.

As with so many things, it all starts with preparation. If you have a casualty on board your RIB then your first priority will be to stabilise their condition and ensure they are kept warm and comfortable as possible. As skipper your next priority will be to prepare your vessel and crew for the arrival of the helicopter. If there is a cabin (more likely on a yacht or larger motor boat) then get any crew downstairs or seated so that they are out of the way, ensure that everyone has a lifejacket on too. Assign one person to the radio to manage comms with the Coastguard and helicopter. Remove any loose items and tie down anything else that could be blown away. If you have a bucket, place it in the bow area and be ready to flake the helicopters winch line into it in case the helicopter chooses to undertake a 'hi-line' transfer with you (see later). Also do consider shielding the casualty in some way to give them protection from the downdraught from the helicopter. Make sure your crew is fully briefed as once the helicopter arrives they won't hear much else you say!

As the helicopter approaches you they will contact you on channel 16. They may tell you to go to a 'working channel' (usually 67) unless the situation is a Mayday or serious Pan-Pan in which case you are likely to stay on 16. From now on the helicopter will be calling the

shots and unless you as skipper believes their instructions endanger you (which is unlikely) then you should do as they ask. In busy areas or rough seas they may struggle to identify your position so may ask you to let a flare off. Choose an orange smoke (preferred) or red hand held – rocket flares are likely to lead to an abrupt end to your rescue and an earful from the pilot! Take care too to let them off without causing further issues on your craft.

How the helicopter pilot decides to get their winchman on board will depend on a variety of factors including type and size of the craft, the conditions, the condition of the casualty and the capability of the skipper on the casualty craft.

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The pilot will ideally want to undertake the transfer with the helicopter moving above the craft. Helicopters can create lift when hovering by altering the angle their blades 'attack' the air at, if the helicopter is moving and/or heading into the wind then this creates lift too and therefore reduces the effort the helicopter needs to put in to maintain this lift – which of course reduces the risk to the helicopter when holding position. With larger craft the pilot will ask the skipper to steer a course typically about 30 - 40° off the wind at a speed of about 10 - 15 knots. They will then bring the



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STAY SAFE

TIPS:

- Listen to Ch16 and you can tell whether a hello is "on a job". Callsigns for helicopters responding to incidents change from (eg) "Coastguard Helicopter Whisky Bravo" to "Coastguard Rescue Whisky Bravo".
- The earthing or hi-line line should NEVER be grabbed before it has earthed into the sea. Helicopters can build up large amounts of static and this needs to be dissipated before coming into contact with you.

helicopter into position above the craft before starting to deliver the winchman to you.

In a RIB though, the small footprint it offers and the likelihood of it bouncing around badly at 15 knots means that the helicopter pilot will probably ask you to stay stationary to effect the transfer - in effect treating you as a liferaft. There are then two methods open to the helicopter of getting the winchman to you - via a vertical transfer or via a hi-line transfer.

With a Vertical Transfer the winchman (or 'dope on a rope' as they are affectionately known) is transferred directly to the vessel. The helicopter holds station just away from the craft and lowers the winchman downwards until the earthing line hanging below him earths in the sea. The helicopter then takes the winchman towards the vessel to lower him directly onto the craft. The skill of the pilot and winchman is such that they are unlikely to need any assistance from you and he will be positioned directly into the bow area.

There are two methods of affecting a hi-line transfer. One method is to lower a line with weight pouches at the bottom towards the craft, landing the pouches on deck. The helicopter then positions itself for the transfer and starts to lower the winchman. The crew on the craft then need to pull in the hi-line, flaking it into the bucket until they pull the winchman onto the deck. If the helicopter is offset to one side of the craft, then this could take some effort to pull him in. The other option is that the winchman comes down as in a vertical transfer then, as he gets close to the craft, deploys his own hi-line from a pouch on his lifejacket - this is then used to assist him into the craft. Irrespective of the method the helicopter chooses to use, remember their instructions, never tie the hi-line to your craft and wear gloves when handling it (welding type gloves are best, neoprene gloves can melt).

DID YOU KNOW?

- The winchman and winch operator interchange their roles each day
- The pilot never uses automatic aids when he positions his helicopter blades 10ft from cliffs - he does it by eye!
- When visibility is bad, the pilot can engage auto-hover and let the winch operator at the door use a joystick to move the helicopter around.



Once on deck the winchman will assume full responsibility and direct the skipper accordingly. Depending on the problem, he will tend to a casualty and assess them before arranging their evacuation - winchman are trained to just below paramedic level so can deal with some tricky situations. Once he's ready to evacuate you or the casualty he will decide whether to lift the person vertically - keep your arms by your side if you don't want to go swimming!, in a seated position in the strops, or in a stretcher. With a casualty that is hypothermic or has been in the water for a while (and thus could be subject to hydrostatic squeeze) he will position the casualty either in a stretcher or with strops under their arms and legs to keep them horizontal.

In this article we've focussed on dealing with a casualty on your vessel; its just as feasible though that you attend a situation where the casualty is on another vessel. If this

is the case, then by all means stand by and be prepared to assist (sometimes the helicopter requests that the casualty is moved to another vessel for the lift) but stay well clear and if you are running alongside the casualty as they are lifting, stay well off to starboard as the helicopter prefers you to be this side

If you do get the chance to practice with a helicopter then make sure that you take it - it is an awesome experience to have a huge rescue helicopter hovering above you. SAR helicopters need to practice daily so if you see one and it doesn't look as if it is working then call it up on the local coastguard working channel (usually 67) to see if it is prepared to lift with you. You'll be pleasantly surprised how often they do, if they refuse do try them the next time though.

Paul Glatzel