

GOOD OLD BOAT









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Our contributors



Gregg Nestor (Islander 28, Page 9; Rope mats, Page 20), a contributing editor with Good Old Boat, has had a lifelong interest in all things aquatic. He has just completed his second book: Twenty Affordable Sailboats to Take You Anywhere.



Before becoming a boating magazine editor, Ted Jones' (Remembering Bill Tripp, Page 13) boating career included work at Tripp & Campbell, Campbell/Sheehan, and Minneford's Shipyard. His magazine work was primar-

ily with Popular Boating and Coastal Cruising magazines. He's published seven books on sailing.

Lin Pardey (Seasickness prevention, Page 22) and Larry are spending the northern hemisphere summer exploring Puget Sound and the Gulf Islands on Taleisin. During the southern hemisphere sum-



mer they explore New Zealand waters on the 110-year-old sloop, Thelma, which they have renovated. Lin has completed a revision of The Care and Feeding of Sailing Crew.

Connie McBride

(Replacing chainplates, Page 25) left Kent Island, Maryland, in June 2002 with her husband and three sons, ages 10, 13, and 15. Aboard their 34-foot Creekmore, Eurisko, they cruised the



U.S. East Coast and are sailing onward to vet-to-be-determined destinations.

Barry Hammerberg



(Sampatecho, Page 29) rebuilt a Snipe and learned to sail in high school. Before too long, he was building fiberglass canoes and kayaks. Midwesterners, he and his wife, Ruth, owned a charter boat in the Florida Keys and

have sailed the BVIs and Leeward Islands.



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Phillip Reid (Ariadne's adventures, Page 34), his wife, Andie, and other miscreants sail their 1977 Pearson 28, Miss Bohicket, out of Wilmington, North Carolina. They finished a fiveyear refit in 2005. When not sailing, writing, or boat-grubbing,

Phillip teaches a college history course.

Tom Bishop (Improving a dinette table, Page 40) made a life-changing conversion from waterskiing instructor to sailor at the age of 19. He owned and daysailed a variety of boats and was further



hooked on sailboat racing when he had a chance to crew on a Pearson Electra. These days he owns a C&C 35.

Don Launer (Iron Wind 101, Page 42), a Good Old Boat contributing editor, has held a USCG captain's license for more than 20 years. He built his twomasted schooner, Delphinus, from a bare hull and sails her on Barnegat Bay in New Jersey.

Joyce Nestor (Taking it

Slow in the Florida Keys, Page 44) is responsible for most of the photos associated with articles by her husband, Gregg. The two choose between cruising Lake Erie aboard their

Pearson 28-2 and expanding their sailing grounds by trailersailing their O'Day 222.

Theresa Fort

(Emotional shipwreck, Page 46) is a contributing editor with Good Old Boat. For many years, Theresa and family lived and cruised aboard Lindsay Christine, a

Mercator Offshore 30. The kids grew, however, and Lindsay Christine was replaced by Coquette, a Van de Stadt Agulhas 12.5

Bill and Lisa Kinney

(A classy electrical panel, Page 48) and their Portuguese water dog, Jibe, live on and sail a 1976 Northstar 40 ketch on the



waters of San Francisco Bay. To fill the cruising kitty, the two-footed crewmembers work in the pharmaceutical industry. They plan to take an extended cruise in the near future.



John Danicic (Installing an anchor windlass, Page 51), spends his time on the hard building furniture, cedar-strip nesting dinghies, bronze port screens, and other sailing gear. Along

with his wife and two teenage children, he sails Mariah, a Cape Dory 36 cutter, in that brief period between winters amid Lake Superior's Apostle Islands.

Dale Tanski (The rebirth

of Maruska, Page 58) soloed at the age of 10 in his family's Sunfish. Forty years later, he is refitting a Pearson 365 ketch to cruise with his wife, Sharon, and their



two youngest, Alden and Morgan. Dale also races a J/22 with the oldest children, Rian and Eric, in Buffalo, New York.



Gordon Groene (Simple solutions: Securing fastenings, Page 71) and his wife, Janet, are fulltime writers whose books include Living Aboard (Bristol Fashion Publications.)

David Satter (Simple solutions: Better bilge access, Page 73) has been restoring antique furniture for 20 years. After attending the WoodenBoat School in Brooklin, Maine, he got the boat bug and now restores and repairs small



wooden boats and canoes in northern New Jersey. In 2002 he bought a 1973 Bristol 30 with plans to cruise the East Coast with his wife, Sue, and two daughters.

Fred Siesseger (Quick and easy: Stowaway rubrail, Page 75) bought a new San Juan sailboat, which he sailed on the Chesapeake in the early 1970s. Almost 25 years later, he decided to catch up for missed time since then by rebuilding Kalypso, a 1967 Morgan.



Boats and the sea have played a major role in the life of Bernie Boykin (Quick and easy: Dinghy roller, Page 76). At age 14 he built a 6-foot sailing dinghy from Popular Mechanics plans. He served in the U.S. Navy during World



War II. He built and raced Stars for many years. He founded the Whitby 42 Owners Association in 1991 and since then has published more than 20 member newsletters.



As a youngster, C. Henry **Depew** (Quick and easy: Temporary diesel tank, Page 77) learned to sail on an Optimist Pram. Flying Juniors followed during the college years. Later he bought and rebuilt a bliz-

zard of sailboats (nine in six years). He is active in the United States Power Squadron and sailboat racing activities with the Apalachee Bay Yacht Club.



Rebecca Burg (Side by side, Page 80) comes from a long line of fishermen, mariners, and coastal dwellers. An artist and writer, she singlehands and lives aboard her Bayfield 29 but never far

from the Morgan Out Island singlehanded by Bill Robinson. Visit her website at <http://www.artoffshore.com>.



Victor Schreffler (Reflections: October wind, Page 89) and his wife, Becky, have owned and sailed various sailboats, starting with a 14-foot Chrysler. They currently sail a 27-foot Albin

Vega out of Tawas Bay on Lake Huron. In Victor's day job as a preacher, he tries to save souls. Sailing is what he does in order to save his own.

meter.

The view from here

Defining a good old boat

Our emphasis is on safety, crew comfort, and more sailing

by Karen Larson

O NE DEFINITION OF A GOOD OLD BOAT is a sailboat that is continuously undergoing some project or other at the hands of a loving owner. *Mystic*, our C&C 30, fits that description. Most of our projects have little to do with cosmetics, alas.

We painted her blue topsides with one-part Brightside one year when the fading blue hull embarrassed us more than I could stand. It was a big job. The next summer (2001) was the year of the lightning strike that damaged some fiberglass in the hull. So she was

They told us not to paint her blue ... But *Mystic* started her life as a blue boat, and we love her as a blue boat. So blue she remains.

Our boat projects make her safer, more efficient, and more comfortable. And there are always repair and replacement projects. But do we worry about this 30-year-old's good looks? Not as much as we might. repaired and repainted once more, but professionally this time, thanks to our boat insurance policy.

Now, five years later, she's starting to go again. They told us not to paint her blue: dark colors hold the heat, they fade more quickly, and they show every blemish more readily. We knew all that. But *Mystic* started her life as a blue boat, and we love her as a blue boat. So blue she remains.

Besides the fading, she's got a rash from the unkind effects of fenders. Fenders do their job, but (covered or not) they are tough on painted boats. And there are the marks from "docking incidents," some of which I'm personally distressed about and some of which occurred (thank goodness) through no fault of my own. In some of the more remarkable circumstances the remorse came later. We were glad to have escaped with only cosmetic loss. We try to keep those occasions to a minimum.

I wouldn't have chosen *Mystic's* upholstery material, but it's clean and wears like iron. Perhaps if I wait another 15 years, it will come back into style or at least be stylishly "retro." *Mystic's* not into style anyway. She's much more sensible than that with our clear focus on safety, efficiency, and crew comfort.

As long as cosmetics are not the goal of boat ownership, I'll sleep better at night. I'll be less devastated when some "helpful person" at the dock yanks our baby into the corner of the dock with an exuberant tug of our dockline. I'll feel less remorse when I am the reason for the new gash or ding. If we worry less about her cosmetics, we'll certainly relax and enjoy our time aboard more. And we'll sail more often.

Another definition for a good old boat might, therefore, be a sailboat that goes out sailing as often as possible.



Feature boat

Allegra 24

She's the most pampered and putzed-with boat in the marina

by Karen Larson

HEN HE WAS 11, ROGER LAUTENbach figured out that a small fishing boat would be a lot more interesting with a sailing rig contrived from an oar and a blanket. Since his family had a resort in Door County, Wisconsin, Roger's life was rich with waterborne opportunities such as this.

In that setting, Roger also developed a do-it-yourself attitude in addition to his love of, and respect for, boats. This was the right mix for a fellow who would later build his own boat from a bare hull. That boat, an Allegra 24 named *Sara*, is a beefy beauty that is sometimes described by Roger as "a Flicka on steroids." *Sara* and Roger spend their summers these days in Blind River, Ontario, at the western end of Lake Huron's North Channel. His wife, Puck, joins them when she has time off from work.

Roger's attention wandered from the world of boats when teenage interests introduced girls and cars. Then came marriage to Puck, a daughter named Sara, and a mixed career involving high-school teaching and



ALLEGRA[®] 24 — Flicka's documentable cousin, licensed builders, quality kits, basic boats, deluxe "sailaways" — Florida, California, New Jersey, Washington. Foursome privacy, incredible performance, trailerability. Hull/ Deck \$6995. Plans \$315; Flicka \$295. Information \$2 each (specify interest). "Practical Yacht Joinery," 450 illustrations, HOW-TO, soles to spars (\$32.50) discounted \$29.50. All U.S. funds. Fred P. Bingham, 516 E. Arrellaga #5 CA, Santa Barbara, CA 93103. (805) 966-2015. work in a Wisconsin shipyard, Bay Shipbuilding, where large boats are designed and built. By 1982, when he was in his early 40s, Roger's work in pipe brazing had burned his system out, as he puts it, and the recovery time went by too slowly for a man with his can-do temperament.

"So I started building small boats in the garage," he says. He was obviously able to keep busy at this: he built 10 Optimist prams in two months. "I was building them four at a time," he explains. "Then I wanted to do something in lapstrake," he recalls. He found a Walt Simmons design for a 10-foot lapstrake yacht tender, called Sunshine, lofted his plans, and built a lovely craft that was to be named *Sunshine*.

Spiritual side

Roger's boatbuilding skills were selftaught. He speaks of "the spiritual

Fred Bingham ran Allegra ads in the early 1980s. This one captured the imagination of Roger Lautenbach.



side of boatbuilding" and explains that "you have to just 'get it.' " While there might be some boatbuilding training available out there, it isn't necessary for the intuitive thinkers. Roger was one of these. At each stage of a boat's development, Roger says, "I spend time walking around it 200 times...just looking at it."

Roger spent several happy years in his garage/boatshop building boats, selling them, and buying tools with what he'd earned. Meanwhile, at the back of his mind a dream coalesced. His friend, Don Boll, was interested in rebuilding his 32-foot Chesapeake. He planted a seed that took root in Roger's mind. When the ad for Fred Bingham's 24-foot Allegra (in kit form) appeared in *Cruising World*, that little seed grew into a full-grown dream.

Lou Nagy and Fred Bingham had expanded the lines of Bruce Bingham's Flicka to create the Allegra. Roger says, "Lou is the guy who never got any credit for the Allegra. He was a naval architect and civil engineer. He and Fred kicked the buttocks up a bit in the aft end. The Flicka's cockpit drains were a bit low."

Knowing that the Flicka had played a role in the Allegra's design, Roger recalls, "I said, 'First I want to look at the Flicka.' The next step was to call Fred Bingham." It was 1985 and Fred had developed into an irascible gent who wanted to sell plans and, unfortunately as it turned out, to stay out of the boatyard. In retrospect, Roger says, "Lou was wonderful to work with. But I don't think I could have worked with Fred for five minutes." This may explain why Lou had an eventual problem with the partnership as well.

Just do it

"You could buy a completed boat. Or you could get just the hull and deck for \$6,000," Roger says. "My wife said, 'Just do it!' " Wives like that should be sainted. Puck remained supportive throughout. Puck Lautenbach, far left, has been a very supportive partner for her boatbuilder husband, Roger, center. Roger's dinghy, *Sunshine*, was featured in the local paper many years ago along with a feature about the guy who was building dinghies in his garage. What the reporters didn't know then was that the best was yet to come. That boat was the Allegra 24, below, which Roger built from a bare hull. She was named *Sara*, after their daughter. This beefy beauty is "a Flicka on sterioids," as Roger puts it.

Roger was on a roll. He shelled out the cash and things started happening in the boatyard in Ventura, California. But then Fred and Lou had a falling out, and a year went by with no results. Roger knew a fellow who delivered boats and worked out an arrangement by which something... anything... would be brought home to Wisconsin from that California yard the next time the





Feature boat





truck was heading east. The truck was set up for hauling Carvers, however, so a shipping cradle had to be built and a crane was hired. But in the end, Roger had a hull and deck in Wisconsin.

"I took the piece of plywood out of the companionway and looked at all that green fiberglass down below," Roger recalls. "I went below and stood there and said, 'What the heck have I *done*? How will I*fill* this thing?'"

It was supposed to be a kit, he says, but, due to the circumstances of the failing partnership in California and the forced delivery of his hull, it was not a kit. "It was a hull, deck, and Douglas fir bulkheads," Roger says. "And some hardware," he adds as an afterthought.

"I climbed into the anchor locker and said, "This looks like a good place to start." The boat told me how to do it."



Fortunately, one of the lead joinermen at Pacific Seacraft (and a good friend of Lou Nagy's) had left a layout sketch thumbtacked to the bulkhead, Roger recalls. "I followed his suggestions."

Full load

Somewhere along this timeline, Roger, who was still generally in the unemployed/recovery mode, was asked to fill in for a local tech-school teacher who'd had a heart attack. "Soon I was teaching psychology, communication skills, marine technology...six subjects in all... a full load." And he spent three grueling months working at the shipbuilding yard fitting pipe on container ships. "I earned money for parts," he says.

Still, the boat project moved ahead at a quick pace. "She was sailable in 18 months, Roger says. "I focused well.

Sara's interior will make anyone who's been inside a Flicka or Dana feel right at home. Bulkheads are kept to a minimum to open up the spaces and provide for ventilation. Roger is a master craftsman who built the interior furniture with just a sketch to go by. The galley is on the starboard side by the companionway. The head is opposite. Facing page: The spaces on this boat, which is 8 feet 2 inches wide and only 21 feet 2 inches on the waterline, are necessarily tight. But Roger spends most of his time each summer aboard Sara. He has found ways to make every inch count and tinkered and putzed until he has created the storage spaces that work for him. A nice feature of the Allegra 24 is her shoal draft of 3 feet 6 inches. She'll sail where many others fear to tread.

I did one job at a time. One thing that helped is that I could go down to Palmer Johnson (a well-known Wisconsin boatbuilding firm) and buy wood and parts and ask questions."

When spring came to Wisconsin, Roger was able to begin the exterior projects, such as mounting hardware.

"Then, with the help of a student of mine who'd had experience at Palmer Johnson, I lofted the sailplan on the driveway with a piece of chalk so I could do the standing rigging," he says. "I called Bruce Roberts, the yacht designer. That was his idea. He talked me into an Isomat spar. I bought the rig for \$1,500."

As it is with all projects, not everything went smoothly. There *was* that incident with the scaffolding. Roger says he fell off and wound up lying on the driveway for two hours before







Puck found him there. He'd injured his collarbone and three ribs in the tumble. "The doctor said I'd be laid up for eight weeks," Roger recalls. "I said, 'No way!' " And indeed the work went on.

Reinforced bilge

Another incident was the "epoxy dam," as Roger refers to it. Using duct tape, he'd built a dam to hold back a pool of epoxy near the rudder-pintle fork. Then he stepped out for coffee with his friend, Russ. Unbeknownst to him, the dam let go and the entire bilge was reinforced, shall we say, with an extra 1 to 2 inches of epoxy.

The final "little incident," that Roger will admit to anyway, was the fire that broke out while Sara was under construction. He prefaces that incident with the saying that you should never do something on a boat in a northeast wind and you should never paint your boat blue. (I'm a bit sensitive about this latter saying, since Jerry and I sail a blue C&C 30. Still, it's Roger's tale, and I'll let him tell it.) The northeast wind concept originated, he says, in the days of wooden boatbuilding. Builders noticed, when the wind switched to the northeast, that planks were harder to bend, lost their bend, cracked, or resisted in some way.

At the time of one of these wind shifts, Roger was working on a Formica countertop, pushing to finish "just one last thing" late in the day, as we all do. It was early December. It was cold. Too cold for contact cement to really set up properly without the assistance of a heat source. (You can see where this is leading.) The heat came from a heater coil. Roger knew there was a flash point that he had to watch out for. But he pulled back a second too late. The cement flashed up and he had 6 to 8 inches of scorched bulkhead before he could utter some properly salty comments. He later covered that bulkhead with a second piece of teak. This makes it, he notes, "extra thick there and good for fastening."

Most pampered boat

When all was said and done, Roger's new boat was (and still is) a looker. He built her well to begin with, and she's the most pampered and putzed-with boat in Blind River Marina. "I like what I do," he admits. "I guess I'd rather work on them than sail them." He's not the first to have said this, although Jerry and I have a hard time understanding what makes a guy like this tick. But just before you dismiss Roger as a tinkerer and not a sailor, I must remind you that Roger is very comfortable singlehanding his boat and describe the scene one day when Puck arrived for her summer cruise aboard Sara.



There was a pretty good wind blowing through the marina the day Roger and Puck were ready to sail. Puck was to catch his lines at the fuel dock, where they'd fill up and pump out before getting under way. I watched as Roger left his slip and motored slowly to a small turning basin within sight of the fuel dock. There, under full control, he walked forward to reposition fenders and lines and then stood off until other traffic at the fuel dock cleared. He did this in a very seamanlike way in spite of a stiff wind and being alone aboard. It was smartly done from the time he left his slip until he was alongside the fuel dock. It was, as Patrick O'Brien is wont to say in his Aubrey/Maturin series, "Prettily done." You can't ask for higher praise.

Looking back at his years with *Sara* since her completion in 1988, Roger says, "I went through a period when I thought I'd sell her. What *is* it that happens to boaters in August, anyway?" Certainly if he wanted to sell her, it wouldn't be difficult. So far, owners of a 40-foot steel-hulled boat and a 37-foot Tayana have offered to trade Roger even. Fortunately, neither made that offer in August.

So, for the foreseeable future, Roger and *Sara* are happily ensconced in Blind River where he's known as the fellow who's compulsive about the boat brightwork, the one who's making constant upgrades and improvements to his boat.

"Do you know what epoxy does to your brain?" Roger asks, and then he answers his own question with a laugh. "It makes you compulsive." If that's the case, it's fair to say that all good old boaters — having been exposed to epoxy as we have — are just a bit compulsive. And proud of it.

Boat comparison

Four small bluewater cruisers

A comparison of Allegra and three rivals

by Ted Brewer

These FOUR SMALL YACHTS HAVE ALL PROVEN TO BE VERY capable bluewater cruisers with many long ocean passages to their credit. Several of them have made successful circumnavigations over the years. Despite their small size, these mini-cutters feature reasonable accommodations, suitable for two friendly sailors who don't mind close quarters.

With the exception of the Dana 24, the major problem with these yachts is that they were designed with accommodations for four. That works reasonably well for family cruising on a short summer vacation, but the best use of these very able small craft is to carry a singlehander or a couple on extended coastal and ocean voyages. To that end, the interior layout would be greatly improved with the elimi-

Flicka

LOA

LWL

Beam

Draft

Ballast

Sail area

Designer

Displacement

LOA/LWL ratio

Beam/LWL ratio

Displ./LWL ratio

Bal./Displ. ratio

SA/Displ. ratio

Comfort ratio

Capsize number

nation of two berths and the addition of more stowage and tankage. I'm sure the designers would agree with me, but builders generally feel that added berths are a selling point and insist on them.

As I pointed out, these yachts are extremely able for their size and, given an experienced and knowledgeable crew, quite capable of sailing anywhere in the world within reason. The secret of their seaworthiness is that ultimate speed and weatherliness have been sacrificed for the ability to take almost anything the sea can throw at them. A look at the comparison table will bear this out.

Note that the Allegra is the only one with a sail area/displacement ratio over 16 and that their average displacement/LWL ratio is a very heavy 370. All four sport a full keel combined with modest draft and beam. This combination discourAllegra 24

Ð

Falmouth Cutter

Flicka

20'0"

18' 2"

8'0"

3' 3"

6.000 lb

1,800 lb

1.10

0.44

447

.30

250 sq ft*

12.11

1.76

30.8

Fred Bingham Bruce Bingham Lyle Hess W. B. Crealock

Allegra 24

24' 3"

21' 2"

8' 2"

3'6"

6.500 lb

2,400 lb

1.15

0.386

306

.369

369 sq ft

16.95

1.75

27.5

gaff rig option provides 288 sq ft and 13.95 SA/Disp. ratio

short waterlines limit them to theoretical 6-knot speeds in the best of conditions; 4 to 4.5 knots would be a more likely average, given their characteristics.

ages speed under sail and weatherliness. In any case, their

The Flicka appears to be the slowest of the group, due to carrying her generous displacement on the shortest waterline and being driven by 100 square feet less sail area than the others. With only a 30 percent ballast ratio, she could be a bit on the tender side, quite a handicap when the breeze pipes up. My suggestion to any sailor interested in a Flicka would be to look for a gaff-rigged version, for its greater sail area, and then set up a main topsail to add a few more square feet high up where it can catch the errant breezes.

Dana 24

Dana 24

24' 2"

21' 5"

8'7"

3' 10"

8.000 lb

3,200 lb

1.13

0.401

363

.40

358 sq ft

14.32

1.72

31.5

Falmouth

Cutter

22'0"

20' 10'

8'0"

3' 6"

7.400 lb

2,500 lb

1.06

0.384

365

.338

357 sq ft

15.04

1.64

33.6

The other three appear to be evenly matched. The Allegra would do best in lighter air due to a finer hull and ample sail area. The Dana should show her worth in heavier going, due to her husky displacement, slightly greater beam, and generous ballast. The dark horse could well be the Falmouth Cutter. She could prove to be

the best passagemaker of all over a long voyage where the breezes varied from calms to gales.

As to seaworthiness, the combination of heavy displacement with modest beam gives each a reassuringly low capsize screening number, along with a comfort ratio that many 30-foot and larger yachts would envy when the wind is howling and the seas run high. These compact cruisers will carry their crews to distant shores in safety and comfort, if not in the lap of luxury. 📐

Islander 28

An early Robert Perry design stands the test of time by Gregg Nestor

ROUND 1975, ROBERT PERRY DREW the lines of the Islander 28. And as critical as he is of his own work, he nevertheless considers it to be one of those rare designs that has surpassed all his expectations. The boat was in production for 10 years.

With a finely raked bow and a reverse transom, the hull has relatively short overhangs. To please the eye, there is a subtle sheer and a cabin that carries its lines and that of its portlights' delicate teak eyebrow trim piece harmoniously out to the stemhead. The maximum beam is well aft and there is a good amount of flare to the topsides. These last two design elements work together to ensure light displacement and minimum wetted surface. The reverse transom is wider than the normal International Offshore Rule (IOR) transom, which was popular at that time. In doing this, Bob created a more comfortable cockpit and added power and reserve stability.

Under water, the leading edge of the deep (5 feet 3 inches) fin keel is raked aft. In addition to the deep-keel version, the boat also was offered with an optional 4-foot shoal draft keel. On both versions, the semi-balanced rudder is faired into a partial skeg. This *Reaching*, an Islander 28 owned by Dave Vance, ghosts along, at left. The raked bow, flattish sheer, and reverse transom still look good today. The slotted toerail is handy for fastening snatch blocks anywhere you want them.



Islander 28

Designer: Robert H. Perry LOA: 27 feet 11 inches LWL: 23 feet 1 inches Beam: 9 feet 10.5 inches Displacement: 7,000 pounds Ballast: 3,300 pounds Draft, deep: 5 feet 3 inches Draft, shoal: 4 feet Sail area, tall (std): 361 square feet Sail area, short (opt): 326 square feet Displacement/LWL: 204 Sail area/Displacement: 16.3

arrangement results in better response and tracking.

Construction

The construction of our review boat, *Reaching*, owned by Dave Vance, of Thompson, Ohio, is typical of the 1970s. The hull is a solid, hand-laid laminate of fiberglass and polyester resin. To add stiffness and compression strength, the deck is cored with marine-grade plywood. This sandwiching is especially beneficial for all walking surfaces, including the cabintop, sidedecks, and cockpit sole, where the weight of crew otherwise might cause oilcanning.









The hull-to-deck joint is an inwardfacing flange that is chemically bonded and mechanically fastened, incorporating a slotted black anodized aluminum toerail.

The keel is externally mounted and the 3,300 pounds of ballast is lead. The first Islander 28s had a 5-foot keel and carried 3,000 pounds of ballast. They were thought to be a bit tender. After adding 300 pounds of lead and increasing the draft by 3 inches, stiffness improved significantly. The rudder post is sleeved in a fiberglass tube that incorporates a zerk fitting for lubrication of the bearing.

There is no fiberglass pan bonded in-place, instead the interiors of the Islander 28s were built in. The bulkheads are marine-grade plywood with teak veneers and are tabbed to the hull. Portions of the hull that are exposed are covered with a padded vinyl liner. Overhead is a zippered vinyl headliner backed with foam insulation. The zippers are strategically located to make it possible to reach throughbolted deck hardware and electrical wiring.

Deck features

A single anchor roller is incorporated in the boat's stemhead fitting. And to accommodate some chain, a reasonable length of nylon rode, and possibly another anchor, there's an adequately sized anchor locker built into the foredeck. With the forward mooring cleats mounted outboard, the foredeck is free of toe-stubbing fittings and feels quite expansive. For a boat of this size, the sidedecks are generous at an average width of 17 inches.

The cabintop features a tinted acrylic forward hatch that is flushmounted, a pair of full-length teak handrails, and a molded-in sea hood. For additional ventilation and light, our review boat was fitted with an optional tinted hatch over the saloon. A total of six portlights are mounted in

There's space in the foredeck anchor locker for a standard-length rode and anchor, at top; the flush-mounted acrylic forward hatch, next photo; the 6-foot 2-inch cockpit seats and standard tiller (although wheel steering was an option), next photo; and the port cockpit locker for docking gear and more, bottom. the cabin trunk. The forward two are small, but able to open; the aft four are significantly larger, but fixed.

Other noteworthy deck features include a handy pair of breast cleats amidships, a substantial full-length slotted toerail, and double-rail bow and stern pulpits with dual lifelines.

The cockpit, at 6 feet 2 inches long, allows off-watch crew to lie down. It lacks, however, a bridge deck with which to keep a flooded footwell from spilling below. The generously large companionway and two relatively small scuppers exacerbate this potential danger. On the plus side, the absence of a bridge deck makes it easier to step below. The compromise solution is to sail with at least the lower weather board in place, positively secured with deadbolts or some other mechanism.

The cockpit coamings are straight and a foot high. They offer reasonable back support and good bracing when the boat is heeled. For stowage, there's a large seat locker on the port side.

Tiller steering was standard, with wheel steering offered as an option. The auxiliary engine's instrument panel is situated low on the inside of the transom and may be subject to water damage.

Belowdecks

The interior of the Islander 28 is really the high point of the boat. Most of the interior is finished in teak and built into the boat, rather than created as fiberglass modules with molded berth flats, galley, and other features that have been dropped into the hull and secured. A built-up wood interior ensures better structural integrity and makes better use of available space. It also makes for a quieter, drier interior. One would think that with all this wood, the main cabin would be

For further reading...

Gregg Nestor's brand-new book, *Twenty Affordable Sailboats to Take You Anywhere*, has just been released by Paradise Cay. It features reviews and comparisons of 20 sturdy



cruising sailboats. Available at <http:// www.goodoldboat.com/bookshelf.html> or by calling 763-420-8923.



The interior is nicely finished in teak-veneer plywood. There are many drawers for storage, and cubbies have cane faces for ventilation, shown above. The galley is small but includes the essentials: sink, icebox and stovetop, below center. Between the opposing settees is a fold-down, fold-out table for dining, bottom photos.

dark and gloomy, but this is not so. The large portlights and the expansive companionway allow in a great deal of light.

The forward cabin has a smallish V-berth that is best left for shorter crewmembers — namely, the kids. There's ample stowage in the drawers and bins beneath the berth and in the port bureau and hanging locker.

With the forward/aft access offset to port, the head (located to starboard) is quite large, especially considering that it's not situated at the boat's maximum beam. This compartment is entirely wood and very attractive, although a bit dark. The sole source of light and air is from a small opening port. The stainless-steel washbasin has a manual cold-water pump. There is no shower, but there's a ton of stowage in several drawers, bins, and cane-fronted lockers.

The saloon features the traditional opposing settee arrangement. However, the port settee has been moved forward about a third of its length in order to accommodate the galley. For dining, there's a unique bulkheadmounted table that slides out, swingsup, and unfolds. When not in use, it's cleverly stowed between the starboard bulkhead and settee. There's fiddled shelving outboard of both settees and there are bins beneath the port settee.



The 20-gallon holding tank and the 20-gallon water tank with fill fitting are mounted beneath the starboard settee. For sleeping, the port settee functions as a single, the starboard converts to a double, and there's a 7-foot-long quarter berth on the starboard side.

The L-shaped galley is aft and to port. Amenities include a two-burner alcohol stove, a single stainless-steel sink with manual cold water, and a top-loading icebox. Stowage in the form of drawers, bins, and cane-fronted lockers is excellent.

The sole is carpeted. Headroom measures a comfortable 6 feet. There are no overhead grabrails in the cabin. There are handholds at the companionway, and taking three steps up puts you in the cockpit.

The rig

The Islander 28 is a masthead sloop that was originally offered with two





rigs. The standard is a tall rig and the optional or San Francisco rig (owing to strong prevailing winds there) is shorter. The idea was to ensure that the boat would perform well in a variety of sailing grounds, especially those with light air. Sail area for the standard rig is 361 square feet; the San Francisco rig measures 326 square feet.

The mast is stepped on deck and features a single set of spreaders. It's supported by a pair of cap shrouds, dual lower shrouds, a headstay, and a split backstay. The shrouds are connected to chainplates mounted inboard and secured to the bulkheads. Beneath the mast step is a two-component compression post, comprised of a massive steel pipe mounted on top of a wooden 4 x 4 beam that rests on the keel.

The mainsail is sheeted at midboom and fastened to a traveler mounted on the cabintop. Islander Yachts offered its customers the option of selecting winches from a variety of manufacturers. One could order any combination of primary, secondary, and halyard winches; one- or twospeed; in aluminum, bronze, chrome, or stainless; self-tailing or not.

Reaching's original owner selected a pair of Merriman #20 primaries, a Barient #10 halyard winch mounted on the cabintop, and a pair of Merriman #16s on the mast.



Under way

The Islander 28 is fast in light air and very responsive. It accelerates quickly and is a lively boat to sail. The boat points high, tracks well, and the helm is normally light and well-balanced. As the wind increases, weather helm develops. At this juncture, the boat will heel excessively if not reefed. Take a tuck in the main at around 15 knots and the boat will sail on its feet and balance nicely.

PHRF ratings for standard-draft

Islander 28s in fleets around the country range from a low of 192 to a high of 210. By comparison, a slightly older Columbia 28 rates around 222, and the heavier Cape Dory 28 (albeit a real cruiser) at 228. The more modern Ranger 28 rates on average about 180.

The standard gasoline engine was the 30-hp Universal Atomic 4. A 13-hp Volvo Penta diesel also was offered as an option, as was a folding propeller. Fuel is drawn from a 20-gallon aluminum tank nestled beneath the cockpit

Looking back at Islander

n the mid-1950s, Joseph Mc-Glasson designed and built a 24foot wooden sailboat that he named the Catalina Islander, after the popular cruising destination for sailors in Southern California. The boat, commonly referred to as the Islander 24, was well received and sales were strong. Like many boat manufacturers of that era, however, McGlasson recognized the need to switch from wood construction to fiberglass.

In 1961, he approached another Costa Mesa boatbuilder, Glas Laminates, to help him make that switch and produce his 24-footer in fiberglass. Using a wooden Islander 24 as a plug, a mold was made that retained the original planking lines. These simulated seams became a signature feature of the new fiberglass Islander 24.

While several boats were successfully manufactured, the relationship between Glas Laminates and the McGlasson Boat Co. was rocky from the start. A less-than-amicable breakup occurred in 1962, with Glas Laminates and McGlasson Boat Co. going their separate ways.

After the breakup, Glas Laminates changed its name to Columbia Yachts and introduced the Columbia 24. It is interesting to note that the Islander 24 and the Columbia 24 appear to be identical, except for the absence of the hull planking lines. The Contender and Challenger also have a remarkable similarity to the Islander 24.

McGlasson Boat Co. also stayed busy after the partnership dissolved. By 1963, Joseph McGlasson had incorporated, and the new company was named Wayfarer Marine. It wasn't until around 1967 that the name Islander Yachts, with the white "swoosh" sail in the black rectangle as its logo, became prominent. Whether Islander Yachts was a subsidiary of Wayfarer Marine or the company's brand name is unclear.

Bought and sold

During the next several years, the company was bought and sold several times with the name Islander Yachts remaining unchanged. In addition to individual owners, there also were a few key corporate owners — Mission Marine, Cosmodyne, Inc., and Radlon, Inc. In spite of numerous ownership changes and economic downturns, Islander Yachts produced a variety of sailboats from designs penned by noted naval architects, including Ted Brewer, Robert Perry, and Alan Gurney.

As a cost-cutting move, Islander Yachts relocated production to Costa Rica in 1984. It didn't help. Two years later, on May 28, 1986, the corporation went into bankruptcy, never to build another Islander sailboat.

Islander Yachts built a lot of boats in its 22-year-life, nearly rivaling Columbia Yachts, also of Costa Mesa. Like Columbia, it offered kits for a time, offering customers bare hulls, decks, and other components at a great savings. Though Islander is no longer in existence, many of its boats, ranging from 21 to 55 feet, can still be found on all coasts and larger lakes of the United States. sole. Our review boat was equipped with the Volvo MD7A and a left-handed screw. When backing up, the boat noticeably walks to starboard. This takes some practice to overcome. Access to the engine for routine maintenance is good.

Things to check out

When looking at Islander 28s, remember that the deck is cored with plywood. Sound the deck, especially around hardware (the stanchions in particular) looking for water intrusion.

The boat has a very shallow bilge. Excess water can easily soak the cabin carpet and damage the lower portions of the wooden cabinetry, settee bases, and bulkheads.

Closely examine the chainplate attachment areas at the main bulkhead. Look for signs of water staining and/or delamination of the plywood. The poor location of the engine's instrument panel (low on the inside of the transom) lends itself to potential damage.

If the boat is equipped with an Atomic 4, don't discount it. The boat is borderline underpowered with the 13hp Volvo. Parts for the heftier Atomic 4 are still available from Moyer Marine.

The large companionway has advantages and disadvantages. While it allows light, air, and the smell of sea air to perk up the cabin, it is a large opening through which water can flow below. Keep the lower weather board secured and consider increasing the size of the cockpit drains.

Conclusion

The Islander 28 is a well thoughtout, well-designed, and strongly built coastal cruiser and club racer. It's a lively boat to sail. When used in the areas they were intended for, the rigs are powerful but you wouldn't want the short rig on the Chesapeake Bay. The boat's interior is its strongest point, with the exception of the over-berthing typical of so many boats. Workmanship is above average and deficiencies are easily addressed. Expect to pay about \$10,000 for an early model and up to \$25,000 for a later version.

Resources

Islander 28 website <http://www.islandersailboats.com>

Remembering Bill Tripp

DURING THE 1960s, WILLIAM H. Tripp Jr. was one of America's most successful yacht designers, drawing custom ocean racers for a distinguished clientele and smaller boats for production builders like Seafarer and Columbia Yachts. His Bermuda 40 for the Henry R. Hinckley Co. is considered by many to be one of the prettiest boats of the fiberglass era.

Sadly, he died suddenly, in a car crash at just 51 years of age. Beyond his inclusion in Bill Robinson's *The Great American Yacht Designers* (1974) and the more recent collection (2005) by Lucia del Sol Knight and Daniel MacNaughton, *The Encyclopedia of Yacht Designers*, not much has been written about Bill Tripp.

I had the privilege of working with him for a number of years and counted him as a friend as well as a colleague. In 1958, while I was working for the yacht brokerage firm of John R. Lyon Inc. in Greenwich, Connecticut, I spotted an ad in Yachting magazine announcing the formation of the design/ brokerage firm of Tripp & Campbell, with offices at 10 Rockefeller Plaza in New York City. I knew Bill Campbell but had never met Bill Tripp. I wrote a letter to Bill Campbell, congratulating him on his new venture. I received an immediate reply from Bill Tripp inviting me to visit their office. In very short order I began commuting to New York City to help Bill Campbell sell new and used boats.

Georjabelle and Touché

I knew Bill Tripp by reputation, of course. The 43-foot yawl he designed for Jasper H. Kane was skippered by my high-school classmate, Rod Oakes. *Georjabelle* was a lovely red-hulled centerboard yawl. But the boat that really got Bill noticed was *Touché*, a radical flush-decked 47-foot sloop designed for Jack Potter of Oyster Bay, Long Island. *Touché* had proven almost un-

His special knack made boats faster than their ratings

by Ted Jones



beatable in her early races on Long Island Sound. Because of his reputation for designing race-winning sailboats, prospective boatowners had begun beating a path to Bill's door. He also was one of the first yacht designers to make use of the then new boatbuilding material called fiberglass.

Early fiberglass designs

Bill's first fiberglass design was the 32foot Galaxy for American Boatbuilding in East Greenwich, Rhode Island. But before the Galaxy could be built, a group of offshore sailors approached him to design a 40-foot fiberglass centerboard yawl, to be built by American Yacht designer Bill Tripp — 1920-1971 — is perhaps best remembered by *Good Old Boat* readers for the several boats he did for Columbia Yachts during the 1960s, but he also designed numerous successful ocean racers.

Boatbuilding and known as the Block Island 40.

Of that first batch of BI 40s, I remember Swamp Yankee (#1), built for Van Allen Clark; Seal (#2), for Frederick J. Lorenzen; and Rhubarb (#3 or #4), for Ben DuPont. There were others, as well: Scylla for Sailmaker Charlie Ulmer; Reindeer (sloop rigged) for E. Newbold Smith; and Wahini for Pat O'Gorman. All did extremely well in the 1958 racing season and several entered the Bermuda Race of that year. Seal became infamous for taking a hunk out of the concrete dock at Pearlman & Watlington's in Bermuda without so much as a scratch to her (or so



The 32-foot Vineland sloop, left, was built in Norway and imported to the United States by Tripp & Campbell, but being built of wood, interest never amounted to much as the boat-buying public was turning to the maintenance-free promise of fiberglass. The 47-foot *Touché*, center, designed for Jack Potter, enjoyed an enviable race record on Long Island Sound, garnering attention for Bill Tripp's fast boats. Bill's legacy may well be as master of the centerboard yawl drawn for competition in the CCA rule. His first was *Georjabelle*, right, a 43-footer for Jasper Kane.

the legend goes). I often sailed aboard *Seal* with Fred and Dottie Lorenzen after the 1958 Bermuda Race.

Since fiberglass was a new and untried material, Bill Tripp specified a hull layup fit for a Sherman tank. The first BI 40s were reported to have 2-inch thick fiberglass in parts of the hull. The cost of production and other factors put American Boatbuilding out of business, but not before they returned to the original 32-footer to build several Tripp Galaxys.

The Galaxy was unusual for its time with a flush deck except for a "gun turret" rounded doghouse, wide beam, and wide plumb transom that "just didn't look right" to most traditionalists. It also had a fin keel and spade rudder. I believe she was the first of this configuration — in contemporary boats — predating Bill Lapworth's wonderful Cal 40 by several years. In the right hands, the Galaxy sailed very well.

Tripp & Campbell

When I moved to the seventh floor of 10 Rockefeller Plaza, we had two rooms at a snazzy address but a somewhat lessthan-snazzy office. Bill Campbell and I occupied the smaller room. The larger room with the design and correspondence files was occupied by Bill Tripp, Walter Bleumhardt (his design assistant), and Mary Ryan, our secretary.

On the boards when I joined the firm was Sumner A. (Huey) Long's custom aluminum 57-foot *Ondine*, under construction at Jacobsen's Shipyard, Oyster Bay, Long Island; the production fiberglass Tripp 30, being built in Holland for Seafarer Yachts; and a 40-foot fiberglass yawl designed for a group of eight from Port Washington's Knickerbocker Yacht Club, to be built by the Henry R. Hinckley & Company in Maine. We were also about to take delivery of the first of three 32-foot wooden boats built in Norway. In honor of their heritage, we named these the Vineland class.

The Vineland was beamy and light, and the four-bunk/enclosed head/ galley aft cabin arrangement was a bit cramped. Prospective buyers complained about the lack of room in the head, on one occasion causing Bill, a tall, muscular man, to demonstrate that it was big enough by entering the head and closing the door. "But could you get your pants down?" the prospect wanted to know.

Ondine

Bill was often asked to sail aboard his designs. He was an excellent helmsman and sail trimmer, and his presence always seemed to make the boat sail faster.

Ondine was launched in the spring of 1959. Bill had made frequent inspection trips and had dealt with a few problems, one of which was the significant expansion and contraction of the aluminum plates as they were welded into the hull, the boat getting alternately longer and shorter in the process, although apparently things ended up where intended.

She was an immediate success and was campaigned in prestigious ocean races all over the world. Her professional captain was Sven Joffs, who seemed to prefer being at sea to being on land. In the first couple of seasons, Sven and a young crew sailed *Ondine* 30,000 miles as she went from the Bermuda Race to the SORC to the Sydney-Hobart Race in Australia and back.

Bill and I sailed the last part of one SORC race aboard *Ondine* with an allstar crew: Bobby Symonette, from Nassau; Dick Bertram of Bertram Yachts fame; English ocean-racer owner Dennis Miller; and Carter Sales from Detroit, along with professionals Joffs and Dick Grosmiller.

In those days, the Lipton Cup Race was a triangular course from the Miami sea buoy to a vessel trying to maintain station by steaming southward into the Gulf Stream. These were pre-GPS days, and many racers were sure the mark boat would speed up just before they got to it, putting them at a disadvantage. From the middle of the Gulf Stream the course headed back toward the shoreline to a sea buoy off Baker's Haulover between Miami and Fort Lauderdale, and finally back to the Miami sea buoy.

Tight reach

The first leg this day was a very tight port-tack reach. We were in the lead soon after the start, and Huey ordered the spinnaker set. Bill argued that it would overpower the boat and that we should stay

I think the Javelin is Bill Tripp's best design of that period. It is certainly a very attractive boat and a fast sailer with a very good CCA rating.

in the basement handled our printing needs. Messenger service

with the genoa. Huey was the owner, so we attempted to set the chute. It went up almost to the top of the masthead and then filled prematurely. Ondine heeled sharply, and Bobby Symonette, who was hauling on the halyard, was thrown to leeward and the halyard promptly peeled off the winch. Wisely, Bobby let go. The spinnaker streamed out to leeward until the bitter end of the halvard stopped in the deck block, then fell into the water to leeward. Ondine went from 10 knots to 2 as the spinnaker billowed out in the water, tethered by the halyard at the masthead and sheet and guy from the deck.

The halyard was cut at the deck, but no amount of hauling would bring the sail aboard. Meanwhile, we were caught and passed by our nearest competitors. This was too much for Huey so he ordered the sheet cut to cast the sail loose (it was later picked up by a spectator boat).

"Set another one!" Huey ordered. Again Bill objected, but again the owner prevailed.

This one went up and drew well; we

were able to hold off those behind and were no longer losing ground on our rivals ahead.

About 2 miles from the turning mark, this spinnaker split from luff to luff with a loud bang, and we scrambled to get its remnants on deck.

"Set another one!" Huey demanded. This time Bill prevailed. "Huey, we only have one spinnaker left and only a couple of miles to the mark. We'll need the last chute for the run to the finish."

We rounded the mark second, sailed by the lead boat on the close fetch to Baker's Haulover, rounded that, and set the last spinnaker we had aboard to roll down to the finish. *Ondine* was first to finish and first on corrected time in class and fleet. The next day a marvelous aerial photo appeared in the *Miami Herald* showing *Ondine* towing her spinnaker through the Gulf Stream.

Javelin

When pressed to meet a builder's deadline, Bill would work undisturbed at home. There were distractions in the office at "10 Rock," but there were advantages also. A printing company

was summoned by a phone call. Bill's full-size drawings were returned with copies within an hour.

The Seafarer 38 Javelin was one for which Bill had difficulty meeting plans deadlines. He had a lot of design work — production boats for Seafarer, Hinckley, Pearson, and others — and custom racing cruisers for individual clients. I think the Javelin is Bill Tripp's best design of that period. It is certainly a very attractive boat and a fast sailer with a very good CCA rating.

The first one to be delivered was Soufflé for Talbott and Polly Baker, to be raced by the Baker sons, Nick and Toby. I sailed aboard Soufflé with the sons in the season's first race on Long Island Sound — the Edlu Trophy Race from Larchmont around Six Mile Reef buoy and return. Everything was new and unfamiliar, but Nick managed a good downwind start and we set the spinnaker for the long run to Six Mile Reef. We were flying. However, when we rounded the buoy for the return leg on the wind, Soufflé laid over on her side and couldn't carry a reasonable amount of sail. Something was

The Columbia 57, left, was the largest boat Bill Tripp designed for Columbia Yachts. *Concerto* took first place in class in the 1969 Transpac Yacht Race. Predecessor to the lovely Hinckley Bermuda 40 was the Block Island 40, both centerboard yawls with long overhangs that immersed and added to sailing length as the boat heeled. *Seal*, center, was hull #2 and sailed in the 1958 Bermuda Race shortly after launching. Bill designed several boats for Sumner (Huey) Long, each called *Ondine*. The first was an aluminum 57-footer, right.









Brian Acworth's Seafarer Yachts of Huntington, Long Island, New York, built several Bill Tripp designs as production models, including the Tripp 30, left. The first Seafarer 38 Javelin, center, proved to be tender. Subsequent hulls had 900 pounds of ballast added in the sump. The 38-foot Invicta, *Burgoo*, right, built by Pearson Yachts, won the 1968 Bermuda Race. The flush deck and gun-turret doghouse were and remain unusual features.

clearly wrong. We made the best of a bad situation by close reaching to the Connecticut shore to smooth water and then close reached in its lee on one tack back to Larchmont. Considering our difficulties, we had a respectable finish somewhere near the top four of our class.

More ballast

After considerable Monday morning head scratching back at the office and lots of work with slide rules, Bill suggested adding 900 pounds of lead in the sump behind the keel. He asked Bob Derecktor to install it before the Block Island Race the following weekend.

The following week we heard from Polly Baker that they were giving the boat back. She didn't want her sons sailing what she considered to be an unsafe boat. There was also an allegation that the hull was too thin, so Bill asked me to cut 4-inch square samples from each side of the hull just above the waterline. He sent these to Underwriter's Laboratory for analysis. The returned samples, in which the resin had been burned off, showed the laminate schedule was exactly as specified and that the resinto-glass ratio was ideal - better than most contemporary U.S. builders were achieving.

I had the feeling that Nick and Toby wanted to keep the boat, but Polly would not have it. Bill Campbell insisted that they couldn't simply "give it back" but agreed to fix it at company expense and then sell it without charging a commission. *Soufflé* was eventually purchased by industrial designer Walter Dorwin Teague, who cruised and raced her happily for many years. She was ultimately driven ashore at Jamestown, Rhode Island, in a storm and was wrecked beyond repair.

The reason for the light ballast was never determined, the builder insisting he had followed the designer's specifications. It had to be a miscalculation of volume by Bill Tripp, an error in making the pattern by the builder, or their use of an alloy with a lower specific gravity than lead. Whatever the reason, all Javelins subsequent to *Soufflé* had 900 pounds or more added to the sump tank aft of the external ballast keel.

Invicta

The Invicta was an unusual 37-foot yawl Bill designed for Pearson Yachts. The Invicta was a departure from other Tripp centerboarders in several ways, being flush-decked with a turret doghouse and a wide keel box below the cabin sole into which the engine was fitted entirely below the sole. The keel was relatively deeper than other Tripp centerboarders, the Invicta drawing 5 feet with the board up as opposed to the Block Island or Bermuda 40's draft of 4 feet board up. Not many Invictas were built, but one became famous for winning the Bermuda Race in 1968. Burgoo was the smallest yacht - at 25 feet waterline length - ever to win and the last to do so. Subsequently, the rule was changed to increase the minimum size so Burgoo could

never compete again.

I always liked the Invicta in its original configuration, which was way ahead of its time. All of its unusual features make it a very capable cruising boat in an economical size. Headroom under the doghouse and on top of the engine is close to 7 feet, which gives the main saloon a very open feeling. I expect later owners have found ways to install a small diesel where the Atomic 4 once lived without having to raise the cabin sole enough to compromise headroom.

Medalist

Before joining Tripp & Campbell, I had sold Dick Sheehan an Ohlson 35. Dick subsequently became president of U.S. Yachts, a subsidiary of O'Day, and became the Ohlson distributor. He expressed an interest in a fiberglass boat of 33 feet to add to the line and wanted to discuss his ideas with Bill. Dick was adamant that he didn't want a boat like the Vineland, which he disliked. But that's exactly what he got. Bill trusted the basic design of the Vineland and gave the new boat the same underwater shape but with raised freeboard and a flush deck with the "standard" Tripp turret doghouse.

Dick liked the boat (he never knew it was a "warmed over" Vineland), but he insisted that Bill redesign the doghouse. Several tries at making it longer and more streamlined weren't satisfactory. The final version had a pleasing line but didn't look right where it met the deck. Forward of the doghouse, up

Bill Tripp's design drawings

Fond memories of the days before computers

These days, yacht design is carried out on computers. Pencil or pen rarely touch paper. But in the 1960s, when Bill Tripp was designing custom ocean racers and production fiberglass auxiliaries, it was all done on paper, and the calculations were all done with a slide rule. Hewlett-Packard's multifunction calculator was still on the drawing board.

Bill Tripp designed in pencil on large sheets of drafting paper pulled off a roll. The size and scale of the drawing depended upon the size of the boat being drawn, limited in height by the depth of the drawing board. Lines plans were laboriously drawn in pencil as well, but on Mylar vellum to preserve the accuracy of the drawing. Paper is subject to expansion and contraction due to changes in temperature and humidity. Lines were particularly tricky as the sections (body plan), buttocks (profile plan), and waterlines had to agree with the intersections on all drawings.

From the final lines, the designer would produce a table of offsets that described each intersection of sections, buttocks, and waterlines expressed in numbers entered into the table in feet, inches, and eighths of an inch (for example, 3 feet, 11⁵/₈ inches would be expressed 3-11-5).

When the builder laid down the lines on the mold loft floor, he would follow the table of offsets, marking each section on the floor, then recreate the lines plan full size using flexible battens to connect the dots. Invariably, small corrections would have to be made, due to scaling from a small drawing to full-size. These corrections would be made using a fair batten. When the builder was finished, he would often have the designer check the lofting

to be sure it was as intended. Lofting is still done this way, except that the table of offsets is computer-generated and pre-faired. Some computers produce full-sized sections on Mylar film, obviating the need for lofting altogether.

Metal plate

Changes in a lines plan were made with an eraser and eraser shield, a very thin metal plate with holes of varying sizes and shapes. Bill's finished lines plans (and I'm sure other designer's as well) were covered with light spots and smudges from erasing and correcting the hull shape. It was, clearly, a long and laborious process that wasn't really finished until the boat was laid out on the mold loft floor.

Bill Tripp's lines plans were sacrosanct. Only those who absolutely had to use them got to see them. They were never published.

Once the basic shape of the hull was finalized, the accommodations, machinery, electrics, and plumbing could be fit into the space. Each of these elements required separate, often intricate, drawings. Most designers, Bill Tripp included,



had stock drawings for hatches and fittings so these didn't have to be re-drawn for each boat.

All of the plans were drawn in pencil for ease of correction, although designers usually produced sail plans, accommodations inboard profile, and plan views in ink. This was strictly for show, for brochures, and publication. Ink drawings were tedious to produce, each one taking several days. Is there any wonder that Bill Tripp had a strict rule forbidding coffee cups and soda cans from getting anywhere near the drafting table?

Bill's ink drawings were masterpieces of neatness and detail. Everything was labeled by hand, resulting in very distinctive work. To this day, I can recognize Bill's hand in the few drawings that surface from time to time.

> The drawings one sees in magazine design sections and brochures were made by having the large ink drawings photographed and then printed in a greatly reduced size — typically an 8-inch by 10-inch sheet of glossy photographic printing paper.

Art fight

As design editor of *Popular Boating* magazine, I had many a fight with our art director, who wanted to fatten up lines that were dropping

out because of the reduction in size. I argued (successfully) that the designer would rather have the backstays drop out than have them re-drawn by some art director who didn't know a backstay from an Allen wrench. All designers, Bill Tripp especially, get very testy when someone alters their drawings, which are, after all, their artwork.

All of the calculations required of a sailboat design, such as displacement, center of buoyancy, righting moments, and all the ratios — sail area/displacement, displacement/length, prismatic coefficient, to list a few — had to be calculated by slide rule. Today, the computer does it all and corrects everything automatically when one factor is changed. The computer is a fantastic yacht-design tool, and no designer in his right mind would want to revert to the way Bill Tripp and others of his generation had to design sailboats. But computers are impersonal machines, and their output lacks the personal touch of pen to paper that are apparent in Bill Tripp's beautiful design drawings.





The T/L 29, which stood for Tripp/ Lentsch, was not a rewarmed Tripp 30.

by the mast, Bill had drawn port and starboard Dorade boxes. I suggested to Bill that he connect the aft end of the Dorade box with the forward end of the doghouse. We made the extension a deck box for winch handles. It saved the day and U.S. Yachts commissioned Dolf LeComte to build Medalists in Holland.

Tripp 30 and Polaris 26

Seafarer Yachts built the Tripp 30, the first of the Seafarer Tripp designs. It was a very popular boat with classic good looks. It was designed for the light winds of Long Island Sound. We raced Tripp 30 #2, owned by Seafarer's Brian Acworth, several times with success. I sailed the Vineyard Lightship Race with Bill as skipper and

with Harry Molitor and Breck Marshall, who later went on to build the Marshall Catboats. It was a rough race for a little boat, but we

beat all the other Tripp 30s.

Today, there are several Tripp 30s being maintained and restored by loving owners. Laura Watt, of Oakland, California, has a website, <http://users. California.com/~lawatt/other/mouette. html>, through which she keeps in touch with other Tripp 30 owners. No one can convince Laura that there is a better boat than her *Mouette*, (#15), which she lovingly maintains and sails on San Francisco Bay.

The Polaris was the third Tripp design for Seafarer. It was a nice 26foot centerboarder with a trunk cabin that had a slight break into a small doghouse and good-looking varnished mahogany trim to separate the cabin sides from the deck, much like its sister Seafarer boats, the Tripp 30 and the 38-foot Javelin.

T/L 29 and Northeast 38

The "T" and "L" in the T/L 29 was for Tripp and Lentsch. In working with Holland's Gerard de Vries Lentsch on the Seafarer Tripp 30, designer and builder developed a rapport that led to collaboration on a new 30-footer. It was not another Tripp 30, as many have thought, but a totally new design with better all-around performance.

The Northeast 38 came about through the association with the builder selected for the Medalist, Dolf LeComte, who also built boats in Holland. The NE 38 was to the Javelin what the T/L 29 was to the Tripp 30: the same size and general configuration, but a totally different boat and, I think, a better one.

Bermuda 40 and Mercer 44

I've saved these two fiberglass Tripp designs for last because they have the greatest longevity of any of Bill's designs. Both are available today from their builders, the Bermuda 40 by The Hinckley Company, and the Mercer 44 by Cape Cod Shipbuilding. These boats are no longer in regular production, but they can be ordered on a semi-custom basis.

I think it is fair to say that the Bermuda 40 was responsible for the high esteem in which Hinckley yachts are held to this day.

The Bermuda 40 has a cult mystique about it. Its legendary cruising virtues defy logic. Used Bermuda 40s command a very high resale value, as much as five times their original cost. I think it is fair to say that the Bermuda 40 was responsible for the high esteem in which Hinckley yachts are held to this day.

I raced aboard George Moffett's *Guinevere* in the 1962 SORC and aboard Humphrey Simson's *Kittiwake* on many Long Island Sound races. We always finished well, but the Bermuda 40 is a CCA Rule design of the 1960s and does not fare well under later rating rules.

Still, with her quality construction, comfortable arrangement, and shoal draft of only 4 feet with the centerboard up, the Bermuda 40 has to be



A number of early fiberglass boats were built in Europe for U.S. distributors, including the 33-foot Medalist.

one of the all-time favorite cruising auxiliaries.

The Mercer 44 was so-named as she was built in Trenton, New Jersey — Mercer County — by Mercer Reinforced Plastics. This design is a flushdecked version of *Georjabelle*, gaining the additional foot of overall length through the higher freeboard. She has a well-proportioned doghouse on the otherwise flush deck.

Despite my lack of experience sailing on this design, I think it is Bill's best. I have known several of her owners, and all had high praise for the design. The additional 4 feet versus the Bermuda 40, plus the flush deck, gives the main cabin enhanced spaciousness and opens up the otherwise traditional

> layout. It has a head in which even Bill Tripp would have no difficulty disrobing and huge hanging lockers opposite. Mercer 44s do not appear on the used boat

market very often because their owners love them.

The tooling was acquired by Cape Cod Shipbuilding after 1962 when Mercer had built six boats. Since then, Cape Cod has built eight more, including *Synia* in 1978 for Charles Struthers who cruised aboard her to Antarctica.

Home to Port Washington

After two years in the cramped quarters on the seventh floor at 10 Rockefeller Plaza, Bill Campbell leased new and larger space on the fifth floor. It had a large drafting room for Bill and his assistant, Alan Gurney, who had replaced Walter Bleumhardt. There were also three private offices and a reception area.

Bill Tripp was never really happy with his partnership with Bill Camp-

bell. He dissolved the partnership and set up his own design firm out of his home

The best of these is the Columbia 50, Bill's first attempt to fit a fin keel/spade rudder combination on a conventional hull.

derisive comments among traditionalists, but I don't hear anyone laughing about the shape

in Port Washington. Alan Gurney and I stayed in New York with Bill Campbell, who took on Dick Sheehan as a partner, and we became Campbell/ Sheehan. I left when Dick decided I was selling too many Ohlson 35s, leaving him little else to sell. We parted friends, however, and Dick arranged for an interview with Bob Carrick, editor of *Popular Boating* magazine, and I switched careers in 1962.

Bill Tripp, meanwhile, joined forces with George Post, who was very successful selling Tripp designs and brokerage boats. Bill finished the T/L 29 in Port Washington, and went on to design a new and larger 65-foot *Ondine* for Huey Long, and a near sistership, *Blackfin*, for a West Coast owner. A third, slightly larger sistership for James Mullins was under construction when the IOR was born and it proved to be outside the maximum size limits. She was built anyway but never raced.

First attempt

Bill continued to design production fiberglass auxiliaries, notably for Columbia Yachts. The best of these is the Columbia 50, Bill's first attempt to fit a fin keel/spade rudder combination on a conventional hull. Being built on the West Coast, the Columbia was most popular there.

Bill designed a pair of 43-footers for Columbia Yachts and their counterpart, Coronado Yachts, and also a 26-footer. These are like no Tripp designs before and, as with so many of his original designs, they took some getting used to.

I last saw Bill Tripp on the St. Francis Yacht Club's Stag Cruise in 1971. This cruise was billed as an introduction to the International Offshore Rule (the now infamous IOR). This was the first time I'd seen Bill since he left the Tripp & Campbell partnership.

A few months later came the shocking news that Bill had been killed by a drunk driver who lost control of his car on the Connecticut Turnpike, hurtled the divider, and smashed into Bill's Jaguar. The drunk survived; Bill Tripp did not.

Epilogue

Bill's heritage remains as champion of the CCA Rule, with a special knack of making slow-appearing boats sail faster than their ratings. Perhaps he was fortunate, after all, to remain apart from the disaster that the IOR became.

Thinking back, I can see many innovations Bill's fertile imagination introduced. While he did not create the wide beam, shallow draft centerboarder (that credit goes to Olin Stephens with *Finisterre*), he surely refined the type to the extent that he became associated with centerboard racing/cruising boats.

The wide transom, low counter design of his boats' sterns were quite new in the late 1950s, causing many of the Bermuda 40's stern anymore.

Bill was the first to put portlights in the topsides (*Touché* and *Ondine*) as well as opening ports in cockpit sides to improve air circulation and communication below (*Touché* again). He popularized flush decks on small boats (Galaxy, Medalist, Invicta, Mercer 44), and set high standards in hull and rigging scantlings that have been proven over time. He designed boats to stay together under the most difficult circumstances. I cannot recall one of his designs ever being dismasted or suffering structural damage at sea.

Bill's son, Billy, was too young at the time of his father's death to be able to understand what it was that made his father's boat designs special, yet he has now exceeded his father in this specialized field.

Young Bill has become one of the world's leading yacht designers, with success and prestige his father could not have imagined. So the name Bill Tripp has a new meaning and commands new respect a half-century after William H. Tripp Jr. (the father) became prominent in the world of off-shore racing sailboats.

Other Bill Tripp designs included the Hinckley 48, left, and the US 41, center. The NE 38, right, shared many characteristics with the earlier Seafarer 38 Javelin.







HE SAILOR OF YORE HAD A complete repertoire of knots, plain and fancy. The fact that some knots were beautiful or decorative was secondary to their usefulness. One sign announcing to visitors that they were on a sailing ship, or for that matter in the home of a sailor, was the presence of a rope mat. For hundreds of years, rope mats were standard equipment on sailing vessels and well-kept yachts. They were primarily used as chafing gear and to provide skidproof footing at the helm, the companionway threshold, and the gangway. Many of these mats were quite decorative. All were fashioned by able-bodied seamen. However, in recent times this art has been neglected by boaters and is rarely seen.

Fear not. With a little effort, the modern sailor can again benefit from the functionality and beauty of the rope mat. Here are three mats that can be fashioned easily and will add functionality and a bit of nautical flair to your boat and home.

Flemish Coil

The simplest and most basic rope mat is called the Flemish Coil. It can be fashioned in a round or oval configuration. This mat is nothing more than a rope that has been coiled carefully with the turns lying close, flat, and smoothly next to one another. Once the Flemish Coil has been laid to the desired size, the turns of the coil are stitched together. A simple overhand stitch works well. Use a single length of heavy polyester or nylon thread and a large sail needle. If the stitches are placed beneath the surface between the coils, the mat can be used either side up. While it's possible to sew the turns together as the rope is being coiled, this is not advisable. If done in this way, the end result is usually a lumpy mat that will not lie flat. Coil first and then stitch.

The Flemish Coil is the easiest mat to fashion; it is also the plainest of the rope mats. One way to dress it up is by using col-

Good nautical stuff to wipe your feet on

by Gregg Nestor

ored line. Another way is to start with a decorative flat knot in the center and finish up with the Flemish Coil.

Ocean Plat

While it may look involved, the Ocean Plat decorative knot can be fabricated easily in about a half-hour's time.

Since the weave of the Ocean Plat crosses over and under itself, the knot thickness is doubled. Therefore, when incorporating the Ocean Plat within the Flemish Coil, it is best to use rope that is one diameter size smaller than that used for the Flemish Coil. Approximately 35 feet of %-inch rope makes for a striking triple-passed Ocean Plat decorative knot. A ½-inch rope is coiled around this to achieve the desired mat size. The knot will hold together without sewing; however, it must be stitched to the coil where it touches the coil. Also, the coil itself needs to be stitched together as described previously.

To begin the Ocean Plat, start with a bight approximately 12 feet from one end of the rope. Arrange the rope loosely as shown on the facing page, top. This leaves one long end and one short end. Weave the long end to the

location from where the short end emerges. Continue to weave the long end through the knot, making two complete circuits. This will result in a triple-pass Ocean Plat decorative knot. At this point, it should look like the finished knot...however, it may be loose and even a bit lopsided. Finish the knot by starting with a bight anywhere in the knot and begin to take out the slack. Work in both directions until it lies close together and the knot is symmetrical. Once this is achieved, the ends should be whipped and stitched to the knot's underside. To complete the mat, add the Flemish Coil as previously described. The completed knot will flatten out with use. Pounding it with a wooden mallet will accelerate the flattening process.

Ladder-Step

The last of the rope mats is the Ladder-Step mat. It is sometimes referred to as the Sailor's True Lover Mat Weave. It is fashioned much in the same way as the Ocean Plat. Approximately 25 feet of 5/16-inch

rope can easily be transformed into a four-pass Ladder-Step mat. If you want to improve the mat's water-absorbing capabilities, use cotton rope such

No matter how you coil it, the Flemish Coil, above, is the easiest to make and the plainest of the rope mats. It's created by coiling a rope and stitching the coils together. The finished Ocean Plat, at left, forms the center of a Flemish Coil mat.



The Ocean Plat fancy knot is tricky to start. But once you're sure of which part of the line goes over another and which part goes under another during the setup (1, 2, and 3), you simply follow the pattern around, weaving over and under for two more full rounds (4, 5, and 6), winding up with a loosely woven mat (7). Finishing requires patience as you work out the slack, pulling one bight through at a time until you're satisfied with the symmetry of your mat (8).



as good-quality clothesline. Begin by laying the rope up as is illustrated in the picture series below. Pass one end of the rope in a complete over-and-under circuit around the knot.

Throughout this process, remember to keep the knot loose. Repeat the weaving for a total of three more passes, four in all. Whatever end of the rope you're using, always lay the next pass against the same side of the previous rope. Avoid crossing over. Snug up the knot by removing the slack as was done with the Ocean Plat. Keep the knot symmetrical during this process. The ends should be whipped and stitched to the knot's underside, where they are hidden.

With a little patience and practice, a complete set of these mats should take about two hours, from start to finish. Once done, place one of the mats in the cockpit beneath the helmsman's feet, another at the companionway threshold to prevent sand from going below, and the third at the foot of the companionway ladder to absorb the water from your dripping foul weather gear.

On second thought, maybe three's not enough. What about the main saloon, just outside of the head, and at the foot of the V-berth...?



Seasickness prevention

T NEVER FAILS. EVERY TIME WE GET into a discussion with a new or would-be cruising sailor, there comes a moment when a concerned look crosses his or her face and the question is blurted out, "Do you ever get seasick?"

I don't think any aspect of sailing causes more worry. Certainly nothing is more demoralizing than being seasick. I know; I'm one of the sufferers. There we were, finally on our way after three-and-a-half years of scheming, planning, and building. I'd sailed lots of times before, but when we set off from San Diego into a confused cross sea, I was so sick that I finally ended up lying on the cabin sole praying for land.

"All my dreams ruined," I said to myself. And even more morbid thoughts rushed through my head. Larry tried joking with me, holding me, teasing me, but nothing helped. To my amazement, on the second day out my seasickness began to fade away. By the end of the day, I was more than making up for my lack of interest in food. After three days, I had forgotten that I ever was seasick.

I still get uncomfortable occasionally, and every time it happens I am just as unhappy as the first time, but I have learned to minimize the problem. I don't include Larry in the problem because he is one of the outrageously fortunate 10 percent who don't know what seasickness is. Put him in a boat with bilges full of diesel, odiferous food on the counter, and a vicious sea running and he'll ask where the butter and jam are so he can make a sandwich. But about 90 percent of all people who go to sea do suffer at one time or another. So an active program of prevention is worth considering.

Tips from a world-cruising fellow sufferer by Lin Pardey

Psychological problem

I'm convinced that 30 to 50 percent of the problem is psychological, and other long-time sailors have supported me in this belief. Curiously, I never get seasick when we are working to deliver other boats, only when Larry and I are sailing alone on our own boat. When I am being paid to cook on a delivery I've got important responsibilities and don't want to let the crew down, so I guess I'm busier or trying harder.

On board *Taleisin*, I know Larry will take care of any problems, and he handles the boat easily by himself with the aid of our self-steering gear, so I can relax and it doesn't matter.

Peter Phillips, who owns 50-foot *Voy-ager*, reports the same thing. When he is captain and has a crew on his own boat, he's never seasick. But daysailing as a guest on friends' boats is a different matter. I'm not in any way saying that our seasickness is any less real for being psychological. But by accepting the fact that sometimes it is caused by mental processes, we can more actively fight it.

Drug companies are forever coming up with new pills to fight the problem. Unfortunately, they often forget to put the most important instructions on the package. To work at all, any anti-motion-sickness pill must be taken one hour before the motion starts. Once you are leaving the marina, it's too late. It takes one hour for some pills to dissolve and spread through your body. If you vomit before then, you lose the medicine.

After 40 years of voyaging, I still have to deal with a day or two of seasickness every time we set off into a fresh wind with sloppy sea conditions. Even when I have been at sea awhile with gentle weather, I have encountered bouts of head-in-the bucketseasickness when the weather turned stormy. I have tried drinking ginger beer, using a wristband, and taking a mild tranquilizer. (Although other sailors found tranquilizers to be a solution, they only worked for me in some situations.)

Children's tablet

After much experimentation I now use Stugeron, a children's motion-sickness tablet which has cinnarizine as an active ingredient. (Note: Stugeron does not appear to be available in the U.S.-Ed.) I take a child's dose one hour before leaving port with good results and very little of the feeling of lethargy associated with other remedies. Surprisingly, I have found this medication tends to work even when I am already feeling a bit off, as long as I take the tablet with a dry biscuit or two and a small glass of fruit juice, then lie down for an hour. This is especially helpful when a voyage starts out calmly and deteriorates after a few days.

Wristbands supplied by acupuncturists have been very successful for several friends, and so has "the patch" (transdermal Scopolamine 1.5 mg., available by prescription). But if you are allergic to the adhesive used on most bandages, as I am, you will have a skin reaction at the site of the patch. Some people have tried reducing the dosage from the patch by cutting it in half. This is definitely not recommended, as most people will get a rash where the cut edge of the medicationdispensing gauze touches the skin. Furthermore, the slow-release action of the patch will no longer function correctly.

Only a few fortunate souls are as immune to seasickness as is Larry Pardey, on facing page. Lin envied his ability to spend almost two hours restitching the head of their mainsail as they roared down 20-foot swells before 30-knot trade winds between Chile and the Marquesas. Lin's stomach could not handle the heavy-weather windward work off the coast of Australia, at right, but once they lay hove to, photo on Page 24, she felt good enough again to eat a welcome warm meal.

After 40 years of voyaging, I still have to deal with a day or two of seasickness every time we set off into a fresh wind with sloppy sea conditions.

Whatever medication you choose, consider the potential side effects carefully, especially if you plan to use the medication for more than a day or two. Some people, who depended on a patch for the whole length of a voyage, found they had hallucinations after a few weeks at sea. Even after removing the patch, this continued for a few days.

Dosage is another problem often overlooked with seasickness remedies. Over-dosage causes sleepiness and dry mouth and can impede urination. It tends to occur more often in women than in men because the average weight of adults used to determine medicinal dosage is 140 pounds. If you weigh 110 pounds or less, you should probably be taking a young person's dosage.

If you find a medication that works for you, take at least a year's supply along if you're heading out on a long cruise. It is often difficult to find an exact duplicate in the countries you'll visit. Furthermore, a medication that is available over the counter in one country might require a local doctor's prescription in another.

Other measures

Whether you want to use anti-motion-sickness pills, tranquilizers, or go without, there are other measures you can take to minimize seasickness. First, keep your boat very clean. Eliminate

any odors you can. It's the odors that do the final trick. A person can be fine until he opens the ice chest and gets a whiff of blue cheese or sour milk. In fact, people get seasick less easily on a boat with no engine. There are fewer engine-related odors to become accustomed to in a non-auxiliary vessel. If you have an engine, don't overfill the tanks, be sure to check for leaks, and wipe excess oil off the engine.

Ventilate the boat well and remember that odors you live with day in and day out may not upset you, but they may do the trick for a guest. Don't allow anyone to smoke if you or one of your guests is prone to seasickness. If you are embarrassed to ask your friends to snub out their cigarettes, put up a sign, "Smoking allowed on deck forward of the mast."

Second, if you or your guests have a tendency to get queasy, try living on board at anchor for a few days before you head to sea. The slight motion afloat seems to help you get acclimated. People who live on board constantly suffer less when they head to sea.

Third, rest well before you set off. I know now that my first real bout of seasickness was brought on by too many farewell parties and an excitement-induced sleepless night before





our departure. At sea, get all the rest you can. Your body can cope with weather changes better, and mentally you'll be less annoyed if some queasiness does occur.

Fourth, if you happen to be in charge of cooking, prepare enough meals for two or three days before you leave port or, if you are on a long passage, when it is calm. I usually make up a pot of stew or spaghetti and sauce or a really thick soup in an eight-quart pot. I mix sandwich fillings and bake fresh bread before each long passage. Then, once we set off I don't have to put up with the unsettling smells of cooking if it's rough. And if I do get seasick, I don't have to worry; Larry can turn a fire on under the pot of soup or stew and scoop a bowlful for himself. If you have prepared several meals beforehand and you don't get seasick, you end up with a bit of extra free time at sea to sunbathe or to read a good book.

Pronounced motion

Fifth, once you are under way in a rough sea, avoid going into either the forepeak or the engine room. The motion is more pronounced in these parts of the boat. Also, if possible, avoid using an enclosed toilet. Head areas are rarely ventilated well enough, and the odors multiply when you are in a seaway. Try a bucket if it's really rough. Sixth, keep warm and active and stay out in the fresh air. Because seasickness is partially psychological in many cases, if you put on your foulweather gear, get out on deck, and join in the sailing of the boat, you won't have as much time to think about the motion. Very few people who sail dinghies get seasick; they are just too busy sailing.

Seventh, if you have a tendency toward seasickness, avoid hot, spicy food. Choose easily digested items such as bread, oatmeal, apple juice, and saltines, rather than citrus fruits, lasagna, and bacon.

Eighth, on very hot, still days, try to keep cool. It's amazing how many people become upset on glassy, calm days when the sails are slatting. Find some shade, pour sea water over yourself, or drink a cool glass of juice to prevent sickness.

Ninth, if you do become ill, try drinking some sweet fruit juice such as well-chilled apricot or peach nectar. This seems to settle well and provides almost all of the nutrition necessary to keep you from becoming weak or dehydrated.

Tenth, in really bad conditions, try changing the motion of the boat by easing the sheets a bit and reaching, running, or even heaving-to. We know one tough-looking six-footer who becomes as weak as a baby as soon as the sheets are hauled in hard. He lies in his bunk until the sheets are eased. Then he makes up for lost time and missed meals. He just can't take the motion of being hard on the wind in anything more than 12 knots or so. But he loves sailing and traveling so much that he's willing to put up with the inconvenience.

No discouragement

Finally, if you have a first-time sailor on board who becomes seasick, don't discourage him or her from sailing. One of our best friends spent years learning about boats and building beautiful dinghies, which he sold with an aim of someday having his own yacht. Then he was asked to crew on a 40-foot hot racing machine and accepted excitedly. In 20-knot winds he became helpless. The regular crew of the boat teased him, and he never went sailing again. He would have made a good sailor, but to him sailing wasn't worth the discomfort and ridicule.

I think that is one of the big secrets: you have to want to sail and cruise so much that you'll put up with one or two days of discomfort for the reward of new ports and new people.

Normally, few people stay seasick for more than two or three days, except in the most extreme storm conditions. I did hear of one person who reported she was seasick the whole way across the Atlantic. But it turned out she was suffering not from seasickness but from a problem that can be caused by seasickness. I learned about this when I spoke to the port doctor in Gibraltar. He told me in the past two years he has had to assist in the delivery of nine unplanned babies conceived by cruising people who were using the pill.

As he explained it, an oral contraceptive must stay in your stomach four to eight hours to spread into your bloodstream effectively. He advises that if you want to be sure of avoiding pregnancy, use other means of contraception such as condoms or abstinence if you have been seasick for more than a day. Pregnancy in its second and third month will cause almost the same symptoms as seasickness, and that was what our friend on her transatlantic voyage was suffering from.

No one enjoys being seasick. But for most of us it is an integral part of going to sea that might have one small bonus: it helps me shed some of the pounds I gained in the previous port. But far more important, the discomfort is quickly forgotten the minute you reach a new port or sail out of a storm into beautiful weather.

For further reading ...

This article was excerpted from Lin Pardey's book, *The Care and Feeding of Sailing Crew*, which has just been updated and released as a third edition. It is available from



the Good Old Bookshelf <http://www. goodoldboat.com/bookshelf.html> or by calling 763-420-8923.

Replacing chainplates

Dire necessity drove this 24-hour emergency repair

by Connie McBride

B HORT-TACKING IN AND OUT OF ANchorages is one of my favorite types of sailing. With a competent husband/captain, crew in the form of three sons, and a sturdy boat, I thoroughly enjoy the challenge that shoal water, twisty channels, and strong winds provide. (Of course, since we haven't had much luck with our diesel in the past four years, we have had ample opportunity to practice these skills while cruising in our 34-foot Creekmore.)

so all eyes went to the water trailing us, waiting to see what we had hit. When nothing appeared, we considered other possible sources of such a noise and vibration. One of us suggested "rigging," and we all looked up as if expecting the mast to fall. We had moved the cutter stay and tied it to the port forward lower shroud to keep it out of the way so the genny would tack more easily. Our sailboards are also attached to the shrouds which added to the illusion that all was well with the rigging.

I was trimming the genoa when we heard a SHRBOING! and *Eurisko* gave a sickening shudder.

So in spite of having no working motor, we weren't intimidated by 20 knots of wind blowing into the entrance as we were leaving Coral Bay, St. John, U.S. Virgin Islands, headed for Trinidad in July to avoid hurricane weather. We put a reef in the main, sailed off the anchor, and were doing 7 knots by the third tack. *Eurisko* was enjoying herself at 20 degrees of heel, racing toward each shore. We couldn't bear to rein her in; we left her slightly over-canvassed with the intention of putting in another reef once we were in open water.

I was trimming the genoa when we heard a SHRBOING! and *Eurisko* gave a sickening shudder. Earlier in the year we had hit a large UFO (Unidentified Floating Object) in the Mona Passage,

Failed chainplate

Finally, Dave spotted the slightly slack windward shroud, saw we had broken a chainplate, and kicked into emergency mode. "Ready about!"

Knowing we would react immediately, he didn't even wait for a reply. As soon as the load was off the port shroud, he went forward, shouting orders. "Nick, furl the headsail, get her down to three reefs. Connie, take the wheel and return to the anchorage." He used the staysail halyard to rig a temporary shroud while we shortened sail and limped back to Coral Bay at 2 knots.

While the boys and I anchored, put sailcovers on, raised the windvane, and launched the dinghy, Dave tore apart the head locker to get a better



After 26 years fiberglassed to the inside of the hull, *Eurisko's* chainplate fittings were giving out. When the first one broke, Dave tore into the head locker to learn more about what had happened (1). Not wanting to remove what was left of the existing (but broken) chainplate, Dave had a replacement made and bolted that new piece to the old. Note the plate at the deck (2) and the broken piece with the replacement (3).



The dazzling effects of a polish job (4), and Dave with the drill (5).

look at what had happened. Our 1979 Creekmore is built like a floating tank. The only aspect of the design that has ever worried us is the chainplates, which were fiberglassed to the inside of the hull and were therefore not easy to inspect. After 26 years, we knew there was a good chance that they needed to be replaced, but Dave could never design a good way to do it. Thankfully, only one broke and we were not very far from a safe anchorage. Besides, St. John is a great place to be stuck, and stuck we assumed we were.

For five years, Dave had been trying unsuccessfully to invent an easy method to fix the chainplates, yet by the time Eurisko was settled on her anchor, he had a solution. How true it is that necessity is the mother of invention. The plate had broken inside the 1¹/₄-inch plywood deck so the part below that, which was fiberglassed to the hull, was still there. Dave measured the length of the original piece, where the bend was, and where four holes could be drilled through it around the woodwork of two lockers with shelves.

Supply

Inside attachment

The plan was to lay — just inside the original — a new 24-inch piece of ¼inch stainless-steel stock with the appropriate bend and holes and to drill through the fiberglass, old chainplate, and hull to attach new to old and both to the boat with bolts. The only drawback was that the new one would come through the deck ¹/₄-inch inside the old, not changing the geometry of the rig significantly, but changing the hole in the deck. Dave used a drill saw — a drill bit that allows you to drill and cut — to increase the hole in the deck and caulked around this hole to fill the ¹/₄-inch gap. Further activities had to wait until we had a new chainplate in our hands to be sure reality would match theory. I gave the boys instructions for finishing the school day, grabbed my purse and a backpack, and we were off to Cruz Bay. It was 9:30 a.m.

As is so typical there, while waiting for the bus in Coral Bay we were offered a ride. After hearing our story, the driver gave us directions to Frank,





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the welder, and suggested two other options, one of which included faxing the information to his friend in Virginia, who could airmail us a new chainplate.

Frank proved to be easy to find and quite accommodating. He had the ¼-inch stainless stock, a brake for the bend, and a punch for the holes. He offered to make it while we waited, and his price was so reasonable we had him make two: \$95 total. It was noon.

Back on board, the plate fit perfectly and three of the four holes were usable around the interior cabinetry. After repeatedly measuring and marking, Dave started drilling extremely slowly, using oil as a lubricant. We used a small 140-watt inverter that plugs into a cigarette lighter outlet to charge the battery of his drill. Waiting for it to recharge after he drained it each time was the most time-consuming part of the process.

Stepping up

He started with a %4-inch bit (the smallest cobalt bit aboard) then

stepped up in size — anywhere from $\frac{3}{2}$ to $\frac{1}{6}$ inch each time using whatever size he happened to have — ending with a $\frac{9}{16}$ -inch bit to accommodate the $\frac{1}{2}$ -inch bolts we had purchased. Since we couldn't be sure of the thickness of the fiberglass, old chainplate, and hull until the holes were drilled, and in the interest of saving another row to shore, we had bought 2-inch and $\frac{2}{2}$ -inch bolts. As the thickness of the fiberglass varied from hole to hole, we ended up using a few of both lengths before all of the chainplates were replaced, months later.

After drilling the holes and "dry fitting" to be certain all was according to plan, we put the three bolts, with 3M 5200 on them, through from the outside: washer, hull, old chainplate, fiberglass, new chainplate, washer, lock washer and nut (see illustration on Page 28). Within 24 hours we were ready to continue our journey south. We debated what to do with the second chainplate: replace the other port lower since we would be on a port tack for the next 450 miles; replace





Friends say *Eurisko* looks more salty these days with the bolts showing on the exterior of her hull (6 and 7), but the important thing is the peace of mind that comes from finishing a nagging maintenance problem. Now the McBride family can delight in the occasional over-canvassed romp up a channel.



Sail to work today!

Just released: Bookends, by the editors of Good Old Boat magazine

Almost from the beginning with our first issue in June of 1998, *Good Old Boat* magazine has featured two editorial pieces: the View from Here and the



Last Tack. At the request of our readers, we have compiled these short columns into something we're calling "Bookends." These 100 short musings about sailing and boat ownership are a great way to keep entertained during your daily commute, while exercising, or when you just plain miss being near your sailboat and need a pick-me-up. Narrated by Karen Larson.

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Sailing Alone Around the World, by Captain Joshua Slocum



In 1895 at the age of 51, Captain Joshua Slocum began a 3-year 46,000-mile solo circumnavigation aboard his 37-foot sloop. *Spray*. The

first man ever to successfully complete a solo circumnavigation, Joshua Slocum recounts the adventures he had along the way. His eloquent narrative is filled with vivid battles against man and nature and stands as one of the greatest sea stories of all time. Sailors and non-sailors of any age will enjoy this gripping tale. Unabridged. *Narrated by Jerry Stearns.*

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What else is in the works?



We're producing several more (an eclectic mix, actually): *Into the Light: A Family's Epic Journey*, written by Dave and Jaja Martin about their travels to Norway and Iceland above the Arctic Circle. Narrated by Jaja Martin. Gregory Newell Smith is

narrating his own excellent tale, *The Solitude of the Open Sea*, about his circumnavigation. And we have a few more surprises in store.

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a starboard lower so at least we knew we had one good one on each side; or keep it just in case another one broke on the way. We opted to keep it, mostly because, without electricity aboard, we had no way to cut the old chainplates. Unless one broke on the way, we would have to wait until the boat was hauled out in Trinidad.

Luckily, we didn't have to replace another chainplate on the trip to Trinidad. Once there, we had two more made identical to the one we still had: \$37 each. After a friend mentioned that we should have had the exterior part polished, we paid an additional \$10 to follow his advice. Our upper and intermediate shrouds are on the same chainplates which, rather than being fiberglassed to the hull, are through-bolted to bulkheads. Since they can be inspected, we did not change them.

Below deck level

Dave used his grinder to cut the other three plates just below deck level in each case. We emptied the lockers he would be working in and placed wet towels around to catch the hot sparks. Since we were on land at this point, with access to electricity, he could use his electric drill for all but the biggest bit, for which he had to use his cordless again. Though none of the other three chainplates appeared to be wearing, corroding, or in need of replacement, the drill bit sizzled as it encountered trapped moisture hidden in the fiberglass. We have had problems with several of the chainplates leaking over the years and can only imagine how damaged they are inside the fiberglass.

This method of replacing chainplates may not be for everyone and is certainly not perfect. We now have 12 bolt heads showing in *Eurisko's* topsides, but they line up with and are obviously part of the rigging. We don't find that they detract from the aesthetics. A friend said they actually make her look salty.

In hindsight, our only regret is that Dave cut out the three chainplates that didn't break. He later realized that the toggle jaws were wide enough to accommodate both the old and new chainplates. Redundancy is always nice, but it was too late by then. All our chainplates can be inspected and replaced easily now, thanks to one of Dave's better brainstorms devised at anchor, while running on solar power, and in haste to get south between hurricanes.

Sampatecho

A floating test-bed for cruising equipment

by Barry Hammerberg

E FIRST SAW SAMPATECHO, A 15year-old Beneteau 390, lying at anchor at Solomon Landing on Chesapeake Bay. Her custom aft arch — supporting radar, a solar panel, and a wind generator — identified her as a serious cruising boat. The Canadian flag at her transom reinforced the image.

It was not until we arrived in Cape May a week later that we met *Sampatecho's* owners, Bradd and Maeve Wilson. We talked and exchanged stories that ultimately led to friendship. We cruised together for what began as a couple of days and turned into three months of exploration and shared good times. We parted at Mackinac Island — they were to journey back to Caribbean waters and we were to return to Wisconsin.

They left with us the story of a couple with a passion for sailing, their experiences in outfitting two boats for a cruising lifestyle, and how they formed their company, Cruising Solutions, to help others find economical answers for their equipment needs.

As a youth, Bradd began sailing in small boats. As an adult, he had owned a 15-foot gaff-rigged catboat, a Venture 22, and a Viking 28. He'd raced the last two extensively. He had chartered in the British Virgin Islands and Florida. Along the way, he had qualified for his captain's license and made delivery trips. In order to be near boats, he'd left the automotive industry to manage Sugarloaf Marina in Port Colborne, Ontario. Sailing was in his blood.

Charter experience

Maeve was introduced to sailing later in life. She had gained Laser and charter experience in the Thousand Island area of the St. Lawrence River before she met Bradd. Their mutual affinity for water and interest in a lifestyle of exploration, meeting people, and coexisting with nature made cruising on a sailboat a natural choice. They'd had a taste of it while on charter vacations; they wanted more.



With an aft arch, which supports radar, wind generator, and solar panels, *Sampatecho*, above, has the look of a cruising boat. Owners of this 15-year-old Beneteau Oceanis 390 are Bradd and Maeve Wilson, inset, the liveaboard owners of Cruising Solutions.

The Viking 28 wasn't adequate for extended family cruising. They needed a boat with room for three teenagers and themselves. The next boat had to have easy access for swimmers, as their kids loved the water. Bradd wanted speed to reduce the time necessary to cover long distances and to open up more weather options. The boat also had to be easily handled by a couple.



The status of *Sampatecho's* wind generator can be seen at a glance with a wallmounted display, top photo. The egg-shaped unit provides the generating status while the ammeter tells how much current is being put out. The view of the Perkins, above, shows Bradd's mount for his second alternator on top of the engine. The stock alternator is at the bottom right. The idler in the middle of the belt provides tension and permits the belt to be slackened and removed when Bradd doesn't want the second alternator running. A look at *Sampatecho's* cockpit accommodations, below.



Bradd researched boats, finally deciding that a C&C Landfall 38 would meet their needs. It was designed as a cruiser/racer, had good tank capacity, and was seakindly. They went to Ft. Lauderdale in 1995 to search for a Landfall. After being ignored for 20 minutes by a broker who had a few Landfalls to show, they walked over to the nearby Moorings docks...just to look around. Bradd had already discounted the Moorings offerings as too new, too expensive, too much boat for their needs, and too worn from chartering. They were just looking for ideas.

Needs analysis

But Bob Ross of the Moorings was everything the prevous broker was not. He asked about their plans and past experiences. When he had a good picture of what they were looking for, he suggested a boat that had just arrived and had not yet been cleaned. It was a 1990 Beneteau Oceanis 390 just in from four years of charter service. It was one of six a French owner had bought. Planning to use it himself, he'd squirreled this one away in Guadaloupe where it didn't get a lot of use. He didn't have time, however, and it wasn't being chartered enough, so he had instructed the Moorings to sell it.

The original owner had replaced the 27-hp Volvo with a 50-hp Perkins. The boat also had new lines and a bonus: spinnaker gear. Unfortunately, it didn't have shorepower, holding tanks, or instruments beyond basic speed and depth. The boat was clean, although it was anyone's guess what it had suffered at the hands of charterers.

Maeve liked the swim platform, three-cabin layout, two heads, and big saloon. Bradd liked its construction and speed. They hadn't intended to commit to a boat during their trip, but they made an offer that was accepted. The franc-to-Canadian-dollar exchange rate saved them \$4,000; it was meant to be.

Three changes

Not long afterward, Bradd returned for a survey and sea trial. The 390 performed well in light air and was very responsive to the helm and trim. His surveyor required three changes. The most major of these was some re-tabbing on the floor grid. Bradd completed the purchase and brought back a little mermaid statue for Maeve. He taped the key to their new boat on the bottom of the mermaid, as a signal that the boat was theirs.

The name *Sampatecho* is a combination of the children's names, Sam, Pat, and Echo. The Spanish word simpatico means congenial; something that is in sympathy with its surroundings; at peace with nature. Since it was a similar word, they felt that *Sampatecho* reflected their life philosophies.

Bradd believed they had acquired a basic hull, interior, and rig at \$30,000 below market value. They spent almost \$4,000 to ship her to Buffalo, New York, where they launched and sailed her home to Port Colborne, Ontario. It would have cost another \$5,000 if they'd shipped her to Canada over the Peace Bridge: the cost of permits, escorts, and closing one lane of traffic.

It was time to find out if they could live aboard. They rented out their home and moved aboard with their children for the summer. The 390 needed a few modifications. They added a holding tank (one head still has only bluewater discharge), added a macerator (for offshore use), installed shorepower, and converted the engine-driven refrigerator holding plate to a 12-volt holding plate. They added cupboards and shelves. Bradd moved the water heater from under a settee to an aft locker and used the space for storage. New instruments and an autopilot finished the initial conversion to a family cruiser.

The adventure begins

In 1997, they qualified for homestudy tutoring, took the children out of school, and went south for four months. The children were aged 10, 14, and 16. One lesson that Bradd and Maeve learned all too soon is that extended cruising doesn't work for teenagers who prefer to be home with their friends. So, their cruising dream was put on hold. They brought the Beneteau home to Port Colborne for family summer cruises.

In order to live aboard for part of each winter season, at least, Bradd and Maeve purchased a second boat in 1998. This one, named *Enchanté*, was a 1978 Endeavor 32. She was based in Florida, and from there they spent a month cruising each spring and fall. *Enchanté* became something of a test boat for their cruising lifestyle. Bradd researched systems, installed them, and tested them in the real world of Caribbean cruising. He soon realized that they were slaves to refrigeration. They also needed electricity for instruments and lighting. Power consumption dictated that they be able to generate and store electricity and find ways to reduce demand.

Bradd installed a bank of AGM batteries, shorepower, a charger, and a wind generator. He reduced demand with more. Now that the kids were older, they wanted to be aboard for a couple of weeks at a time. Eventually, Bradd and Maeve decided to keep the Beneteau and sell the Endeavor.

It was time to prepare the Beneteau for extended living aboard, based on lessons learned on the Endeavor. The list of additions to the Beneteau grew as they incorporated their wish list. First, Bradd addressed their basic electrical systems. He added a 110-volt AC distribution system, 12-volt DC outlets for accessories like the handheld radio, cabin fans, and compact fluorescent lights in the cabins. Next,

Bradd researched systems, installed them, and tested them in the real world of Caribbean cruising.

by changing interior lights to compact fluorescent lighting. The Endeavor had the icebox to die for: 12 cubic feet. They mounted an efficient 12-volt cold plate under the cover to reduce the demand for ice. A propane oven upgraded the galley.

He next addressed peace-of-mind issues. He upgraded instruments and ground tackle. He installed dual anchor rollers to support a primary 30-pound CQR anchor with 66 feet of chain and 200 feet of rode and a 35pound Danforth anchor with 20 feet of chain and 150 feet of nylon.

Comparing notes

About this time John Van Blois and Bradd formed Cruising Solutions, although John has since left the company to Bradd and Maeve and serves as an advisor. Their big idea started when the two men sat together at John's kitchen table comparing notes on equipping a cruising boat. Both had done a lot of research and sought a way to share this knowledge with others. They envisioned starting a company selling cruising gear they had tested and could recommend without hesitation.

Bradd and Maeve continued sailing the Bahamas, Florida Keys, and Cuba, learning during their monthlong cruises that the Endeavor was adequate for two people but crowded he added a radar system with an arch that incorporates seats, a motor hoist, motor mount, rod holders, and anchor light. He also added a swim ladder, offshore life raft, and watermaker.

Adding equipment

Crew needs were addressed by adding a microwave oven, larger winches (Lewmar 58s), an electric windlass, Bimini, dodger, and a propane barbecue.

Bradd realized they'd need to be energy self-sufficient. His system for energy production and management is well researched. He used Nigel Calder's formulas to figure demand, planning to run the engine about two hours every fourth day to replenish the batteries. He knew he'd need a respectable house bank and passive generation to extend amp-hours by keeping ahead of the demands of refrigeration. With this in mind, the following items were added to the boat: a 660-amp-hour house battery bank plus a starting battery, a 100-amp alternator to supplement the original 55-amp unit, one 55-watt solar panel, and a Rutland 913 wind generator.

Bradd figures their solar panel puts out daily about 3 amps for four hours and 1.5 amps for another four hours. He chose the Rutland 913 because he wanted a unit capable of generating in less than 10 knots of wind in





Over the years, *Sampatecho* has become the comfortable cruising home and the place of business for Bradd and Maeve, who are breaking ground as sailors who combine their work and cruising lifestyles. They sometimes teeter at the leading edge of communication technology with the associated frustrations, but Bradd and Maeve are showing others that the businessaboard dream works for them.





the calmer areas they seek for shelter and anchoring. Bradd calculates the Rutland quietly averages a continuous 2 amps.

The 100-amp alternator is engaged only when he needs to replenish the house bank. He designed a system for easily mounting or removing the drive

belt on the 100-amp alternator (see photo on Page 30). The 55-amp unit is always engaged. A nice feature of this arrangement is that both alternators are self-regulating and serve as backups.

His system proved itself in the Bahamas. As hoped, they ran their diesel

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tough figures come snooping around for something lost in the crash ... something they're willing to kill for. Narrated by Theresa Meis. \$15.00/MP3 download. \$19.95/MP3 CD

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The Grants have reached the jungles of South Africa on a world circumnavigation. While there, they have a run-in with a cruel circus owner over his treatment of a kindly elephant. When their plan to steal the elephant succeeds too well they must chase the rogue elephant through the jungle while avoiding the circus owner. Featuring many colorful characters, this tale shows how the Grant children have grown since



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So Long, Foxtrot Charlie

Foxtrot Charlie just wants to get along with his foster family. But sometimes, being an ordinary 13-year-old boy gets him into trouble: messes, explosions, and accidents. The harder he tries, the more he fails. Just when he thinks things couldn't get worse, Foxtrot finds himself lost at sea with his foster father, foster sister, and a friend. With the lives of

three other people in the balance, he finds himself faced with a test that he simply can't afford to fail. Narrated by Theresa Meis. \$15.00/MP3 download. \$19.95/MP3 CD

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only two hours every fourth day to maintain their batteries.

Upgraded anchors

The original ground tackle was upgraded to include a 40-pound CQR with 150 feet of ³/₆-inch chain and as their secondary, a 35-pound West Performance (Danforth style) with 66 feet of 3/8-inch chain and 150 feet of ³/₄-inch nylon. Bradd acknowledges that he sleeps better with all-chain rode. This was reinforced one night on the Bahamas Bank when they chafed through a 1-inch nylon snubber line in eight hours.

Finally, Sampatecho was ready. Bradd and Maeve sold their house, disposed of the cars, stored heirlooms, and headed down the East Coast.

Meanwhile. Cruising Solutions had continued to grow, adding customers and products. Bradd and Maeve's business had morphed into something more than simply serving as the representative for chosen products, as existing suppliers closed and Bradd and Maeve began developing their own new products. They now had contract manufacturers, inventory, shipping, and product development to contend with.

Does it work?

So how do they run a business while cruising? Bradd and Maeve exhibit at boat shows, test gear, and run their business as a virtual company. They handle questions, issues, product development, and acquisition. Until recently, their son, Pat, processed orders each day and cleared the spam from their email account back at home. But Pat, age 23, is crewing on a 165-foot yacht now and his younger brother, Crawford (Sam), has the job. Shipping is handled by a contractor in Florida.

They liken their business to a wind generator: it doesn't provide enough income to fully support their cruising, but it does help extend the life of the battery bank. It also puts demands on their liveaboard lifestyle.

Maeve notes, "Five years ago we couldn't be sailing and run the business." She points out that efficient communication wasn't possible. Cellular phones and the Internet make it possible today, possible but not simple.

Bradd adds, "The Internet has changed people's expectations. Once, you clipped a bingo card from a magazine,

sible, always, 24/7."

High-tech headaches

waited a few weeks for literature,

then called or sent in an order. Today,

you research the info on the Internet,

enter your order, and expect shipment

the same day. We have to be acces-

They have learned that cell phones

promise mobile communication but

fall short on connection reliability.

The places where sailors are found

- rivers, lakes, and oceans - don't

have enough potential users to sup-

towers. Emerging technologies such

as tower signal-strength modulation,

port nearby service providers and cell

are a blessing and a curse. They

All the elements of a small business are in place; it's just not all in one place. Cruising Solutions has become a model for a small virtual business.

Simple things, such as changing your coverage plan, can result

in weeks without service. Costs can

charges kick in, especially offshore,

or when you're traveling along a bor-

ers compete for your signal. In other

tion frustrations, Bradd and Maeve

purchased a SkyMate satellite com-

municator, which provides affordable

and reliable global weather forecasts.

secure email, position reporting to

ing, and fax capabilities. They also

friends and family, voice messag-

areas, days would pass without a reli-

After many months of communica-

der where direct and roaming tow-

able connection.

escalate out of control when roaming

Bahamas. A Black-Berry (a small wireless email and web accessing device) is on the wish list, they say, but they're on a cruising

budget like everybody else. Maybe that technology will be tested later.

As they face communication complications and changes, they are backed up by their "virtual infrastructure." Crawford, age 20, does much of the communications and office work. Payments are processed via telephone from orders placed on their website or called in to their toll-free number. Maeve handles the accounting with the help of their accountant. Artwork for advertising and promotion is developed by their daughter, Echo, age 26. Crawford also assists with product evaluation and data entry.

All the elements of a small business are in place; it's just not all in one place. Cruising Solutions has become a model for a small virtual business.





Refit

The New OLD BOAT AT THE MARINA caught my eye. Boats like that always do. Wow! A *real* cruiser. A 1960s boat. A Triton? An Alberg 30? Heavy-duty dodger, windvane on the transom, mounts for storm boards on the ports, big CQR in a bow roller, and another hanging on the pushpit. Everything about her said she'd been somewhere and done something. She looked out of place, tucked into the crowd of weekend toys and dock potatoes. Her registration numbers said California. Since we're in North Carolina, that was a start.

I recalled my next-door neighbor, Dave Hause, telling me, after finding out I sailed, that a co-worker of his had sailed his boat from California through the Caribbean and up the Intracoastal Waterway to Wilmington. A couple of email messages established the match — the boat was indeed a Pearson Triton. Before any time went by, I was a guest crew for a summer evening sail with her owner, Jack James, along with Dave and a guy who taught in the same department as I did and whose wife worked with Jack. That was four years ago.





Since then, Dave has moved away, but Jack and his wife, Beth, and the other guy, Tom Massey, along with his wife, Meg, have become our close friends. I've spent many an evening and weekend afternoon sailing *Ariadne*. She is the boat that showed me in real life what I'd only seen in books and magazines — how a small long-distance liveaboard cruiser really works.

The Triton is in many ways the Elvis of fiberglass sailboats and, as such, her history's been recounted plenty of times already — Sailboat Hall of Fame and the first really successful production fiberglass racer/cruiser. The Triton, launched in 1959, put Pearson Yachts on the road to becoming the world's biggest sailboat builder. More than 700 Tritons were built. Dan Spurr once said it was probably the cheapest, smallest true bluewater-cruisingcapable boat (properly modified and equipped, of course) out there. She's a proven circumnavigator and is still raced as a one-design.

Bullet-proof hull

Cruising traditionalists praise her modified full keel, bullet-proof hull, barn-door rudder, and low freeboard. You don't have to be Ted Brewer or sail this boat halfway around the world to appreciate her qualities; she's dry despite her low freeboard, she sails like nobody's business, and she rides like a Cadillac — no mean set of feats for a boat just over 20 feet on the waterline.

But if you want to tackle what Jack did, and turn a tired stock Triton into a seaworthy liveaboard cruiser, you've got your work cut out for you. Scan the big online boat listings, and you'll rarely find a fully restored, tricked-out
adventures

Triton served as home for two for seven years

by Phillip Reid

Ariadne, far left, off Portobelo, a heavily fortified outpost of the 16th century Spanish colonial empire. Jack on Ariadne in California in the early 1990s, far left. Beth, in Cuna mode, goes native in the San Blas islands, at right.

Triton for sale. What you *will* find are major projects going cheap. There's a world of difference between what the original owner got from Pearson in 1963 and what *Ariadne* is now, 43 years later.

Jack was a teenager when his father bought his first sailboat — a Pearson Electra — so he got familiar with the boatyard early in life. After the Electra, Jack Sr. bought a 35-foot wooden boat, and Jack learned the ins and outs of marine woodwork while helping to restore her. When he was 19, Jack and his father sailed her from California to Hawaii in March...a little early in the season. Jack says he was soaking wet for three straight weeks. Several years later he crewed on a 40-footer for a whale research expedition down the Baja coast. After living aboard a smaller boat for a while after college,

Jack bought *Ariadne* in 1985, in southern California, even though she's an East Coast Triton. He paid \$10,000 for her. He thought that was a great deal at the time. (Her original price was \$9,700.) Then the bottom fell out of the sailboat market.

DIY paradise

Jack was living in Los Angeles, which was a do-it-yourself sailor's paradise. All the production builders in and around Costa Mesa had spawned a thriving sailboat-parts economy. Jack wandered through scrap yards and found stainless steel to make his anchor roller, beefed-up mast tabernacle, and storm-shutters.

His two 40-watt solar panels were NASA surplus, and he made his own wind generator which hangs from the backstay and has a wooden propeller like the ones on World War I fighter planes. If he couldn't make it or salvage it, there was Minney's Yacht Surplus. Some of *Ariadne's* blocks and hardware came from a sunken wreck that Jack and a friend dove on in Mexico before they were chased off by the Mexican coast guard.

He needed plenty of stuff. The builder's definition of "basic" in 1963 is what we would call "not done yet" today, and while Jack knows little about her past, he does know she was already a veteran of Baja cruises and showing her age and mileage when he got her. He needed a full set of stanchions, lifelines, a pulpit and pushpit, and an interior that didn't have raw fiberglass surfaces. One cool thing he did get from the previous owner was a homemade windvane self-steering system — the type of auxiliary rudder with a trim tab. It still works.

Tritons have deck-stepped masts supported by an oak deck beam just in front of the break in the split-level cabin trunk. *Ariadne's* was cracked when Jack came along — a common problem on hard-sailed aging Tritons — and he replaced it with a steel I-beam. He











Without putting too fine a point on it, galleys were not the strong suit of the Tritons. Jack added a stove and vital cooking space by installing a Luke stove which folds up and out of the way when not in use, above and far left. The drop-down table, center left, and counter space, below left. Notice the fine woodwork throughout. Jack is a capable finish carpenter.

added a second set of lower shrouds to stop mast pumping. However, he says if the rig is stout, and the mast doesn't pump, leave it alone.

Rotten core

Most of the deck core on one side, forward of amidships, was rotten. Jack drilled six million tiny holes in the outer skin, poured acetone in them, and squeegeed epoxy into them. No problems since. When he went to a boatyard parts counter and asked for non-skid paint additive and they tried to sell him a can of sand for \$13, he found some crushed walnut shells (plentiful in California) and used those instead. Concerned about flex in the uncored, thin sterndeck, he glassed-in wood reinforcements underneath it and made a watertight, beefy door for the stern lazarette.

The original Triton rudder was mahogany. *Ariadne's* wasn't in good shape, so Jack made her an exact copy out of solid fiberglass. While he had the engine out, he replaced the shaft log.

As frugal as Jack is, he does have a weakness for teak. *Ariadne* is a teak showcase. Jack reckons he spent around \$2,000 on teak 20 years ago. He's a capable finish carpenter, and her hatches, sea hood, propane locker, coamings, and interior trim are works of art. He built the athwartships cockpit locker abaft the bridge deck. The swing-down teak stovebox with the flip-down front and gimbaled Luke stove is very well done. He was living aboard while he did the interior, and he made almost everything with a jigsaw on the dock and a bench sander he kept in the cockpit.

Jack met Beth in 1987. A farm girl from New Hampshire finishing college in California, she warned him before their first weekender to the Channel Islands that she got seasick, but that didn't stop him. Beth was getting out of school and needed a job, and Jack encouraged her to work at West Marine, where they proceeded to score gear — inverter, regulator, the Luke stove, and an early hand-held GPS — at the employee discount as they got ready for the trip down south.

Two luxuries

Still, they kept it simple. The two mechanical luxuries on *Ariadne* are a manual windlass (not a luxury on a larger boat, but counts as one on a 28-footer with a chain/rope rode) and refrigeration (an Adler Barbour Cold Machine for which Jack added a third battery). Jack confirms what's generally reported: the stock front-loading Triton icebox is poorly insulated. But he was pleased with the refrigerator as they cruised the tropics and reports that the wind generator and solar panels were able to keep up with it.

On their way down the Baja Peninsula, there were enough windless



days that they found themselves handsteering far more than they wanted to, so when they got to Nuevo Vallarta on the Mexican mainland, they bought a used autopilot at a cruisers' secondhand sale on the beach for \$30. It worked. Their "hand-held VHF," which is the size of a World War II walkietalkie, cost \$1. It works too. Their inflatable dinghy, which they finally replaced last year when it just *couldn't* be patched anymore, was bought used, as was the outboard.

But as inspiring as Jack's improvements and upgrade list is, it should be noted that what wasn't broken on *Ariadne* didn't get fixed. The most valuable lesson I learned from *Ariadne* was not what I needed, but what I *didn't* need on my own project boat.

Her original, raw-water-cooled Atomic 4, which Jack pulled and had rebuilt in the '80s, still starts every time and runs like a champ after 42 years and some serious cruising, all in salt water. (He's religious about flushing and tightening the grease cup on the water pump.) The original alternator lasted until last year, and the original starter still works. Her DC panel is original, as is much of her house wiring, main battery switch, galley sink, icebox, ports, spars, and interior lights.

Headed south

Jack, a chemist, sold his one-man garage business making orthodontic parts. With that as their kitty, he and Beth sailed *Ariadne* from San Diego in November 1993, heading down the Baja Peninsula to the Mexican Pacific coast. They explored Baja and Mexico, then jumped to Costa Rica, where they lingered for months.

Moving on to Panama, they knocked around the Pacific side for a month or so, did the Panama Canal, helped some other cruisers through





These days, *Ariadne* sails at Wrightsville Beach, above. Jack's mighty road rig, top right. Jack's hurricane strategy is simple: 1. load boat on trailer, 2. take boat far inland. Even while waiting contentedly in her slip in Wilmington, North Carolina, top left, *Ariadne*, appears to be ready and able to go anywhere at any time.



the canal and, once on the Caribbean side, proceeded to fall in love with the San Blas islands, which at the time weren't well-known. Picture a tropical island paradise, they say, and you've got the San Blas Islands.

Ariadne's V-berth is still graced with molas, colorful appliquéd panels made by the Cuna, the last indigenous Caribbeans. Framed molas also hang in their log house in the woods. They found the Cuna fascinating, and the Cuna were well-disposed toward Americans, whose government had once helped them in their knockdown-drag-out fight for autonomy against the Panamanian government. Panama was finally forced to recognize a treaty that set aside the San Blas islands as an autonomous reservation for the Cuna. Jack and Beth never wanted to leave, but the Cuna, while friendly and hospitable, do not allow outsiders to swallow the anchor in their unique world.

So they sailed over to Cartagena and spent some time exploring coastal Colombia, went back to the San Blas, explored the Bay Islands of Honduras, and poked around Guatemala and Belize before heading up the Yucatán coast. From Isla Mujeres, two years after they left San Diego, they crossed the Gulf of Mexico to Florida. The cruising kitty was nearly empty. They made their way up the ICW all the way to New Bern, North Carolina, and then to Wilmington for Jack to take a job with a pharmaceutical development company.

Custom trailer

He and Beth bought a house two years after they got to North Carolina, and *Ariadne* was no longer the



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permanent home she'd been for seven years. Jack had a custom trailer made for her, bought a used dual rear wheel pickup (which together cost far more than the boat), and hoped to use that rig for short-term cruises much more than he actually has so far since he went back to the 9-to-5. He hauls the boat for hurricanes and trucks her inland. He and Beth spent one hurricane living aboard on the trailer in a Wal-Mart parking lot, cozy and comfortable and, most importantly, not worried about the boat. The only trailersailing trip he's had time for so far has been to the Bahamas with his father. They trucked the boat to Florida to make the shortest possible Gulf Stream crossing.

How does the Triton measure up as a liveaboard home for two? "It's pretty cramped," Jack says, "It's about as small as you can really get and make it work." (He's 6 foot 2 inches and Beth is 5 foot 10 inches. They hit their heads a lot.) But they made it work for years. They emphasize that making a small boat work as a home is much easier in the tropics and subtropics where you spend most of your time on deck and in the cockpit, which is why good canvas is so important. You don't need insulation or artificial climate control; you can dive overboard to cool off and clean up.

When they got to the East Coast, they experienced their first real winter aboard. Condensation dripped off the overhead, and Jack found himself improvising interior insulation out of the foam-cloth used on car overheads, with limited success and lots of mildew. The extra clothes you need, blankets, stove fuel, being stuck below

... cold weather completely changed the equation, they say.

Many fans

When it comes to her performance at sea, Jack joins the chorus of the Triton's many fans. "I'd trust the boat anywhere but in ice," he says. (He'd only take a steel boat into ice.) During their travels, they ran into one bad storm off Colombia. They set the windvane, went below, and lay down, popping up every so often to take a look around. Beth rested on the low settee berth; Jack made himself comfortable on the cabin sole on some cushions. The waves were huge; they filled the cockpit constantly, but they rode through it.

Jack's not a fan of slow boats or of unweatherly hulls and rigs. "A cruising boat needs to be reasonably fast and able to beat off a lee shore," he says. When they crossed the Gulf of Mexico to Florida they found themselves outrunning an unexpected hurricane. According to Jack, the first priority should be to get a good sailing boat. Then make that boat as livable as you can without compromising her sailing performance more than you have to.

Beth says she wouldn't trade the cruise for anything but wouldn't want to do it again. She spent pretty much the entire time underway on seasickness drugs, and she hasn't been sailing on open water again since their return to the U.S. She was ready to have a house, a garden, and to settle down.

Jack hopes to persuade her to do sheltered-water cruises on the East Coast, using the truck and trailer to minimize time in transit to intended cruising grounds. But for now Ariadne is a daysailer and overnighter (they like to anchor out overnight once in a while in the sound behind Wrightsville Beach) — though she stands far apart from the crowd of daysailers and overnighters around here. Her past life and all those tropical miles under her keel are written all over her. Her future as a cruising boat may be unclear, but one thing is certain: "I'll die with this boat," Jack says. After that, who knows where Ariadne will go and what she will do?



T'S VERY COMMON FOR OLDER BOATS with dinettes to have a pedestal post for the tabletop. This allows the tabletop to serve doubleduty by converting the settees into a large berth when the support post is removed. But as there are a few drawbacks to this arrangement, I was determined to find another way.

Consider the drawbacks on my boat. Loading De Novo, our 1971 C&C 35, for a daysail or weekend involves bringing aboard a cooler, bags of food, backpacks, loose clothes, newspapers, magazines, books, and a purse. (Wendy's purse, of course. I bring a manly canvas bag.) The normal routine has been to throw bags on the tabletop prior to storage and to set the cooler on the floor. The cooler blocks the passageway and generally gets kicked about as one of us goes forward to open hatches and the remaining crewmembers prepare for departure. It would be nice to be able to put the cooler under the table, but the support post is in the way.

Converting to a berth requires the tabletop to be lifted and set aside while the support post is removed. This is very awkward. The tabletop is a bulky shape with a large metal collar on the bottom to accept the top of post. As you lift the tabletop off the post, you must flip the bottom side up

Tom was dissatisfied with the dinette table center post on his C&C 35. You couldn't put things under the table, and the post was greasy and difficult to stow when the table was converted into a bed. He devised a clever elbow configuration to eliminate the original support and made the two-piece table fold up (no swing-down panels here) to take up less space when not needed. The old center post with the new two-part table, at right. A view of the new table bottom, far right. On facing page, simple brackets, at left, are through-bolted to the wall of the settee near the floor. The elbow is fitted, center, and the table attached, at right. The new table maximizes cabin space by remaining folded in half most of the time, even when a small crew needs a convenient lunch counter.

Improving a

Custom "elbows" mean more footroom, easier handling

by Tom Bishop

to avoid putting a dirt ring on another settee cushion as you lay it down temporarily. The post is covered with a thin coating of grease to ease removal from the mounting collar. You really need a second person to hold the post while you place the table across the empty settee footwell.

No place to hide

Now where do you put the post? It's 3½ inches in diameter, 24 inches long, and weighs 5½ pounds. This makes it too long for the storage bins, too greasy to place on carpet or fabric, and too round to sit still in any wave action. At first I tried drilling a hole through the ¼-inch aluminum and another matching hole through the fiberglass seat wall. A cheap bolt and a wingnut secured the post. This was an improvement but not a final solution.

Upon leaving the dock, the choices are to leave the table set up or to stow it. When set up, it can be an obstacle for the crew, depending on the tack, heel, and motion of the boat. On a port tack, you pass through the cabin to use the forward head and the table is heeled into your left hip. But where do you stow a 3-foot square tabletop in a moving sailboat? And wouldn't you want a table surface for the occasional meal below?



Yacht designers at the time figured one table leg (the post) was best, but I figured an elbow would serve us better. I removed the metal collar supports from the floor and under the table. This was easy. They weighed 4 pounds each and were secured with #10 wood screws.

For the retrofit I was inspired by fast-food restaurants that mount their small tables and seats to steel supports that curve and are bolted to the wall. This gives them an unobstructed floor to mop clean. Very efficient. I would use the same logic to free our settee floor and have room for a cooler.

Lift-up leaf

Yacht designers favor drop-leaf tables to open the passageway through the cabin. I figured a fold-up leaf would better serve us. A drop-down leaf would block the room for a cooler. And a fold-up leaf needs no restraint to keep it from flopping around under normal sailing conditions.

One more improvement I wanted was easy storage of the table support post. An elbow shape doesn't roll. Fast pins eliminate the need for grease, so the flat elbow can go nicely inside the hanging closet next to clothes.

I used old plywood scraps to build a prototype of a hinged table and to



dinette table

measure the angles and proper size for the custom elbow. There was no obstruction behind the fiberglass settee seat to prevent through-bolt mounting. Three generous access covers were already in place under the cushion. I positioned the hinged plywood as the finished table. I folded it up and noted how much space was saved, where supporting brackets would go, and how access around the new elbow support would change. All the answers were positive.

Once back home again, I built a wooden elbow to spec. I used wood screws to attach it to one half of the plywood table and showed it to my wife for approval. On the next trip to the boat the faux elbow and table were held in place and tested again. from attacking over time. The righthand photo on the facing page shows the bottom of the tabletop, which needs sanding and painting since it will now be the top when folded up. After sanding with 60- and 150-grit paper, I primed with Kilz premium and then hand-brushed two coats with a decorator off-white exterior paint to closely match the interior fiberglass color.

The plywood prototype went to a machine shop for discussion about an aluminum elbow with predrilled holes for fast pins. They selected 1 x 2-inch bar with two welds and nice plastic inserts for finishing the ends. A couple of 90-degree brackets with matching pinholes would fit under the table. Identical brackets

Yacht designers at the time figured one table leg (the post) was best, but I figured an elbow would serve us better.

Ready for production

The old center post and floor mount are shown on the facing page. I used a friend's table saw to cut the table top in half. I added a 2-inch stainlesssteel piano hinge. It was a simple act to align the hinge so the table will fold up and not down. I removed the end of the hinge and polished it with a rotary tool. Before final attachment, I patiently marked and predrilled holes for the small #6 wood screws. Each screw was dipped in marine caulk to prevent moisture would mount on the outside of the settee wall. I cut a length of ³/₄-inch plywood to fit inside as a backing plate and to reduce flexing.

The photo at left below shows the simple brackets through-bolted to the settee wall near the floor. I used 1½-inch #10 bolts. These went through the bracket, the fiberglass seat wall, and a ¾-inch painted plywood plank for stiffening. These were fastened with washers and locking nuts inside the storage bin to provide as flush a look as possible from the outside.

Pinned and clamped

To get the elbow to fit snugly between the brackets, I pinned and clamped the brackets to the elbow during measuring and drilling. Fast pins ($1\frac{3}{4} \times \frac{1}{2}$ inch) are inserted to adjust for height and to secure the elbow as shown in the center photo below. Matching fast pins are used on the brackets under the table. Here I used 1-inch #10 wood screws with pre-drill and caulk.

The finished work is seen in the photo at right below, as we use it most of the time now. This position maximizes open cabin and floor space while still giving us a half-size fiddled table area for lunch. The numerous holes for fast pin adjustment give us many options for dining.

When opening the folded table the first time I discovered that the horizontal elbow holds the full open tabletop without additional support. Totally unplanned. The particular fast pin holes used created an offset so the tabletop slightly overlaps the outboard seats, which is better for eating a meal. It also opens the aisle a few more inches so guests can move through the cabin more easily.

Footroom is much improved. No more toes against the floor pedestal. Four sets of feet can all lie flat when the crew is seated. Since the fast pins only take a few seconds to remove, we make adjustments easily to accommodate our moods or guests.

At the end of the season I unbolted the elbow brackets and took them to the machine shop. We are planning a slightly longer bracket for the floor side (11 inches versus 7) to take advantage of the fiberglass strength at the top and bottom of the seat wall. At the same time, the 90-degree edges will be rounded to minimize damage to crewmembers from the inevitable bumps at sea.







RON WIND 101 BON MIND 101

The basics on auxiliary propulsion systems

by Don Launer

NLESS YOU ARE EXCEPTIONAL SAILORS AND PURISTS, like Lin and Larry Pardey, you probably have a mechanical propulsion system on board — an iron wind. These mechanical propulsion systems can take many forms.

Fossil-fuel inboards

The oldest mechanical propulsion system is the inboard engine with a straight shaft. Originally this shaft was rotated by a steam engine. The choice for a fossil-fuel engine now comes down to gasoline or diesel (although diesel engines can also run on soybean oil). For those on the cutting edge of technology, an electric motor is another option.

Engines are coupled to the propeller shaft through a transmission that usually allows shifting between forward, neutral, and reverse. Steering a boat with a straight shaft is accomplished with a rudder that is just aft of the propeller so the water thrust can be diverted to either port or starboard. But in close-quarters handling, the straight shaft is not nearly as versatile as a sterndrive, IPS (Volvo's new rotatable propulsion system), or an outboard. Neither a sterndrive nor an IPS is seen aboard sailboats, however.

An inboard with a straight-shaft system is relatively

uncomplicated, but the interior space required is a limiting factor in interior design. In addition, cooling fossilfuel engines becomes more complicated since they require through-hull fittings. These are, of course, not necessary with an outboard or electric motor. Nevertheless, the straight-shaft freshwater-cooled inboard engine (using a heat exchanger in a saltwater environment) presents fewer corrosion problems than an outboard. The propeller drag, when under sail, can be reduced with a folding or feathering prop.

Fossil-fuel outboards

An outboard motor consists of a powerhead, shaft, bevel gears, and propeller, all in one package, and is the most common method of propelling small craft. As well as propulsion, outboards provide steering control. When the motor is not being used, the outboard can be tipped up, reducing drag and corrosion.

Most outboards use gasoline as a fuel, but there are also small electric outboards that are usually used on small craft while trolling for fish, and diesel outboards are also available, although their weight and cost makes them unsuitable for most purposes.

Small gasoline outboard motors have integral fuel tanks, while the larger versions have separate tanks con-



Layout and illustrations by Ted Tollefson

nected to the engine with a fuel hose. In the past, outboards used two-stroke engines, due to their lighter weight, simplicity, and lower cost, but the twostroke's higher emissions, coupled with environmental concerns, has led to the popularity of four-stroke outboards, especially in the lower horsepower range. Fuel injection, which increases efficiency and reduces emissions, is available for either type.

"An outboard motor consists of a powerhead, shaft, bevel gears, and propeller, all in one package, and is the most common method of propelling small craft." space-consuming batteries that provide limited operating time, and the electric motors usually operate on voltages between 150 and 600. When discharged, these batteries must be recharged, either from shorepower or from an onboard gasoline or diesel generator. The net result is a system that is less flexible, heavier and, in many cases, less efficient than traditional propulsion systems.

Electric motors

Twelve-volt DC electric trolling outboards have been in use for years, but their use is generally limited to small boats — canoes, rowboats, and small fishing skiffs. Using 12 volts makes them convenient for the average boat. However for a true auxiliary engine for a mediumsized sailboat, 12 volts is out of the question.

Although electric engines are nearly noiseless, with zero emissions (or, more accurately, displaced emissions) they currently require a large number of heavy,

What the future holds

The future of an electric iron wind could change, however, with the advent of compact fuel-cell technology and the infrastructure necessary to provide the necessary hydrogen fuel.

Another positive factor is the constant refinement of high-efficiency brushless DC motors, which operate without commutator brushes.

All in all, it's a brave new world in the vehicle propulsion field. Boatowners will be among the eventual beneficiaries as positive advances are introduced.





photos by



oyce Nestor

Cruising memories

Emotional shipwreck

Now-CAPPED MOUNTAINS ROSE UP behind us, obliterating much of the skyline from my vantage point aboard our 30-foot Mercator Offshore sloop, *Lindsay Christine*. A rocky beach gave way to a meadow of spring-green grass and a few emeraldgreen Sitka spruce trees around Vixen Harbor, a northern paradise-like anchorage on Cleveland Peninsula along Alaska's Inside Passage. The stormy morning clouds had cleared; the wind had died down. The scenery was beautiful and peaceful, but the atmosphere on our boat was not.

Our morning sail had been invigorating and scary. The clouds had been stormy, the wind had been fairly strong for us — 15 to 20 knots — and *Lindsay Christine* had flown. Time flew with her. We passed a whale not more than 80 feet off the beam with little thought; Amelia and Chuck had commented that it might have been a minke, one of the smaller whales we could see in the area. It had happened so quickly that none of us were lingering over the sighting.

Chuck, at the helm with his go-gogo corporate viewpoint still firmly entrenched, was not thinking of shortening sail. The kids had stayed in the cockpit most of the morning watching the action. I had been the on-call deck monkey, handmaiden, and galley slave while also being teacher — quizzing Amelia on her times tables and helping Alex with his reading — in my "spare time." We were calling it "cruising," and we had been at it for a month and a half now. But, for me, what we were doing was up for terminology re-assessment.

Loved the adventure

Both kids, Amelia, 9, and Alex, 6, loved the adventure and enjoyed having their parents around. Chuck was enjoying his new role but had not relaxed from his corporate lifestyle yet. And the jobs I had taken on since leaving the dock were weighing heavily on my shoulders: safety officer, teacher, nurse, doctor, provisioner, dietician, chef, part-time helmsman, part-time navigator, laundress, and janitor. And that was just the short list.

A cruising wife finds acceptance after stormy outburst

by Theresa Fort

What had happened to being a mom and wife? That particular afternoon I was sure I had forsaken those jobs. My frustration showed itself in the form of a terrible bout of grumpiness and cabinet slamming. No one aboard the *Lindsay Christine* was enjoying the beautiful scenery once our Delta anchor securely plowed a place into the muddy bottom.

"What the heck is wrong with you?" It was Chuck who actually brought it all to a point ... and quickly. "I thought you wanted to go cruising!" He stormed up to the bow toward me after shutting off the engine.

"Well, is *that* what we are doing?" I shot back. "'Cause if it is, the answer is no...I don't *want* to go cruising." I could feel the tears welling up. I used my anger to force them back. "Not this How much more alone do you need to be?" He wasn't hearing me. I knew that now. I would have to say what I needed to say in front of the whole family. And I would need to be calm to get my message through.

Gathered her thoughts

"OK, fine, let me gather my thoughts and I'll tell you what the heck is wrong with me." I walked back to the cockpit, feeling Chuck's glare searing through me, hoping I could make it past the kids before the tears came. I stole a glance at their stony faces as I ducked to go down the companionway. I made it to the forepeak and pulled the curtain down for privacy while the tears streamed down my face. I heard Chuck calling the kids to help him clean up.

"We were calling it 'cruising,' and we had been at it for a month-and-a-half now. But, for me, what we were doing was up for terminology re-assessment."

time," I told myself, "You need to get this out... and now." I folded my arms across my chest and glanced around.

The kids were dead-bunny quiet, staring at us from the cockpit. The two small deer that had been grazing in a nearby meadow when we had sailed into the bay were staring as well.

"You've been banging around this boat for a week now, making all of us miserable," Chuck added.

"Can we go somewhere to talk \dots alone?"

"What do you mean? We've been alone for over a month now. Talk if you need to talk. Look around you.

Chuck and I had been married for almost 13 years; we had known each other for 17. I could count the blowups we'd had in that time on one hand. We had learned long before that to talk out our problems and, with both of us being fairly easy-going, there really hadn't been that many times when we were furious enough to fight. This problem wasn't about our relationship. We both knew that. But I hoped I could figure out what was wrong before I ruined the trip for all of us. I knew one thing: I still wanted to be out here, exploring the world with our family.

Writing had always helped me clarify my feelings. I climbed into the V-berth and settled

V-berth and settled down with my journal. The ink flowed for several hours while Chuck took the kids for a dinghy ride around the anchorage and then fished from the boat. "4

Troubled for weeks

After an exceptionally quiet dinner and clean-up, we all sat at the saloon table to talk. I started by apologizing for my foul mood and said that I had been troubled for several weeks but didn't know what was bothering me until now. I explained that I had come up with a list of things that were upsetting me. Some could be easily fixed, some couldn't. I started with the small stuff.

The boat was too crowded. We needed to go through some of the stuff we really didn't need and get rid of it so we could find things more easily (moving from a four-bedroom house to a small boat took a bit more "downsizing" than we first thought).

We were rushing through our adventure, going too fast and not enjoying our trip.

I needed to delegate some of the jobs I had taken upon myself, jobs that the kids could do.

I needed more help with homeschooling. I wanted to set aside time to talk together once in a while about our educational goals, how we were

going to meet these goals while cruising, and any changes or problems we were experiencing.

I needed to spend more time navigating the boat so I could feel more competent. All too easily we had gotten into the habit of having Chuck spend his time in charge of navigation and steering to allow me time for school with the kids. And, since we were traveling only during the daytime, I never took control of the boat until weekends.

We discussed ways to solve these concerns and settled on some good solutions. Then I looked at Chuck directly and said that I didn't feel much like a wife anymore. He understood.

"'I don't know about you, but I have

never felt so close to really living life

as I feel when I am out here."

"Let's go up on deck," Chuck said. "Amy, Alex, stay down here. Mom and Dad need to talk...alone."

Intense feelings

Outside in the gathering dusk, I told him how intense I had felt since leaving our dock in Everett. "Sometimes it's just too much. I am terrified that I am going to make a mistake that will cause one or all of us harm. I miss all of our family and friends. I worry that we won't ever see them again. I get aggravated when I don't know something that I ought to."

Then I added, "I am amazed at how far we have come already but sometimes I'm terrified to go farther. And, there are times when I feel like I will split apart with all of these feelings." Then I was quiet.

Chuck began, "I didn't realize it until now, but we are never alone anymore. We need to find a way to talk together without the kids overhearing — we need privacy." Then he added, "I feel the same as you do. You're right; feelings are much more intense now. I'm just as scared. But,

is that a reason to stop or a reason to continue?"

"What do you mean?" I asked. "Think of it this way. We wanted an adventure. We wanted to be together as a family. We wanted to live close to nature. I don't know about you, but I have never felt so close to really living life as I feel when I am out here." He paused and took a deep breath. "Is feeling scared of doing this a good reason to stop? Fear keeps us thinking. It keeps us second-guessing our decisions and making sure we make good ones. I think it would be much more dangerous for us to continue if we were feeling cocky right now. As for any security we think we had back home, I never really trusted it. Did you?"

"Well, no. I guess not,"

Then he added, "We have each other as long as we can talk our troubles through. I would rather depend on you than anyone else out there. Look how far we've come together already."

No stars yet

We lay down on the foredeck and looked up at the sky, now the hazy grayish-pink of twilight. It was late but the stars were *Continued on Page 88*

TOM PAYNI



N o MATTER HOW MUCH WE LOVE OUR old boats, we have all suffered from at least the occasional little bit of new-boat envy. Usually it strikes when we're at a boat show and we see that brand-spanking-new cruiser. While we might never consider trading in our good old boat just to get some boat-show spit and polish, that high-end, high-dollar boat has at least one specific detail we look at and think, "Cool! Wish I could do that!"

One of the details that I've envied on some of the fanciest new boats is a custom panel for the navigation lights. But with a little thought and research, I designed an easy-to-make custom panel that handles bilge pumps, navigation lights, and instrument systems.

Fetchin' Ketch is a Sparkman & Stephens-designed, 40-foot ketch built in 1976 by Northstar Yachts. She had almost 30 years' worth of accumulated changes in her electrical system. Some of the changes were good, some bad, but certainly the entire arrangement could only be classified as ugly. Upgrades and updates were due.

New circuit-breaker panels and meters updated the entire panel to the 21st century. Information on how to install these can be found in many books and dozens of articles. One of my favorite modifications is the new panel for the navigation lights. A custom graphic of the boat and indicator LEDs give an immediate visual indication of which lights are turned on. Using LEDs gives a source of light that is not too expensive, not too bright, not too big, and very stingy with electrical power. The custom graphic makes interpretation simple and adds a dramatic touch of style.

Several switches

The panel we installed has switches for the anchor and tricolor light at the masthead, the deck-level navigation lights, the steaming light, and the foredeck light. A line drawing of the boat has colored LED indicator lamps placed in their appropriate positions, making it easy to understand what's on at a glance.

This type of panel can be adapted to many uses on a boat. Maybe a bilge-pump panel? Propane-solenoid control? Any time you want a remote indication of power supply, a panel like this can be used. In its simplest form it is a label, a switch, and an indicator light. More elegant graphics are limited only by your imagination.

It is important to remember that the LED indicators do not show that the light is lit or that power is being used. They only show that power is supplied to the circuit — the switch has been turned on. If a bulb is burned out at the masthead, the LED will still light up.

LEDs are becoming more common on the modern sailing boat. Highpower LEDs are now used as navigation lights. The availability of bright white LEDs makes it possible for their use in cabin lighting. The low power draw typical of an LED is the greatest

A classy Combine a graphic

attraction. However, they are sensitive to voltages higher than design specifications. Direct application of 12 volts to most will destroy them immediately. Reverse polarity higher than they are designed for will also fry them in short order. While they may be a bit sensitive, when they are wired correctly they last almost forever. It does not take an electrical engineer to use them ...just a little insider information (see *Good Old Boat*, September 2005).

Selecting an LED

LEDs come in a wide variety of colors, sizes, brightness, mounting styles, and lens types. They have their own terminology; I'll try to provide at least a short overview. You can find pretty much any LED you might want (and thousands you wouldn't) at Mouser Electronics. Every part we are talking about here costs less than \$5, in some cases much less than \$1.

Available colors have expanded dramatically in the last few years. Red, yellow, green, blue, amber, orange, and white are typical. Two-color LEDs (red and green, for example) are widely available. Blue and white are still special and more expensive than the other colors. They are not available in the same variety of styles as the standard colors and typically appear separately in the catalogs. On Fetchin' Ketch's panel, I used red and blue LEDs. The blue was available in the right size and brightness and looks enough like white that the effect is just about perfect, while possibly helping preserve our night vision.

Bill's indicator panel has switches for the anchor and tricolor light at the masthead, along with the foredeck, steaming, and deck-level navigation lights. Many other indicator panels, such as a bilge-pump panel, might also be useful aboard. Indicators of this type only report if a switch is turned on. They do not tell you if a bulb has burned out.

electrical panel

with LEDs for a stylish update

by Bill Kinney

The LEDs are sized by diameter; 3mm or 5-mm are good sizes for panel indicators. You might see these sizes listed as "T1" for the 3-mm and "T1 ³/₄inch" for the 5-mm.

Difference in brightness

LEDs come in a range of brightness: low-power, typical, bright, and super-bright. They are usually rated in millicandela (mcd), with 1,000 mcd (1 candela) roughly equivalent to the light output from a candle. LEDs with intensities from 20 to several hundred mcd make good indicator lights. The plastic lenses covering the LED come in clear and diffuse styles. The clear lens gives a sparkling light, while the diffuse lens provides a more even glow. The choice is just one of personal preference for the application you have in mind. The color comes from the workings of the device, not from the plastic lens. So the lens can come in clear or match the color of the light. Again, the choice is a personal one.

Sizing the resistor

If you have a local electronics hobby store staffed by knowledgeable people, you can skip this part and go and talk to them. They should be happy to help. Every LED has a typical forward voltage (usually called "typ. Vf") and maximum forward voltage (called "max Vf") and a designed current draw (called If). This voltage is at or below the voltage presented by the electrical system of the boat. A resistor is wired into the circuit to take advantage of the voltage drop across a resistor. This will ensure that the voltage presented to the LED is not above max Vf. We do not have to be precise here. If we are a little over voltage, the LEDs will burn brighter but last a shorter period of time. If we are a little under, they will be dimmer but last longer.

To calculate the resistor size, we need to collect some information and do a very little bit of simple math. First, look up the maximum voltage and current rating of the LED in the catalog or manufacturer's data sheet and use the following procedure to figure out the resistor sizes.

Subtract the maximum voltage allowed at the LED from the maximum system voltage to obtain the resistor's voltage drop. Then divide this number by the current to obtain the resistor value. In a typical 12-volt system maximum voltage is as high as 14.5 volts during battery charging. To calculate the power rating of the resistor, we take the voltage drop and multiply by the current. If we had an LED that needed 4.4 volts at 20 milliamps, the calculation would look like this:

14.5 volts - 4.4 volts = 10.1 volts across the resistor 10.1V / 0.020 amps = 505 ohms 10.1V x 0.020 amps = 0.202 watts

Make it close

To run this LED on a marine 12-volt electrical system, we would add a resistor to the circuit that was as close to these values as possible. Resistors are available in a limited number of sizes defined by ohm and watt; try to

Making your own?

Here are the numbers you'll need, to order the necessary parts:

- T1 ¾ bright blue bulb: Chicago Miniature Lamp Inc. P/N: CMD383UBC/H2
- Matching resistor: KOA Speer, 470-ohm, ¼-watt. P/N: CF1/4L471J
- T1 ¾ LED with integral resistors, 12-volt typical, 15-volt maximum
 - Red: Chicago Miniature Lamp Inc. P/N: 4302H1-12V
 - Green: Chicago Miniature Lamp Inc. P/N: 4302H5-12V
- Amber: Chicago Miniature Lamp Inc. P/N: 4302H3-12V
- T1 ¾ LED mounting clips Black: Chicago Miniature Lamp Inc. P/N 6064304MC



match as closely as possible. A little over or under in resistance is not a big deal. However, for the wattage rating, always use the calculated size or the next one larger. Your best choice in the example case would be a 510-ohm/ 0.25-watt model.

You might find the standard color LEDs with an integral resistor ready to wire into a 12-volt circuit. Check their specifications carefully before you use them. Some will have a maximum voltage of 13 volts, and will have a short lifespan when used on a boat electrical system that runs well over this during the charging cycle.

Installation

LEDs have two wire leads. One is always longer than the other. The long lead (the "anode") is connected to the positive battery terminal. When working with LEDs, do not cut the leads to length without noting which is which. However, it makes no practical difference in our application to which side of the LED you connect the resistor, since there is no direction to the resistor. Twist the resistor lead to the lead of the LED and solder them together. Neither is especially heat sensitive, but if you heat them too long, you can damage the LED. Practice a bit first if you aren't used to soldering.

The easiest way to mount an LED in a panel is to use specially made mounting clips. There are a variety of these made for panel thicknesses of up to about ½ inch. I mounted the LEDs in my panel by drilling a hole that was a tight fit, mounted the LED into its clip, pressed the assembly in from the back of the panel, and then added a small blob of silicon caulk on the back side to hold it in place. I wired the positive (anode) side of the LED to the switch controlling the circuit and the negative (cathode) side to the panel ground. That's it.

Graphic design

If you have a line drawing of your boat, you're halfway there. If you don't have such a drawing, it's time to get creative. Start with a search for owners' groups on the Internet. Good Old Boat has a huge database of owners' groups on its website. If the builder or designer of your boat is still in business, it's certainly worth a call. They will most likely have something in their archives that would be useful. Once the drawing is scanned into a computer-readable file, you can resize it and edit as needed.

Without access to an appropriate drawing, you could draw one, if you have that kind of talent. That wasn't an option for me. Instead, I started with

Using LEDs gives a source of light that is not too expensive, not too bright, not too big, and very stingy with electrical power.

the 30-year-old sales brochure, made a

digital photograph, and converted that

to a line drawing. I added labels, a bor-

der, printed it with a high quality inkjet

If you do not have the appropriate

printer, and trimmed it to size.

photo editing tools or skills, find a

local photographer or graphic artist

who can help. You could start with a

good, sharp side view photo of your

boat. I would suggest avoiding color

printing, since these prints can fade

with time. Feel free to be creative,

adding your vessel's name or other

distinctive logo. It is best to add all of

the switch labels, borders, and other

text on the same computer file. That

way it comes out of the printer in one

Once you have an appropriately

sized copy of the drawing, glue it to

the panel material of your choice.

piece, ready to trim to size.

in a teak frame. Lightweight plywood or any similar thin sheet would work as well.

I used black

acrylic sheets

The best glue for this application is rubber cement, but any glue that is waterproof and non-staining is likely to work well.

Seal and protect it

You can cover the paper with adhesive laminating plastic or use a clear varnish, polyester resin, or even clear epoxy to seal and protect. If you are going to use a liquid finish, test it first. Prepare a test sheet of paper printed in the same way you will print the final product, then adhere it to a piece of panel material using the glue you plan to use. Some finishes may affect the ink or glue. Some will soak into the paper and turn it translucent, which can ruin the look you're trying to achieve. It is better to find this out before you have done all the hard work.

If you decide to use a laminating plastic film, as I did, be sure that the panel is small enough to cover it with a single piece of film and have enough left over to wrap the plastic around the sides all the way to the back of the panel. Otherwise, it may peel up at the edges over time. Also, be sure the surface of the panel is clean and free of dust as you apply the film. Final cleaning should be with a lint-free cloth. The tiniest dust particle makes an obvious dimple in the surface of the laminating film, ruining the professional appearance you're aiming for.

Combining the graphic with the LEDs will give you a very functional control panel that will be unique to your boat and give it a certain touch of class.

Resources

Navlight Indicators

Don't want to make it yourself? Navigation light panels, current sensors and LED indicators. <http://www.navlightindicators.html>

Mouser Electronics Online source for LED products <http://www.mouser.com>

COOL IT YOURSELF!

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Installing an ancho windlass

It's a big job, but easier if you first do your homework

by John Danicic

HEN I TOLD MY MUCH YOUNGER sibling that I was going to install an electric anchor windlass on my Cape Dory 36 cutter, he asked, "What's wrong? Are you getting old?" He's right. I am getting old. Some time earlier he had convinced me to buy 50 feet of chain to go along with the 35-pound CQR anchor that hangs from our bow. That's a whole lot of weight to pull up and then drop down that little hole in the deck.

But, being of the generation that still expects miracles by harnessing the power of electricity, I knew this messy, sweaty, time-consuming job could be brought to the civilized level of a true yacht at the flick of a button. I wouldn't have to loosen my ascot, stain my captain's hat, or pop the buttons on my blue linen blazer to accomplish the task.

I love being able to weigh anchor and get under way without fussing with wet chain and line. I rank the windlass right up there with mainsail lazy-jacks and headsail roller furling as the best additions to our boat. It makes for a more pleasant operating experience when my wife is on board, and is even more valuable when I'm singlehanding. What I didn't expect was how much I had to learn in the installation process.

Each boat is different regarding mounting location, wiring, and rode



John's Cape Dory 36, in top photos, before and after the installation of an anchor windlass. He selected a vertical windlass after considering both types. A horizontal windlass is shown above.

needs. So I can't offer a step-by-step process for your boat. But I can explain how to research a windlass installation, how to determine what your options are, and how it worked for me. As it turns out, the windlass itself is just one part of the installation. Most of the manufacturers' brochures tell you how easy their product is to install. Essentially, they are right. It's the "details" that tend to get complicated.

Choose a windlass style

Manual windlasses exist, but I found that the advantages of electric windlasses outweighed the advantages of manual ones. I also preferred a selftailing windlass so I don't have any contact with the rode.

Windlasses may be vertical or horizontal, depending upon the axis of the drum. The vertical type is more properly called a "capstan," but you will find the term "windlass" used in many catalogs and books describing either type; thus the term "vertical windlass" is in common use. Windlasses may be configured to handle chain on a drum, called a "wildcat," or rope on a drum, called a "gypsy," or they may have a combination drum with chain pockets on a perimeter and a V-groove for the rope in the center. The combination drum requires a rope-to-chain splice.

The rode makes a 180-degree turn around a vertical windlass and is fed down the hawsepipe. This arrangement puts the rode in contact with about half the capstan's circumference, giving a good grip with a small area and keeps the mechanism almost completely covered. It keeps hands and feet safely out of harm's way, but carries the potential hazard of hiding jams and kinks in the rode. In addition, the vertical windlass has its motor installed belowdecks. This gives the windlass a low profile on deck. Some verticals can be ordered to do all-chain, chain and rope, or all-rope.



On some, you can order an extra rope gypsy that sits atop the chain sprocket to haul in another line.

The selection of horizontal windlasses is not as great. The driveshaft is parallel with the deck and turns a gypsy that grips the rode for a 90-degree turn and sends it down through the hawser hole. The whole unit, motor and all, is mounted abovedeck, making it easier to install and service. Some horizontals come with port and starboard shafts allowing the operator to haul up two anchors, all-chain, all-rope, or combinations.

I chose a vertical type because of the unobtrusive design.

Above-deck details

Investigate, investigate – To choose what style works best for your boat, determine whether it will fit on your deck and work with your rode. Study other windlass installations on similar boats and ask questions. Learning what works and doesn't for others will help you determine the acceptable compromises for your boat and may prevent a costly mistake.

Examine your deck structure – How thick is it? What kind of obstacles will you run into by cutting holes? Is the anchor locker deep enough? Belowdeck verticals need deeper lockers because the motor can take up a foot or so of space you need for rode

the deepest at the aft end. Some owners who'd mounted their windlasses forward, so the chain fell closer to the slope of the forepeak, said they had more trouble with the chain jamming. If your locker is shallow or you have no access to it belowdecks, you may have to go with a deck-mounted horizontal or get into some creative carpentry. Also find a place for the reversing solenoid, which needs to be close to the windlass, and for a beefy, high-amp circuit breaker that must be within 2 feet of the battery. Both need to be in dry locations. The circuit breaker should be easily accessible to use as an isolator or on/off switch.

What's your load? – How much weight are you going to lift off the sea floor? Each manufacturer has a different way of calculating that, but the manufacturers' rule of thumb seems to be three times the weight of your anchor and total rode. Get a windlass rated above, but close to, that number. The more powerful the windlass, the bigger the electrical system needed to run it. Size it right and you can keep the cost down for all the "corresponding details."

In his book, *Things I Wish I'd Known Before I Started Sailing*, John Vigor says: "The manufacturers of anchor windlasses warn people not to expect too much from them, but that doesn't stop many sailors from abusing them. Windlasses are designed to lift only the weight of the anchor and its line. They aren't meant to drag a heavy cruising boat up to her buried anchor in choppy seas against a strong current or heavy wind. But it happens all the time. The makers try to salvage their reputations by advising sailors to choose much bigger windlasses than they really need, so they won't wreck the machinery before the warranty runs out. Nevertheless, the windlass slaughter continues."

Too much choice – There are a lot of windlass manufacturers and many models. Prices vary wildly. Some windlasses come complete with reversing solenoid, circuit breaker (isolator switch), and remote switch and/or foot switches. Some offer stand-alone units. Some allow for manual raising of the anchor with a winch handle in an emergency. Others allow for dropping the anchor without the use of the motor. Most belowdeck models can be ordered to fit different deck thicknesses.



John used scale models to try out possible areas on the deck for the location of the windlass. The chain stretching aft pointed the way to the best location for the equipment.

Make a choice - Armed with the information you collected about your boat, narrow down your choice by comparing the manufacturers' specs and features. Don't rely on the manufacturers' sales-oriented websites. The more research you do, the better off you'll be ... with fewer surprises once you've cut those big holes in your deck. If possible, get copies of installation instructions and operation manuals for your top candidates. Because I have a bowsprit raised off the deck, a staysail jib boom mount, staysail shrouds, cleats, and other deck obstacles, I made full-scale models of several windlass types. This helped me experiment with different locations and visualize whether any could interfere with sail operation. I recom-



A bow roller is vital. The anchor must be stored on the bow ready for use. The original roller was replaced by a self-launching roller that could contain the rode, preventing it from popping off during anchor retrieval. mend this step. It gives you much more confidence once you start cutting holes in your deck.

Once you've made your decision on type and make, just cut the hole and pop it in, right? Well, you *could*. But wait! Don't get out the saw just yet. There's more investigating to do on deck, and you need to figure out how to get all those amps to safely run your new powerful motor.

Anchor stowage - The last abovedeck item to look at is how your anchor is stowed and what kind of damage could be done to the deck from the rapidly moving rode. There's little point in having an electric windlass if you have to mess with pulling your anchor from a locker and then attaching it to the rode. The anchor should be in a secure location that will allow it to self-launch and be stowed without your help. Not all boats are set up for that. Luckily, there are bow rollers that you can bolt on. The bow roller at the end of our bowsprit was an open affair that made it difficult to keep the line and chain from popping off during retrieval. It was framed with teak that tended to get chewed up by the chain ... even by our slow and careful hand-over-hand hauling. I cut out the old roller and installed a new assembly with guides to capture the anchor and rode.

Sacrificial skid plate – Since my anchor line runs over a raised teak bowsprit 2 inches off the deck, and the installation location was on the deck,



The raised teak base was constructed using the stainless-steel deck plate from the manufacturer as a pattern.

I needed to build a base to raise the windlass to that height. I also had to add a bronze skid plate to protect the bowsprit teak from being chewed up by a chain moving at 60 feet per minute. (I told you this got complicated.)

Installing the skid plate was a satisfying job. I used a bronze plate because most of the deck hardware on a Cape Dory 36 is bronze, but you can use stainless steel. Bronze is a lot easier to work, cut, and shape than stainless steel, and you can always order the crew to polish it when they are whining about having nothing to do. I found a good source for silicon bronze, Atlas Metal Sales in Denver.

Eighth-inch bronze plate can be cut easily by a jigsaw with a bi-metal blade. A fine metal file smoothes the edges. Regular steel drills and counter sinks can be used on it, although new ones result in neater work. The plate

The voice of reason

by Jerry Powlas

N othing much is said about the dangers of powered winches or a powered windlass, so they seem to be treated casually. You don't have to be in the business very long before you start to hear stories about people being maimed by these things. I don't have statistics to cite, but I've heard too many stories.

A windlass becomes necessary at some point because of the weight of the anchor and rode. There are aftermarket manual windlasses out there, but they are not numerous. The preferred type is powered.

I consider a foot switch to be very convenient — but far too dangerous to be an acceptable configuration. Having switches in the cockpit and on the foredeck may not be as safe as only having one switch on the foredeck. That way the person working the anchor on the foredeck will have fewer miscues and surprises.

Most people agree that cars, trucks, airplanes, and all manner of other powered devices are both necessary and dangerous. For all of these, the sensible approach is to promote awareness and give training in the use of inherently dangerous equipment, such as a windlass.

The ground tackle on most large boats requires mechanical assistance. This is not a concern with small boats. Somewhere in between the two there are boats on the borderline. Some do not need a powered windlass as long as they use light ground tackle. Here are some ways to avoid having to install a powered windlass.

- Don't use all-chain rode unless you absolutely need to.
- Consider the use of high-strength aluminum anchors, such as the Fortress brand.
- Motor up to your anchor if conditions are such that you would have to strain yourself to pull the boat up to the anchor.
- Cleat off and break out the anchor with the engine.
- In the fairly rare situations where you need to apply a great deal of force to the rode to break out or lift a deadhead, put a rolling hitch on the rode and lead a clean and dry line back to a primary winch.

should be large enough to protect anything that the rode could contact as it travels from the windlass to the bow roller. If you have all-chain rode, don't forget that a chain stopper needs to be mounted between the roller and the windlass. Details, details!

Between decks

Strengthen the deck – Most manufacturers' instructions tell you, usually in capital letters: DO NOT USE THE WINDLASS AS A BOLLARD! Take the strain off the windlass while anchored. And don't use your windlass to drag 8 tons of fiberglass and lead though the water against a 30-knot wind and a 2-foot chop. Use discretion here. This is how unintended skylights are made. Back down on the anchor while the rode is attached to the main cleat. Use your engine to motor to-

Battery-cable lug connections that last

Unless you have access to a professional battery cable-crimping tool (\$200-300), attaching the terminal lugs to the cable will be one of the unexpectedly big jobs of your windlass installation.

If you can get such a tool, use it. But if you use other means to mechanically fasten lugs to cables, you must make sure that the cable and the lug remain securely attached. What better way to do that than to combine mechanical fastening with the power of solder?



All this stuff? Yep. Clockwise from bottom left: heavy wire cutters or a hacksaw to cut the cable, hammer-style crimper, flux for the solder or use rosin-core solder, utility knife, brush, hammer, solder, propane torch, three progressively longer lengths of heat-shrink tubing, cable, lugs, and needle-nose pliers or forceps. Not shown is the heat gun.



Hack or snip? The first step is measuring and then cutting the cable to length.

Big wire cutters work best, but if you want a vigorous workout use a hacksaw. Battery cable lugs have a flat surface that mates with the terminal. Once you run the wire, determine how you want the lug to fit on the cable for the best orientation to the terminal. Once it is firmly attached, it's very hard to bend the cable to fit.

Mark the top of the cable with an arrow during placement and length measurement. Cut the insulation with a utility knife and leave enough gap between the lug and insulation to clamp a pair of pliers or forceps to act as a cable holder and heat sink.



Clean, then brush the flux. Slip the three progressively longer heat-shrink tubes on and well down the cable. Clean out the inside of the lug with fine steel wool and coat the inside of the lug and the cable with rosin flux. Never use acid flux. You may use rosin-core solder with no other flux.



Strike a blow. Using an inexpensive hammer crimper will put a dimple into the lug and form a mechanical fastening. It's set up to accommodate various cable gauges.

If done correctly, this should be all you need. If you lack a hammer crimper, use a blunt chisel to form the dimple. Work on a surface that will absorb the considerable forces and prevent the cable from moving.



Hot, hot heat. Heat from the lug end to the cable with a flicker-through-the-flame motion until solder will melt if touched to the lug. We are talking about mere seconds of heating. You could also use a large electric soldering iron, but that would deduct too much time from sailing.



Bubble and boil. Apply solder to the seam. It should melt quickly and be drawn into the cable and socket. If it doesn't, heat up the lug some more ... It doesn't take much solder to form a good connection.



Cool it! Let it cool a bit, but not too much. The insula-

by John Danicic

tion will be rather soft when warm and can be pushed down to cover your heat-sink gap. Let it cool completely and use a fresh rag to clean off residual flux.



Easy as 1-2-3. I like to use three layers of heat-shrink tubing, with each layer longer than the last to cover the seams. I found heavy-duty black 3M tubing at a surplus electronics store. Draw the first layer up and over the lug and use the heat gun to shrink each layer separately.



Layer two. Keep the heat gun moving so as not to burn up all your hard work.



Good documentation. It's a good idea to write what the cable is for and where it goes on a piece of tape. Cover this with clear heat-shrink tubing. You now have an impressive, safe, and informative cable connection.

ward the anchor while weighing. You are attaching to your deck a heavy piece of machinery that could be under great strain. Not all boats have a sturdy, solid deck that you can simply drill into and bolt down a windlass. It's far better to reinforce the windlass mounting than lose the windlass along with the rode and a big chunk of deck.

As part of my deck investigation, I examined the hawser hole and determined that my deck was ¾-inch thick solid fiberglass. Wrong. When I began my installation just 12 inches away, I discovered the deck at that point was ½ inch thick, part solid plywood and part balsa core. The whole foredeck on my boat varied in thickness from side to side and fore to aft. When I moved the main cleat, I found that location to be balsa cored as well.

The best strategy is to include a backing plate. Since I was at the extreme edge of deck thickness my windlass could handle, I used a piece of 3/16-inch stainless steel from a scrap yard. This was a very difficult piece in which to cut the 4-inch hole necessary for the motor to poke through. A good solid piece of marine plywood, 1/2 inch or thicker, epoxied to the underside of the deck would be easier to work. The more area it covers, the better. Fiberglass on the underside of the plywood will add stiffness and strength without the additional thickness of thicker plywood. Remember, if the forces are great enough, something's gotta give. The idea is to make the deck strong enough to take on most normal boat forces. Don't skimp here.

Belowdecks

Battery location – The electrical demands of a windlass are pretty high. If you haven't already updated your boat's electrical system, this might be the time to do it. (See how this "simple project" is expanding? But what do you expect? It's for a boat, after all.)

You have two choices for powering your windlass. Either install two heavy battery cables almost as big as garden hoses with enough copper in them to light up the eyes of a pirate, or install a dedicated battery at a location near the windlass and run smaller battery cables to the battery.

A dedicated battery installation adds the weight of a battery to the bow in addition to the combined weights of rode, anchor, and windlass. With



The windlass drive shaft (without the motor installed) protrudes through the stainless-steel backing plate. The chain drop hole is in the center. The previous hawser hole is the oval hole at the right. Notice the reinforcement plate for the windlass.



all this new stuff, you're adding the weight of half a person forward. Can your boat handle this?

Since a bow battery needs to have a way to charge, you still have to run substantial wires to it. My thought was to add an Echo Charger that would charge up this battery whenever the house bank was being charged. They typically run at less than 20 amps, so the connecting cables need not be too large, say the size of a pencil. The trouble with this arrangement is that if you need to raise and lower the anchor a few times at a tricky anchorage, you could draw this battery down. Once you are finally hooked, you have a battery that can't be charged until you run the engine again. Finding room to secure a battery in the forepeak can be a challenge as well. And consider maintenance.

The heavy battery cable route is the most common solution and was the most economical for me. Cable that's tinned and corrosion-resistant can be purchased by the foot from a marine supply store, but it carries the dreaded marine cost: high. The other alternative is welding wire, which looks the same as the marine variety from the outside but is not tinned. This is available at automotive or welding supply shops. Decide how much you want to spend and how far down the road you want to do this wiring job again.

Significant expense

The cost of either type of wire is a significant expense, so pre-planning your route will save you money or another trip to the store and a big butt joint. You'll need plenty of extra cable to make the shorter runs between the solenoid and the motor and the circuit breaker and the battery. Figure that in.

Depending on the distance from your batteries to the windlass, it is important to get the right gauge wire that will handle the expected heavy



amp loads. The windlass manufacturer should supply a chart for wire gauge and distance

comes to routing wire.

traveled. To determine how much wire

you need, you need to know exactly

how the cable will be routed. More

under-the-deck investigations are in

order. Every boat is different when it

Let's face it, with cable this large

and stiff you are not going to be able to

fish it through like you might with wir-

secured firmly every 6 inches or so and

to remove any sharp edges that could,

over time, wear away the plastic wire

route for the cable from the batteries

in the cockpit locker to the forepeak

tial gaps between the bulkheads and

the deck. I didn't have to drill or cut a

hole. I consider myself lucky.

under the hull-to-deck joint. It had eas-

ily removable teak panels and substan-

covering. My boat had a very good

ing for a cabin light. You want it to be

Keep in mind that you are installing a "hose" full of rapidly moving fire that, should it escape, can destroy your boat.

wire carefully, and attach it as often

heavy-duty cable ties with screw holes

This is the preferred method of attach-

ment. On the underside of my hull-to-

deck joint is a lot of lumpy fiberglass

small holes for self-tapping sheet met-

al screws, which I used for attaching

the ties. Keep in mind that you are in-

stalling a "hose" full of rapidly moving

fire that, should it escape, can destroy

install it right the first time. You rarely

get a second chance, at least not with

is how to attach the multitude of bat-

tery cable lugs. I needed 10 tinned

copper lugs to connect batteries,

A new skill you may need to learn

your boat. Treat it with respect and

that boat.

and a lip that is perfect for drilling

and securely as you can. Use long,

in the ends (called mounting ties).

If you can't get a professional battery lug crimper, get the hammer tool and solder

needed to securely attach the lugs to the cables. Use heat-shrink tubing to cover the crimp. Label all the lugs so you know what goes where (see sidebar on Page 54).

Forward control?

One of the nice things about an electric windlass is the ability to motor up to an anchorage, release the anchor, and power down the rode . . . all from the comfort of the cockpit. That ascot and captain's hat may help your image as well, but let's get real: you can't see much on the bow from way back there, especially with dodgers, dinghies, and such in the way. If the reason you're getting the windlass is too many seasons under the belt, your eyes can't be sharp enough to see any potentially catastrophic wear on your rode. It is best to be forward to watch and control the process, so some form





of remote up/down switch is needed at the bow.

"Remote" is a misleading term here; the cockpit switch is really the remote one, requiring a set of wires that lead back to the cockpit from the solenoid. With a control at the bow, you can make a visual check of the condition of your rode and the ropeto-chain splice. And you are available to unravel the anchor rode from any sunken tree stumps.

There are two choices here as well: a plug-in, hand-held remote or a permanently installed foot switch. I chose the hand-held unit. Sure, it is another thing to lose overboard or in a deep locker, but the plug's socket is unobtrusive. I needed a much smaller hole for installation than what is required by foot switches, which come in pairs and need to be mounted where you can step on them. The downside of foot switches is that they can be inadvertently stepped on. We keep the handheld with its 8-foot cord in the cockpit locker while underway, but for unexpected midnight getaways we leave it connected and clipped securely to the rail when at anchor. Most manufacturers are pretty proud of their hand-held remotes, so expect to pay accordingly. Gearheads can get a thrill with remotes that can digitally read out the number of feet of rode deployed. Wireless controls are in the future. "Now where's that %@&^* remote?"

Nothing to it

It's time for your power tools, hole saws, bedding compound, and crimping tools. Every contingency has been considered. As my boat mentor once told me, "When it comes to boat projects,



Once all the decisions have been made, it's time to cut holes in the boat, above, and install the equipment, below. The aft hole is for the motor shaft. The forward hole is where the chain will pass through for storage below.





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take any time plan and multiply it by pi." I have found that to be good advice.

This is a big project. You need to draw on many skills: wiring, carpentry, and metal work. But the biggest skill is the ability to visualize the project before you start. If you can master that, then actually doing it is a breeze.

The more you study and visualize this project, the better it will turn out. The reward for this hard work is less stress at anchorages and no sweaty ascots to wash.

There is just one more — very complicated — detail: the smooth rope-tochain splice so your anchor rode will move easily through the windlass. I'll cover that in the January 2007 issue.

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The rebirth of Maruska

Rainy day projects become priorities

by Dale Tanski

s I SLID BACK THE HATCH UPON MY return to *Maruska*, steady rain revealed new problems: she leaked like a sieve. All but one port and two out of three deck hatches wept.

Painting priority

My goal for the weekend was to epoxy-coat the bilge, engine bed, and fuel tank areas. The rain continued throughout the first day causing frustration, as the bilge remained too wet to paint. While waiting for the rain to stop, I rebuilt the hot water heater platform and exhaust muffler base, reinforcing and retabbing both to the hull.

After a thorough vacuuming and with a quality respirator strapped to my head, I slithered back into the cockpit lockers to apply a coat of epoxy paint. With the engine out of the way, this was the time to revive these lockers if ever there was one. I used a high-build, low-sheen epoxy primer that filled and sealed the rough areas. Many hours later, the fuel tank bulkheads, engine bed, and anything else in the aft part of the boat that was dry and I could reach had been completely sealed and was looking good.

Water tank removal

To begin the reconstruction in the main cabin, I would first have to do something with the port and starboard water tanks. They apparently did not fit into the previous owner's plans; he had cut out the fronts of the settees as well as the fronts of the tanks. After concluding that the tanks were beyond salvage, I removed what remained of the starboard tank with the help of the Sawzall. Undoubtedly, the blade manufacturer's stock dividends will increase. The awkward positioning and unforgiving nature of the fiberglass tanks ate blade after blade. A stretched string, straightedge, and tape measure produced the basic dimensions for a sketch of a new water tank.

My intention was to have these tanks built by a sheet metal shop from 316 stainless. I soon learned that the



















cost to have custom-fit stainless tanks made would be \$1,800 each. The cost of stainless has gone through the roof! Instead, I located an individual who welds polyethylene. We agreed that I would fabricate flat sheets of polyethylene and he would weld them together.

The tanks will be foamed into place using pour-in-place polyurethane foam. This foam works best in 80-degree weather; the warmer it is, the better it expands. Naturally, the better it expands, the better it insulates. Installation would have to wait until warmer weather, but the tanks and associated plumbing could be fabricated and fitted in place so I could continue reconstruction on the surrounding cabinetry.

Keel and skeg leaks

I believe the nonstructural factory fiberglass covering over the rudder skeg was a dry layup and porous. Over time, water either entered the rudder skeg from the top down (the rudder post packing gland is uphill from the area) or the rudder skeg itself developed a leak and filled from the outside in. While painting, I discovered one unanticipated problem: the rudder skeg was full of water.

Why more sailboats don't have a keel sump drain is beyond me. If you store them up north, ice in the bilge can cause lots of damage. A careful measurement, a sharp drill bit, and two weeks' worth of accumulated rainwater became a worry of the past.



To prevent this from being a problem in the future, I installed drains in the keel and rudder sumps.

Boat show time!

Since we were in the Annapolis area and it was boat show time, we buttoned *Maruska* up and headed to the Annapolis Sailboat Show. There is nothing like tent after tent of marine distributors and suppliers to make the time-consuming task of selecting equipment a little bit easier. Short on time, we did not set foot on one single boat. We *had* the boat. It was *gear* we needed. A show is also a great place to hunt down "boat-show specials" and collect every catalog and distributor's business card available.

We made decisions on replacement batteries, an upgraded alternator and charging system, replacement ports, and even some dressy items like stainless Dorades. For every item that was crossed off of the need list, 10 were added to the wish list.

I was taught a valuable lesson this trip: you can't count on the weather to cooperate. On a project like this, it became obvious that it is necessary to have a backup set of tasks, plans, and materials for when the weather does *not* cooperate. I did not waste any valuable time, but I headed home with a different list of completed items than I had originally planned. It goes without saying that the master schedule was a bit disrupted.



The hot water heater platform was rebuilt and painted (1 and 2). In the port side sail locker, the built-in support for a battery long since gone (3) had to go. The locker area (4) got a thorough cleaning and Dale added a layer of low-sheen epoxy primer. The mizzen chainplates are evident in the aft locker (5). The water tanks were next. To get a sense of the magnitude of this project, take a look at the remains of the starboard tank, as Dale first found it, along with the pilot berth above and cut out storage cabinets (6). Although he sacrificed a large number of Sawzall blades to the water tank project, Dale made progress on the starboard tank (7, 8, and 9) and created a pile of former tank parts on the ground below (10). Three holes in the rudder skeg were necessary (11) before Dale found the bottom of that cavity and was able to drain several gallons.



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Bristol 41.1

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Kate Herman kate@kghermancpa.com 914-693-6058



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Cape Dory 28

1979 hull #238. Many upgrades including Kubota 722 (by Phasor) 125 hrs w/panel, fuel tank, Racor primary, dripless SS, standing/running rigging replaced '02. Profurl reefing, 150 genny North Sails '03. Navman electronics: D/S/W and VHF, 2 grp-24 AGM batts '05. All controls lead aft to cockpit, lazyjacks. A breeze to sail and own. \$25,500 OBO. Poughkeepsie, NY. Jack Cothren





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Simple solutions

Securing fastenings

How to prevent things from 🚬 falling apart

by Gordon Groene

When something vibrates loose on your boat, the result could be anything from a mere nuisance to a catastrophe. To "safety" a fastening is to secure it by using an extra support or backup to keep it from unscrewing, vibrating loose, or at least from falling overboard or into the bilge. Here's how to "safety" the most common trouble spots on your boat.

First, let's look at nuts and bolts. My friend's engine kept slipping out of alignment. It was supported on two flexible mounts by two jamb nuts on the bottom of the engine

mount and an elastic stop nut on the top. Vibration caused the two jamb nuts to part, no matter how hard they were tightened against each other, letting the engine drop on the mounts.

The problem was solved with an old machinist's trick. Drill and tap a hole in the side of any nut you want to lock and lock it on with an Allen set

screw. Now the nut is locked tightly, not just by the friction of the set screw but because part of the thread of the bolt has been deformed, so the nut will stay in place (unless turned with a wrench) even if the set screw is lost.

The advantage of the Allen screw compared to the hex-head or other screw you might be tempted to use in this situation is that, if you use one short enough, it won't extend past the flat of the nut when loosened. This means a wrench can be used on all six flats to make adjustments. The disadvantage is that you have to remember to add an Allen wrench to your tool kit. The advantage to using a hex-head is that it's easier than the set screw to work if the nut is in a tight spot where you can barely reach or see it. Most square-head set screws have a hole for safety wire. Allen screws, however, are difficult to lock.

Stop nuts

Generally, bolts that are put in with no intention of ever being removed are put in with elastic stop nuts intended for one-time use. If you do remove such a bolt, don't reuse the old stop nuts. They won't hold as well the second time. For maximum locking effect

with self-locking nuts, no more than three threads of the bolt should be showing.

In addition to these "mechanical safeties," there is Loctite, a "chemical safety." Brush it on the threads, tighten the bolt, and it's set.

Other fasteners such as shackles, turnbuckles, and shafts are secured with a twist of wire. Usually a hole is provided in the pin of a shackle for this wire. Keep soft stainless-steel wire, such as leader wire, on hand. A turnbuckle that doesn't have locking nuts can be secured with wire. Wind a few turns of wire on the turnbuckle opposite its tendency to turn, then tape it to cover the roughness.

Safeties that prevent loss are simply leashes that keep something from getting lost or damaging something else, if it breaks loose. Drain plugs, for example, should be attached to the boat with a bathtub chain or bit of line. Most clevis pins have a hole for some sort of captive fastener. Marine stores carry a variety of leashes in different sizes and types to "safety" power tools.

An Allen set screw, above, keeps a nut where it belongs, while a twisted wire secures a shackle, at left. A drain plug attached

with a chain, at right, may

not keep the plug in, but it

does prevent it from being lost overboard or in the bilge.



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Simple solutions

Better bilge access

Now it's easy to get to the pump strainer



N MY 1973 BRISTOL 30, BILGE ACCESS WAS NOT VERY GOOD. When I purchased the boat, there was only a Whale Gusher 10 pump in the cockpit connected to a strainer in the bilge. Later I realized the pump needed to be rebuilt.

Reaching the strainer (or even seeing it) was tough. The access through the cabin sole panel was on a sharp angle. The floor panel was positioned nicely over the water tank but not directly over the bilge.

I had rebuilt the entire boat, so why not cut one more hole? I cut another foot into the length of the cabin sole access hatch. The piece I cut out was at the foot of the companionway. Rather than make a whole new 4-foot long piece, I made an additional cover for the section I cut out.

My cabin sole is teak blackline 1/4-inch plydeck. Since I was not replacing the floor at \$400 a sheet, and the piece I cut out was not reusable, I laminated 1/4-inch teak ply over ³/₄-inch marine plywood. This made a very substantial floorboard resting on oak cleats screwed to the underside.

The last trick was to match up the black lines. A permanent marker worked perfectly for this. I drew the lines using a straightedge with the board in place, added four coats of varnish, and a brass fingerpull, and you can't tell the difference. Now I have direct access to the bilge, my new bilge pump, and the Whale pump strainer. Since I had the wood on hand, the whole project cost me only a day's labor. 📐



The first access hole (1) was large enough to make water tank access easy but too small to reach the pump strainer. David extended the opening in the cabin sole by a foot (2 and 4), which solved the access problem, but added a new complication: how to match the teak blackline sole? He matched up both hatches and scribed matching black lines with a permanent marker on the teak laminate used to build his new hatch. Once the varnish coats were completed (3), no one can tell the new hatch was constructed at a later date and from different materials.





Stowaway

DOCKING HAS BEEN THE BANE OF MY SAILING CAREER, PARTICUlarly since I cruise singlehanded most of the time. Like many boats, *Kalypso* doesn't have rubrails. No matter where I put my fenders, a pier always seems to bang into some other place along the hull. Each spring I get out the Awlgrip to touch up the scratches. Then I had an idea: why not make some "stowaway rubrails" out of lifeline cushions? The cushions could serve as a temporary rubrail when needed and could be stowed along the toerail when under way.

After making some measurements, I found that three 70-inch lifeline cushions would cover the critical area on each side of my 34-foot boat. The cushions could be secured by rope on each end to the stanchion bases, which are about the same distance apart. It was then just a matter of figuring out what to put in the lifeline cushions to provide the best combination of support and flexibility. The hole in the cushions will accept a %-inch rod. Initially uncertain what material would work best, I experimented with bamboo, aluminum, and steel rod dowels.

After a season of banging piers, I found that a couple of the bamboo dowels were broken. The aluminum rods bent and were difficult to straighten out. The best solution appears to be ¼-inch steel rod. To avoid rust, I painted the rods before putting them into the cushions. (Actually, I think hard plastic rods or pipe would be even better, but I have been unable to find the right size in local hardware stores.) The last step was to hang the cushions over the side at the correct distance with %-inch line secured to the stanchion bases and sewn into the holes at the ends of the cushions.

After one docking season, my stowaway rubrail works great. It is held securely with Velcro strips along the toerail when not needed and does not get in my way when going forward to work sails. When the wind and current make it difficult to dock, I simply go forward and yank the Velcro strips, allowing the cushions to drop down. It takes only a minute to undo or secure them along the toerail. And the best part: there were no dings or paint scratches on my boat this spring.

When Fred's singlehanded docking experiences led to patching the hull each spring, he developed an additional form of protection: rubrails that can be put into use at a moment's notice and stowed away just as quickly.

Materials

 $\frac{1}{4}$ -inch steel rod (70-inch lengths): $6 \times \$3.29 = \19.74 Lifeline cushions (70-inch lengths): $6 \times \$29.95 = \179.70 $\frac{1}{8}$ -inch nylon braided line (12- to 18-inch lengths): $12 \times \$0.50 = \6 Enamel spray paint can: \$5Curved upholstery needle kit and pylon thread: \$750

Curved upholstery needle kit and nylon thread: \$7.50 6-inch Velcro strips: 12 x \$1.25 = \$15 Total cost: \$232.94

rubrail

by Fred Siesseger

Temporary cushioning protects paintwork







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Bernie took a page out of Hemingway's book with this dinghy roller, which helps him move 170 pounds of dinghy, outboard, and fuel onto the storage float.

ED TOLLEFSON

An easy way to deal with a heavy dinghy

E VERY YEAR MY INFLATABLE DINGHY SEEMS TO BE GETTING heavier and heavier when I pull it up on the storage float. The truth is that I'm getting too old for such work!

Not long ago, I read an article about Hemingway's fishing boat, *Pilar*. The famous author installed a roller on his boat's transom to help bring big fish aboard. Why not do the same thing on the edge of a pier or a storage float?

My roller is made from a 6½-foot piece of 4-inch diameter PVC pipe. For the end bearings, I made two disks of ½-inch-thick Micarta to fit inside the pipe. Each disk has a ½-inch hole in the center. I designed brackets to mount near the edge of the float, with ½-inch bars projecting from the bracket sides. The bars act as axles and poke into the disk holes.

The float's surface is about 4 inches above the water. The roller's top adds about 6 inches, so I still have to pull the dinghy up a little, but my 9-foot inflatable comes up easily. Its total weight is about 170 pounds: dinghy, 100; outboard, 50; plus 20 for gasoline.

I lock the bow ring to a large chain attached to an eyebolt in the float. The outboard is locked to the dinghy. I cover the outboard with a heavy bag, and I plan to cover the dinghy as well. We all know that sunlight is bad for dinghies and varnish.



fuel can cap

copper intake

line

Temporary diesel tank

How to get home when the fuel goes bad

by C. Henry Depew

Henry's mini-

plastic

copper

return

FED TOLLEFSON

line

tank (made from a 5-gal-

Ion fuel can) sits near his diesel engine, below. Its modified spout area accommodates intake and return lines, as shown above. There are several reasons to have a minitank: contaminated fuel, bad connections, or fear of having fuel go bad before you need it.



M Y TWO 40-GALLON DIESEL FUEL TANKS WERE FULL OF contaminated fuel. Since the boat was out of the water for work on the engine and cockpit sole, it was a good time to remove the bad fuel and clean the tanks. This was done and I now had two clean fuel tanks. The only problem was that my engine used about 10 gallons of fuel a month since we did not take long trips with the boat. The original fuel had slowly gone "old" (and bad) because it simply was not used. Rather than refilling the tanks, I considered leaving them empty (or filling them with something liquid to help keep the trim). In the meantime, I needed to get the boat back to the dock (about 6 miles away). My solution was a temporary fuel tank.

I used a standard 5-gallon fuel can and modified the spout area to accommodate an intake and return line from the diesel engine. The modification was two pieces of a plastic container cut to fit inside the open cap with two off-center holes in each piece for the copper tubes. One tube (intake) was inserted to about an inch from the bottom of the container and the other (return) went in about 4 inches. I had fuel for the engine and an uneventful trip to the dock.

This method would not work, nor is it advised, for a gasoline-powered vessel. However, as a temporary cleanfuel option it worked just fine in my diesel-powered boat. If you end up with contaminated diesel fuel, you might want to consider adding a temporary fuel tank to get the engine running and your boat back to a dock.

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by Jerry Powlas

O UR 20-FOOT FLYING SCOT HAD A LONGER BOOM THAN DOES our C&C 30. With such a short boom, our high-aspect mainsail can't get into very much trouble when we drop it. It's not *control* that we need, it's *order*.

We want the main to flake neatly over the boom. A neat flake has alternating panels to port and starboard. Some years ago, when the sail was new, we made a very neat flake in calm conditions and then marked the luff of the main with red and green permanent markers to show which side of the boom the sail should fall on at that point on the luff. We did the same for the roach. These marks fade over the years and must be renewed from time to time.

Now, when we lower the mainsail, the person at the halyard at the base of the mast pushes the panels to port and starboard as they fall. Depending upon the size of the crew, the roach can be made neat at the same time by another person or later by the same person. The point is that once the luff is laid down correctly the roach can be made to follow with minimal effort. The main soon was so well trained that it almost always fell correctly with no interference (a new concept for the term "sail training," perhaps?). Once flaked, we tie the sail with the tail of the sail's reef lines, working forward, and the Cunningham, working aft. This works so well that no extra gear is necessary to control the main.

We use the same markings on our jibs to help us get them flaked prior to rolling and bagging. $\underline{\mathbb{N}}$



The colors left by permanent marker pens aren't all that permanent: after a few years in the sun, they must be renewed. Keeping red marks to port and green ones to starboard means *Mystic's* mainsail is folded the same way every time. After years of training, it practically folds itself when it's dropped.

'Tis the season. **Books make great gifts!** Looking for something special for that special someone? Solitude of the Open Sea Into the Light: A Family's Epic Journey by Gregory Newell Smith by Dave and Jaja Martin Traveling by sailboat is often about visiting third-A well-told family sailing adventure. Voyaging for world countries, customs and transportation, provithree years to Iceland and Norway, the Martin famsioning and boat maintenance. Greg offers observaily of five covered 11,000 miles and came within 610 tions of the people, surroundings, and activities of miles of the north pole. An inspirational page-turner. a sailor's daily life. Soon to be released as an audio-Excellent photos. Soon to be released as an audio-SOLITUDE OF THE OPEN SEA book produced by Good Old Boat. book produced by Good Old Boat. 286 pages 4830 \$15.95 360 pages, hardcover 4473 \$29.95 More than 3,000 books and videos - Sailing titles only

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Cruising memories

Side by side

Two sailors, two sailboats, one adventure

by Rebecca Burg

limp along on her own. *Defiant* led the way, occasionally slowing to allow my ailing cruiser to catch up. Both sailboats were soon anchored and tied in a natural mangrove hideaway. Surrounded by thick trees on all sides, we were safe as the hurricane brushed past with driving rain and squealing gale-force winds. Meanwhile, I played detective with *Angel's* diesel and nursed her back to health. A defective O-ring had allowed air to leak into the fuel line. Just the smallest bit of air can cause a lot of grief.

"I just couldn't leave you there," Bill said as I thanked him for the tow. He shrugged, modest. "What are buddy-cruisers for!" Buddy-cruisers, indeed! After many years of sociable sailing, *Defiant* and *Angel* have become inseparable. How did I ever get so lucky?

The sail-by suitor

As a youth, I started cruising in the Great Lakes area. An ex-engineer turned wannabe artist, my lifestyle became flexible enough to allow me to travel in search of the warmer latitudes of the tropics. Traveling there led to a move south.

Like a wary and independent stray cat, I value the peaceful solitude and unfettered life of a singlehander. I also treasure a balanced social life, but long-term friendships aren't easy for a wandering solo cruiser. At least I had *Angel*, a partner for life. Then a big blue ketch came along. It was early spring in the Gulf of Mexico, and there must've been something in the balmy air ...

Strutting and tacking, sails luffing then billowing, the comely ketch wove nearby artfully. *Defiant*, read her broad stern. She was a rare 36-foot 1974 Morgan

66 YM NOT GOING TO LEAVE YOU!" BILL ROBinson radioed. Far ahead, Bill and his ketch, *Defiant*, turned and raced toward me. Hurricane Isabel's ragged storm bands could be seen over the bruised horizon. The gusty 26-knot wind had been gradually increasing. Distant thunder rumbled. *Angel*, my 1978 Bayfield 29 cutter, faltered as her diesel lost RPM and struggled weakly.

"I have to sail there," I radioed, realizing that our destination was straight upwind. "There's not enough time," Bill responded. Madly fling-

ing spray, *Defiant* barreled through choppy, confused seas. Circling my barely moving Bayfield, Bill tossed me a line. I hastily secured the rope with wet, slippery hands. Protectively standing by, *Defiant* waited for an OK signal. In moments the powerful ketch was pulling *Angel* toward safety. (Kids, don't try this at home! *Defiant's* heavy transmission and specialized 18-inch pusher prop made a brief tow safely possible. Most sailboat transmissions are not designed for towing and damage from shock loads can occur.)

Once we slipped into sheltered waters, Angel was able to



What a line: "Raft up to me?" It was the saltiest pickup line Rebecca had ever heard. And soon the yellow *Angel* was indeed rafted up to the larger light blue *Defiant*, at left above, while their sailors learned how much they had in common. Rebecca Burg is still wondering how she got to be so lucky to be cruising side-by-side with Bill Robinson. They continue to operate their own boats as singlehanders, but they enjoy the company and extra security. Bill even offers an unexpected sort of "support," above.



Out Island. Charmed, *Angel* and I seductively wiggled and snake-waked in response. Encouraged, *Defiant* nosed alongside then coyly curved away. I caught a glimpse of her lone captain. He was grinning. Since she is a much faster vessel, *Defiant* pulled alongside one more time. Her captain and I exchanged enthusiastic waves and bashful smiles. Our two vessels peeled away, returning to their respective routes. I watched as *Defiant* silently slid into the blue distance. Who *was* that gallant cruiser? I recalled the home port that was visible on his stern. On a coastal hop toward the Florida Keys, *Angel* had stumbled into *Defiant's* home territory. We would meet again.

A new port

The wind faded as the sun peered over the purple horizon. *Angel* bumbled about, wearily searching for a good spot to anchor. The shallow waters of the keys were new, strange, and beautiful. I felt lost. With her just-lowered sails hanging and a bit disheveled, *Angel* meandered. I was fearful of running aground in unknown shallows. My radio crackled. *"Angel, Angel, Angel, Defiant."*

Defiant? It was him! I quickly switched to a working channel. Soon, *Angel* was primly motoring around the anchored blue ketch. "Raft up to me?" *Defiant's* captain suggested. It was the saltiest pickup line I'd ever heard. It worked. As the blazing sun rose overhead, *Defiant* looked quite content with a curvaceous yellow Bayfield tied to her wide blue side. Two lone sailors were lonely no more. That was six years ago.

I soon learned that Bill had chosen his liveaboard lifestyle for the same reasons I had. We both enjoyed shoreside activities, exploring nature, and sightseeing. Most of all, we each loved to sail. Bill, a professional mariner, had spent his entire life working and playing on the ocean. His father had been a world-traveling captain as well. I came from a humble line of fishermen and working sailors. It seemed natural for us to surround ourselves with water, a familiar, deeply ingrained, element.

But we were both realistic. Neither of us cruised to escape society or to break records. We simply did what we enjoyed and worked hard at it. We quickly learned that buddy cruising had many benefits. Bill and I would share tools, resources, and cookouts. We provided each other with a margin of safety in remote areas. Best of all is the greater enjoyment and meaningfulness to be had when sharing an adventure with another.

Playful moments

"They're coming toward us," I radioed, uncertain. "Those two guys?" Bill responded. "They're just charter fishing boats." We'd been daysailing in the Atlantic. When the wind faded, *Defiant* and *Angel* began to lazily power toward the nearest anchorage. Another similarity that Bill and I shared was a playful streak and an oversized sense of humor. These traits would manifest themselves at any moment. This time, we found ourselves motoring in donuts around each other. *Angel* scurried behind *Defiant*. Bill veered away and circled me. *Angel*, able to turn more tightly, matched *Defiant's* moves. Masts swaying, bows bobbing, we teased each other like birds parading in a courtship display. The two fishing boats nosed as close as they dared, their curious crews staring with bewildered expressions.

"Could they report us for weird behavior?" I asked. "We must look crazy."

"Maybe we are!" Bill responded, laughter in his voice. *Defiant* and *Angel* settled down self-consciously. The show over, the two fishing boats drifted away. Bill carefully matched my speed as we traveled onward. Water curling and foaming past our bows, we bounded over the glittering jadegreen sea together.

Defiant and Angel were ready for another adventure. Side by side. $\underline{\hline$

Bill sails *Defiant*, at left above, close to *Angel* to get a better look at the singlehanding female in the yellow Bayfield 29. (Well, OK, Bill and Rebecca re-created this shot long after the event really took place, for the sake of illustrating this story. But it's accurate in every other detail!) *Angel* is hidden in the mangroves, below, much as she was when threatened by Hurricane Isabel in September 2003.



Product launchings

Cozy protection from the sun's rays

If you've had enough sun by day's end aboard your sailboat, the Fargason Tent Chair might be the answer. This innovative new chair weighs 10 pounds and can be set up in seconds. The canopy is what sets this portable chair apart from the rest. While it's at it, this canopy offers two large zippered side windows for ventilation and a view of what's going on around you. It has a carrying bag with a shoulder strap, in case you're planning to take it farther than the head of the pier. If you won't be hiking very far with this luxury outdoor chair, you'll also appreciate the beverage holder/armrests and little zippered storage bag for whatever else you choose to carry

Pak-L

along. (Might we suggest the latest copy of *Good Old Boat* magazine?) The Tent Chair comes in red, yellow, and blue. The Fargason Outdoor Technolo-

gies people even created a lounge version with a built-in footrest. Decadent! Pricing is \$49.95 for the basic chair. Expect to pay more for the lounge version which will be available in spring.

Contact Fargason Outdoor Technologies: 800-828-1554, <http://www.tentchair.com>, info@tentchair.com

A mighty lightweight light that keeps on glowing

Here's one that a 15-year-old boy invented for his brother who needed to keep gear in his backpack to a minimum when hiking from Mexico to Canada. These days, the Pak-Lite is developing a following among outdoors enthusiasts and has become a family business.

In its simplest (and original) form it's a 1.5-ounce flashlight that can last up to five years on one battery. Two white LED bulbs and their carrier snap to the top of a 9-volt battery. Since the early days, it has morphed into versions with several LED colors, ultra-brights, glow-in-the-dark parts...something for every need. The boater version has red and green LEDs; the pilot version has red and white LEDs.

We don't know whether it's traveled through an elephant yet, but this little light has survived a trip through a washing machine and gone on a 3,500-mile hike with just one battery. The basic price is \$24.99. Look around the Pak-Lite website to find the one that's right for your needs.

Contact the Pak-Lite Company: 541-660-0349, <http://www.9VoltLight.com>, media@9VoltLight.com

Not another knot alternative?

We discovered a gizmo that might be a big help to the knot-phobic sailor. The Figure 9 Rope Tightener gets its name because its shape may remind you of a number 9 followed by a rather large comma.

This rope tightener comes in two sizes. The small version, at right, works with ropes between 1/16 and 3/16 inch. The large one, at left, works with ropes between 1/8 and 3/6 inch. The load limit on the small tightener is 50 pounds. The large one is good for loads up to 150 pounds. Made of aluminum, the devices weigh .3 and 1.1 ounce, respectively.

These products will cinch up a load, shown at left, or make a line adjustable, shown at right. The cinching version works with trailer and cartop loads. The adjustable version is useful for tarps and fenders. The larger of the two retails for \$3.99. The small one retails for \$1.99. For more on this product, contact Nite Ize Hardware Accessories: 303-449-2576, <http://www.niteize.com>, info@niteize.com

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Mail buoy

Bill Shaw has left us

The yacht designer who began in 1952 with Sparkman & Stephens and went on in 1964 to lead Pearson Yachts for most of its years in business, died August 20, 2006. He will be missed by the many who sail in



boats he designed or influenced. For more about Bill Shaw and his outstanding career and contributions to our favorite hobby, see these issues of *Good Old Boat*: November 1999, "The Pearson Era;" May 2000, "How Rating Rules Shaped Our Boats;" November 2001, "The Remarkable Olin Stephens;" January 2002, "Carl Alberg Profile;" and September 2005, "The Yankee Dolphin." That list, in itself, should be enough to convince anyone of the impact of this great man on our good old boats. Those issues that are no longer available as back issues can be purchased on CDs of the first three years of publication: 1998 through 2000.

with oil-impregnated bronze sleeves. On my boat, I had aluminum/bronze sheaves on the mast exit blocks, boom end turning blocks, and some lead blocks to stoppers. All eventually corroded between the aluminum and the bronze, causing the bearings to get stiff or seize on the stainless-steel shafts as the corrosion squeezed the bronze insert. My solutions included files, corrosion-inhibitor sprays, and bad language. Copper alloys will induce corrosion in aluminum, and

I have always considered the construction of aluminum sheaves with bronze inserts to be poor practice. I hope Bill's repair of his rudder shaft bearing will be satisfactory using a bronze tube against an aluminum housing. I would expect some corrosion, with possibly enough force to squeeze the bronze tube and bind the shaft. It might have been better to eliminate the aluminum and support the bronze tube with additional fiberglass.

> Ed Arnold Eagle, Colorado

Not too late, I hope?

Editors



Unique cabin heater

I think Don Launer ("Cabin Heaters 101," September 2006) would be interested in *Magnus*' heating arrangement: a water-circulating system that heats the forward and aft cabins on two separate loops with the water heated either by the engine coolant or by a tiny, economical Espar diesel furnace. The furnace heats the domestic hot water too (and only that, if desired) and also provides a heated towel rail that warms the head compartment. You can see the furnace in the engine room on the left in the photo above, attached to various red and black hoses.

Silver Donald Cameron D'Escousse, Nova Scotia

Credit to Mary and corrosion concerns

I enjoyed Ted Brewer's article about my sailing in the *Nomad* (July 2006). My wife, Mary, thought her contribution was perhaps not fully included. She sailed with me for the better part of 75,000 miles, only getting off when I wanted to go to hard places. She was with me from Svalbard to Chile and all through Alaska, only getting off for the Cape Horn runs.

I read Bill Barth's article in the July issue about aluminum corrosion within the rudder bearing. I have often experienced the same effects when aluminum sheaves are fitted I received issue 49 (July 2006) a little late and read it on the plane to Tokyo last week. Bill Barth may have created a rod for his own back. By fitting a bronze bushing into an aluminum housing he has created a perfect battery on the galvanic scale and immersed this in saline solution. I doubt whether the aluminum carrier will last more than a season or two before it disintegrates. Far better to have machined a bronze or possibly stainless-steel carrier for the bushing. As the alloy powders and crumbles, it will expand and seize and may even damage the fiberglass housing for the shaft.

Patrick Matthiesen London, England

Didn't we say that?

Yes, Patrick and Ed, we were concerned about the aluminum/bronze joint too, and asked for this concern to be mentioned in the article. It was noted, but apparently not worded strongly enough. Fortunately, Bill is a freshwater sailor.

Jerry Powlas, technical editor

ww.goodoldboat.com 83

More about that folding dinghy

I would like to ask Don Launer about his experiences with the "folding Brtitsh boat" pictured on Page 51 with the May 2003 article, "The Gentle Art of Rowing."

> Jim Shell The Woodlands, Texas

20-years and going strong

I purchased that dinghy more than 20 years ago. As you can see from the picture, it is still in good shape. None

of the joints leak a drop and the varnish looks like new. This is probably in part due to the fact that when it's stowed on deck it's always kept in its vinyl bag. The 8-foot boat can be rowed, motored, or sailed.

It is made from ¼-inch marine-grade mahogany plywood, and was manufactured in England. At the time, it was purchased from Britannia Boats in Annapolis, Maryland. I don't know if this dinghy is still being manufactured.

One of the reasons I decided on this dinghy is that it could be carried on deck for ocean voyages. It could also be assembled on deck and launched over the side — even by one person — as in the style of the old Grand Banks fishing schooners.

Many years ago, on a return trip from Block Island, we were overtaken by a nor'easter. We were towing a fiberglass hard dinghy at the time. The dinghy began surfing down the huge following seas, occasionally crashing into the transom, and I was on the verge of cutting it loose. But by then it had filled with water and, instead, had become a huge drogue. We couldn't make more than a knot, which prolonged our stormy adventure for hours until we were able to creep our way into the refuge at Port Jefferson, at the tip of Long Island. I vowed that I would never tow a dinghy in open water again and began looking for an alternative.

One option was the Porta-Bote. I didn't like the looks of the Porta-Bote — it just didn't fit in with the traditional look of our schooner. In addition, I had reports from owners that these boats begin to leak after a few years. (This problem may have been corrected with more UV-resistant materials). At the time, Britannia Boats was selling English-built sailboats (the Cornish Crabber, etc.), and one of these was the English-made folding dinghy, which I purchased.

When stowed on deck, the folding dinghy is unobtrusive. When towed behind the mother craft, it sits lightly on the water and presents negligible drag. In fact, its bow and stern sections are completely out of the water. This lightness means that you have to be more careful when stepping into the dinghy from the mother craft since, when unloaded, it skims across the water more easily than a heavy fiberglass dinghy would. So when you step on board, it feels more skittish than a heavier fiberglass dinghy.

It is very easily rowed and, with our 1-hp outboard, it zips along. Although I have the sailing rig, I don't think it is too practical except, maybe, for teaching kids how to sail. The waterproof joints, which are vinyl-impregnated Dacron, are completely hidden when the dinghy is opened up. This is by virtue of a creative mahogany joint that covers and protects them.





Although the dinghy and oars are kept in a protective vinyl bag when not in use, an additional bag (which we keep in the lazarette) is needed to contain the three seats, slide-in bow reinforcement, and outboard transom motor-mount (if an outboard is used).

An innovative feature is the wheel that is built into the keel at the stern of the boat. When moving the boat around on shore, you pick up the bow and treat it like a wheelbarrow, making it very easy to move from one place to another on land.

> Don Launer Forked River, New Jersey

Value as a resource

I save only certain magazines for their value as a resource. *Good Old Boat* stands at the head of the list. My search for the perfect dinghy has taken me to investigate the folding boats, hence my desire to communicate with Don Launer. Thanks for forwarding my request.

I have used *Good Old Boat* for another research project: repowering *Phantom* after the original engine committed sepuku (honorable suicide) following a catastrophic oil leak. Ted Brewer's article about how much is enough power led me to communicate directly with him. He was obliging and helpful and the repowering is complete with excellent results. We repowered with an engine of 18 percent less horsepower than the original and improved both speed and power using information from Ted. Without the availability of the experts assembled by your staff, novice/amateur boaters would have to rely on repair and sales people for a lot of information. Because our boats are old, it may not be economically feasible to pay others to do much of the work.

Jim Shell The Woodlands, Texas

Eight bells at 1800?

I enjoyed the article, "The Way We Keep Time At Sea," by Don Launer in your May 2006 edition. It did a good job of explaining the watch system and the bells rung for each half hour of a watch. One small aspect was omitted: since the end of a watch is rung with eight bells, the end of the First Dog Watch at 1800 should be rung with eight bells, not four bells for the end of the second hour (if my memory when in the Royal Canadian Navy many years ago serves me well.) Similarly, 1830 would be one bell; 1930, three bells; and 2000, eight bells.

> Aubrey Millard Toronto, Ontario

Outboard tips

Your recent article about fitting a large fuel tank to a small Honda (July 2006) inspires me to write a few tips related to outboards and hull modifications.

- I added a small automotive (steel can) inline fuel filter in the line from my outboard tank to the outboard. I had a carb needle stick open once due to a sliver of metal getting stuck in the seat. No problems since the filter was added. Use hose clamps to install after cutting the line in a good spot.
- If you have an old outboard that begins to run poorly, get a carburetor rebuild kit. Most older outboards have floats, needles with plastic tips, and plastic internal lines that deteriorate in today's fuels containing ethanol. The newer carb kits are designed to tolerate the ethanol.
- An outboard gas tank makes a good spare tank when your main tank is full of bad gas or sidelined for some other reason. I used the 2.5-gallon tank from my 6-hp Johnson to power my Dodge Ram 200 snowplow; its main tank had bad gas and there was no good way to get it out before it snowed. I also made my own 12-gallon diesel tank from a plastic "gas tank" by adding a return port and fitting it with a line that goes to the furthest possible point away from the pickup tube because the return fuel is warm. I added a vent port to tie into the boat's existing vent. (See Quick & Easy on Page 77 of this issue). The main tank is integral to the hull of my steel boat and one of its bulkheads had rusted through. I needed the auxiliary tank until the repair could be completed. The plastic on these tanks is quite thick and tolerates adding fittings well. To cut large holes, use a hole saw in reverse.
- Outboard tank tip: fuel will flow a considerable distance uphill to an outboard from a tank with a primer bulb. A vented locker can be well below the engine and still work if you are tired of kicking it in the cockpit well.
- One I have not tried yet: installing a shutoff valve in the outboard fuel line in the motor well so I don't have to disconnect the line when I tilt the engine. The trouble is *finding* such a small gas-proof valve, not *installing* it.
- Last tip. When drilling through gelcoated fiberglass, start drilling through the gelcoat with the drill running in reverse. This avoids the bad chips that happen to the brittle/soft gelcoat from the bit chiseling through it. Once through the gelcoat, switch to forward. This technique works on many plastics with saws as well as drills. An old mechanic's trick for drilling Plexiglas is to dull the drill bit by drilling a little concrete first. Ordinary drill bits don't drill stainless steel well. The bit needs a much steeper chisel angle to work properly.

Allen Penticoff Rockford, Ill.

Energy fair featured sailboats

Since sailboats don't require a great deal of fuel to operate, Allen Penticoff and his MacGregor 26X were a big hit at a Renewable Energy and Sustainable Lifestyle Fair held in Rockford, Illinois, in August. Allen and his wife, Ruth, arrived with boxes of free sailing magazine samples (including *Good Old Boat*), their trailerable attention-getter, shown at right, and warm smiles. Before the weekend was over, 3,000 people had visited the fair and 21 of those signed up for a free sailing lesson to be given by members of the Rockford Yacht Club. Assuming we've got supplies, sample copies of *Good Old Boat* can be made available to your organization for similar promotional activities. Just ask.

Editors

PHRF sailboat comparisons?

As Dan Spurr noted in the July 2006 issue, PHRF numbers are adjusted by the local PHRF committee based on changes to the boat or the boat's performance. The assigned number for a given boat is relative and really only valid for that boat, in that fleet, racing in a given location. Move the boat to a different fleet or different waters, and the number may no longer be relevant to the performance.

When I was chief measurer of Midget Ocean Racing Class (MORC) Station 27, I followed the proscribed, and somewhat complex, MORC rating measurement procedures on a number of boats. Herewith is a comparison of the MORC certificate rating with two boats sailing with a 155 percent jib while the rest used a 170 percent jib.

Boat type	MORC	PHRF
Harmony 22	20.99	192
Harmony 22	19.15	192
Harmony 22	20.99	192
Harmony 22	19.23	192
Harmony 22 (155%)	19.09	192
Harmony 22 (155%)	19.06	192
Harmony 22	19.36	192
Harmony 22	19.23	192

Granted, the Harmony 22 was not a boat raced by a large number of sailors. But it was/is an excellent racing sailboat. Each of the boats measured out a little differently using the MORC measurements. Hence, my concern about the use of PHRF ratings in boat comparisons.

C. Henry Depew Tallahassee, Fla.

Jerry Powlas responds

Dan Spurr and I arrived at the PHRF idea at about the same time. It is certainly not a perfect comparison, but it is better than the kind of comparisons *Good Old Boat* was using





before that, which had no basis at all. When I raced, I mostly raced onedesign, and only occasionally did I race MORC. The flaws of one-design rules paled by comparison to the flaws in any handicapping system.

In general, I concluded that an (actual) fast boat was always better on the racecourse because it had the power and speed advantage to be able to resolve traffic and rounding situations and to exploit the variations in the course. Still, if the race started in the morning, the faster boats were finished before the wind really got going, and, conversely, if the race started in

the evening, the faster boats finished before the wind died. In heavy weather, bigger, more powerful boats could bash their way through waves better and performed better than smaller, lighter boats. In light air, the reverse was true.

I wish there were a way to really give readers a better idea of the speed potential of these boats. Maybe it would help if we occasionally reminded our readers that *very close* PHRF ratings do not really predict that one boat will be better than another. I think the *wide* spreads are meaningful. Jerry Powlas, technical editor

Lifetime subscriber

I want to thank you again for the free 1-year subscription renewal you gave to us after Hurricane Charley hit in August 2004. We would renew on the merits of your magazine alone, but your gesture of support after the hurricane has garnered you a subscriber for life. We really enjoy your magazine. Keep up the good work!

Don Buck Punta Gorda, Fla.

Our hurricane offer always stands. If a subscriber's home or boat is damaged by a hurricane, it's the least we can do. We'll add a year to your subscription as a way of expressing our sympathy and support.

A fair trade was made

When he sent this photo of his *Good Old Boat* pennant waving merrily on his 1975 Ericson 23, in Door County, Wisconsin (photo at left), George Kellogg knew we'd publish the photo and send him a T-shirt as part of a special offer we made during the summer of 2006. It clearly wasn't George's first shirt from *Good Old Boat*!

We were sure of that because he offered this sterling praise: "Your T-shirts are the best quality we've ever had from sail magazines and catalogs. Thanks."

Editors

Our thanks to you, George, and to all the other readers who bought our pennants and sent their photos during the summer.

We can't afford to lose readers like this

Ugh! I hate to write this letter, but I must. You have notified me that my subscription has run out. Indeed it has, and my days as a sailboat skipper/owner have also run out.

Your good magazine has been the best I've ever subscribed to. I've even had articles published in *Southern Boating* and *Cruising World*. At age 87, I have deemed myself no longer agile enough to cope with rough weather and all those "strings" aloft.

My first boat was a 27-foot wooden Gosling built by Peterson Boat Works in 1938 in Sturgeon Bay. Boat Number 2 was a 32-foot Westsail. I have just sold my 37-foot Endeavour and settled for a 27-foot Albin trawler. Yes, a stinkpot. I can no longer afford your magazine as I have to buy fuel!

So "Adieu, fellow ragmen." I have enjoyed these many years of sailing. I salute you and will always give you the right-of-way and be available to tow you off the shallows.

Robert Reed St. Petersburg, Fla.

Sold the boat, but we didn't lose a reader

Good Old Boat is currently my only remaining vestige of sailing, since I sold my beautiful Pearson 30 last week. It was listed on your Internet site and found by a happy sailor who will do her justice. I gave him one good piece of advice, which was to contact *Good Old Boat* posthaste and get his own subscription. I plan to continue owning my subscription, boat or no boat.

Jerry Lieberman Yorktown Heights, N.Y.

Now that you mention it ...

I think that someone missed the "half decade" subhead for Don Casey's guest editorial, "On Turning 50." Even with a typo or two, *Good Old Boat* is a great publication!

Kent Spring Portland, Ore.

Kent, it was more than a typo. It was a brain death. Even after you pointed it out, we weren't tracking that we indeed had said "half decade" (decade being a 10-year span) when what we really **meant** (we really did) to say was half-century (century being a 100-year span).

Send questions and comments to *Good Old Boat*, 7340 Niagara Lane North, Maple Grove, MN 55311-2655, or by email to jerry@goodold boat.com.



Going home

Home is where the heart (and the boat) is

by Jerry Powlas

O UR BOAT HAD WINTERED OVER IN BLIND RIVER, ONTARIO. WE had been cruising in the North Channel of Lake Huron off and on for about a year. Blind River is a nice town with a lot of nice people in it, but it's a two-day drive from our house in the Minneapolis 'burbs. Now *Mystic* and her crew of two were going "home." We transited the St. Mary's River over the course of two days and motored out into Whitefish Bay at the southeastern end of Lake Superior.

The leading edge of a cold front was pushing through as we turned north to go up the eastern shore of the lake. The wind and waves behind that front were building.

We had not spent a lot of time on the eastern end of the lake, but somehow I thought of the whole lake as "home." Except for the two seasons she had been on Lake Huron, *Mystic* had spent all of her 30 years on Lake Superior or propped up on its icy shore waiting for spring.

I briefly considered sailing, but the wind was building, and conditions were changing so quickly that I waited. We motored with the waves on the beam.

"Home" is an odd concept for me. We own a house in Maple Grove, Minnesota, that I call home. It offers accommodations I could never afford in a boat and houses the tons of tools I think I need. We also own *Mystic* (or perhaps she owns us) and she has adequate accommodations in which we spend weeks at a time. During those periods I think of her as home.

The waves were getting large enough to make things uncomfortable but I kept the boat at near hullspeed and pressed on toward a sheltered bay we had never visited. "Just a few more miles, Mystic."

Karen came on deck and took the helm. I passed the watch to her with the admonition that things were building quickly. She nodded, and I went below. I checked "the nav," which is what we call our computerized navigation program.

The rolling had eased a bit, but the pounding had increased, and the plotter showed we were on a new course that I didn't think would get us shelter any time soon.

Back in the cockpit Karen said, "I don't think we can steer the old course anymore." I took the helm and turned back to the old heading. The next two waves rolled us down so hard the prop came out of the water. An Autoprop is very good in water but is an awkward unbalanced thing flailing away in the air. I changed course. These were young waves, less than an hour old. We'd been kicked around a bit as we were leaving the North Channel, but now when I looked to windward there was a clear sea horizon and a 300-mile fetch for that wind to work on. *That* felt like home.

We had not spent a lot of time on the eastern end of the lake, but somehow I thought of the whole lake as 'home.'

At the end of our delivery we left *Mystic* on a buoy in Thunder Bay, Ontario. We will cruise in that area and take her to Superior, Wisconsin, by the time you read this. We'd traveled about 425 miles as the crow flies from Blind River to Thunder Bay. We didn't sail overnight and, on all but one day, we anchored for the evening meal ... pretty civilized, at least for us.

It was a seven-hour drive to Maple Grove. After we unloaded the car, I poured myself a glass of cheap box wine, kicked back in my favorite rocking chair, and said, "You know, Karen, it's always good to come home."





Emotional shipwreck, Continued from Page 47



not out and wouldn't be out for quite a while. The late sunsets had messed up our whole family's schedule: the kids claimed they couldn't sleep while it was still light. They didn't believe it when we told them it was bedtime. We had acquiesced by allowing them to stay up until we went to bed, a decision that severely restricted our time alone.

"If you think this isn't right for you, I will understand. We can go home, wherever we want home to be."

I smiled at him. "Let's keep going," I said. "I need to face these fears head-on."

That night, all the emotions I had been feeling welled up

inside, and I cried myself to sleep. I felt released from my anxieties, freed from my troubles. I floated through the night.

Early the next morning the sun shone in through the portlight above our bunk. It was quiet, and I cherished the feeling of floating in a calm harbor. I stretched and looked over to Chuck. He was already awake. "Let's stay here for the day. It's supposed to be a great place to crab. We can relax and enjoy the sunny weather," he said.

Later, as we sat in the cockpit enjoying the scenery over steaming mugs of coffee I said, "I guess it doesn't matter where you are ... a breathtaking setting like this or a more normal setting like back home ... if you aren't happy, being in paradise isn't going to change that."

"You're right, I guess we just assumed that everything would be perfect once we were cruising. We should've remembered that we're still the same people. We're gonna feel terrified and grumpy and thrilled and exhausted." He sipped his coffee and then added, "We need to find a way to let these feelings out, and we need to allow ourselves space, time alone, and time for just the two of us." Setting his mug down, he scooted a little closer and kissed me, wrapping his warm arms around me.

Our trip to Alaska was a true shakedown cruise for us. We learned what worked and what needed work. For the most part, we were able to figure out solutions to our difficulties. And when we couldn't, we accepted it.

We had each other, and we were looking for adventure, not perfection.

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The siren song nrges him to chase the antumn south

by Victor Schreffler

URING OUR THREE-WEEK CRUISE OF THE VAST INLAND sea known as Lake Huron, it struck me: days and days of sailing, and still we'd covered only a fraction of this decidedly great lake.

It was August then. Not that the winds were particularly tame. One day we were pinned down in a Canadian port by 30-knot winds and 10-foot seas just beyond the point. But now, six weeks later, this evening is different. The wind on the bay, though not particularly forceful, has a weightiness

to it that wasn't present in summer. It has a voice of foreboding, yet the siren song calls me to sail on, to chase the autumn south and skip winter entirely.

That so much water should turn to unvielding ice just isn't right. So let's see ... all the money in my wallet probably wouldn't

get us to the next safe harbor. How far could the credit card carry us in a month? There are 3 gallons of fuel in the tank — 10 or 12 hours — plus a couple more gallons in a jerry can; waves two to three feet; and a steady northeast wind at 13 knots — looks like it might hold through the night

— should get us close to the St. Clair River by mid-morning.

Then on to Lake Erie, Ontario...the Erie Canal to NYC... And from there point her south. Anywhere south.

ctoper wind

Would temporary insanity qualify as an excuse for not showing up at work for a couple of months? Surely some doctor would prescribe several more months of sailing to recover from my lapse of sensibility. Then, who knows, maybe a book deal: End of Myself: Beginning of Life. Do they hand out advances to slightly deranged, little-known authors?

The sun sinks below a narrow band of clouds just above

"Would temporary insanity qualify as an excuse for not showing up at work for a comple of months? Surely some doctor would prescribe several more months of sailing to recover from my lapse of sensibility."

the horizon, their golden edges morphing into crimson flames. Huddled in the cockpit and shivering under a blanket, my wife watches the show. Could I get her to buy into this? She's always been the level-headed one. It'd be a tough sell.

Then there're the kids.

They're bound to notice we're not around when the pantry ceases auto-restocking. And what about the dog?

My thoughts converse with the voices on the wind as darkness descends. The song of the sea on the October wind is entrancing, but in the end I put the helm over and head for home. For now.

Pin-ups even your wife would approve of...



hiss Ma

testing it a lot.

many more projects." Eva & Keith

Seaview, Privilege 37

'Finally found some time in my busy

promised you a long time ago. They

don't quite do the justice, we think the

schedule (all that cruising we have to do) to send you few pictures that I

Miss August

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