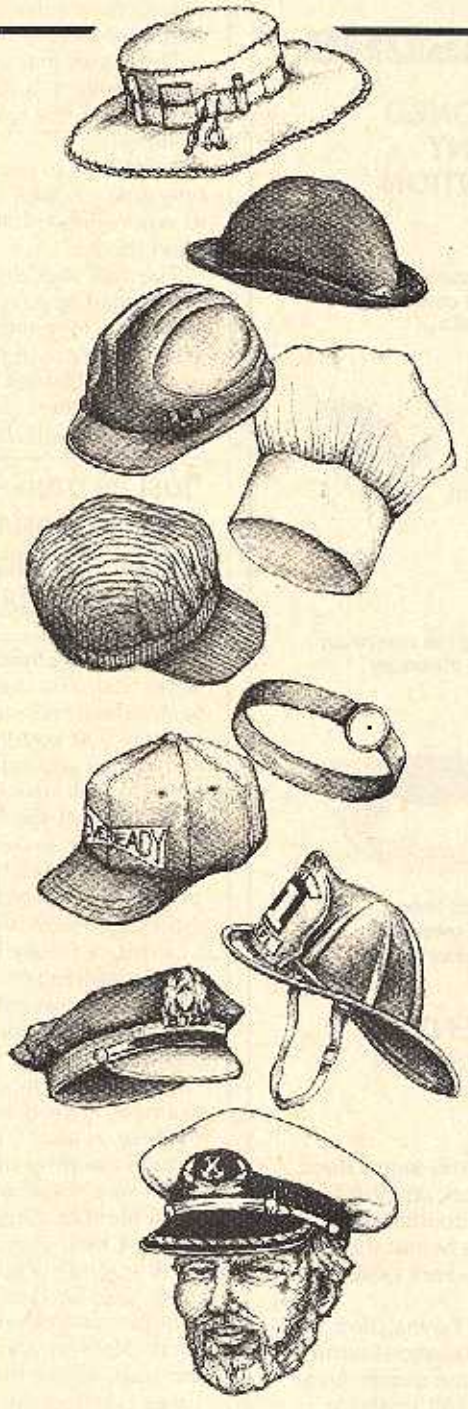
A Good Crew Wears Many 'Hats'

by John Campbell



Part of the thrill of cruising is to achieve independence. A little bit of planning will enable the crew to deal with almost any situation. Whether on a modest coastal passage or crossing the Atlantic, everyone aboard should be capable of wearing a variety of "hats." Here are a few of them.

Chief Rigger: The rig of a sailing vessel is a very important part of the boat. While wearing the rigger's hat, check the rig and rigging for chafe or excessive wear. Be sure to inspect stainless steel tangs, toggles, or swages for cracking. Stainless steel gets brittle as it is stressed, and hairline cracks show it is getting ready to fail. Devise a plan in the event that any part of the rig should fail. Have in the back of your mind a way of erecting a jury rig should the mast be lost. Jury-rigged spars can be as complex as an A-frame, or bipod, mast, which can be rigged from a boat-hook and spinnaker pole, or as simple as a spinnaker pole and a couple of coils of spare line.

Contemplate ahead of time what to do if a shroud parts. A spare halyard can be fastened to an eyebolt, or a cleat strategically placed on deck to replace temporarily a broken wire or rod. This can be done quickly and easily if the eyebolt or cleat is already there; if not, it becomes a major project during a crisis.

Included in the rigger's kit should be basic sail repair materials. A few needles, sail twine, palm and a couple of rolls of self-adhesive sail-repair tape should serve as a minimum. Most sail problems start off as minor. Only if they are neglected do they become major repairs.

Head Shipwright: This is another important job. Be sure the boat is structurally fit to go to sea, and stand ready to make whatever running repairs are necessary. A well-equipped toolbox should be on board every seagoing boat. A hole as small as 1½ inches in diameter two feet below the waterline admits water at the alarming rate of 71 gallons per minute, so make plans ahead of time to deal with a holed or leaking hull.

Think about how to rig a collision mat. A few years ago, we were crossing the Bay of Biscay in a big old Baltic Trader. Due to an unprecedented combination of circumstances, we were rammed amidships by a 45-foot fishing boat and holed to the waterline. We stuffed two mattresses in the hole and nailed a sail over them. This is far from easy when up to your armpits in the frigid water of Biscay in December. We also found it almost impossible to hammer bronze nails into 60-year-old oak.

If you have a wood vessel, think of carrying some steel nails for the task. Also, a couple of large tins of underwater setting epoxy can be a good item to include in the spares kit. Do not try to put the epoxy directly into a hole through which water is rushing; it just gets sucked through the hole. Rather, spread the epoxy onto a piece of cardboard or stiff canvas, and press this pad over the hole. If applied outside the hull, the water pressure will help hold it in place until the epoxy sets.

The bilge pump also should be checked on a regular basis. It is a good idea to have one electric pump so that the crew can try to stop the ingress of water without having to pump manually. There should be also an efficient hand pump, in case the electrics fail, perhaps because of the rising water.

Chairman of the Water Board: Running out of water on a weekend coastal hop would be a nuisance. In the middle of the Pacific, it could be fatal. A reserve supply of water and/or other drinkable liquid should be kept separate from the main supply. For a weekend cruise, a couple of reserve gallons to make an "emergency" cup of tea will suffice. For longer passages, try to store perhaps a pint of liquid per person per anticipated day of the passage. This can be water, cans of fruit juice, soft drink or a combination of these.

When water supply is from an unknown source, treat it with a little bleach, or one of the commercial water-purifying preparations. The taste of such treated water can be improved by adding a healthy splash of lime juice to the water in the tank.

The advent of plastic tanks has brought about the problem of funny things growing in the tanks. Reduce this problem by dropping a few copper coins into the tank. The copper in the coins seems enough to poison the plant life without poisoning the crew. Do not, however, try this trick in a stainless steel tank; the ensuring electrolysis will amaze you.

Devise a good rainwater-catching system. In areas not subject to severe pollution, rainwater often will taste better than water that is available ashore. In many areas of the world water is a scarce commodity.

Ship's Cook: This job is near to the heart of all the crew, except perhaps the person who is forced to wear the hat. Look for ways to avoid using endless canned food. After a few days of non-stop cans, the contents all assume a similar taste and texture, be it meat, vegetables or fruit.

Experiment with ways to preserve "normal" foods. Refrigeration helps enormously. However, don't rely on it completely as it can, does and will break down.

Provisioning duty also means making sure enough cooking fuel and engine fuel are on board for the trip.

Mechanic: A few basic mechanical skills can be easily learned. Most major engine manufacturers or dealers run little publicized owner's courses. It is well worth seeking out such a course and attending one that covers your engine. It is far easier to learn how to bleed the fuel system of a diesel in the classroom than it is when you are tired, seasick and in imminent danger of being swept ashore.

The engine manufacturer or dealer also should be willing and able to suggest a list of on-board spare parts and tools. Spare filters, oil, belts, impellers and gaskets should be on board at all times.

Learn how to give your engine a little tender loving care. The only time you look at the engine should not be after it has refused to work. Preventative maintenance will be amply repaid by good service.

The fuel tank and its attendant pipes and filters should be maintained on a regular basis. If fuel is used slowly or left in the tank for a long time, add a biocide to the fuel to prevent the growth of algae. A full tank will attract less condensation than a partially full tank. Condensation collecting in the tank will lead to blocked filters and engine failure. A good water-trap filter in the fuel pipe will also help reduce this problem.

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Medical Technician: The crew should all learn CPR and some basic first aid. Learn how to recognize and treat shock, heat exhaustion, sunstroke, and cuts and burns. The farther offshore you venture, the more comprehensive should be your knowledge and supplies. Visit your doctor or local Red Cross office to seek advice on putting together a ship's medical kit.

Director of the Power Company: In this capacity, the crew must be able to oversee generation of required heat and light. Assuming the boat is fitted with electrics, the crew should be able to make some basic repairs. A multimeter can be one of the most useful tools on board to check if power is being supplied to a circuit, or if there is continuity in a circuit.

It is useful to be capable of soldering joints on board. We carry a propane-powered soldering iron which has seen a lot of use. An alternative would be a 12-volt iron, or battery operated rechargeable one. The latter type would offer the added advantage of use in areas unreachable with an electric cord, for example, at the masthead.

There is also a thin solder tape available that is wrapped around the wires to be joined, then melted with a match. As a last resort, there are always spare light bulbs, which contain small blobs of solder.

Fire Chief: Fire aboard a boat is a frightening experience. Look around the boat for potential fire hazards. Try to eliminate them, and be familiar with ways of putting out any fires that should start. With the exception of an explosion, most fires start small. Stow several small fire extinguishers in different areas of the boat, rather than keeping only one large one. Your local Coast Guard or fire-fighting facility will be happy to give advice on the best equipment for your boat.

The electrical system must have a prominent master switch that can isolate the whole system. A fire extinguisher cannot put out an electrical fire if the electrical power is still being supplied.

Likewise, you must be able to turn off quickly any flammable fuel supply. An electrical solenoid with a switch near the galley will enable the supply of propane to be cut off much quicker than a valve on the top of the cylinder itself.

Fire extinguishers should be serviced to the manufacturer's recommendations. The dry powder type should be thoroughly shaken from time to time. Otherwise, over a period of time, the

powder can settle and form a hard lump, rendering the extinguisher useless.

Chief of Police: A cruising boat is like a microcosmic city. Like cities everywhere, it may play host to crime or violence. While visiting many countries over the years, some more remote and exotic than others, we have had only one serious problem.

Because we always had styled ourselves as lovers rather than fighters, we were totally unprepared for and were powerless to stop four intruders from removing a large new inflatable dinghy from the deck. A show of arms may have made them abandon the dinghy, but also it could have resulted in reciprocal violence. The police showed little concern for our plight the next morning, and suggested that we should have taken care of the situation ourselves—forcibly.

There is a never-ending debate about whether cruising boats should carry guns on board. There are alternatives. A flare pistol makes an awesome weapon at close quarters, and in many countries, no license is required. Such a pistol and an abundant supply of flares make a very viable alternative to a shotgun, and one which is less likely to attract the unfavorable attention of the authorities.

John and Lana Campbell built their 35-foot junk-rigged schooner *Papilio Ruga* in England in 1978.

There are other less aggressive, yet still effective, weapons that can be used at close quarters. A dishwashing liquid bottle full of ammonia makes a formidable weapon. Likewise a dry powder-type fire extinguisher could stop a determined assailant. When facing an armed aggressor, it usually is not a good idea to use a weapon similar to his. He is probably much more experienced with guns or knives than you are. Your unexpected use of weapons with which your assailant is unfamiliar may be to your benefit. An alarm or siren that can be activated from below will unsettle any would-be assailant, and hopefully warn nearby boats that something is amiss.

Captain: While there should be only one captain at a time, it is a good idea to take turns at being that one. Just as men should know their way around the galley, women should know how to start the engine, maneuver the boat and navigate. This will not only make life aboard more interesting but will also add to everyone's safety. If one crewmember is incapacitated, others should be able to fulfill his role. Making sure your crew can wear many hats will allow you to get there safely and enjoy yourself along the way.

John Campbell also is the author of "The Anatomy of Marine Refrigeration" on page 158 of this issue.