



Preparing Your Vega for Extended Offshore Cruising

When we bought 'Tarka The Otter' (Vega #1639) in 1983, she had a life history not untypical for a ten-year old fiberglass boat; One owner had her for six or seven years and lavished a great deal of care and attention on her, but the next two had neglected her. On our test sail the bilge filled up with near-boiling water from a leaking exhaust and a spreader fell off - useful in reducing the price but not otherwise encouraging. 'Tarka' had over 7000 miles on the clock, including a testing 800-mile trip around Vancouver Island and a fair amount of racing.

Six years later, the boat had a great deal more weekend sailing under her keel, another circumnavigation of Vancouver Island, and a 36,000 mile circumnavigation of the world - the varnish needs work, the engine gives a few starting problems and the mainsail has lost all shape - but basically, 'Tarka' could circumnavigate again. I should stress that 'Tarka's crew have very few practical skills and I would guess that we spent considerably less time preparing the boat prior to our major voyage and working on it during the trip than most of the cruising couples we met. The message is clear: the Vega is basically a very sound boat, capable of offshore sailing, and you don't need to do a great deal to get her ready. So, what did we do (and what should you do) to 'fix her up' ?

The following comments explain what we did to Tarka to get her ready for offshore, what things worked, what didn't, etc. Inevitably it is personal since there are very few 'right' or 'wrong' ways to take a boat offshore, but there might be a few points of interest to members planning such an event. Of course, Jenny and I would be happy to respond in detail to any particular question - just drop us a line. (I could write a book just about the vane.)

First, you should read a few books. We found the following to be especially useful:

Dan Spurr: *Upgrading the Cruising Sailboat*. In this book Spurr takes a boat not unsimilar to a Vega (a Pearson Triton) and, chapter by chapter, goes through all the ways you can 'beef up' a boat.

Eric Hiscock: *Cruising Under Sail*. The 'classic' work.

Lin & Larry Pardey: *The Self-Sufficient Sailor*. Especially relevant to people on small boats.

John Neal's *Log of the Mahina* is also of interest, though it is my impression that he sailed his boat rather hard, especially on the final beat back from Hawaii, when he found it necessary to insert a mast support.

Anne Miller's *Out of the Blue*, describing her two transatlantic voyages is well written but not very informative in practical terms.

Next, get on as many boats as possible 'that have been there' - not just Vegas but preferably boats at the smaller end of the range. You can pick up a lot of ideas and tips in this way. If at all possible, try to crew on someone else's boat on an offshore passage: this will not only allow you to see a cruising boat in action, but, more importantly, to see yourself in action offshore. You may just well decide its

not your 'cup of tea' after all and thus save yourself a lot of time, labour and money - its surprising how many people, after planning 'the great escape' for years discover after only two or three days out, that they hate offshore sailing! Most of the sailing magazines carry 'Crew wanted' ads. On the West Coast, San Francisco's 'freebie', 'Latitude 38', has a particularly large section.

Here is what we did to 'Tarka', starting, for want of a better place, at the bow:



GROUND TACKLE

The basic rule here is that you can't have too much. For months on end, possibly for years, the safety of you and your boat, possibly your life, will depend largely on your ground tackle. For peace of mind alone, go for overkill. We carried four anchors, as follows:

- 22 pound Bruce (10 kg) with 105 ft of 5/16" chain and 200 ft. braided half-inch nylon line. This was our primary anchor. Always use your heaviest ground tackle as your primary gear. The large amount of chain is necessary because many of your anchorages will be in coral. It also has the desirable side-effect of reducing swinging, as in most anchorages, you will be on all chain at a ratio of about 3 to 1. Occasionally we were in anchorages of 90 to 100 ft.; this weight of anchor and chain is about the limit that anyone other than superman can be expected to haul up without an anchor winch.

- 16 pound Bruce (7 kg) with 40 ft hi-test quarter inch chain and 250 ft laid half-inch nylon line.

- 10 pound Danforth with 15 ft quarter inch chain and 110 ft half-inch laid nylon line.

- 20 pound fisherman's anchor with 120 ft chain. Various options open on choice of line.

We have never dragged on the Bruce, so you may well ask, why so many anchors? First, it is quite often necessary to lay a substantial stern anchor in crowded anchorages. Second, it is quite possible that in the course of your travels you will lose one set of gear - through having to ditch it in a hurry, perhaps - and you can't easily get quality high-tensile replacements in the many locations you will be cruising. Third, and most important, even though you may never plan to sail anywhere in the hurricane season, hurricanes can and do occur when and where they're not supposed to and you must be prepared for this eventuality. To have a chance of surviving a hurricane, you would need to lay at least three anchors.

Remember to wire all your shackles and to periodically reverse your rodes. Though it may sound obvious, remember to tie on the bitter ends. As you'll often be on all chain, two more items are essential: a chain hook at the end of a fifteen or twenty feet of anchor line to act as a snubber, and another hook on a much shorter piece (one foot or so, attached to your bow cleat) to stop the slack chain dribbling out when the snubber has taken the major strain and also to act as a convenient temporary holding device when you're having trouble hauling all that chain in.

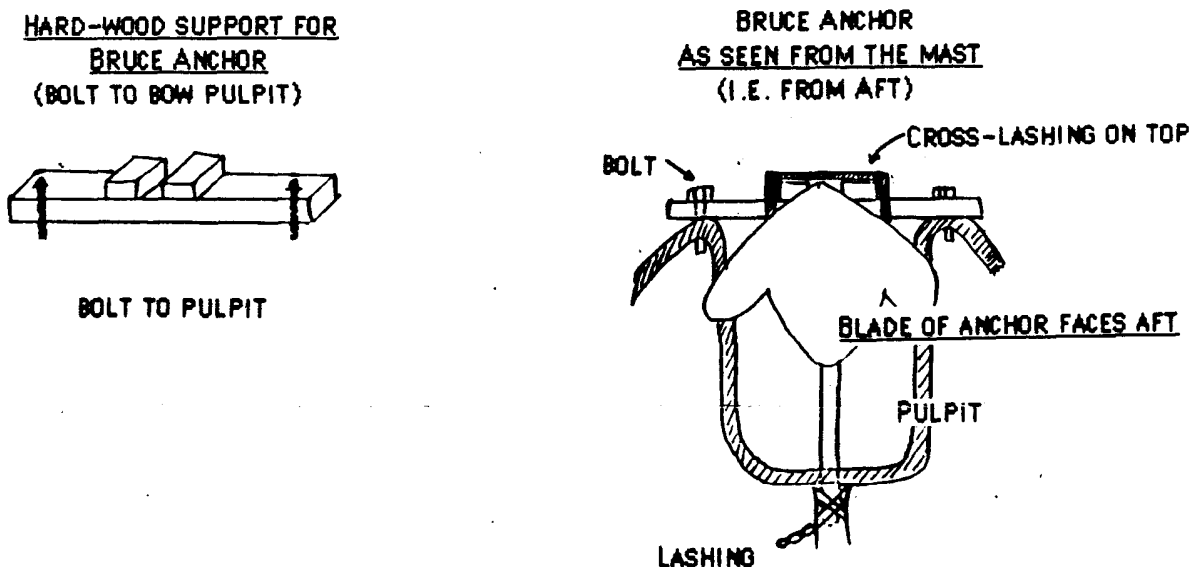
STOWING THE BRUCE:

I bolted a 24" by 3" by 1" piece of teak across the top of the bow pulpit, then screwed two small



pieces of the same piece of teak to the top of the beam, leaving a half-inch wide channel between them. The Bruce sits on the beam, it's shank vertical and forward of the teak beam, it's arm running back through the retaining channel, the flukes facing astern and curving back under the beam. Do a simple cross lashing where the anchor sits on the beam and another lashing from the chain's point of attachment. to the T part at the bottom of the pulpit. The chain almost fills the chain locker, so it is necessary to feed a large part of the line out of the chain locker and into a bucket at the front end of the Vee-berth. If one is doing a large amount of beating, they won't want this much weight in the bows - on our beat to weather from Hawaii to B.C. we put it all in the locker immediately astern of the water tank. Otherwise , try to keep it up front - if you need your anchor in a hurry, you don't want to have to fetch it up from a locker.

Arrangement for Stowing a Bruce Anchor



HAWSE PIPE

Not standard on the Vega, but obviously you need one. The obvious place to put it is dead centre, right up in the bow but if I were installing ours again, I'd put it to one side, so as not to weaken the reinforcing beam that runs amidships. No hawse pipe is watertight and, offshore, you need to take special care to seal yours up with plastic bags, tape, etc, etc. It takes only a few hours of heavy seas for a large amount of water to find its way into the tiny hole where the chain goes in, thence into the bilge (and over the batteries)

ANCHOR ROLLER

Keep it short and stubby, with as little overhang as possible.

ANCHOR CHAIN LOCKER

We found the plywood bulkhead needed replacing due to general rotteness and from being waterlogged. Use the old one as a template for a new one; you need to take up the forward flooring section in the Vee berth to get the old one out/new one in.

NAVIGATION LIGHTS:

The pulpit-mounted nav-lights are invisible offshore. On the top of the mast we installed an Aqua-Signal Tri-light (10 watts or 25 watts, depending on which bulb you opt for), and ran the cable down inside. The light consists of a round base unit, about one inch high, into which the main assembly (about 9" high) locks. If you want, it is simple to unlock the main assembly and leave the base unit protected by a plastic cap which is supplied. This can be handy when you want to replace a bulb - unlock the upper unit, take it down, change the bulb in the safety and comfort of the cabin, then go up and replace the unit again. Feeding the cable down inside the mast was a nightmare! We eventually had to use a device called an Electricians Fish, which I believe they use when faced by similar problems with house wiring. Leave the pulpit lights mounted - they're a useful backup and when in port, are more easily comprehensible to other boats than a trilight. Though technically illegal, most offshore cruising boats do not routinely use running lights all night - your batteries simply cannot handle this for night after night, week after week. Provided you are keeping a good watch (i.e. somebody in the cockpit all night) I believe its an acceptable practice to put your lights on only when you see those of a merchant vessel or approaching land. You will find, unfortunately, that most merchant ships keep a less than adequate watch.

RIGGING

Before we left we replaced our forestay with the next one up - and this new forestay was the only rigging failure we had (which implies that the Vega was rigged with high quality material to start with). Failure took the form of one of the 19 strands breaking - only a 5 percent loss in strength, but it was impossible to haul a sail up beyond the snag. We put the old forestay back on and then when we could, got hold of some 6mm 1 by 19 and installed it with two Sta-Lock fittings. In case of rigging problems, the common wisdom is that you should carry at least one spare stay, at least as long as your longest piece of standing rigging. This will normally be the forestay. You don't have access to roller swaging, so you need some Norseman or Sta-Lock fittings (the latter are easier to fit) and wire clamps for hastier emergency repairs. A set of bolt cutters is necessary not only for fabricating your own rigging, but also for the awful scenario of having to cut loose a collapsed mast and rigging.

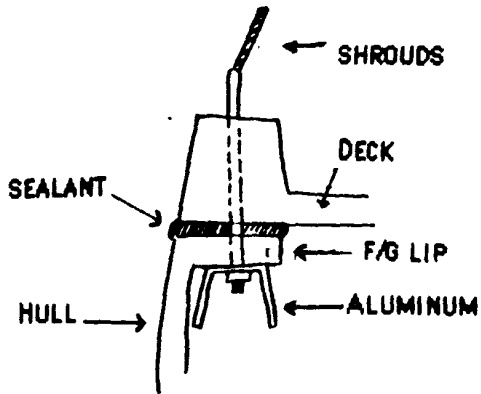
Many people wonder if they should go to double backstays, but, coldly considered, there is little point in this. In the event of a catastrophic backstay failure (and the backstay anyway takes less strain than the other stays) the sails and mainsheet would hold the mast up, and a temporary backstay could easily be improvised with the topping lift.

The best way of checking your rigging (and you should do this whenever you can) is visually and by running a hand down it. Burrs are a sign of imminent failure. You should actually pay more attention to the end fittings than the wire itself. I go up the mast before every offshore passage to check on things and pay similarly careful attention to the nine lower fittings. In particular, look for hairline cracks in the turnbuckles (bottlescrews) - I have replaced four or five in four years. It's also worth putting frequent squirts of WD-40 down the top of swage fittings - you never know what might be happening inside!

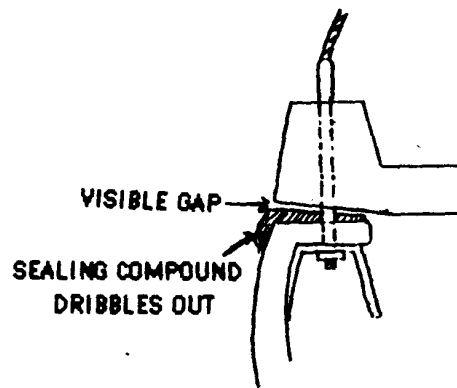
The 'chainplate' arrangement on the Vega is, of course, unusual and though I made frequent internal checks of it, I can't fault the principle of it and see no reason to go to more conventional chainplates. We did experience a slight lifting of the lip on the hull (see the following diagram (B) which had the effect of opening up the outside of the hull deck joint a little - a problem best solved with liberal supplies of silicone.

CHAINPLATE ARRANGEMENT ON AN ALBIN VEGA

WITH CONTINUOUS STRESS THE F/G LIP ON THE HULL BEGINS TO LIFT, THUS OPENING A GAP AT THE HULL/DECK JOINT



"Chainplate" arrangement as it should be



Result of heavy strain on shrouds (exaggerated)

All the stays and shrouds need periodic adjustment, but don't overtighten them - this can have the effect of forcing the mast down too heavily. For the forestay, I pull it towards me at head height with one finger - you should be able to bring it back about 2" towards you. It is vital that your fore and back stays have toggles at both ends - i.e. they can take the tension in any direction.,

Also, never tighten the turnbuckles by putting a screwdriver in the gap. Use the screwdriver to hold steady the fork that goes into the stay (so that you don't wind or unwind the stay) then use a large adjustable wrench on the turnbuckle.

CLEATS

We found an extra cleat immediately behind the bow cleat to be very useful, especially when anchored on all chain. It is vital to have two cleats here in the Panama Canal. For backing, use quarter inch aluminum, or heavier.

FORWARD HATCH

Its advisable while at sea, to always use the forward hatch when going forward to change sails, etc. It is much safer than leaving from the cockpit & making your way along the deck. With constant use, the hatch arms take a lot of wear. We went through two. Also, be sure your gasket material is of the best quality as the hatch sometimes takes green water over it. 'Ensolute' type closed cell foam is good.

CHIMNEY (if you have one)

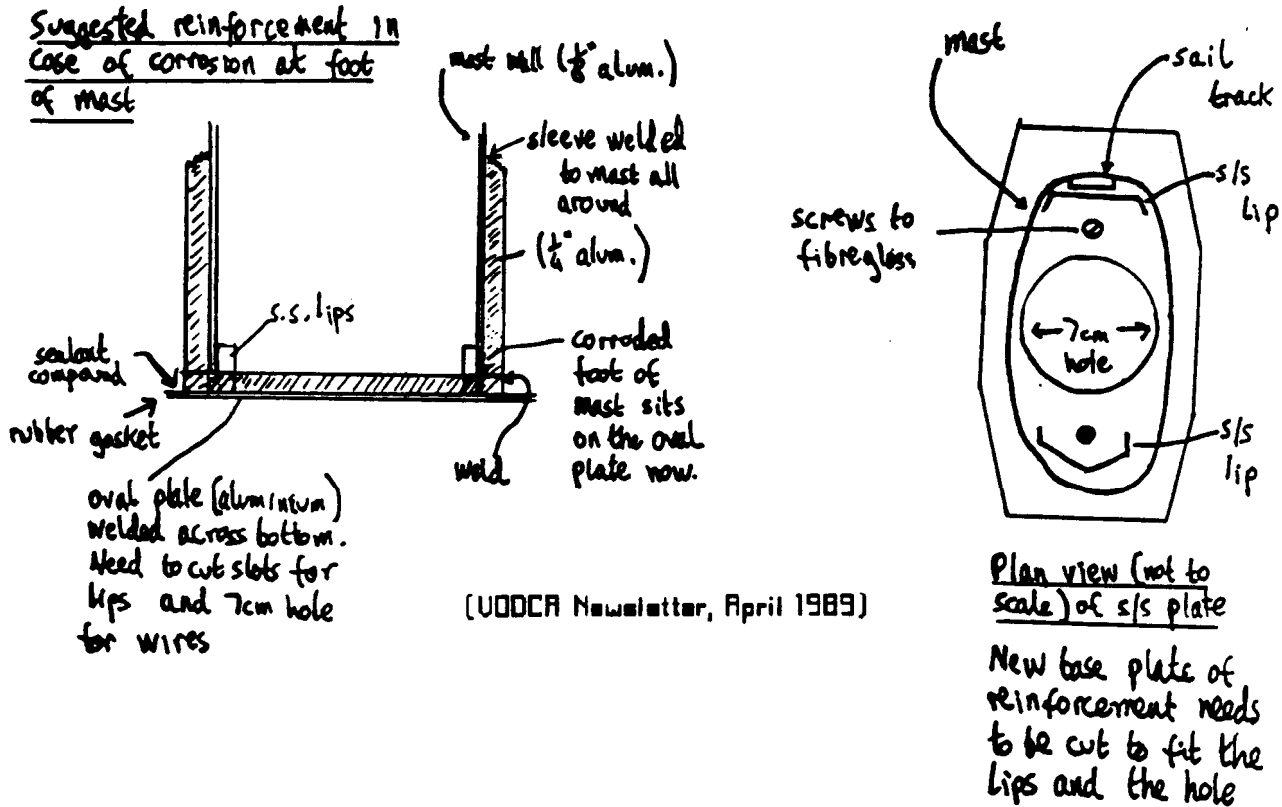
This needs careful sealing up if it is at all close to deck level.

MAST STEP (exterior)

The mast step was our main single problem. Simultaneously, we had compression and subsidence on one side of the fiberglass step and a corrosion problem at the very foot of the mast.

To solve the former problem, we lifted the mast off, filled the depression with Marine-tex and then applied several layers of alternating chopped fibre and woven fiberglass (the stainless steel base plate is held in place by two screws which are easily removed.)

The latter problem was, I think, caused by repeated dousings of seawater in heavy seas, some of which probably got in through the two small bleed holes, and which set up electrolysis between the stainless steel base and the aluminum mast; the thin rubber gasket that is supposed to insulate the two was long since cut through by the minuscule movement of the mast. The simplest solution would be to simply cut an inch off the bottom of the mast and re-step it - but only if you can take up the resultant slack in your shrouds and stays. Instead, we had a four inch high aluminum shoe built (see below) and welded onto the bottom of the mast, cutting a hole in the bottom for wires and the two necessary grooves to fit onto the stainless steel plate. This was previously detailed in a VODCA newsletter



As a preventative measure, douse the foot of the mast frequently with fresh water.

MAST SUPPORTS (Interior)

We experienced a degree of flexing in the main beam, especially when beating, meaning it could become difficult to fully open the head door, but the problem is now no more serious than when we left. As a precautionary measure, we carry a precut beam ready to jam vertically under the mast, but you should note that you need to support this on another precut cross beam and not directly on the false floor molding, which will not take any great load. By inserting a cross beam, you transfer the load to the hull.

The mast load is designed to be transmitted to the hull via the two vertical posts and the bulkhead itself. Our load is indeed traveling this route, but after four years we now have a faintly visible ridge on the outside of the hull, coinciding with where the bulkhead is glassed in. I can't think of any remedy to this, for it does indicate that the stresses are going where they are supposed to be going.

RATLINES

Ratlines tied at 15" intervals between the upper and lower shrouds on either side allow the crew to climb and keep a good lookout in coral waters; they are also very useful for laundry.

LIFELINES

High lifelines, running from the pulpit up to a chest-height ratline and down again to the stern pulpit add a little extra security at sea (though you shouldn't be attaching your harnesses to the lifelines). We laced in the lifelines forward of the mast, which makes it more difficult for sails and parts of sails to disappear overboard.

JACKLINES & PAD-EYES

We ran a pair of plastic-covered stainless jacklines at deck level from either side of the coach-house at deck level. Each end was secured to a heavy s/s pad eye with aluminum backing plates. When on deck you should always clip on your tether - either around the jackline if you intend to be moving about, or straight to the pad-eye. We also installed two pad-eyes in the cockpit, one close to the normal steering position and one at the back of the cockpit, allowing access to the windvane. We made it a rule offshore, always to wear tethers at night, in rough weather, or when the other person was asleep. Your tether should be 5' long with stainless steel climbing type snap-links that can easily be undone, but which cannot accidentally undo when pulled the wrong way against a pad eye. (Climbing ones are usually made of aluminum.) It is easy to make your harness out of seat-belt or climbing tape but be sure that the arrangement is such that it can't tighten up on your ribs under load. When changing jibs at sea, always go up to the bow through the forward hatch - never around the side of the cabin trunk.

WINDOWS

There is a risk of the main windows popping out under the impact of a heavy sea (though we never actually took one that would have caused such damage. . . .) I cut one-inch wide, half inch thick strips of plywood to run above and below each window, then had two appropriately sized pieces of Lexan cut. (Lexan is virtually unbreakable, but quite expensive, and, after four years in the tropics, ours has lost its sheen and makes the interior of the cabin a little darker). We then through-bolted, through the Lexan, wood and fiberglass, leaving the front and back open. The result: permanent storm-shutters. I don't believe in temporary ones being kept in a cockpit locker, as it would usually be too late when one got around to getting them out.

SAILS



We bought new sails from J.R. Williams (The Hamble, U.K.). For headsails we carried a drifter, Genoa, No. 1 jib, No. 2 jib, and a storm jib, using the dimensions recommended in the Vega-owner's handbook. In addition, after 10,000 miles, we had what we call a 'cyclone jib' made, *about half the size of the recommended storm jib* - in addition we have found the recommended sail areas for given wind conditions to be rather too large. Of the headsails, we never used the drifter, and only rarely the genoa. The No. 1 and 2 jibs were our workhorses, with the two storm jibs as vital standbys. The larger storm jib was in day-glow orange - hideous, but probably a good idea.

For each sail you need a wire strop of a different length - in order to get the sail as high off the foredeck as possible. This has three purposes: to improve visibility, to lessen chafe on the bow pulpit, and to ensure the sail will not scoop up water in heavy seas. We flew our storm jib about 6' off the deck - just high enough to reach. You may find that closehauled you need to lead the sheets inside the upper shroud.

Because we were hoisting sails higher than they were meant to go, we were getting wire halyards on the mast winch. This can be remedied by installing a cheek-block on the mast about three feet below the winch and leading the halyards through it then back up to the winch.

For the main, we left the roller-reefing as it was, but added jiffy/slab reefing, which does not jam up and which allows you to keep a better shape in the sail. We installed three rows of reef points, then later added a fourth - it sounds like a lot, but we found that we were almost always sailing with at least one reef point in and, if we went again, I'd have the main cut smaller than the recommended size. The fourth reef point effectively serves as a storm trisail, and we used it two or three times.

General principles - do everything you can, at all times, to minimise sail chafe, especially at the points where reefs are tied in and where, running, the sail touches the aft lower shroud.

- We checked our sails before every passage and thus never had to do more than an hour or so of stitching.
- Cable-covers and/or baggywrinkles on the lower aft shrouds help minimise chafing.
- Using a windvane means you must make every effort to balance the boat, which usually means reducing the area of the main and increasing that of the jib.
- In the tropics you should always cover the main as soon as you get in. Ditto with the jib (As a safety precaution, we always kept the No. 2 jib hanked onto the forestay ready for a hasty exit, under sail, in strong winds) but bagged.

ARRANGEMENTS FOR RUNNING DOWNWIND

Our usual running-rig in Trade winds of 15-20 knots was a poled out No. 2 jib, and guyed out main with two reefs. A whisker pole is vital; we stowed ours on deck, with the 'hook' end through a rope loop at the aft base of the bow pulpit, the spring-loaded end clipped into one of the shroud attachments. A short piece of lanyard running from the pole's inboard end to one of the forward grabrails is a useful precaution against losing the pole overboard when wrestling with it in rough weather. Depending on the length of your pole, you may be able to gybe, with certain sails, just by dipping it and pulling it across to the other side; otherwise you will probably need to drop the sail

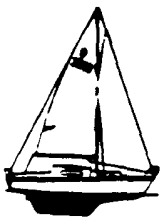
two or three feet.

For safer, long-term running, you may want a mainsheet longer than the standard one. This would allow you to let the main out to the point at which the upper half of the sail is touching the aft lower shroud. You will certainly want a preventer guy: we ran ours from the end of the boom (attached with a snap-link) forward to permanently installed blocks lashed to the foot of the first stanchion back from the bow, then back to the aft-most of the two winch cleats. When gybing you still need to go forward and rethread the preventer through the block on the appropriate side.

Provided you have reefed down enough, we have found a run in the Tradewinds is the Vega's best point of sail. By easing the pole and sheeting in the main, you can actually 'run' as far upwind as about 135 degrees of apparent wind before you need to put the jib over and go into a broad reach (best with the No. 2 jib).

Boat speed? I have heard of Vegas doing 7 or 8 knots consistently, but we rarely allow Tarka over five knots, and consider four and a half as our ideal speed. If you start doing six or seven knots, you begin to strain things and, in particular, make your vane do a lot of work. Offshore, we feel conservatism must be your watchword. Its amazing how, in the end, the vast majority of boats all end up doing approximately the same daily runs (close to 100 miles). our longer runs were as follows:

Vancouver Island to San Francisco:	790 miles	10 days
Mexico to Marquesas:	2737 miles	25 days
Marquesas to Tahiti:	797 miles	9 days
Bora Bora to Suvarov:	701 miles	7 day
Fiji to Brisbane:	1512 miles	15 days
Gove to Xmas Island:	1937 miles	16 days
Cocos to Rodrigues:	2010 miles	18 days
Reunion to Durban:	1527 miles.	15 days
Saldanha to St. Helena:	1687 miles	20 days
St. Helena to Ascension:	713 miles	7 days
Ascension to Fernando de Noronha:	1099 miles	10 days
Fortaleza to Tobago:	1665 miles	14 days
Monserrat to Colon:	1163 miles	10 days
Panama to Acapulco:	1265 miles	25 days
Acapulco to Isla Clarion:	868 miles	15 days
Clarion to Hawaii:	2285 miles	22 days
Hawaii to British Columbia:	2598 miles	28 days.



Our longest day's run was in the South Pacific - 147 miles, the shortest, 0 (yes 0!) in the South Atlantic. Fastest sailing was inside Australia's Great Barrier Reef where, one day, with no special assistance from the current, we did 62 miles in 10 hours; slowest was off Central America where,

for several days running, we did only ten or fifteen miles (under engine).

MASTHEAD INSTRUMENTS



Apart from the trilight, all we had up the mast was a Windex (wind direction indicator) which I found quite invaluable. Hailstones necessitated a repair (with a section of an old Coke can. . .) to one of the trailing 'tails'. One must ensure that Boobies are dissuaded from landing on it.

DODGER

Vital. We got a new one from Stanton Marine Services (U.K.) which was fine but expensive. Provided you have the old one, you should be able to copy it yourself. The clear plastic deteriorates fast in the tropics (about one year if you do nothing to protect it) but Armor-All seems to extend it's life considerably. A solid frame would be most desirable.

WEATHER CLOTHS

Also very desirable, and available from John Stanton, but easy enough to make your own. These stop a great deal of slop from finding its way into the cockpit.

COMPASS COVER

Prolonged exposure to the tropical sun can cause algae to grow inside your compass (yes, this really happened to us), causing it to jam. We incorporated press-studs into the bulkhead-mounted compass, then made a simple square cover of cloth with four matching studs. We just let it hang down by the two lower studs when we are sailing. We also incorporated a little pocket in the square for a baby flashlight. It is extremely useful to have a compass light.

COMPANIONWAY COVER

In yacht acrylic, attached to the companionway frame by press-studs, we made a zip-up cover to the companionway, with the zip arranged like a capital L. This keeps the rain out and all but the heaviest seas - we never found it necessary to put our boards in.

COCKPIT LOCKER LIDS & FLOOR HATCH

Without good gaskets, water will get inside all of these compartments. We never really solved this one. Our original gaskets perished and we haven't been able to find satisfactory replacements. The COCKPIT FLOOR GASKET is rather more important: just hosing the boat down, a lot of water can get in here. Eventually we went to hand-cut 'Ensolite' closed cell foam, which is OK. The heat in the tropics seems to make most gaskets not stick very well.

LIFERAFT

If you decide to get a liferaft (and they cost upwards of \$1200 U.S.) then you have two decisions: to have it in a valise or in a canister, and where to put it. The manufacturers say the valise is better because you're less likely to abrade the raft when packing is done and, because a valise-packed raft

is most likely to be kept below decks or in a locker, it will last longer. We originally had a four-man Avon in a valise but had it repacked in a canister because I realised what a struggle it would be, in an emergency, to get it up into the cockpit. For a liferaft to remain accessible on a Vega, you must have it outside.

The traditional place to store one is on the coachroof, but it seemed to me that it wasn't a good idea to have all that weight and windage up there and anyway you don't want to be climbing around up there in probably horrific conditions. That leaves the cockpit. We stowed ours on top of the lazarette hatch, with strips of wood bolted to the fiberglass on either side to prevent side-to-side slippage. In order to prevent forward and upward motion (remember, you might have rolled the boat just before you decide to abandon it!) we installed two quick-release nylon straps which were attached to pad eyes on the rear decking and behind the mainsheet track. This means that you can't get into the lazarette locker, so in there we kept our emergency five-gallon water canister, which we'd need only when the liferaft had been thrown overboard. You're supposed to have your liferaft serviced every year. Having it done overseas can be a problem; its vital to find a reputable agency. (Anyone that won't let you personally see the raft being test-inflated and repacked is probably not reputable!) Horror stories abound about canisters being repacked with bricks or even old National Geographic magazines, a ruse that won't come to light for at least another year and probably many, many miles later. Even with a canister, it is a good idea to make up a good lift-off cover out of yacht acrylic for the raft.

FLARES

To have a chance of being seen offshore, you need parachute flares, which cost about \$40. each. So, hoard all the flares you can, beg expired ones off your friends (they may not be legal, but they'll probably work) and, when you have your liferaft serviced, ask the agency if they can let you have (free) any shortly-to-expire flares that they may have taken out of freighters' and passenger ships' rafts. I didn't have much experience with flares but when we tried to fire off a SIGMA SKYBLAZER (small flares, widely available in orange packs of six) in celebration of our circumnavigation, (after taking all sorts of precautions to ensure our flare would not be mistaken for a distress signal) we got no response from any of the TWELVE we tried. The firing chain simply pulled out. A Pains-Wessex 'pencil-fired' flare worked the first time.

BILGE PUMPS

A backup for the regular bilge pump is desirable, and whilst you're installing it, you might as well put it where, if need be, you could pump from inside the cabin - i.e. on the starboards wall of the cockpit well, close to the instrument panel. We installed a Henderson Mark V, stuffing its' intake down where the ordinary intake goes, and leading the outlet astern, inside the cockpit locker to a Y-junction in the starboard cockpit drain pipe.

WINDVANE

Volumes could and have been written on the subject of windvanes. We installed a NAVIK (made by Plastimo in France). This light, is of a relatively simple design and powerful. Basically, we were pleased with it - we could hardly have been otherwise. It steered alone on all our major passages except one. However, a vane has its limitations; it will not tolerate the amounts of weather or lee

helm that a human will and it will not keep you on a dead run with as much as a sail up as you might have if you were handsteering. It takes many hundreds of miles before you begin to learn how to get the best out of your vane, but this vane never needs feeding, never complains, and never gets tired. . . .!

Weak points to look for on the NAVIK:

- I have seen five or six NAVIKS on which the white paddle cracked horizontally, about one-third of the way down. Anticipate this by putting on a preventative 'bandage' of three or four layers of fiberglass for two or three inches on either side of the rectangular hole in the paddle.
- The jointed connector from the turret assembly to the paddle assembly likes to work its way off the paddle assembly at inconvenient times. You can restrain it with wire or twine.
- A crucial weld on our vane failed where the large tube on the paddle assembly meets the white paddle itself. To remedy this, you need a new white paddle with trim tab, an appropriately sized piece of stainless steel (ss) tubing and welding gear for ss, all or some of which may not be available to you at the moment of crisis.

For spares, take several jointed connectors, a supply of the appropriate teflon washers, and (for when all else fails), a supply of surgical tubing which, you will find, is the one vital ingredient in all home-made self-steering devices.

LOG

Our 'Walker' trailing log has been excellent, and we long since ditched our unreliable, power-consuming electronic log which was anyway always being fouled by weeds. In four years we have lost three spinners to sharks, two of them on successive days. Oil the log as suggested and check regularly for weak points in the line. If you can find reverse-wound wire leader, that might eliminate the shark problem. (Wire which is conventionally wound soon kinks irretrievably.) You can actually do without a log quite easily. Offshore you soon learn to estimate your speed quite accurately, and anyway, the log does not take currents into count.

MAN - OVERBOARD GEAR



Most of your safety precautions and energy should be aimed at never falling overboard in the first place. Being offshore with only two of you on board, the chances of one finding the other, even in moderate conditions, are mighty slim indeed. However, we have a lifering tied to a MOB pole with 30 ' of floating yellow line and a battery powered light which goes on when floating. The lifering has a self-deploying drogue with a whistle tied to it. The whole assembly is attached with a quick-release lashing to the stern pulpit. The flag on the MOB pole has a restraining sock over it. This is attached with a light line to the backstay so that it will pull off when the pole is deployed. Even supposing you locate your crew, you then face the formidable task of getting him/her back on board in a possibly comatose or helpless state. We have a home-made four rung rope ladder (doubling as a swimming ladder) attached to the base of the stanchion closest to the sheet winch, but this assumes the victim is able to pull him/herself out of the water. For a more serious situation, we have a 4x1 block & tackle system with a snap-link to be attached to

the end of the boom. The victim's end has a rope strop of sufficient length to go around the victim's chest & back and then back to the block with another snap-link. The two blocks and their line, etc should be carefully stowed so that when used, they are about six feet apart. *

In an emergency, the topping lift should be rapidly put on and the boom raised a little. The end of the tackle with the single snaplink is attached to the end of the boom whilst, at the other end of the tackle, the strop is attached either to the victims harness or around his/her chest and then back to the outboard block. Using the block & tackle for vertical hauling and the mainsheet to keep the victim close to the boat, you should then be able to haul him/her aboard. Needless to say, you should practice this system in calm and warm water. The following advertisement is of a commercial system of the type described.

HOW LIFESLING WORKS



1. Stop boat immediately. Maintain Visual Contact. Deploy Lifesling.



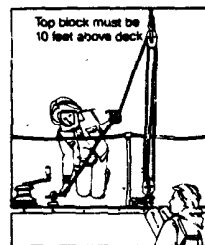
2. Circle M.O.B. until contact is made.



3. Stop boat immediately. Drop Sails. M.O.B. puts Lifesling on. Do not tow victim.



4. Pull M.O.B. slowly alongside boat.



5. Rig hoisting tackle. Top block must be 10' above deck.



6. Hoist M.O.B. aboard.

GOING UP THE MAST

For routine inspections of the upper rigging, we have a homemade rope ladder which we haul up on the jib halyard. But you wouldn't want to go up this at sea (actually you wouldn't want to be going up there at all, but you should be prepared . . .) So, you need either mast steps which we didn't have but which we would next time) or the means of hauling someone up. THE VEGA'S MAST WINCH IS OUT OF THE QUESTION, being far too small, so we made our 4 by 1 man-overboard block & tackle double up as a means of pulling someone up. You will need five times the height of the mast for this - say 150 ft. A Bosun's chair is easily fabricated from line and a piece of planking.

LIFE JACKETS

We use ordinary lifejackets, but with a rigging knife, whistle and personal strob light attached to each jacket. We make it a rule to always wear them in rough weather and always at night no matter how calm it may be.

EPIRB

An Emergency Position Indicating Radio Beacon sits in its' holder on the bulkhead at the aft end of the starboard bunk. I have some doubts over how useful this would be, as it is apparently pure chance whether or not satellites pick up its' message. The latest design of EPIRBs, the Class C, sounds a much better bet: it is targeted specifically at satellites, unlike the older versions.

RADIOS

For transmitting we have only a VHF. Obviously, this is of limited use offshore, but we do use it to warn approaching ships of our presence. In some of the more popular cruising locations (e.g. in Mexico) there are daily 'nets' on the VHF. We also have a compact Sony all-band receiver (#7600D) which is single sideband capable; this means, if we so desire, we can tune into ham nets, which often carry weather information. The VHF is permanently protected by a loose clear bag.

DEPTHSOUNDER

Useful when approaching an unfamiliar coast at night or in fog; also for assessing amount of anchor rode necessary. Ours is powered by its' own dry cell.

LIGHTING

By removing the bulb from one of the two principal cabin lights you can make a considerable dent in your own power consumption. Principally we use a gimbaled brass kerosene light, mounted on the forward bulkhead of the starboard bunk. You need to take a couple of spare glass chimneys.

BATTERIES

If you keep them in the bilge, you must be very careful not to let them get covered by water - once, in rough seas, we failed to notice that the un-taped hawse pipe cover had flipped off and we were taking water into the bilge. This soon resulted in the loss of the batteries. The handcranking feature on the engine suddenly became very useful. We also screwed a little wooden slat in place, across the aperture where you insert the batteries (under the cockpit sole). In the event of turning turtle you don't have to worry about your batteries falling out and making a hole in the roof or hurting someone. You could also be burned by the battery acid.

STOVE

Most offshore cruising boats use propane; its dangers are well-known. But you should be aware that the fittings used in the US and Canada are not of the same dimensions as, for example, those used in the French possessions. Thus, refilling bottles can be a problem. We used a two burner kerosene stove with primus type burners and had no serious problems with it. Kerosene is universally available (but of variable quality, notably in Mexico) and is very cheap. Priming the stove in rough seas can be a problem: the answer is in a specially designed clamp on wick, which may take some finding and which we got from Thomas Foulkes Ltd (London).

WATER TANKS

Offshore, calculate on using half a gallon per person per day. This means that with a crew of two, you have only fourteen days supply in the main tank. We installed flexible tanks by Plastimo under both bunks (capacity of 12 to 18 gallons each) but had repeated problems with poorly manufactured inner plastic bags. The simplest solution is to have a series of good five-gallon jerry jugs stowed in various locations. As a rule of thumb, we carried water for twice as long as we thought we would be at sea. This paid off when, three days out of Hawaii and with over 2000 miles to go to BC, we found the main tank had drained out into the bilge, via a very slowly leaking water pump. The Whale gushers are good but you will need to take spares and master the art of taking them apart from time to time. For treating suspect water, small quantities of bleach will do the trick.

THE ENGINE

Ah . . . the engine. Sixteen years old - our old VOLVO MD6A is still more or less working, so it can't be all bad. Main problems were/are as follows:

- Slow and difficult to start. Having the fuel below the engine and no electric fuel pump seems to encourage the fuel, if there is the slightest air leak in the system to back down out of the injector feed pipes. Usually I find it sufficient to flip up the decompression lever, unscrew one of the injector pipes where it meets the engine on top, and crank the engine until a steady pulse of fuel is coming out. If this fails, obviously you need to check back, probably redoing filter installation first of all.
- Overheating: Soaking or boiling the thermostat in vinegar can be helpful, as can slightly enlarging the two small holes in the outer disc of the thermostat. Then check the impeller - you need to take it out to see if there are any cracks in the fan 'blades'. If all else fails, the tubes in your exhaust manifold are possibly clogged up and need cleaning out, but don't take the manifold off unless you have a spare gasket at hand.
- Two failures in four years of alternator regulators (symptoms: either a total failure to charge the batteries, or the opposite, leading to rapid boiling-off of the electrolyte). Buy a spare regulator or two before you leave and, if it is the type clamped on the back of the alternator, rewire it so it can sit in the more friendly environment of the electrical compartment.

It is a good idea to use the decompression lever for starting and, in general do your best to conserve electrical power as you never know when you might need the engine in an emergency. With only the cabin lights, Nav lights and VHF to drain the batteries, we found no need for additional means of battery charging. It would, however, be easy to hook in solar panels (better than wind generators, which seem to need at least 15 knots to produce anything).

Maintenance: Change the oil when recommended i.e. at 50 hours. We changed the oil filter at 100, visually checked the CAV glass bowl filter for water at 50 and changed it at 100, the fuel filter on the engine at 150. It is difficult overseas to get appropriate grease for the reversing mechanism, so you should take a supply with you. Engine spares should include an injector, a spare thermostat, a pair of O-rings for the impeller shaft, impellers, the various filters (though local versions are nearly always available), oil (not always easy to get the right grade), one each of the big gaskets, an appropriate variety of hoseclamps and hose, and perhaps fuel and water pump rebuild kits. Also, anything relevant to your own engine's idiosyncrasies.

NAVIGATION

Largely a matter of personal preference. We used only a sextant, albeit a good one (Freiberger, Yachtman's three-quarter size), and the HO 249 tables, with no special calculator. Over 90 percent of cruising yachts now have Satnavs; however, in our view, their main snags are that they are a power drain and that if they fail you can't fix them. It is a fact of life that if you take a sextant as a backup to a Satnav (as you should) you simply will not keep your celestial skills (if you have already boned up on them) up to scratch. . . .

So, is a sextant sufficient? As long as you are prepared to maintain full night watches, never enter a harbour or close land at night (unless overriding safety considerations dictate that you must), then you will be fine. Don't worry too much about not seeing the sun or listening to people's stories about



not seeing the sun for three weeks. If you're looking hard enough, all day, you'll have sufficient of a glimpse to get a line of position during the day. We've occasionally taken shots of the moon, once or twice of the stars, as confirmation of positions obtained from the sun. Its not usually necessary to do the stars (which is a slightly more complicated process). Nor do you need to be a math whiz: I have zero mathematical ability but can now compute a sun-sight, using no calculator, in 3 or 4 minutes, 'cookbook' fashion.

CHARTS

We keep our charts in plastic tubes or in large garbage bags under the bunk mattresses. Charts represent a large financial investment and we tried to send packages of them home whenever we could to reduce the risk of losing them to mildew, etc. (the same applies to books - you must constantly be thinking about keeping the Vega as light as possible.)

HEAD

We left the head installed but filled in the compartment with removable shelving. The conventional head would be unusable in a rough seaway - a bucket is altogether more practical and sanitary. Keep the bucket permanently tied on.

SLEEPING

With only two persons on board (and I think a Vega would be excessively cramped with more) you don't need restraining weather cloths to keep you in your bunk. Only one of you will be asleep at sea at any given time, so just sleep in the downhill bunk.

INSULATION

Not that you need any in the tropics, but the foam-backed vinyl with which the boat is lined seems to have a positive aversion to heat and soon starts peeling off messily and irretrievably. A problem that we now are facing up to, back here in B.C.

THE BOTTOM

The growth of barnacles and weeds is very fast in warm waters, but fortunately the Vega is small enough for me to be able to go in and scrub her bottom at frequent intervals without needing diving bottles. A wetsuit is still a good idea for, say, Californian waters. We have only hauled twice in four years and found that we did really not need to haul the boat the second time. We used a rubber-type bottom paint by International (but be aware that many types of paints are not available in certain countries, and that the numbering and naming systems of large enterprises like International also seem to vary with each country - as does the quality of their paint).

In the trailing edge of the rudder we drilled a quarter inch hole, through which we would be able to thread a steering line in the event of rudder stock failure.



Remember to paint your waterline high enough for your anticipated increased draught, and it's also a good idea to flare the waterline up at the bow and stern. As mentioned above, be weight conscious all the time; the Vega is a light boat and much of her seaworthiness resides in her lightness.

DINGHY

Given the lack of stowage space on deck, an inflatable is your only option. We had an 8 ft Achilles with no engine (more weight, more mechanical problems, more fuel . . .) and were well pleased with it. At sea we kept it in its' bag on the Vee berth. Frequent doses of Armor-All helps to keep it in good shape. Other popular brands amongst the cruising fraternity are Avon and, to a lesser extent, Zodiac. This latter one seems to have been having bonding problems, judging by the lineups we saw at Zodiac agents all around the world.

EMERGENCY BUCKET

Not a second head, but a large, sealable white bucket, with a lifejacket tied around it, which we could grab in the event of abandoning ship. We keep it in the deck level alcove amidships, forward of the head, jammed in place with a piece of a wooden slat. Contents are as follows:

- Assorted tins of fruit, condensed milk, Spam, Granola and oatmeal bars.
- Assorted flares, including one parachute flare There are more in the liferaft and more still in our port aft cabin locker, behind the bunk.
- Signaling mirror
- Whistle, Matches
- 'Space' blanket, bailing sponge
- Fishing gear including large gaff hook
- Flashlight and separate batteries
- Pilot chart of the ocean being sailed, pencil & paper, pocket compass
- Heavy ss rigging knife (on top of everything else - to cut the raft free if necessary.)
- First aid kit
- Small water supply, can opener, cup, spoons.



Occasionally we verbally rehearse an abandon ship drill - Devise your own routine to ensure that the most valuable items come with you in the raft and that you don't waste valuable seconds thinking out priorities and deciding who'll do what. Other items we would need to grab are, in order: extra water, the EPIRB, a small ready prepared bundle of passports, US cash and credit cards, more flares,

and then if time, extra food, the sextant, more water, etc.



DANGERS

What are the main dangers in offshore sailing? In our purely personal opinion, provided you're not sailing in extreme climates and avoiding cyclone seasons, the main danger is not the weather at all, but the risk of collision with a merchant ship. After that I'd put man overboard, followed by losing the boat through navigational errors or slackness. Weather comes fairly low down on the list, and most boats that get into trouble with the weather offshore seem to do so because they had not heeded a weather forecast, were sailing in the wrong area at the wrong time or were simply in too much of a hurry. Sailing a tight schedule is a fatal error. We didn't throw much heavy weather at 'Tarka'.

Basically, we sailed around the world via the Cape of Good Hope and never had consistent winds of over 35 knots - even then ours were in the right direction.

I do think the Vega basically, can handle most situations as long as the crew can!

INVENTORY AND LOCATION LIST

We kept a spiral-ring notebook in which we recorded where spares and so on were located. One needs to keep this from Day One for it to be useful. Keep it up to date as you use or move things. It is surprisingly easy to lose track of what you actually have.

For each major provisioning, one of us would stow items while the other wrote down where the various items were being stored. To note down what you use each day is a very useful exercise on a passage. At the end of the passage, draw up a list of what you consumed. This may be quite different from what you had planned to consume and can be useful on future passages in estimating quantities of food to be purchased, etc.

We recorded the charts we owned on a large British Admiralty Catalogue. Even when your charts are not all B.A., you can indicate on the many (reference) maps in the catalogue what charts you own. As we entered each new geographical area (e.g. the Mexican coast, the Great Barrier Reef, etc.) we would get out the relevant charts, order them and number them on the outside so that we could clearly see what they were without having to unroll them half way. The ten or twelve relevant charts would then be kept in a plastic chart tube, more accessible than the bulk of them, which remained under the bunks. Clear plastic chart slickers are a good idea.

LOG BOOKS

We used a set of thick hard-covered exercise books which we kept in a plastic bag. We made the log more of a diary than a traditional ship's log - sticking in postcards, clearance papers, stamps, bus tickets and so on. However, on a passage we were meticulous about reporting our daily position, mileage run and so on.

For keeping a track of our Dead Reckoning either on a passage or coastally, we used a white plastic board and erasable felt pens, with the following columns:

Time Mag. Course Log Reading Miles Covered Notes

Thus, the entries after a night at sea might read:

<u>Time</u>	<u>Mag. Course</u>	<u>Log Reading</u>	<u>Miles Covered</u>	<u>Notes</u>
1930	275°	32.1	12	
2230	282°	46.4	14.3	
0130	278°	57.4	11	
0430	280°	70.8	12.6	saw ship 0110
0730	285°	82.5	11.7°	

(Figures in the Mag Course column refer to the course steered over the preceding three hours.)

Water soluble pens can also be used in conjunction with a piece of clear plastic sheeting, paperclipped to a pilot chart, to plot the weather system from the coordinates read out over the radio.

MONEY

We carried a cash float of about \$1000 U.S. dollars for emergencies and miscellaneous costs. *The dollar is recognized everywhere.* American Express Cheques in U.S. dollars are the most convertible kind of cheques. It is also useful to have an American Express (AmEx) card so that you can use worldwide AmEx offices for mail pickups.



For most purposes, we used a Gold Mastercard, and took our cash advances on it. As long as you keep topping up your account, this is a cheap and excellent system. Even the remotest islands now recognize the major credit cards.

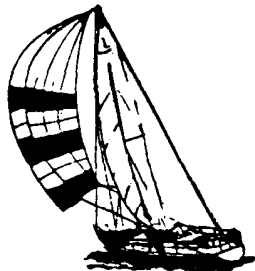
Phone calls : It is often cheapest to call collect, especially from Mexico, where local taxes are prohibitive.

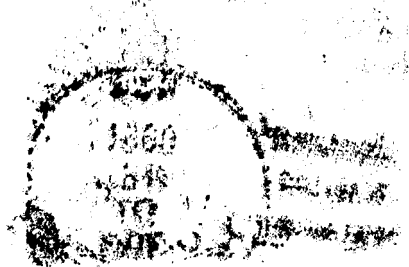
HOW MUCH DID FOUR YEARS & 36,000 MILES COST US?

Almost exactly *ten thousand (\$10,000.) Canadian dollars per annum*, after fitting out. This figure is all-inclusive for two people, taking in everything from haulouts, telephone calls and car rentals to photographic film.

Nick + Jenny

Nick & Jenny Coghlan
 "TARKA THE OTTER" Vega #1639

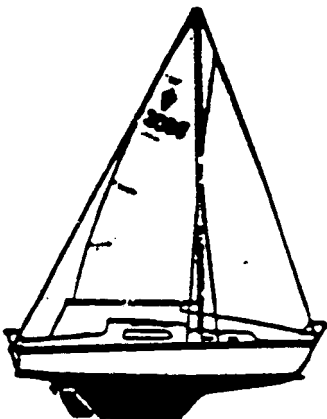




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