

## THE CRUISING LIFE

While Steve enjoys the mechanical aspects of fitting out and putting to sea, as well as the passing, per se, in the days when I had small children they and school were my focus. These days I take a more active part in running the boat. However, we both have always been attracted to the cruising *lifestyle*.

Just as we learned about windvanes, refrigeration, and sail inventories as we voyaged, we also came to understand that there were many wonderful aspects to the cruising life that we had never imagined from the confines of our suburban existence. Our pre-departure fears, and those of our cruising friends, usually turned out to be groundless, and the joys more intense than what we had experienced in years of shoreside living.

### GETTING ALONG LOCALLY

Fatu Hiva in the Marquesas Islands provides our first lesson in fish diplomacy. We haven't been paying much attention to the "meat line" and are astounded to find a 5-foot (1.5m) wahoo on the hook as we pull it in prior to entering the anchorage.

Steve and I love to eat fish, but we always argue over whose turn it is to clean them. He, being captain, suggests that Sarah, Elyse, and I row ashore and clean it on the beach while he secures *Intermezzo* after our passage.

Lowered over the side with the mizzen staysail halyard, our finny friend barely fits into the dinghy. The girls and I set off to our task. We can't help but be impressed by this pristine anchorage. We should have been prepared for the grandeur of the setting, having read Thor Heyerdahl's *Fatu Hiva*, but even he didn't do it justice. The Marquesas are new islands geologically, and the soaring mountain peaks are jagged and rough. Time hasn't yet softened the lines of these magnificent islands. Lush, tropical growth covers the mountains surrounding us. They plunge right to water's edge on both sides of the anchorage, and we listen to the mountain sheep call to one another from on high. Once ashore after struggling to get the fish out of the dinghy, we attack our catch.

Some of the men from the village have gathered near the shore's edge for a late afternoon chat. Our arrival and obvious amateur efforts with the fish provide them with entertainment. They watch our slow progress with amusement. Finally one of them comes over and in excellent English asks if I could use some help. Oh boy, could I! I gladly hand him the knife and in no time at all he expertly fillets our monster catch. We keep a couple of large pieces and distribute the rest to our new friends in the village.



The deal with fish on our boats is that the ladies clean the little ones and the gentlemen clean the larger variety. I leave it to you, gentle reader, to decide if that is a little or a big fish. From my perspective, it's huge, but Steve feels it is a mere minnow and so obviously in need of my ministrations.

He introduces himself as John and invites us to stop by his house when we come ashore the next day.

This one fish (a treat for the villagers, who seldom go out to the deep-water fishing grounds of pelagic fish) made friends for us with each family that ate a share of the bounty.

We stop by the following day, but John isn't home yet. So we follow a foot path that in turn follows a stream into the high country beyond the village. A woman introduces herself as Felicity and calls us over to present us with a large bag of fruit. At first we are puzzled at this generosity, and then realize

that her husband was one of the recipients of the fish the night before. Thanking her, we return to the village and find John has just returned from a banana-gathering expedition high in the mountains. He's tired and so is his horse. He walked for two hours up, and two back down, leading the banana-laden beast. He's drying the fruit on racks near the beach and sells it to the copra boats, who in turn sell it in Tahiti. Fatu Hiva grows more fruit than any of the other Marquesan Islands.

We're delighted to meet his wife, Marie Delores, and their two-year-old son, Nicole. Marie Delores is pounding *tapa*, which she will later paint with a traditional design. John's 16-year-old sister, Marie Madelain, is cooking a big meal for the traveling Catholic priest who is visiting the island. I am impressed by the spacious, cool kitchen. It's a separate building from the main house, which makes very good sense in this climate. The worktable legs are set in tins of kerosene to keep the ants off. She cooks on a kerosene fire, and John's mother offers us some delicious donut-like pastries called *phoo-phoos*. The kitchen is spotless, and the cat curled up in a sunny window adds a cozy touch.

The family comes out to the boat for a dinner later in the week, and Elyse and Sarah make bead bracelets for Felicity's children.

### Polynesian Picnic

On the weekend we're invited to a picnic. *Intermezzo* and two other yachts are to be the transportation, and as many as can squeeze aboard join us for a sail up the coast to a lovely deserted beach. The guitars and ukuleles receive a workout on the sail over, and the islanders good-naturedly present me with a *pareau* to tie around my waist, and try to get me to do the *tamare*. I give it a go and provide a good laugh for the crew. Properly done, it's a rhythmical, beautiful dance, but I'm convinced that the women there must be born with double-jointed hips to achieve the required movements.

Once anchored, our dinghy ferries guitars, ukuleles, mysterious packets done up in banana leaves, and laughing, exuberant bodies through the surf. Ashore, our new friends set to their various tasks. They split into groups: some prepare fires on the beach (for cooking and for smoking out the invisible "no-no" bugs) while others are weaving grass mats, diving for fish, catching crabs, and spearing octopus. With the catch coming ashore from the divers, the women begin preparing the fish in a variety of ways, while some of the men beat the octopus on the rocks in a tenderizing process prior to stewing them. They fix *poisson cru* (fish marinated in lime juice, coconut milk, and garlic), baked fish, and prepare breadfruit in several different ways. The breadfruit is the traditional mainstay of these islanders' diets, and they've learned to fix them by mashing, baking, frying, stewing, and even drying. The crabs are cooked whole over the fire, while someone produces a lobster salad and a large, homemade banana cake. The food is beautifully presented on banana leaves down the center of the newly woven grass mats, with fresh finger bananas, oranges, and *pamplemousse*. Except for the cake, the entire meal is prepared on the spot with ingredients gathered locally.

With an afternoon of singing and dancing behind us, *Intermezzo* makes her way back toward the village, our fishing lure trailing astern.

### Fruits Bring Friends

It's not the fish that brings our next set of friends, but the fruit we carry with us from Fatu Hiva. We set spinnaker and mizzen staysail for the first day of a very pleasant sail towards the Tuamotus.

We're nervous about our approach to these low-lying atolls. Even though we've planned our



Drinks and finger food are always readily at hand in the tropics.

passage for the full moon, there are still plenty of navigational risks. But the full moon provides good visibility for the watch and allows Steve to get continuous lines of position from moon, stars, and planets throughout most of the night. We try not to be lulled into a false sense of security under the velvety night skies with their shooting stars. The radar will be of help, too, in spotting the islands.

The Tuamotus, with their coral-ringed lagoons and low-lying land, are a geological contrast to the Marquesas Islands. We're excited to spot Takaroa early the morning of our third day at sea, but are hesitant to make our first passage through the coral pass. Steve has estimated slack water with the formula in the Admiralty Pilot book, and we tack back and forth outside the pass waiting for the noontime slot he figures is best. He surveys the situation from the spreaders; I'm at the wheel.

We've almost got our courage up to go for it, when a crowd of Tuamotan men power out in a metal outboard and climb aboard. Henry, the obvious leader, takes the wheel and expertly pilots us into the pass, where we tie up at the copra wharf. He takes us to his home, where we sign the Takaroa Yacht Club book, with entries of boats having been recorded as far back as 1964. We meet Louise, his wife, who is bathing the latest of their 10 babies. We prefer anchoring inside the lagoon to tying up to the wharf, but invite Henry and Louise to come for a visit on the boat that afternoon.

The pass hangs a hard left before finally shooting into the lagoon. Steve's eyes just about pop out of his head as he looks down into the water, which looks very shallow, but in reality is 20 feet (6.1 m) deep. Piloting in this coral is going to take some getting used to.

How glad we are to have brought such a large supply of fresh fruit from Fatu Hiva. The coral soil here will not support fruits and vegetables. The Tuamotan diet is fish, coconut and breadfruit. We're happy to make gifts of the succulent *pamplemousse*, oranges, and bananas among our new-found friends. In return we receive several choice fish from the face of the fringing reef.



Elyse watches while some Takaroan friends catch dinner in these ancient fish traps. The fish are herded from a large pool to a smaller one, then the large entrance is closed off with rocks. The process goes on again until the fish are concentrated in the smallest pool, where they are easily scooped into a pandanus-leaf basket, after which they are smoked over a coconut-husk fire.

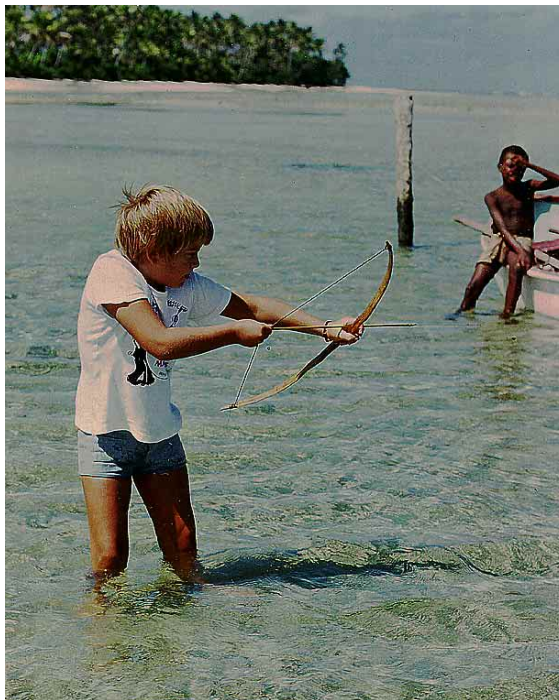


There are all sorts of lessons for kids (and their parents!) to learn when cruising. What better example for the futility and waste of war than this high-powered cannon rusting away in the Solomon Islands.





Henry, Louise, most of their family, Elyse and Sarah at the wharf in Tarkaroa. This was the start of a friendship that has lasted more than 20 years.



It's amazing how effective a bow and arrow can be fishing, especially if you are at the north end of the Banks Islands in Melanesia.

That night, Henry, Louise, their 10 children, one son-in-law, and one grandchild all call on us during dinner, so I cook the fish, bring out olives, pickles, bread, and everything else I can think of to feed our guests. The younger boys stay in the cockpit playing and singing with guitars and ukuleles.

The evening is the beginning of a rewarding three-week stay. Vacation is declared aboard our floating schoolroom, and as long as we stay tied to the wharf, the children are never at a loss for playmates.

Each night after a polite pause, when everyone disappears for dinner, there's a jam session on the wharf. Phillip Piehi, the meteorologist from Papeete, is an extremely talented musician, and so is Me Pouira, or "Charlie." Charlie and Henry are cousins. In contrast to Henry, Charlie and his wife have only

one child, a dark-eyed two-year-old beauty named Stephanie. Every night, right from *Intermezzo's* cockpit, we have wonderful concerts.

### Stay Put in One Spot

These three weeks spent stormbound in Takaroa teach us a valuable lesson. It's much better to spend longer periods of time in one spot than it is to move around a lot. The latter approach allows you to see more territory, but you never have a chance to really get to know the local people. *And it is the people who make cruising such a wonderful and rewarding experience.*

After one final party on the wharf, during which we nearly deplete our supply of popcorn and Hawaiian punch, we tear ourselves away. Papeete is calling with promises of mail, fresh vegetables, and ice cream. All our new friends are at the wharf to bid us goodbye.

"You'll come back?"

"Oh, yes." Someday, for sure. Louise and I wave to each other until I can barely see her on the wharf, tears streaming down both of our faces.





A young woman about to be married in the highlands of Papua New Guinea. Note the wonderful string "billum" slung over the shoulder of the chap to the left. These are great for carrying just about anything. We have billums we purchased 18 years ago, and they are still in use.

### Off the Beaten Path

When you're out cruising, one of the biggest problems is deciding where to visit and which idyllic spots to pass by. There are so many lovely anchorages en route that choices become difficult. Many cruisers fall into the rut of stopping at the major commercial or tourist centers. They hurry through the out-of-the-way anchorages we experienced in the Marquesas and Tuamotus in order to get to the bright lights of Papeete. The outer islands of Fiji are spurned in favor of the shops of Suva. But our experience has been that the farther away from the beaten path you get, the better things look!

Our most interesting example of this cruising maxim came at the bottom end of the Solomon Islands chain. We had made our landfall at Santa Cruz Island, a jungle-covered and very isolated outpost of civilization. It wasn't long before we were hailed by Alice and Len from the Alladyce Lumber Company. They harvest kaukri trees that grow on the steep mountains of Santa Cruz Island. The 350 inches (8.9 m) of annual rainfall, steaming heat, and dense jungle, provide plenty of competition for the workers. Len and Alice are one of two European families living in this part of the world. A young Scottish doctor, his wife, and their three young children are the only other European inhabitants, and they live on the other side of the bay. No road connects the two settlements, and they don't like boats, so they seldom have contact.

The canoe is the main method of transportation in the area, with native workers commuting to work at the lumber yard by water. Every morning and evening a flotilla goes by *Intermezzo*, with some of the men veering off course to detour around us, looking the boat over with interest, just as men would look over a new boat or car anywhere in the world.

Market comes to Santa Cruz in Graciosa Bay in much the same way. Every other Friday, vendors stock their canoes with whatever the garden is yielding at the time, and head for the beach



We met this family in the East Cape area of Papua New Guinea. The Hell's Angels tattoo artists could take some lessons from these folks.

near the saw mill. When work is over and the pay has been dispensed, the beach is alive with a colorful display of people and wares. The narcotic betelnut is the big seller, along with lime powder (made from ground-up coral), and pepper leaves — all necessary ingredients for a good chew. The stained teeth of the majority of men and women attest to its popularity.

Of more interest to me are the ripe pineapples available for 20 cents, string beans for 30 cents a bunch, bush lime at three for 10 cents, and tomatoes for 20 cents.

Bare-breasted women arrive, balancing rings of coconuts, taro, and pans on their heads. Sarah remarks that they are so good at balancing, they should be tightrope walkers at the circus. I reply, “Yes, if they walk on their heads.”

## Trading

The next day we learn a major lesson in trading at Graciosa Bay, when a young man comes by in his canoe. I'm cleaning below, and Steve is busily rigging our rain-catching awning, with an eye to the sky and its imminent downpour. He has something to show us; Steve takes a quick look and tells him we're busy: “Can you please come back a little later?” The boy hangs around for a while, then leaves. Ten minutes later Steve comes below and asks me if there's anything special about an orange-colored cowry shell. The elusive golden cowry! We've ignorantly turned down the chance to trade for one of the world's rarest sea-shells. Of course, the young man never returns.



This young man is trying to sell us a “bride price” of shell money. He was a tough bargainer and would not accept clothing or knick knacks. He would settle for nothing less than cash.





Always ready to make a deal, Carol Marriot negotiates for a shell necklace on the island of Malaita in the Solomons.



Bernie Gibbs interprets pidgin English for me. I think the locals are as amused at the scene as Linda and Bernie are, but perhaps for other reasons. There was this big black pot being prepared at the edge of the village. Perhaps they knew something we didn't?

At this point we both agree that whenever we have a chance to buy or trade for something of interest, we will do it on the spot!

Later in the day another man arrives at our stern with something carefully wrapped in yards of calico and rice bags. We invite him up on *Intermezzo's* more stable platform and he reveals a six-fathom roll of feather money in excellent condition. Feather money is the traditional barter for buying a bride in these islands. There are only two old men on the island who still know how to make these treasures, which consist of a pandanus leaf fiber woven into a long belt, with the red feather taken from the breast of a small local parrot running throughout. Each "belt" requires the feathers of hundreds of birds. This roll smells of smoke from the rafters of the house where it has lain for years. We're delighted to pay his asking price of \$10.

### The Gibbs

At dinner the next evening Alice and Len tell us that we really ought to make the 30-mile sail over to the Reef Islands in order to meet Carol and Bernie Gibbs, who, with their two sons, aged 12 and 9, run an old-fashioned bush trading station. "Carol and Bernie don't get many visitors, and it would be nice for all of you."

*Intermezzo* bucks through the trade-wind-whipped seas from wave to wave, through spray and spume, going to weather like a bronco at the rodeo. Elyse and Sarah have escaped the wild ride by curling up to sleep below. Steve is

standing at the wheel, hollering at the elements and taking faceful after faceful of water. I have trouble keeping my breakfast down, and finally let it go over the side. No wonder they don't get many visitors at the Reef Islands!

We near the island of Lom Lom soon after noon, with the sun high and just behind us for good visibility. The seas calm down in the lee of the atoll, and things look much brighter. Out from the lagoon come a man and a woman in an outboard-powered dinghy, beckoning to us excitedly. They circle *Intermezzo* like playful puppies as we head up into the wind to drop the main and prepare for anchoring.

Hook down, we invite them aboard and shake hands all around. We are their first outside contact in seven months. Soon their 10-year-old son, Dean, comes paddling alongside in his red canoe. I awaken Elyse and Sarah, who have missed all of the excitement, as we prepare to go ashore to see their home, Pigeon Island. Sarah creates some excitement of her own by groggily settling in the bow of our dinghy and allowing herself to be tossed out by a surge. We soon have her out of the warm water with nothing injured but her pride, and, still chattering excitedly, go ashore for lunch.



Lights, camera, action! What a surprise to wander into this scene in a remote village on the island of Ureparapara in the southern Banks Islands.

What had appeared from the anchorage to be a densely foliaged area reveals itself from the lagoon to be 5 acres of beautifully landscaped island that would put a Disney set to shame. Their house is in front: A traditional wood-and-thatch structure, built on an open plan which allows the gentle breeze to cool the house naturally. Scattered here and there on the manicured grass and among swaying palms and flowering frangipani, are the store, two guest cottages, the wash house, a schoolhouse, the caretaker's house, and best of all, a tree house that Darren uses for a bedroom.

In August 1976, Carol, 30, and Bernie, 34, had read a classified ad at their home in England: "Unique investment opportunity for adventurous young couple. Partnership in remote but thriving South Sea island trading post..." Out of hundreds of applicants who answered the ad, Carol and Bernie were chosen by the Hepworths to take over the station they had been running for the past 20 years.

They live on the island with their sons, two dogs, a cat, and several ducks and chickens. They trade for copra, crocodile skins, shells, *beches-de-mer*, and in return sell flour, sugar, tea, beer, soda pop, tobacco, calico, and a myriad of other necessities of modern island life; in short, whatever the locals on the adjoining islands may require. Business is conducted in pidgin English. If a woman asks for "Triangle belong-um woman" she wants to buy a bra. When someone has business at the "store" they announce themselves by banging a lead pipe against a WWII airplane propeller that hangs outside the door. Carol and Bernie also act as banker, postmaster, and host to the occasional tourist who arrives on the government boat.

Two days later, while Elyse and Sarah enjoy Dean and Darren's company by watching Darren shoot fish with a bow and arrow, and riding in Dean's canoe, Bernie accompanies Steve and me on a "walkabout" to two villages. The tide is out, so we are able to walk across the lagoon. The neatness and cleanliness of the villages is impressive. Occasionally we see a two-story house — the only ones we've ever spotted in a traditional Melanesian village. Interspersed with the family homes are the boys' houses. (It's traditional in Ghaghelli villages to build a boy his own house when he reaches the age of 10.)

### A Walk in The Bush

Across the second lagoon is a larger village, Nenumbo. Here we see the custom ring in which ceremonial dances and "tra-la-las" are performed. We view nolly nuts spread out to dry. The nolly is a delicious nut similar to a macadamia in flavor, but shaped more like an almond. We trade three sticks of tobacco, the size of penny stick licorice, for a bag of nuts.

Out of the crowd that gathers emerges an old man. He carries an ancient stone adze.





Al Liggett with a beautifully carved "custom" (traditional) drum in the Solomon Islands.

"Daddy belong fellow. Older than Daddy belong him and Daddy belong him," he explains. "You want 'em?"

This was the first of several artifacts that begin to appear as the shyness produced by our presence begins to wear off.

Simon, with his betelnut-stained mouth, attaches himself to our party and offers to show us the way to the school.

"Is it far?"

"No. It be close by."

Ha! It's a hard hour's walk through the bush before we arrive at six minimally equipped classrooms with six

teachers and 145 students up to the age of 12. Edgar Vic, the headmaster, was awarded the MBE (Member of British Empire) for long service — 28 years of teaching. He tells us that bush schools have only been in existence for the past 10 years, and that schooling is purely voluntary for the students. Then he switches the topic of conversation.

"I was 10 years old when Japanese occupied Talagic. At first we helped them. They were good to us. Then Americans landed at Luga Beach, now called Red Beach. We were very scared. We were hiding in the bush. Then we got used to them; we helped the Americans by spying."

"Why did you help the Americans and not the Japanese?"

"Because we couldn't speak Japanese. We already knew how to speak English from the British missionaries. At first we helped the Japanese. Then when we started to help the Americans, the Japanese were not good to us."

Backtracking through the bush from the school, Simon diverts from the path to show Bernie an old stick in the ground.

"This land belong me. It very old; been family plenty long time. This stick last of old village. There be bones in ground."

It's the remains of an ancient village, and it is taboo for Simon to remove the last stick from the ancient house.

Suddenly, Simon whips something into his nose, whirls around giggling, and presents his face adorned with a hand-carved tortoise shell nosepiece. It breaks the spell, and he offers it to me for 60 cents. It gets a big laugh when I wear it for Carol and the children upon our return.

The following day, the *Bona*, a government ship from Honiara, puts in. It carries mail, but no supplies for Carol and Bernie. On board is a medical team checking for malaria, and the police detective and immigration officer from Santa Cruz, who have business on the outer islands. *Bona* would leave that evening to call at the outlying islands, returning late the following night. Bernie wants to see about buying some turtle shells, and Steve and I take the opportunity to go along. Carol volunteers to watch the children. It's an ideal opportunity to see how traditional Polyynesians live in the middle of Melanesia. Since it's a night passage, we roll up in blankets on the wooden deck aft, getting up whenever a sea sloshes over.

There are no anchorages at these islands, so the ship stands off and sends dinghies through the surf. At the first stop, eight of us go into the ship's boat and, sitting low in the water, proceed toward shore. Soon the motor swamps, so we return; everyone but the officials get out.



The Solomon Island government vessel *Bona*.

At the second island, Bernie and Steve go ashore in a large dugout canoe. They swamp in the surf and come back soaked, but Steve is thrilled to have been ashore on this island. The last white man to set foot on this land was Bishop Patterson, whose greeting was not so friendly; the bishop was killed and eaten nearly 100 years ago.

It's totally black with heavy rain, and a stiff 35-knot southeaster blows right on the nose. The captain at times has to thread his way through 15 miles of reef with visibility less than 100 feet (30.5 m). He stands in the rain on top of the pilothouse, wearing his foul-weather gear and hollering directions below to the helmsman. He doesn't miss a turn, and his "internal" radar works beautifully. We are surely relieved to pick up *Intermezzo* in the loom of the *Bona*'s spotlight.

As word spreads that we will soon be leaving, canoes from the neighboring islands bring fruit and vegetables to trade. Some bring old "junk" from the rafters in their huts: ceremonial poison arrows, a model of the ancient (pre-WWII) voyaging canoe, and two carved bowls find their way aboard. Simon makes and sells us all tortoise-shell bracelets, and when Sarah misplaces hers, Darren removes his own from his arm and offers it to her as a token of farewell.

In the end, we acquire our most prized possession: a carved stick, shaped somewhat like a baseball bat or a stair bannister. It's black and orange and is called a "devil-devil stick." They tell us that they keep one on the canoe during long voyages, and if the weather is not to their liking, or they are concerned for their safety, they talk to the devil-devil to bring them good weather and a safe journey. We mount it on the forward bulkhead, and thereafter, whenever we dislike the weather, we send Sarah up to have a talk with our "devil-devil stick." That stick is now on its third (modern) yacht, still bringing us fair winds!

As we leave our new friends in the Reef Islands, Steve and I realize we've learned several fundamental lessons about voyaging. First, trading for artifacts opens up a new field of interest for the two of us. Henceforth it will be one of our objectives. This activity helps to bridge the shyness that frequently separates islanders from ourselves.

Second, we will not hesitate in the future to make an extra effort to get off the beaten path. The pounding we took for a few hours enroute to the Reef Islands was paid back a hundred times by the pleasure of meeting the Gibbs, seeing their unique lifestyle, and being introduced to the fascinating Reef Islanders.





We met this man and his son in Vanuatu. He's playing Steve's Martin (D-42!) guitar (which made it successfully around the world without a problem).

## Musical Instruments

We've probably gotten more enjoyment from our musical instruments than just about anything else we've carried. Aside from the pleasure they've given us when we've been on our own, our "arsenal" of musicmakers has led to some wonderful experience with locals.

We usually carry two guitars. An old one for trips ashore and something a little nicer for use on the boat. When we've got locals aboard we always leave one of the guitars in view. If we see a visitor eyeing it, we offer to let them play and that is usually enough to get things rolling.

We also carry a tambourine, several sets of maracas, and assorted other percussion instruments. When there's a really big crowd aboard, our wooden spoons and saucepans are usually pressed into service.

## Beach Party

Some of our best cruising memories come from spontaneous get-togethers with cruising friends on the beach. Someone catches a fish and invites the whole anchorage for a pot luck, and out come the musical instruments, beach towels, and insect repellent.

The Tongan fish fry in the first photo below resulted in a wonderful evening of music. After we'd been trading songs for a while among cruisers, we noticed some movement in the bushes. The music had carried



Sarah now earns part of her cruising budget by singing as she cruises. This gig was aboard *Beowulf* while we were tied up to the copra pier in Takaroa in 1995. The interior is unfinished, as we were taking *Beowulf* to New Zealand to be outfitted.



Whether you're in Tonga (left) or Mexico (right) it is all the same. When the sun goes down it is time to hit the beach for socializing, food, and music. And if the odd rain squall happens along? That won't slow anybody down. After all, what are foul-weather-gear tops for anyway?



When Steve brought *Sundeer* back from New Zealand in 1986, he stopped off at Takaroa to meet with our friends Henry and Louise.

across the island to a village, and the locals had come over to see what was happening. We beckoned them to our gathering and traded songs back and forth for the rest of the evening.

Major holidays are always an excuse for a party. One Fourth of July some years ago we were in the process of anchoring in Hanalei, Hawaii, when some folks from the yacht *Warwick* came by in their dinghy to invite us ashore.

“Some of us are getting together for a barbecue on the beach and then to watch fireworks. Please join us.”

Even after rain cut the fireworks short, the evening still carried on. That evening served as a springboard for later hikes, dinners, and adventures for many days to come.

### **It's Still the Same**

Twenty years have passed since we started seriously cruising. In that time lots of things have changed. Navigation is a lot simpler with GPS; there's more data on good anchorages; cruising boats are larger; and there are a lot more folks cruising.

Of course, things have changed in the island villages as well. Popcorn is a well-known commodity, and just about everyone has seen or has a VCR. But for the most part, the islanders remain friendly and welcoming.

We've been back to the South Pacific twice since our first trip. The Marquesas islands have a lot more infrastructure now, and, of course, being French, are quite costly, but the people are still as interested in what you are doing as you in them.

And the Tuamotus, where we just spent a couple of weeks with our friends Henry and Louise, have a vibrant black pearl-based economy. You see kids on BMX bikes; there are stores with freezers where you can actually buy a variety of goods; and Takaroa even has a disco (known locally as “Le Boom”). You'd think that with increased prosperity and attention to the material aspects of life something would be lost, but the relationships are just as good now as on our first visit.

## **THE COST OF CRUISING**

One of the joys of cruising is that it's inexpensive. Once the yacht is paid for, there is simply no other lifestyle that offers as many rewards for as little cash. Most people planning long trips budget more than necessary to maintain themselves in reasonable style. As a result, many of them put off going cruising longer than they need to.





Henry, Louise, Sarah, Kristin, and other good friends at Takaroa in 1995. Everyone gets older, and the Tuamotan lifestyle has become more complex, but the same warmth and friendliness is still there.

## The Boat

There has never been a better time than now to buy a good cruising boat. The market is so depressed that you can pick up well-found, offshore-capable vessels for a fraction of their original prices. This means that when the time comes to sell at the end of your cruise, your sailing *investment* is well hedged by the low initial price you've paid.

Here are a few rules about buying right we've learned along the way. Establish a budget for boat acquisition, and stay with it. Buy with cash. Ignore the temptation to use credit for a bigger boat or more gear. Credit means interest and insurance bills, which can easily cost significantly more than your living expenses.

Forget aesthetics. Paint, varnish, and interior decor can be done with your own labor, and the poor cosmetics can mask an otherwise sound hull.

Disregard the asking price. If a boat's listed for \$85,000 and been on the market two years and the owner's in need of cash, he may be happy to take \$45,000 right now (in spite of what the broker says).

Look to out-of-favor-but-sound older designs.

Spend your money on waterline and displacement, not fancy gear or a modern interior. A spartan 40-footer is going to be more comfortable to live aboard and passage on than a 30-footer equipped to the gunnels.

How big a boat do you need? The biggest boat you can afford *right now*. If you're at the early part of your career and have just \$10,000 available for the boat, take heart. There's a whole lineup of owners who'd like to sell you their 25-to 30-footers for \$10,000. Yes, living full time on a boat this small is cramped compared to on a larger boat, but you'd probably like to have a bigger apartment, too.

Got a few more bucks to spend? How about something along the lines of a Cal-48. This Bill Lapworth design can be found for \$85,000, is an excellent sea boat, and is very quick. Okay, so the design's more than 20 years old, but the space, waterline, and displacement are there, and the 30 to 40 percent you save, compared to a five-year-old 40-footer (12.3m) will easily take you around the world faster and more comfortably.

## Equipment

Probably the hardest part of equipping a boat for long-term cruising is knowing what you *don't* need. The less gear aboard, the fewer maintenance headaches, and the more space to store essentials. It bears repeating that you'll be significantly more comfortable with a larger, simply equipped cruiser than a smaller vessel loaded with the latest systems.

Equipping a boat is one place where having a tight budget can be an advantage, because the less money you have to spend, the less time will be wasted thinking about, buying, installing and maintaining gear.

The key to this decision-making process is laying out a *complete* plan of what you intend to carry. This allows evaluation not only of cost, but of space and maintenance issues also.

And since you're cruising on a budget, you will need to be able to fix anything that is brought aboard (it's a good idea even when money isn't an object!). Otherwise, the costs and frustrations will get out of hand. The most important part of this maintenance equation is access. Make sure you can easily get at whatever it is you're installing and that it's installed where it will stay dry.

The best approach we've found (the hard way) is to start out with the minimum in systems and equipment. After you've been cruising awhile, the issues of what is really necessary and what's not worth having become much clearer. Otherwise, most folks tend to invest funds in gear that doesn't work or lies unused, when those funds could better be used toward prolonging the cruise.

## Minimum Gear

A good chunk of this book is devoted to different types of systems and equipment and how you make the correct choices for your own style of cruising. In this section we'll take a look at this subject with a minimalist approach.

For medium-to long-term cruising there are some essentials. Here's the way we'd equip for minimum budget. Ground tackle: The most important category of gear. This is where the budget goes first: A storm hook as primary anchor with at least two backups. For anchoring in the tropics, chain is a must. Nylon rode with chain at the end will do for the extra hooks. At the first sign of budget surplus, invest in a powered windlass. Look for used anchors (in good shape) and used chain (which may need galvanizing). Note that most chain is stamped with the grade that relates to its strength (see more under chain in the preparation section).

Sails: A main in good shape with three reefs (the last sized for trysail work) is first. A basic, heavy working jib of modest overlap will see good all-around duty. A heavy staysail, with a set of reefs down to storm-jib size, completes the necessities.

Safety gear: How much is your life worth? Today, with so much sophisticated equipment on the market, safety gear is the toughest area to draw the line. I like the idea of using a good-quality inflatable as a raft, equipped with a well-stocked abandon ship bag, some form of weather protection, and a good sea-anchor system. This solves budget and space problems, although ideally you'd have a raft on its own, or better yet one of the Yachtsaver inflation bag systems to keep the entire boat afloat. Safety harnesses are essential and easy to make for yourself. Do you go for a 406 MHz EPIRB? Tough question.

Dink: If the dink doubles as a raft, then you already have an inflatable. Otherwise, compact, fiberglass, or timber dinks are more serviceable than inflatables. They last longer and row better, but are tougher to stow. However, even a 30-footer (9.3m) cruiser can stow a 7-foot (2.2m) hard dink on the foredeck or under the boom.

Self-steering: Some form of self-steering is a must for offshore work. Do you go for a vane or pilot? A few years ago a wind-powered vane (servo-pendulum type) would have been the answer. But now the cost of the small pilots has come down so far that they may be a better deal; they steer in light airs and under power, which a vane won't.

Systems: The basic question is refrigeration. Ten years ago most boats cruised without. It is not essential, but it is nice. If you do have it aboard, you'd better know how to service it. Without a fridge, electrical and engine needs are negligible. One or two solar cells hung on the stern rail will take care of your electrical requirements — no engine time or maintenance to worry about, and battery requirements are minimized. Add a fridge and you need to add an extensive set of engine (and fridge) spares. If it is an electrical fridge you have to beef up batteries and charging sources, and you'll still need the extra engine spares.

Electronics: We've left the least for last. You can comfortably sail around the world without electronics. But with a few dollars left over in the kitty, some of the gear today is so inexpensive that it is worth considering. We'd start with a simple depthsounder, perhaps one with a paddle-wheel log built into the transducer. Then we'd invest \$150 in a GPS.

Remember, beyond the essentials, you're going to be more comfortable at sea and in port spending money on a bigger boat rather than on gear.

## Living Expenses

Once the capital investment in boat and gear is made it is surprising how well you can live when cruising on a modest budget. Obviously how and where you cruise has a big impact, as do variables in maintenance costs. But by following a few simple guidelines, cruising costs a fraction of what it costs to live ashore. As you'll see, \$400 to \$1,000 per month goes a long way.

Over the long haul, most cruisers find that expenses break down into thirds: one-third for food, one-third for the boat (maintenance, fuel, harbor fees), and one-third for personal costs (clothing, sightseeing, meals out).

Cruising costs are only marginally related to boat size. Two thirds of the budget relates to care and feeding of the crew, and that's a constant. The actual boat-maintenance budget, if you do your own work and have good access, is also pretty constant. A water pump or fridge system on a 50-footer (15.4m) is pretty much the same as on a 35-footer (10.8m). Where larger boats do cost more is repairing heavier sails, paying dockage (although anchoring is usually free and much more pleasant), and hauling. But with care, the cost differential isn't that great.

A major factor will be your town/countryside ratio. The more time you spend in anchorages away from the city lights, the lower your costs will be. Some cruisers spend a majority of time in the big cities. Not only does this add substantially to cost, but you miss the opportunity of meeting people (aboard other yachts and the locals) that comes from the slower pace outside of town.

Let's look at these costs a little closer. Fresh-food costs are usually modest *if you eat what the locals do*. But when you decide to splurge on some fresh fruit, flown in from outside, watch out! There are always extra-efficient buying spots along the way in which it pays to stock up on staples. Listening to the ham radio nets and reading the Seven Seas Cruising Association bulletins are two of the best ways of finding out what locations rate best-buy designations.

The entertainment/sightseeing budget can vary wildly. Again, it is very much a case of research, staying away from the facilities that cater to the tourists, and joining in with the locals. (A couple of years ago we found a marvelous pizza parlor, frequented by locals in Papeete, Tahiti, where we had a nice meal for the two of us for under \$15.) Tourists were spending four times this amount a few blocks away. Clothing is much less of an item than at home, especially if you're in the tropics. Joining the odd tour, renting a car now and then, visiting museums, etc., add little to the monthly budget and lots to your enjoyment.

Two issues which generate debate are medical insurance and emergency funds. Since medical insurance can cost as much as half or more of your whole budget, few long-term cruisers carry it. On the plus side, however, medical costs outside the U.S. are very much lower than what we are used to seeing. (Some insurance companies offer policies specifically tailored to U.S. citizens who spend most of their time outside the country. Costs are much lower than for domestic policies.)

Should you set aside a certain amount for emergencies (blown sails, engine, or medical problem)? Most do. And then at the end of the cruising period use these funds to extend their staying power.

Boat insurance? For most it is just too expensive to even contemplate. Take the first year's premium and put it into heavier ground tackle, the next year into better storm canvas. If your boat is financed, you're forced to carry insurance — a good reason to go with a less expensive boat and pay cash.

## Where the Money Goes

When we first thought about cruising in the mid-1970s, we carefully evaluated what we thought the various aspects of our adventure would cost. We talked at length with Steve's dad about what he had experienced on his 24-month cruise in the late 1940s, as well as with travelers who had been to Polynesia for a year. Based on this research we budgeted \$1,500 per month (this was in 1976).

In Mexico food was cheap; besides that and a little diesel oil, there wasn't much to spend money on. By the time we reached the Marquesas Islands, we had averaged less than \$150 per month in total expenses. In the Marquesas, our spending picked up a bit, but we were fortunate in having stocked *Intermezzo* to the gunnels with food and supplies, so except for an occasional night out, a ride through the mountains, and a drum of diesel, we had few new expenses. By the time we had left American Samoa, with *Intermezzo* completely restocked, we were averaging less than \$7,500 per year. After three-and-a-half years of cruising, we spent just \$27,000 (including a refit of *Inter-*



*mezzo* at the end of our trip). Although inflation has eaten away at the buying power of the dollar today, at the end of the 1990s, based on recent experience we feel we could do the trip now on the same basis for a little under twice what it cost more than 20 years ago.

The experience of two cruising friends who left in 1979, when inflation had diminished the purchasing power of most currencies, is typical. They ate well, beautifully maintained their 30-year-old, 40-foot (12.35m) wooden ketch, ate out occasionally, entertained aboard and ashore, and spent \$6,700 during the year. Their costs broke down this way: groceries, \$1,431; postage, \$127; fuel, \$321; gifts, \$80; customs fees, light fees (a sort of user tax charged by some countries to help pay for lighthouses, which almost never work anyway) and such, \$253; entertainment and miscellaneous, \$2,248. Outside services such as hauling, parts and labor for maintenance, etc., ran \$1,026. General supplies for upkeep were another \$1,120. You'd probably multiply these costs by two today.

Al and Beth Liggett spent the mid-1980s cruising in Europe, spending summers there when the weather was nice and returning to Florida to work in the winter. Beth figures it would cost them about \$1,000 per month to maintain themselves and their 42-foot (12.9m) *Sunflower* if they were cruising full-time.

Beth was kind enough to send along a breakdown of their 1987 summer expenses. For those of you considering an on-again, off-again cruising pattern, this will be of interest. Their own expenses cover roughly four months, while the boat is of course stored for the year. Groceries, \$1,026; eating out, \$249; booze, \$146; boat miscellaneous, \$225; fuel, \$400; marinas, \$367; books and charts, \$367; laundry, \$68; postage, \$172; telephone, \$69; locks and bridges, \$235; travel (in Europe), \$441; sightseeing, \$340; camera, \$21; gifts, \$70; round-trip air fare (for two), \$1,122; storage for boat, \$1,822. The total is a reasonable \$7,257 — and remember, this was during a period when the U.S. dollar was suffering! During this year Al and Beth suffered two unusual expenses: an engine overhaul and bottom repair (osmosis), which added another \$2,300 to the total. Today it would cost the Liggetts about one-and-a-half times this amount.

Rick and Pauline Cox left Florence, Oregon, aboard their Aleuja 33, *Watercolor*, in the spring of 1988. They cruised down the west coast of the U.S., through Baja California, and onto the mainland of Mexico before heading for French Polynesia. The Marquesas, Tuamotus, and Society Islands had passed under their keel when we met them after they had cruised a month in Hawaiian waters. Along the way they visited the sights ashore, rented cars, took tours, and ate out several times a month. *Watercolor* was kept purposely simple by the Coxes: no fridge, no pressure water, and basic electronics. In the 16 months they spent cruising, with their 12-year-old daughter they spent \$12,000, or \$750 per month. Ten years later if you added a couple of hundred dollars a month to their budget you'd be just fine.

Up through the early '90s Doug and Jamie Owens worked part of the year at Twin Harbors on Catalina Island, in Southern Californian waters. During the winter and spring months they rejoin *Teal*, their 31-foot (9.5m) Bill Garden-designed cutter. By spending most of their time in out-of-the-way (but to them more interesting) anchorages, they've kept their monthly cruising budget to just \$500. They paid an average of \$100 per month to keep *Teal* moored and under care of a local who would periodically run the engine and air the bilges.



We've been using the same Sears sewing machine now for almost 25 years for sail repairs. While it won't handle the heavy working sails, it will repair the lighter jibs and spinnakers.



One of the ways we saved money while cruising was to use grids for haulout where ever tidal range was sufficient. In Darwin, Australia, with a 24-foot (7.3m) range we had time to clean and paint the bottom on two tides. The chain piled in front of *Intermezzo's* bow is to move her center of gravity aft so she doesn't fall over on her nose. Total cost for gridding was \$25.

Arne and Page Adams spent a year (late '80s) sailing through French Polynesia. Their cruise aboard *Transit*, a Rafiki 37 cutter, took them to French Polynesia, the Cook Islands, Tonga, Fiji, New Zealand, and Australia. Before leaving they invested \$12,400 in equipping their five-year-old boat (radar, Satnav, autopilots, sailing instruments, roller furling, ground tackle, miscellaneous rigging and spinnaker gear). They averaged a pretty constant \$720 per month. In French Polynesia, where entertainment comes with a high price tag, they ate out only occasionally. But in Tonga and Fiji, they found things so cheap that they ate out as often as aboard. In their first year they spent an additional \$3,200 for medical insurance and a trip home for both of them.

When Steve brought *Sundeer*, our 67-footer (20.4m), on her maiden voyage from Auckland, New Zealand to California, the 1988 prices in New Zealand and French Polynesia had certainly picked up. But it was still possible to cruise on a large yacht in a comfortable fashion for less than \$10,000 per year; this includes maintaining the boat. In the subsequent years that we cruised aboard *Sundeer* we found our monthly budget to be pretty much in this range.

Now, with the even larger *Beowulf*, our budget really has not changed that much. On a recent trip through the South Pacific, with Sarah and her friend Kristin as crew, our monthly expenditures were under \$1,000 per month (and the kids eat a lot more than they used to!). At the same time we met several smaller yachts cruising on less than \$5,000 per year (and this typically included a large beer tab). So it appears that the cost of cruising, happily, has not kept up with inflation.

Of course, there are a lot of folks who end up spending lots more. We've heard people complaining about having a tough time getting by on \$20,000 or even \$30,000 a year. And from what we could see, their quality of life wasn't any better than those cruising on a fraction of that budget. What's the key?

## Priorities

Your budgetary desires for both boat and living expenses need to be measured against a prospective lifestyle afloat and ashore. Our feeling has always been it's better to go early in life, spending less because there's less available, than to wait around until some indefinite point in the future when you have in theory accumulated more bucks (waiting is a two-edged sword — yes, you may have more money, but you're going to want more comfort and less adventure as you get older, and these end up costing more, which means you have to wait longer...).

Okay, so the boat will be smaller and you'll live on a tighter budget, but the odds are your house or apartment is smaller than you'd ideally like, too.

The hardest part of making the decision to do something about your dream is ordering priorities. If you want to go now, within the means you *presently* have at your disposal, you need to set your sights first on a *personal* definition of cruising necessities.

From our perspective (and that of most of our cruising friends), it's the people we've met as well

as the places we've seen that make cruising so enjoyable. Add to this the lack of stress (compared to "conventional" lifestyles) and the freedom of action that comes with having the ability to change plans and direction as desire and weather dictates, and the dream becomes all the more alluring.

The boat, then, becomes a means to an end, a conveyance, if you will, toward new horizons. And it's not at all necessary to have a fancy, up-to-the-minute design or the best in systems if your boat is *just* a means to get you from one nice setting to another. Kept in this perspective, a smaller boat, ready to sail *now* looks pretty good. And if your monthly allotment of spending money is a little tighter than you'd like, just think of all the overhead you've left behind!

### Budgetary Compromises

Obviously the type of boat you cruise aboard, how it is equipped, and the amount of funds budgeted for monthly living and maintenance costs are all related. And how you allocate the funds for boat and systems will have a big impact on the eventual costs of cruising. For each person there's an optimal mix of these three cost categories. And about the only thing you can say for certain is that the right mix will change with time.

Just for fun, try sitting down and coming up with a total cruising budget, what you could get together today if you really tried. Keep in mind that you'll be paying cash for the boat and its equipment and want a certain amount left over to cruise on. Even if it's just \$15,000 or \$20,000 right now, play the game — you may be surprised by the results.

### Staying Within Budget

How do we all do it? As with most aspects of cruising, there's a lot to learn as you go. Many folks leave home loaded down with spares, clothing, and miscellaneous junk that will never see action. That space and money, if put only to essentials, extends cruising time. When it comes to buying supplies or gear, our motto is "When in doubt, don't."

The biggest trap for your dollar is that first week in civilization after months in the wilds. Our stop in Papeete, Tahiti, was an example. After three months in the Marquesas and Tuamotus, where we had spent less than \$100 per month, we blew almost \$100 a day in Papeete. Store windows were full of things we hadn't seen since California. The urge to spend was irresistible.

Fiji was another trap. Ostensibly a duty-free port, the windows of 75 percent of the shops are lined with an incredible array of electronic gadgets and goodies of every sort. Some Australian friends of ours, cruising on a fixed-income monthly budget, had been assiduously saving in the outer islands and big cities. (They even escaped Papeete.) Ten days in Suva and they had the biggest collection of calculators, watches, and radios imaginable.

The general pattern of saving in the country and spending in the cities is unavoidable. Once in awhile even the thriftiest cruiser needs to see a movie, eat ice cream, or go out to dinner. However, for the first week in town, hold onto your wallet. The consumer urge will die down, and you'll find which stores have the best buys.

Food is usually the biggest item on everyone's budget. If you like to eat well (and who doesn't?), a little planning can reduce costs considerably. In each cruising area there will be ports or islands where certain items are very expensive. On the other hand, there will be local items that are quite reasonable.

In the outlying islands of the world, anything from civilization costs several times more than at home. The trick is to stock up on canned goods at home, then buy or trade for fruit, local meat, and vegetables, which are inexpensive, in local ports.

Throughout the world, we've generally found plenty of garden vegetables and fruit available from the locals in out-of-the-way spots. Most big ports have native markets where the produce is fresh and very inexpensive. Meat can be costly if flown in, but many copra plantations these days run cattle to keep down the undergrowth, and consequently they maintain butcheries. Here the larder can be supplied with very tasty beef at low prices.

As the cruise grows longer, charts and navigational materials become expensive. Although there is no substitute for the right charts, a copy machine or a roll of good-quality transparent paper and sharp drafting pencils provide the means to get free information from other yachts and commercial vessels. We frequently trade charts with people going in the opposite direction. The exchange process also offers informed opinions of upcoming anchorages, places to buy, and what spots to avoid.

Yacht maintenance is an area where ingenuity can go a long way toward keeping costs down. In many parts of the world there's a substantial tidal range, and having to haul a boat for a bottom job or through-hull work is just about unheard of. After years of worrying about the boat's falling off shipyard cradles, our first experience with careening piles in New Zealand was an eye-opener.



On the high tide we sailed up and tied alongside some pilings set in the sand. The tide receded; then we scrubbed the bottom, painted, and waited for the water to come back. It took us four hours to clean and paint, and 12 hours later we were afloat again. When I think of all the yard bills I've paid...

## Hull and Liability Insurance

The question of whether to carry insurance is a tough one. Cruisers often have their entire net worth, or a majority thereof, tied up in their floating home. If you lose the boat it could be a financial disaster. On the other hand, insurance can prove to be very expensive — in some cases, more than the rest of your cruising budget put together. The whole financial feasibility of your cruising may hinge on the cost of insurance. If you really want to go, you may have to forgo the insurance and carry the risk yourself. We've met only one yacht in the last couple of years that carried insurance. The rest have found it too costly. If you do decide to look into insurance, check a variety of markets. There are often companies in Europe or the southern hemisphere that have better rates than those found in the U.S.

Factors that affect insurance rates include the age of your vessel, your own experience, cruising areas to be visited, seasonal issues (insurance companies want you out of the tropics in the summer), and special equipment. You get reduced rates for watertight bulkheads, damage-control pumping equipment, and good fire-fighting gear. Metal boats typically have lower rates than those for timber or fiberglass boats.

You can substantially reduce your rates by having a high deductible, which effectively means you have a total loss policy. Finally, if you do find an insurance carrier at an acceptable rate, be sure to check out the carrier's financial condition and loss-paying record.

## Medical Insurance

Now we get to a tougher question. When you are younger the issue of medical insurance doesn't weigh heavily. But as you mature, the risks become greater.

Outside of the U.S., medical costs are much less, so the financial risks are less. In keeping with this several companies offer medical insurance to travelers at much lower rates than domestic insurance costs. If you already have domestic insurance you should verify that it covers you while you are traveling. If not, ask about policies for foreign-only coverage. Better yet, check with the Seven Seas Cruising Association to see what's their latest program for members.

## Disaster Kitty

After all this talk of tight budgets, you should have a stash for the unexpected. Hopefully it won't be needed and you'll be able to extend your cruising with it when the time comes. But if something happens to the boat, perhaps a major engine problem or blown sails, it is helpful to have something set aside.

## Taxes

With your income needs much reduced from shoreside living, you may be pleasantly surprised at how *efficient* any income stream becomes. The odds are your income will be from the rental of a home or interest on savings, and even at levels sufficient to pay for a plush cruising lifestyle it will be well below minimum taxation levels (just think, while you're off cruising you don't have to share with Uncle Sam!).

## Putting It All Together

Now, do you have that budget we talked about earlier put together? Let's see how to split it up. Suppose you can scrape together \$20,000 right now. Ten thousand dollars gets the boat, \$5,000 for outfitting, leaving \$5,000 to cruise on. If you start out on the eastern seaboard of the U.S. or head to Mexico from the west coast, you're away for a year or more before a refill of the cruising kitty is needed (compared to the cost associated with buying even a medium-priced car on time, this sounds pretty good!).

How about a \$50,000 budget? Spend \$25,000 for the boat. That will get you into a 35-foot (10.8m) vessel. If you invest the rest at eight percent and use a combination of the interest and principal, you could easily sail around the world. And when you returned home you'd still have a nice boat (to keep or sell).

As the initial kitty increases, you get into boat size versus monthly budget analysis. Do you spend more on the boat and live on a tighter budget? Or, keep the boat modest and have more to spend as you cruise? With \$100,000 you could spend the same \$25,000 on the boat and live off the interest on the balance (or just nibble slightly at the principal).

What are you waiting for?



*Suedama* cruising in Paradise (Fiji).

## SUEDAMA

Lev, John and Dodge, or “the lads” as they are called, bought *Suedama* in England for about 15,000 pounds (\$23,000). Former British marines, they worked on her off and on for a year getting ready to go. They left with few conveniences: propane stove and oven, stereo, GPS and VHS radio. They had electric interior lights, a masthead light and running lights. A small three-blade wind generator kept the batteries topped up and for self-steering they used a Aries windvane.

The lads worked their way down the coast of Portugal, then crossed the Atlantic via the Canary Islands to the Caribbean. They spent one cruising season there before taking a yacht delivery job back to England. Returning to the Caribbean they got jobs with the Moorings charter company where they worked for another season, acting as “fix-it” guys. They were given a

handheld VHF and a big inflatable to use as a runabout. Folks chartering boats would call for help with various problems and they’d go off to fix whatever was needed. From what Sarah understands, they came to this job by meeting a couple of folks from the Moorings and mentioning that they were available to do some work.

From the Caribbean, Lev, John and Dodge sailed to Venezuela, then up to and through the Panama Canal, out to the Marquesas, down through French Polynesia, then to the Cooks, Tonga and Fiji before heading down to New Zealand. In the Cook Islands they took on two young women from Germany who were interested in cruising. The girls paid \$50.00 a day and from that everything was included (travel, food, etc.). They stayed on *Suedama* for two months, leaving the boat in Fiji. According to the boys, it was a great money-making idea, but they didn’t make a profit because they spent it all on food and drink.

When Sarah and her friend Kristin met the lads in Fiji, they were surprised and pleased to find it was possible to cruise comfortably with so little. The lads had no refrigeration, showers, water-maker, radar, Ham/SSB radio, autopilot, depthsounder, or wind instruments. The girls had a chance to test their comfort-level staying on such a boat when they spent two weeks aboard *Suedama* while Steve and I took *Beowulf* to the Blue Lagoon. They claim not to have missed the luxuries.

The lads managed to cruise on about \$5000 a year, for the three of them, including drinking a lot of beer. They also did everything on a budget; no new clothes, tours, parasailing, flying home, hotels, or fancy restaurants. Still, they dove, swam, played music, ate and drank well, hiked all over, played with other boats and as Sarah puts it, “had the best attitudes of anybody I’ve ever met cruising.”

By the time they arrived in New Zealand they were out of money. By walking the docks where the big boats were parked near Orram’s in Auckland, all three found cash-paying jobs for several

months. Each managed to earn several thousand dollars during this time, and found other jobs through meeting boat people and Kiwis who needed various work done: construction, yacht maintenance, you name it, they'd try it. After four months of working they easily could have continued cruising comfortably for two or three more years. However, John flew home to see his girlfriend for a few months, Lev and Dodge took skydiving lessons and eventually Lev sold his interest in the boat to the other two and flew home to have adventures with his girlfriend.

Sarah just had a letter from Dodge saying he and John are preparing to leave New Zealand in April for Australia, then South Africa. They're hoping to be in the Caribbean for carnival next year, then back in England by the fall of 1998. They started their cruise in 1993.

So you see, it doesn't take a pot full of money to get out there and enjoy the cruising lifestyle.

## NAVIGATION MATERIALS

Before we leave the subject of cruising budgets we need to talk about your navigation materials. On one hand, prudence (not to mention fun) requires that you have on hand a sufficient inventory of information for your cruising areas. On the other hand, the cost of charts, guides, etc., can easily consume 10 to 20 percent of a modest cruising budget.

### Charts

It is very difficult to know what the right chart inventory is. This varies with the area you'll be cruising, how many hidden dangers there are, weather risks, and the local cruiser population on which you can call for local data. To begin with, you need basic passing and or area charts. Because these charts cover so much territory, not very many of them are required. Where the inventory question becomes more difficult is with localized detail. While you may not be planning to go to a given port, weather or a medical emergency might force your hand.

Over the years we've probably bought as many used charts as we have new. We've frequently made do with tracings of charts that have been temporarily loaned to us. Most countries have at least one company with a large copier, and full-size copies can be typically made (in black and white) for around \$2. Beware that with copies the scale changes a bit from place to place on the chart.

One source for inexpensive reproductions is Bellingham Chart Printers in Bellingham, Washington. They even have chart "folios" that cover entire regions. Their charts typically cost around \$5, or a little more than a third of the originals. Another approach are chart kits such as those produced by BBA. Many of the cruising guides also offer details of harbors and anchorages.

Keep in mind when you're searching for charts that most national authorities do not reissue old charts if they haven't visited the locale within a set time period (with the U.S.DMA it is typically 20 years). This means that charts for a good cruising area may no longer be available new. Don't wait until the last minute to find out.

### Celestial Tables/Almanac

Even though you have a couple of GPSs aboard, you should have a set of sight-reduction tables aboard, along with an up-to-date almanac. New almanacs are sometimes hard to come by out in the really good cruising grounds, and there is a page in the almanac that tells how to make it work for a second year. But, if the chips are down, navigation is critical, and you are rusty on your celestial, it is much better not to have to go through the updating process.

### Cruising Guides

There are cruising guides available for just about every part of the globe. These vary in accuracy, so check with folks who have used them before you buy.

### Miscellaneous Materials

You should have an up-to-date light list aboard to help in identifying light characteristics (even with GPS it is nice to confirm your position with a second LOP). You should also have tide tables should also aboard (we always note tidal state in the log for each day when cruising in thin water — this way in a grounding you instantly know if the tide will shortly float you free or if you have only minutes before a falling tide traps you for hours).

### Keep Your Eyes Open

Keep in mind that things change. Coral grows, wrecks occur, mooring buoys are installed, lights change. Always take anything in writing with a grain of salt and keep your eyes open. Before entering a new harbor, try to get local confirmation that your printed material is accurate. And, when possible, avoid entering strange harbors at night.





A tidepool is good for hours of education and entertainment. This one, on Cocos Keeling atoll in the middle of the Indian Ocean, has Elyse and Jeff MacDonald in its spell.

## CRUISING WITH KIDS

I'm entertaining the family on *Intermezzo* by reading aloud, a custom we've followed when voyaging by land as well as by sea. We're on a reach, bound for the Fijian Islands, perhaps the finest cruising grounds in the entire South Pacific.

One of the times of the day we like best is when we all gather in the cockpit for stories. Through the written word, our imaginations transport us to other places, other times. We've read *Huckleberry Finn*, *Tom Sawyer*, *Ivanhoe*, and *Little Women* on other passages. Jack London cooled us off in the sweltering doldrums with "To Build a Fire" and its welcome descriptions of blizzards and ice storms. But now it's John Steinbeck's *Tales of King Arthur* that transports us back in time to medieval England. Today I read about the knights of the Round Table; the children are all ears.

After a reading session Elyse will go on to other activities: absorbing a book by herself, writing poetry, embroidering. But Sarah?

She becomes what we have read. She builds a throne in the main saloon by stacking pillows on the settee. Then she creates a crown by fastening clothespins to the rim of a tambourine. A majestic bath-towel cloak held closed at the neck with another clothespin and her daddy's long socks complete the costume. Now she is King Arthur holding court in Camelot. A year later when she reads Louis L'Amour westerns (youngsters become sophisticated readers at sea), she will ride the range on the mainboom of her old steed *Intermezzo*. Her imagination soars and stretches much as the seas rushing beneath our keel.



Sarah always loved to meet the local kids. This took place on a remote island in northeast New Guinea, Nissan, where the U.S. had an air base during WWII.

This development of imagination is a major benefit that I didn't expect from cruising. Children are forced to use their creativity. They are severed from the television cord and are much richer for it.

## Schooling

A well-developed imagination is not the only benefit children gain from cruising. Many cruising kids receive excellent educations as well. Because I am a teacher, education was a major concern of mine when we considered taking the children cruising. We used Calvert School correspondence courses. The material is packaged in a simple-to-use form, and our kids looked forward to their daily lessons. The courses are designed to be taught by parents who are not experienced teachers. Lesson plans are concisely assembled in a manner that makes it easy for any adult to present. To show you just how easy, here's a typical 5th grade session.

Each lesson begins with math, in which you discuss material on two pages, then do 12 problems in a formal paper. Next might come English, which is covered about every third lesson, usually consisting of grammar and punctuation. Geography is taught two or three times a week. A workbook is used, and the student must read the information, then answer pertinent questions. Reading is taught daily. A variety of books are used, including short novels, anthologies, and workbooks. Emphasis is on comprehension, vocabulary, and speed. Spelling is presented daily, with 10 new words each lesson. The final subject would be either composition, art history, art, or poetry. On days when geography is not given, science is substituted.

Typical lessons in the lower grades take two hours to complete. The daily time required went up as the children grew older. The most it would take would be three hours. Teaching school on a one-to-one basis is vastly more efficient than



We visited a huge open-pit copper and gold mine in the mountains of Bougainville Island in northern New Guinea.



Calvert correspondence courses did well by Elyse and Sarah.



The most used toys aboard were Legos. Everywhere we went they were in demand, with locals as well as cruising kids.



teaching in a classroom with 30 other children. We quickly learned to cut through busy work. For instance, each week I would give the girls their new spelling words by asking them to spell for me orally. If they spelled the assigned words right, there was no need to belabor the point by working with them in sentences all week. In the math assignments, I would choose five or ten sample problems from the lessons to do first. If they completed the problems accurately the first time, we skipped the rest of the problems assigned. Overall, with interruptions for meeting new friends, exploring, passaging when weather wasn't conducive to schoolwork, a 9-month course usually ended up taking 12 months.

I supplemented our course material with social studies and lessons on the areas we were visiting, coupled with natural science as it occurred in our travels: fish, shells, volcanoes, flora, and fauna. One late summer and early fall we were able to take the boat up the east coast of the U.S., where we visited many historical locations. Sarah was studying American history, and it was perfect to be able to visit the sights of the American Revolution and early colonies of our country. The fact that we were there during the off-season, when other children were in school, meant that the crowds of summer were gone.

I feel that Calvert provided a sound, basic education. I particularly like the stress on phonics in reading.

On their return to school in the United States, Elyse and Sarah tested in the 99th percentile of their age group in the California Achievement Tests and consistently made high marks. Elyse graduated as salutatorian of her high school class and from Brown University. Sarah was named valedictorian of her class and graduated from Wesleyan University in Connecticut. Obviously they weren't hurt scholastically by cruising. Both girls feel the years on the boat gave them a foundation of working independently and efficiently in their studies. This experience seems to be the norm rather than the exception with cruising kids.

Our Australian cruising friends, the Marriotts, have taken the exchange-student route. They've taken American and Japanese foreign exchange students into their home in Australia, and their daughters Cherie and Deanne have experienced education abroad themselves. Cherie spent a year living with a family and going to school in Independence, Missouri, and Deanne attended school in Japan. All of these girls have been at the top of their class standings; all had the benefit of a solid, basic education obtained while cruising, combined with the stimulation of travel.



Elyse had climbed down into this crater of a somnolent volcano on the outskirts of Rabaul. She went with the local volcanologist to check surface temperatures. Eighteen years later this volcano erupted, burying Rabaul!



Cards were another staple in our entertainment inventory.





Elyse, Sarah, and their good buddies, Cherie and Deanne Marriott from *Makaretu*, find out where cocoa comes from.



The Solomon Islands are littered with WWII wreckage.



## Social Development

It hasn't all been a rosy scenario, however. Elyse feels that the cruising lifestyle was damaging to her in developing social skills. Although we saw benefits in taking the children cruising, if we honestly analyze things, perhaps living on a boat was difficult for her.

Family togetherness is another advantage reaped by members of the cruising community. Even in bad weather, family scenes afloat aren't all that different from life ashore in less hurried times.

I'm making bread: Thump and punch and turn, and thump and punch and turn. My kneading of dough matches the pounding of *Intermezzo's* hull as we slam into head seas slogging our way towards New Caledonia across the Tasman Sea. We're paying dearly for those last two idyllic days when we couldn't tear ourselves away from that pristine anchorage in Whangaroa, New Zealand.

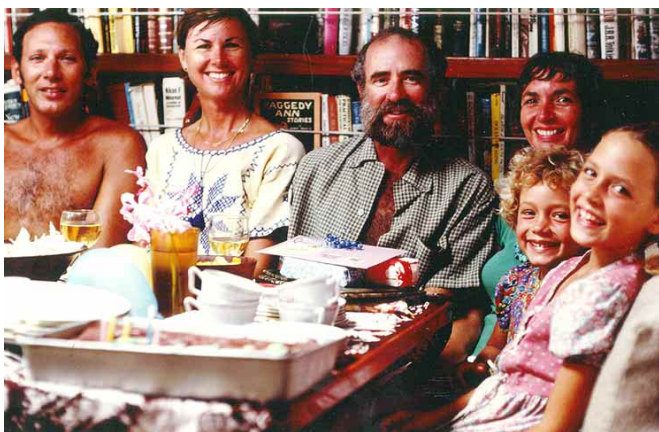
It's autumn, the end of the hurricane season (May), and time to move on. But our boat's reflection had shimmered in the still, clear water of the quiet anchorage. A black-sand beach, full of tasty clams perfect for steaming, had lain close at hand. It was all so comfortable. Meanwhile, winds in the high-pressure weather system hovering between Australia and New Zealand had been clocking as the high moved across the Tasman. Had we not lingered for those glorious days, we could easily be broad reaching. Instead, we're now beating into head winds.

Sarah is at my side, helping in the galley. I'm wedged into a corner, held in by my safety strap. She has perched herself on the counter to supervise and clean the bowl, getting the sticky dough all over herself. Elyse is reading directions from our *Betty Crocker Cookbook*. "School's out" on

account of bad weather. The aroma of the freshly baked bread wafts up from the oven, filling the boat with heavenly smells.

These fragrances remind me of my mother baking fresh bread when I was a little girl in Idaho. On a cold winter's day, she used to time the baking so the bread was coming out of the oven just as we arrived home from school. The delightful smell greeted us as we walked in the door, and we rushed to the kitchen to enjoy the freshly sliced hot bread, oozing with melted butter and, more often than not, some berry jam that my grandmother had put up the summer before. Many children nowadays are deprived of such experiences. Caught up in the syndrome of car pools, supermarkets, employment, and an overall faster pace of life, many families rarely bother to bake. Cruising has removed us from the frenzied pace of everyday living and given us the time to enjoy our family on a minute-to-minute, hour-to-hour basis. Both Steve and I are on hand to share in the education process, discipline, and play. Whereas many fathers rarely have the time to spend with their children, a cruising father is there 24 hours a day. He can share his love of sailing and the sea with his offspring, opening avenues of communication which can last a lifetime.

Not only did our family share in the fun and adventure of voyaging, we also shared responsibility for running the boat. When the kids were younger, they were responsible for setting and striking the flag at anchor, for keeping their bunks clean, and for helping with galley preparation and cleanup. More maturity brought on more



Making bread (top) while beating our way to New Caledonia.

The kids formed a string of friendships with many of the "older" cruisers we met. Two-time circumnavigators Al and Beth Liggett (above) joined us for Sarah's birthday in Rabaul, Papua, New Guinea.

Jim and Cheryl Schmidt (left) were more fun for Sarah and Elyse to play with than a lot of other kids.



responsibilities. Soon they were helping to scrub the decks, polish the chrome, clean the windows, and tackle a myriad of other boat-related tasks. Eventually they even helped to navigate and steer, and they stood limited watches.

We feel that the close family ties and the control we had over our children's environment was one of the biggest pluses in taking children cruising. We met their friends' parents at the same time they met the kids. We did things together as a small floating community; when you cruise, socializing is carried out on a "family" level, with adults and children sharing activities.

We found that the verbal skills of most cruising children are highly developed. Cruising children are constantly meeting new adults afloat and ashore through their parents. Therefore many seagoing children have a very mature vocabulary.

Finding peers can be more difficult. As a result, cruisers with children tend to stick together. Those of us traveling with children naturally sought out one another. We made a point of cruising together whenever we could. On daysails we often invited other children to come aboard *Intermezzo*, meeting their parents at the next anchorage.

One Halloween found us anchored in the Blue Lagoon in Fiji with the Marriotts aboard *Makaretu*. They don't celebrate Halloween in Australia, so we taught them our tradition. All the girls dressed in costumes and took one of the dinghies on a trick-or-treat tour of the anchorage. Afterwards we carved jack-o'-lanterns from large papayas (a good substitute for a pumpkin) and had a Halloween barbecue on the beach.



Our girls and their Aussie mates from *Makaretu* celebrate Halloween in Fiji, and then a birthday party in the Solomons.







Sarah, Elyse, and three New Zealand bunnies enjoy an afternoon reading session. Both children became voracious readers during their early years aboard, a trait common with cruising children.

## Offshore Routine

It's the days spent passagemaking when children have to entertain themselves. We took along an abundance of boardgames; creative toys like Legos; books; and simple art supplies (colored paper, glue, marking pens, pencils, and crayons). On these days, contemplative and creative skills are honed; the only problem is that contact with other children is lacking.

Once you enter the cruising grounds, seasons and weather patterns generally dictate when you move and what your destination will be. As we made our way around the world, Elyse and Sarah made close friends on many boats. They had roots of a sort: Participating in a floating, moving cruising community. The children made friends that they would be assured of seeing again and again in various spots. Knowing a friend was waiting at your destination made landfall much sweeter.

As we beat slowly towards the southwest corner of the island of Bali, we're itching to give *Intermezzo* her head. Shortly we'll be able to fall off downwind, set our spinnaker, and be free of congested archipelagoes, reefs, and treacherous currents.

Clear of land, it isn't long before a gentle swell and 14-knot southeast breeze have the speedometer sitting on 8 knots. We sit down to a meal of stuffed, roast chicken, fresh salad, steamed cauliflower, and fresh apple pie. Not a bad start for our crossing of the Indian Ocean.

First stop on our journey will be Christmas Island. Rugged and steep, with towering cliffs and no protected anchorage, it has been worked for its minerals by the British Phosphate Commission since the turn of the century. Christmas Island is a temporary home to several thousand Europeans and Malays and its inexpensive foodstuffs and warm hospitality have made it a favorite stop for sailors since the days of Joshua Slocum.

We close with the island our third night at sea. A slice of moon, bright starlight, and a detailed chart ease our night approach to the open roadstead which serves as the primary anchorage. The hook is down at 0130. With clean sheets on the bunks, hot showers, and a midnight snack of homemade pickles, cold chicken and sliced tomatoes, *Intermezzo's* crew contentedly "hits the sack."

The next day we mail our year's collection of holiday presents from Christmas Island, appropriately, and set out to explore. The yacht club offers a serve-yourself policy where the door to the refrigerator and bar are open, and the local bus line gives free, albeit short, rides through town.

In the market we meet Gayle Thomsatt, wife of one of the three local doctors, who graciously offers to take us on a tour the following day. We are impressed with the large phosphate works and think that the calcium pinnacles left from the mining process look like a Salvador Dali farm scene.

The Thomsatts are enjoying raising their family in the tranquility of a community where small pleasures are the order of the day. Most of the workers return year after year, preferring island life to the earthier pleasures of mainland Asia and Australia.

Three days' sail to the west lies Cocos (Keeling) Island, a coral crown on a sunken mountaintop, with beautiful white-sand beaches, seclusion, and abundant fish, or so the cruising grapevine has it. We bid farewell to our friends and prepare to go to sea.

Once clear of the anchorage, with a light southeast tradewind, we set the spinnaker. But we're getting into the region of stronger trades, and it isn't long before the spinnaker is back in its turtle and the number 1 jib top is on the pole. By mid-passage, conditions are such that we're doing 7 knots in big swells under a double-reefed main with a number 3 jib (typical of Indian Ocean weather). During the next two-and-a-half days we drop down through our headsail inventory, ending up with a double-reefed main and storm staysail as we beat around the northeast corner of Cocos Island in 50 knots of wind.

Cocos is low-lying, with many areas of reefs between the various islands on the perimeter of the atoll. It's a difficult landfall, and we're pleased to be in calm water once again. Tacking to starboard, working our way into the lagoon, you can imagine our surprise as we count 12 spars in view in the lee of Direction Island. Carefully threading a passage through the shoal patches and coral heads, *Intermezzo* comes to rest just 100 feet (30.5 m) from a beautiful white-sand beach, and I let go our 75-pound (34kg) plow in two fathoms of water. The anchorage looks like the cover of a travel brochure. This atoll is a haven from rough seas. The pristine beach and crystal-clear water are all the more welcome sights in comparison to conditions outside the lagoon.

We notice that the 31-foot (9.5m) *Horizon* with Liz, Bruce, and Jeff MacDonald (age 10), is already anchored. Elyse and Sarah are ecstatic to find a playmate.

In the days that follow, most of us with children aboard keep the same routine in port, designating mornings for school work, and afternoons for play. After school is out, Elyse, Sarah, and Jeff spend hour upon hour making elaborate saltwater aquariums in the tide pools at the beach. They gather miniature starfish, tropical fish, sea anemones and small seashells. When the incoming tides disperse their work, they simply start all over again. It's great fun, and educational, too.

Soon after we anchor, the Hast family arrives on *Sunday Morning*. Daniel and Veronica add to the water-sports entertainment, for they have a canoe with them.



Schoolwork goes on even during an Indian Ocean passage.



Our basic rule was that the kids could not come up the companionway ladder unless they were connected to the cockpit tethers beforehand.

As a result, they got used to wearing their harnesses during waking hours so they were ready to jump on deck at the first cry of "porpoise" or other interesting phenomenon.





A typical beach scene at Cocos Keeling atoll in the middle of the Indian Ocean (above).  
And yet-another party with the local fleet (below)!



Late August or early September is the traditional time of year to cross the middle of the Indian Ocean, and Cocos is a jumping-off spot for alternate routes. Friends we had cruised with since Tahiti were heading for Sri Lanka and the Red Sea. Others, like ourselves, would go to South Africa, via Rodrigues and Mauritius, while some were heading for the Seychelles, via the Chagos Archipelago. We made an international flotilla with yachts from West Germany, Belgium, France, the Netherlands, Canada, New Zealand, Australia, and the U.S. It was a congenial community as we shared the excitement of crossing this great ocean.

The crossing of the Indian Ocean would be our longest since crossing the Pacific three years previously. Ahead of us lay 2,000 miles of the strongest trade winds anywhere. Eleven days later, having spent most of the passage under number 3 poled-out jib and reefed main, we rounded up in the lee of Rodrigues Island. Having been told our boat's 7-foot (2.1m) draft might be too much for the narrow, winding channel through the coastal reef, and approaching the indentation of the





Our reception at tiny Rodrigues Island was just a bit overwhelming (above). The harbor at Rodrigues was compact, with an entrance channel barely wider than our beam (below).



coast which forms Port Mathurin, we feel, if nothing else, that we can anchor by the lee of the reef and relax for a few days. But a local boat comes out to meet and inform us that the pass has been blasted and dredged. Moving closer, we can see a small freighter lying alongside the wharf, and in 15 minutes we are just ahead of her. A large crowd of Rodrigans is on hand to greet us and help secure our lines.

Ah Kee Long, a giant of a man with a Fu Manchu mustache, hops aboard to handle official clearances. This completed, we are happy to accept his offer of a drive around Rodrigues Island in his ancient Volkswagen. Bouncing along the bumpy, unpaved road, going through chuck holes and up and down hills, we are impressed with the ethereal colors of the landscape. Something about the sun and the atmosphere have catalyzed the colors to take on a golden Gauguin-like hue.

Corn is the main crop. The island was once self-sufficient, exporting agricultural products to Mauritius, but the few farmers no longer bother to grow for export. Rodrigans are barely holding their own, a casualty of welfare from Mauritius.

Still, we have seldom, if ever, met such polite, gentle, and helpful people. A case in point is Etienne Lamto, the tailor who offers to work on our torn mainsail and two jibs. He's not a sailmaker, but he fixes the sails while Steve waits, pushing the 8.5-ounce, 420-square-foot (39-square-meter) mainsail through an ancient foot-treadle sewing machine, doing a beautiful job in the process. Later, when the island administrator gives them both a ride back to *Intermezzo* in his Land Rover, Etienne refuses payment for his work. Steve finally persuades him to take \$20 for his brother-in-law who owns the sewing machine.

Our two-day stay stretches to a week. Each day, the people, curious about the boat, line the wharf, taking their lunch breaks and wearing their straw hats, without which they never go far. Children come by after school to look us over.

Although English is the official language, and has been since France ceded Rodrigues and Mauritius to England as part of Lord Nelson's booty, French remains the common language. It's part of the agreement that the British would not disturb the French traditions.

Cruising with children is a great way to break the ice in new lands. It must be universally true that people meet new friends through children or pets. This was the case with us, as often the children would help in establishing a new personal relationship as we went from country to country. Who's to say the reason for this phenomenon? Perhaps it's because most societies are founded on family life, and locals can relate to visitors traveling as a family. I'm sure that couples traveling alone are treated with courtesy and warmth, too, but the children clearly have a way of attracting attention.

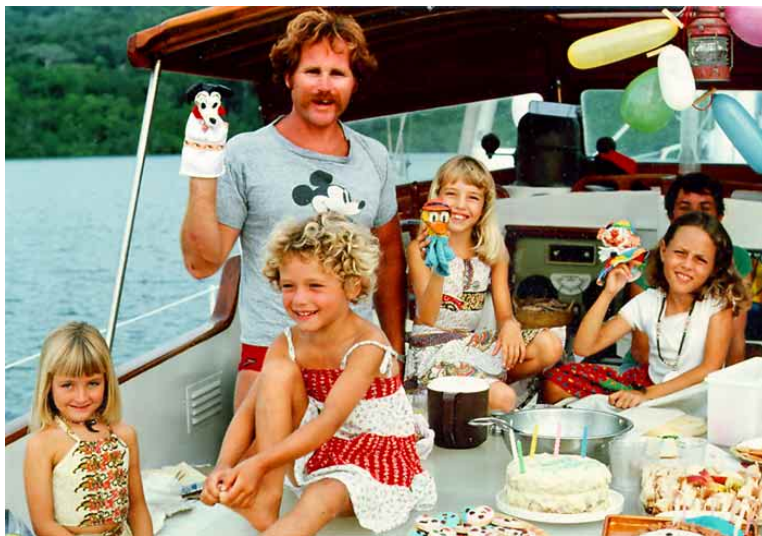
Ah Kee arranges a trip with a driver and guide to the limestone caves, after we consume a lunch of sweet-and-sour squid and curried fish, served in his friend's sparsely furnished restaurant.

The Land Rover takes us as far as it can, after which we walk down a rough road through stony fields. The guide meets us along the way, carrying two torches soaked in kerosene. Entering the caves, large and damp, with stalactites and stalagmites, we are happy he has the backup torch to light when the first one flickers and dies. I'm reminded of Tom Sawyer and Becky Thatcher's experience getting lost in a cave, and remember Injun Joe's fate from the same story. It's good to reenter the sunshine-filled day and return to *Intermezzo*, where we complete preparations for going to sea once again.

People often wonder what happens on a long passage. Sailing nonstop from Cape Town, South Africa, to Antigua in the West Indies, early in spring the next year, we were at sea for 36 days. In addition to the normal routine, Elyse and Sarah occupied themselves for days prior to Easter by writing, rehearsing, advertising, and finally producing an Easter play. They made posters, tickets, programs, scripts, and costumes for themselves and their various dolls and stuffed animals. There was a period of a few days as we entered the doldrums area where we brought the boat to a stop and took swimming breaks in the afternoons.

But sometimes imagination and self-sufficiency are not enough, and cruising children can find themselves at a disadvantage in social adjustment when they return from an extended cruise.

Elyse was reserved about making new friends when entering school. She had trouble participating in group sports. Kids who had played these games for years got angry when she made mistakes, and they didn't want her on their teams. Sarah was younger, more outgoing, and athletically inclined, so reentry didn't pose that problem for her. Eventually, Elyse made her way, too.





## What Age Is Best?

It seems to me that the best age to take children cruising varies from family to family. Children are individuals on board boats, just as they are ashore. Some will take to cruising and some won't. Younger children are generally more flexible and adapt better. For this reason, it may be easier to take young children sailing for long periods of time than older children.

In many ways, babyproofing a boat is easier than babyproofing a house. You're working with a smaller area. We've known several couples who have had babies during an extended cruise. Babies easily fit into life aboard. You will frequently encounter boats with netting strung along the lifelines, a sure clue that there may be a baby or toddler aboard. Given the room, it's easy to secure a playpen on deck, providing your baby a safe spot to play. Once they start walking, a tethered safety harness can allow the little ones full run of the deck, while under parents' supervision.

Steve's sister, Leslie, was a baby when their family cruised on the 76-foot (23.2m) schooner *Constellation* from Michigan to California via the Panama Canal in the late 1940s (just 2 months old when they started their trip.) They rigged a swing for her down below; she had her own snug bunk off the master stateroom, and when she needed to go to sleep, all they had to do was turn on the diesel generator; the deep hum put her into lullaby land right away.

The Marriotts traveled with their youngest, Belinda, from when she was just a few months old until she was three. She went right along with the family on island excursions, often riding strapped to her father's back. Pediatricians cautioned Cheryl Schmidt against taking babies into malaria-infested countries, as it is difficult for babies to take the anti-malarial medication, but other than that, babies fit into most cruising plans.

On the other end of the age scale, some high-school teenagers may balk at the thought of leaving their friends and activities. Other teens love the idea of having a sailing adventure and welcome the chance to travel. We've seen it work both ways. Teenagers are old enough to know their own minds and should be consulted about family cruising. If you decide to cruise with a teenager,

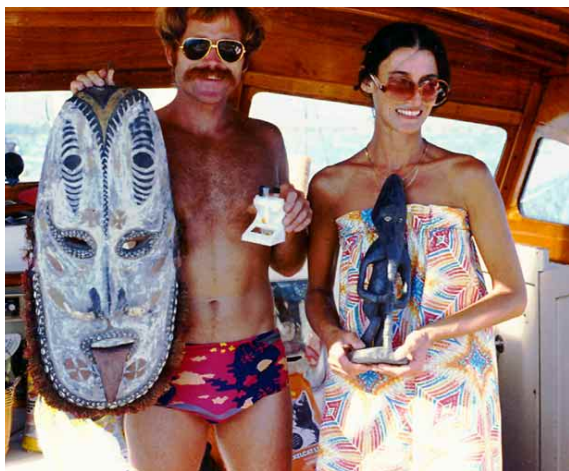


Steve's baby sister, Leslie, started cruising when she was 3 months old.



These little guys have been cruising since birth, and when we met in the Marquesas they seemed to be enjoying the lifestyle. I'm not sure if the helmet on the smaller child is for protection from the boat, or from her older sibling.





The grass is always greener...Jim and Cheryl Schmidt enjoyed our children so much they started thinking about a family of their own. (We used to envy their late mornings and ease of taking off at a moment's notice for an evening ashore.) Then they traded for a fertility mask and figurine, and six weeks later, in Darwin, Australia, there was this little circle in the test tube. Eight months after the circle, out popped the figurine getting a bath in *Wakaroa's* galley. Now that Elyse and Sarah are grown we get to sleep in late, while Jim and Cheryl have years of early mornings ahead of them. J.P. Schmidt is now 6'3" (1.65 m) and 227 pounds (103 kg), and Mikey Schmidt is closing fast.

you should know that excellent high-school correspondence courses are available through the University of Nebraska and through the University of California at Irvine.

One of the biggest concerns cited deals with the children's safety. While you can't protect yourself or them from every possible risk, we feel that the cruising life exposes them less to uncontrollable risks than those in shoreside life.

### Leaving Kids on Their Own

From time to time you will be faced with the question of leaving the children aboard without supervision. Family ties are close afloat, but every now and then Mom and Dad want a night by themselves. Perhaps it's just dinner with friends aboard another yacht, maybe an evening meal ashore or a movie. But babysitters are hard to find in most cruising spots, and we all worry about the younger generation left aboard to their own devices.

When we started cruising with Elyse and Sarah, at seven and four, we wouldn't leave them aboard without adult supervision. Many times shoreside friends or other sailors would volunteer to babysit while we had a night out. But as we grew accustomed to our waterborne home and the kids got older, we worked out a set of parameters for leaving the kids on their own.

The first deals with environment, both social and physical. If we have a good secure anchorage, plenty of swinging room, and no chance for the weather to deteriorate and create a dangerous situation, we'll consider leaving them. Basically, the same factors apply here with the kids aboard as it would if we were leaving our boat on her own. Then there's concern about any possible temptation of others to come aboard during our absence. In the daytime, in most parts of the world, this is not a problem. If there are other yachts anchored nearby, that's also a help. We advise neighbors that we are leaving the children and ask that they keep an eye out. The last factor to consider is the age and abilities of the children. Ours, at four and seven, were just too young. At seven and ten, when they had their sea legs, we felt comfortable.

When the children are left aboard they not only have to look to their own safety, but to a certain extent that of the boat, too. Our first concern is with falling overboard. Kids have to be able to swim, and there must be an easy, ready method of getting back aboard should an accident occur. The children have to demonstrate prowess in boarding after an accidental swim. With 24-inch-high (590mm) lifeline stanchions and tender ages, we required the kids to stay in the cockpit when topside. Three years later, with 10- and 13-year-olds and 32-inch-high lifelines, they had the run of the deck.

The next question deals with requesting help. If we are on another boat, the VHF is left on. The kids know that if they can't raise us, they can always call someone on channel 16 to get help. Sometimes we ask a friend to monitor a selected channel. Then there's the masthead strobe light; visible for several miles, it's a good sign that someone wants our attention. We have Elyse and Sarah use both strobe and VHF from time to time so that they, and we, are sure they're familiar with the switches involved.



As the kids get older, they take on more responsibility. As a teenager, Sarah plots a DR position on the way back from Hawaii while her friend "Sleeze" looks on.

What if an emergency situation occurs that requires their action, before we can be contacted? Our major concern is fire. I discussed this with a fellow cruiser I hailed in Beaufort, North Carolina. We were on our way south from the Chesapeake. Rowing back to the boat, having mailed some letters, I noticed a man heading ashore with his two young sons. Anxious to get another opinion on this subject, I asked him if they ever left the boys alone on the boat.

"Sure," was the reply, "I think it's safer to leave them for short periods on the boat than it would be in a house. If there's a real bad problem, like a fire they can't control, we leave their life jackets handy and tell them to jump overboard and swim well away from the boat."

We were so engrossed in our discussion that we didn't notice the current was carrying us way past the town. Laying back to the oars, I determined to add his input to our thoughts on the subject. The children should know how to shut down the electrical system, use a fire extinguisher by aiming at the base of the fire, get on deck and/or into a dinghy using emergency exits in case the companionway is blocked. We have practice drills occasionally.

Cuts and bruises requiring elementary first aid are treatable without parental assistance. Elyse and Sarah know where the first-aid kit is, how to clean a cut and apply antibiotic ointment, and how to (hopefully) keep blood off the saloon cushions.

Then there are the boat-related problems that require the kids to contact us. They're familiar with the electrical control panel and how to shut down any system if need be. During our normal cruising schedule Steve and I try to get the kids to run as many of the systems as possible on a routine basis. That way they know what to do in an emergency. Leaks require the closing of through-hulls. If the water pump starts to run because the tank is dry, they can recognize the sound and turn it off. They know how to use the manual bilge pumps as well.

I remember a story Steve's mom told me about how, as an eight-year-old, Steve saved their schooner from damage. The *Constellation* was tied to the 79th Street landing in Manhattan, and, with his parents gone, she broke a springline restraining her against a heavy flood tide. Steve ran below, started the main engine, and put *Constellation's* engine slow ahead to relieve the strain until a new springline could be rigged. Let your kids practice handling your vessel so they will know how to react on their own.

If ground tackle is light enough and a second anchor is ready, your children should be able to set the second hook if the weather changes or if you start to drag. Or, better yet, given swinging room, let out more scope to relieve anchor loads.

Finally, we always write a list of instructions before leaving the children alone on a boat. Just as you might leave a neighbor's telephone number, you can also state instructions on who to call on the VHF, when to use the strobe, and other dos and don'ts.

Teaching your children to take care of themselves aboard during your brief absences will yield rewards far in excess of an occasional night out for you and your spouse. It means newfound inde-

pendence and self-confidence for your children. And, as kids become teenagers, life gets downright interesting. With a little experience they will be moving the boat for you when you're ashore and keeping an eye on things when you head inland for a trip on your own.

I'm glad we decided to voyage when we did. Taking the children bluewater cruising could be one of the best things we have ever done for them. They've been exposed to other cultures and ways of life, have been taught to assume responsibility, learned self-reliance and independence through sailing; they've cultivated nascent creativity and have learned to cope with loneliness and boredom.

We found that our family as a whole grew closer together. And when we finally returned home — and most passagemakers eventually do — our children had a broad base of experience on which to cruise into adulthood.



Weather cloths (top photo) work the same as netting to keep little ones aboard.

Sarah and Elyse from an early age helped to look for coral in protected waters (left photo). Below, they are crossing a log bridge in the Solomon Islands with friends Cherlie and Deanne Marriott.





## WOMEN'S PERSPECTIVE

"Honey, I want to go cruising."

I couldn't believe I heard myself saying the words. After all, cruising is a big change for anyone, and even though my husband Steve and I had raced sailboats together, we were always home in the evening. And now, I was talking about making a boat our home!

We had been discussing changing our lifestyle for a couple of years, when Steve, returning from a business trip to the East Coast, broached the subject of selling our home and taking off for a year on a boat, my first reaction was one of fear. Fear of leaving my comfortable home, concerns about educating our two children, and a dozen other worries that immediately sprang to mind.

But as we sat in our kitchen, looking out over the Santa Monica Bay, I began to think about the opportunities this would present. In our present lifestyle we both had our

noses to the grindstone almost every waking hour. Steve rarely saw the children; he was either traveling or working late. We both seemed to be continually on the run. Taking off for a while would give us both a break; a chance to renew and reinforce our relationship. And time for our two girls to become more involved with their father during their early years.

I had read somewhere that in order to lead richer, fuller lives we must be willing to take chances from time to time. After thinking about what this change in our lifestyle could offer, the answer was obvious...I did want to go cruising. Once the decision was made things seemed to move in a blur. We put our house on the market and began to look for a boat. Suddenly the house was sold, we'd found a boat, and it was time to move aboard. I was in shock.

The reality began to sink in as we packed up our furniture for storage. The decision to go cruising seemed to make perfect sense on an intellectual level (it was what I wanted to do, but emotionally I wasn't ready for the break).

For one thing, I was concerned about our safety. I wondered about being able to handle the boat if something happened to Steve, and I was even concerned about such mundane things as cosmetics, keeping our clothes clean, and maintaining a healthy, diversified diet. Would we be able to provide a stable environment for the girls? I was attached to our house and had dreams about walking through it when someone else was living there.

In those days there were few magazine articles about long-term cruising, and virtually no cruising books to read. So I learned as we cruised, and most of my fears evaporated within the first couple of months. And by the time we'd made our first ocean crossing, I had learned to deal with things as they came up. Nearly all of my pre-departure fears had disappeared. The cruising lifestyle had become second nature, and I felt a tremendous sense of accomplishment and well-being. A country girl from the mountains of Idaho, I'd become a convert to the wide-open horizons of long-distance cruising.

Yes, there were trade-offs in a lot of areas. But the benefits far outweighed the negatives. From new friends (ashore and afloat) to new sights, foods, and cultures, our life aboard was taking place in a much wider panorama than what we'd experienced ashore. Steve and the kids developed the type of healthy relationship between children and father that we used to dream about. We found that we could get through a day's schooling in a matter of hours with the rest of the time left for creative projects to expand Elyse and Sarah's young minds. And it was fun doing the home schooling.



An afternoon get-together in Hanalei, on the island of Kauai at the northern end of the Hawaiian chain.

Steve and I grew closer together, as we both had the time to spend on developing our own relationship.

We found that cruising was much less expensive than we'd first projected. We were able to have a very nice standard of living for less than an eighth of what we'd been spending ashore.

Between the enjoyment of this new cruising lifestyle and the reduced budget requirements, our initial year off stretched into two, then three years. As time went on we found ways to supplement our cruising kitty. Our cruising didn't end until we felt it was time to bring the kids back to a land-based existence to finish their schooling, six years later.

Of course, the approach to cruising varies between individuals — usually between the sexes. It is not at all unusual for a woman to be uncomfortable with the whole concept of giving up the security of a comfortable home for the unknown.

The biggest problem that I had in adjusting to the concept of going cruising, and then actually preparing myself to go, came from a lack of understanding of the issues involved and skills to be learned. It wasn't so much the learning, *per se*, as it was figuring out what knowledge I should pursue.

What follows is a synopsis of some of the things I've learned along the way that will impact on your enjoyment of the cruising lifestyle. Most of these issues are covered in more detail.

## **Empowerment**

If you're going to be serious about learning the skills necessary for safe, enjoyable cruising, you need to be in a position to get real-world experience. This means actually hoisting and dropping sails, reefing, and practicing various maneuvers. It means handling the boat under power (both from the wheel and with declines) and learning about the on-board systems.

You need to get your hands on the "controls," be they sailing- or machine-oriented. This means displacing your mate at the wheel and the mainmast. You should be able to do everything aboard the boat that he does. Maybe not as skillfully or as fast (at first), but nonetheless you need to be able to get the job done (it is not at all unusual to find experienced women sailors who are as good or better at sail handling, docking, and navigation as their male counterparts).

If your mate is more experienced than you are, it makes sense to work out a way of getting this kind of experience on your own. There's less pressure this way, and you can work through the learning curve without worrying about pleasing anyone else. (I took sailing lessons on my own the first year we owned a cruising boat.) This hands-on experience will bring a wonderful sense of accomplishment and freedom.

## **Safety Issues**

Most cruising concerns start with safety, and these are usually related to boat handling, especially if your partner is incapacitated. If you're the only able-bodied person aboard, can you manage?

Well, I'm here to tell you that if the boat is set up properly, with a minimum amount of education and lots of on-the-water training, you should do just fine.

## **Acquiring the Skills**

There has never been an easier time to learn about cruising. From a variety of charter opportunities, seminars, schools (both on the water and in the classroom), to books, videos, and magazine articles there's an overwhelming amount of information for the taking.

Where do you start? My advice is to get your feet wet (no pun intended). Join a sailing club, or take sailing lessons. Having some firsthand experience of on-the-water feel for a boat and its needs will make assimilation by reading, watching videos, and being in the classroom quicker and easier.

## **Boat Handling Under Sail**

You are going to need to learn the basics of sailing. At first the concepts and nomenclature will seem confusing. But with an instructor to show you the way, by the end of the first afternoon you'll have the basics down. Learning to sail is certainly no more difficult than learning to drive (and a lot safer).

Start with getting the boat ready to go sailing. Go through every step: removing covers, attaching halyards, leading the jibsheets aft. You may find it difficult to reach some of the gear or work the winches. That's a sign that something needs to be changed (and if it's someone else's boat, make notes on what works well for you and what doesn't, so when you get your own vessel you'll have a better chance to pick the right one from a sail-handling standpoint).

Then do all of the sail hoisting yourself. It is probably going to take awhile to hoist the mainsail, but with geared winches it's not a question of if it will happen, just how long it is going to take.

You will need to understand the basics of what makes a sailboat go and how to trim the sails. The basics of sail trim are rudimentary, and you'll soon master them.

Next, turn your attention to shortening sail (reefing). Do this first in moderate conditions. Practice reefing and unreefing the mainsail. The first couple of times it is going to be a tangle of lines. But within a day or two you'll have the system down pat.

## Handling Under Power

You will probably be surprised to learn that sailing can be a lot easier than powering. The handling characteristics of sailboats vary widely from one design to another. Some designs will do exactly what you want, while others are difficult, to say the least. This is one of the things you want to check carefully when you're considering the purchase of a new boat. A boat that is difficult to handle under power often leads to a lot of yelling among crew members!

While the basics of handling a boat under power are somewhat universal, the details are going to vary. So, be prepared for a new learning curve with each new boat.

Here are the basic skills to understand: Stopping. Find out how long it takes to stop the boat at various speeds. It took me awhile to feel I had the boat under control in reverse. Until I got comfortable with stopping the boat I felt not unlike we were slipping on ice. Turning: How much room does it take to make a tight turn? Backing up: Can you back up straight? If so, how do you get this process started? Many boats won't back up straight, but will usually turn in one direction. Which way is that? Drift: If the boat is still in the water and the wind is blowing on the side, how quickly does it drift downwind?

## Docking

Once you've practiced a bit with powering in open water, try docking. Make sure the fenders are placed over the side and dock lines are rigged. Dock lines should be light enough for you to throw with ease (and practice throwing the lines flat, from a coil held in your hand). If the lines are too light for long-term docking they can be replaced with heavier lines after you're secured.

## Emergencies

The one thing I fear more than any other is Steve taking a spill over the side. Of course, we have secure, 32-inch-high lifelines to keep us aboard. But I still worry. I don't want to fall overboard either, so we make it a rule that whenever we are working on deck we always wear a safety harness. On our first ocean passage we had balmy trade-wind conditions and flew the spinnaker for nine days straight, never taking it down. On our last night before making landfall in the Marquesas, a squall blew through before Steve had time to lower the spinnaker. Steve hollered for me to come on deck to help him with the sails, but I took the time to get into my safety harness and hook on before going up to help.

Of course, you need to practice man-overboard recovery procedures. These are straight forward, and you'll pick up the basics in no time flat. This is sort of like learning CPR (but easier). You'll probably never be called on to use these skills, but the knowledge brings with it a great sense of security. When evaluating boat designs consider how you would get your mate back aboard. A swim step is invaluable in this regard (that's why we've had them on all our boats since the late '70s).

## Navigation

Learning the basics of navigation is very straightforward. You'll want to know how to read a chart, checking for obstructions and water depth, and to lay out a course. You need to understand about the compass and know how to operate the various bits of electronic gear aboard.

One of the nice things about cruising today is that the electronics are extremely accurate and quite reliable and, for the most part, easy to operate. But resist the temptation to let the electronics do all the work. Take the time to learn basic piloting. It is an important skill to have, and navigation is one of the most interesting parts of making a voyage.

There are piloting courses available from the United States Power Squadron and various continuing-education programs around the country (the one I took was given at a local high school).

## Life Aboard

The enjoyment of the cruising experience is made up of many components. There are the friends to be made on other boats and ashore (we made more close friends in a year of cruising than in all the years of living ashore), and all the new sights to see and foods to taste. And, of course, that's the pure joy of being out of the rat race.



Underlying all of this is your floating home. This is not so much an issue of boat size, equipment or budget as it is of preparation and understanding how to make the right decisions.

It is amazing just how comfortable you can be on a small boat (however you define the term small). Sure, the physical space is going to be limited, and you can't have as many things with you as you can ashore, but the ability to simplify your lifestyle is one of the reasons to go cruising.

I have listed below some of the issues that Steve and I look at when we're designing or building a new boat. It is very difficult to get everything exactly the way you want it. There are always going to be compromises. How you decide what's right for your needs is a function of study and experience. And the more time you spend looking at boats, the better the chances you'll have of making the right choice.

If you can finagle your way aboard a boat that's off for a cruise, do it. When you come back (even if it is only from a two-week summer trip) your ideas of the ideal boat are going to be different.

## Decor

There's no reason why the interior of a boat has to look like a men's club. Dark timber bulkheads can be covered in warm fabrics or painted. You can put up your favorite pieces of art from home, and there's always room here and there for a knick-knack or two to remind you of the land.

I found out early in our cruising that I wanted a bit of my good china and silver aboard, too. We didn't use it that often, but when a special occasion arose it was really nice to have (we stored it wrapped in towels, securely placed under a bunk).

Colorful pillows and fabrics in the saloon and comforters in the staterooms will go a long way towards warming up your interior.

## Ventilation

Good ventilation is a must when you're living aboard. A well-ventilated boat won't have the musty smell that is so often associated with boats.

There are two types of ventilation. The first is made up of hatches or ports that can be opened when the weather is nice; the second category are all-weather vents. The most common all-weather vent is what is called a dorade vent (cowls with a water trap so that rain or spray doesn't get inside). The second all-weather vent is a hatch or port protected from the elements — for example, a window through the cockpit well that is covered by the dodger or a deck hatch that is easily covered with an awning.

Inside the boat you want air to move freely through the open spaces, into the lockers, under the mattresses, and through the bilges.

On the boats that we build we have vent slots in the front of all our furniture and then more vents between furniture and through the bulkheads and bilges. This promotes air flow in areas that would otherwise tend to mildew. Even if a boat is deficient in this area it can be corrected. Using door hooks, cutting vent holes in furniture and bulkheads, and running a vent pipe to the bilges will do wonders.

## The Galley

The first question that has to be addressed is refrigeration. Lots of our friends have done without; this is simpler and less expensive. But it does force you to change your diet significantly.

My feeling is that if refrigeration is a budget issue, I'd rather sacrifice something else (perhaps a bit of electronic gear or a light-air sail) and have the fridge.

Of course, if you do have a fridge, you want it to be efficient. If it is correctly installed, there should not be more than an hour a day of engine running time required in temperate climates (which translates to two hours a day in the tropics). You can do a lot better than this with a good system (many of the boats we build can go for a week without needing to run the engine, but that is somewhat unusual in the marine business).

The odds are your galley is going to be a lot smaller than what you left ashore. This doesn't mean, however, that your style of cooking has to change that much. It is amazing how well you can cook in a small space, as long as it is well organized. And, today, there are so many choices in specialized storage containers and compact electric appliances (both 12V and 110V) that you can do just about anything afloat that you can do in a house.

You probably won't have all the space of a land-based kitchen, but if you concentrate on those utensils that you use most of the time, you will find that cooking on a boat can be just as enjoyable as at home.

## Shipboard Systems

At the heart of your vessel — and forming the foundation of your comfort aboard — are the engine-room systems. This includes the freshwater pumping, refrigeration, battery charging, and hot water. You need to know how to handle basic maintenance chores, even if these are normally the bailiwick of your mate.

We keep a notebook aboard with instructions for such mundane tasks as changing water and fuel tanks, replacing a propane bottle for the stove, charging the batteries, and cleaning pump strainers (both freshwater and bilgepumps). None of these chores are difficult. You just need to be shown once, and then practice occasionally.

When the time comes to evaluate the systems on a new boat, or think about upgrading your own, keep in mind that every layer of complexity that is added to the boat also increases maintenance and expense.

Steve and I like to keep our systems simple, and to the point. We want to be comfortable, but at the same time we try and put aboard only those items that will be used on a daily basis.

Along with the fridge (which we've already discussed) hot water is very high on my list of priorities. Water heaters (which run off waste heat from the engine) are simple, and usually fool-proof.

Next on my list is a small inverter, to make 110V from the batteries, which I need to run the galley appliances and a hairdryer. These are small and relatively inexpensive and really do add a lot to your life aboard.

If there's an inverter aboard, you can consider a small microwave. I prefer the very smallest — 0.4-cubic-foot models. They take less space and less electricity and work on all but the largest dishes. Microwaves are especially nice in the tropics, as they reduce interior heating from the stove. And don't forget a small vacuum cleaner. They're a wonderful boon to on-board house-keeping.

## Engine Location

One thing about which I feel strongly is the location of the engine and its related machinery. Having lived with an engine in my main saloon (and had the center of our home periodically torn up for maintenance projects), I much prefer a separate engine space. This way we can keep the dirt, grime, odors, and heat that are part of the machinery out of our living area (we design the engine rooms all the way aft on our boats). Of course, there isn't always space for a separate engine room. But if there's a choice between a boat with a slightly smaller interior and a separate engine room and one with the engine in the galley or saloon, I'll go with the engine room.

## Water Capacity

Freshwater capacity is at the heart of a lot of comfort and convenience issues. In the old days, it was typical to wash with salt water and maybe, if things were going well, rinse with fresh (and that freshwater rinse felt really good!). But today, with bigger tanks and the advent of compact watermakers, saltwater bathing is a thing of the past. This means that you can take a daily freshwater shower, and use fresh water to wash dishes and clothing.

The two of us can easily get by on 5 to 10 gallons (18.9 to 37.9 liters) of fresh water a day (and a lot less if we're watching it!).

You can augment your water supply by catching rain water on the deck (we find this feature so desirable that we always build it into our boats) or with your awnings. We've gone for a year in the tropics without ever taking water from shore and with our tanks topped up most of the time with rain water.

## Storage Issues

It is amazing how much stuff you can jam into a boat. It is not unusual for long-term cruisers to move ashore and not be able to find the storage space in their house for everything they carried aboard (unless the garage is put into play). The real issue how usable is the storage space is.

I like to divide storage into three categories. First, we have easily accessed spaces for everyday use. This includes galley lockers, hanging lockers, drawers, etc. Next is space that is good for bulk items, but that you don't want to use on an everyday basis (under the saloon seats, for example, or shelves at the back of hanging lockers). Finally, there's bulk storage that you might access a couple of times a month (under bunk mattresses and in the bilges).

When you evaluate potential storage, look at it in terms of flexibility. A foul-weather-gear locker may make a great galley-overflow locker. We once turned an extra hanging locker into a glass-storage area (used primarily for peanut butter).

## First Passage

It is normal to be scared thinking about that first ocean crossing. I know that I was, and most of my cruising friends have admitted to the same feelings.

Intellectually you know that being at sea in a well-found boat is a lot safer than driving down the freeway. But until you've made that first passage, the unknown can make you apprehensive.

Once you've gotten a feel for passing and started to relax, you'll find that ocean passages can be a special time for all aboard.

With just you, your mate, and the elements to think about, there's time for reflection that is rarely found ashore. When you're on watch you've got a chance to think about all sorts of things that are normally pushed to the back of your mind. And it's a wonderful time to catch up on reading (and today, with VCRs and story tapes, there are all sorts of other intellectually stimulating activities to occupy your time at sea).

## Watch Routines

There are lots of different watch systems employed by cruisers. Steve and I usually work a rotation of three hours on and three hours off in the evenings. During the day we play it by ear. If one of us feels like a nap, the other will keep an eye on things.

A comfortable place from which to keep watch is essential. This means a good dodger over the cockpit (or, better yet, a pilothouse). You need to be able to brace yourself on either tack.

When we're well offshore, away from the shipping lanes and other cruising traffic, we'll spend a lot of time below, usually wedged into the navigation station. Then, we pop up on deck every 15 minutes or so to have a look around. (Of course, I'm assuming you have a functioning autopilot or windvane to do the steering.)

## Heavy Weather

In the back of the minds of most cruising newcomers is anxiety about storms at sea. But you will be happy to discover that heavy weather is rare, because you make your passages during the seasons when the weather is settled.

And severe storms, even in the gale seasons, are quite unusual. If you've got the right boat and it is well prepared, what many other folks call a gale you'll think of as an exhilarating sail or at worst a brief inconvenience.

The best way to get yourself psyched up for stronger winds is to do a bit of daysailing in boisterous conditions. The first time or two will be a little scary. But then you will learn that the boat can take a lot more punishment than the crew. And once you get a hang of reefing, your confidence level will begin to build. In no time you'll begin to feel that being at sea on your boat is just about the safest place you'll ever find yourself.

## Keeping In Touch

It used to be that staying in touch with family and friends was difficult when you were out cruising. No more. With ham radio, cellular telephones, various forms of Satcom, and even single sideband radio, the next call is as close as your microphone. Of course, the importance of this varies, but for Steve and me the ability to chat with our family is critical to our happiness when we are out cruising.

## Is Cruising Right For You?

The hardest thing about going cruising is making that first decision to change your lifestyle. So many dream about doing something different, but few ever try. Why? Usually it's fear of the unknown.

Cruising represents a big change. And with those changes come a broadening of experience and a feeling of self-confidence that cannot be matched in the conventional urban lifestyle. You are more in control of your existence, less dependent on others.

Personal relationships expand and develop in a way that can only happen when the participants have the time and energy to listen and work with their mates.

Does cruising make sense for you? The only way you'll know is to try it.



The satellite communications era has come to paradise. Just about everywhere you go in the world you will find a phone booth tied to a local satellite dish.



## WAIHEKE CHRISTMAS

“Goodbye and good luck!” I called to the departing dinghy, carrying daughters and grandparents ashore. It was the day before Christmas, and we’d just dropped anchor at lovely Waiheke Island, after a brisk sail over from Auckland. “Nana” and “Daddy’s Daddy” (Steve’s parents, also known as Stan and Rita), had flown in from California to join us for a joyful Christmas reunion. It had been more than a year since we had seen one another, and we were excited to be together again.

We were very busy preparing for Santa’s visit. Five-year-old Sarah had her photo taken with “Father Christmas,” while 8-year-old Elyse ogled the dolls. And I even managed to find a turkey for the holiday meal (but only half would fit in my little oven at one time). Christmas stockings had been unpacked from their special locker and were ready to be hung next to the girls’ bunks that night. Elyse and Sarah had decorated the boat with red-and-green construction-paper garlands. Wonderful smells were already wafting from the galley from the pumpkin and lemon meringue pies sitting on the galley counter.

There was only one problem, though: We hadn’t been able to find any Christmas greens, let alone a small tree. Hand-painted wooden thread spools, customized angels, and the Santa Claus mouse were lined up and ready, but there was no where to hang them.

So while Steve and I remained aboard (he to work on his never-ending to-do list and I to continue with my preparation for Christmas dinner), our thoughts were with the foragers departing in the dinghy. What would they find ashore? Would they be successful, or would Santa Claus mouse and his friends spend this holiday season on the nav counter?

As Nana, Daddy’s Daddy, Sarah, and Elyse approached shore, Gray Grant was coming off duty as pilot for the Auckland/Waiheke ferry. Steve and I had met Gray a couple of weeks earlier when we had taken a trip on his ferry. In our conversation we told him that we had been cruising for the last year-and-a-half with our two children and planned to spend Christmas at Waiheke. He told us that he lived there and that we should look him up when we arrived. We described *Intermezzo* to him: 50 feet long, CCA hull shape, gun-metal blue topsides, ketch rig.

And now he took it upon himself to hale Stan and Rita and the girls and introduce himself. By the time they had beached the dinghy and were putting their shoes on, Gray had tied his runabout to the wharf and offered to take them in his car to do errands. “We’re looking for a Christmas tree. Do you know where we can find one?” asked Elyse. “Sure, mates, I know the perfect spot. Hop in, I’ll take you there.”

A short ride later, they piled out at Gray’s home, where there was a large stand of pine trees. Olga, Gray’s wife, came out to meet them and invited the crew to accompany her to her garden, while Gray busied himself cutting the greens. She was growing potatoes, lettuce, and mint, among other winter veggies, and everyone joined in digging potatoes, while Olga cut some lettuce and mint, all to send back to the boat. Then they insisted that everyone stay for lunch.

It was all so warm and hospitable and totally unexpected that people we had only just met would be willing to take the time to entertain in this manner. Surely Gray and Olga had things to do preparing for their own holiday.

Mid-afternoon now, and here comes the dinghy slicing through the anchorage. She was a beautiful dinghy to row, and even Sarah, who could barely see over the gunwales, handled it nicely. Sarah had turned a lot of heads as she maneuvered the dinghy among anchorages throughout the South Pacific. And she was manning the oars now as the triumphant foragers returned. “Ahoy, *Intermezzo*!” Stan’s voice boomed out over the anchorage. “Prepare for boarding!”



Steve and his dad, Stan, enjoy the afternoon sail. “Nana” and I would have preferred a bit less heel.



There's nothing like garden-fresh vegetables, especially in New Zealand.



We've always carried our Christmas stockings with us when we traveled. If there isn't a chimney to hang them up on, a handrail will do.

Brownie Bunny on Christmas morning. This rugged, well-traveled bunny is still going strong, although she is somewhat travel-worn at this point in her life.

"Mommy, Daddy, come see!" called Elyse and Sarah simultaneously, each tumbling over the other's words in their excitement to tell us of their adventure. "Look what we have! Christmas greenery and fresh things from a garden, too!"

The pine boughs were soon fastened in the main saloon; Sarah and Elyse happily decorated them for the rest of the afternoon. The cabin was warm and cheerful, and before long a relay of delicious dishes found their way to the table. Up went the stockings, each one fastened carefully by its owner next to their bunks. The girls were careful to use strong line to tie them, anticipating a heavy load by morning. It wasn't long before two excited little girls were asleep, anticipating a visit from Santa Claus.

Christmas day dawned with Elyse and Sarah finding all sorts of delights in their stockings. Paper flew as we opened hand-painted *Intermezzo* T-shirts my sister had made for all the crew and sent from San Diego. Skip had a warm, wool plaid shirt, New Zealand-grown, of course. I was happy with my wooden bowls and cutting board from New Zealand woods, and Rita was impressed with a family of ceramic sheep made by a local artist and given to her by a Kiwi friend they had recently looked up in Auckland. Daddy's Daddy received a new sailing knife. The new Speak-and-Spell educational computer toy brought by Stan and Rita was quickly the focus of attention for the girls.

And then there was Brownie Bunny for Elyse. Brownie, lovingly hand-stitched by an Auckland woman, from her button eyes to the lace on her apron over the calico dress, was to become Elyse's all-time most cherished toy and companion. Nineteen years and 65,000 seagoing miles later, Brownie Bunny still lives with Elyse.

## OFFICIALDOM

Are you apprehensive about dealing with foreign officials? Do you lie awake at night wondering if some beady-eyed and sweaty island-republic *gendarme* will be asking for his *mordida*? Fear not. Most of the foreign officials we've dealt with around the world have been courteous, efficient, and pleasant. Compared to dealing with many U.S. bureaucrats, in fact, our experiences abroad have been positively uplifting.

Clearing procedures may be time-consuming and often entail sore feet. However, by the time you've finished, you usually have a good idea of the local lay of the land.

### Ship's Papers

Let's start at the beginning. You must have proof of ownership of the vessel. If the boat is documented in the United States or carries another national flag, there will be formal-looking papers attesting to the ownership. With state registrations, which are a little less daunting in appearance, it may occasionally be more difficult to clear in. Always keep on hand copies of the ownership papers, stowed separately, in case of theft or loss of the originals.

It's not unusual for the local customs official to ask to keep the ship's document until you sail. Sometimes the copies will suffice.

A word of caution to those who own U.S.-documented vessels: If you lose the papers, the U.S. Coast Guard requires a form to be filled out and notarized by a U.S. notary before it will issue a new document. If you're in a foreign port and there isn't a U.S. consul around, you're in trouble. Having been through this trying experience with U.S. bureaucracy, I suggest carrying a copy of the form filled out and notarized in advance, just in case.

### Personal Identification

Every crewmember must have a valid passport. Check to see that there's plenty of time before the expiration date. We've seen lots of people hopping from foot to foot, trying to enter or leave a country with passports that have expired en route. If you're in an area that doesn't have a consul from your country, you must send away for the new passport.

### Visas

Know in advance which countries on your itinerary require visas before you can enter, and be sure there are embassies or consuls along the route at which you can obtain the visas. Since requirements are always changing, you should check with a local consulate or embassy well ahead of your departure date.

### Health Requirements

In addition to visas, some countries require travellers to carry the yellow United Nations health card. This is a record of your inoculations and vaccinations. Medical requirements vary from place to place, and rarely is the data obtained about your next port of call accurate. Our policy on shots has been, when in doubt, don't get them.



We started out buying our courtesy flags, then we began to sew them from strips of fabric. Finally, we began to use Magic Markers on sections of white cloth. Surprisingly, this last type of flag holds up well.





Golfito, Costa Rica, was typical of clearance procedures. We needed four copies of our crew list, the ship's document, and our passports. Our data, together with various forms, were taken around to customs, the port captain, and immigration.

## Financial Requirements

A few foreign countries require that some form of financial resource be presented upon entry. These regulations seem to be arbitrarily enforced. In Papeete, Tahiti, it isn't uncommon to see the cruising people pooling their cash each time a new boat arrives in order to please the local officials. In 1978, they were requiring \$300 per person per month of visa, and not many yachts carry that kind of cash. When we passed through Papeete in 1988, they didn't want cash; instead they wanted a bond for the price of a ticket to Hawaii (about \$900 per person!). In 1995 we spent six weeks in French Polynesia and were not asked for a bond until we were ready to leave.

Frequently, a statement of net worth from an accountant or a letter of introduction from your local bank will go a long way toward alleviating this problem on the few occasions it may arise.

## Clearing In

The clearing-in procedure varies from port to port. Many countries require you to clear in and out of every port you enter, a tiresome procedure. Others, such as New Zealand and Australia, require clearance to come and go, but leave you alone in the interim.

## Pratique

The clearance procedure generally starts with the port doctor, a local physician, who will issue a *pratique*, or clean bill of health. On occasion it is necessary to certify that no one has died of the plague en route and other such important medical data. After the medical clearance, the yellow Q flag is removed; if you're on a quarantine buoy, as in Durban, South Africa, you can then move to the docks or normal anchorage.

## Customs

Next aboard are the customs officials. They will inspect the vessel if they see fit, but usually just chat, fill in a few forms, and depart. Customs officials want to know if you have liquor, firearms, or narcotics aboard. They will usually give you a form to fill out listing all of these items. Officials in New Zealand, Australia, South Africa, and the U.S. are real paper-pushers. They require a list of every bit of gear aboard, including serial numbers. Since this will happen more than once, it's best to make up in advance an inventory list of cameras, radios, outboards, etc., with serial numbers, makes, and ages, and have copies to attach to the forms in question.

The medicine angle is a little bit trickier. Most vessels carry various forms of controlled drugs for emergency purposes. The question always asked is, "Do you have narcotics aboard?" We answer this by supplying customs a list of all our medical supplies. They can then make their own decision about what is "dangerous." Only in Bali, Indonesia, were any supplies removed from the boat, and these were returned when we cleared out.

## Weapons

If small arms are carried aboard, the easiest way to handle them is to have a lockable cabinet that customs can seal. Even so, in some areas the officials take your guns to the local police station until you depart. For this reason it's best to leave really high-quality weapons at home. A gun fancier seeing something special is going to want to try it out. Before New Zealand we had no sealable locker, and we had to trudge to customs or the police with an armload of artillery on the way

in and again on the way out. The sealable locker reduced this nuisance by 75 percent.

Some people feel it better not to declare the guns. We used to feel that way ourselves until the following situation changed our minds. We're clearing into Papeete, Tahiti. Our ship's document was lost, along with some other papers, in Mexico, and the new one hasn't reached us yet. As a precaution, the chief of customs in Papeete asks his men to have a look at *Intermezzo*. I'm not at all concerned. In fact, I'm pleased that they want to be sure people really own their boats. The men are courteous and apologetic as



The only place we were ever asked for anything by officials was in Panama where the canal measurers looked at lunch and asked for a ham sandwich.

we drive down the quay toward where *Intermezzo* is anchored with her stern to the wall, Mediterranean style. One of the two men takes a perfunctory look around at our neat interior and sits down. The second man goes forward and a minute later returns with a pained expression on his face. In his hand he holds a .38 caliber pistol which Steve has just cleaned and which has been lying in its case on top of the locker in our stateroom.

They refer to our customs forms, filled out originally in Nuka Hiva in the Marquesas Islands: No weapons listed. They shake their heads. "This is bad, very bad," says the senior official. At that point, legally, he has us between a rock and a hard place. Like many cruisers, we never declare weapons on board. Now, if they want to seize *Intermezzo*, we can't do a thing about it. If they want to fine us an astronomical sum, we have to pay. What could have been a very serious and/or expensive incident ended up costing a \$200 fine. To say we were relieved four weeks later, when we paid the fine and were allowed to go, is an understatement. After this, you can be sure we declare *everything*.

An update report about carrying guns into Mexico: A story appeared in the newspaper in Tucson in 1996 stating that a man had a gun in the trunk of his car when he drove into Mexico. It was a gift, and the man claims he didn't know it was a gun. The Mexican government doesn't allow guns to be brought into its country, and, as of this writing, the man in question is still being held in a Mexican jail.

Remember that you're a guest in the officials' country. You must obey their regulations. If their procedures appear cumbersome and onerous, you must relax, grin, and bear it. Whenever I get upset about the time it takes to clear in somewhere, I just think about going into the California State Franchise Tax Office to get a question answered. Foreign bureaucracies are efficient by comparison.

## Immigration

The last people you normally see are immigration officials. They will stamp the passports and ask you to fill out more forms. On occasion immigration will ask to hold your passport. It isn't supposed to be done, but it happens. If you're planning to collect mail or funds from a bank or cash travelers checks, you will need the passport as ID. Immigration will usually allow the skipper to keep his passport in these cases.

We always carry photostats of our passports aboard, again in a separate and safe place. Having on hand a notarized copy of your birth certificate is also a help in case of losing the passport. We feel it's better for each of the children to have a separate passport.

When dealing with foreign officials, it helps immeasurably to present yourself and your vessel in a clean, neat manner. We always work very hard when coming into a new port to get neatened up below. If we're going ashore to clear, we try to respect the dress codes in our host country.



Port Sandwich in Vanuatu was the scene of this visit by the local constabulary. These very proper-looking officials paddled out to meet incoming cruisers in their dugout canoe.



The last aspect of these procedures is language. Officials dealing with tourists will speak enough English to get their message across. But nothing breaks the ice like a foreign yachtsman trying to speak his host's language.

### Foreign Flag Yachts

If you're going to be cruising in the United States with a foreign flag it will help if your country of registration has a reciprocal arrangement with the U.S. for cruising yachts. If so, you will be issued a cruising permit upon entering. This allows you to move about freely. Customs asks only that you call in as you change districts. You must call in immediately.

Without a cruising permit, however, you must clear in and out each time you change port, a time-consuming and costly procedure.

### Flag Etiquette

Foreign courtesy flags should always be flown when first entering a new country.

We started out buying pre-made flags, but I soon began to make our flags on the sewing machine. By the time we were halfway through the trip, the sewn flags had given way to Magic Markers: I took a piece of muslin cloth, stitch the edges, put in a couple of eyelets, and begin to color.

We fly our courtesy flags from the starboard spreader. We also like to fly the U.S. ensign from the stern.

If we're the guests of a yacht club we usually fly our own club burgee. However, with the lower starboard spreader tied up with the national courtesy flag, where to put the burgee becomes somewhat of a problem. I'm not sure it's correct, but we usually end up flying it from the port spreader. (The masthead has too much fragile gear attached for the club burgee to be flapping in its traditional location.)

## PETS

We've often thought a dog would be a very efficient cruising companion — and a good alarm system. Cats, in theory at least, are good for keeping rats at bay. However, cruising with pets brings many problems with local officials, and you should look into these carefully before making the decision to bring your furry or feathered buddies along.

In general, cats and dogs seem to do well aboard cruising yachts. We've seen just about every type of breed imaginable, and sometimes they do better at sea than their two-legged mates.

Dealing with the end of the food cycle is usually handled with a tarp on deck as the designated spot to "go." There are often misses, but as long



as you are not catching water off the deck this is usually not a problem. Cats, with their litter boxes, and propensity to use them, are less of a problem.

The real issue comes with taking animals ashore and or keeping them aboard if required by local authorities.

Many good cruising destinations do not have rabies and are quite keen to keep this disease from spreading to their shores. Places like Hawaii, New Zealand, and Australia have very strict regulations about quarantine of animals, with significant costs associated therewith. As the regulations seem to change with some frequency, you should inquire close to your departure date for the intended destination for up-to-the-minute data.



Turtles make excellent pets. They are clean, eat galley leftovers, and provide lots of enjoyment for younger crew members.



Anybody for an afternoon row?



Traditional “ass grass” is very efficient clothing. It provides the required modesty, is well-ventilated, easily decorated, easy to make, and when it becomes dirty, you simply throw it away and start fresh.



## TROPICAL DRESS

Cool is the key word for dress in the tropics. And “cool clothing” in a temperate zone may not feel so cool when worn in the tropical heat. Mens shorts should be slightly shorter than the standard Bermuda length, and of the lightest-weight fabric. Make sure T-shirts are as light as possible, too. Polo-knit shirts are versatile and can be worn with shorts during the day or trousers at night. Most comfortable are the short-sleeve tailored shirts with button fronts. These can be worn partially buttoned, allowing air to circulate freely.

Long pants are frequently required by protocol for men’s night wear, except in some British-influenced countries where shorts are acceptable if worn with knee socks. Steve took a sports coat and wore it an average of once a year. (Even then, he felt that he could have gotten away with slacks and shirt in those instances.) We were told by friends in California, who had traveled through the South Pacific, to take formal clothes for such spots as the Royal Suva Yacht Club in Suva, Fiji. “Being without formal clothing may force you to miss out on some social situations,” they said. A year later, with our good things duly stored away in plastic bags, we sailed into Suva Harbor on a Sunday afternoon and went ashore to the yacht club for a family barbecue. To our surprise, shorts and bare feet was the dress code. Times obviously had changed.

On board, bathing suits are our normal tropical dress. The lightweight-nylon type are the most practical because they dry quickly and don’t restrict your movement. If you’re going to be in the sun steadily, cut a white T-shirt just about at the armpits; then your shoulders will be protected but you won’t get too hot.

The *pareau*, or *lava lava*, is the traditional garb for Polynesians from Tahiti to Fiji, and it’s a good, all-purpose cruising outfit. It’s simply a length of fabric wrapped around you — at the waist for men, higher up for women — and worn knee-length. The simplicity of buying a strip of beautiful print fabric and tying it, strapless-style, is appealing to women. It’s comfortable and cool, and all it takes is a simple hem to keep edges from unraveling. A variation is to make a seam down the back, shaping it slightly and adding straps, which can be crossed and tied around the neck.



Outside the U.S. and some of the more touristy cruising areas, people expect women to wear simple dresses or skirts when sightseeing or dealing with officials, and to always keep their legs covered. Wraparound skirts are cool, and it's simple to make a dress by sewing a tube, with a few rows of elastic on the top to hold it up.

If women wish to wear long pants, the cotton variety with a drawstring waist are the coolest. Leave tight-fitting polyesters at home, or store them with your temperate climate wardrobe. You'll want one or two nice dresses for special occasions or going out to dinner.

Most cruisers go barefoot aboard. We knew we were close to New Zealand on our passage from Fiji when night watches started getting cold enough to make us put shoes on. In the tropics you'll need a pair of "reef" shoes for walking on coral and rocks. Rubber-soled tennies or sneakers work well, as does the plastic reef sandal, which buckles securely over the instep of the foot and around the ankle. Rubber thongs don't work, as the foot tends to twist and slip out of them. Thongs can be worn on the beach and ashore during the day, but have a nice pair of leather sandals for night wear in town.

Although nights are usually balmy, you'll occasionally want a light wrap or sweater. Foul-weather gear can double as a raincoat, and umbrellas are good to have for rain, as well as for shade in the sun. Umbrellas with telescoping handles are easiest to store.

The long-term cruiser will eventually spend time in the temperate climates as well as in the tropics and so must have a double wardrobe aboard. Some of the items overlap, but heavier clothing will probably be in storage until needed.

### Storing Clothing

We stored our "good" clothes in hanging plastic zip bags with an anti-mildew bag tucked inside. Be sure to keep hangers from moving while underway, since movement at sea will chafe holes in the garments. Sweaters, socks, and pants can be stored in heavy plastic bags, again with mildew-cide, and tied shut if placed in a locker that might get damp in bad weather.

Store leather shoes and purses in heavy plastic with mildew-cide, putting a little Vaseline on metal buckles to prevent corrosion. You probably won't wear much jewelry, but if you're going for a long time, take one or two favorite pieces. Inexpensive shell jewelry can be found locally and looks pretty with tropical clothes.

### Clothing Maintenance

Choose clothing that will be easy to maintain. Wash and wear is the best, as we only saw two drycleaners in the tropics. Laundromats are usually nonexistent, except in marinas in the West Indies. Cotton fabric is the coolest, as it breathes, but it needs ironing. Coleman offers a kerosene iron, or the old-style cast-iron stovetop models are sometimes available. Of course, if you have a generator or inverter aboard, a household iron will come in handy.

If you're using the boat as more than a week-end retreat, consider putting a compact washing machine aboard. This is especially important when cruising with children. We made room for a miniature Hoover model (16 inches x 16 inches x 30 inches / 406.4 mm x 406.4 mm x 762 mm) with a hand wringer by removing the hand sink in the port head aboard *Intermezzo*. We had friends who stored their machine under the main-saloon table; they transferred it to the cockpit on laundry day. Ours held eight gallons of water. By allowing a week or 10 days' laundry to accumulate, and



This is a typical island laundromat. All you need are a source of water, some rocks, and a bit of time.





Even if you don't have a washing machine, a hand wringer makes a lot of sense. This saves wash and rinse water and dries the wash a lot faster (since the clothes start out with less moisture).

by using the same water to wash first light and then dark colors and heavily soiled items, we kept water use to a minimum. Average consumption, including rinse water, was 12 to 14 gallons (45.4 to 53 liters). Aboard *Intermezzo II* we used a little Maytag twin tub. The second tub is a high-speed spinner that uses centrifugal force to get out the water, which in turn is dumped back into the washing tub. This unit measures just 16 inches in depth, 24 inches in width, and 29 inches high. They're no longer in production, but can be found in used-appliance stores.

On *Beowulf* and the Sundeer series of production yachts we did, we've used a Combomatic washer/dryer (made in Italy). This unit is quite a bit heavier (167 pounds/78 kg) than the Maytag models and also takes more water. But it does have a Dryer, and that's a nice feature in damp climates.



Washing needs to be done even on long passages. In the left photo I'm hanging out the wash on our first passage between St. Helena in the South Atlantic and the Virgin Islands. The photo below shows how we put the saloon table to work with clothes in various stages of the wash cycle.

Three approaches to washing machines. The top left photo shows a typical compact washer/Dryer system. The upper right photo is a combination washer Dryer. These units are compact and do a good job of washing, but they are slower on the drying cycle than a dedicated Dryer. The photo below shows Kelly Archer's solution. He stripped the guts out of a local washing machine and installed it into *Mis-tral's* head counter.



If space is really a problem, consider removing the guts from a machine and mounting them right into and under a sink counter. Kelly and Jos Archer did this with a small Hoover in New Zealand and it worked beautifully.

A washing machine keeps clothes in better shape than scrubbing in a bucket, and only by machine can you get towels and sheets really clean.

If you have to wash clothes in salt water, you should rinse them thoroughly in fresh water. Any salt remaining acts as a sponge to soak moisture out of the air, so unrinsed clothes remain damp and scratchy.

Start out with an abundant inventory of clothespins. The wooden variety hold up better than plastic. Laundry can be hung from the lifelines, but by stringing a line higher off the deck, they dry faster, thanks to exposure to the breeze.

A tip for securing clothespins: Catch the item on the sides vertically just under the clothesline, instead of parading a whole series of pins across the top. The holding power is much greater. A gust of wind may whip the item around the line, but since its being held underneath, it won't tear loose.

## Linens

Keep a copious supply of tea towels for galley use. Drying dishes washed in salt water makes towels grimy very fast.

Buy top-quality bath towels. The thicker the towel, the better it dries and the longer it lasts.

Use drip-dry sheets and pillowcases, at least three sets per bunk. The stateroom bunks that can be left made up look attractive in matching print sheets and pillowcases. In cooler climates, add a cotton comforter with matching pillow sham. Thermal blankets are a good weight when a cover is needed. Sleeping bags are out of the question for tropical use.

## Shopping

Buying clothes along the way can be difficult. Australia, the U.S., and South Africa were the best countries we found for buying clothes. Bali, with its batik clothing, is a bargain-hunter's dream. Cruisers there dressed very well in \$2 handpainted shirts and \$3 dresses.

When you start traveling through the tropics, plan on taking as much of what you need as possible. Grandparents sending clothes to our children along the way helped us out, for children's clothes in many of the places we visited weren't the style or type we are used to. For instance, in Fiji the only clothes for little girls were very frilly, ornate dresses — not appropriate for cruising life.

## Hats

Women should protect their hair from too much sun by wearing hats and scarves. The visor-type hat is most practical, as it stays put in a breeze. Take a good conditioner. Salt, wind, and sun are very hard on hair. And while we were on the subject of hats, take lots of them. They tend to blow overboard with some regularity. While visors don't protect your hair or a balding pate, they stay on better in a breeze.

## SUNGLASSES

Good-quality sunglasses are necessary to protect your eyes as well as to improve vision when you are working in shallow water. Lack of proper sunglasses and/or excessive exposure to ultraviolet radiation can lead to a variety of eye problems, some of which can be quite serious. In addition, it can take hours for your eyes to recover from overexposure to the sun, which reduces your night vision until three or four hours after the sun has set.

### Radiation Types

The main culprits are type A UV and type B UV radiation. Good-quality glasses will block out 100 percent of both UVA and UVB. We also have to be concerned with infrared light. This data is harder to come by, but one doctor I respect says that glasses should block at least one third of the infrared light spectrum.

### Edge Protection

Most sunglasses protect the eyes from only straight-ahead glare, not from the sides. Of course, at sea you can have light bouncing back at you from all angles. There are several models of sports glasses available that incorporate edge shading.

An alternative is to take your normal frame glasses and adapt a leather or plastic side shield.

### Polarization

Polarized glasses are essential for blocking the glare coming off the water and making what lurks below the water visible. The difference is simply amazing.

Check to see if a pair of glasses is polarized by holding two pairs lens to lens and looking through both pairs. All light should be blocked (i.e., you shouldn't be able to see anything). If this is not the case, rotate one pair 90-degrees. This should create the total blockage of light. If neither combination stops the light, one of the two pairs of sunglasses is not polarized.

### Lens Tints

Blue-blocking lenses (typically amber or yellow tints) enhance your ability to see in low haze, fog, or other lower light conditions. But they do distort colors substantially and may affect your ability to read some of the sailing instruments. On the other hand, gray and green tints give better all-around definition (except in the cases stated above).

Since I need bifocals with a correction for distance, and consider polarization a critical issue, my choices are somewhat limited. So I go with the darkest green tints I can find. Ideally you'd carry both blue-blockers and a green- or gray-tinted pair.



## GALLEY EQUIPMENT

Even though the space I've had to work with has grown along with the size of our boats, the basic equipment and utensils have stayed the same. What has varied is the ease of access to this gear. Where only the most basic necessities were stowed in *Intermezzo's* galley (the rest being stowed under bunks), I now have enough space to stow most of my gear right in the galley.

### Saucepans

A well-equipped galley will contain a set of saucepans. I prefer a stainless pan with tight-fitting lid, such as the Farberware- or Revere-ware-type pans. They distribute heat quickly and evenly. My set includes 4 1/2-quart, 3-quart, and 1 1/2-quart saucepans, with a double-boiler unit that fits into the 3-quart size. The two fry pans are 7- and 9-inch (172mm and 221mm). For larger frying jobs I use an electric fry pan. In addition I carry a griddle, a large stockpot for boiling crab and lobster, a roasting pan, and a small saucepan for little jobs. Add to this a couple of glass casserole dishes with lids, which can be used either in the microwave or for baking.



We use both glass and metal bread pans. At first we thought glass might be a problem because of breakage, but over the years this has not proved to be the case.

### Dish and Glasses Storage

We build our dish-storage area right into the galley cupboard, so each plate and bowl has a snug spot and stays put when we're heeled. After starting out with plastic dishes, we've found that we prefer pottery. The plastic is practical and lightweight (something Steve likes), but the feel of pottery is so much nicer. We carry service for eight. The same is true for our stainless service. We also build in storage for glasses. We're stocked with two sizes of shatterproof drinking glasses. The smaller size can be used for juice or wine. Most sets of dishes come with cups and saucers. Mugs are more practical for night watches, though; try to find insulated ones. For daysailing I usually serve lunch on paper plates with wicker plate holders.

### Cooking Utensils

My galley list of cooking utensils contains the following: a set of wooden spoons, spatula, handmixer and/or wire whisk, grater, garlic press, heavy, geared can opener, kitchen shears, poultry shears, ladle, perforated spoon, corkscrew, rolling pin, bottle opener, nutcracker, cheese slicer, vegetable peeler, measuring spoons, ice pick, chopping board, plastic or stainless colander, and a yogurt thermometer.

You'll always find a box of matches and a flashlight in my galley drawer. The matches are used for lighting the barbecue on deck, and sometimes the propane stove if it doesn't light itself.

### Galley Knives

If you're lucky enough to have a set of high-quality galley knives, keep them sharp and limited to galley use. You can get along with a chopping and carving knives, a small utility knife, and a bread slicer. Remember a sharpening stone. On *Beowulf* I took a set of serrated knives that never need sharpening.

### Leftover Containers

No matter how well you plan a meal, there are often leftovers to be stored. ZipLok bags work nicely for this job, and I keep the quart- and pint-size bags aboard. The heavy-duty freezer bags are less likely to leak in reefer. These bags are also great for storing spare parts and disassembled equipment pieces. Any of the various plastic airtight containers work well, too.

### Condiment Storage

Plan to have a set of airtight canisters for storing flour, sugar, rice, pasta, crackers, possibly tea and possibly coffee.



We used one of these Magma barbecues on *Sundeer*. It was a lot more efficient than the cast pot that we used on *Intermezzo*!

## Baking Pans

Baking on the boat requires a cookie sheet, 9 inches x 13 inches (229 mm x 330 mm) pan (or if you have a microwave aboard, you can use the glass one you get with it) an 8 inches x 10 inches (203 mm x 254 mm) pan, pie tins, bread pans, muffin tin, and mixing bowls. My last set of Revereware saucepans came with a set of stainless mixing bowls with plastic covers, which double as storage containers. It's handy to carry a couple of cans of Baker's Joy, which sprays grease and flour together, saving you the step of buttering and flouring your pans. Optional items are a spring form pan for cheese cakes and a bundt or tube pan for cakes. Teflon-sprayed pans are nice to use for baking because they don't stick. They take special care, however, as you don't want to scratch them.

## Tea Kettle/Coffee Pot

A tea kettle gets a lot of use on a boat. Even on summer nights a hot drink or cup of soup tastes good on a night watch. I use a drip-type coffee pot. The liquid-container portion acts like a Thermos, so coffee will stay hot for long periods of time. It requires carrying paper filters, but paper towels can be pressed into service in an emergency. You might consider using a vacuum flask, too. It can be used for keeping liquids cold or hot, allowing you to

serve one drink at a time at the push of a finger, eliminating the need to open and close the reefer or light the stove.

## Electric Appliances

While the majority of cooking is done on the propane stove, there are a few electric appliances that rate high on my priorities of galley luxuries. With our inverter I'm able to use a small Cuisinart food processor, portable hand electric mixer, toaster, air popper, and juicer. You can easily get along without any of this gear if your galley is limited in storage space, but it's nice to have if your galley will accommodate it.

## Microwave Ovens

A microwave is a real boon to cruising, especially in the tropics. It's not only convenient, but it gives off far less heat than a conventional stove. We find the microwave especially helpful at sea for preparing precooked meals in inclement conditions. We've used the smallest size with good results. A 0.4-cubic-foot (11.3-cubic-decimeter) model will handle 90 percent of what the four of us need, and it's economical on electricity. If I had a problem with storage space in the galley, I would gladly give up a bit of locker space for my microwave oven.

## Microwave Cookware

A two-quart lidded glass dish is used for foods such as steamed vegetables and rice. I use a 9 inches x 13 inches (229 mm x 330 mm) glass pan with a glass rack for cooking chicken and turkey breast. A glass measuring cup can be used for melting butter.

## Barbecue

Barbecues are a wonderful way to add some interest to meals while reducing the heat load below deck.

There are several considerations. First, the barbecue needs to be mounted where sparks cannot cause a problem with propane or outboard gas or burn holes in a life raft or sails.

Second, charcoal must be kept dry. Damp charcoal can spontaneously combust (it is a major cause of house fires), so it should be stored where it can be dealt with if a problem does occur.

More and more boats we see are using propane-fired units. This eliminates the mess and fire hazard of charcoal. Of course, you need to be sure about the propane connections!

### Paper Goods

Add lots of paper towels to your galley supply list. I also keep a roll of plastic wrap, heavy-duty aluminum foil, and waxed paper. We usually use paper napkins as well, but I carry a set of cloth napkins for occasional use.

### Serving Dishes

A variety of baskets look pretty and serve a myriad of purposes. I use them for serving breads, storing fruit, and serving chips among other uses. You'll want to have a good-sized pitcher, which can double as a flower vase, salad bowl, and server; a tray for transferring drinks or snacks top-side; small bowls for serving snacks and condiments, salt-and-pepper-shakers or mills; a creamer; and a sugarbowl; and a small chopping board that can double as a serving tray for cheese and fruit. We often use table protectors under hot dishes, too.

### Linens

It's nice to have a pretty set of placemats for your table. You may want to use cloth napkins from time to time, and if your table has removable fiddles, a table cloth can be pressed into service for special occasions. Carry a candle holder for a dinners in port. You'll want an apron or two, several absorbent tea towels, and a set of pot holders.

### Clean-Up

Our galley sink has a built-in dishwashing-soap dispenser that is very handy. The double-galley sinks are 9 inches (229 mm) deep. If you have room to store one, a folding dish-drying rack is handy for use in port. At sea we put the washed dishes in the second sink until they're dried.

### Cookbooks

Get a good microwave cookbook to get the full use out of your microwave, in addition to a basic cookbook, such as *The Joy of Cooking*. Other than these two, the choice varies according to your favorites. Many cruisers carry cookbooks written for boating, which frequently give hints for substitutes in case you find yourself at sea without basics. I remember baking an eggless, milkless cake once when it had been a long time between provisioning trips.

## PROVISIONING

Provisioning a boat for any length of time can be a daunting task. How long you'll be out and your ultimate destination will determine how much you should buy in advance.

When we first crossed the Pacific, in 1976, we had little refrigeration and no knowledge of what kind of food would be available in the islands. We stocked up on so much canned and dried food that three years later, we were still working our way through it. We learned that worldwide, nearly every port has fresh food as well as canned and frozen available, so other than making long passages and spending time in remote anchorages, you can get by with stocking up for more than a few months at a time for dry goods, weeks at a time for fresh.

### Estimating What You'll Need

This is probably the hardest part of getting ready to go cruising — figuring what you should take. The system that works well for me is to figure out two weeks worth of meals, and the use this as a base. I then multiply this detailed list by the time frame for which I want to provision.





## Storage

The first step would be to take a good look at the galley area for stowage. You'll want certain items used daily nearby. Other gear can be stored long-term throughout the boat. I keep my spices, some flour, sugar, honey, condiments, snacks, cereals, and a few basic canned goods in the galley work area. We're fortunate to have had a large refrigerator unit on board *Sundeer* and *Beowulf* and can carry four to six weeks worth of fresh vegetables and fruits. If you can't store the entire amount in the refrigerator, use baskets that can breathe, and store your food in a dry, preferably cool spot. You'll find that some vegetables such as potatoes, onions, and cabbage keep for weeks. Open-mesh bags and small hammock nets work well, too.

We've seen cruisers build veggy bins on deck, using boxes with lots of air holes or slats. These work okay in port if there's an awning to keep sun and rain off, but at sea, salt water on deck creates problems.

## Inventory Control

When it comes time for stowing the provisions, make a sketch of the boat's interior and label the storage areas. Keep a notebook listing the type of food, where it's stored, and the quantity. By checking off the items as they're used, when the time comes to reprovision, you can tell at a glance what you need. I like to keep the saloon settees for the stores (and galley gear) I most often use, as they are the easiest to access aboard. Storage under the floorboards and bunks is left for long-term needs. Every few months we'll go on a "shopping spree" among our long-term stores, moving a certain quantity to more accessible areas.

Remember to try to store the heavy items (cans and glass) low, leaving high storage areas for lighter pastas and paper goods.

A hint to keep flour, pastas, crackers, and cereals fresh: Store them around the water heater. The dry heat helps keep them fresh. (It's a pretty simple job to run an extra circuit of hose from the engine's cooling system through a pasta storage locker.) Keep pasta from getting damp by storing it in plastic bags.

The following list of provisions is meant to be used as a *guide* only. It's not the list to end all lists, and it should be followed loosely according to your specific requirements, likes and dislikes.

## Spices and Herbs

Make a complete list of all spices and herbs you normally use in cooking. Buy these before you leave, and store them in the immediate galley area. My list would include salt, pepper, cinnamon, salt substitutes such as Spike or Mrs. Dash, cloves, ginger, cream of tartar, sweet basil, parsley, rosemary, dill seeds or weed, chili powder, paprika, tarragon, marjoram, nutmeg, Italian mix, bouquet garni mix, powdered and granulated garlic, cumin, and dried mustard. Take extra bay leaves to put in flour, as they help keep weevils out. Substitute fresh herbs wherever they're available.

## Baking Products

Stock up on flour, cornmeal, vegetable shortening, baking soda, baking powder, sugars, honey, powdered yeast, and vanilla and almond essence. If you like to bake with chocolate, cocoa powder keeps better than chocolate bars. Chocolate chips or morsels are hard to find outside the U.S.

## Dairy Products

Long-life milk is a wonderful invention for boating. The milk is processed in a waxed paper carton that requires no refrigeration until opening. It's available throughout the world. You might also want to stock up on powdered milk. I like to keep a can of powdered buttermilk for use in baking. While you can store fresh eggs for long periods of time, you may want to have powdered eggs as an alternative. In 1996 I used frozen egg substitutes, which were very convenient. Of course, you'll need freezer capacity to use these.

No refrigeration? Eggs will keep unrefrigerated by sealing them either with a coat of Vaseline on the outside, or by dipping them in boiling water for five seconds. Then rotate them once a week in their boxes. You'll want to bring your own plastic egg boxes, as most foreign countries don't package their eggs. If you don't plan to refrigerate your eggs, try to buy eggs that have never been refrigerated. Refrigerated eggs keep for months.

Countries outside the United States usually have excellent tinned butter. If you have refrigeration, by all means stock up on cheeses of all kinds. There are several brands of cheese that can be used without refrigeration.

## Condiments

This list will vary according to taste. A sampling would include jams, jellies, syrups, soy sauce, mayonnaise, mustards, catsup, vinegars, bottled lemon juice, Worcestershire sauce, Tabasco sauce, steak sauce, dried parmesan cheese, bottled or dry salad-dressing mix, and mint sauce. I suppose peanut butter would be included here. A word on sugarless condiments: While easy to obtain in the U.S., they're almost unheard-of while cruising.

## Fats

Along with butter, you can bring margarine and oils. Buy the margarine in plastic tubs, which store easily for long periods of time unrefrigerated. I like to use olive oil and a good vegetable oil that's low in cholesterol and polyunsaturated fats.

Tinned butter and margarines, which will keep for an indefinite period of time, are available.

## Non-Food Items

There are several nonfood items you should buy in bulk: toilet paper (one-ply), tissue, paper towels (these are expensive and sometimes hard to replace), napkins, dishwashing detergent (Joy works best in salt water and is fine for overboard shampoos), toothpaste, soap, shampoo and conditioner, bug spray or lotion (like Cutters), razors, and cockroach spray.

## Canned Fruits and Veggies

Whether you take canned fruits and vegetables is up to you and your refrigeration capacity — or lack thereof. I like to carry pineapple, green beans, and corn, even though we have a nice fridge. You will certainly want to take some of the following: tomatoes and tomato sauce, tomato paste, evaporated milk, mushrooms, a variety of beans according to taste (kidney, pinto, garbanzo, and black — dried beans are not too practical on board, as they require long, slow cooking). My specialty list would include green chilies, salsa, refried beans, olives, pumpkin, yams, apple sauce, and cranberries.

## Canned Meats

Many cruisers can their own meat, and good canned meats are available in the camping section of supermarkets and camp-supply stores. If canned meats are hard to find, ask your supermarket manager if he/she can order some for you. Beef, chicken, turkey, ham, and bacon are all available. Don't forget canned tuna and salmon. Some people like to carry canned sardines.

## Dry Foods

Coffee, tea, and hot chocolate mixes would be included here. Dry soup mixes store well. Many people like freeze-dried vegetables. I include non-sugar Jello here, too. If you can tolerate sugars, powdered pudding mixes are a nice treat. Fresh potatoes are easy to keep stored for long periods of time, but you may want to include some dried potato flakes as an alternative. Hot cereals keep well. It's hard to keep cold breakfast cereals other than granola types, because they're bulky and have a short shelf-life. This is where a good vacuum-packer comes in handy. By removing cereals, etc. from their original packaging and vacuum-packing them, they take up less space and stay fresh longer.

Many sailors carry sprouters aboard, along with dried seeds. Sprouted mung beans make a crunchy treat when other fresh munchies are not available.

## Drinks

Canned fruit juices take a lot of space but are good. There are some excellent concentrates on the market now that don't require refrigeration.

Your liquor supply will be a personal preference issue. The same goes for other alcoholic beverages. Sometimes fishermen prefer some wine or liquor to trade for fresh fish. Hard liquor is often cheap when leaving a duty-free port.

Soft drinks can be a problem to store long-term. Cans are bulky, and aluminum ones are short-lived in a salty environment.

## Snacks

We like our munchies and usually bring some or all of the following: dried raisins and other fruits, nuts, popcorn, and crackers. Chips are a luxury as they're bulky, so you can't carry too many.

## Pastas

We're pasta fans and carry a big supply of spaghetti, linguini, pasta shells, macaroni, and noodles. A compact electric pasta maker may be along for our next cruise, too.

## Frozen Foods

The choices for frozen foods are limited only by the size of your freezer. One of the pluses of a big freezer is the ability to take advantage of good deals along the way. Ask the butcher to flash freeze your meat so that it's rock hard when you put it aboard. Keep the portions small. They're easier to use and store better. Have each portion vacuum-sealed to preserve moisture content, and then mark the packages carefully. In 1995 we took a lot of frozen juices and fruits along with some corn and broccoli. I mentioned the frozen egg substitutes earlier. If space allows, I like to freeze my flour supply to eliminate weevils.

Steve usually packs our freezer. He layers the different foods in a mixture so no single item is concentrated in one area. This makes it quicker to find something different to try.

## Keeping Fresh Foods

These should be the last items to be brought aboard before leaving on a passage. Potatoes and onions head the list of long-term staples. If bought fresh and unrefrigerated and stored in baskets or on shelves with good ventilation where air can circulate *around* them, they could last as long as three to four months. Pumpkins and squashes come second, then cabbage. Beet root and carrots store quite awhile if refrigerated. Certain fruits, such as citrus and apples, will keep weeks if stored refrigerated or where air can circulate around them. If you keep bulk citrus or apples, you must check them each week and throw out the ones that are starting to spoil. A large bag of apples we purchased directly from the orchard before departing Bay of Islands, New Zealand, lasted five weeks. Most vegetables will last at least a week or two if refrigerated. Buy a few green tomatoes to ripen after you've used the red ones. Green tomatoes wrapped in newspaper will ripen slowly while unrefrigerated.

Head lettuce will surprise you with its longevity if you: 1) buy it fresh and *unwashed*, 2) wrap each individual head in newspaper, 3) refrigerate wrapped heads in plastic bag. Each week you should replace the paper and throw out the outer leaves. We found that, stored this way, we still had usable lettuce after six weeks.

## Baked Goods

Before we had a freezer, I baked bread as needed (no pun intended). As satisfying a project as it was, the minute we had more freezer room, I started buying bread and putting it in the freezer for passages. Some bakeries will double-bake bread, which makes it last longer. It's easy to whip up a batch of quick bread for a treat, too — be it biscuits, muffins, or cornbread. The fact that you're generally active physically on the boat makes your waistline tolerate baked goodies better than ashore.

## Precooked Foods

It's always nice to have a couple of prepared meals in the freezer when starting a passage. You might want to bake some fresh cookies, too. It often takes awhile to get used to the routine of going to sea once again. If the cook doesn't feel up to working in the galley too long, just warm up the meal that's been prepared — a soup, stew, or casserole. If the chef wants to cook that night, you'll still have a back-up meal ready to be served some busy day. I even baked a birthday cake and froze it when I knew we'd be celebrating Sarah's birthday in the Madagascar Channel, Indian Ocean — somewhere I *knew* I wouldn't want to be baking. Steve and his crew stocked the freezer with prepared pasta dishes from an Italian restaurant they discovered near the boatyard in New Zealand before sailing *Sundeer* on her delivery voyage to California.

## Doing Without Refrigeration

While most cruising boats today do have a fridge and possibly a freezer, this gear introduces a costly and high-maintenance element into your cruising equation. It is not a necessity. Many cruisers have done just fine without. If you do go without, here are a few issues to consider. As already mentioned, butter, margarine, and milk is available in long-life packaging. Once opened it will typically last from one to three days depending on ambient temperatures. Eggs, of course, can be made to last for months. Hard cheese lasts better than soft. Some hard cheeses will last four to six months.



Open bottles of seasonings, such as mustard, relish, catsup, some jams, and peanut butter, will frequently last a month or so. Smaller jars work better than larger, as once they start to go bad you have less to toss overboard.

Preserved meats (like ham, salami, pepperoni, and jerky) will last for several weeks after opening (just be sure to check that the labels say they do not need to be refrigerated after opening).

## Packaging Considerations

In the old days people used to suggest varnishing cans to keep them from rusting through. However, with modern construction this does not seem to be a requirement. We've never bothered to seal our cans.

It is a good idea, however, to remove the labels and use a permanent marker to indicate the contents and the "use by" date. Removing the labels eliminates the possibility of them coming off if your bilges get flooded. This in turn keeps them from clogging the bilge-pump strainer at an inopportune time.

Aseptic packaging is being used not only for milk and drinks as I mentioned before, but also sauces, mayonnaise, and other items in this form. This eliminates a lot of heavy, breakable glass from your stores locker.

Vacuum-packing is one of the best ways we've found to deal with lentils, cereals, flour, rice, crackers, cookies, and items stored for long periods in the freezer.

The vacuum-packaging helps prevent the growth of weevils and keeps dry goods from growing stale or moldy.

## Bugs!

Once you start cruising you are going to find a lot of "high-protein" flour, rice, and cereal. There's just no getting around it. The first time I found weevils in a box of cereal I tossed it overboard. But after a while I realized we'd soon be starving if I continued on this course. For a couple of months I'd try and pick out the weevils. But after awhile I began to look at the little black spots as additional protein, as long as it was cooked!

## Food Poisoning

Spoiled canned goods, which could lead to botulism poisoning, are a pretty rare occurrence. Still, with time and a generous helping of tropical heat, many canned goods will go off. As a result we keep a close eye on cans before they are opened. We dispose of any that have deformed lids or show evidence of leakage.



We prepare fresh citrus fruit for our passage from Cape Town to the West Indies on *Intermezzo*. After five weeks at sea we still were eating fresh fruits and veggies.



Unwashed lettuce, wrapped in newspaper, and then plastic, can be kept for six weeks (in the fridge) if the paper is changed periodically.



I love fresh flowers. We found these at the local market in Santao, Vanuato.



We've found that a collapsible cart is invaluable for lugging groceries, outboard gas, and dive bottles.

## FOREIGN MARKETING

Once you leave home, what will you find in the way of fresh produce? In industrialized countries you'll do most of your marketing in supermarkets. In some countries, such as New Zealand, you can actually pick your own fruit in selected orchards.

### Picking the Right Supermarket

You'll also find supermarkets in many developing countries. The trick, however, is to find one that is air-conditioned, since their shelf stock keeps better. Examine products carefully. Peek under box tops; if you see little cobwebs, don't buy. Cobwebs are a sure sign of "movable forms of protein." Check for weevils or bugs in the flour and rice. In some of the islands in the Pacific, flour is packaged in airtight tins, guaranteeing freshness.

### Local Markets

In underdeveloped countries the most economical and fun way to shop is in the native markets, where you'll find the biggest selection of fresh goods. Once you clear into port, ask where the open-air market is located. What day and time is best to attend? In Noumea, New Caledonia, for instance, the best shopping is at 5:00 a.m. on Sunday. In Rabaul, Papua New Guinea, things are more civilized: Saturday morning at 9:00 a.m. is the time to shop.



Vendors at open-air markets are usually friendly, helpful, and courteous. If you see an unfamiliar food — and chances are you will — they'll gladly explain what it is and how to prepare it. Native markets are established in all major population centers and in many smaller villages as well.

These markets are not equipped to package your purchases, so take your own containers. A two-wheeled cart is excellent for getting produce back to the boat. Heavy-canvas ice bags work well, as do the stretchable woven shoulder bags called *billums* in New Guinea. Take extra plastic bags along for herbs and crushables such as tomatoes and ripe avocados. Eggs will not be sold packaged, so take containers for them as well.

Plenty of small change in local currency is necessary. Paying with the correct amount saves confusion.

Your senses will be overwhelmed by the colors, sights, and sounds of the primitive marts. The food comes directly from people's gardens and is much fresher and tastier than that salad in modern supermarkets. Sanitary conditions are usually acceptable.



When you go to a local market in the bush you are almost always going to find fresh-picked merchandise. This gentleman is selling some choice betel nut.

## Pricing

How will you know how much to pay for items if they're not marked? Ask locals ahead of time what they're used to paying, and make a note of prices. A notebook comes in handy for jotting down prices in the local language. If you have the vendors write the price for you, it's often easier to understand than the spoken word. In some places things are easy: in Vavau, Tonga, for instance, almost everything was sold for 10 cents in 1978.

## What Is Available?

What kinds of food are you likely to find in a tropical open-air market? Tomatoes, cabbage, Chinese cabbage, green beans, eggplant, and very often beet root, carrots, onions, potatoes, a tropical potato called *kumera* (similar to a sweet potato), and taro, a starch root popular on many islands. The fruit will most likely include bananas in various eating and cooking varieties, coconuts for drinking and eating, papaya, mango, pineapple, varieties of watermelon, and citrus fruits, including a brown-skinned orange (very sweet and juicy), and bush limes. There's nothing quite as good as a Polynesian *pamplemousse*, and frequently you'll find an avocado. I'll never forget our first taste of papaya from the market in Puerto Vallarta, Mexico. You're in for a real treat when you sample these tropical fruits. Lichee nuts, star fruit, and the great variety of Indonesian fruits are fabulous.

We were introduced to breadfruit in the Marquesas. In season, they're available on all the islands. Sliced and french fried, they're similar to potatoes. This staple of the islands has a delicate flavor and can be roasted, boiled, or made into a soup.

## Coconuts

Coconut is delicious eaten raw, and the milk is good to drink. If you shred the meat and squeeze it through a piece of cheesecloth, you'll get a cream that is wonderful in various fish and vegetable dishes, such as *poisson cru*. There are many variations of this recipe.

To open the coconut, puncture two of the three eyes of the coconut by hammering with the sharp tip of an icepick or screwdriver. Drain the coconut water (and save it if you'd like it as a beverage). Hold the coconut with one hand, and with the other, give the shell a sharp blow with a hammer or





Above: You never know what you are going to find in the local market. How about a large spicy salami (hanging in the background) in Antigua?



The main market in Port Louis on the island of Mauritius had what was probably the most colorful and fragrant of all the markets we visited.

the back of a cleaver a little more than a third of the way down from the top. Turn the coconut an inch or two and tap again. Keep on turning and tapping until you hear the sound of the shell cracking. A thin, visible crack should run all around the shell, and the top of the nut can easily be pried up.

To prepare the coconut milk, pare the brown skin and chop or break the meat of a mature coconut into small chunks. To make the coconut milk by hand, begin by grating the peeled coconut, piece by piece, into a bowl, then adding a small amount of warm water (only a few drops of water are used in the Pacific for a rich, thick "cream"). Scrape the entire contents of the bowl into a fine sieve lined with a double thickness of dampened cheesecloth, and set over a deep bowl. With a wooden spoon, press down hard on the coconut to extract as much liquid as possible. Bring the ends of the cheesecloth together to enclose the pulp, and wring the ends vigor-



IPapua, New Guinea, had some of the best local markets to be found in the South Pacific. All sorts of fruits, vegetables, and crafts were available.

ously to squeeze out the remaining liquid. Discard the pulp. One cup of coarsely chopped coconut meat, combined with one cup of hot water, should produce one cup of coconut milk. The creamier Pacific version, using less water, requires slightly more grated coconut for one cup. An average coconut weighs about 1 1/2 pounds and will yield from three to four cups of chopped or grated meat.

In areas with an Indian population, particularly in Fiji and Mauritius, the smell of curry spices will drive you wild. After purchasing all the curry spices, we bought a curry recipe book, the results of which were delicious. We like to use mangoes to make a chutney to accompany curry dishes.

Raw peanuts are available in most parts of the world. In the Solomons and New Guinea, we snacked on nolly nuts, a cross between almonds and macadamias in taste. Nolly nuts are excellent raw or roasted.

Fresh herbs are usually available in the French islands, such as the Marquesas, Tuamotus, Society Islands, and New Caledonia. And where there are French people, can *baguettes* be far away? These crisp, delectable loaves of bread are irresistible. We always bought twice the amount we wanted on board, knowing full well that they would be half eaten by the time we got back to the boat.

Many of these markets also offer a large selection of baskets and handiwork.

To find the temperate-climate fruits and vegetables of home, you will have to go to the supermarkets. Things like broccoli, cauliflower, and strawberries are flown in and cost a fortune.

We paid more than \$3 for a small cup of strawberries in Papeete in 1977 (in 1988, with air freight now common, strawberries there were the same price). As it was Steve's birthday, we allowed ourselves to splurge for a strawberry shortcake. That's why it's so exciting to come from a tropical country to a nontropical country like New Zealand, the States, or South Africa. You go crazy for the temperate-climate fruits and vegetables.





We've even found "native" markets in the states. This one is in Hanalei on the island of Kauai.

bit goes a long way: Just a few crystals, dissolved in a pot of water, will destroy any bacteria on the food you're rinsing. The stains wash off your hands after a few hours, but because of the mess some people prefer to use a mild chlorine-bleach-and-water solution (one teaspoon to four cups of water seems to work right). We prefer the former because it doesn't affect the taste of the food. After the treatment, rinse your vegetables in fresh water to remove the chemicals.

### Cooking Gas

You've probably heard all sorts of stories about the availability (or lack thereof) of propane and butane for your galley stove. You'll be happy to learn that is available just about everywhere you'll visit. And, in most cases, the local gas companies will have adapters to fit their equipment to your tanks.

We used to carry a spare set of connectors for the tank end (like the ones on the boat) to which Steve could connect a chunk of rubber hose with hose clamps, in case the correct fittings were not available.

One thing to keep an eye on is the gas pressure created by the propane or butane. In most countries we've visited it runs about 11 inches of water (or 28 millibars). However, in France these figures run to 14.5 inches of water (37 mbar) and in Germany 20 inches of water (50 mbar). With the higher pressures the regulator will have to be changed (or adjusted), and you may need to change the orifices in the stove burners. If you are heading to Europe, it might be a good idea to check with your stove manufacturer for its recommendations.

Meat, poultry, cheeses, and dry goods are always available in one form or another. Often the meat will have been frozen and flown in from another country.

The fact that you can't depend on finding what you want all the time makes each new discovery a thrill and each provisioning trip to the market an adventure.

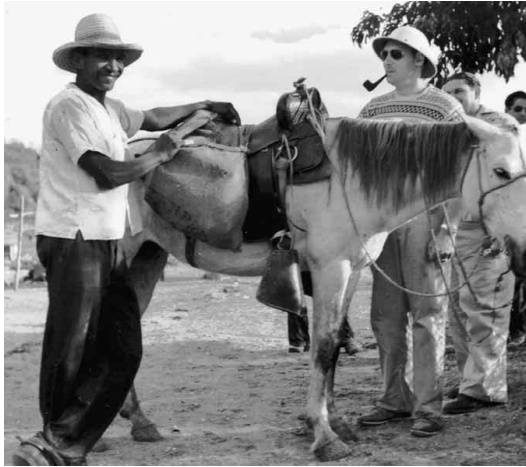
### Cleaning Procedures

Whenever we buy fresh produce in a nonindustrialized country, we take the precaution of washing everything in a potassium permanganate/water solution or a mild chlorine/water solution before eating.

It's also a good idea to give things a quick rinse to rid them of possible spiders or cockroaches *before* taking them aboard. (These pests particularly like to hide in pineapples and bananas.)

Potassium permanganate crystals turn water purple and stains the hands. A little





You sometimes have to be adaptable when negotiating for local transport. (Stanley Dashew photo.)

## LOCAL TRANSPORT

The jitney driver looks on impassively as Steve and I, with the children and our assorted bundles, climb into his van. Inside, a raucous mixture of humanity and flora and fauna jostle and squirm to make way for the new arrivals.

It's a one-hour ride from the mountains of central Bali to the town of Denpasar where *Intermezzo* lies to her anchor. Enroute we will pass through a series of beautiful mountain villages, meandering back streets, past temples and waterfalls, all the while regaled by our companions' chatter and laughter. Momentary voids in conversation are filled by the squawking of the several chickens along for the ride.

The tariff for this hilarious tour through a cross-section of Balinese life? Eighteen

hundred rupees, or just under \$3 for the four of us!

The bus is owned and operated by its driver. During the week, when business is slow to the mountains, he drives between the ends of Denpasar. The cost of the 15-minute ride from our anchorage to the middle of this bustling town is the equivalent of 10 cents. True, the seats are mere slats and the "bus" is a small pickup truck with a tarp-covered back, but it gets us there just the same, and we meet some very interesting people along the way.

Using local transportation systems is one of the best ways to get a feel for native life and breaking away from the tourist mold. In most countries the local transport system seems to be in the hands of free enterprise and are much the better for it. For us it means all sorts of interesting views on our route to and from town, as the driver travels to the various locations requested by his passengers.

The key to really getting to know a new town is in being able to get around. Local busses are the most colorful and the least expensive means of transportation. Taxies usually come in a close second. If one has a special sightseeing tour in mind, or some heavy provisioning to do, it's always possible to split the use of the taxi with another yacht. This has been our system in most of the countries we've visited when we're buying supplies for an extended passage.

### Car Rentals

With bus, and especially taxi fares, we like to ascertain the approximate tariff before setting out. Knowing in advance what the local rate is will save any existing "skin taxes." Another approach to getting around is car rental. We've rented small cars for under \$25 per day (1995 prices) in many parts of the world, and had some great times. To get the bargain rates, however, it's usually necessary to request a small car well in advance. And while the rental routine gives you more personal freedom, I prefer to use a taxi or local bus for touring. That leaves all the passengers free to concentrate on the scenery. Having a driver along means an interesting commentary as well. (Make sure in advance that the driver can communicate with you.)

### Bikes

Some of our friends have carried bicycles along for local use. Although inexpensive and instantly ready to use, bicycles cause some problems. To begin with, most countries require a local licence, or in some cases an import permit: More paperwork. Next, maintenance is difficult afloat. Bikes, even the folding type, supposedly made for marine use, don't take to salt water. The result is a very rusty and often non-operational two-wheeler. Most of our friends who have cruised with bikes end up getting rid of them, normally by abandonment, after a year or so.

Into a slightly different category fall powered vehicles. Mopeds offer much greater versatility and tend to offset some of the negatives of conventional bikes. One of our friends used to carry a small motorcycle aboard. It did see use from time to time, but eventually it ended up being left behind, a victim of lack of maintenance and under utilization.

### On Foot

One of the oldest means of transport, travel by foot, is often neglected by cruisers. To reap its benefits one must be suitably prepared. Topsiders or sneakers are fine for an occasional stroll, but for anything longer, a good pair of walking shoes is invaluable. Always bring socks and Band-Aids when setting out on a lengthy walk. Without Band-Aids many a fledgling blister will become a raging sore — a lesson we've learned the hard way.

### Buying a Car

If you are going to be in a given locale for more than two or three months it may make sense to buy a used car. It is usually possible to pick up a vehicle for a price at which, if you sell it after several months of use, the depreciation is negligible.

## THE BAD NEWS

Regardless of where you cruise, there are always negative stories about the next country or group of islands. When we left San Diego in 1976, Mexico had been the subject of a television show on political problems. At the San Diego Yacht Club, a number of the cruisers planning their trips decided on a visit to Hawaii rather than Mexico. There were rumors of gun-boats, *mordida*, even harassment of yachts.

Never being ones to believe in rumors, and craving some fresh Mexican food and Carta Blanca beer, we forged ahead. To our everlasting joy we found uncrowded anchorages (yachting visits fell in half that year), a devalued peso, very friendly locals, and helpful officials.

The treatment our friends, Wendy and Rudy Eisler, received when they stopped into the Cabo San Lucas office of the capitan del puerto to clear in, was typical for Mexico that year. El Capitan, upon seeing Wendy's passport, broke into a song and dance from *Peter Pan*, Wendy being his favorite character from that musical. This example is a typical confirmation of a basic rule of cruising. *Unless you get the information firsthand, take negative stories with a grain of salt.*



We asked these friendly Costa Ricans to look mean for the photo, but this was the best they could manage. However, the ammunition in the machine gun was real enough!

Fiji was another case. In French Polynesia we heard stories of yachts in Suva being torn apart and searched by customs, of gear stolen off decks, and of generally hostile people. Yet our reception, and that of all the other yachts there at the time, was fantastic. People were friendly, officials could not have been nicer, and nobody that we know of ever lost a single piece of gear.

Most negative cruising rumors concern officialdom and related problems. Yet with one exception, in all the hundreds of times we've cleared in and out of ports, dealing with health, immigration, customs, and port officials, we've never had trouble. That exception took place in 1980 at Antigua in the West Indies. Here we found surly, discourteous officials and very high harbor fees. In fairness it must be said that we were there right after Race Week, so the people we met may have been tired of visitors. And in the 1990s those same folks seem to welcome yachties and the cash they bring to the local economy.

On the other hand, Bali, Indonesia, had a uniformly severe reputation throughout the cruising fraternity. We heard so many scare stories that we almost decided to pass it by. Yet the officials (and there were a lot of them) were unfailingly courteous and helpful. Yes, paperwork was heavy, with five different officials to inspect, stamp, and shuffle our papers. But in each office there was someone who spoke our language and pointed us in the right direction for the next stamp. On a weekly basis the captain of the port, a dignified little old man in an impressive uniform, would make rounds of the yachts. With these semi-social goodwill calls, he told us that he wanted to be sure that we were being well cared for.

### Mordida

Payoffs are a subject of some discussion. The closest we have come to being asked for *mordida* was clearing into Cristobal, Panama, in 1983. When I asked the boarding officer if he would like a cool drink, or something to eat (it was 1900 hours) he said, "Yes, how about a ham sandwich?" But since then there's been nary a request.

### Hot Spots

Unfortunately, there are some trouble spots around the world we feel it's best to avoid. It seems as political pressures increase, the population explodes, and economies decline, troubled areas will spread. Our philosophy has been to try to avoid such areas.

### Drug Checks

Another facet of the drug problem is the search missions of the U.S. Coast Guard. They've been known to shadow yachts at night by radar, then come up suddenly with a giant spotlight, blinding the crew of the yacht. I suspect that would be enough to scare the tar out of most people. And while it may be a necessary tactic in the U.S. Coast Guard's war on illegal drugs, I question the approach.



Most U.S. Coast Guard "inspections" are carried out in a professional manner, with little hassle. These folks came by to have a look as we were sailing north on the Oregon coast.



Boarding by government patrol vessels can happen anywhere in the world. In most cases officials will want to see that papers are in order: cruising permits, clearances, ship's documents, and passports. It's a good idea to request the boarding officer to sign the ship's log, stating time, reason for boarding, and results of the boarding. Pointing to a previous boarding in the log can save time and trouble if you're accosted again.

Drug checks in port can be more of a problem. If the customs officials decide they really want to go through a vessel, they have the right to tear it apart, and while they're supposed to put everything back, that job is usually left to the crew. In the U.S. and some other countries, it's possible to request the services of a drug-sniffing dog. An extra fee is sometimes involved, but the dog can do his job merely with lockers opened and the boat left intact, a much simpler solution for all.

In the final analysis, *most* horror stories can be dismissed out of hand. First-person reports or an overwhelming supply of secondhand data may indicate further investigation is warranted. Ask yourself if the people with stories were looking for trouble; in many situations that turns out to be the case. Political situations are more difficult to judge, as the information is harder to come by. Consular or embassy officials are one source of data. Our experience with them, however, has been that unless an extreme state of emergency exists, the report will be written with an eye toward good relations with the country in question.

Our tendency has been to avoid the politically troubled areas, but ignore stories of troubles with officialdom.

### **"Official" Intelligence**

If you're up-to-speed with your computer, with internet access, there are several sites at which you can get official data on what to expect. Of course, it being official, you need to take the data with a grain of salt. But it still gives you one more bit of data to digest. One site is the U.S. State Department at <http://dosfan.lib.uic.edu>.

## **CRUISING SECURITY**

From the standpoint of personal security, cruising must be one of the safest ways to spend leisure time. Yet given the crime statistics flashed across our TV screens, those planning cruises often are concerned with hazards of this nature.

From time to time we're asked, "Don't you feel a little insecure anchoring in some deserted cove?"

Our own experience is that crime when cruising is virtually nonexistent. With the exception of certain areas in the world, such as the east coast of Colombia, the Southern Philippines, and some of the islands of the Arabian Peninsula, risks are minimal. Nevertheless, the cruiser should carefully consider the security of his or her vessel before setting off.

### **Theft**

It's necessary to take stock of the risks and establish an overall philosophy of dealing with them. Theft can be a problem in the States but is rarely encountered elsewhere in the world. Among the 15 or so yachts that circumnavigated at the same time we did, I'd be surprised if over \$1,000 worth of gear was lost from all the yachts combined. Most of the crime occurred in the "big" cities.

When cruising a majority of time is spent aboard, the yacht is left unattended for a relatively small percentage of the time. Usually during these infrequent periods, people on other yachts can keep an eye on things. Many of our friends rarely lock their yachts when away for short periods. Protecting your interior from forcible entry can be fairly difficult, and in some cases leads to more damage if someone tries to break in than if the vessel had been left with a relatively easy access. If a yacht is boarded, the thief will usually be looking for something that can be easily disposed of locally. Items such as tape cassettes, cameras, and portable radios top the list. Some cruisers advocate leaving a few easily noticed things right on the saloon table as an incentive for a quick trip on and off their boat.

### **Personal Safety**

Personal safety is another kettle of fish. Not many of our stateside friends would consider an evening stroll if they lived in a major metropolitan area of the U.S. Out in the islands, on the other

hand, with the exception of certain U.S. “vacation islands,” I can’t think of a place we’ve ever been where we felt at all nervous in the evenings ashore. Violent crime of the type endemic in the U.S. just doesn’t exist in parts of the world usually frequented by cruisers.

In the back of most cruisers’ minds is the what-if concern. Suppose you’re sailing peacefully along and another vessel accosts you, or you’re boarded in a secluded anchorage. Do you acquiesce or fight? Response to this question goes right to the heart of the philosophy of self-reliance and cruising preparedness.

## Alarms

The first aspect to consider is some form of alarm system. The most efficient form of alarm comes generally with four legs, a wagging tail and a loud bark. A dog will double as a guard when you’re shoreside. There are some negatives to having dogs aboard. If you’re allergic to animal hair, as we are, your options are limited.

You can make a simple alarm system with a piece of thread stretched across the deck and attached to a bell.

One singlehanded acquaintance of ours used a variation of Joshua Slocum’s tacks. He would string treble fishhooks on monofilament line around the perimeter of his vessel, trusting he would hear the results if someone was climbing aboard in the evening.

More sophisticated electronic systems, such as infrared and motion sensors, have difficulty coping with the open hatches necessary for ventilation in the tropics, blowing awnings and motion at anchor.

When we built *Sundeer* we put magnetic reed switches on the hatch screens and wired them to an alarm. This way we can leave the hatches open and still have an alarm if a screen is moved. Sealed reed switches are a reliable form of alarm in the marine environment. If you install a basic alarm system, adding pressure pads on deck or on the companionway sole is easy.

Assuming you awake to find an intruder below, what do you do? A cruising couple we know had this happen in Jakarta, Indonesia. When they awoke, the thief had already passed down a suitcase full of their gear to a waiting canoe. A battle ensued using nonlethal weapons, and the thief escaped, shouting “I come back and kill you!”

Several nights later they were awakened by this same persistent thief. Another battle took place, and this time they were able to rescue their valuables. When I asked these friends why they hadn’t resorted to more substantial forms of force, which were at hand, their reply was sobering. If they had shot the intruder, his friends who were waiting alongside would have gone to the police. Endless hassles could have developed, and today they might still be in some Indonesian jail.

On the other hand, what if the intruder had been armed, perhaps with a knife or something more deadly?

## GUNS ABOARD?

There is a big debate within the cruising fraternity (as, indeed, within society at large) about the advisability of guns aboard. On the pro side, some cruisers look at weapons the way they’d look at a good medical kit or extensive spares. You hope you never need to use this gear, but you carry it anyway.

On the con side there are the hassles of dealing with customs along the way, and the very basic question of whether or not you’re up to pulling that trigger. And some folks are more concerned about what mistakes with guns could do to the crew than anything else.

## If You Do Carry Guns

If you do carry weapons, there are some basic rules which friends in the law-enforcement community have passed along:

- You must be proficient with your weapons in a variety of circumstances. They must be practiced with regularly and kept clean and in good operating order.
- Never show a weapon unless you intend to use it. Your opponent won’t know you are only trying to scare him off. If his life is threatened, he will take action against you if at all possible.

- Have an understanding among the members of your crew as to what general course of action you will take in situations that could result in gunfire.

## The Arsenal

What type of guns should you carry? The most popular weapon in the cruising fleet is the shotgun. Usually a short-barreled pump “riot” gun is carried, loaded with 00 buckshot. If you’ve never practiced with this form of weapon, you’ll be surprised at how little “scatter” there is to the shot, yet it takes a reasonable amount of skill to hit a target at 100 feet (30.5 m) with this weapon. If you’re really serious, you can use a semi-automatic model that pumps a round into the firing chamber each time you pull the trigger.

Double ought shot is great for blowing holes in a small fiberglass hull and will make a mess if you can hit a person. But for close-in work, medium birdshot has a much wider pattern. Of course, you would never want to use a weapon like this where ricocheting pellets could hit your own crew, so its use in the interior will be of limited value.

Next comes the civilian version of the M16. Sold as the AR15 or Mini 14, this carbine is lightweight and compact. It shoots a projectile at an extremely high velocity. As a result, it has a lot of stopping power for its size, and the projectiles have a very flat trajectory for the first couple of hundred feet. The high velocity makes correction for distance and crosswind less of a factor. These are sold as semi-automatic weapons, with magazines holding up to 30 cartridges at a time and, at a moderate distance, in the hands of a skilled marksman, can do substantial damage. If you are serious about your firepower, you can tape two magazines back to back, giving you fast access to 60 rounds.

The question of range now comes into play. If you’re in a situation you perceive as threatening with another vessel, at what point do you want them to realize it will hurt to take you on? A military-style carbine has a relatively limited range. To fill this gap in the on-board arsenal, the experts recommend a larger bore, longer barreled rifle with a low-power telescope. This sort of



One yacht's weapons. On top, a 12-gauge short-barreled shotgun. In the middle, a Ruger Mini-14 (.221 caliber). The clips each hold 30 rounds of ammunition. Bottom left is a Browning 9mm Hi-Power with a 14-round clip. Lower right is a .22 target pistol, good for target shooting and general practice but without much stopping power.



weapon, in the hands of someone with a moderate amount of experience, in relatively calm conditions, is good at several hundred yards. An M-1 or .303 style of weapon is a good example for longer range.

What you use on board is another question. A riot gun or rifle won't be much good in the confines of a cabin. A pistol is the answer, and those of our cruising friends who have only two weapons aboard usually make the pistol their second choice.

The question of type depends upon several key factors. If children are aboard, and you're concerned with their playing cops and robbers, a semi-automatic weapon with a heavy action will be safest. The 9mm Browning Hi Power is a popular example. You need a sure, strong grip to crank a round into the chamber on such a weapon — something beyond the ability of most pre-teenagers.

Some feel that if you're not familiar with weapons, and don't have to worry about "playful" children, a good-quality long-barreled revolver is best. This type of weapon generally has more "kick" than a semi-automatic but doesn't have jamming problems. In either case, you need to be used to the "feel" of your weapon.

### **Weapon Maintenance**

Maintenance in a salty environment is difficult. If you have the budget, consider stainless steel. It will cost about 50 percent more but will be worth it in the long run. Your guns must be kept dry and well-oiled to prevent rusting. They should be checked monthly to be sure they and their environment agree with one another. This also applies to the magazines of the semiautomatics and, to a lesser extent, to ammunition supplies. For best results, the latter should be kept in sealed containers.

Ideally, you would have twice as many magazines as you normally use. This allows you to rotate them, keeping half empty. If the magazines are kept loaded all of the time the springs lose some of their power and can cause feeding problems.

### **The Gun Locker**

Along our South Pacific path we met several cruisers who had built secure gun lockers aboard. In many situations where the locals would have taken weapons off the boat, the gun locker made it possible to leave the weapons on board. We had a gun locker added in New Zealand, and it proved quite handy as we continued on our journey.

## **DRUG RUNNERS**

Drug running poses special problems. For a period in the mid-'70s it seemed every time you picked up the paper there would be another story of a yacht being hijacked and posted missing, drug runners thought to be the culprits. Although this type of activity seems to have died down, the U.S. Coast Guard advises continued caution.

The U.S.C.G. suggests that a float plan be filed, and that crew not be taken on without carefully checking references. If stocking up for a long passage, don't advertise the fact. These comments apply primarily to the Caribbean.

Amateur drug smuggling can pose a problem of a different sort. If a crewmember is found with contraband it can mean the loss of your yacht, without appeal. This is the law in the U.S. as well as in most other countries. As a result, some of our friends who do sail with unfamiliar crew insist on a search before taking on crewmembers. Not a pleasant way to get started, but one which may be a necessity, in a day when a small packet of heroin or cocaine can be worth thousands in profit.

Another aspect of the drug problem lies in avoiding areas where "transactions" are taking place. Some anchorages of the Bahamas and Turks and Caicos are infamous for such business.

When we cleared Fajardo, Puerto Rico, for Fort Lauderdale in the early '80s, we were warned by the head of customs to avoid isolated anchorages in the Bahamas and not to allow strange yachts to approach or go to the aid of "distress" calls. If we did hear of a problem he advised calling the Coast Guard to deal with it.

With this warning ringing in our ears (welcome back to civilization!), we pull the hook and head northeast. A lovely easterly, with just enough south in it to allow us to maintain our course, greets us as we turn the corner of Puerto Rico. The next two days go by uneventfully as we alternately sail and motor towards the northeast corner of Eleuthera. Just past San Salvador, our first landfall, the radar proximity alarm goes off. Checking the screen, we see a light target 9 miles distant on a relative bearing of 025 degrees. Placing the cursor ring over the target, we see in a few minutes that the bearing between us is staying the same. We're on an intersecting course. A quick look at the chart shows there's no harbor on the point of land he's steering for. The warning of the customs official echoes in our ears as we vainly try raising someone on the radio.

As they move in closer, Steve has the children and me position ourselves below with as much protection as our shallow hull will afford. Meanwhile he brings on deck the contents of our gun locker and extra ammunition magazines. We're determined not to be boarded.

Watching carefully with the binoculars, he makes out the form of a powerboat of 50 or so feet (15.3 m). A series of silhouettes mark the bridge. Steve watches them drawing closer and carefully draws a bead on the first target. It is flat calm as *Intermezzo II* motors along.

"I can probably nail two or three of them at 75 yards (22.9 m), and that's as close as they're going get without a fight" he says.

Slowly the distance closes: 200, 150, 125, 100 yards. Adrenaline is flowing as we try to steady our nerves. The first shots have to count. Abruptly, as if reading our thoughts, they alter course. We breathe a collective sigh of relief as they head back out toward the open ocean.

When we discussed the incident with customs in Fort Lauderdale after our arrival, they opined that it was a case of mistaken identity. The motor vessel must have been looking for a rendezvous with a sailboat to do a drug transfer.

In the final analysis, your approach to seagoing security will probably parallel your attitudes ashore. If you're inclined to keep a gun in the house, then you will probably want one aboard as well. When considering the various aspects of the subject, it's nice to know that the odds of ever being caught in a dangerous situation extremely remote.

## PIRACY

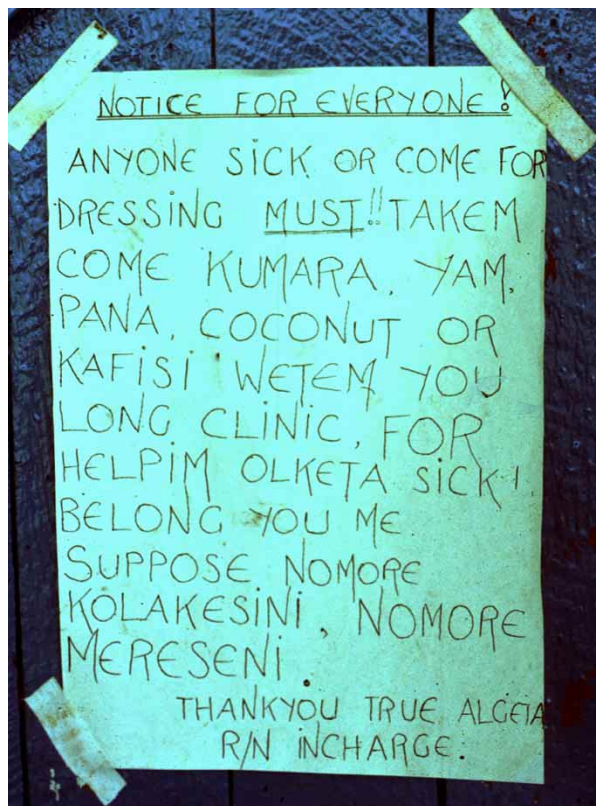
As much as I hate to even think about this subject, let alone write about it, piracy on the high seas has existed for thousands of years. So it is a subject worth pondering.

Fortunately, it is typically associated with certain identifiable geographic areas. This leaves you the options of staying away or traveling with enough company to give you some comfort. Staying in touch with fellow cruisers is one of the ways of knowing where to avoid. The state department will sometimes issue traveler advisories, but these are not infrequently issued well after everyone else knows a given area is not safe.

Areas of the South China Sea (near the Straights of Malacca) and the Southern Philippines, as well as Socotra off the bottom of the Arabian peninsula, have been hot spots for at least the last thousand years. Coastal areas of Africa like Sudan, Guinea, Cameroon, Angola, and Liberia currently have bad reputations. Colombia, some areas of the Western Caribbean, and San Salvador have all had recent problems (although Colombia has been a tough neighborhood for at least the last three centuries).

## IMPROVING SECURITY

In the final analysis you should use the same preparation and caution for personal security as you would in any major "civilized" area with a known crime problem. First, avoid areas about which you are unsure. If the local political situation is unstable and anti-foreigner rhetoric is high, give the area a pass, or if you do visit, keep your eyes open. Don't flash expensive jewelry or electronics around. When you go ashore, take only one credit card at a time and the minimum cash required to make your local transactions.



A Solomon Islands medical clinic notice. This roughly translates to "bring your own food, or food for your relatives."

## MEDICAL PREPARATION

Serious medical problems are rare at sea. We know firsthand of only one major problem among all our cruising friends. (There must be something about salt air and a relaxed lifestyle that drives the evil spirits from our bodies.) However, it's best to be prepared for the worst. Even if you don't encounter serious problems, at least you'll be able to answer your anxious land-loving friends who continuously ask, "What do you do if...?"

We were pleasantly surprised by the number of doctors out cruising. I think it's safe to say that in any moderate-size anchorage with more than half a dozen boats together, the odds are substantially in favor of finding a trained physician aboard at least one of them. (We've also frequently found doctors living ashore in remote places.) As people tend to make major crossings at one particular time of year because of weather, there usually are a number of boats traveling in the same direction at the same time. On every one of our major ocean crossings, there has always

been a doctor somewhere in the fleet within a week's steaming.

With a ham radio or SSB, a cruising or shore-bound physician can always be located. Most cruisers carry extensive medical inventories, so that if outside guidance is necessary, they have tools and/or medicine to work with.

### Reference Books

Foremost among these in our opinion is the *International Medical Guide for Ships*, written and published by the World Health Organization in Geneva, Switzerland. Compiled as a guide for ships' captains, it provides excellent material on symptoms and treatment. Less extensive but equally valuable is Peter Eastman's *First Aid Afloat*. His is perhaps the most popular of all the yachting medical guides. Peter's book has an excellent section on medical inventories, covering both equipment and medicines. It's a good idea to take along a home medical guide as another backup.

Another good reference is the *Ships' Medicine Chest* published by the U.S. Government Printing Office (document #917-010-000005).

### The Medical Kit

Unfortunately, medical kits get expensive very quickly and tend to take up a lot of space. Our kits usually take three large fishing tackle boxes for storage, and every three to five years most of the contents are thrown out and have to be replaced.

We divide our medical supplies into the following categories: *trauma*, for initial quick action in the event of a severe injury where the injured must be kept from going into shock; *wounds*, with material for all sorts of bandages, sutures, steri strips, butterfly bandages, and various topical anti-germ medications; and finally, *specialized medicines*.

Most of the better texts feature lists of recommended materials and medicines. A local doctor can also offer some guidance. Be sure the doctor understands the potential situation of being off-



shore and isolated. Without thoroughly comprehending this, he/she may not want to recommend everything that you might indeed need to carry. If your vessel is federally documented, some pharmacies near major commercial harbors will fill your needs at a discount without a prescription.

Today there are several commercial companies that make seagoing first-aid kits for various levels of emergency. Some of these provide an emergency call-in service, which connects callers with doctors via high-seas radio.

Putting a medical kit together is a time-consuming and costly process, especially if done with doctors' prescriptions at your local pharmacy.

If you are close to a location with a commercial harbor, look for a pharmacy that is experienced in doing ship's medicine chests. If you go in with your ship's documents, it is legal for them to sell you what you need directly, without a prescription. What you carry must be in the ship's log, and any use needs to be logged.

It is often possible to buy medical supplies in Third World countries at a fraction of the price of what they cost in the U.S. or some European countries. Many medicines are available, for example, in Mexico, at about one third of the U.S. prices, without a prescription (we have been advised by some doctors that quality standards may not be as high as in the States).

Vitamins are another consideration. On occasion you may be eating less-than-balanced meals, and high-potency vitamins will fill in any gaps. Vitamins become especially important if using a watermaker, since the reverse-osmosis process removes the trace minerals that the body receives from ground water. While pharmacy items, such as vitamins and salt tablets, exist everywhere in the world, discount brands sold in the United States are generally much cheaper.

### Paperwork

As we've already mentioned, customs may ask you what sort of drugs you have aboard. For these folks, as well as for any doctors you might be working with at home, an up-to-date list of what you have in your kit, including quantities and expiration dates, is helpful.

### Medical Training

There are several areas of training that are worth looking into before leaving. A basic first-aid course is a must; if time permits, an advanced course can be of real help. It's important to know how to stitch wounds and give shots. If this makes you nervous, try what Ralph and Lenore Naranjo did before embarking on their circumnavigation: A doctor friend arranged for them to view emergency room procedures before doing a little practice work. (No, they didn't practice in the emergency room — just watched.) The sight of a little blood and gore in advance can prepare you for the worst (should it occur) and help you remain cool and in control if messy work has to be done. Note, however, that with butterfly bandages and steri strips now available for closing wounds, stitching is rarely required.



A Survival Tech trauma kit. Survival Tech offers a variety of medical kits for different types of cruises and needs. The trauma kit will take care of most problems in the short term. But, substantially greater sophistication will be required for potential emergencies offshore. (Survival Tech photo)

## Check Up Before Checking Out

Don't neglect your dental work. Have a complete checkup by a dentist, and bring all dental requirements up to date before leaving. If you plan to be gone more than six months or a year, find a local dentist to clean and check your teeth en route.

Women can get gynecological checkups in most foreign ports.

## Heated Issues

Along with the normal medical kit, you should have aboard a large inventory of salt tablets, especially for the tropics. We were to find out how valuable these were in Rabaul, New Guinea. One evening we were having drinks at the Rabaul Yacht Club with Dr. Emory Moore and his lovely wife, Dee Dee. Emory had been in the tropics during World War II and had quite a bit of experience with heat-related medical problems. When I complained of lack of energy and a headache, he asked if we were using salt tablets. My quick recovery of vitality was amazing, just a few hours and four salt tablets later.

Ron Teschke, a seagoing doctor says that you have to watch the salt intake carefully. "The importance of extra daily salt intake and drinking lots of fluids, even if you're not thirsty can hardly be overemphasized."

Ron goes on to add, "You have to force yourself to drink even when you don't desire to; even more important, take copious amounts of salt daily. Why more important? Water without salt will do little good and at some point actually cause harm. Have every adult crew member take a whole salt tablet each morning with a half a tablet for kids, (Very few people truly have to worry about salt causing high-blood-pressure problems. If in doubt, ask your personal physician — or better yet a cardiologist)."

## Inoculation Requirements

It's very difficult to get hard data on the subject of inoculation against the various diseases of the world. Regulations and requirements will vary depending on whom you talk to and how old his/her data are. The best sources of information in the United States are the county health departments in major cities. They're used to handling inoculations for people traveling overseas, and most of their inoculations are free.



Boy, cruising can be fun — especially at times like this!

When you arrive at a port outside the United States, the medical people will say, "It's not necessary here, but up the line..." Before we left New Caledonia for the New Hebrides Islands, for instance, we were told that due to the regulations of the next country, and for our own protection, we needed to update our cholera and typhoid shots. I decided to wait, since local scuttlebutt was divided about this "official view." In Vila, New Hebrides, nothing was required on our yellow health card, but we were advised that we needed the whole range of inoculations for the Solomon Islands and Papua, New Guinea. The doctor looked as though he could use the business, so we allowed ourselves to be punctured with a raft of inoculations, at the same time having our wallets lightened of Australian currency. In the Solomons we were told that the shots we had just received weren't necessary, but they would be for New Guinea. In New Guinea they weren't necessary, but they would be for Australia, and so on.

Smallpox vaccinations are required in a number of the developing parts of the world by the *local* health authorities. It appears that the World Health Organization's declared victory over smallpox hasn't reached places such as New Zealand and Australia, so be sure you're up-to-date.

Yellow fever shots are suggested for some areas of Africa and Central and South America, but not required in any of the Pacific or Indian Ocean areas we cruised (although we were warned to stay with our own water supply and avoid eating in the native villages of Melanesia, just in case).

Hepatitis, of which there are now several varieties, is another concern. Several of our cruising doctor friends recommend being inoculated against hepatitis. However, this opinion is not universal.

## Malaria

Malaria, in its various forms, clearly poses a serious threat. It's necessary to start taking antimalarial tablets at least two weeks before entering an area known to have malaria. Since a malaria parasite can be in your body and be kept at bay by the tablets unbeknownst to you, it's advisable to continue taking the prophylaxis for a month after you've left the tropics.

Be careful of the dosage and type of tablets you take as you travel from place to place. Some resistant strains of malaria have developed in parts of Papua New Guinea, Indonesia, and South America. Check with a local pharmacist or chemist, because there are many types of malaria and just as many types of antimalarial tablets. Even within a single country, such as New Guinea, some tablets only work for certain areas. We learned this the hard way. Not realizing the tablets we were taking in Madang weren't appropriate for the east coast of Papua, Steve caught a case of rare cerebral malaria. As it turned out, he fell ill just after losing out in the next-to-last round of a rock-and-roll dance contest at the Port Moresby Yacht Club. Fortunately, a malaria specialist in the capital city of New Guinea gave us excellent assistance. Don't take malaria risks lightly. Recently a cruiser in the lower Solomons died after contracting cerebral malaria.

A good set of bug screens for the companionway and opening ports offer further protection from disease. If the mosquitoes can't get to you, they can't give it to you!



This young man in the Natal province of South Africa was the first medical professional to advise us that Elyse needed glasses. Shortly thereafter we took her to an optometrist, and he confirmed the diagnosis.



## Medical Services

Health care outside the U.S. is much less elaborate than what Americans are accustomed to, but for most normal illnesses you can count on good treatment at much reduced rates. Steve was in the Port Moresby Hospital for 10 days, undergoing numerous tests before the form of malaria he had was isolated. The final cure was quinine — not very exotic, but it worked. The bill? A total of \$220, including tests and specialist! Also bear in mind that it's possible within a day or two at most to fly from virtually anywhere to a major country for special treatment, should the need arise.

## Common Problems

Among medical problems encountered while cruising, none is more common in the tropics than open sores that develop into staph infections; these are difficult to heal. Treat every nick and scratch as a *potential* major medical problem. This was vividly brought home to us by the experience of our friend Craig Porst in Taeiohai Bay, on Nuka Hiva, in the Marquesas. Craig scratched his foot aboard the Cal-46 on which he was crewing. He thought nothing of it and went diving. Three days later he was in the hospital, with a huge infected crater on the top of his foot. For five days Craig had to stay in the hospital receiving massive doses of antibiotics, and having his wound cleaned and drained daily by the doctor.

After Craig's experience we were more careful. Topical antibiotic creams and powders such as Neosporin do well for us. For any scratch, nick, or cut, *no matter how small*, we clean the spot, apply the ointment, and stay out of the water until it has healed. If going into the water is essential, or if we can't avoid getting wet in the dinghy, we rinse the sore place with fresh water, then clean and reannoint it with Neosporin. Once an open sore begins to look angry, soak it in a hot-water-and-chlorine-bleach solution. In Polynesia a local custom for treating coral cuts and scratches is to apply lime juice directly to the wound. It's most important to keep salt water off any open sore, as staph thrives in the sea. Take especially good care of your lower legs and feet, as it's virtually impossible to keep them dry.

Another problem frequently found among those first cruising is constipation. The abrupt change in diet and lack of fresh vegetables in some areas contribute to this problem. Mineral oil was recommended to us by the French doctors in Atuona in the Marquesas. They had seen the same problem aboard other yachts and among newly arrived French colonists. Increasing fresh-water intake also helps.

The hot, humid tropical weather breeds tropical skin-fungus infections. A young Australian doctor in the New Hebrides told us that the skin-fungus problem was the most common ailment he saw among visiting Europeans. Carry along an antifungal cream. And for women and girls, a "thrush" infection will very likely develop in the vaginal area. A periodic douche with vinegar and water will keep it at bay; if it does develop, over-the-counter treatments are now available.

Remember, also, that your body's liquid requirements are higher in hot climates, so drink lots of water. If you wait to drink when you're thirsty, you're not drinking enough.

Another medical problem that may occur while cruising is fish poisoning (ciguatera). Always check with the locals before eating your catch. Fish may be fine to eat in one area and poisonous



The kids always found plenty of ways to stay fit aboard.

in the next bay. Large pelagic fish caught offshore are generally not poisonous, but once in awhile one will have a high level of toxin. Most fish-poisoning is cumulative. If after one or two meals of a given fish you notice a slightly upset stomach, numb lips, and tingling limbs, don't eat any more of it.

## Staying Fit

One of the problems with long passages is that you don't get much exercise. Most of the days are spent reading, watchkeeping, navigating, or doing minor chores. None of these give the body much of a workout. On the other hand, when you do need to put your muscles and sinews to work it's usually for brief periods of heavy exertion, frequently with a bit of adrenaline flowing. As one gets older this can become a problem, with pulls and strains the likely result.

When Steve and I first started cruising we didn't exercise on a formal basis. But as time has gone on we've found it necessary to do something to keep ourselves in shape. I like to do a series of stretches every day and some isometric work, holding myself in place wherever is handy given the sea conditions. Steve prefers to use his "Bullworker," a compact spring-loaded device that gives both leg and upper-body muscles a workout.

When we're anchored, the natural activities of the day tend to keep us fit.

## Seasickness

As much as we'd like to ignore the subject of seasickness we do need to address it. Sarah and I have always had queasy stomachs. Steve and Elyse were just the opposite, that is until Steve had malaria; since then he's had a bit of the problem.

We typically find that the worst time for us is right after we leave and for a couple of days thereafter. As a result, we all take Bomine or the closest equivalent we can find the night before a passage and during the next couple of days.

I've tried the Scopamine patches, but for me the side effects were too much hassle. I've also tried the wrist bands without results, although both of these remedies work for some of our friends. The key for us is never letting the seasickness get started. Once it starts, it is much more difficult to control and/or get rid of.

We also carry suppositories in our medical kit in case someone gets really seasick and can't keep anything down (including seasickness remedies).

If you've got crewmembers aboard who are taking trips to the lee rail, be sure they drink plenty of liquids to replenish the fluids lost while barfing.

## Talking to Cruising Doctors

From time to time we've picked the brains of cruising doctors. What follows are a series of notes on the subject which we've put together for our own use. They may be of help to you as well.

### Before departure:

- Make your boat safe (boom preventers, no loose items to be thrown about, etc.)
- Take a first-aid course.
- Get physicals, and make sure immunizations are up-to-date.
- Talk to doctors about chronic medical conditions.
- Keep medical guides on board.
- Make up a complete medical kit to cover a wide variety of possible medical treatments for injuries and illnesses.
- Learn how to use the radio for medical consultations.
- Take more than the amount you expect to need of prescribed drugs for any pre-existing conditions.
- Obtain identification bracelets for allergies and medical problems from the following address: *Medic-Alert Foundation, PO Box 1009, Turlock, CA 95380, U.S.A.*

### Ship's Medical Log:

- Record all injuries and illnesses, noting time and date. Describe what happened, likely cause, actions or treatment taken. Record signs and symptoms on a day-by-day or hour-by-hour basis. Very important for future medical consultation.
- List expiration dates of drug inventory and keep track of supplies for restocking.
- Keep a page in the medical log for each person on board to record special medications, allergies, pre-existing medical problems and normal vital signs for base-line reference (blood



Foot sores are the most difficult to deal with because they are so difficult to keep dry. Garbage bags work wonders in the dinghy.

pressure, pulse, temperature).

- Carefully screen health history of prospective crew.

### **Medical Assistance in Foreign Countries and at Sea:**

- Look for nurses and medical personnel. Even on the smallest of islands, the professionals usually have more training than the sailor. Do not self-treat without consulting a trained doctor first, if at all possible.
- Expect to meet doctors among fellow cruisers.
- In foreign countries, try to find a doctor who speaks your language, or have a good interpreter. Ask through hotels, travel agencies, consulates, marinas, etc.
- For major surgery or very serious problems, try to reach sophisticated medical facilities in developed countries.

### **Medical Radio Assistance**

- SSB: Medical advice can be obtained through the Marine Operator or U.S. Coast Guard.
- Ham radio nets have a variety of resources for medical assistance ham-telephone patches, such as:
- Maritime Mobile & Seafarers Net: Operates 24 hours a day, with control sta-

tions throughout the world on 14313kc.

- Manana Net: Operates out of the West Coast of the U.S., covering much of the Pacific Ocean. Meets daily on 14340 kc at 1830 GMT.
- Pacific Maritime Mobile Net: Operates on the same frequency at 1530 GMT. Reaches from the West Coast of the U.S. to Australia.

### **Medical Assistance Services**

- Public Health Service Hospitals in the U.S. will accept calls from vessels at sea in order to provide medical advice, via ham radio phone patch, or a Coastal Marine operator or the U.S. Coast Guard on SSB radio. See *The Ship's Medicine Chest* for calling instructions. May take several hours to make contact.
- SSB Coastal radio stations and U.S. Coast Guard Stations link to CIRM, an international medical advisory organization headquartered in Rome. Communication is sometimes slow.
- M\*A\*S\*H Medical Advisory Systems, Inc. is a privately run hotline established to respond promptly to the emergency advice needs of vessels at sea and in foreign countries. Contact directly via SSB, VHF, or a toll-free number available for M\*A\*S\*H members only. Also linked with emergency evacuation services. Maintains computer records of individual medical histories that can be retrieved by the doctor answering the call. Established primarily to service merchant ships, but also promotes membership for private vessels. Can be obtained only through the American Sailing Association or Boat Owners Association of the U.S. Addresses follow:
  - Medical Advisory Systems, Box 193, Pennsylvania Avenue Ext., Owings, MD 20736, U.S.A. (301- 885-8070)
  - American Sailing Association, 13922 Marquesas Way, Marina del Rey, CA 90292 U.S.A. (310-822-7171)
  - Boat Owners Association of the U.S., Washington National Headquarters, 880 Picket Street, Alexandria, VA 22304 U.S.A. (703-823-9550)



- Manana Net (see above) refers offshore cruisers requiring medical advice to the emergency room of the Memorial Medical Center of Long Beach, California. They accept calls via ham patch and can usually have a physician respond promptly. (310-595-2133)
- International SOS arranges medical referrals and evacuation throughout the world. Works like insurance — should emergency medical transport be required, expenses are covered. Also gives medical advice over the phone and provides a wallet-sized card containing all your medical records. *P.O. Box 11568, Philadelphia, PA 19116 U.S.A. (800-523-8930)*
- Nationwide/Worldwide Emergency Ambulance Return, or NEAR, can arrange evacuation of medical emergencies to the nearest sophisticated facility or back to the U.S., with appropriate medical attendants if necessary. *1900 North MacArthur Blvd., Ste 210, Oklahoma City, OK 73127 U.S.A. (800-654-6700)*
- Intermedic provides a directory of English-speaking physicians in major cities throughout the world who have agreed to consult at a reasonable pre-set fee. May also provide information on immunization requirements and a personal-medical-data recording book. *777 Third Ave., NY, NY 10017 U.S.A. (212- 486-8974)*
- International Association for Medical Assistance to Travelers, or IAMIT, is a nonprofit organization providing information on immunization, risk chart, and English-speaking physicians in 120 countries. *736 Center St., Lewiston, NY 14092 U.S.A. (716- 754-4883)*
- Assist Card: An emergency message service in 67 designated countries that can dispatch local medical help and arrange transportation. *745 Fifth Ave. NY, NY 10022 U.S.A. (212-752-2788)*
- Health Care Abroad: Accident and illness insurance for specific coverage of listed and outlined events. *923 Investment Building, 1511 K Street NW, Washington, DC 20006 U.S.A. (800-336-3310)*

#### **Vaccinations:**

- Make sure your immunizations are up-to-date. Be especially careful to keep up-to-date records for children on board.
- Get tetanus boosters periodically.
- A list of countries requiring additional vaccines is available in *Health Information for International Travel*, HHS Publication (CDC) 83-8280. Obtain at: *The Superintendent of Documents, U.S. Government Printing Office, Washington D.C., 20402. U.S.A. Cost: \$4.00.*
- The most common diseases requiring vaccination for the traveler are: hepatitis a, cholera, typhoid, yellow fever, rabies, meningococcal, plague.
- Take prophylactic treatment when traveling in known malaria regions.
- *Health Hints for the Tropics* is available for \$2.00 from: *Dr. Colvin L. Gibson, 3307 Harrell St., Whaton, MD 20906 U.S.A.*

#### **In summary:**

Follow an orderly, methodical pattern for medical problem solving, treatment and planning.

- **Gathering Data:** Find out all the information that led up to the problems and all the symptoms and any other physical changes. Examine the affected part of the body and find out if the person has had any trouble like this before. Check the patient's drug allergies, and record all assessment findings logged on a day-to-day basis.
- **Assessing:** Spend time assessing data collected. Thoroughly research medical books, especially the chapters relevant to the particular problem. Question the patient for symptoms mentioned in the book but not volunteered at first by patient. Significant minor symptoms may go unnoticed when another symptom is dominating the scene.
- **Treatment Planning:** If properly prepared, and using all the resources available, an intelligent intervention can be formulated.
- **Implement Treatment Plan:** Follow the guidelines outlined in your medical references and by medical advisers. Keep a log of treatments, especially the stopping and starting of drugs and their effects.
- **Evaluation:** Evaluate and re-evaluate the effectiveness of your treatment and the progress of the problem.

## CRUISING DIVERSIONS

A discussion of diversions or hobbies in the context of blue-water cruising may seem like a non sequitur, however, hobbies can provide a vital catalyst to make life afloat more enjoyable and fulfilling. Many hobbies can even generate a positive cash flow if conducted properly.

### Skin Diving

Skin diving will top most lists. Not only are the wonders below opened up, but there are practical aspects as well.

To begin with, knowledge of basic water safety is a must. Then there are a few rules to adopt, as with all water sports. First, we ask the locals if there are any problems with swimming (sharks). Only once have we been advised to stay dry (off a very alluring island near Espiritu Santo in the New Hebrides). Next, for good measure, we try to swim with a minimum of fuss, making clean entries and exits. Big, splashy dives are out. They attract the curious toothy critters below. We like someone on deck, in a dinghy, or on shore to keep an eye on those in the water and their surroundings.

Skin diving can be a must for checking anchors in some conditions. Especially in coral-laden waters you'll want to dive down to check how the anchor is buried and to be sure the chain and anchor are clear of coral heads. By cleaning the hull, prop, and zincs on a periodic basis you can put off the point of having to haul. We've always made a habit of snorkeling around the prop and zincs to polish them before every passage. It makes a big difference in their efficiency.

Snorkeling gear doesn't require a big investment for warm waters. A good-quality mask (with spare strap), snorkel, and a set of fins will start you out. The fins should be heavy-duty with reinforcing ribs. The non-ribbed fins won't transmit the power of your legs adequately to the water. Next, a pair of gloves and rubber booties will come in handy to protect the extremities.

If you plan on doing much cold-water cruising, consider having a wetsuit aboard. If it's necessary to unfoul a sheet, anchor rode, or lobster pot from your prop or rudder, a wetsuit will be required. One of the problems with wetsuits (for us, anyway) is that they rarely see action. As a result, the zippers upon which they depend for closure become sticky and corroded. Keep them well lubricated even if the suit is never worn. You may need a weight belt to overcome the buoyancy of the wetsuit.

### Scuba Diving

Any serious cruiser should have aboard and know how to use scuba gear. For clearing fouled anchors, changing props, and recovering articles lost overboard, it's essential. *Formal* instruction is a must. Scuba diving is safe and opens up fantastic horizons beneath the sea, but it can also lead to fatal accidents. Having the right gear, knowing the safe way to use it, and being prepared for underwater emergencies are all part of the training. From a practical standpoint, scuba certification is required to get your tanks filled just about everywhere in the world.



One of the advantages of spending lots of time in the water is shown above. This cruiser, who shall remain nameless, was able to discard his swim fins toward the middle of his *second* circumnavigation. Note the build-up of tissue between the second and third toes. This provides the person with tremendous extra forward thrust when swimming. (Although he does lose the ability to pick up peanuts and raisins from the cockpit sole with his toes.) At the present time scientists are studying this phenomenon but as yet have not come to any *definitive* conclusions. They claim the statistical sampling base is presently too small, and until there are additional cruisers with more than a single circumnavigation to study, modern science may just remain in the dark about this.



Sarah, her friend Kristin Sandvik, and some French buddies about to go for a dive in the Tuamotus.

When we were preparing for our first long cruise on *Intermezzo*, Steve decided to get certified. He felt that from an anchor-recovery standpoint alone it would be worthwhile. For four weeks he went through the usual classroom and freshwater pool preliminaries. Then it was time for the final ocean dive. Business commitments forced him to miss the class dive so he arranged for his instructor to go out one afternoon aboard *Intermezzo*. Donning wetsuit, weights, tank, and other paraphernalia, he was hesitant at first about the big plunge. But he found that the standard backwards dive of scuba practitioners worked fine from the caprail of *Intermezzo*. The instructor, Ron, took him through the motions of what he had practiced in class: purging the mouthpiece and mask, buddy breathing, free ascents. Then it was time to explore. Looking under a big rock, he discovered a 7-pound (3.2kg) lobster. It was hooked — and so was he.

Two of the problems with scuba gear to be faced on a small yacht is how much to carry and where to stow it. The basic gear is compact except for the tanks, which is where the problem comes in. A single tank has around an hour of usable air in

shallow water. If you intend to use it for maintenance alone, then one tank is enough. That's how we started out. But as you get more involved in the sport, you may want more tanks. Many people stow them on deck, usually tied to the pushpit. That works fine in port, but offshore, tanks are much safer below.

Next comes replenishment of air. If you're an occasional diver you'll be able to get air in most of the cruising spots you visit. A surprising number of yachts today have air compressors aboard; if you get into diving seriously, consider installing one. Some models on the market are extremely compact. There's probably more fun to be had with your own compressor than just about any other piece of gear.

For us, one of the highlights of cruising is wreck diving. With the mobility provided by your own dive platform, it's possible to dive in out-of-the-way spots that other divers only dream about. And fortunately, there are a lot of wrecks in and around the best cruising grounds. The Melanesian islands are an example. Scattered throughout New Hebrides (Vanuatu), the Solomons, and New Guinea are literally thousands of wrecked ships and aircraft from World War II. Each is a new and thrilling experience. Many are located in shallow water, so "bottom time" isn't a problem.

### Spearfishing

Spearfishing is good sport, keeps the cost of cruising down, and fills the tummy with delicious fresh fish. As we've already mentioned, in most tropical waters one has to keep an eye on cigatera poisoning. The best thing here is to ask the locals which fish are usually safe for consumption and to eat only the smaller members of those species.





Our dinghy was frequently used by locals for catching dinner. Here Steve and some Polyne-  
sian friends bring dinner up from the lagoon and quickly get it into the dinghy (before any  
sharks get too inquisitive).

Spearfishing gear can range from a simple elastic-powered “Hawaiian sling” to one of the  
pneumatic high-powered sport guns. We always have at least a sling aboard for the small fish. We  
also like to have a lobster hook aboard. This is a fiberglass rod, 3 feet (0.9 m) long, with a large  
hook seized to the end. When a lobster is found hiding in his hole, the rod/hook combination can  
be slipped under his belly and then jerked forward. He would sense your hand and move back into  
the crevice, while the inanimate hook gives no warning.

When spearfishing, most cruisers prefer to  
bring each fish to the surface and deposit it in the  
dinghy before going down for the next shot. This  
reduces the chances of attracting competitors.

Before we leave the subject of diving in general,  
a word about sharks is called for. Sharks get a lot  
of press, but few bites. I personally know of only  
one person who has ever had a problem, and he  
provoked it. There are many theories about how to  
improve the odds with sharks. In addition to those  
suggestions already mentioned, some experts  
advise against swimming at dusk and dawn, tradi-  
tional feeding times. Blood attracts sharks, so if  
you’ve cut yourself while diving it’s best to get  
back into the dinghy as soon as possible.

Other experts suggest you carry a bang stick  
aboard. This device uses an explosive-headed  
shell at the end of a fiberglass rod. When poked at  
an offending shark, it explodes on impact, killing  
the shark. We keep one aboard in case it’s neces-  
sary to go over the side in a shark-infested area.

A good friend of ours is a professional diver on  
the Australian barrier reef. We asked John about  
bang sticks, and he said he felt they were worth-  
less. Of the several associates he knew who had  
been attacked, not one of them had seen the shark  
beforehand. Others feel that a situation that isn’t  
dangerous can be misread and escalated by the  
improper use of a bang stick. Sharks get hungry at  
the scent of blood — even if it’s shark blood. After  
weighing the data, we still carry ours aboard.



While all sharks should be treated with  
*respect*, not all of them are dangerous. This  
whale shark strains plankton and krill from  
the water with its baleen.



We met this inquisitive crocodile while  
anchored off Thursday Island in the Torres  
Straights, just North of Australia. He  
appeared to be roughly the same length as  
our dinghy (12 feet / 3.7 meters)!

## Swimming Offshore

The time will come on a passage when the water is flat calm, the sun is bearing down, and a cool dip in the ocean looks inviting. If the concept of immersing yourself in a 10,000-foot-deep (3,047m) pool doesn't bother you, an offshore swim can be very refreshing.

Offshore swimming poses a few safety concerns. First, it's safer not to swim at the edges of a major current (like the Gulf Stream), where large predators sometimes like to feed. Second, as already mentioned, avoid swimming during dusk and dawn hours. Next, be sure that your boat is really stopped. You will be surprised how difficult it is to keep up with a drifting sailboat barely making steerageway. I like to be certain that a puff of wind isn't going to get the boat moving again. This means dropping sails. Last, have a trailing line in the water, knotted every 3 feet (0.9 m), to pull yourself back aboard just in case the boat does start to move. And be sure you have an easy way of getting back aboard once you reach the boat!

## Swimming Onshore

There are a few special precautions for beach swimming in warm climates. One must deal with stone and/or lion fish. These fellows like to lie buried in sand or camouflaged near rocks, with their poisonous spines sticking out. Step on one and your whole day (maybe even the entire month) is ruined. The same applies to sting rays, so to avoid this possibility, we've always worn reef shoes when wading out from shore and when jumping out of a dinghy when coming ashore.

Just to add a final bit of caution, we should mention the salt-water crocodiles of Melanesia and northern Australia. These creatures get to be 20 or more feet (6.1 m) long, are extremely agile, and run like the devil on land (for short distances).

In New Guinea they lose several of the local people each year to crocodiles. (The last year we were there, the score was sharks 1, crocs 6). Crocodiles typically stalk their prey for several days and are usually found in and around mangrove swamps. Once they're over 8 or 10 feet (2.4 m or 3.1 m) they lose any fear of man. When in crocodile country, keep an eye out for tracks on land, and ask the locals about any nearby sightings.

Having discussed sharks, poisonous fish, crocodiles, and staph infection, you must think nobody ever goes for a swim. Not so. We and all our friends swim almost every day in the tropics. It simply pays to keep your eyes open.



The previous photo of the saltwater crocodile swimming by *Intermezzo*, and this one (above) of a croc taking an afternoon nap are meant to instill respect for these creatures. Once they have reached a length of 10 feet (3 m), they will attack just about anything that looks good to eat — including cruisers. In crocodile-infested areas, take care when and where you swim.





Jim Schmidt showing off for the locals (above) on the northeast corner of Papua New Guinea.

## Water-Skiing

The topic of water-skiing may seem a bit out of place in a book on cruising, but hear us out. Once you have a planing inflatable it's only a small step up to the real fun. Today, there are 20-to-25-horsepower engines on the market that weigh under 100 pounds (45.4 kg). The weight is low enough to be readily handled with the aid of a halyard, and most cockpit lockers will store one of these engines with ease. Aside from turning the inflatable into a really versatile conveyance by means of their very high speeds, they make the sport of skiing possible.

If you haven't skied over the flashing colors of coral, in exquisite lagoons, you haven't skied.

Water-skiing with a 20-to-25-horsepower engine, you say? Impossible! That's what I used to think until that fateful day in Bora Bora. That's when we met Julie and Bayard Auchincloss. Aboard their Westsail 42, *Aminidab*, they carried a newly purchased 10-foot (3.05m) Zodiac, equipped with a



At the other extreme of latitude and temperature is Sarah skiing in Alaska, and, yes, those are icebergs in the background. This started off as a photo opportunity. Sarah and Steve were going to don wetsuits for a ski. Then Sarah decided she wanted to do it without thermal augmentation. Steve wisely concluded that in spite of his considerable "natural" thermal insulation, he would become the official photographer to record this ride for posterity.



20-horsepower Mercury outboard. When asked if I would like to go skiing I was a bit skeptical, but then I'll try anything once.

Bayard came around the next morning with a pair of normal skis, the right one of which could be used as a slalom. I climbed down *Intermezzo's* ladder as Bayard paid out the tow rope. With both skis firmly in place I prepared to be dragged all over the harbor. I never really expected to see my 180 pounds (81.7 kg) on top of the water that day.

"Ready?" Bayard called.

"Hit it!" was my reply in the vernacular of earlier, higher-powered skiing days.

As the little Zodiac and Mercury fought against my drag, it felt hopeless. Then, right at the last moment, I popped up and was off. The velocity over the water wasn't much to brag about, maybe 18 knots, but I was skiing. As I developed a feel for the tow boat I began to experiment. Cutting across the wake I found that I could almost stop the boat with a sharp turn. But when I reached the end of my arc, the Zodiac would accelerate at a tremendous rate, picking up line before it had a chance to lose its tension.

Before long I'd dropped the left ski and was slaloming. Again I found that I could cut sharply without having to "eat" line and could get some halfway decent wake jumps. The skiing was as exhilarating as it was surprising.

The key factor was the inflatable's ability to accelerate out of the cuts. Even though towing directly behind the boat was a bit of a bore due to the slow speed, the rest of your skiing repertoire could be carried out with alacrity.

The key to the drag start with the small engines is a combination of the largest skis you can find (usually 68- to 70-inch/167cm to 172 cm doubles) to help the motor pull you up. Leaning forward and keeping the tips of the skis pressed down reduces drag. After 10 or 15 seconds the outboard will reach a point beyond which it can't accelerate past. You then give a heave with your arms — and you're on top.

Of course, the lighter the skier, the easier the drag-start. Where I can pop right up, Steve has to work at it.

This past summer Steve figured a way of drag-starting with a slalom ski. First, he made a split-handled tow rope with a long bridle. The front end of the ski is held in the bridle. Then it's basically the same technique as with two skis. Hang on until the engine is at max speed and pull yourself up. It's really something to see a 185-pound (84 kg) grown-up slalom skiing with a 20-horsepower motor!

As we cruised we ran again and again into cruisers who had turned their inflatables into high-speed transport and ski boats. One thing they had in common was a small motor for ease of handling, usually a 6 horsepower. The larger motor was kept stored for special occasions.

## Shell Collecting

Shell collecting, (or "conchology," as it's known among the literary set) takes various forms. Most cruisers are like ourselves, content to look at interesting shapes and colors. Others are more serious and go to great lengths to identify and classify their finds. Occasionally something new comes along as a special reward.

Actually, finding shells in good condition is a special art. They must be found alive, for if the mollusk inside has died, chances are its shell will have become badly scratched and faded. In order to survive, mollusks become specialists in camouflage. That's where the problem arises. Those beautiful cowry shells are very ordinary-looking when their covering mantles are in place. When snorkeling, you can usually find cone shells by their sand trails. When time comes to hide for awhile, they'll burrow into the sand. Where the trail ends you'll find your cone. Some cones are poisonous. To avoid the stingers, always pick them up by their fat end.

Other shells can be found under rocks and in crevices. During daylight hours, turning over rocks when diving or reef-walking will sometimes yield results. Be sure to turn the rock back to its original position when you're finished, so the little critters using it to hide under will once again have their home.

Given that mollusks are generally nocturnal, the best results will be had either diving or reef-walking at night. A high-powered pressure (Coleman-type) kerosene lantern works best for reef-walking. Your forays should be timed to coincide with a rising tide and little or no moon.

Plastic reef shoes sold in most cruising spots are really a necessity. Keep a wary eye on the surf. You may be working in an area that seems calm for the moment, but a larger set of waves may be on its way in.

While looking for shells on the reef, keep an eye out for lobster as well. They have the same sleeping habits as the mollusks, and if you get your conditions right, you may have a dozen tasty tails for the freezer before the night is over!

Once live shells have been acquired, the difficult part begins. The inhabitant of that beautifully colored shell has to be removed, along with all its remains.

It's not an easy task. Decaying mollusk meat is like other rotten meat -- it stinks! Time, or lack thereof, can also cause problems. It's best to get the job done quickly. Ashore, the easiest method we've found is to put the shell on an ant hill. The ants make short work of the meat, leaving a clean, deodorized shell in their wake. But this sometimes takes several weeks. Maggots will also do a good job, but again, time poses a problem.

Aboard, the best approach is one taught to us by some Marquesan friends: A fishhook is set into the meat of the mollusk. Then it's hung until the shell drops free of the creature. That done, the shell is boiled and left hanging over the side in a mesh bag for a final cleaning.

We get rid of inhabitants of small shells by boiling, or by placing them in alcohol and leaving them over the side for several weeks.

From all this information you probably think you're being addressed by authoritative conchologists. Nothing could be further from the truth. With the exception of two beautiful spiny *Murex* shells we discovered under our stern in the Solomons, most of our really good shells have come from trading with local kids, the real shell-finding experts. This system has the added advantage of delivering relatively clean shells as well.

A word to the wise: Always immerse in water shells that have been ashore, or that you've traded for or bought. Then, after drying, give them a good dose of cockroach spray. The dark spirals inside a shell are a favorite hiding place for roaches.

## Photography

Cruising photography is a specialized hobby. It requires a different approach to composition, film, equipment, and maintenance than that which is successful ashore.

A photographic record, whether in snapshot form or slides, is one of the best ways of recapturing the pleasure of past cruises. Slide-show presentations, writing for magazines, or a possible book at some point will need this form of material.

Cruisers often start without keeping a good photographic record of their journeys. Then they realize how much it may mean to them later on, or the yen to do some writing begins to take hold. At this point, a portion of the travels and experiences has been lost. I speak from experience, for when we started our serious cruising it took a major act of willpower to use a camera for pleasure. It wasn't until we'd been out our first six months that we realized what was missing on film could never be recaptured.

The type of equipment necessary will vary with your ambitions and propensity towards photographic work. The first decision to be made is whether to work in slide format or from prints. Slides have an advantage in that they are usable for magazine work, being the preferred medium of art directors everywhere, and can be used for slide presentations to large audiences. But they have to be carefully shot, and the exposure setting is more critical than with negatives. Prints are more convenient and easier to use, but have little value commercially.

Equipment can range from the Instamatic-style camera in a 110-size negative to the 2 1/4-inch (57.2mm) format of a Rollex or Hassalblad. Most cruisers and many professionals will use the 35mm negative as a good compromise between quality and utility. The 110 film is strictly for snapshots, although they can be shot in slides and projected. The small negative size makes any form of reproduction grainy.

There are so many camera systems on the market that specific recommendations are impossible. The growth of the 35mm single lense reflex (SLR) market has meant that the cost of modern camera systems, with fantastic automatic features, is very modest. Starting from scratch, an automatic camera with manual override would be the best bet. This allows you to concentrate on composition and focus, and work rapidly, something that's very important when shooting local people. On the other hand, buying used high-quality gear without all the bells and whistles can be

very rewarding. A lot of good photos have been taken with manually operated cameras, even without built-in light meters.

We have several different cameras aboard; that way we have a backup if there is a problem. Normally, we load one camera with black-and-white film (for book photos) and the other with slide film. If we're planning an excursion ashore that promises some good material, we may load both cameras with slide film and put different lenses on each.

After the basic camera selection comes a decision on lenses. A good-quality 50- to 55mm lens is best for all-around work. I'd also recommend looking at a 35- to 80mm zoom. It's wide enough for panoramic work and long enough for portraits or close-ups. The versatility is very helpful in composing slides. There are two negatives to zooms. They all lose some quality compared to fixed-focal-length lenses. Next, it's another operation in the picture-taking cycle, and when you're working with people, the few seconds it takes to adjust the zoom may cost you the shot. Professionals rarely use zoom lenses. A 35mm wide-angle lens is necessary to make the most of interior, close-up street, and panoramic scenes. Then I'd look to a 100mm portrait lens for catching full-frame shots of faces, the most interesting of all photographic subjects.

No cruiser should be without a polarizing filter. This little wonder works the same as polaroid sunglasses, except that it's adjustable. It rotates so that the filter can be kept in the proper perspective regardless of the lens setting or way the camera is held. The polarizing filter reduces glare from the sun off the water and improves the color and contrast of your subject. On board, with all the waterborne glare, it makes an enormous difference. Glare also makes a large lens hood a desirable, inexpensive accessory.

In choosing a flash gun, think about a large, high-powered unit. The small flashes work well close in and for filling in dark shadows on faces, but they don't have the versatility of the high-powered electronic units now available. These make it possible to illuminate more of an overall scene at night and are helpful in capturing sailing shots aboard in the evening. (Water absorbs light rapidly, and to have it show up at night takes the most powerful of flash guns.)

The camera kit should include a supply of lens tissue, cleaning fluid, air brush, and moisture-absorbing desiccant.

No discussion of cruising camera gear would be complete without reference to submersible cameras. Being able to take a camera on deck when the spray is flying will make some dramatic shots possible. Going ashore on a rough day, or even shooting underwater, adds greatly to the potential of your photography. The best-known underwater camera is the Nikonos by Nikon. Good even at substantial underwater depths, it's a rugged, easily used product. The older-model Nikonos I and II cameras can be purchased used at very modest prices. The new Nikonos system, with automatic shutter adjustment, is a versatile, appealing system. Another way to go is with one of the 35mm-format cameras that are submersible to shallow depths. Then there are the camera "bags" made by Ewa. These allow the photographer to encase his camera in a watertight bag, with a clear lens section. The camera adjustments are worked by placing the hand into a molded glove. They do the job but are cumbersome and slow to use.

Polaroid cameras have little direct value in keeping a photographic record. You can't reproduce the shots; they're not permanent in the long run, and the film is expensive. On the other hand, an inexpensive Polaroid is one of the best ice-breakers in primitive areas. In many parts of the world an instantly developed picture is close to a miracle.

The care and maintenance of gear and film depends upon the outside environment. If the weather is hot and humid, special attention must be given to film and camera stowage. There are two problems. The first is mold or fungus. This can start to grow on lenses, usually beginning at the edges. Aside from a professional annual cleaning, the best thing to do is keep camera gear in a sealed container with silica gel to absorb moisture. We keep ours in an aluminum camera case with a built in rubber "O" ring.

Film should be stored in as cool a place as possible. If you have refrigeration, the fridge side will do nicely. Be especially careful with exposed film, as it seems to be more sensitive. Hull lockers, and those spots that are directly under the deckhead should be avoided for storage. Negatives and slides also need to be kept sealed. I've found that keeping ours in war-surplus ammunition boxes with rubber seals works well.



Developing film is a specialized business. If you're abroad and shooting Kodachrome slides, for best results, the undeveloped slides should be returned to the States directly to Kodak. That's what the pros do. We've also had very good luck with Fujichrome. This can sometimes be processed in smaller countries. Print work is pretty much automated the world over and isn't as critical. But from experience we've learned to put in an initial roll to check the local work before trusting developers with a large inventory.

Processing aboard is another option. If you're into photography as a serious hobby, it's worth considering. The materials to develop raw film and then make prints are compact. Aside from the cost and time advantages, it's a wonderful way to make presents and pay back people you meet for their hospitality. If a Polaroid has an ice-breaking impact, imagine the effect of a handful of 8 inches x 10 inches (203 mm x 254 mm) blow-ups!

Photographic technique when cruising is somewhat different. When we started on our first long cruise, we made a habit of sending film to Steve's dad to have developed and critiqued. Since he's been doing fine work for many decades, I couldn't think of a better teacher. He constantly came back with the same comment: We weren't getting close enough to the subject matter. What's usually of interest is people and close-in landscape or scenery. The difficulty is understanding that what seems close to the eye in the camera's viewfinder may be just a dot on the negative. The camera literally has to be as close to the subject's face as possible. If you're a little reticent, you'll waste some good shots. The same is true with landscapes or general-interest material. The negative should be filled with detail.

Shooting local populations involves some special techniques. The first is to decide on protocol. Although we're rarely refused a request to shoot, spontaneity — one of the keys to good photography — is lost if you have to ask beforehand. On the other hand, there are parts of the world where taking an unauthorized photo is a grave offense.

It's the older folks, usually, who are the most camera-shy. Our first island in the Solomon group had a fantastic arrangement of colors, shadows, villages, and interesting people. Conducted on a tour of the main village by a local young man, I spied a beautiful old woman. She had a classic face, with soulful dark eyes. Her carriage was regal, but her crowning glory was an exquisite array of ancient tatoos. I made the mistake of asking permission, and, while everyone else we had met had been cooperative, she wanted no part of this white man's magic. It was an irreplaceable shot that has to remain locked in my memory. If I ever get another chance, I won't ask.

One of the keys to working with locals (when it's permissible) is speed. If you have to check your lens setting with the light meter, adjust focus, compose, and then shoot, the shot will be gone. The lens has to be preset, and if the F/stop is closed down enough, hopefully the focus will be set as well. That way you can aim and shoot. The minute the camera comes up and is pointed, the subject ceases to be natural. This is where automatic cameras can be a boon.

Another approach is to use a vertical viewfinder, so the camera can be held at waist height and the photographer looks down to see his subject. But the best device I've seen is a right-angle viewfinder that allows your eye to be pointed 90 degrees away from the subject.

Light is the key to all photos. Our experience is that the lower and the more behind you the sun is, the better the shot will be. Photos taken when the sun is high, or looking at an angle towards the sun, are usually washed out and devoid of color or contrast.

Photographing dark-skinned people requires shady conditions. In bright sunlight a dark face will be lost in shadow unless a full flash is used.

The most difficult thing to do with a camera is make a rough day at sea look as bad as it really is. We've taken shots of absolutely raging seas only to have them turn out looking like a Force 4. The experts advise a long lens and a frame of reference. To catch a sea rearing up behind the vessel, shooting from the bow aft, with a 200mm lens, should be ideal. How you keep the 200mm lens dry under these circumstances is another question.

Professionals will frequently shoot half-a-dozen rolls of film to get one really good shot. This isn't practical for most of us, but planning shots, deciding what it is you really want to capture on film, and then concentrating on the photo, helps quality enormously. We make a habit of "bracketing" all shots. Shoot directly on what the meter says, then one F/stop higher and lower.

If you're working toward a slide presentation, look for sequential material. The slides can be run quickly, on a sunset for example, to give a feeling of motion.

Last, when shooting for magazines, try working with a vertical format, or with the camera at right angles. It's easier for the magazines to fit in shots from this perspective.

## VIDEO

At some point you are going to think about a videotape record of your cruising. Video has the ability to bring to life scenes that simply cannot be captured with still film. But video brings with it a level of cost and complexity with which you may not want to deal.

Steve and I started using video gear in the early 1980s. We had purchased a VCR and tuner used, and for \$100 the fellow from whom we purchased the unit tossed in a camera. The camera saw no use at all until one day, while we were sailing toward Panama in strong trades, Steve brought it on deck. When the family viewed the footage we were all hooked. From then on Elyse, Sarah, Steve, and I all took turns shooting.

At the time we had no thought of anything besides a record for ourselves and family. But that early footage, and lots that have followed, has been turned into a series of videos that we've sold through marine and book stores.

In a continually changing technical environment, here's what we've learned to date.

### Camera Gear

The Hi-8 format is technically superior to anything else currently available on the consumer market. The ideal Hi-8 camera will have a wind-noise-suppression button, a slow power zoom (about eight to one is as much as you can use on a boat), optical image stabilization (digital costs you quality), and hopefully some form of moisture resistance. If the camera itself is not water-resistant, you can typically find a protective case for less than \$250. Some form of portable light source will come in handy.

### Batteries

Video batteries should be of the best quality, longest life you can purchase. You will want at least one spare battery. If your batteries have an indicator light for state of charge, that is helpful, too.

Twelve-volt chargers are available for video batteries. They are much more convenient to use than an inverter.

### Videotape

Videotape quality varies. Purchase the best-quality professional tape, and ask about drop-out problems. (Videotapes occasionally lose magnetic particles in the surface, which causes blank spots in the image displayed on the television monitor.) Some tapes have more difficulty than others. The tapes will be sealed. Keep them sealed until you are ready to use them. Tapes should be stored vertically. Never store them lying down. Once shot, keep them in a sealed air-tight container.

Before using a new tape, run it back and forth twice with the fast-forward/rewind control. This helps remove any loose magnetic particles, which reduces the drop-out problem later on.

The less you use the tape after shooting, the better it will maintain its quality. Every time you view the tape, some data will be lost. If you want to use the tape for commercial purposes you should make a copy of the tape, and view that.

Finally, resist the temptation to purchase long-play tapes. Tape that is longer than 60 minutes is typically made from thinner stock and does not stand up to the editing process as well as the shorter, thicker material.

### Camera Work

The best way to learn to use a video camera is to shoot tape and then come back and edit it down to a story. During the editing process you will quickly discover camera angles that could be improved, if your pans are too fast or too slow, and how a zoom should be used.

We've learned a few basic rules. First, never use the first or last minute of the videotape, as this is the area where there is the highest probability of tape-quality problems.

Next, have the camera rolling for 5 seconds before and after the scene you want to capture. This allows the tape transport mechanism to come up to speed and also provides some editing space later on.

When shooting keep the horizon level, and try to minimize camera movement. Even tiny bobbles with your body will look like big moves on the TV screen.

We have found the zoom lens almost impossible to use aboard. The more you zoom in, the more the video image will jump around with any camera movement. If you zoom while ashore, do so at a controlled, slow rate.

Video lighting issues are similar to those of still photography, except that the video will function in much lower light levels than a still camera.

## **The Story Board**

You will quickly find that video shot on a random basis is very difficult to edit into a comprehensible product. Your life will be easier if you work out an outline before you decide how you would like the story you are working on to be told. Steve and I make an outline and then check off the shots as we get them on tape.

## **Tape is Cheap**

When you start to edit, you will find there are holes in your material. Shots will not have the right content, or will have camera bobbles right in the middle of a scene. With an hour of high-quality tape costing less than \$12 (when bought in quantity), you can afford to shoot a bit extra to make sure you have what you need the first time around.

## **Vary Your Shots**

A single long shot quickly becomes boring, so you will want to vary your camera angles. Say you want to show the hoisting of your mainsail as you prepare to start a passage. The first shot might be taken from the stern, looking forward at the crewmember hoisting the mainsail. The shot would be framed so all of the crew's body, and the head of the sail as it starts up the mast, are in the viewfinder.

On the next shot you would move in closer, perhaps now from the bow shooting aft, and focus on the winch showing the halyard being cranked up along with the winch handle and crewmembers hands. Then you would take a shot of the sail going up the mast.

If it was a calm day you might try for a partial zoom shot of the mainsail head just as it came to the masthead. Finally, you would want to have an overall shot of the boat with the sail hoisted.

These four or five shots would end up cut to maybe 3 seconds each. But instead of one visually boring 15-second-long image, you tell the story in a series of fast moving cuts - much more interesting.

## **Shoot the Cruising Lifestyle**

Most video seems to end up being taken of the boat sailing. It is interesting, of course, but what really makes a video appealing are shots of people and the details of living aboard or ashore. Just about any event is interesting at least once. It could be a maintenance project, cooking, navigation, writing up the log, catching a fish, changing sails, or docking.

Shooting detail is easy (especially if you are working from a storyboard or outline). Take dinner — you might start with an overall view of the saloon, then pan to the cook, and pick up some comments about what's for dinner. A series of detail shots would then follow of the dinner-making process - close-ups of hands working, stove flame, items boiling or frying, etc. The same type of detail we discussed above for hoisting the main works below as well. Of course, the same applies when you go ashore.

## **Establishing Shots of the Boat**

The hardest thing is to get good shots of the boat that show you under sail, powering, or at anchor.

If it is calm, at-anchor shots can be taken from the dink. But good video of sailing or powering needs a relatively stable platform. We usually look for someone with whom we can trade cameras. They shoot us, and we shoot them.

If you take this approach, it is a good idea to discuss in detail what sort of shots you want. A written checklist is even better.

## **On-Board Sailing Video**

There are not that many camera angles on the deck of a sailing vessel. If you've watched one of our videos or someone else's, you will see that at the most there are a dozen basic shots you can take. Still, with weather conditions varying so much, coupled with changes in lighting, these same shots over and over can still be interesting. The conditions under which you can shoot will, of course, be limited by the tolerance of your camera for spray.



Here's a list of the shots we typically take on deck.

Rig: steady shots and pans showing the base of main and jib, up the leech of the main and leech of the jib, up the luffs off both sails. If a spinnaker is set, pan from top down and bottom up.

Astern: straight down, panning to the full wake astern. Down windward and lee sides, looking aft with camera held parallel to topsides.

From cockpit: looking aft, to windward, and to leeward. Looking forward. On the leeward deck shooting forward and aft as well as across the sea. Same from windward side.

From amidships: shooting under the boom showing water rushing past, looking aft, and forward.

From mainmast: shooting up, aft, forward, and under the boom.

From bow: shooting to leeward and aft, framing the whole boat, and to windward. Shots of lee and weather bow waves from just behind bow and from pulpit looking down. Camera can be held at arm's length off the hull in some of these shots.

## Audio

You will be surprised to learn that the audio track is as important as the video. It comprises three basic elements. First there is ambient sound which is made up of wind, wave and voices. In the editing process this can be mixed with narration, and finally you may want to think about a music track.

It is much easier to get narration on tape when you are shooting the original material than it is to come back and add it later. The sound quality will be unique. The mixture of ambient background and human voices usually has a quality that a narration laid down later simple can't match. Of course, you need to be able to hear the person above the background sound, so the speaker needs to be close to the microphone and be speaking loudly!

Mixing in background music when shooting inside or on deck can also be very effective.

## Local Music

One of the most effective ways you can add a music track to your sound mix is to use local musicians. It may be a couple of boys from the village working on your guitar with some spoons and a pan thrown in, but when you run that melody with your visual images the effect can be dramatic.

## The Editing Process

Video-editing technology is moving very rapidly. You can buy editing gear today for very modest amounts of money that would have cost hundreds of thousands of dollars four or five years ago. This gives you the ability to do fades and wipes along with good-quality titling.

Most modern cameras have some editing capabilities built in, and if you have two cameras or a camera and an edit deck together with a controller you can generate dramatic effects.

If you are making home movies, don't be concerned with the technical editing issues. But if you plan to try and distribute your video commercially, there are several issues you need to keep in mind. The first is that each generation your tape is removed from the original costs you quality. If you start with your original, edit from it to an edit master, and then make what is called a "dub" master from which copies are made. The end product, which is played on your customer's VCR, is a fourth generation. The quality of everything that happens in the editing process degrades with each generation. Color is a good example. Reds tend to bleed on the screen. The original images may be fine, but by the time you get to the fourth generation, the edges of the image have become hazy. The same applies to the assembly of the various scenes. The accuracy of your edits becomes more critical with each generation of loss. When you view an edit the image should change smoothly before your eyes. If there are any blips, lines, or jumps, the edit has not been properly made. This is a technical issue having to do with how accurate your edit decks are aligned.

What may look okay on the edit master may be very jumpy on the final version that your customer watches. So you need to make sure your editing gear is capable of "frame-accurate editing."

Having started out this section telling you not to view your master, we'll now switch gears and suggest that before you leave a given area, put together at least a rough edit of your footage (and if you are serious about using your material commercially, do this from a copy of your master tapes). The rough edit is the only way to really tell what you are missing. And once you move on, it will be very difficult, if not impossible, to recapture those missing scenes.



Sarah and the *Intermezzo II* catch of the day. She caught this sailfish just outside Golfito in Costa Rica. Sailfish make for good steaks and are especially tasty when smoked.

## TROLLING TALENT

The coals of the barbecue smoke and sputter as we turn the succulent mahi mahi (dorado/dolphin fish) steaks. A tantalizing fragrance of garlic, butter, parsley, and dill baste drifts to leeward, but not so quickly as to go unnoticed by *Intermezzo II*'s hungry crew. In the freezer sit 30 pounds (13.6 kg) of thick fish steaks — enough for the many encore performances which the appreciative audience is sure to request. Sound inviting? Aboard some cruising yachts, trolling for fish while underway will yield just these results.

Not that freshly grilled mahi, or wahoo, or even yellowtail are all that easy to come by. But when an *efficient* “meat-line” system is employed, the odds are that the sea will respond with a bountiful harvest.

We’ve not always been successful with fishing. In fact, we used to figure on catching one fish every 2,000 sea miles, at an average cost in lost gear of \$6.27 per edible pound. And part of that average came on a lucky day in the Solomon Islands when we caught four wahoo in a two-hour period! Things got so bad that we started blaming our propeller for making strange vibrations that repelled fish, and we considered changing our bottom paint. Even using the same lures as our successful friends and traveling a similar path at comparable speed, we were consistently skunked.

In the Costa Rican banana port of Golfito, *Intermezzo II* and crew feel their way into the harbor on the last glimmer of twilight. Among the boats anchored in the bay is a sportfishing vessel, out from

Florida to try a hand at Pacific game fish. When we finally meet Captain Dan Guthrie, master of *Taurus*, I realize I have found my guru. If I can tie him down long enough I might just learn the real secrets of trolling. We have only one thing in common — hooking fish. From there on they diverge. We’re interested in meat; they want sport. On the surface it would seem that ours is the easier task. The technology and basic tactics used by sportfishermen will fit any cruising sailor lucky enough to pry loose the secrets of their craft.

Dan stopped by one afternoon to have a look at *Intermezzo II*. While he was aboard I showed him our gear and asked for pointers. Our 250-pound (113.4kg) test monofilament line was fine, but he took one look at my rusty, twisted, light-gauge hook and laughed.

“Come on over to *Taurus*, and I’ll show you what you should be using.”

Enter part two of the tutorial team. Charles Westvy, the tall, soft-spoken mate of *Taurus*, had been fishing since he was old enough to walk. Charles’ skill, learned at his father’s knee, began in the sail-powered dugouts of his native Belize. While his adult years had been spent in a variety of sportfishing yachts, he knew the problems of fishing from a sailboat.

## The Right Hardware

Dan started with a lecture on hooks. “Buy stainless steel hooks. They’re much stronger, and they last. Keep the tips sharp. That’s one of the reasons you aren’t getting fish aboard. The mouths of many of these fish are extremely hard, and the point of the hook has to be pin-sharp to penetrate. Always sharpen the two edges and inside toward the outside radius.”

Charles showed me a massively strong number 12 stainless hook. “With a big strong hook, you can catch little fish and big ones. But a small hook will only catch little fellows. Better is a double-hook lure. This makes it possible to snag part of the fish or hook it if it hits the very end of the lure. Pry open the eye of the second hook, slide it over the end of the first and then squeeze the eye shut. With this type of rig you have to have a long-tailed lure, so that both hooks are hidden within the skirt.”

I asked Charles and Dan about leaders and turbulence.

“About ten feet of twisted-strand leader is ideal,” Charles said. “You have to wear gloves to get it aboard. The distance back from the towing line and knot makes sure the fish won’t see turbulence in the water.”

Dan continued: “With 10 feet (3.1 m) of leader you could use 3/16-inch (4.8mm) or 1/4-inch (6.25mm) line, easier to handle than your monofilament.”

They went on to say that all the elements in the system — line, leader, swivel and hook — should be of equal strength. My 250-pound (113.4kg) gear was extreme for them, but good for a “meat line.”

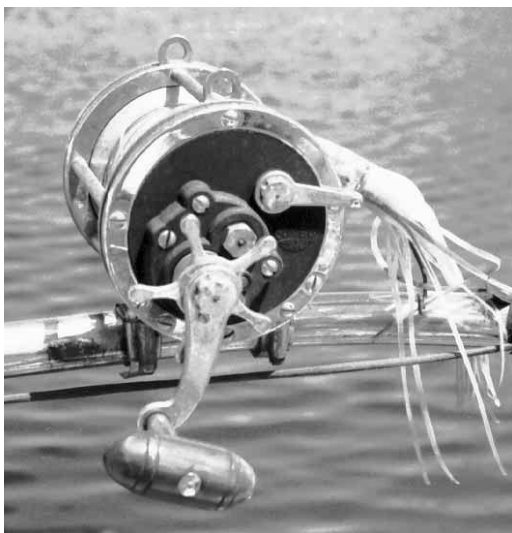
The subject of lures was where I had gotten so much contradictory advice in the past.

“A green-and-yellow feather is a good all-around lure,” avowed Dan. “If you want the best, though, go with a double-hook-rigged Kona Head of the same color.”

Charles added that they used red and blue lures if the fish weren’t taking the others. “If you run out of lures you can make one out of a piece of 1/4-inch (6.35mm) line. It’s best if the line is yellow, but white will do. A colored plastic bag can be cut into strips and tied over the hook as well. Another trick we use is to tie a strip of bait to the lure. If you catch a fish, take part of the stomach lining and seize it with light wire to the head of the hook. That way if the fish strikes once, he’ll get a taste and come back for more.”



This reel is much more suited to catching dinner. There's no sport, but you can stow lots of heavy monofilament, and you don't have to worry about a big fish stripping the reel.



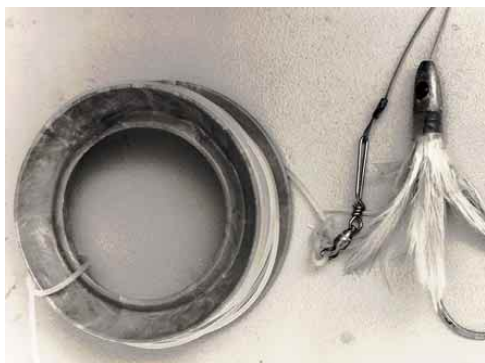
A trolling reel like this (above) has the advantage of an adjustable drag and the ability to stow several hundred yards of monofilament. The only problem is line weight, which will be light, and the fact that you don't have a rod with which to work the fish.



The trolling clip (top photo) is an essential ingredient in successful fishing. This holds the loop of line that runs free after the fish hits, allowing the lure to be swallowed before it sets. These can be purchased in sportfishing supply stores or made from a clothespin. Even a loop of line secured with a half-hitch will do in an emergency.

Our number 12 stainless hook, feather, and 400-pound (181.5kg) monofilament look pretty husky (middle photo), but will catch small tuna as well as the big fellows. The key is hook sharpness.

Running a "meat line" through a block with a bell (bottom photo) attached gives you a signal when a strike takes place.



## Trolling Technique

"How far back do you troll from sailboats?" I asked Charles.

"For mahi about 25 feet (7.6 m). For wahoo and tuna, 45 to 50 feet (13.7 m or 15.3 m) is better."

"It's best to use a clothespin or line clip to hold a loop of line ahead of the cleat. I would suggest maybe ten feet (3.1 m) on your boat," commented Dan. "This lets the fish have a moment when he first hits the lure to swallow it as the line jumps out of the pin. When the line snubs up against the cleat, the hook is set in his mouth. The lure should be skipping along the surface smoothly," stated Dan. "You want to avoid any unnatural jerking motion. As your speed varies, move the line pin higher or lower to keep the lure on the surface. If the fish aren't biting on top, you can use a special diving lure, or put a weight on the front of the leader."

## Boating the Catch

With all this intelligence I couldn't see how anyone could miss hooking fish. But what about getting them aboard?

"Use a long-handled gaff," was Dan's reply. "Be sure the point is sharp, and try to gaff the fish in the thick part of the body, right behind the head."

My last question dealt with a difficult problem. How do you neatly subdue a thrashing, blood-splattered fish? Our technique in the past had been to toss the fish into the cockpit, from whence escape would be difficult, and then hammer him about the head with a winch handle — a messy, cumbersome procedure.



We caught this 5-foot tiger shark (right) swimming under *Intermezzo* in the Loyalty Islands, just north of New Caledonia. Tigers are territorial and one of the more aggressive shark species. The locals were somewhat nonplussed by its appearance on our hook, but took it home for dinner nonetheless. The next day we dove for shells under the boat.

Baleigh Isaacs (left) with a Southern California whopper. Believe it or not, some folks eat these little mackerel. I find them a bit too “fishy” tasting.

“A weighted club 24 inches (610 mm) long, with lead in the tip, is what we use to stun our fish,” stated Dan. “Or you could use a piece of pipe. Aim for the center of the fish’s head, right between the eyes. An ice pick between the eyes is also effective.”

Charles, with his small-boat experience had the best solution. “We use a kroger bag (burlap sack) back home. When the fish is close to the stern of the boat, the bag is slipped over the line. The water pressure forces it over the fish’s head. Once his eyes are covered he stops struggling. He can then be easily lifted aboard and killed.”

### Timing

My question on the time of day to try for best results was answered by Charles.

“Right at sun up and sundown is the best time to troll. If you see a piece of driftwood, there will usually be mahi shading themselves under it. Troll close by, and they’ll come out and bite. Another thing to watch for is circling sea birds. They’ll be over bait fish forced to the surface by big ones feeding underneath.”

It was time for *Intermezzo II* and crew to head north. I had more than my usual allotment of pre-departure excitement, for now we’d be putting our schooling to the test. Armed with a sharp stainless-steel hook and a bright-yellow-and-green feather trolling close to the stern, we sailed out of the harbor. Within an hour of leaving, we had our first strike — a lovely 15-pound (6.8kg) tuna. In the next two days four more tuna, two mahi, and a 135-pound (61.3kg) marlin found their way aboard. *Intermezzo II*’s freezer filled so fast that we were forced to abandon fishing. It’s a pity, too, as we were just starting to raise our catch-per-mile average to a decent level.





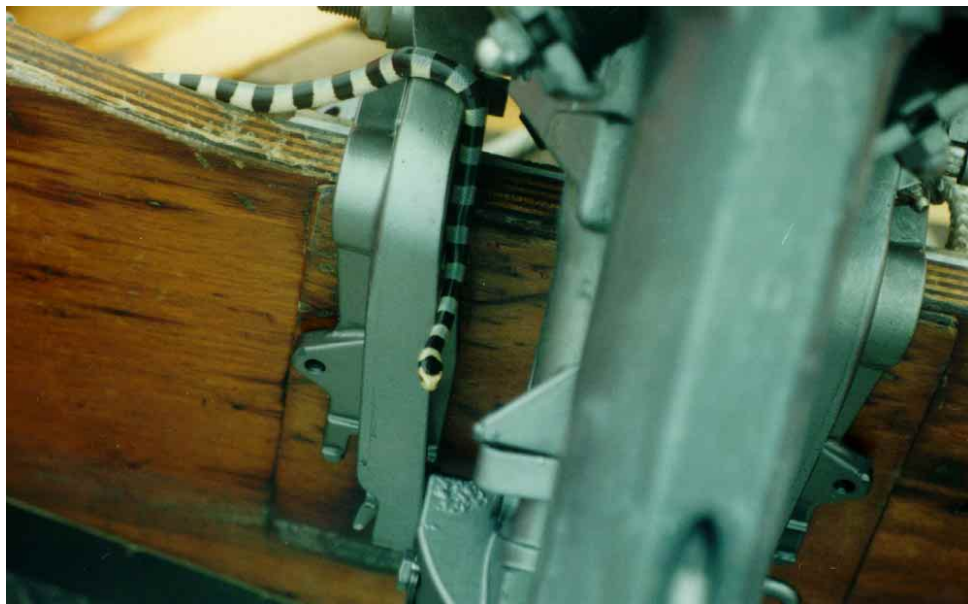
Cleaning the day's catch is a mess. I prefer to take it ashore if possible. That's a lovely sea bass we caught in the Loyalty Islands (upper right).

With any sort of mackerel or tuna, it is important to bleed the fish before the blood congeals. This is most easily done by cutting the main arteries to the gills (upper left).



Sand dabs and shrimp received as a gift from some Mexican fishermen who were in need of fresh water (left). Flying fish are usually found in abundance after a night's watch. A lot of folks fry them up and say they are a delicious (right). We prefer bigger fry.





If you look closely at this photo, just to the left of the outboard you'll see a poisonous tropical water snake. We had just brought the dink on deck and were beginning to secure it when Steve noticed this critter climbing out of the boat.

We quickly swung the dink back over the side so this fellow could find his way back to his own element. After this little eye-opener we've made it a habit to give the dink a quick look before climbing aboard!

## CRUISING PLAGUES

So far most of our comments have been about the idyllic side of the cruising lifestyle. But there are, to be sure, a few annoyances. The majority of these come from various critters that seem to take joy in making the unwary cruiser's life miserable. However, there are ways to deal with this negative side of cruising, so read on.

### Flying Pests

Flying pests, the no-nos of the Marquesas Islands, no-see-ums of the Bahamas, or black flies of the Chesapeake, can be one of the major annoyances of cruising. Yet with proper preparation and a few simple precautions, the difficulties can be lessened.

To those who have lived near marshlands or mangrove swamps, the bug problems of cruising in most areas will seem inconsequential. But if you're accustomed to an arid, bug-free environment, some adaptation is necessary.

Proper screening is important. When sailing in colder climates, it may be possible to close hatches and screen only the dorades. But in the tropics or temperate-latitude summers, you'll want to keep the hatches open.

Screen systems can be as simple as taped plastic mesh with Velcro for attachment to the underside of the hatch, or a stainless frame with epoxied-on screening that pops into place. Those who spend a great deal of time cruising in buggy areas will tend toward hinged, wood-framed screens. Aboard *Sundeer* we adopted the built-in screen that we've used with success on quite a number of our older designs.

The screen systems have to be easily removable so that hatches can be conveniently closed and dogged if a rainshower comes by. *Intermezzo* had screens that attached with snaps. A heavy welt-ing was sewn around the screening edge to help make a seal. We used them occasionally, but their value was more psychological than practical.

When we first hit the Marquesas Islands we had heard the no-no horror stories. It was said that the no-no would bodily carry off any sailor not smart enough to ballast his pockets. Yet the no-no menace was less severe than what one would encounter in Maine or the Carolinas in the summer-time.

Weather and season have a great deal to do with the situation. The rainy season, usually summertime, promotes growth of flying bugs. Even in extreme environments such as Alaska, the larvae that have lain frozen all winter thaw and hatch in the early summer. By the time the cruisers are close by, they're ravenous. Anchoring offshore with an onshore breeze keeps the pests at a distance. But if the wind dies down, they'll be visiting.

In the Bahamas, no-see-ums breed in the mangrove swamps. If you anchor out a bit, chances are you'll be okay. No-nos and no-see-ums are basically sand fleas, and as such stay close to shore. They have a definite period of activity that coincides with that of mosquitoes. The period just before and after sun up and sun down is the peak of activity. Staying below or offshore during these periods reduces your exposure.

Many times it's not possible to know the state of the bug population before going ashore. As a result, we've made it a habit to assume the worst. In our "kit" we include a bug spray or ointment, along with long-sleeve shirts and pants. If they can't get at your skin, they can't bite. The most vulnerable spots on the body are those where blood vessels are close to the surface, unprotected by body hair. Ankles and fingers seem to be favorite targets. Some people either attract bites or react more to them. Elyse and Steve seem to be passed over in favor of Sarah and me, and I seemed to get the heaviest hitters. Those who react heavily have to be careful with bite infections.

Staph infection with bites is a common problem. To avoid staph, don't scratch. If bite scabs open, it's imperative to keep them dry and dosed with an antibacterial ointment.

In most countries, smoke coils are sold to help ward off the evil influence of flying pests. These are placed on a dish, ignited, and over a period of time give off a malodorous smoke that drives away the bugs. The success ratio seems to vary with area, vessel, and how much smoke the crew can stand. We've used them on occasion with positive results. Flyswatters should be aboard in volume. We carry one for each crewmember. The old-fashioned metal swatters with taped edges seem to stand up best to hard usage. A recent development is a 12-volt electronic device that generates a high-frequency hum, which is supposed to chase flying pests and roaches away. Some people claim excellent results, and we intend to obtain and test one of these units before our next cruise in buggy waters.

By arming with the right sprays, swatters, screens, and repellent, and carefully picking places to anchor, you can reduce the annoyance of flying pests to a minimum.

## **The Cockroach War**

A slight change in motion signals a shift in the wind. The skipper, a light sleeper when anchored out, awakens. Lying in the snug bunk he ponders getting up.

"Better check the bearings," he thinks. "Don't want to be swung around towards the reef."

Our skipper checks his landmarks and then pauses in the cockpit to enjoy the languid tropical night. Clear skies with just a wisp of cumulus cloud indicate the presence of the southeast trade winds. The palm trees, etched in the moonlight, sway gently. A distant boom of surf on the outer reef is the only sound.

Stopping in the galley on the way back to his bunk he searches for a piece of fresh coconut. Reaching overhead, he flicks on the light. There's a flurry of movement on the reefer top. Momentarily stunned, the split-second reaction of the hardened cruiser is lost. The cockroaches make good their escape. Gone is the tranquility of soul endowed by the tropical night. In its place is a seething anger. Stomach churning, adrenaline flowing, he fumbles for the bug spray. Another case of cockroach paranoia has begun to develop. Along with the rest of us who cruise in warm waters, he hates cockroaches!

When we first started cruising neither Steve nor I had ever seen a cockroach. Growing up in the sheltered environs of California and Idaho we knew they existed, but we weren't even sure what they looked like. When we discovered the first one aboard in American Samoa, it caused something of a sensation. Steve thought it was kind of cute, but I, with my fetish for cleanliness, was taken aback. Starting with that one brief encounter it was war at first sight. No dirty cockroach was going to run rampant in my galley!

The cockroach is one of the most successful and adaptable of the earth's scavengers, and it's necessary to continually devise new tactics to combat the resistant pest. Over the years we learned a variety of techniques.

The first line of defense is to keep them off the boat, which is easier said than done. They travel concealed in a number of ways. You have to watch out for both eggs and adult forms. Cardboard is the most likely place to find them. We make it a habit to leave cardboard boxes in the dinghy or on shore whenever possible. If they come aboard, they're immediately sprayed with poison. Even lightweight cardboard packaging, such as a toothpaste carton, is suspect. To combat those hiding in fruits and vegetables, a washing on deck is the answer. Eggs are transferred to plastic cartons. Cereal, cracker, and pasta boxes are removed and their contents put into plastic bags or tins. Paper bags are left ashore. Cockroaches like to eat label glue, and they frequently lay their eggs on or near such tasty feeding grounds. If you're shopping in a high-density cockroach environment, it's a good idea to spray can labels.

Then there are the roaches that try to stow away in shells, baskets, or other knickknacks. Bear in mind that they don't like light — anything dark can provide a good hiding place. We've found that shells are most easily cleaned by dunking them in a bucket of water. It's amazing what comes out of them on occasion. Baskets and other curios can be cleaned by placing them in a plastic bag and fogging the inside of the bag with poison.

In some parts of the world roaches have sprouted wings and take great pleasure in flying aboard through open portholes. When we were in New Zealand we heard stories about Solomon Island roaches that were so strong they could break through a conventional porthole. With 1-inch (25mm) thick plastic installed over the doghouse windows, we experienced a few grazes, but no penetrations.

It's impossible to overemphasize the level of vigilance required in this battle. One slip and the enemy is upon you. Since keeping the roaches ashore is easier than getting rid of them once they're aboard, it behooves the entire crew to be on roach alert.

There are several factors to be aware of before going into the details of eradicating a roach infestation. First, roaches have a three-week egg-hatching cycle and are always making babies. Second, they are wary of poisons and learn quickly to stay away from them. Third, they prefer the dark for their depredations, hiding in inaccessible places until the vessel interior is dark and quiet, at which time they go foraging.

To be successful, any eradication program must be cycled to catch the eggs that have been laid. That means whatever system is employed must be used again in three weeks to kill the newborn.

As a general control agent, we've found that a 50/50 mixture of boric-acid powder (available in any drugstore and harmless to humans) and powdered sugar works well. The roaches don't detect the boric acid and pig out on the sugar. The boric acid, picked up on their bodies, dehydrates the roaches. A major benefit is that where a conventionally poisoned roach will make every effort to lay its eggs, dehydration gives no warning. We sprinkle it on all our shelves, under floorboards, under bunks, and in any food-storage area.

A heavy dose of roaches takes more punitive measures. Conventional sprays and poisons have been less than successful in our battles, but smoke bombs have worked well. By raising the floorboards and placing bombs in bilges, opening all lockers and drawers, and sealing dorades, we've been able to really smoke the critters out. It is an onerous project, however, requiring the removal of all utensils, raw foods, and dishes. The boat must be left for a number of hours, then given a good airing.

Our first exposure to Roach Motels came in Suva, Fiji. These are plastic traps that work on one of the few weaknesses in the cockroach defense system. Roaches always back out the way they come in. In the motels there are a series of one-way doors. The critters are drawn to the bait in the lower level. Having eaten their fill they try backing out, but the doors are constructed in such a manner that they back up a ramp to the upper story. This leaves more room on the first floor for new arrivals.

Upon waking up in the morning and examining your catch, the roaches will all be on the removable first floor. One then has two options. The passive approach is to take the upper story of the trap out into the sun, which in short order will dehydrate them. Or, as is more common with those who have become paranoid about this menace, the trap can be slowly submerged in water. In this manner one can watch the struggles of the roaches as they drown — a most satisfying emotional experience.



Then there's double-sided tape, placed in strategic locations throughout the interior. When the crew awakes in the morning, any roach who has tried to cross is still on the tape, wiggling away.

## Rats

We're on a passage down the east coast of Africa when we discover we have a visitor. During his night watch Steve opens the floorboards to check the bilge and thinks he sees a shadow dart away from the beam of the flashlight. Thinking it could've been his imagination, he doesn't mention it. A day later I notice some suspicious droppings in the galley.

"Look at these, Steve. Do you think we might have a mouse on board?" I've seen enough mouse droppings in my time in Idaho to know what they are!

Now, you might think it's funny to have a furry little visitor aboard, but this turned out to be a serious, potentially dangerous situation.

My first thought is for hygiene. The thought of a disease-carrying rodent sharing our living quarters is horrid. I scrub the galley thoroughly that night and each night thereafter, putting *all* rat-accessible food either in the reefer or shut in the head, which (we think at the time) is rodent-proof.

I could kick myself when I think back to how we must have acquired our hitchhiker. We were weathered in at East London, South Africa, waiting for a southwesterly gale to abate before proceeding down the coast. We were tied up to a commercial wharf, outside a refrigeration plant with landscaped grass and flowers, and had no garbage facilities. Not wanting to throw things into the harbor, with no place to leave garbage on shore, I stowed it in a bag on deck. Dumb! It was an open invitation for Mr. Rodent to come aboard and make himself at home.

All we have to combat the critter is a small mouse trap, which we carefully place in the galley several nights in a row with the tastiest of cheeses. Having heard a bit of rodent lore, we leave the trap unsprung. This concept of trapping is supposed to get our animal used to taking bait. Then, when he's used to the cheese, we'll wind up the spring and nail him!

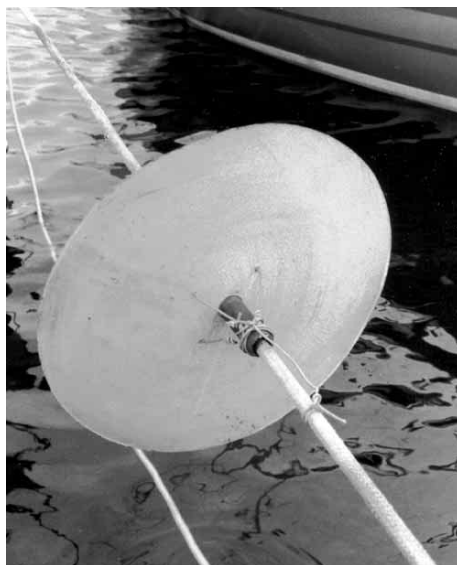
Our next scheduled stop down the coast is Knysna Lagoon, a beautiful landlocked anchorage. We have to run a breaking bar to enter. Arriving early in the afternoon, just before slack water, we



Okay, so the top photograph is not that sharp (my hand was shaking!). But look at the size of that copra rat! The body alone (without tail) measured 10 inches (254 mm). After trying a variety of baits without success, we finally caught him on a Power Bar.

Below, Sarah proudly shows off her catch of the day (as well as her alma mater). Being a California rat, it doesn't begin to compare with those raised on copra. I think this is proof that the air is healthier in the South Pacific than in Los Angeles.





Rats will have no problem walking out on your docklines, unless you have a rat guard. However, few yachts use these.

stand outside the surf line and study the sets of breaking waves. Taking down the sails and drifting ever nearer the surf line, Steve takes time to count the wave patterns, noting the sequence of wave sizes and where the break appears calmest. The engine ticks over slowly as we cruise back and forth.

Suddenly the engine alarm bell splits the quiet morning.

“Quick, Linda! Take the wheel and head directly out to sea. The engine’s overheating. Kids, form a teakettle bucket brigade for me.”

There isn’t enough wind to sail our way out of danger. Our only hope is that Steve can keep the engine going long enough to gain sea room. Down below there’s a flurry of activity as Elyse and Sarah fill teakettles and pots with water, passing them to Steve. He pours the water directly into a hose in the freshwater cooling system of the engine in an effort to circumvent the airlock that has developed.

After much trauma, we fix the engine and run the bar. Finally anchored within Knysna’s beautiful confines, the first business involves setting our trap.

With the animal-training phase behind us it’s time

to wind up the trap in earnest. If I weren’t so tired I think I’d lie awake all night waiting for the squeal of trapped rodent. Alas, the morning light shows not a sign of the enemy. The trap and its inviting bait have been passed over. It’s apparent we are dealing with a very smart critter.

The engine overheats again a week later while entering Cape Town harbor. This time Steve finds a hole gnawed into one of the engine hoses, allowing water out and air in. From the size of the teeth marks and the jagged nature of the hole, it’s now evident our mouse is in fact a rat.

Rodent teeth grow rapidly, so they must continually gnaw hard objects to keep them at a manageable length. In the process of obliging Mother Nature, our furry guest has gnawed his way through a freshwater pressure line, bilge-pump hose, and several electrical wires. Obviously, if something isn’t done, it’s only a matter of time before he’ll hit an incoming salt-water line and thereby sink the boat.

Once ashore our number one priority has become Get That Rat! The hardware store is happy to sell us a really big rat trap. The clerk also suggests that we try poison.

“This poison is so good that it completely consumes the rat after he dies, so you don’t even smell him,” he assures us. That might work in the attic of a big house, but we would hate to be stuck with a dead rat in an inaccessible part of our bilge. Poison is something to be used as a last resort.

Our super rat trap is no more successful than the smaller version. Everywhere we go, we ask advice. Cruisers with accessible bilges counsel poison. Those with animals answer, “Get a cat.” Then someone comes up with the bucket idea. We take our largest pail, almost 2 1/2 feet (0.8 m) deep, and place an ear of succulent corn in the bottom. Left next to the aft bunk, the rat can conveniently jump into the bucket. In theory, after gorging himself, he won’t be able to get back out.

Well, as we’ve already seen, theory doesn’t seem to work with this brand of rodent. Returning expectantly after a dinner ashore we’re met with a gnawed ear of corn... and an empty bucket.

“Don’t you know that even mice are terrific jumpers? They can jump many times their height from a sitting position,” commented one of our fellow cruisers with laboratory experience.

Finally, we decide to smoke him out. We’ll open the floorboards, position a number of insect smoke bombs throughout the boat, and close dorades and hatches, leaving the cockpit seat lockers (which have access to the bilge) open for the rat’s escape.

We empty the galley of all dishes, utensils, cookware, and food that might be contaminated by the fumes. The whole family pitches in to help; soon we’re outside, positioned at the escape route,

ready to pounce as the rat comes up for air. Half an hour goes by with no sign of his exit, so we leave instead. Besides, the smoke needs a few hours to settle down before we can enter the boat again.

After a movie and dinner in town, we're getting ready for bed, when Elyse says, "Mommy, Daddy, I think I hear a scratching behind one of my drawers!"

The drawer is removed and sure enough, Steve is face to face with the rat. Tonight he has begun to gnaw on the radar cable.

"Bring a knife from the galley, quick! Maybe I can corner him."

I hand him the knife, and it's a stalemate. He has the rodent cornered but can't get at him. He's afraid that he might slip away and get back into the bilge. I'm afraid that he might stab him and get blood all over the boat.

"Get another knife!"

Which I do. Now he has him trapped between the two knives. The best thing I can think of is to grab our biggest water-pump pliers and secure him firmly around the middle. Victory! I know how the Duke of Wellington must have felt after Waterloo. The rat goes limp, playing dead, but we're too smart for his game.

"Now what do we do? We can't just throw him overboard. He might climb back aboard."

"I know just where to take him," I say as I hand the rat, water-pump pliers and all over to Steve. "The boatyard has several resident cats. I noticed they were all together near the dinghy yard when we came in tonight. Let's give them a little present."

Mr. Rat, groggy from the poison fumes, never has a chance. When Steve drops him in the middle of those cats he doesn't even bother to run. In the morning the kids go up to see if he's still around. They can't even find the fur.

The story doesn't end for two more weeks. The aft end of the boat has taken on a peculiar smell. I assume that the cushions in the aft stateroom have gotten wet. So one morning I decide to give the area a thorough cleaning. As I remove *everything* from the cabin, I notice a small hatch I hadn't realized was there. It's only about 6 inches square. Intrigued, I remove the lid. Inside, it's stuffed with shredded paper.

"Now what in the world are these doing here, and how did they get shredded?" I wonder. The light dawns. They're paper towels from under the galley sink, and this is obviously the proverbial "rat's nest." Relieved to be at the end of the rat episode, I begin to pull the papers out when suddenly I come upon a long, grey tail.

"STEEEEEEEEEEVE!!!!!!!" I shriek, making his hair and mine stand on end. I dash into the main saloon where he's talking to a friend, and they look at me with alarm and puzzlement, wondering at my pale face.

Steve pulls out a very fat, very dead rat (with maggots crawling all over it), who had the good manners to die in an accessible nest. All the time we had two furry friends where we thought there was but one. It was lucky we didn't have a nest of baby rats by this time.

You can be sure that I *never* leave garbage on deck these days.

Even so, we've still picked up rats when tied alongside wharves (especially in Takaroa, where on two subsequent visits we were infested both times!).

We now carry half-a-dozen large-sized Victor rat traps as part of our standard inventory, along with the three mouse traps. We've found that gooey foods like peanut butter work best as bait. The traditional cheese seems to be easily stripped from the trap by the smarter rats. We've also caught rats on Power Bars and jelly.

Finally, we've heard of folks using carbon monoxide from the exhaust of their portable generator to smoke out there unwanted visitors. This sounds like a much better approach than the poisoned gas bomb we used in South Africa, as it leaves no residue to worry about when you return.

## CRUISING ODORS

There's nothing like the odor of a boat that has been closed up for awhile! Regardless of the reason (heavy weather, strong rains, or the fact that you've been away for awhile) the combination of various odors can set the strongest stomach on its way to the lee rail.

Some boats seem to smell, while others seem as fresh below as the air on deck. What's the difference? Foremost is ventilation. Areas with good air flow will smell fresher than if air is trapped.



This means being able to keep hatches cracked when it rains or when there is a bit of spray on deck (see the awning section for more details). Your dorade vents will help as will a good dodger over the cockpit (allowing you to leave the companionway open).

Inside the boat you will want to promote ventilation through all lockers. If cabinet doors are not louvered, an eye hook can be used to hold them open an inch or two. The same system works well with head and cabin doors. Leaving the door cracked gives privacy and air flow.

The areas between furniture should have openings as well. Sometimes a few 2-inch (51mm) holes, judiciously drilled, of course, will do wonders for the contents of saloon seats and under bunks.

In cold areas there is frequently a problem with condensation under mattresses. Fitting a layer of insulation, typically as simple as a half inch (13 mm) of sheet foam will solve this problem.

### **Bilge Smells**

When we started cruising aboard *Intermezzo*, her head sinks and shower drained to the keel sump. The combination of the soapy water with oil and diesel that leaked from the engine on occasion created quite a brew in our bilge.

There was no noticeable odor until we started to move. Then, just as a passage was beginning, the motion of the boat would start the bilge to splashing, and the odors that wafted up were horrendous. To deal with this problem we learned to give the bilge a good cleaning before each passage. Steve would typically pour in a strong solution of soap and bleach, and then thoroughly rinse. We would have probably been better off fitting a sump pump to the sinks and shower, but this added a layer of complexity with which we didn't want to deal.

### **Engine Odors**

Another source of odor in the boat comes from your diesel engine. The combination of crankcase venting, oil and fuel leaks ends up with everything in the engine's air shed having a thin coating of oily residue. This, of course, smells.

If you have a separate engine compartment, and it has its own air supply, this will not be a problem. But for most, with the engine mounted below the floorboards or under the companionway steps, that oily film is almost unavoidable.

What can you do about it? The first thing is to keep the engine clean. We wipe ours down after every passage. This helps with odors and makes it easier to spot leaks. If you do have a leak, deal with it right away. Even a few ounces of diesel fuel or lube oil in the bilge will stink up the entire boat.

### **Mold and Mildew**

Mold and mildew are a function of humidity and airflow. Given enough humidity and still air, mold will grow anywhere. On the other hand, you can eliminate the problem, even in humid areas, with good airflow.

The biggest problem is going to occur in lockers and under bunks or seats where airflow is reduced or nonexistent. If you throw into this brew some dampness, maybe wet clothes or paper products, well the results are predictable.

Bleach and water will do a good job cleaning mold. For longer term storage of clothes and paper products you can use a mildewcide (but use it with clothes that are in sealed bags so that you don't have to breath the chemicals yourself).

### **Toilet Plumbing**

If you've spent much time on a boat you are familiar with the rotten-egg smell that sometimes comes from the toilet.

This is the result of algae growing and then dying in the salt-water feed line to the toilet. When you open the rinse valve and begin to pump, out comes the dead algae, and yuck!

The only way around this problem is to keep the water moving in the lines. If you use the toilet on regular basis the lines will stay flushed. But if your use is sporadic, then odor is going to be a problem.

After we'd lived with this problem for awhile, Steve came up with a simple solution. He connected our deck wash-down hose to the same line as the toilet. When we had an odor problem he runs the deck-wash pump and cleans out the salt-water feed line.

### **Toilet Compartment**

The toilet compartment often takes on an outhouse smell. I've found this to be pretty much a result of the male crewmembers standing at the head and not doing as precise job of aiming. The splatters begin to smell after a day or two. The answer is for all male crew members to sit on the pot for all functions. That's a firm rule on our boats.

## **CRUISING QUALITY**

One of the questions Steve and I are asked repeatedly is about the quality of the cruising lifestyle today versus when we started cruising years ago.

Nothing stays the same, of course. One of Steve's big disappointments when we arrived in Tahiti the first time was missing a drink at the infamous Quinn's bar. It had given way to a modern block of boutiques!

There were lots more boats cruising Polynesia than in the previous decade. The natives didn't show as much interest as they did previously. But compared to the increasingly hectic lifestyle we had left behind, our first experience with modern Polynesia was pretty nice. Sure, we would rather have been there 10 or 20 years before, but there were compensating factors, like the type of boat we were cruising in at the time compared to what would have been the case in the "olden days."

It's much the same now. The world grows more troubled. There seem to be more local antagonisms, political problems, even resentment in some cases at "rich foreigners." But there are still plenty of nice places to cruise; maybe not quite so many as before, but the cruising lifestyle is still rewarding.

One of the things that changes is the mix of pleasures. We've already discussed what we consider the basic positives of cruising: getting away from the rat race, living an independent and fulfilling existence, the chance to meet and really get to know new friends (both cruisers and locals), as well as sampling local cultures. There's so much going on in the positive sense that there isn't time to do everything you want to anyway. So, if the quality goes down in one area of this mixture, there's plenty left in the other areas to make up for it.

Our old friends Jim and Cheryl Schmidt have been cruising now for decades. In the 1970s, when we knocked around the Solomon Islands and New Guinea together, we were frequently the only yachts seen in years. Ten years later, Jim says, "the quantity of people cruising in the remote areas hasn't changed; most cruisers still stick to the beaten paths. But yachts aren't the novelty they once were. So you don't get the special attention we were used to."

Jim and Cheryl were cruising in Fiji during the coup of 1987. They had been going to the Fijis for years, and having checked with local friends, decided not to let a little politics interfere with their plans. They stayed away from the big cities to avoid potential problems. In the outer islands things were calm.

I asked Jim about the differences in cruising Fiji today compared to when we were first there. Tourism has clearly made a difference. In the old days, a few yachts would cruise the outer islands and receive a warm welcome from the locals, as long as they observed the local customs (such as bringing the customary Kava root to the local village chief). Today, however, large cruise ships, carrying hundreds of passengers, bring tourists to the villages we used to visit. Everybody pays for everything. The villagers expect the yachtsmen to do the same. They've grown to consider their beautiful lagoons and white beaches as assets to generate income. They've been caught up in the twentieth century! Things are not as laid back as they used to be, but as the Schmidts point out, there are still lots of lovely beaches and anchorages scattered around to visit without dealing with the more commercial aspects. Other long-time cruisers we've met in recent years echo the same thoughts.

Has cruising changed? You bet. Was it better before? Not better, but different. Does the cruising lifestyle still offer the romance of the old days? Definitely, but in different ways. And it's still changing, just as our "modern" lifestyles are changing at the same time. Maybe that's another incentive to go cruising as quickly as possible.



This water pipe was installed during World War II in the Solomon Islands:  
A great place to wash up and fill jerry jugs.

## FRESH WATER

One of the major factors controlling how long a vessel can stay anchored out, or at sea, is her storage capacity for and consumption of fresh water.

On a small boat with limited tankage, fresh water must be conserved for drinking. All other activities will use seawater. A minimum for comfortable consumption is one quart of fresh water per day per person, although this is considered a bit light.

Washing dishes, bodies, even cooking some items (like boiling eggs) can be accomplished with salt water. The key to washing is having the proper soaps. Joy detergent works well in the galley and also for taking salt-water baths. There are also a number of saltwater cake soaps on the market. As one travels to the islands, salt-water soap becomes more and more common. It's the way many of our "local" friends wash.

Aboard *Intermezzo* we carried 150 gallons (567.8 liters) in two stainless tanks and an additional 80 gallons (302.8 L) in two bladders. Two hundred thirty gallons was a lot by cruising standards in the old days, and we were able to live in high style as a result. Still, we used seawater for a number of things.

In the galley, as with most cruisers, we had salt and fresh water. The hand salt-water pump was eventually replaced with an electric pressure pump to make it easier on the wash-up crew. Saltwater was used for washing dishes, and if the freshwater situation wasn't too acute we did a rinse with fresh. I calculated about one quart of water for rinsing per day. We'd run the water at a trickle over glasses first, then plates. The run-off accumulated in the bottom of the sink and was used for utensils last. This required that the dish rinsing be bunched at morning and evening.

In the head we had two showers, one for fresh and the other for salt. We found that we could lather up with fresh (just a quick rinse to mix with the soap), then rinse with salt, with a final fresh-water spray.

Using this routine, Steve and I averaged five showers each per week, and the kids somewhat less (amazing how hard it was to catch them on shower day). We conservatively assumed for planning purposes a consumption of 5 gallons per day. This also allowed for a bit of clothes washing in fresh water.



On *Intermezzo II*, with 540 gallons (2,043.9 liters) at our disposal, you would think the water would last forever. But Parkinson's law is always at work: Our consumption expanded to fill the available supply. In fact, we actually used the 540 gallons (2,043.9 liters) quicker than the old 240 (908.4 liters)! Part of the problem is that between boats we lived ashore, acquiring the bad habits of our land-bound brethren. Also, I didn't feel it necessary to plumb salt water for showering or washing in the heads and galley. Our dishes never saw anything but the purest of fresh water. That seemed to make the biggest difference. We eventually developed a technique to keep dishwashing consumption to a minimum. We would put just a few inches of fresh water into the sink bottom with detergent. The dishes would be washed, then rinsed in a very light flow of fresh. This rinse water would combine with the original soapy water, keeping it reasonably clean, and eventually getting it deep enough to deal with pots and pans at the end.



On *Intermezzo* we took our seawater for the pressure salt-water pump from the engine cooling system, so we had hot salt-water for showers. Occasionally the dinghy would get used as a bathtub/wading pool!

Of course, the longer, all-fresh-water showers didn't help. And now that the kids were bigger they seemed to be a little easier to catch for cleaning, so there went a bit more. On this more affluent regimen when we were watching it, I allowed 12 gallons (45.4 liters) a day.

One of the things we learned early in the game with *Intermezzo* is that hot salt water is infinitely preferable to cold. By tapping our pressure pump suction line into the saltwater-cooled exhaust on the engine, we had a plentiful supply of hot saltwater. Sailing in cold climates, we closed down the seacock to restrict water flow to the engine. That made the salt side of the cooling system hotter. A long, hot, saltwater shower is the height of luxury. And in the galley, the hot salt-water cuts grease much quicker, doing away with the slime associated with cold water. Unfortunately this approach won't work for those with unjacketed exhaust systems.

We've seen small water heaters used for heating salt water, just as for fresh. The only problem is that the salt water eventually corrodes the heater. If you try this approach, count on a new heater every two or three years.

## Catching Rainwater

In many areas of the world a plentiful supply of rainwater will keep your tanks topped off regardless of on-board consumption — if it can be collected properly.

The easiest way to catch rainwater is off the decks. If your fills are located at the low point of the deck sheer, or near it, after a 5- or 10-minute initial rainfall, the decks will be clean enough to act as a catchment. The decks of a 35-footer (10.7m) will pick up better than 50 gallons (189.3 liters) an hour in a moderate rainstorm.

If you want to try this approach, use the largest possible hose size, at least 1 1/2 inches (38 mm) in diameter, and have as straight a lead to the tanks as possible. Avoid dips in the hose that tend to



One place you'll never have to worry about water is Alaska. There were lots of waterfalls where we could put *Sundeer's* nose right into the fall and fill our decks with water.

restrict flow. In a good squall the volume of water available off the decks is enormous, and regardless of what you do there will be some lost overboard.

Some cruisers use their cabintops for the same purpose, employing the handrail around the edge of the cabin structure as a dam, with hose bibs port and starboard.

Awnings are another good source of rainwater. The design must allow overflows to spill out and not overload the awning itself — something more difficult to achieve than it sounds.

Catching water at sea is basically the same procedure as when anchored, except that the decks have to be washed longer to get rid of salt residue. Where a deck awning used in port may be stowed, sailing awnings can be used quite successfully. Aboard *Intermezzo* we had a combination of two sailing awnings, one over the cockpit and the other covering the bridge deck. The former spilled onto the latter, which in turn fed the tanks. They were rather small but would supply several gallons a minute in heavy rain. (We ended half of our ocean passages with full tanks.)

If your tank fills aren't properly placed and you don't have sailing awnings, the main boom can be hiked up with the topping lift and the gooseneck used to dump water into a bucket. Or, as we've done on occasion, plug the scuppers and set up an old-fashioned bucket brigade.

## Shoreside Water

Picking up water ashore in some of the better cruising areas at times requires ingenuity. Long sections of hose are frequently needed to reach from the shoreside spigot to boat tanks. In Port Villa, New Hebrides, the yachts combined their hoses for a 300-foot (91.5m) run to the one spigot available. We carry 150 feet (45.8 m) aboard for such situations.

Another help in many areas are collapsible jugs, sold in camping supply stores. These polyethylene containers hold 5 gallons (18.9 L) when filled but take little space when empty. They're not suitable for long-term stowage due to their lightweight construction, but are ideal for ferrying water from shore.

Our most creative water-gathering exercise took place in the Marquesas Islands — Fatu Hiva, to be precise. Here the water pipe ran out on a rock ledge, some feet above the ramp on which the locals pulled up their canoes. In order to make an efficient transfer of fresh water we anchored a friend's Zodiac just outside the surf line. A hose was run to the spigot from the Zodiac. From this offshore platform we began loading jerry jugs. Between our inventory of jugs, and those of our neighbors, we could accumulate 60 gallons (227.1 liters) per trip. In short order, the various yachts anchored had topped off their tanks with cool, delicious Marquesan water.

On occasion the shoreside water may be suspect. If it is you may want to chlorinate it (see below) and then segregate it for washing clothes and bodies, but not consumption.

## Treating Water

In many good cruising spots, the freshwater quality leaves something to be desired. The little critters living in it have a positively unsettling effect on the squeamish stomachs of tourists.

To combat this problem and that of algae in the tanks, a bit of chlorine bleach should be added. Assuming you are using "hypochlorite" bleach at a 5 percent solution, here's what seems to work for clear water: for one quart use two drops, for a gallon five to six drops, for five gallons one half of a teaspoon, and for ten gallons a full teaspoon. If the water is cloudy or doubtful origin, double the bleach quantities. Note that unscented bleach is best, and that bleach will not deal with protozoans such as Giardia.

If you suspect Giardia, boiling the water is best.

## Watermakers

Today a lot of the cruisers we meet carry watermakers (for a more complete discussion of this subject see the watermaker section under systems). These units can eliminate a lot of the hassles of catching water and/or finding it ashore. However, a watermaker is a big investment, takes a fair amount of power to operate, and is probably going to be the least reliable piece of equipment aboard.

## CREW?

Deciding whether to carry crew is one of the major decisions in cruising. It affects all aspects of the decision-making process, from what size boat is necessary to dinghies, sports equipment, and inside-storage requirements. The correct decision frequently holds the key to a successful cruise.

One of the reasons you're probably cruising is to gain freedom. To the extent that you feel *dependent* upon your crew for their seamanship or mechanical skills, you lose a great degree of freedom and mobility. Of our acquaintances that have sailed with crew, those who did so successfully *were fully capable on their own of handling all aspects of life aboard*, in port and at sea. Crew went along as company, and as extra bodies to ease the watchkeeping chores. These experienced cruisers looked primarily for social chemistry as opposed to technical skills. If the right crew wasn't found, they could carry on without.

When planning a cruise, you'll be subject to all sorts of outside pressures, subtle and otherwise, regarding the question of crew. What do you do with the boat in heavy weather? What happens if someone is sick? How about man-overboard situations? These questions, which lead one to consider extra crew beyond the basic family unit, are difficult to answer.



The other side of the coin involves the friction of life aboard a small vessel, the lack of privacy, and the ease of handling modern vessels. These matters aren't easily assessed without actual experience.

Steve and I were no exceptions. Thoughts of heavy weather and illness filtered back and forth through our minds. Knowing something of the sea and life aboard a small vessel, we carefully went through our list of acquaintances, looking for those who would be compatible not only with us but with the children. It came down to three good friends. Unfortunately, at the time none could get away from home.

It was in Taiohai Baie, in the Marquesas Islands, that we first started picking up on the crew problems people were having. Being a sympathetic listener I heard it from disgruntled crews. Steve got the other side from the skippers.

After their initial experience, the vast majority of skippers of moderate-size vessels left with basic family aboard and no outside crewmembers. They invariably came to the same conclusions we had earlier in the game: That it was easier to do it yourself, perhaps standing longer watches offshore, but having more physical and psychic space as a result.

There's virtually no activity at sea that can't be performed somehow by a two-person crew. And don't forget you'll spend much less time at sea than at port; this is important. Most of the time when we're cruising we spend an average of one day at sea for every 12 days in port.

Emergency situations are one area where an argument can be made for extra personnel. But the extra crew's presence in a crisis presupposes that he/she will be an asset and not a liability. The crewmember must possess a clear head and must be able to handle either the vessel or the emergency; otherwise, it's just another life in danger.

## Boat Size

Any time two people handle a large yacht on their own, they should have as many design and equipment factors in their favor as possible. This applies regardless of whether your definition of large is 32 or 82 feet (9.8 m or 25 m).

When we started cruising offshore on *Intermezzo* many experienced sailing friends thought we would never be able to handle the boat on our own. Yes, *Intermezzo* was a bit tender and took a lot of sail changing to keep her moving and on her feet, and she was cranky under power in tight quarters, but we learned to cope. When we shared anchorages with other, smaller cruisers after a boisterous passage, we'd hear stories of conditions that sounded like the inside of a washing machine when we'd merely been a bit uncomfortable. Size has an enormous impact on motion offshore and therefore on physical comfort.

Opportunity and the desire for a bit more comfort led eventually to our *Intermezzo II*. Careful attention to details in the rig and a modest beam made this 62-foot (18.9m) yacht substantially easier to handle than had been the case with our 50-footer (15.3m). Not only did we have more comfort and speed at our disposal, but the larger vessel was physically easier to handle under sail and power, having been designed from the start with an eye towards the two of us doing the work.

Equipment and design have improved to the point where today, we regularly sail on 80-footers (24.4m) with less work and in better control than was the case 15 years ago with the 50-foot (15.3m) *Intermezzo*.

Bear in mind, as we said at the beginning of this section, that size is a relative phenomenon. If you're used to sailing on 30-footers (9.2m), jumping to a 40-footer (12.2m) will seem like a big move. Regardless of size, however, the same logic and skills need to be exercised in choice of design, gear, and seamanship tactics.

## The Need to Anticipate

There are some basic rules about boathandling that apply generally across all sizes. For couples, most important is that as the boat grows bigger, the need for sophisticated seamanship becomes greater. One must *anticipate* maneuvers farther ahead. Planning must be more concise, and communications between the couple on board needs to be efficient. The embarrassment and costs that come with a mistake increase geometrically with the length of your vessel.

## Handling Under Power

By far the most critical aspect of handling big boats is maneuvering them under power in tight quarters. You have to understand how quickly your vessel will stop, how it reacts in a crosswind, the direction of stern displacement when you give the engine a shot in forward or reverse, and how far the boat will coast before stopping at various speeds. Knowing your turning radius at different speeds with and without crosswind is critical. Most important are the reversing characteristics of the boat. Can you back in a straight line? If there's a tendency for the stern to head in one direction, is it consistent? How much distance will you cover sideways before the stern straightens out?

## Docking Requirements

Docking big boats can be a demanding task. It's important to have chocks and cleats strategically placed for breast lines, which stop the boat without pulling the bow or stern in, and springlines, which assist in angling the boat out when it leaves. A rubbing strake on the hull or a stainless flat bar fastened to the toerail will assist you when coming alongside pilings and commercial vessels, when there isn't time or enough hands to deal with properly placing fenders.

If you're thinking about using a bow thruster to help maneuver, be sure to get one with enough power to push the bow off a dock in a strong breeze. Undersizing is a common problem, and, after all, in light airs you can use spring lines to work your way from the dock. The thruster power should be independent of the main engine rpm. There will be times when you want to use full thruster power while keeping the engine at low revs.

## Sailhandling

A revolution in sail-furling equipment has made it possible to handle ever-larger rigs — at a price. Cost, complexity, and maintenance, along with weight and windage aloft, all impact the decision of what, if any, type of equipment to use for furling.

Foremost in this decision-making process is the question of use. Are you rigging a passage-maker, or a large yacht to be used for daysailing? Setting sail at the beginning of a passage, and then dropping, bagging, and covering at the end isn't that much work when seen against the backdrop of hundreds or thousands of ocean miles. But if you're considering an afternoon sail, the rigging and sailhandling efforts can be daunting enough on bigger yachts to tempt you to stay in port.

What makes big sails hard to handle is not their size area, but their weight and bulk. New materials and designs are reducing both, making larger sails more manageable. The bottom line is, however, the heavier the sail, the stronger and longer its life will be. At some point you may want to say to your sailmaker, "I'll give up some longevity for ease of handling."

Sail selection can reduce the workload for the shorthanded crew. If you start out with an undersized working jib for upwind and close reaching, it will have a greater range of usefulness than a larger, lighter sail that has to be changed down earlier. A jib that just fills the foretriangle will only be a hair slower than a sail with a large overlap anyway. Couple this with a big, lightweight reaching jib made from soft, easily stowed cloth, and you can still pack lots of area into the foretriangle when heading across or downwind, yet have minimum storage and handling problems.

There are ways to make conventional mains and headsails easier to deal with. Lazyjacks, full battens (dealt with in our section on rigs), and keeping booms low so furling can be done at waist level can help to tame the largest main. Headsails attached with jib hanks have a big advantage when the time comes to change sail shorthanded. The halyard can be let run, and the sail gathered in and then released from the headstay hank by hank. If you have a large forepeak for sail stowage, with sailbins built in, then you will be handling a few feet of sail at a time rather than heavy bags. Regardless of your headsail system, closely lacing the forward lifelines from bow pulpit to capshrouds will help to contain the headsails on deck.

If the furling systems catch your eye, be sure you have alternative methods of setting canvas in heavy weather; for instance, external mainsail or trysail track on the mainmast, and a staysail stay or sub headstay for storm jibs and maybe a working jib.

Few couples handling large yachts with roller furling attempt to change headsails at sea, especially if it's blowing hard. Dealing with a loose headsail attached only at the tack is just too risky. Instead, they select a sail before starting off and hope it's right for the conditions encountered. If

the couple becomes overpowered, the sail is rolled away completely. If heading downwind, the sail is partially rolled, although in this case the sailshape suffers. One way of getting around this problem is to have several roller-furling sails, each with its own headstay. A good combination is a lightweight reacher on an outer headstay, a heavy working jib on the next stay, with a third stay for hank-on storm canvas and a working staysail. The only problem here is a substantial increase in windage and weight aloft.

### Sailing Efficiency

Overall, rig size and design stability dictate how much energy the crew will have to expend to sail a given yacht. The more efficient the hull shape, the smaller the sails that will be required to move the boat at a given speed. The most important ingredients in this equation are waterline beam and length. Once you have the beam necessary to create required interior volume, anything additional is superfluous. And while a narrow hull has less initial stability, it also requires less sail, so heeling angles under sail can be comparable with beamier designs that require more sail area to drive them. If you can extend your waterline length, the hull becomes more efficient at carrying its payload (crew, supplies, fuel, water, dinghies, etc). This efficiency can be cashed in by a further downsizing of the rig and sails, or it can pay boatspeed dividends. Since the larger yacht is more stable in light, sloppy conditions, its rig shakes less. Couple this with the stronger winds higher off the water, and you have a light-air ride that is faster and more comfortable.

Even the sailor who handles a large yacht can enjoy sailing into or out of anchorages (and it may become a necessity). Steve and I used to sail our 50-footer (15.3m) on and off her anchor whenever possible. We did the same with our 62 and 67 and are still doing it with our 78-foot (23.8m) *Beowulf*. Not only is this excellent practice, but it gives us a sense of accomplishment we don't get when we rely upon the engine. To make tacking easier, it's a good idea to use a removable inner forestay, allowing the jib to sweep unobstructed across the foredeck. If a non-overlapping working jib is hoisted, quick, short tacks can be made with a minimum of effort. Keel area plays an important part here. Offshore, heading in a straight line upwind, a small keel will be fine. But maneuvering in tight quarters, small keels can stall easily, and can cause trouble quickly if a tack isn't precise. So a keel with forgiving stall characteristics becomes important.

### Maintenance and Size

Larger yachts tend to have more systems aboard. Refrigeration, watermakers, and hot-and-cold-pressure water are considered standard. Even air conditioning is not uncommon. If the crew is really to enjoy their life afloat, however, this equipment must operate with a reasonable amount of reliability, and the crew has to be able to maintain the equipment without constant help from outside experts. This means having good access to the systems, understanding how they function, and being able to diagnose and deal with problems as they arise.

And remember, you don't need all that fancy stuff to cruise happily. You may be a lot better off with the longer waterline of the larger yacht, leaving the high-maintenance, capital-intensive gear ashore.

### Heavy Weather

Heavy weather is an area in which cruising on a large yacht can really give you an edge. The bigger yacht moves more softly, permitting better sleep. It's easier to work on deck in heavy weather with a broad, slower-moving platform and high lifelines. The bigger yacht stands up to its canvas better in a blow, so less sail changing is required.

At some point it may be necessary to hand steer during severe weather conditions. This means that the weaker crewmember will have to be able to deal with the steering forces, perhaps for hours on end. The steering system should be designed with this eventuality in mind. That calls for a bigger steering ratio than you might otherwise choose. It also means installing a steering wheel at the proper height for the *shortest* crewmember to efficiently use. (Large-diameter wheels, which look sexy in port, are often difficult to use for long periods unless their bottom rim is let into the cockpit sole.)

Hull shape has a big impact on steering. Bow sections that are rounded rather than V-shaped are easier to control downwind in big seas.



## Emergencies

Unfortunately, one also has to consider emergencies. Losing a person overboard is the worst. A larger yacht is going to be more difficult to maneuver in the recovery operation. With high topsides, getting the lost crewmember back aboard can be extremely difficult. Using a safety harness judiciously and having a stern swim step just above the waterline will improve recovery odds.

If the rig goes over the side, you will have to be able to act quickly to cut it away. Only the best wire cutters, preferably hydraulically operated, should be aboard.

If one crewmember becomes incapacitated, a plan should be in existence for shortening down sail; perhaps motorsailing will make things easier on the remaining person or people.

## Sharing Responsibilities

With just two crew aboard, both should know the basics of seamanship, navigation, and handling the various systems and maintenance chores that arise. There's a tendency with couples for the man to specialize in the seamanship and navigation, while the woman sticks more with the homemaker's chores. This can work fine, but women need to be able to deal with their floating home in case their mate is incapacitated.

## Self-Steering Backup

Aboard *Intermezzo* we carried two self-steering systems: an autopilot and a windvane. There were times when one or the other had a problem, but both never malfunctioned at the same time.

On *Intermezzo II* we started out with just an autopilot. Steve felt that the boat's high, broad stern wouldn't lend itself to a vane. At the last minute he realized we should carry a backup pilot aboard, but by then it was too late to arrange to have one sent to us. On our second Atlantic crossing, when we were 26 days out from Cape Town, South Africa, and just four days from Antigua, the pilot went into hibernation. Steve and I were forced to steer watch after watch with occasional help from the kids. We weren't involved in a life-or-death situation, but we were happier to get the hook down in English Harbor than in any other anchorage we visited. Shortly afterward we bought a backup pilot. And we have always had a backup self-steering system since.

## SINGLEHANDING

We've met singlehanders in all parts of the world, many of whom have become good friends. We've heard all sorts of reasons for sailing alone. Many just haven't found the right crew, or they think it's easier to sail on their own.

Their gear will run about the same as that of their crewed counterparts, with a tendency to be just a bit simpler. Forty feet seems to be the median size, but two of our singlehandling friends planned to build 50-footers when they returned home.

Near the end of the spectrum was the late Tom Blackwell and his *Islander*. We first met Tom, a wiry 70-year-old, in Port Louis, Mauritius, in 1979. *Islander* is a classic Scottish cruising design, 56 feet overall and 35 tons, a lot of boat for one man. Yet Tom was on his third circumnavigation in her. With wooden spars and running backstays, she would be a handful for a full crew. Tom's solution was to take his time. He wasn't in a hurry, kept her shortened down, and did just fine. The extreme limits have now been pushed back by the BOC competitors. The latest crop of yachts have enormous rigs, and with their water-ballast systems exert very high righting moments. If these yachts can be raced singlehanded, around the bottom of the world, slightly de-tuned versions certainly will do nicely cruising in the temperate latitudes.

## Keeping Watch

The real issue with singlehanding is watch keeping. Obviously it is impossible to maintain a full-time watch. Most singlehanders now make due with a radar and proximity alarm.

This will alert them to big ships in all but rainy weather. But it does not tell them about smaller targets lost in rain or sea clutter. And that smaller target might be you.

So, they are taking a chance with their own safety (which is okay as long as they assume responsibility for any problems that arise). However, they are also taking a chance with the safety of other yachts around them, which I find a bit disconcerting. It's another reason to keep a careful watch when on a passage.

## FINDING CREW

Some of you are going to be a lot more gregarious than Steve and I, and appreciate the company of crew on passages and perhaps when anchored. If this is the case, the question then becomes how do you find the ideal crew?

### Experience

Some of our friends that carry crew consider sailing experience a prerequisite. If potential crew can't help with boat handling, why take them, goes the reasoning. If this is your approach, you'll want to check some references to make sure the crew has done what they claim. A test sail with helming and sail handling is also a good idea.

### Compatibility

Other folks we know who carry crew are much more interested in compatibility than sailing experience. They want to be sure the "vibes" are good and that their new crewmember will fit in.

This gets you into areas such as eating habits, personal hygiene, smoking, language, music, sense of humor, even priorities on seating and bunk protocol.

If your crew is new to the game, be sure that he or she understands the freshwater consumption rules.

### The Food Chain

One source of friction with new crew may be the food stores and how they are consumed. The odds are you will have inventories of some items that are hard to come by and so you tend to ration their consumption. Being clear about how much of and how often these items available for consumption helps keep a peaceful ship.

### Drugs

In many parts of the world if the authorities find drugs or drug paraphernalia aboard your vessel, your home is subject to forfeit. This is far too big a chance to take, and so we get into the sticky question of what a new crewmember brings aboard. Some owners will search the crew's belongings to make sure no contraband is stowed aboard. Others feel very uncomfortable with the prospect. But if you don't make the search, how do you know the new crew is clean?

### Checking References

Everyone we know who takes outside crew recommends getting and checking references (both land- and sea-based). This is the only way to assure yourself that the background of your new shipmate is what you want it to be.

When we've spoken to law enforcement and Coast Guard officials about security issues, they have always emphasized careful background checks of crew.

### Contributions to Cruising Kitty

When you take crew along are they there for the ride, or do they help pay their way? Many who take crew expect a modest contribution to the cruising kitty, perhaps enough to covert consumption of stores. We've heard folks sharing from \$50 to \$150 per week.

### Where To Look

There are all sorts of ways of finding crew from word of mouth to the bulletin boards of harbor masters, marinas, and yacht clubs. Most cruising magazines have crew-wanted classified ads, and several run parties periodically where those looking for a ride can meet up with those looking for crew.

## ABOARD TINDORA

Doris and Ussi Aspiala have spent the last 12 years cruising on a Swan 57, *Tindora*, most of the time with crew aboard. They enjoy the company and need help with the Swan's massive rig. They were happy to give us some advice about dealing with crew.

I asked Doris how they decide on a crewmember. "Get to know them first," she suggested. "It takes a couple of weeks to tell if someone is going to work out or not." The best way to do this is to take a short cruise, testing how well you and the crewmember get along on a 24-hour basis.

Doris looks for people with easygoing personalities who will adapt easily to the way she and Ussi like to live. While most of their crew have become good friends, inviting friends to crew is ill-advised they contend. Ussi warns, "It can be difficult to assign chores and run as tight a ship with someone you've known a long time." "This is not a democracy," Doris stresses, "The deci-

sions are made by us, not by anybody else.”

They ask ahead of time about food likes and dislikes. Although they’re pretty flexible about their own eating habits, they have found discord over food to be a major problem at sea. It’s best to have an understanding up front.

Once a new crewmember is selected, he or she goes through a sort of orientation period. Ussi breaks them in on deck, and Doris goes over the systems used down below. They also cover safety procedures, such as the man-overboard routine; location and use of fire extinguishers; and rules about wearing harnesses. “We

have a firm rule on harnesses,” Ussi explains, “They are always worn when leaving the interior at night or in heavy weather.” This breaking-in period is a good time to discuss abandon-ship preparations: How one crewmember would be in charge of gathering abandon-ship bags, another would radio a mayday, and someone else would look for the problem.

Doris is fussy about how the boat looks down below, and about what goes on in the galley. (Just like me!) The crew must adapt to the *Tindora* way of doing things. Doris does the cooking; a crewmember does the dishes. Usually one member of the crew is assigned domestic chores for the day. This can include galley cleanup, as well as wiping down the varnish and cabin soles, and vacuuming.

Crew always have their own sleeping space and storage area. This way the saloon doesn’t become a bunk room. Gear is kept stowed, rather than left all over the place.

I asked Ussi and Doris if they ever posted written rules for the crew. They keep a *positive* list of reminders taped to the bulkhead. Some of the items covered are: Wear a shirt to dinner; keep a positive attitude; be considerate of others aboard; lend a hand as needed; and anticipate jobs and do them ahead of time.

I wondered how they handled the logistics of transporting the crew, breaking them in, etc. Ussi told me they expect crew to pay for their own airfare to the boat and back. Since their style of cruising involves laying the boat up each year, a definite location for the return ticket can be arranged in advance. Doris and Ussi supply food and a place to sleep. They also pick up the tab for dining ashore. Crew must bring their own spending money.

They schedule crew to arrive two weeks before the departure date. This affords time for plenty of hard work getting the boat ready to go to sea. Sails are bent back on, and various repairs are taken care of. If Doris and Ussi aren’t yet living aboard, they give the crew a *per diem* to cover meals — something in the neighborhood of US\$20 a day.

Once embarked, the work schedule tapers off to around an hour a day.

Each morning at breakfast, they run over the jobs for the day. Crewmembers are expected to get



The Swan 57 *Tindora* anchored off Epsiritu Santo in the Sea of Cortez.





Doris and Ussi Aspialla in the saloon of *Tindora*.

their work done without any prompting. “I hate bossing people around,” says Ussi. He and Doris do their chores right alongside the crew.

What if things don’t work out? They make sure it’s understood in advance that a crewmember can be asked to leave at any harbor with an airport. Fortunately, they’ve only had to do this once.

Their first crewmember was a friend who planned to visit for a couple of months and ended up staying for most of the year. This person referred a friend, who crewed for a while and in turn referred other friends. Many of their crew have been Finnish Sea Scouts. Most have had at least some small-boat sailing experience.

### **Part-Time Circumnavigation**

Doris and Ussi have used an interesting approach to cruising during their circumnavigation. Because of business commitments they have moved the boat in stages, leaving it for a time in ports along the way. Each stage was usually two to four months long.

When they would start to think about laying up the boat for the season they would try to find a good place via word of mouth, with someone to look after the boat. This usually worked out, but not always. When they left *Tindora* in Papeete they would give a young friend a ticket and some food money and say “Here, fly down to Tahiti, live aboard, keep an eye on things, and have a good time.” As you can imagine to someone from Finland, this was a dream come true. The problem came when they went back to the boat. After two different people had lived aboard things were in a real mess, a “pig sty,” as Ussi put it.

In another location, when *Tindora* was left afloat, they would have a local look after her. This worked while in Sydney, Australia, for example, where the manager of a local boatyard kept an eye on her.

Ussi would have the engine and all other systems run once a week, the heads pumped out (to keep everything moving), and all through hulls opened and closed a couple of times.

Their preference was to leave the boat hauled out. In Cape Town, South Africa, they stored *Tindora* in a government-run storage area; very secure, if somewhat dirty.

Ussi and Doris point out that you have to leave a couple of weeks available when arriving at the storage point to get the boat ready to store and to find out what is happening locally, choose the best people to look after the boat, and generally put things in order.

If you have trouble taking several years off from work at once, or want to return home periodically to keep an eye on things (and maybe build up the cruising kitty) this part time approach to sailing around the world can make a lot of sense.

### **DREAM CHASER**

Ron and Caroline Teschke were experienced cruisers when Steve and I first met them in Rhode Island. They had cruised the Eastern Seaboard in various boats and at one point had taken a year off to do an “Atlantic Circle” with their three children, the youngest of whom was a baby at the



The Teschke family. From left, Michael, Ron, Caroline (kneeling), Joanna, and Max. Circumnavigators all.

time. They were interested in a new boat, in which they planned to do a circumnavigation. They eventually decided that one of our Sundeer 64s might do the job for them, and a year or so later they took delivery.

Rather than have their boat commissioned in Rhode Island, they transported her to Maine. There they contracted with the crew at Bass Harbor Marine to work in the details experience had taught them would be necessary for a boat with two adults, a teenage daughter, and two young sons. The commissioning process took place over the winter, and when the weather showed signs of being pleasant enough to sail, *Dream Chaser* was launched.

Steve and I knew that Ron and Caroline planned a circumnavigation, but we didn't realize that they planned to do it in a year. Part of their reason for this schedule was the challenge of doing a family circumnavigation in such a short period of time — everyone thought they were a little nuts. The other reason was their daughter Joanna's social life. Ron and Caroline didn't think it was fair to take her away from her school friends for more than a year.

The Teschkes followed the normal west-about pattern for a circumnavigation. Leaving Maine in May with their two sons, Michael (age 10) and Max (age 7), they made a direct shot to Bermuda, then through the Bahamas, stopping in the Turks and Caicos, before making the run down to Panama. Joanna (age 13) met the boat in Panama, having just finished the ninth grade.

### Cruising Routine

The children helped run the boat almost from the first. "Every day at 1:00 p.m. (after school) Ron and I would go to the forward cabin to nap or read and the kids would run the boat," Caroline says, "They did everything. They sailed, they navigated — Ron taught them all celestial navigation. We'd lie there and hear them raising sails and making decisions. By the end it was incredible. Joanna could have dropped us off and sailed around the world by herself."

From Panama, *Dream Chaser* made the passage to the Galapagos, then on across the tradewind belt to Rangiroa in the Tuamotus. They spent three weeks enjoying the easygoing lifestyle of the Tuamotians before heading off across the central South Pacific. It was during this next 3,000-mile leg that a minor equipment failure brought the family closer.



Michael practicing a sun sight. All three of the Teschke children learned and practiced celestial navigation. It is much more fun than just pushing a button to find out where you are!

The Teschkes had installed a WH drive system for their autopilot using a Robertson control head. The central processing unit of the Robertson was mounted on the forward bulkhead of the lazaret, and contrary to labeling, was not immune to moisture. When a small drip found its way into the “brain,” they were forced to hand-steer for 1,000 miles until they reached Tonga (where Ron found he could easily repair the problem himself). Everybody had to chip in with the driving chores.

“It was really when the autopilot went out that things changed dramatically on the boat,” explains Caroline, “It brought us together as a family.” Joanna, like any teenager, really didn’t want to go on the trip. After all, what 13-year-old would want to be cooped up on a boat with two younger brothers, not to mention her parents? But becoming a full-time watch-keeper changed all that.

“It sparked my interest in sailing. I started to fall in love with the boat,” says Joanna.

Caroline adds, “At 2:00 in the morning, Joanna would be up on deck in her foul-weather gear with her Walkman blaring — this little girl steering a 64-foot-boat. And she never complained.”



*Dream Chaser*, a Sundeer 64, during seatrials. She is flying a very nice looking suit of John Conser’s sails. The outer jib is actually free flying, set on the end of the anchoring sprit. (Jeri Conser photo.)



## Weather Patterns

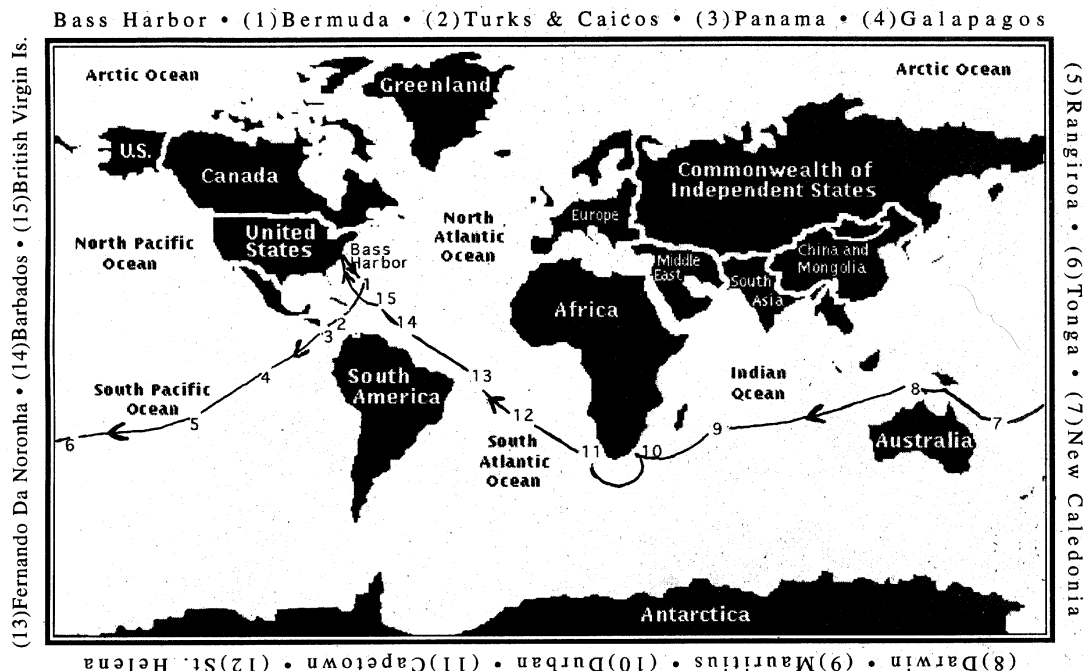
In general, as you can see by the table at the end of this section, almost the entire year-long passage was done within normal cruising seasons.

Leaving in May for Bermuda is fine in a well-prepared boat, especially one that can make good speed while keeping an eye on the continental weather coming toward the coast. Heading down to Panama in June is considered okay, but again you need to keep an eye peeled for the odd early hurricane. When you get through the Windward Passage (between Cuba and Haiti) and halfway to Panama, the hurricane threat is substantially reduced. From Panama on you are out of the hurricane belt and/or within the proper cruising season all the way across the South Pacific. Southern hemisphere winter is ideal for tradewinds, temperature, and cyclone threats. The only weather issues normally dealt with are “tropical convergences.” While these can bring rain and reinforced trades, they should not be an issue for a well-found yacht.

Everyone crossing the Indian Ocean to South Africa faces the same problems with weather. Various issues crowd you toward the end of the southern hemisphere winter/spring season for departure from Darwin. You end up passing across this enormous stretch of ocean in typically strong southeast trades. The difficulties come toward the western end of the trip. From Mauritius on, this is one of the most active cyclone regions in the world. The pilot charts are almost solid red with storm tracks — and these are large, intense storms, typically a much greater threat than their relatively tame North Atlantic and Caribbean counterparts. So it behooves one to be safely into Durban, on the South African coast, before the start of the summer cyclone season. If you are late,



At the age of eight, Max took his trick at the helm just like everyone else aboard.



*Dream Chaser's* track around the world was quite normal. What was so different was their time frame, just 12 months total for the trip, including 155 days at sea.

it usually means spending the summer in Mauritius and ducking into the graving docks in Port Louis when a storm threatens the island. (Once all the boats are in the dock, the water level is lowered, substantially reducing the cyclonic wind impact.)

Passage	Season	Dates	Weather	Comments
lv. Bass Harbor arr. Bermuda	15 May 1995 19 May	spring spring	variable direction. light to brisk strength	normal time of year for this passages
lv. Bermuda arr. Turks & Caicos	29 May 3 June	spring summer	moderate ESE trades	early for hurricanes but must watch carefully
lv. Turks & Caicos arr. Panama	15 June 19 June	summer summer	moderate SE trades	SW Caribbean usually safe for hurricanes
lv. Panama arr. Galapagos	27 June 2 July	summer n/a	light SE trades	no seasons on the equator
lv. Galapagos arr. Rangirola	12 July 31 July	n/a winter	light SE trades	ideal time of year
lv. Rangirola arr. Tonga	16 Aug 24 Aug	winter winter	light SE trades	ideal time of year
lv. Tonga arr. New Caledonia	2 Sept 9 Sept	winter winter	light to moderate SE-E trades	ideal time of year
lv. New Caledonia arr. Darwin	25 Sept 10 Oct	winter winter	light to moderate SE-E trades	ideal time of year
lv. Darwin arr. Mauritius	23 Oct 16 Nov	spring spring	strong SE trades	getting late in year, risk of early cyclones
lv. Mauritius arr. Durban	21 Nov 2 Dec.	spring summer	variable one gale	need to watch cyclone development
lv. Durban arr. Cape Town	28 Jan 3 Feb	summer summer	variable one gale	watch for weather window to head down coast
lv. Cape Town arr. St. Helena	17 Feb 28 Feb	summer summer	light trades	normal time of year for this passage
lv. St. Helena arr. Fernando Noronha	7 Mar 20 Mar	summer summer	light trades	ideal time of year, but trades light
lv. Fernando Noronha arr. Barbados	25 Mar 5 Apr	fall spring	light trades	ideal time of year, but trades light
lv. Barbados arr. British Virgins	16 Apr 18 Apr	spring spring	light trades	ideal time of year, but trades light
lv. British Virgins arr. Bass Harbor	4 May 13 May	spring spring	variable one gale	normal time of year

What is so interesting to me in the Teschke's approach is that the weather they had, and the seasons they traveled, were almost a mirror image of our three-and-a-half year circumnavigation aboard *Intermezzo*.

Ron reported that for the most part winds were lighter than predicted on the pilot charts. This mainly meant winds below 12 knots (true) from a very broad reach to dead astern. The only exception was the Indian Ocean where, as Ron comments, "From the longitude of the west coast of Australia, wind conditions fit precisely those predicted for the Indian Ocean and we flew for weeks on a broad-reach port tack. We no doubt could have run even higher daily averages, but remember we were always walking a fine line between making decent speed and breaking vital equipment — which would have been a trip-ender in so far as getting around the world in less than a year, not to mention getting to Africa before the cyclone season." It was during this leg of the trip that *Dream Chaser* saw her best day's run, 295 miles, with several more days of 250-plus miles thrown in for good measure. (By comparison, *Intermezzo* could only manage 200 miles on her best day on this passage.)

Ron says that their experience with the North Atlantic was typical, with the wind "all over the place — generally easterly, and when it blew at all, not of the pilot chart-predicted proportions."

## Heavy Weather Preparations

In preparation for heavy weather, the Teschkes had three very deep reefs put into the main and mizzen. In addition, they had a heavy storm staysail that could be flown hanked on the cutter stay. They also added one of Donald Jordan's series drogues for use in extremely severe conditions where they might want to slow down due to sea conditions or lack of sea room in which to run off.

This series drogue was attached to the mooring cleats on the afterdeck, with its bulk stored on the inboard end of the swim step. This took up quite a bit of valuable real estate, but it was only in place when there was a potential for its use. Ron says they brought it out of storage and set it up ready to deploy before leaving Darwin, Australia. The drogue was removed and stowed before leaving Cape Town for the more temperate weather of the Atlantic.

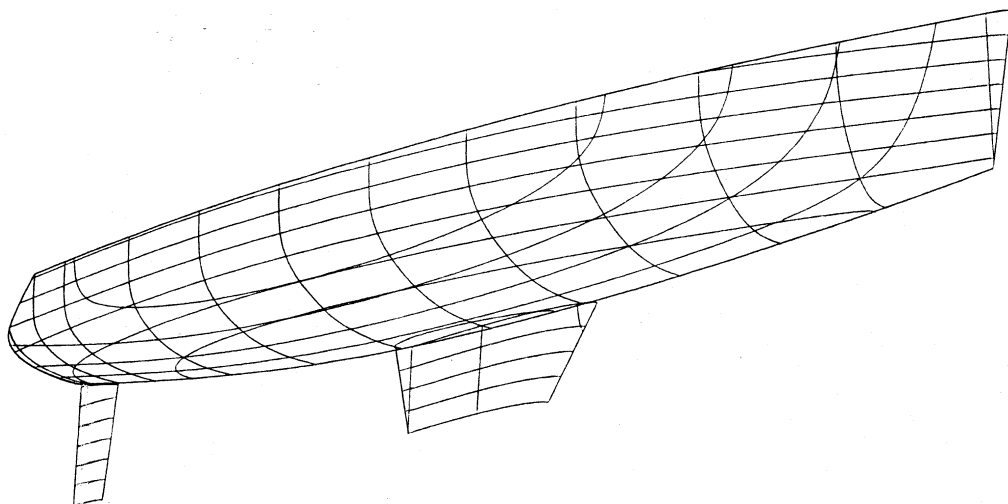
One of the issues to face when slowed down with the stern facing the sea is the possibility of being swept, stern to bow, by a breaking sea. Ron reports that, "to that end I constructed a 1.5-inch (37mm) thick plywood pre-drop board that rested up nicely against the structural lip on both sides of the companionway and against a several-inch (50mm) elevation at its base. So that this would be able to dissipate some of the energy of a breaking sweeping sea without having to absorb all of it, I drilled ten 1-inch (25mm) holes in it. Thus some, but not all of the load would be taken by the 1/2-inch (12.6 mm) Lexan drop board behind it." Fortunately, the drogue was never required.

## Heaving-To

There were three instances where gales led the Teschke's to heave-to. The first time was 200 miles off the coast of Durban, on the edge of the Agulhas current in 50-plus knots of wind. (Everyone seems to get nailed in this spot — we certainly did!)

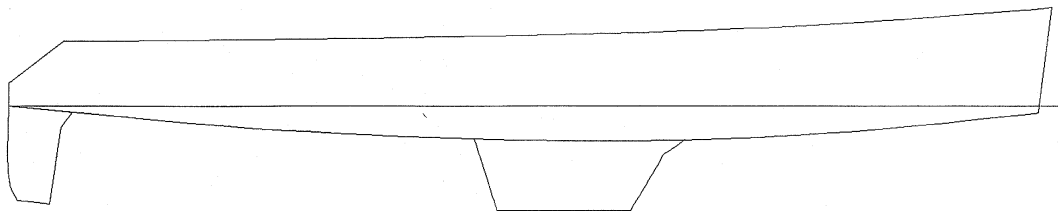
With the wind coming at you from the southwest, if you want to maintain station or keep going, it means beating into large breaking seas. A lot of folks would claim it's impossible to get a light-displacement, short fin-keeled yacht to heave-to, especially one with as little in the water and as much above as the *Sunder 64*. So we were very interested in the tactics used by the Teschkes, as well as the results.

They hove-to with storm staysail sheeted to weather opposed by a triple-reefed mizzen, the normal way of setting things up when hove-to with ketch rigs. With the mizzen sheeted on center, *Dream Chaser* would lie at about 30 degrees to the wind, slowly working forward against the waves. However, according to Ron, "when lying like that...there were several occasions when the apparent wind would briefly swing dead ahead, causing us concern that the next time the boat



The Teschke's *Sunder 64* draws 6 1/2 feet (2 m), most of which is taken up by a short fin keel. The hull/fin combination is designed to be quite efficient upwind in a cruising context. However, the bottom line in the design of *Dream Chaser* is the ability to absorb wave impact and skid to leeward while dissipating wave energy (which might otherwise turn into a knock-down or rollover). The shallow fin rapidly rolls out of the water with excessive heel and the boat skids easily on its topsides (with no fin to hold her against the force of the breaking sea. We've found that this type of design also does well when hove-to, making a nice slick to weather while drifting off to leeward.





The fin keel on the Sundeer 64 is considered short by many standards. However, the fact that this hull moves so quickly through the water makes it actually quite efficient (as lift is a function of boatspeed squared). The longitudinal center of gravity (with empty fuel tanks) is forward of the aft end of the keel, so the boat can be supported on the keel when hauled out. The short fin adds to maneuverability, making the autopilot's job that much easier at sea.

might inadvertently tack through the wind." He felt more comfortable with the mizzen sheet eased down 10 to 20 degrees, at which point *Dream Chaser* would lie at about 60 degrees from the wind, with no concern on the part of the crew that she'd tack herself.

Of course there might be times when it would be safer to lie closer to the wind. It might improve the angle of the slick made by the hull towards the waves, not to mention taking the wave impacts more on the bow (as opposed to the beam). Ron comments, "if one wished ardently to lie at 30 degrees, one could. Just keep a close watch, and be ready to jump to the mizzen sheet and/or handle an inadvertent tack.... This might be highly desirable under imaginable circumstances, making the watch-keeping worthwhile."

The Teschkes found "helm position...to be largely irrelevant. After beginning with it hard over, we ended keeping it mid line. We made just under 2 knots leeway, drifting 120 degrees downwind, while lying at 60 degrees to the wind. The slippage was a bonus. We never came near tripping, and it was almost surreally comfortable down below. The 1.8-knot speed average was determined by GPS, on multiple tacks, in two different oceans. It would probably be substantially less in, say, a steady 30-to-35 knots as opposed to the constant 43-to-50 (true) that we were in."

Ron is aware of the trade-offs in a cruising yacht. "If one wants a buoy-to-buoy or coastal racer, on a triangular course the slippage to leeward which comes with a shallow draft keel like the Sundeer 64's is a problem. Offshore, where you rarely sail at tight angles, the penalties are minor. And if one wants a bluewater cruiser/racer that is exceptionally unlikely to trip on her keel — and chance getting knocked down — the question answers itself."

"It is important in analyzing the type of boat upon which you are going to cruise to be honest as to the genuine *ultimate* goal. If one expects to cross a sea or an ocean, one has to think backwards. What is the worst that is going to happen? Am I prepared? Do I have the right boat? With the slippage, we found hove-to we left a slick to weather. This seemed to diminish the breaking crests of oncoming seas. What more could you ask for?"



Ron and Caroline Teschke snuggled up in *Dream Chaser's* pilot house off the Cape of Good Hope.

Of the other two gales the Teschkes encountered, one was between Durban and Cape Town, and the other was at the end of the trip just entering the Gulf of Maine.

### Downwind Rig

The sailplan on *Dream Chaser*, like that on most of the Sundeer 64s, is a ketch configuration, with spreaders swept aft 25 degrees, eliminating the need for permanent backstays. This allows the use of very efficient *high-roach* mains and mizzens. We can pack a lot of sail area into a short rig this way. It is fast and easy to handle. However, when running downwind at

very deep angles, the sails cannot be let out as far as with inline spreaders, and one has to watch chafe more carefully.

Ketches in general do not like running square, as the mizzen tends to blanket the main-sail. The approach Steve and I use is to head up 15 or 20 degrees from a dead run and pull the apparent wind forward, so that rig is broad reaching rather than running. You cover more distance, but usually do it faster so that you end up making better time overall. However, this approach requires active participation on the part of the crew.

The Teschkes found that *Dream Chaser* was simpler to sail dead downwind when they dropped the main and mizzen, set the jib on a carbon-fiber spinnaker pole to weather while using a free-flying reacher, sheeted through the end of the main boom to leeward.

As Ron puts it, this rig is “sweet as you please sailing 30 degrees either side of 180. Squall at night? Just depower by reefing or furling either of the roller furlers.”

Ron feels there is much less wear on the rig this way (as the main and mizzen sails are not banging around) and you don’t have the noise of the boom vang to deal with. He says, “this bonus is particularly appreciated in the period immediately post-squall when seas are typically sloppy and the wind is slight to nonexistent.”

The one negative in this approach is boatspeed. You will have a slower passage running like this in light airs than would be the case jibing down wind. Ron reports that in the normal light trades of 10 knots of true wind, they slipped along at 6.5 knots. When the breeze came up to 12 true, speed was 7. In 14 knots of breeze they averaged 8.

Slow is a relative term. They did make it around the world in 155 days of sailing time. And running square is certainly less work, so maybe they have something here.

And what about full-length battens? They went through the same learning curve as have most of our clients. They started out with lightweight, flat, tapered battens, and, after breaking these, they switched to hollow, round fiberglass. These broke too, so they ended up with solid fiberglass battens — which did the trick.

*Dream Chaser* started her cruise with two asymmetric spinnakers flown from a cantilevered bowsprit. Ron feels that he wouldn’t purchase the bowsprit for another cruise. “I wouldn’t even take along a cruising spinnaker.”

### Does This Approach Make Sense For You?

When Steve and I discussed the Teschke’s schedule, my initial reaction was that it was much too fast. But then I started to compare it to our passage across the South Pacific in *Beowulf* in 1995. Yes, we made a couple of additional stops, but for the most part we didn’t spend any more time than the Teschkes. Whereas they stopped in Rangiroa for three weeks, we did the same in the Tuamotus, except our stop was in Takaroa. Their ten-day stay in Tonga was the same length as ours. Trade our time in Fiji for their stop in New Caledonia, and we were almost even up. And by the time we arrived in New Zealand, just four months after leaving Los Angeles, we didn’t feel hurried at all.

In South Africa they took three months between stopping in Durban and leaving Cape Town. That’s the same time period we had spent there on *Intermezzo* in 1979. In fact, our schedule aboard *Intermezzo*, once we started across the Indian Ocean, was about the same as theirs all the way back to the States — except we were a great deal slower at sea! The major difference was that we left Darwin a couple of months earlier, then spent a month in Bali with intermediate stops in



Max tossing a message into the sea in mid-Atlantic. At last report he is still waiting for a reply.



Joanna, Max, and Michael, nearly home after a year of cruising in the Gulf of Maine

Cocos Keeling and Rodrigues before arriving in Mauritius. However, with a faster, more comfortable boat there would be no *need* for these intermediate rest stops.

The major difference in our circumnavigations was at the beginning. We took our time through Polynesia, New Zealand, and Melanesia. That 2 1/2 years we cruised could have easily been compressed into 6 months or less.

When Steve asked Caroline about the pressure of the relatively fast time schedule, her reply started us thinking. “We had all the time we needed at each stop to get in lots of sightseeing, and I mean a lot. What we didn’t do was join in the yacht cruising scene. Ron and I love being at sea on *Dream Chaser* so the trip did not at all seem like a burden. People say ‘Maybe you missed out,’ but we didn’t feel deprived. And we felt it was quite exciting to be pushing along.”

If you want to do a circumnavigation, are short on time, and have a fast, reliable boat, the Tesches have obviously proven it can be done in a comfortable manner. A major factor will be how much you enjoy (or don’t enjoy) being at sea. They obviously relished passage time as much as time in port.

The seasons and weather patterns work out well. What you miss out on is the time most folks spend getting into the local rhythm of life, both with natives and cruisers. But if the choice is between hanging out for a couple of months at a time or not going around at all because you don’t think you have the time, and if you have the proper tools to do the job, this concept makes a lot of sense.

“You have to have the right boat and you have to have a crew that gets along with each other,” is how Ron puts it, “What it boils down to is that the kids made it possible.”

We’ll let Caroline have the final word. “I’d take off all the time. I particularly love it,” she says. “I like being at sea more than I like being on land. There’s a wonderful simplicity. You come to enjoy just watching the waves. I saw 155 dawns come up over the sea. And that’s intrinsically pleasurable.”

## LEGAL ISSUES

Before we leave the subject of crew (and guests) we need to chat about some legal issues. As much as Steve and I hate the concept of covering one’s hind end, if you use a boat in the U.S. in this day and age, you need to understand your rights and responsibilities.

We are fortunate to have a legal expert in the family. Steve’s “baby” brother was for many years a practicing attorney, specializing in litigation. He has since been “elevated,” as they say, to the bench. Today, Anthony J. Mohr is a judge in Southern California. And, as you would expect in our family, he has some experience with the sea. What follows is Tony’s take on the legal situation.

### Avoiding Litigation

Like any pursuit, boating carries its share of accidents, which is why we buy liability insurance. But occasionally a catastrophic injury happens — the kind giving rise to whopping jury verdicts that test the limits of your policy. If the judgment exceeds your insurance policy, your personal assets are at risk. Worse yet, some states allow punitive damages if a jury finds that a boat owner engaged in willful misconduct, occasionally known as gross negligence. No insurance company covers (or is allowed to cover) punitive damages, which means the money comes out of your own pocket.



## What Is Negligence?

Negligence means you did something that a reasonably prudent person would not do. You failed to use ordinary or reasonable care, with the result that thanks to what you did, an injury occurred. Willful misconduct is an aggravated form of negligence involving a reckless disregard for the safety of others. It includes acts like drinking before you go sailing; allowing an inexperienced friend to use your boat without your supervision; aggressive behavior at sea; or violating right-of-way rules.

It is vital to make sure that such charges cannot be leveled at you. Even though your guests are cordial and understanding at the time, many old friends end up in litigation. For example, a California attorney filed a negligence suit on behalf of a passenger who hurt his leg jumping from the boat to the dock. Both he and the owner had been drinking. Although the plaintiff is an experienced sailor, the theory of the case is that the owner should have been sober when bringing his boat into the slip and should have warned his friend that the dock might “wobble.” The suit is pending. Another attorney, who is a judge pro tem and ought to know better, got sued when he took his girlfriend to his yacht one night; the hatch was open and she fell through.

## Minimize Your Risks

While no one can eliminate the possibility of serious injuries, boat owners can minimize their risk, thus making it hard for anyone to claim willful misconduct. This is accomplished first by being as careful as possible and, failing that, maximizing the careless role the injured person played in an accident (known in the law either as contributory negligence or comparative negligence).

Your best defense may be to prove that the person who got hurt was just as negligent as you, if not more so. In some suits this will bar a plaintiff from winning anything. In other states, such as California, a plaintiff’s carelessness will not defeat a recovery, but may reduce the dollar amount in proportion to the degree of his comparative negligence.

Even if you are cruising and are at a remote island, be careful how you treat guests. If, for example, you live in California or your boat is a California vessel, the plaintiff-oriented laws of California may apply instead of the more defense-oriented laws of the area you are visiting. That means if a local is injured, he will have his choice of suing you where the accident occurred or suing you in your home state.

With these principles in mind, here’s how to reduce the chance of being accused of negligence.

- **Be prepared for your guests:** Your inexperienced friends have no clue how to behave when they leave the dock. Be ready for them. Have a bunch of old deck shoes available so they don’t slip (and ruin your deck) in their leather-sole shoes. Supply sweatshirts, sunscreen and extra hats. Offer them seasick pills (but not scopolamine, which is a prescription drug). Carry a good first-aid kit.

- **Educate your guests:** Non-sailors will show up wearing the wrong clothes and expect a martini before leaving the dock. Their kids will want to run around the deck as you head through swells. Make them understand the dangers. Teach them respect for the sea. Take the time to explain how a yacht works. According to Dave Worden of Commodore Insurance Services, novices have a penchant for tripping, catching fingers in winches, and getting rope burn. If you’re on a sailboat, describe what heeling means. Tell them a boom can be deadly when the wind shifts.

Consider writing a simple set of safety rules which each guest must read before leaving the dock. When my father, Stanley Dashew, first launched his 68-foot (20.9m) cutter, *Deerfoot*, he prepared a two-page description of the boat. It contained instructions like “one hand for you, one hand for the ship.” First time guests were asked to read this sheet as soon as they came aboard.

To protect yourself, write each guest’s name into the ship’s log along with a notation that they were, for example, “furnished a copy of ‘Day Sail Instructions’ and told to read them.” This entry will constitute helpful evidence if there is an accident followed by a lawsuit.

- **Warn about dangers:** The law provides a duty to warn about dangerous conditions. Cases against railroads, for example, often turn on the failure to operate signals properly. The same analogy applies at sea. Not long ago a doctor and lawyer who co-own a boat invited a mutual friend sailing. She was not experienced, and no one warned her that yachts pitch and roll. She lacerated her chin while falling down the companionway.

If you are sailing and are about to tack, do more than yell “ready about,” because a guest may not understand the phrase. Don’t let someone inexperienced jump onto the dock with your bow line. Don’t let inexperienced friends steer without your close supervision. The owner of a Merit 25 is suing another sailboat owner whose guest refused to yield right-of-way in 25 knots of wind and running seas. To avoid a collision, the plaintiff spun his boat around, causing him to fall across the cockpit and hurt his back.

- **Document injuries even if they are minor:** If someone gets hurt despite your precautions, you must take certain actions not only to assist the victim but to minimize legal exposure.

Write in the log a detailed narrative of what happened. This is evidence and may be used in court. It also may help a treating physician to determine the extent of the person’s injuries.

Include a full description of how the person feels. If s/he is conscious, ask if s/he is in pain and if so where. Note any objective symptoms. If your guest walked unassisted off the boat at the end of the day, you should say so in the log. Again, this is for your protection in case years later the guest claims a more serious injury. Many institutions use this technique. Next time you attend a baseball game, watch the ushers when a foul goes into the stands. They immediately find the person and ask how he is. They’re not just being polite: they want to commit him to a statement of his mental and physical condition for use as evidence should that person exaggerate the event.

Get written statements by other guests and your crew. Their versions of the incident will be valuable. Put copies into the log, and keep the originals elsewhere.

### The “Jones” Act

The problem becomes more complex if someone who becomes part of your crew gets hurt. That person who offers to help crew on a trip from Los Angeles to Cabo San Lucas may claim that he was a hired employee. Several years ago the owners of a C&C 44 prevailed, but just barely, in San Francisco federal court against a crewmember who was injured during a race. The plaintiff claimed that even though he was not being paid for his services, he was a seaman for hire and therefore entitled to benefits under the Jones Act. This two-week jury trial must be viewed as a warning shot. Even paying for the crew’s lodging or reimbursing their expenses might be enough to invoke the Jones Act should something go wrong during the race. Kathy Taylor Folso, the former commodore of the Martinez Yacht Club, testified for the defense. Commenting after the verdict, she said, “Unless Congress changes the law, racing enthusiasts would be wise to consult their lawyers and make sure their liability insurance is paid up.” So be careful about paying a friendly neighbor a few dollars to take care of the boat for the weekend or, say, run it to the fuel dock. I was told of one case where an owner gave his slipmate a few dollars to watch his boat “and if you want to use my moped (which he kept on board).” When she was involved in an accident, the court viewed her as a paid hand acting in the service of the vessel.

Each of these suggestions involves little more than common sense. But if they become part of your boating routine, the chance of having your time and assets consumed by lawsuits will be much less.

## HOW BIG CAN YOU GO?

Just how large a yacht a couple can sail is the subject of some conjecture. Some sailors feel that by relying upon hydraulic roller furlers, stowaway mainsails, and other bits of exotic gear, almost any size can be handled (as long as the gear upon which you depend works!). But leave these systems on the marine chandler’s shelf, and very quickly you begin to find the outer limits for prudent seamanship.

### Locura

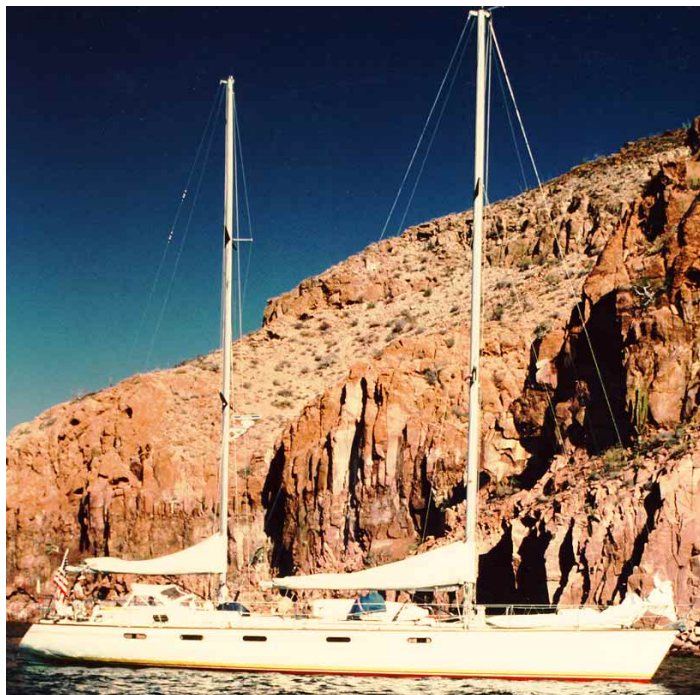
Move with us now to Baja, California, aboard the Deerfoot 72 ketch *Locura*, to see how far it’s possible to go with a two-person yacht.

An 8-foot (2.5m) sea starts to lift *Locura*’s stern. Instinctively, like the surfer he is, Tom Miller lets the helm slip to windward as he rolls the bow upwind, positioning us for another ride on the face of a wave. *Locura* hesitates for a second, then, feeling the drive build in her 1.5-ounce spinaker, accelerates forward with an adrenaline-building rush of speed.

Casually, without a pause in his conversation with Steve, Tom pulls the wheel downwind with his left hand, gesturing with his right to the steamer lights on our starboard quarter. “We’re putting it to those guys now,” he says. All night long we’ve been racing this ship, sometimes a little faster,

other times dropping back. But during the last hour the wind has built into the mid-20-knot range and *Locura* is averaging better than 13 knots. The steamer is slowly dropping astern.

With the bow heading straight into the trough of the wave ahead, the speedometer starts its climb to 13.75, 14.5, 15. No comment comes from the crew. But at 16 knots, Tom pauses in the flow of conversation to call out the speed. "Sixteen-and-a-half — come on, baby." *Locura* hangs in the wave face for 10, maybe 15 seconds. Tom grips the 60-inch (1.5m) wheel with both hands, though not because he needs to. He could just as easily let his 72-foot (22m) dinghy pick its own way to the bottom of the wave. Now Tom is pushing on the wheel, urging *Locura* faster down the wave. "Seventeen, seventeen two — Ah, now *that* feels good!"



*Locura*, anchored in the Sea of Cortez.

This is no ordinary mom-and-pop cruiser, but a 72-foot (22m) high-performance cruising machine. Even though the ketch rig is of modest proportions, we're carrying 1,850 square feet (171.9 square meters) of canvas *without* any form of roller-furling system.

Steve and I are aboard to observe how Tom and Lisa Miller handle their boat. Since this is *Locura*'s first offshore passage, we've agreed to come aboard and pass on what we've learned sailing our own large yachts offshore. But our interaction is to be limited to talk and eating. Tom and Lisa are to do the sailhandling. As the bow begins to nip into the back of the next wave Tom rolls the bow to windward for the next ride.

"You know, one of these days we're going to have to jibe to port," Steve comments. "We're already an hour past the layline for Cabo San Lucas. We'll probably have to drop the spinnaker and carry the reacher now."

Lisa arrives with a big bowl of popcorn for herself and me and separate bags for Tom and Steve. "You guys eat popcorn so fast we won't get our ration if we let you share, so now we each have our own."

The four of us make small talk. Lisa asks about cruising with young children. We chat about the autopilot, where to anchor at Cabo, and that meal of *huevos rancheros* and Carta Blanca beer we know will be waiting for us in a few hours. The four of us are dry, well rested, comfortable in the extreme — and traveling at exhilarating speed. There's just one problem: We can't put off jibing much longer, and that means someone will have to go forward and deal with 2,300 square feet (213.8 square meters) of straining nylon. That thought in the back of our minds adds an unstated element of tension to the evening's festivities.

It was three years ago almost to the day when Tom met us at the dock in San Diego as we completed our six-year circumnavigation.

"I want to go cruising; take off for a couple of years with Lisa and Randy — as soon as we make a brother for Randy — and get a boat together."

It was like looking into a mirror at ourselves 10 years before. Tom and Lisa live in the pressure-cooker world of suburban Los Angeles. With a large, successful contracting business to



watch over, Tom was constantly working full-tilt, traveling away from home much of the time. Together they had a demanding schedule of obligations to meet. There was no time to smell the flowers. And Tom was ready for a change.

Tom was full of questions. Having owned a series of progressively larger yachts since the days in which we raced catamarans together, he had a pretty good idea of what he wanted to go cruising in. But he wasn't sure how to make it all work together. In the end, Tom opted for a purist's rig: no roller furling, no spinnaker snuffers, not even lazyjacks to help with the 700-square-foot (65.1-square-meter) mainsail.

"This boat is not a daysailer," he reasoned. "Why pay the penalties and risks imposed by that sort of equipment when we're only going to be handling sails at the beginning and end of passages? Lisa and I can physically do the work necessary. Sure, we may have to shorten down ahead of weather, and maybe we can't push as hard — but in the end we know that it's up to us. There won't be any sailhandling systems to fail."

"I guess we had better jibe this mother," Tom says. The moment of truth.

"What do you mean we?" I ask. "Steve and I are just along for the ride. This is a two-person boat, remember?"

"I'll go forward and get everything ready. Try not to get me wet." Tom hands me the wheel and hooks his safety harness to the jackline.

Now in theory, there shouldn't be any difference in stripping the spinnaker on *Locura* from the many times Steve and I had done the same on our own smaller boats. The proportions are a little different, that's all. Let the afterguy on the spinnaker pole go forward. Ease the main boom all the way out. Choke down the spinnaker sheet so its leech is tight against the leeward side of the mainsail. Then run off square before the wind and the chute will collapse docilely in the lee of the main.

Lisa watches anxiously from the cockpit as Tom flakes down the spinnaker halyard, tightens up the foreguy, and moves the spinnaker sheet forward. Meanwhile I restrain myself from carving up to windward to build boatspeed.

"Why don't you go forward and give Tom a hand?" I suggest. "If you ease the spinnaker halyard for him he'll have both hands free to get the sail down on deck. Steve and I have done this lots of times together when the wind was blowing really hard, and it's barely blowing 25 knots right now." By the look on Lisa's face I'm not sure my attempt at easing her concern has been successful. But she snaps her harness on the jackline and walks forward to help Tom, just the same.

"Okay, we're ready." comes the cry from the foredeck. "Square off, ease out the afterguy, and collapse the spinnaker."

I head downwind, watching the luff of the chute as it gently folds back towards the mainsail. Lisa begins to ease the halyard, hesitantly at first and then as fast as she can go. Tom's arms flail nylon and he's lost in a maze of color in the glare of the spreader lights. Thirty seconds later the sail is safely on deck. Tom opens the locker hatch and dumps the sail below. The spinnaker pole is dropped down on deck and secured, the main and mizzen are jibed, and then Tom hoists the reaching jib. He and Lisa swagger back to the cockpit, their confidence level now several notches higher.

"Come on," Steve says, "let's get this sucker moving. That freighter is starting to catch us!"

## Defining the Limit

How do you know what's too big? Size by itself is not the issue. In the end, it comes down to how the boat is designed and how difficult she is to handle on sail and power.

Since Steve and I helped the Millers with *Locura* we've done a series of 75-footers (22.9m) that have been sailed by couples and have now pushed the upper limit to 80 feet (24.4 m).

And the 80-footers (24.4m) we are doing today are a lot easier to handle under sail and power than our 62-footer (18.9m) was. Compared to *Locura* they are an order of magnitude faster, more comfortable and easier for a couple to handle.

## Size and Budget

Having just made the above comments about big boats let me reiterate that size is relative. While it's always nice to go cruising in the biggest boat you can afford, *the real issue is going cruising*. Don't wait for the bucks to accumulate until you can afford a maxi cruiser. Go now with what you have!



It is not unusual to find cruisers earning a living as professional fishermen, especially in the Pacific Northwest.

## EARN AS YOU GO CRUISING

We're frequently asked by people planning a long-term cruise if it's possible to earn money while traveling abroad. The answer is yes. A number of factors influence the amount of money that can be earned.

### Working Ashore

First is the attitude of those seeking work. If you're prepared to take whatever comes along in the way of jobs, the potential market for services will be expanded greatly. We know doctors who have worked as carpenters, accountants, and waitresses. The ability to be happy while "underemployed" is required.

Next, the area of cruising has to be considered. Touristy areas in the tropical belts are especially rich in job opportunities.

It's normal in most countries to restrict the legal ability of tourists to compete in the job market with locals, so one may have to work on a *sub rosa* basis. This is true in the United States as well as elsewhere, yet it doesn't seem to deter either employers or employees.

Those with "professional" skills will find it hardest to get work at a level commensurate with their experience. Jobs of this type are usually long-term and handled on a contract basis, and in a downside economy involve substantial competition. One possible exception is with large multinational companies operating overseas. They usually have staffing agreements with the host countries. A certain percentage of expatriates are allowed on the payroll.

The best job opportunities exist in the trades. Carpenters, electronic technicians, master mechanics, specialists in diesel/hydraulics or refrigeration/air conditioning — all have good prospects. A skilled tradesman can find gainful employment almost anywhere, at very good rates of pay.

Many cruising people put their yacht maintenance skills to work. Freelance work is available occasionally in cruising centers, but is harder to come by in the cruising grounds. Harbors with major concentrations of yachts such as Fort Lauderdale, St. Thomas, Mallorca, or Newport offer excellent opportunities. It isn't unusual in the United States for a freelancer to earn \$15 to \$25 per hour on a cash basis. Six months of this type of income, and one is ready to cruise for awhile.



Now here's a welcome sign. What a relief to come in after a long period of cruising with lots of sail mending to do and see a sailmaker in the anchorage. Andy and Sandy Peterson have been sail and cover makers to the cruising set for more than a decade



The forward stateroom on their 55-foot (16.9m) sloop has been converted to a sail and cover loft. *Jacaranda* is a traditional Sparkman & Stephens CCA racing design.



A happy customer coming to pick up his repaired genoa.

The importance of personal and yacht appearances in obtaining freelance work cannot be overemphasized.

Medically trained cruisers can usually obtain short-term employment if planning to practice under their own national flag. But an American doctor trying to work in New Zealand, for example, must go through a period of residency, regardless of his qualifications.

Cruising sailors have an excellent reputation for productivity. While the employers realize they will only have your services until the kitty is full, they appreciate the fact that sailors have good work habits and are self-starters.

### Deliveries

In addition to conventional jobs, there are a number of other ways to beef up the cruising kitty. Yacht deliveries are one means. This is as much a function of serendipity as anything; one has to be in the right place at the right time. Odds can be improved by being at major jump-off points at season end; for instance, Newport at the end of summer, St. Thomas or Antigua at the end of spring. At \$1.50 to \$2.50 per mile, plus boat expenses, it can be a quick way of making money.

Of course, yacht delivery has its drawbacks. It will usually be the end of the season, so the weather may be suspect. The condition of the vessel may be in question. Someone has to look after your own yacht while she is by herself.

### Chartering

A few of the cruisers we know make out by chartering. With the right type of vessel and an appropriate personality, chartering can be a very lucrative business. Long-term charters of a week or more require





Rick Marvin has had a successful day-charter business for years on the island of Kauai.

an enormous effort on the part of skipper and crew to keep the guests occupied, fed and happy. One must establish contact with agents in a chartering area before the season. The boat must be spic and span, a brochure ought to be printed, charter-agent shows attended.

Buying a boat with the express purpose of chartering is rarely a money-making venture. If bank payments have to be made, skipper, crew, and insurance paid, etc., there's rarely a profit left over. But an owner-operated yacht, with the vessel paid off, is a different situation.

There are two schools of thought on how to charter. The normal way is to pack the customers in. A 40-footer (12.3m) will take on two couples plus the skipper. A 50-footer (15.4m) might pack in three couples plus crew. The crew ends up sleeping in the cockpit or saloon. Not much fun, but it can be worth it.

The other approach is to take one couple at a time. This is more like having friends along, although the revenue is reduced.

Chartering six to eight weeks a year will allow you to take the rest of the year off. Keep in mind that it takes several seasons to get established with the brokers, and that even when not booked, you may be on standby for potential charters.

Daysailing is another approach to making a living while cruising. A number of people will pay to come along for a day of sailing, picnicking, and snorkeling. Usually a pristine anchorage nearby serves as the lunch/swim stop, with a sail to and fro. This arrangement leaves you alone in the evenings, permitting more privacy, yet bringing in money. Twenty five to 75 or more dollars per head for a day isn't too bad. The final tally can equal that of longer-term charters.

The sailors we know that are involved in this type of charter operation usually work with a large hotel. The hotel sells the tickets, takes a 15- to 25-percent cut, and provides the beach or dock to work from.

If you are thinking about chartering, there are several equipment issues to keep in mind. First, the odds are you will be making and dropping sail several or more times a day. So sail-handling gear has to be efficiently rigged. Charter guests should have somewhere to sit out of the way while the ship is being worked. The same holds true for ground tackle. You may be anchoring three or four times in a day, so you'll want an efficient, easily handled windlass and ground-tackle combination.

Your charter “accessories” (scuba gear, snorkeling equipment, dinghies, windsurfers) all need to be easily stowed and retrieved.

Water capacity and the ability to replenish your supplies with a watermaker are also important.

There are several design issues to consider as well. A boat that is stiff is important, as is one with good deck space for lounging. Below, the closer you can get to equal accommodations for guests the better off you will be. Crew quarters ideally will be separate from guests (for both of your benefits!). A bit of beam is preferable below to more traditional narrow boats.

Good ventilation from hatches, dorade vents, and fans is important.

But in the end, the single most important ingredient is the crew. If the crew is friendly, entertaining, and informative, and if the food is good, the guests will overlook a lot of other things.

## Writing

Writing is one of the worst ways I can think of to make money. The yachting magazines are swamped with stories every month, sometimes two or three hundred manuscripts at a time. At the most they have four to six slots for freelancers to fill in each issue. Multiplying that times the number of magazines, and it's easy to see why the market is limited.

The rates paid for a story indicate that freelance magazine writing is a buyer's market. Fifteen hundred to 2,000 words will bring \$300 to \$700. As several submissions are frequently required for each sale, this doesn't add up to much per word or per hour.

Writing marine books falls into the same category. In such a small market, it's tough for publishers to make any money (or so the publishers claim!). A 5,000-copy sale is considered something of a barn burner in the yachting field.

If you have a yen to write after all these pessimistic comments, here are a few pointers.

- Technical or how-to articles sell better than travelogues.
- Technical articles ought to be between 1,200 and 1,500 words long, should cover a single topic in detail, and should be accompanied by drawings or photos.
- Travelogue style varies between magazines. Some emphasize a day-by-day log approach; others are more concerned with feeling, description, personality. Tailor your piece to the chosen magazine.
- Travelogue photos should be submitted in slide format, shot with Kodak Kodachrome 64, or Fuji Velvia. Never use Ektachrome.
- If you know someone at the magazine, send the material to their attention. It will still go through the regular mill, but at least it won't get lost.
- Don't be discouraged by rejections. Even the great authors have had them. You may have to submit 10 articles before the first sale is made. It can be frustrating and difficult to gain acceptance in this business. However, things will get easier as the magazine staff begins to recognize your name.
- Stories rejected by one magazine may be accepted by another. Don't be afraid to resubmit. Some writers have had four rejections on a piece only to have a fifth magazine pick it up as a feature.

Writing a book is a completely different style of project. Where a magazine piece has to be tight, concise, with a beginning and an end (always the hardest part for us) a book allows much more latitude. As with magazine articles, how-to books fare better than travelogues.

Most writers create a detailed outline and four or five sample chapters, which they submit in turn to various publishers. If they have been published in magazines, they enclose copies of the articles. A brief summary of the writer's seagoing credentials also helps.

The short-run nature of marine publishing makes color work uneconomical. If you are thinking seriously about a book, keep a black and white record of interesting gear, boats, places and people. Color photos can be switched to black and white but seven to ten percent of the picture quality is lost in the costly process.

## Self-Publishing

When Steve and I did our first book (*Circumnavigator's Handbook*) we learned the hard way that marine publishers cannot afford to promote their books. What they really provided in the way of service was editing control, assembly, and manufacturing.

We felt we could do just as well and have full control of the project. Four books and a bunch of videos later, we're here to tell you that you do not need a conventional publisher, especially with today's computer-driven technology.

If you are interested in self-publishing, there are a few things you need to consider.

First, no one can properly edit their own work. You will need an outside editor, preferably someone with sailing experience, to do a final edit for you. On our own projects we'll pass our manuscript around the family, clean it up as far as we can go, then turn it over to a professional.

For formatting and paste up you have your choice of a number of wonderful programs. We started out using Ventura Publisher, have used Microsoft Word, and are now using Adobe FrameMaker.

Illustrations help sell books and are an effective way of telling a story. You can have your slides and photos scanned by outside parties, or buy your own scanner. Using these scanned images and your software, you then do a layout of the book, put together the table of contents and index, and print out at 1,200 dots per inch if art work is included (300 if not) each page of the book.

You are now ready for a printer. There are dozens of printers that would like to help you with your project. Minimum print runs are typically 2,500 copies. Costs vary with binding, type of paper, and number of pages. One way to help with specifications is to find a book you like at the local store and use that as an example of what you want to do.

When choosing a printer, also inquire if they have a warehousing and shipping service. Many do. The charges vary, but this is a good way to avoid handling the books yourself (you fax them copies of each order to ship).

With the book now printed, you will need to get the book into the hands of the magazines for review copies, and then onto bookstore shelves. There are probably less than 30 retail outlets who you will deal with, plus one or two wholesalers. You will also want to contact any marine-book clubs.

Can you make money doing this? If the book sells, the answer is yes. The real issue is if you can make more doing something else with your time.

In the ideal world, you will end up with two or three titles in print with sales trickling in at a rate which allows you to continue cruising (while doing additional research).

## Trading

The last scheme for making money that has come to our attention is trading for or buying artifacts for resale. This business requires contacts and research.

First, you must decide what's currently hot on the artifact market. In the past few years, primitive art from Melanesia has been high on the list. However, this could switch to Asian art or San Blas molas next season. There's no accounting for taste and style. It helps to contact shop owners and wholesalers to find out what they're interested in. They may even give you some hints on where to find the best items.

Second, a realistic understanding of the wholesale market and its pricing is necessary. You may see a Sepik River mask from New Guinea hanging in a shop on Rodeo Drive in Beverly Hills, for \$1,000. But the shop owner and his wholesaler, know it can be brought in from Village Arts in Port Moresby, New Guinea, for \$25. The latter price is all you can expect to sell it for to the dealer. Still, artifacts of high quality can bring a substantial return. The piece of feather money that we picked up in the Reef Islands (Southern Solomons) for the equivalent of \$10 is probably worth several thousand dollars. Such finds, not surprisingly, are far and few between.

## Cruising Kitty

Of the cruising friends we've made over the years, most have started out with six months to a year's savings. As they adapted to their new lifestyle they found that the savings would stretch farther than expected, and that earning a bit here and there as they cruised, untaxed, was an easy way to extend the pleasures of the cruising life.

Stopping from time to time to work means a break in routine. It provides a chance to make new friends ashore on a longer-term basis than is normally possible. By working day-in and day-out in a foreign environment, you can gain a real knowledge and understanding of people and customs.

With the bank account once again topped off and the boat filled with stores, you will again be ready for the freedom of cruising. With renewed vigor, you will appreciate what had become second nature or commonplace.



## THE CARMINES

Steve and I were rowing around *Sundeer's* anchorage at Espiritu Santo (just off La Paz in Baja California) and were discussing the number of Alaskan boats we'd seen on this cruise. It must be something about the weather in that part of the world that drives sailors to look for a warmer climate.

As we rowed closer to shore I noticed a very interesting looking motorsailer. I pointed it out to Steve and as he adjusted course for a closer look we started to discuss the interesting pilot house structure. This boat was definitely designed for a harsh environment.

As we pulled around what we now knew was *Martha Rose* from Alaska, we were both struck by the no-nonsense appearance of the boat. By the time we had completed our circuit, a head appeared out of the pilot house and we were soon engaged in conversation. As usually happens in isolated anchorages, Steve and I were soon invited aboard, where we would learn all about the Carmine family, and their unusual lifestyle on *Martha Rose*.

The Carmines live during the summer in Galena, Alaska, where Dean coordinates firefighting supplies and Kopi does odd summer jobs. During the winter months they live aboard their Garden-designed motorsailer.

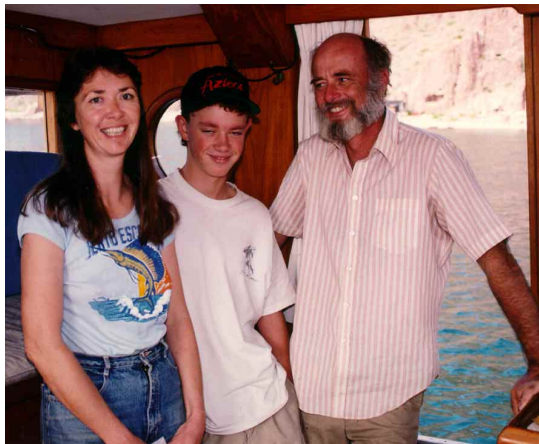
They found their boat through a classified ad in a Seattle newspaper while visiting with family. The boat had been sitting in Panama awhile and didn't have much gear. Of what was aboard, most didn't work. Still, the price was right.

The next three years brought a love-hate relationship for Dean, Kopi, Fritz, and *Martha Rose*. They spent a great deal of time working on her, repairing gear, upgrading systems (such as new engine the second year they owned her), but what the heck; it's warm, there's no snow, and there is always time for a snorkel with new friends.

Spending half the year afloat and half the year on land means the Carmines have to lay up their boat each year. They've left her in Costa Rica, southern Mexico, and for the last several seasons before we met them, in the Sea of Cortez in Puerto Escondido.

They always have someone look after the boat, checking her out periodically and running the engine every two to three weeks. In Puerto Escondido they paid \$75 per month for a 6,000-pound (2,722kg) mooring and another \$60 per month to the American cruiser whose business it was to look after things.

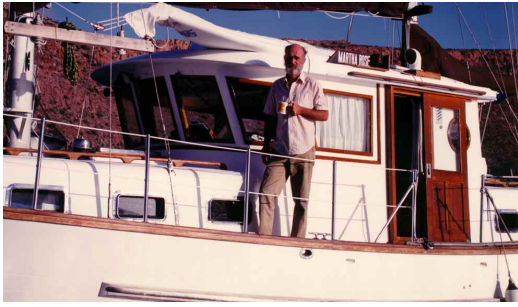
Before leaving the boat, they close the seacocks and open the bilges for ventilation and easy inspection. They depend upon their solar cell to keep the batteries topped off (when the battery



The Carmines, making cruising pay!



A husky looking motorsailer from Bill Garden's fertile design office.



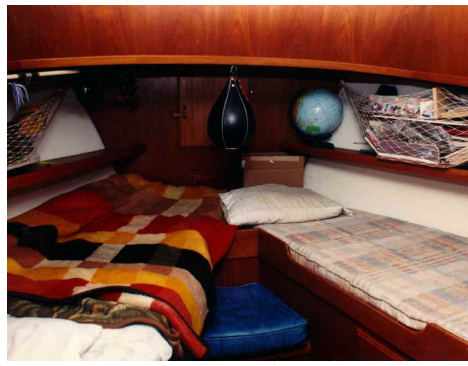
The pilothouse (above and below) is a wonderful convenience in colder climates. You would think it would be somewhat unpleasant in the tropics, but that didn't seem to be the case, and it does keep you out of the sun.



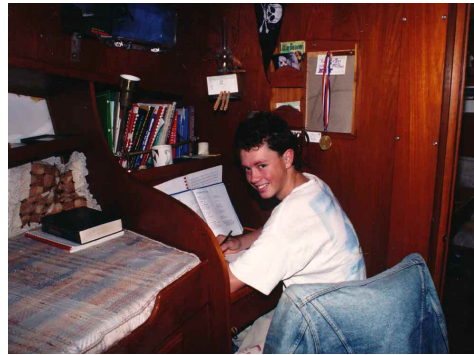
Looking forward: (above) note the full-sized chart desk with stowage underneath to port.



Looking aft in the pilothouse (below). This raised seat is typical of motor vessels. Because your height of eye is raised visibility is improved forward, especially close in.



The forward cabin (above and below) is teenage territory. At the end of the starboard bunk is a compact desk, perfect for doing schoolwork.



voltage gets too high, the folks looking after the boat disconnect the solar cells). In the four years prior to our meeting they had cruised almost 5,000 miles using this system, spending about \$250 per month (to which, of course, you have to add the cost of three round-trip tickets to Alaska).

What is so interesting about the Carmines' lifestyle is that the total cost of spending part of the year in Alaska and part on the boat is less than spending the full year in Alaska with time off for an annual vacation.

When they are working, they work hard. But the low costs of cruising aboard *Martha Rose* make it possible to have this ideal mix of time ashore and time afloat. It's an interesting way to make cruising pay!





John Neal and some of his seagoing friends (top and bottom photos). We've known John for more than 20 years and could never figure out why he spent so much time in the higher (cold!) latitudes. Now we know the answer. Take a look at how John is dressed in these photos, consider where the photos are taken, and look at the attire of the other humans with him. Obviously there is something wrong with his metabolism.



## JOHN NEAL

John Neal has been kicking around the Pacific for years. He started out on a Swedish-built Vega 27, *Mahina*, back in 1976, going to the usual exotic destinations. As a singlehander John says he regularly made 160 mile-per-day passages, a tremendous feat in a boat of this size. During the two-and-a-half years that he and *Mahina* cruised together, he made ends meet by doing odd jobs, including some marine-related work as well as building a house.

After 22,000 miles around the Pacific basin, he was ready for a larger vessel. He eventually sold *Mahina* and found *Mahina Tiare*, a Halberg Rassey Monsoon design of 31 feet (9.5m).

During the ensuing 11 years that he cruised aboard this little ship he put 44,000 miles under her keel, supporting himself by writing magazine articles, self-publishing a book, and doing lecture series, in addition to doing marine canvas work for other cruisers he met along the way.

In the course of this cruising he met a German who for the past eight years had a business offering sail-training passages back and forth across the Atlantic. "If he can do it, I'll bet I can too" was John's thought. The gamble was to find enough people interested in making passages (as opposed to day-sailing on typical charters) to keep a new, larger vessel afloat financially. In 1989 this was by no means a sure bet — although no one familiar with John and his quiet drive doubted for a minute that he could pull this off.

So he sold *Mahina Tiare* and began to look for a vessel suitable to carry paying guests.





*Mahina Tiare II* off Cape Horn, for the sixth time! (John Neal photo)



*Mahina Tiare II*, Paradise Bay, Antarctica. (John Neal photo)



John's third *Mahina Tiare*, a Hallberg Rassey 46, on sea trials. (John Neal photo)

Eventually he came across a Halberg Rassey 42, struck a deal, and *Mahina Tiare II* was soon on her way as a sail-training business.

I remember talking to John about his early bookings. He was extremely pleased that word of this new way to learn about the sea spread quickly around the grapevine. In short order he was generating enough cash flow to cover the acquisition cost of the new boat and her maintenance, as well as to keep John cruising.

Not surprisingly, there's always a question about the flow of business. With many types of businesses, you spend a certain amount on marketing and in time the customers come. But with John's type of business, there wasn't the budget for a real marketing program. He had to rely on extremely small ads, word of mouth, and attracting attention by writing and lecturing.

As you might have guessed, word of mouth was most effective, with about a quarter of John's clients coming from repeat business. After seven years more than 200 people had sailed with John. *Mahina Tiare II* carried them and him over 70,000 sea miles, including several trips to Antarctica and six roundings of Cape Horn.

If you ask John about how this works out financially, he is quite forthright. "We run this as a business, and as long as the business doesn't pay me a salary, it does okay. I do this for the love of it. I love being away at sea and watching our guests learn."

Which brings us to the present. John has recently taken delivery of a new Halberg Rassey 46, a much larger, more powerful, and luxurious vessel than anything he's sailed before.

*Mahina Tiare III* ushers in a new era for John. "Instead of trying to make do with a 12-year-old boat, I now have the chance to do it right, my way, from the start. It is the challenge of pulling this off, in the face of everyone saying how difficult it would be, that has kept me going," is how John puts the new project into perspective.

John will be out there teaching aspiring cruisers about the real world of long-distance voyaging at least for the next five or six years — after which it will be time for a re-evaluation.

If you are thinking about some offshore cruising, but not sure what it is really like on a passage, give Mahina Productions in Friday Harbor, Washington a call (360-378-6331). If John is there he'll be glad to chat with you. If he's out sailing, there are other folks who can fill you in.

## PROFESSIONAL CREW

Steve and I had been in Cabo San Lucas, Mexico for a couple of days awaiting the arrival of family for the holidays, when a sloop-rigged Swan 651 beat her way into the anchorage, rounded up, and smartly dropped her hook near *Sundeer*. In a matter of minutes the crew of *White Knight* had their dink in the water and were off to the inner harbor for clearance formalities.

Steve and I went ashore a while later to pick up supplies. We stopped at a favorite restaurant off the beaten track and used mainly by locals. We were therefore surprised to see an Anglo couple walk in a few minutes later, sit down, and order the day's *especialle*.

A short conversation revealed that they were our new neighbors, off *White Knight*. Sue and Ian Storer were professional crew. It was their job to move this large yacht from place to place at the owner's request, acquiring additional crew as they saw fit, while maintaining the vessel to be ready for the owner or his guests at any time.

When they weren't working on the boat, moving her, or catering to the needs of their occasional guests, they had a lovely yacht to themselves. And better yet, they were paid for this!

Before you run off to start looking for a similar job, it is important to recognize that this is, in many cases, hard work. Sure, professional crew have the boat to themselves a majority of the time, but when the owner or guests are aboard, they not only have to run the boat, but cater to every need of the visitors — including cooking and bar-tending, acting as local guide, dive master, and maid, and of course, running the boat.

### The Charter Game

Ian had been in the charter- and yacht-crewing game for 13 years and Sue had eight years experience before they moved aboard the Swan 651. They spent years in the charter business, catering to the needs of people who had saved the entire year for a two-week holiday. While this sounded like a tough job to me, both Ian and Sue said they had enjoyed getting to know so many people, most of whom they still correspond with. In all their years of charter work they only encountered one unpleasant couple.

Apparently there were several keys to a successful charter operation. The first was to work the charter agents hard. The second was to make sure the charter agents "sold" the right package. Agents needed to be informed about what was feasible. "Trying to cover seven islands in seven days left little time for sight-seeing," Sue explains. "It was much better to go to a couple of islands, allowing plenty of time for sight-seeing, snorkeling, with short day-sails thrown in between anchorages that are close."

They tried to allow for a three-day turnaround between charter parties. This afforded a little time off, plus a day or two to re-stock the boat, get her good and clean, and deal with any maintenance issues.

When guests first came aboard they explained to them the basic rules of the boat: No shoes below (and clean them before coming back from land), no smoking below, and general safety rules.

They would then discuss the various options for what the guests could do with their time aboard, make a plan, and head for the first anchorage. According to Ian, "After a while most of our clients were repeat customers. This made it a lot easier, on them and us. We both knew what to expect."



Sue and Ian have been professional crew for years. The pay is reasonable, they get to do lots of sailing, and the owner isn't aboard that much.



## The Learning Curve

Ian started out as deck hand, then worked as mate to learn the ropes. He soon graduated to work on larger boats and with a variety of skippers, learning everything from putting on parties to seamanship, dealing with guests, maintenance, resupply, schedule — the list is endless.

Sue took a catering course, then worked as cook on a number of charter yachts. She returned for more cooking courses until she and Ian finally met and became a team.

Compensation varies. A couple can earn anywhere from \$2,000 to \$5,000 a month in salary and another \$500 to \$1,000 a week in tips (although Europeans don't tip). A good charter season can run 30 to 40 weeks, at the end of which you and the boat really need a rest.

Ian and Sue both said charter work was very hard. After catering to the guests' requirements all day, they then had to look after the boat. "We were on a Hood 62 for awhile," Ian said. "It was a mechanical nightmare. We would put the guests to bed at 2200, then have to tear up the main saloon to go to work in the engine room. Sometimes we'd finish up at 0400 and have to be back up at 0700 to take care of our guests again."

I asked Ian if he had any suggestions for getting up to speed on the maintenance side of things. He suggested "taking courses in electrics, diesel engines, and refrigeration. Then getting experts aboard to show how each piece of gear is maintained, and then doing the work yourself. It might take a couple of days to do something the first time. But the next time it would be a couple of hours."

## Home Base

I wanted to know how they felt about a home base. Sue answered, "We have a home in England. It's nice having a base; the security is important. Aboard the boat you have no security. We once had four hours notice to leave a boat we had lived on for a long time... You're camping out, you can't hang pictures, you can't picture the boat as your own; it can be shattered all too easily... You think like a transient. We must be able to drop everything and leave immediately (for owner or charter requirements). As a result we tend to make good friends quickly. The charter community is a tight group of friends. Charter crews and cruisers don't tend to mix, as their lives are so different."

From Sue's perspective, women are on a different timetable, what with the biological clock ticking away — most burn out after 10 years of crew work, although she says this depends on the owner. Most of her female crew friends over age 40 are looking for something else to do.

One of the advantages of the job is the exposure to people and other jobs and lifestyles. Friends of theirs have worked into jobs managing estates, other yachts, or running shore-based businesses for charterers or owners impressed with their management skills and savvy.

## Personality Traits

What's the right personality for this type of work? "You've got to be very patient, living with other people in such cramped quarters. You must be able to adapt. There is lots of competition for the good spots, best owners, boats, etc. Good boats and owners stay together; 15 years is not unusual. Others may last only three months," Ian says.

How does a crew check out an owner? Ian's advice is to "look at the itinerary first, then check credit record with other crews and shore-based suppliers."

Sue adds, "Look for an easygoing owner, how fussy they are going to be about unimportant things. Safety issues need to be checked, gear aboard, running and standing rigging, how much time the owner allows in port for maintenance, budget for gear and yards to keep the boat seaworthy. Look at the general attitude toward crew, and records with other crews before."

Ian feels that "Up to 65 or 70 feet (19.8/21.4 m) you'll be eating and living with the owner and his guests or family. Once you get to 90 feet or so (27.5 m) there is going to be a crew's mess and separate quarters." He adds, "East Coast U.S. owners tend to be more formal than West Coast."

Both Ian and Sue feel that one of the most difficult jobs for a crew can come with an inexperienced owner, one who feels he needs to be in control but doesn't have the skills. Here, the crew's ability to *educate* the owner about the boat and its capabilities is paramount.

"It is like running a million-dollar business. We're managers of a very important asset. Of course there are different styles for different managers, and some crews will tell an owner to do this or that, while our way of doing things might be different," explains Sue. "Most owners are self-made and sharp, and they figure out quickly what is right for the boat and for them... We try

and teach values of maintenance to our owners, but the most important thing is for us to get the owner and guests to *relax*...With guests we try and show them each cabin and the various pieces of gear. Explain how things work, and what damage can be done to the boat if things are not done correctly.”

If you are getting the impression that it takes a lot of technical, seamanship, and people skills to be a successful professional crew, you’re right. But if you put the time in and learn the ropes, it can be a rewarding way to go to sea.

## CRUISING BUSINESS

Most people go cruising to get away from the hassle and complexities of the everyday world back home. But some intercourse with the commercial system at home and abroad is unavoidable. The key is to find the right way to take care of your business with the least amount of friction and hassle.

### Mail

The first major problem is mail. In each port the best place to have mail sent and held varies, but generally a local yacht club will hold mail. In some places mail will best find you if addressed in care of the port captain. General delivery, or *poste restante* in French-speaking areas, is another good bet. If your bank at home has a correspondent bank in a major city, the bank will often hold and/or forward mail. Be sure to have the mail addressed in your name along with your yacht’s name, and noted “Hold for Arrival” as well.

If you have an American Express credit card, mail can be sent to you in care of their local office.

Airmail in most parts of the world will arrive in a week or 10 days. The longest time we’ve experienced was three weeks, in the Marquesas Islands. Surface mail generally takes two to three months.

Often, of course, mail will arrive after you leave for another port. Most cruisers find it best to have a shore buddy or another yachtsman send on their late-arriving mail. (Have the mail read-dressed and sent airmail; otherwise post offices will forward mail by surface.)

It’s generally best to leave an itinerary of major stops, where you expect to be for a month or more, with the folks back home. Some people try to have all mail sent to one Stateside address and then forwarded. This is good in theory, but our experience has been that our friends like to write directly to us at some exotic location.

It’s important to drop a note to your next mailing address, advising them of your estimated time of arrival and asking that mail be held for you. Many post offices will hold unclaimed general delivery mail for only a few weeks if arrangements haven’t been made in advance. If we find we’re running late, we send a follow-up card.

Urgent messages can be wired in care of the port captain or yacht club where you are staying. If you have high-seas radio capability, KMI, WOM, or WOO (AT&T radio/telephone stations) in the U.S. will hold a call from home for 24 hours, giving you a call in the traffic listings every six hours. Generally the call has to be replaced after 24 hours. If you have a ham radio aboard, a regular schedule with someone at home is great, or one of the maritime networks of hams can list the traffic for you. In most cruising spots these days there’s always some yacht with ham gear aboard, and a general call for your yacht will usually be relayed.

Of course, today’s courier service is available almost everywhere in the world. This means mail, parts, and packages can be shipped in two or three days at the most. However, check with the locals to see who has the best service from your part of the world.

The last time we were in French Polynesia we wanted our daughter, Elyse, to forward some papers via courier. Locals suggested DHL as the best source. But in the States DHL didn’t know they had service to our location!

### Transferring Funds

The financial side of foreign cruising can be simple if handled properly. To begin with, traveler’s checks are universally accepted in the most primitive parts of the world. You generally get a 1.5 to 3 percent better conversion rate to local currency to boot, as the local banks don’t like to handle cash. Once your initial supply runs out, things become more complicated — unless you have a credit card that gives you cash-drawing privileges. Today, Visa and Mastercard are quite easy to use for cash withdrawals in most countries. Cashier’s checks drawn on a major U.S. bank

are easy to cash and avoid the cost of a transfer by wire. However, most foreign banks in out-of-the-way places will wait for the check to clear before paying you the funds.

Wire transfers are best for large amounts of cash, but they can be time-consuming. Get a list of your home bank's correspondent banks.

Wires generally take from 4 to 10 days in and out of most cruising areas. If you're planning to stay in one country for awhile, have your home bank purchase foreign currency and wire you the *foreign* funds (rather than U.S. dollars). Almost all foreign banks take a straddle position in currency and make handsome profits buying and selling money. U.S. banks as a rule do not but will go into the foreign-exchange market and purchase funds for you on a spot basis. You can save as much as 3 percent this way.

Conversion regulations are another thing to check before having U.S. funds wired. Certain banks automatically convert to local currency. If wired funds are meant to last through the next few countries, you'll have to reconvert to the next currency, paying a handling charge in each new country. Check with the local bank in advance for changes.

In exchanging currency you'll find that rates vary on the same day from bank to bank. Banks are generally 5 to 10 percent better than the local merchants on exchange. The only place we found this not to be true was in Mauritius, where the money changers gave a better rate.

An American Express card is perhaps the best system we have found for obtaining funds. With a standard AmEx card you can cash personal checks at their offices around the world for up to \$1,000 every three weeks. With a Gold Card the amount is \$3,000. With a Platinum Card you can get \$10,000. The only fee involved is the 1-percent charge for the traveler's checks, which are issued in whatever currency you desire. After spending a lot more than this on wire transfers, we finally arranged for a card.

If you plan to spend a season in one country (waiting out the cyclone season in New Zealand, for example), it's generally a good idea to open a local bank account. This saves the costs of travelers checks and allows your money to earn a little interest.

### **How Much Money Should You Carry?**

On one hand you want enough money aboard to cover your current needs. On the other, funds aboard don't earn you any interest. Most of our cruising friends typically carry about six months worth of budget in a mixture of cash and traveler's checks. The majority of this is usually in the traveler's checks, with a smaller amount in cash.

Small denominations, typically \$20, work best, as they avoid problems with small vendors not having change. Travelers checks are now available for either of two parties to sign.

### **Phone Cards**

It is usually cheapest to use an international telephone credit card when calling home (although the international rates are always high no matter what you do!). We've used our AT&T card from just about everywhere. The only place it would not work is French Polynesia.

### **Automatic Bill Paying**

Most credit- and phone-card companies are happy to set you up on an automatic bill-paying system, where monthly charges are deducted from your bank account.

This saves the problems of timely payments or having a friend or relative handle this for you. But it does open up the possibility of an authorized use of your credit card going undetected for some time.

### **Gear From Home**

As we noted earlier, buying spares, replacements, or new goodies from home can be greatly facilitated by having a good collection of catalogues. If you do have to order via friends back home, be sure to give them the serial number of the unit you have aboard and the part number you want. Even if it's something simple, the description must be as complete as possible.

Most people start off ordering things from home without really checking out the local sources. If a port has the transportation facilities to get your gear from home to you expeditiously, the chances are that what you need will be also be available on the shelves of some local merchant.

When having parts sent to you, be sure they're addressed to your yacht with the notation "yacht in transit." Invoices should be packed on the outside of the box in a separate envelope. Most customs officials will allow spare parts in duty free if they're for a yacht in transit. Occasionally it



may be necessary to post a bond for duty, which is refundable upon your departure, or to put the gear in question in a customs warehouse until you leave, at which time the clearing officers will bring it aboard. If the items are of any value, it's best to check about these procedures in advance. You may want to hold off and have them sent to you at the next stop.

## Taxes

Taxes are a consideration if you're gone any period of time. First is the property tax (if your state has one) on your yacht. In some areas, such as Los Angeles County, California, you will be assessed property tax as a migratory asset even if you're not in your home port for several years. Income taxes should also be considered. The Internal Revenue Service likes to hear from you annually even when you're offshore, unless the proper extension forms are filed.

## The Home Front

Most of us have some commitments at home that require regular payment of bills, such as a house or maybe valuables in storage. We've found it best to negotiate to pay a year in advance and get a discount for doing this to cover the interest lost on the funds.

If you appoint a friend, associate, or relative to take care of business that must be handled locally, be realistic about what's involved. Often what appears to you to be a simple chore or two when you're familiar with the details is something else to an inexperienced friend. There is absolutely nothing more frustrating while cruising than to be beset by business problems at home that are not being handled properly in your absence.

It's a good idea to leave either a general or specific power of attorney with someone you trust to execute necessary financial dealings. If you don't leave the papers at home, take several power-of-attorney forms with you. They can be filled out and sent home if needed. But be sure to have them notarized before you leave. It's very difficult to have a foreign notary validated in the United States. (U.S. consuls are usually able to certify documents when necessary.)

You will have to make arrangements to keep your yacht's registration current while offshore. State and national regulations vary. The U.S. Coast Guard, for example, will hold your document open as long as you write to the home port office and inform them you are out of the country.

Basically, the totally self-reliant traveler will be better off. A little planning and forethought on the business side of cruising will go a long way toward easing the frustration of keeping things going smoothly back on the home front.



Every once in awhile you have to get back to basics and remember why you go cruising. It may be for the freedom (however that is defined) or the opportunity of spending time with your kids before they're too old. Perhaps it's to explore that secluded beach, with the protected anchorage in front and the azure-blue sky. Whatever the reason, no lifestyle is quite as rewarding as that of the full-time cruiser.