

Sailing

In this special guide we look at two aspects of survival. In the first article Geoff Hales test sails the Tinker Traveller, rigged as a liferaft. On page 76, Steve Callahan, who survived for more than two months in the Atlantic following the loss of his yacht, discusses the ability of the mother craft to survive even when swamped or capsized

If your boat sinks when sailing in areas away from shipping lanes, the chances of being picked up from a static, conventional liferaft without a very long wait are slim. Even if you are close to shore, the ability to sail towards your destination, rather than being at the mercy of wind and current, could mean the difference between a costly and lengthy formal rescue and a relatively simple do-it-yourself survival. The Tinker inflatables, Tramp and Traveller, use these arguments to reinforce their sales pitch. They argue that their boats, equipped with

Left, Geoff McNichol (left) and Geoff Hales in their Pac Evac survival suits stand behind their Tinker Traveller and the equipment they took with them on their Channel trial. This picture and opposite, rigging the Traveller in moderate conditions. Inset, opposite, displaying the qualities of reflective tape while sailing with the Firdell reflector rigged at night, in Cherbourg



liferaft test

by Geoff Hales

Photos by Malcolm White

canopies, carbon dioxide inflation and a full sailing rig, could be an active aid to survival, although not liferafts. To test these claims, we took a Traveller into the English Channel in November to find out just how it would work in practice.

We aimed to spend as long as we could sailing as far as possible, ideally starting from CH 1 buoy off Cherbourg, hoping for a favourable wind to take us north. Unfortunately we ended up downwind of a very cold, stiff northeasterly and had to make ground north in our loaned Westerly Fulmar before launching, or we would have taken far too long. No one should expect an 11 ft (3.35m) dinghy to make ground to windward in a rough open sea.

Preparation

The boat: We chose a Traveller, 11ft (3.35m) rather than a Tramp, 9ft (2.74m) thinking the extra waterline length and sail area should make her quicker, but there should have been little difference between the bigger and the smaller versions. The dinghy came complete with rig, cover, pump, oars and also with the optional carbon dioxide emergency inflation bottles. The Tinker range scored excellent points in the *Yachting World* inflatable dinghy rally in December '78 for being a highly functional dinghy, as well as having desirable extras like inner inflatable tubes within the main tanks, giving the boat a

double hull for an added safety measure.

It must be pointed out that no one claims the Tinker is a liferaft. It has advantages; it is a multi-purpose, reusable, mobile survival dinghy, available for practice escapes. It also has disadvantages; it's not type approved and so it is unsuitable for offshore racing yachts.

Clothes: Having used the forerunner of the all-enveloping Woodford Pac Evac suit in an inflatable during a winter gale north of the Shetlands, I needed no convincing that this was the obvious choice, but there are two other possible suits which I will discuss later. For additional protection we had a space blanket, which is a sheet of polyester film, silvered on both sides to minimise heat loss and to give a degree of radar reflectability.

Location: We took a Firdell Blipper radar reflector, which could be hoisted to the masthead, reaching 14ft (4.26m) above sea level, to give a highly efficient yacht radar reflector which could be unrigged and taken into the dinghy. We took a Glida-Kite, from Amphi-Kiting, which is Post Office red and carries a Beta-light for ease of handling in the dark. It has enough lift to carry a Chemring tetrahedral radar reflector which weighs only 11oz (320gm) and claims 420m² reflection equivalent on a screen. Finally, we had the boat's cover and our suits all in fluorescent orange, the latter with reflective tape on the hoods. We also had Emergency Position Indicating

Radio Beacons, the choice of the Call-buoy operating on 2182 kHz and the Norco which operates on 243 and 121.5 MHz. We also carried flares and a Mini Seavoice which, as well as being used to contact the mother ship, obviously has safety applications, since it's a portable VHF which can be taken from a sinking boat.

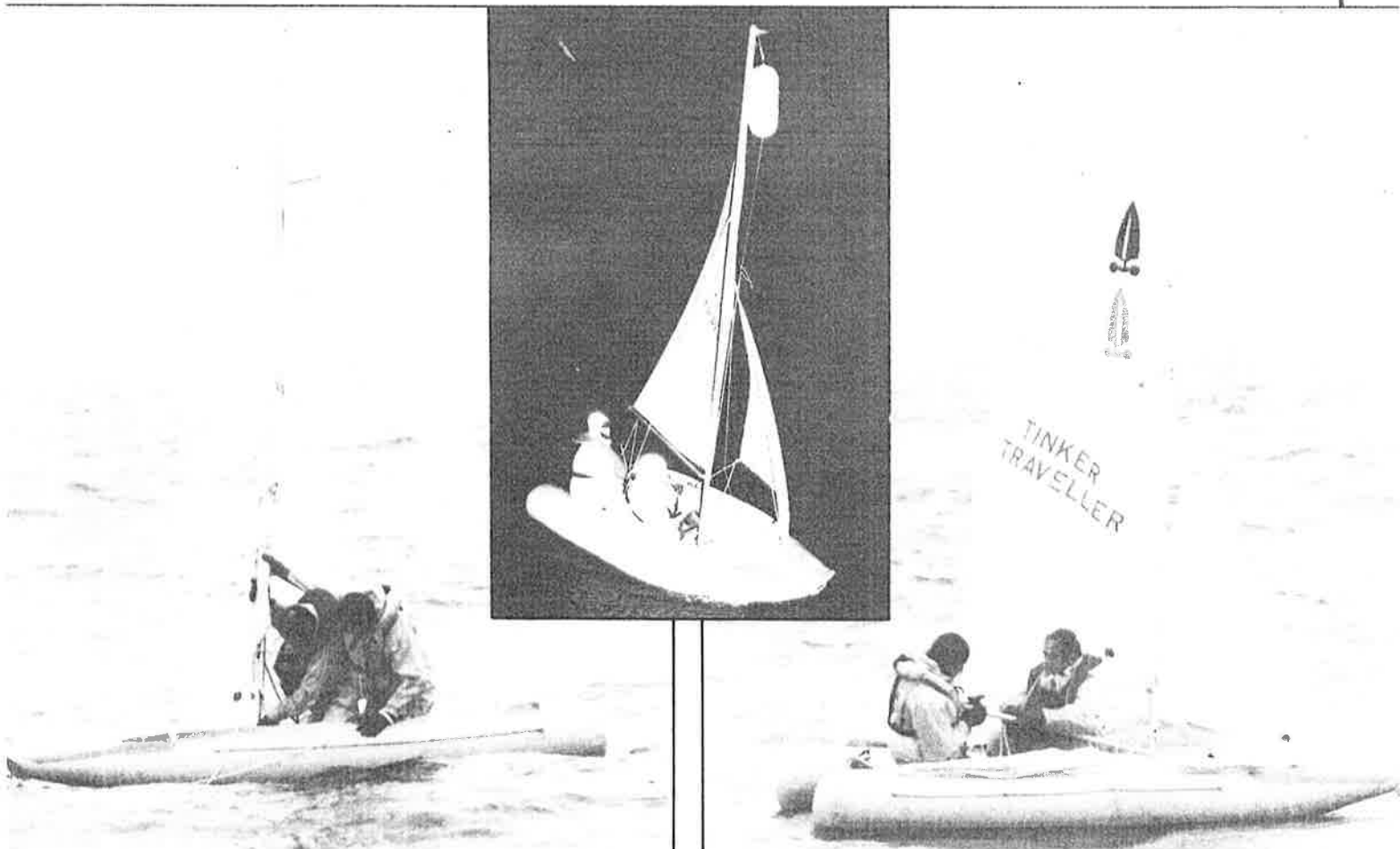
Food: There should always be a basic store of low volume, high energy, long shelf-life foods—which we obtained from Survival Aids. We could not find any self-heating foods, but Survival Aids had Warm Packs which make heat chemically for individual comfort. Water should always be available in individual small containers in a yacht, in case of a tank failure, we planned to take these—after ensuring that they were not so full as to sink, and had handles of some sort to enable them to be secured to the boat.

Navigation: We thought it unlikely that it would be feasible to keep a chart dry, though no doubt we would try to, and would take one into the dinghy. We chose to rely solely on a Mini Compass for direction and a visual estimate of speed and, therefore, distance.

What happened?

The dinghy, with inner tubes inflated, fitted remarkably well on the Fulmar's coachroof, being 6ft (1.83m) long, 4ft 6in (1.37m) wide and weighing 70lb

continued overleaf





Above left, lacing on the canopy was not easy. Above right, the Glida-Kite needed to be a brighter colour. Below, inflating the kite

(31.8kg). Oars were secured to the coachroof handrails while the three-sectioned mast was kept assembled with the mainsail sleeved onto it, and secured easily on the guardrails.

We had the forward half of the cover laced onto the boat and could have used it as a store if we wished. A screw bung each side in the transom would help to keep the boat free of water, whichever tack the Fulmar was on.

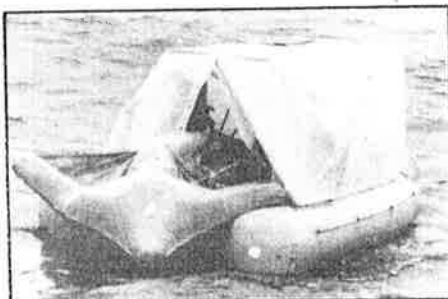
Launching: We finished lacing up the cover and collected up the stores before launching, placing all the small items of gear into a sail bag before getting toggled up. Inflating the boat with carbon dioxide only took a few moments and then she was in the water.

With one person in the boat, it proved easy to load the flares and radios separately, and then the bag of other items and the rig. We got clear and let go of the sea anchor—simplicity itself, although it took a little longer in practice than in theory. We took heart that if necessary the Tinker could be launched with only inner tubes inflated (it is still stable—the floor is firm and the gear could already be tied in) thus saving more time. In a real crisis the priority would be to get the survival gear on deck, launch the dinghy and put on the Pak Evac suits, because keeping dry is an important factor in staying warm and alive.

The boat seemed happy laying to the sea anchor, though she yawed a bit and we suspect either a larger cone or a longer line might have been preferable (ours was 15½ in (38.1cm) in diameter and depth and the line was about 70ft (21m)). We put up the canopy, only to find we were one hole out in the lacing sequence. It came off again easily enough, but re-lacing with the Pak Evac gloves on and the boat bouncing up and down was a trial of patience. Still, it wasn't long before we were snug.

Apart from the annoyance of the orange filtered light and a small amount of water getting through under the canopy, life was much more comfortable than either of us expected. Certainly it was acceptable and the virtually solid, flat floor allowed easy bailing and sponging of what little water we collected. Our supporters decided the boat appeared to be riding very comfortably, which is how it seemed from inside.

We flew the inflated Glida-Kite,



which launched easily off the water. We were surprised to learn that despite being red it did not show up as well as the orange canopy and in the gloomy weather tended to look grey and rather like a sea bird.

When it was time to get underway, we decided that a hole in the canopy for the mast to pass through would be a good idea. The canopy had to be half unlaced one side and almost unlaced the other; before we got the rig up. We were soon sailing with little bother, although the small lines, cleats and gloves required a lot of patient finger work.

It proved easy to trim the sails for the required course, then steer to keep the sails full, checking the Mini-Compass occasionally to ensure that the wind had not-shifted. The Tinker proved remarkably stable, perhaps our pile of gear helped: and so we could sit to leeward without much concern.

Lessons learned

The boat: Our night of sailing in Cherbourg showed that the reflective patches on the suit helmets showed up from a greater distance than the fluorescent orange of the canopy, and the same strips will now be fitted to the Tinker canopies. When sailing, the boat took on some water through the foredeck holes which allow the forestay and jib tack line to be secured. One could simply pack round the lines or secure the forestay and tack to a fixed eye in the foredeck, this eye being supported by a below deck line. It seemed impossible to reduce the slight amount of water that got in between the canopy and its securing skirt; to increase the overlap would cause more complications and Velcro tape as a back up proved ineffective. One thing we did not practise, but have seen done before, was the righting of a capsized Tinker. It's surprisingly easy

for one person to do, simply by twisting the transom.

Clothes: It is intended that the Pac Evac suit can be donned in less than a minute, to meet Service requirements. This can easily be done. We were most impressed to find how warm we were in the suits, leaving off our oilskin jackets with no discomfort. Feet which had been getting cold in sailing boots, also warmed up with the extra insulation of the suit.

We managed to tear one suit on a pipe clip on the CO₂ inflation bottle in the dinghy. We should have located this in advance and taped it up.

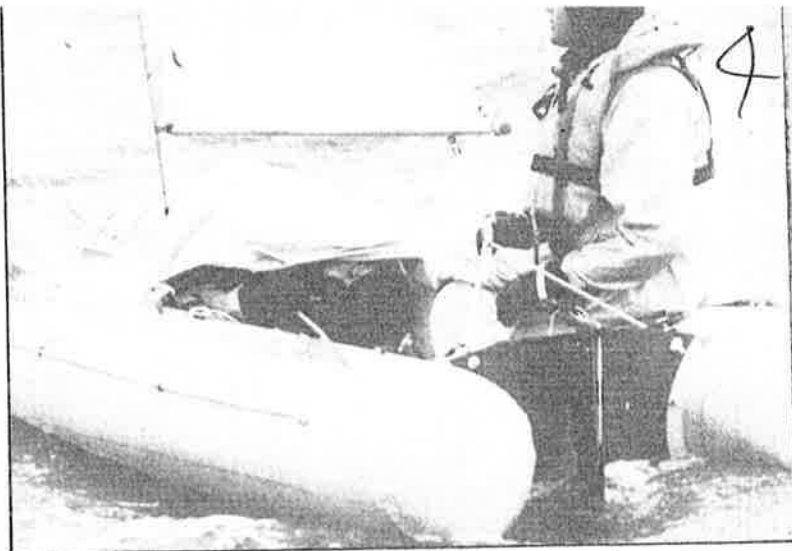
We sorely missed any pockets in the suits, but their carrying valises could be clipped round a lifejacket harness and double up as pockets. Two alternative suits exist which are also worth considering. Woodforde's Thermotic X3 suit is insulated and buoyant and is designed to keep an immersed wearer alive three times as long as would be possible in ordinary clothes. It's convenient for normal deck use, so could be used as an oily and would therefore already be on if a crisis occurred.

Another idea is the Ace Watersports-wear Working Survival Suit, which is a loose fitting neoprene suit complete with feet and full length front zip. The idea is that when sailing, one could use a lightweight one-piece oily in light weather and put the Working Survival Suit on as the weather worsens. The one piece-suit would be put on top to protect the neoprene from chafe. It's warm to wear with thermal underwear and the feet are so neatly made that it is possible to wear normal sailing boots over the top.

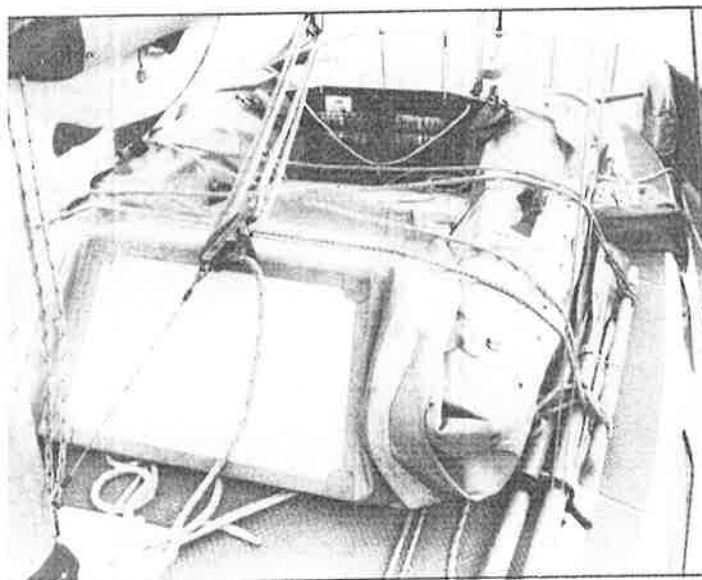
Location: We were surprised that the one metre square Glida-Kite proved to be the wrong colour, but this is easy to rectify. A fluorescent tail could be arranged, and this might stop the kite looking like a bird. We have not had a chance to try the kite-supported Chemring radar reflector against a radar, due to lack of wind on the radar trial day, but it ought to give a significantly greater range than the masthead height reflector. The Blipper looked like a channel marker buoy on the screen of the Mars Vigil Radar. Obviously it would be important to get rid of the kite before a helicopter rescue is attempted, but that is the second stage, location



The large canopy opening makes access to the raft interior relatively easy



Hales sleeps below the canopy while McNichol comes to control the tiny rig



The partly inflated raft on the coachroof. Note the CO₂ inflation bottles



The raft can be launched while inflation takes place. Note floor reinforcement

being the first and hardest. We are sure the Glida-Kite and lightweight radar reflector must be a great asset.

Food: From previous experience we knew that foil-packed fruit biscuits and oatmeal blocks, obtainable from Survival Aids, are popular and have a long storage life—three years is recommended. We also tried some of Survival Aids 'SR' rations which have a five year shelf-life. Each packet of flavoured cake blocks provides 1000 calories. Nobody enjoyed eating them, but the low bulk and easy, long-term storage make them attractive.

Other food worth considering—and displaying on a list over the galley—would include Stevens-Lefield foil meals, which can be eaten hot or cold, cheese, chocolate bars, muesli bars, Kendal Mint Cake, nuts and raisins, oranges, apples, salami, cake and Dextrose tablets. If you can find a way of heating them, Survival Aids can provide the full range of service type ration packs—excellent long storage low bulk stores for any sailing activity.

Documents: Easily forgotten, but these can prove vital once rescued. It sounds depressing but all passports, cheque books, credit cards and ship's papers should be in a waterproof bag kept near the rest of the survival gear. Previous survivors have also warned us that some cash can be vital once rescue

is complete and civilisation is reached. **Navigation:** Our simple system worked adequately. In fact, the Tinker averaged two knots pointing in the chosen direction—with the Channel tides pushing us to and fro, which really didn't matter of course.

This summarises the experiences of our brief test. We hope it will set you thinking about how to allow for survival if you have to leave your boat. We must stress that one should only leave the yacht when it is obviously sinking and preparations for that terrible situation might never be required in real life. But if they are, planning and practise are bound to prove worthwhile.

Thanks

We couldn't undertake this sort of event without outside help. So many thanks first to Julian Mandiwall who loaned his Westerly Fulmar. Many thanks too to the Royal Insurance Company for arranging insurance for the boat in just one hour so that we did not lose the opportunity of suitable weather. Kitty Hampton took time off to think about stores, as well as loaning much of the safety equipment, while Jock Henshaw, who builds the Tinkers, was a tower of strength, entirely objective about the trial and as keen to see whether his craft required any improvements as he was to help us with detail arrangements. ■

Suppliers of Equipment

Tinker Inflatables, designed by F. Benyon-Tinker, built by J. M. Henshaw (Marine) Ltd, Verrington Lodge, Wincanton, Somerset BA9 8BN. Telephone: (0963) 33237 Traveller, complete, as used: £1068+VAT, Tinker to equivalent specification: £906+VAT. Sea anchor: £35+VAT.

Pak Evac and X3 Suits, made by G. R. Woodford Ltd, St Mary's Works, St Mary's Plain, Norwich, Norfolk. Telephone: (0603) 26604. Telex: 97320 GRW UKG. Pak Evac: £29.50+VAT, X3: £59.50+VAT.

Working Survival Suit, made to measure by Ace Watersportswear, 38 School Road, Kingswood, Bristol. Tel: (0272) 675065 £122+VAT. **Glida-Kite**, made by Amphi-Kiting (UK), Manor Farm, Melbury Osmond, Nr. Yeovil DT2 0LS Telephone: (093 583) 592. With Chemring tetrahedral reflector: £28+VAT.

Firdell Radar Reflectors, made by Firdell Multiflectors Ltd, 17-27 Old St. London EC1V 9HL Tel: (01) 253 6281 Telex: 24718 Blipper: £62+VAT.

Survival Foods from Survival Aids Ltd, Morland, Penrith, Cumbria CA10 3AZ. Telephone: (09314) 307.

Stevens-Lefield Ltd (foil meals) Colquhoun Ave, Glasgow Tel: (041)-882-1599.

Mini Seavoice, (waterproof when the cover is fitted) made by Seafarer Navigation International Ltd, Fleets Lane, Poole, Dorset BH15 3BW Tel: (0202) 674641 Telex: 41169. Out of production, secondhand units only.

Callbuoy: (2182 kHz, Distress radio) from Seafarer, as above: £260+VAT.

Air frequency EPIRBs: numerous types advertised in the sailing magazines, Locat Ltd 25 is probably the cheapest and smallest: Electronic Marine Ltd, Wm Wright Docks, Hull (0482) 25163: £99+VAT.