Good Old Boat

The sailing magazine for the rest of us!™

September/October 2002
Issue 26
www.goodoldboat.com

$7.00 (Canada $9.95 CDN)
09>
0 74470 97035 4
On newsstand until October 31

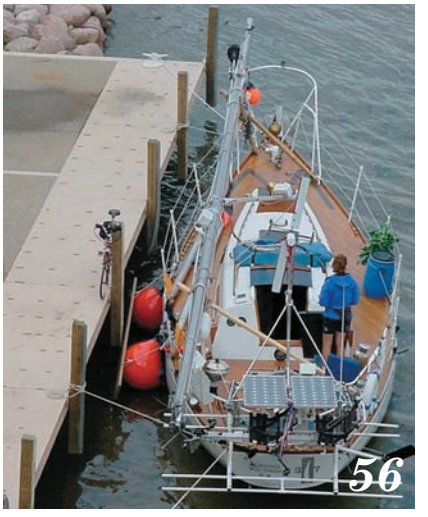
This issue

For the love of sailboats

Speaking seriously

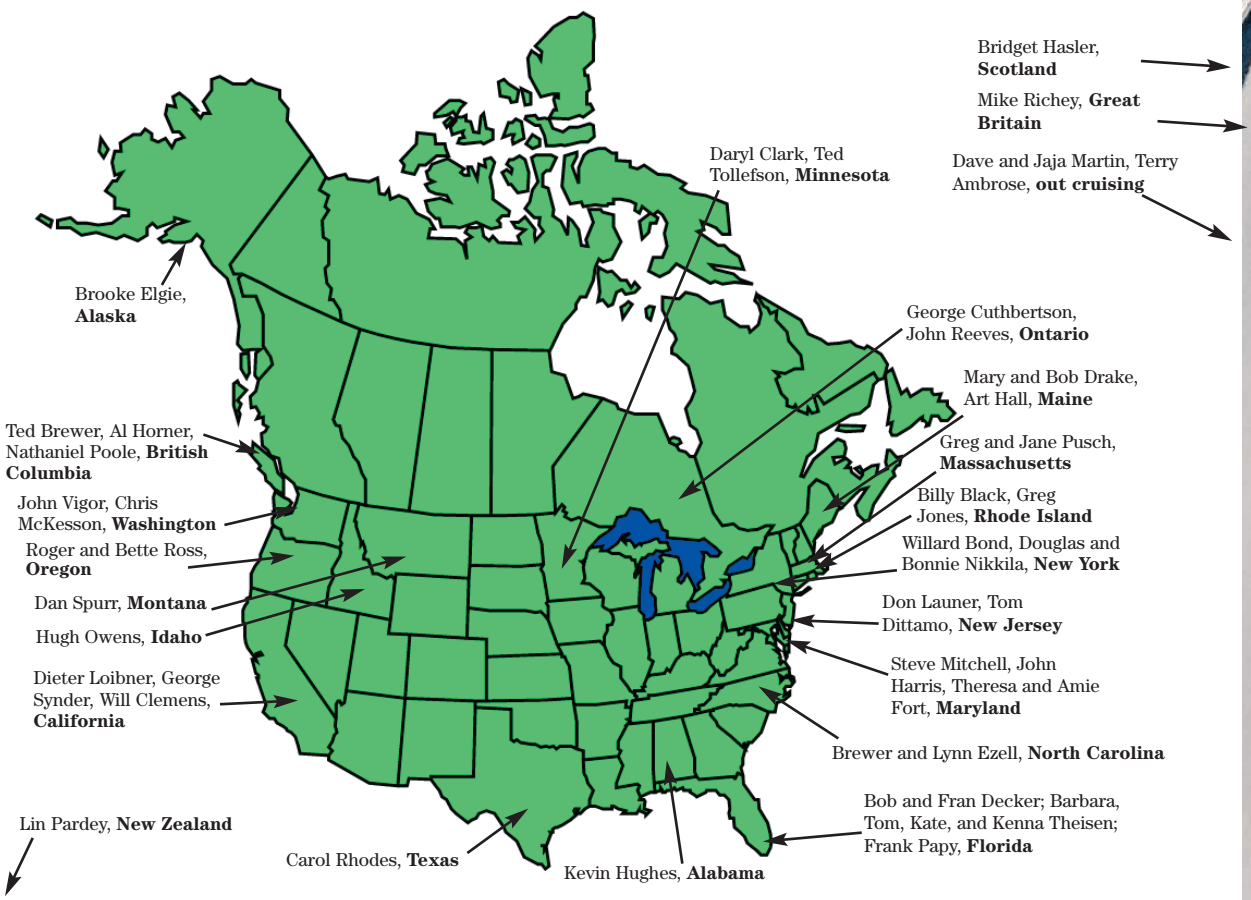
Just for fun

What's more



Voices from everywhere

Whereabouts of good old sailors in this issue



Where you can find our magazine

(and sometimes the back issues you're looking for)

The Armchair Sailor
2110 Westlake Ave. N
Seattle, WA 98109
206-283-0858

The Armchair Sailor
543 Thames St.
Newport, RI 02840
800-292-4278

Bay Books
23415 Three Notch Rd.
California, MD 20650
301-862-1424

Bingham Boat Works, Ltd.
Star Route 550, Box 58
Marquette, MI 49855
906-225-1427

Bluewater Books and Charts
Southport Center
1481 SE 17th St.
Ft. Lauderdale, FL 33316
800-942-2583

Buck's Harbor Marine Inc.
P.O. Box 2, 684 Coastal Rd.
South Brooksville, ME 04617
207-326-8839

Fawcett Boat Supplies
110 Compromise St.
Annapolis, MD 21401
800-456-9151

Lido Village Books
3424 Via Oporto
Newport Beach, CA 92663
949-673-2549

Maryland Marina
3501 Red Rose Farm Rd.
Baltimore, MD 21220
410-335-8722

Marine Consignment of Wickford
7725 Post Rd.
Wickford, RI 02852
401-295-9709

Minney's Yacht Surplus
1500 Newport Blvd.
Costa Mesa, CA 92627
949-548-4192

Mobile Yacht Services
326 Louisiana St.
Bacliff, TX 77518
713-249-9486

Mystic Seaport Museum Store
47 Greenmanville Ave.
Mystic, CT 06355
800-331-2665

The Nautical Mind
249 Queen's Quay W, Ste. 108
Toronto, ON M5J 2N5
800-463-9951

Pablos Crews
1400 Harbor Dr. N
Oceanside, CA 92054
760-721-1516

Popeye's Marine Exchange
814 13th St.
Everett, WA 98201
425-339-9479

Sailboats, Inc.
250 Marina Dr.
Superior, WI 54880
715-392-7131

Sailors Exchange, Inc.
222 West King Street
St. Augustine, FL 32084
904-808-0667

Scuttlebutt-Nautical Books
433 Front Street
Beaufort, NC 28516-2126
252-728-7765

Seabreeze Nautical Books
1254 Scott Street
San Diego, CA 92106
619-223-8989

Seven Seas
2827 Dupont Avenue South
Minneapolis, MN 55408
612-879-0600

St. Louis Sailing Center
13616 NW Industrial Cr.
Bridgeton, MO 63044
314-298-0411

Torresen Marine
3126 Lake Shore Dr.
Muskegon, MI 49441
231-759-8696

White Bear Boat Works
4495 Lake Ave. S.
White Bear Lake, MN 55110
651-429-7221

And in all BoatU.S. and West Marine stores

Now in many Borders Book Shops, Barnes & Noble Bookstores, B. Dalton Booksellers, and others

To find Canadian locations not yet listed here, call 800-438-5005

Our contributors

After ocean voyaging separately with their respective families for years, **Mary and Bob Drake** (*Escaping the rat race*, Page 4) now summer in Maine and winter in Florida. They sail a Cape Dory Typhoon and a 23-foot Sailmaster. Mary does the writing. Bob is the photographer.

Ted Brewer (*Cheoy Lee 35*, Page 7, and *Rudders, Skegs, and Spades*, Page 22) is one of North America's best-known yacht designers, having worked on America's Cup boats as well as boats that won the Olympics, the Gold Cup, and dozens of celebrated ocean races. He designed scores of good old boats . . . the ones still sailing after all these years.

Dan Spurr (*The history of C&C Yachts*, Page 8) was editor of *Practical Sailor* for 11 years. He and his family recently moved to Montana where he continues to write nautical books and articles. He has written a score of boating books.

Don Launer (*Repowering, Part 1*, Page 15) has held a USCG captain's license for more than 20 years. He built his two-masted schooner, *Delphinus*, from a bare hull and sails it on the East Coast from his home on Barnegat Bay in New Jersey.

Nathaniel Poole (*Blown around*, Page 20) is a photographer, writer, visual artist, and suburban raconteur. While he likes to think of himself as wonderfully irreverent, others find him merely annoying. Other than a few paintings of sailboats executed in ninth-grade art class, the restoration of *Yuena* is his first nautical project.

After growing up with boats on Lake Superior and traveling with the Canadian Navy, **Douglas Nikkila** (*Pearson 26 refit*, Page 26) bought a Pearson 26 with his wife, Bonnie. After the refit, they sailed to Lake Superior where they were married (despite arriving a day late for the wedding). Next they bought and refit a 32-foot Westerly Fulmar with which they explored Nova Scotia this summer.

The sailing career of editor and boating writer, **Dieter Loibner** (*Blondie Hassler's legacy*, Page 29), spanned 30 years on dinghies, catamarans, and small keelboats. He lives in Oakland, Calif., with his wife and daughter. After writing hundreds of boating articles, his first book focuses on the Nordic Folkboat. Our article is excerpted from this new book, *The Folkboat Story*.

Barbara Theisen (*Sailing Out of Bounds*, Page 32) has spent more than 10 years living aboard *Out of Bounds* with her family. They've cruised the Great Lakes, the East Coast, the Bahamas, and the Northwest Caribbean. Visit their website at <http://www.The CruisingLife.com>.

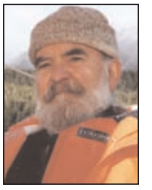
Roger and Bette Ross (*Midnight deck dancing: Cruising Baja Part 2*, Page 36) cruised the North American West Coast from Canada to Mexico on *Maho Blues*, their 1974 Cal Cruising 35, for seven years. They've sold the boat and are now devoting their time to writing and photography.

Formerly a starving artist, **Willard Bond** (*Art spread: The sensuousness of sails*, Page 40) is part of the big leagues these days with enormous dramatic paintings in galleries from Newport to New Zealand selling for the price of a good old boat. Operation Sail '76 filled him with the romance of painting sailing ships, and he's been painting sailboats ever since. His work (including prints costing less than a good old boat) is available through Arnold Art in Newport, Rhode Island: 800-352-2234.

John Vigor (*Frances/Morris 26*, Page 42) is the author of several nautical books. He has sailed for more than 40 years in boats from 11 to 40 feet in length. His boat reviews in *Good Old Boat* are articles from his book: *Twenty Small Sailboats to Take You Anywhere*, which is available from The Good Old Bookshelf.

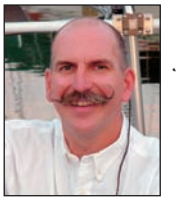
When not working at his job for the federal government or singlehanding his 1989 Pearson 27 in the Annapolis, Md., area, **Steve Mitchell** (*The magic of boatbuilding*, Page 47) is a part-time freelance writer. He writes for a variety of business and boating publications.

Brooke Elgie (*Simple solutions: Instant chart plotter*, Page 50) and his wife, Wendy Stern, cruise the "upper left corner." They are cruising Alaska in search of a place to settle permanently.



Al Horner (*Simple solutions: Custom rubbing strakes*, Page 50) was born on the prairie. He was captain of the Canadian Navy's 100-foot sail training ketch, *HMCS Oriole*. Having refurbished a few good old boats, he is now working on *Water Rat II*, an Albin Vega. He makes fashion statements in *Good Old Boat* T-shirts and Tilley hats.

Theresa Fort (*Simple solutions: Cruisers' email*, Page 50) and family have lived and cruised aboard *Lindsay Christine*, a Mercator Offshore 30, since 1995. The kids have been growing lately, however, and *Lindsay Christine* has been replaced by a Van de Stadt 13.5 meter *(see our classified ads for the Mercator)*.



Kevin Hughes (*Quick and easy: Using a fenderboard*, Page 56) lives aboard on an Islander 37 with his wife, Karin. He has sailed for more than 20 years and holds a USCG 50-ton Master License. He's an electrician, graphic designer, computer geek, boatyard lackey, maintenance guy, and cyclist.

Lin Pardey (*Quick and easy: Sail covers*, Page 58) sailed around in the lakes of Michigan until meeting Larry in 1965 and beginning what has become a legendary cruising saga. They plan to explore as long as it remains fun. The Pardeys have developed an entire library of books and videos on sailing and won several notable awards. Their new website is <http://www.landlpardey.com>.

A native Texan, **Carol Rhodes** (*Reflections: The memories live on*, Page 81) discovered sailing by marrying a sailor and spending time racing and cruising with him in Connecticut, the Grenadine Islands, and Australia's Great Barrier Reef. These days, she's serious about writing, primarily for literary magazines. (Yes, ***of course*** *Good Old Boat* qualifies!)

GOOD OLD BOAT

Editor and Publisher, Karen Larson, karen@goodoldboat.com

Technical Editor, Jerry Powlas, jerry@goodoldboat.com

Business Advisory Board
Bill Hammond, Chair,
Publishing Strategy International, Inc.
Jack Culley, *Sailboats, Inc.*
Bill Dorn, *Publishing Advisers International*

Research Editor
Dan Spurr

Contributing Editors
Ted Brewer, Theresa Fort,
Donald Launer, Bill Sandifer

Director of Circulation/Retail,
Mark Busta, mark@goodoldboat.com

Advertising Sales, Michael Facius, michael@goodoldboat.com
763-420-8923

Office Manager, Judy Clark, judy@goodoldboat.com

Art Director, Mary Endres

Copy Editor, John Vigor

Proofreader, Pat Morris

Webmaster, Jerry Stearns

26 – Volume 5, Number 5 *Good Old Boat* (ISSN 1099-6354; USPS 019327), published six times a year by:
Partnership for Excellence, Inc.
7340 Niagara Ln. N., Maple Grove, MN 55311-2655, 763-420-8923 ph; 763-420-8921 fx; www.goodoldboat.com

Periodicals Postage Paid at Osseo, MN 55369, and at additional entry points.

U.S. Postmaster, send address corrections to:
Good Old Boat
7340 Niagara Ln. N.
Maple Grove, MN 55311-2655

Editorial contributions are handled with care, but no liability is accepted. **Opinions expressed** by the writers are not necessarily those of *Good Old Boat* magazine.

Subscription rates:
One year/two years/three years:
U.S. and Canada – $39.95/$74.95/$110US
Overseas – $63.95/$123.95US

About the cover . . .

Most of Willard Bond's art, focusing on racing, is large and expressive, dynamic and energetic. It's been called, "Chaotic, theatric, and dynamic." That it is. However, we love the sensuousness of sail cloth, particularly in the spinnakers, which only Willard can capture (see Page 40). The cover painting also shows his softer side.

Giving wings to sailing dreams

Jerry and I didn't coin the term "affordable dream," although we like the concept and, through *Good Old Boat*, we have done much to promote it. What's so intriguing about it is that the size of the dream (and its relative cost) differs from dreamer to dreamer.

People talk about "boat bucks" and "boat units." These are sums of money spent on boating activities, of course. What's compelling about this concept is that the amount in question varies with the size of the boat. Usually it's based on the length of the boat, but among those doing extensive refits in the yard, I imagine the sum could be based on the size of the project. Like slip fees, boat units increase in size increments — perhaps from $100 to $500 to $1,000 — depending upon the size of the boat.

The affordable dream has the same cachet: my dream won't be the same as yours or have the same price tag attached. Right now, I dream of having the summer off for sailing the boat I already own in the Great Lakes and eventually out the St. Lawrence Seaway. Your dream could be of circumnavigating. That may require the purchase of a bigger boat, one with bluewater credentials, or more stuff to put on the boat you already own. Or you may dream of trailer-sailing the North American lakes. Someone else may dream of sailing the San Juan Islands and Inside Passage to Alaska. For some, it's the Baja. For others, the Caribbean . . . Bermuda . . . Maine . . . Florida . . . For others it's simply having a sailboat (*any* sailboat!), or a bigger boat, or another boat.

It can be the destination that inspires dreamers. Broad expanses of sandy beach and palm trees figure into many a dream. Or it can be the vessel that causes our minds to wander . . . that dreamboat we always imagined . . . the one that caught our fancy years ago as a reality or as a vision and is crystallized forever in our minds.

The cost of these dreams, like boat units, will vary from hundreds to thousands. What's affordable and what's just out of reach will vary from individual to individual, too. What unites us is the common thread of sailing. One sailor dreams of a Hinckley Pilot 35 and a trip to Bermuda. Another dreams of his first sailing dinghy on the lake near home.

Whatever the size of the dream and the boat, used boats and an investment of our own time in caring for them make most of our dreams affordable. They won't come true unless we make them happen. Dreams never do. But what's important to realize is that our sailing dreams are within our reach and can come true. It is the goal of *Good Old Boat* to give wings to sailing dreams large and small.

Karen Larson

By Mary Maynard Drake

Escaping the rat race

Living the dream with a Cheoy Lee 35

You've heard the story of the businessman who gives up his career to sail off into the sunset with the beautiful blonde? Well, Bob Decker of Marathon, Florida, did just that. Now, 20 years later, he and Fran are still living that dream.

A rush-hour traffic jam thrust him into sailing in 1977. Bob, then a 39-year-old computer-software marketing manager, was stuck on a Boston bridge when he spotted hundreds of boats sailing on the Charles River below. "It looked like fun, so instead of going to my business meeting I went to Community Boating (a Boston sailing organization)," he says. "In my suit and tie, I went sailing for the first time. My computer career ended then; my only interest was sailing.

"Next day I went back, plunked down my $35 dues, and took my first sailing lesson in a 15-foot Mercury. A year later, I bought a 29-foot Hunter sloop. After two years of Community Boating classes, I earned my six-pack captain's license."

In 1979, Bob bought a new Robert Perry-designed Cheoy Lee 35 sloop to fulfill his dreams of bluewater cruising. He took a leave of absence from Digital Equipment Corp. and advertised for crew to cruise the Caribbean for a year aboard *Double Decker* (named for the ice cream cone).

Fran Phillips, newly graduated with a degree in genetic biochemistry, was among those he chose for the voyage. She says, "I knew I wanted to go ocean cruising for I had lived on a boat, sailed Lasers, and cruised the coast of Haiti briefly."

Suffered knockdown

Luckily she's passionate about sailing. On that 1981 voyage Hurricane Christina struck them off Bermuda. *Double Decker* suffered a knockdown, her starboard windows were smashed in, and water half-filled her hull. Both Bob and Fran were washed overboard but their tethers held, and they were jerked back aboard as the sloop righted herself. They bailed, then continued on.

Later, approaching Martinique in 35-knot winds, the mast fell down. While the other crewmembers huddled below, seasick, Bob and Fran cut the mast loose, set up a jury rig, and set sail again. Upon reaching the first port, everyone but Fran jumped ship. "It was nicer sailing with just the two of us anyway," says Bob.

In Martinique they rigged a shorter replacement mast (which they still use) and continued cruising. In 1982 they sailed back into Boston Harbor. "After six months ashore, we missed

sailing and began planning our escape from the rat race," says Fran.

They rented out Bob's house and lived aboard from April to Thanksgiving. After their 1984 wedding on Boston harbor, they took a short honeymoon sail around Cape Cod to save money for their big voyage. The next August they sold the house, quit their jobs, and sailed away to cruise the Caribbean islands and coasts of Central and South America.

Fran considers the San Blas Islands to be her favorite landfall. "We made so many friends, traded T-shirts and swapped old boat parts for old molas," she says. "I love living aboard. The boat's like a self-sufficient island, and it's great to be able to change your backyard by just sailing somewhere else."

"I love living aboard. The boat's like a self-sufficient island, and it's great to be able to change your backyard by just sailing somewhere else."

She navigates

When cruising, Bob usually mans the helm; Fran cooks and works the foredeck. "I'd rather haul the anchor than maneuver through a crowded harbor," she says. Both can use a sextant, but Fran usually navigates because Bob gets more seasick than she does. They alternate watches each day, even though the Aries windvane steers. At sea, the night watchstander sometimes catnaps, setting a 10-minute timer.

"After three years, we missed the U.S. and were broke," says Bob. "We landed in Key West, which we loved, but it was too expensive." They cruised up the Keys to Marathon, where they bought an octagonal canal-front home surrounded by tropical foliage and fruit trees. Decorated with casual furnishings, nautical gear, and souvenirs from their cruises, it provides the tropical-island ambiance they love and the U.S. amenities they appreciate.

They charter *Double Decker* upon request from Key West City Marina. Capt. Bob, who holds a 100-ton license, skippers, and Capt. Fran, who has a 50-ton license, crews when her new career as an artist allows. Two or three half-day or sunset cruises a week more than cover expenses. "Beginning sailors get hooked on sailing on our charters," says Bob. "It's easy to tune the sails, so little helm is needed, and *Double Decker* sails like a dream. She's not the fastest, but she's heavy and stable with an easy motion. Sometimes a guest will sail the entire cruise for me, and I'll just watch."

Facing page, Bob and Fran Decker aboard their Cheoy Lee 35, *Double Decker*, off Key West. They made two Caribbean cruises and lived aboard the sloop for seven years before moving ashore in the Florida Keys. At left, *Double Decker*, ghosts along in light air. Both licensed captains, the Deckers use the sloop as a vacation getaway in Key West and also offer charter cruises.

Vacation home

They also cruise Key West waters with friends, sharing "food, booze, and friendship," says Bob.

Perhaps more importantly, *Double Decker* is their inexpensive vacation getaway right in the center of Old Town Key West. "This harbor is vibrant, exciting, much more than my yard ashore," says Bob, now retired from land jobs. "I can just sit in the cockpit, watching all the harbor comings and goings — tugs, ferries, catamarans, sport fishermen, big schooners, mega-yachts, dinghies, Coast Guard boats, pilot boats, you name it. And there' s the ocean view, the wildlife, the people, the music from the bars and restaurants."

"Living in a lovely harbor is wonderful," says Fran. "But being anchored out can be a nuisance, especially when you have to haul water, dinghy ashore in the rain, or wish you had AC or heat."

"When I bought *Double Decker*, I knew the Cheoy Lee 35 was a well-found bluewater boat," Bob says. "As I've gained experience, I've come to appreciate the boat more and more. It has saved my butt several times. Lesser boats might not have survived me or the weather.

"I've fixed, repaired, rebuilt, replaced, and loved every inch of this boat over the past 20-plus years." Apparently the original chainplates flexed where they took a bend passing through the deck, and six fractured above three of their four bolts. Bob replaced all the metal fittings — chainplates, winches, cleats, and hardware — with stronger ones.

In 2000, he replaced the original 32-hp Universal gas engine with a new 40-hp Yanmar diesel. Last year, deck leaks prompted major repairs — removal of the rotten teak decking, adding a new fiberglass deck and Awlgripping the hull, deck, and cabintop. (The salvaged teak now decorates the cabin, concealing repaired water damage in the interior plywood bulkheads.) Bob says the interior is 10

At left, *Double Decker's* teak dining table unfolds from the bulkhead to seat six comfortably in the main saloon. Accommodations include a double V-berth forward, berths on the two settees, and a double quarterberth.
Below, following a refit, *Double Decker* is ready for another 20 years. Bob Decker has "fixed, rebuilt, repaired, refitted, and loved every inch of *Double Decker*" during the 20-some years he has owned the sloop. Last summer, Marathon Boatyard replaced the worn teak deck with fiberglass and Awlgripped the hull, deck, and cabin.

degrees cooler, and he doesn't miss maintaining the deck bungs. They also installed a stronger compression post in the main cabin beneath the mast.

Good for years

"We spent $47,000 on repairs, much less than the cost of an equivalent boat or a new one, as friends suggested," he says. "Now *Double Decker* is good for another 20 years."

The 11-foot beam creates a spacious interior, with 6-foot-plus headroom, traditionally laid out: forward cabin with V-berth, head to port, hanging locker to starboard, amidships main saloon with teak table that unfolds from the bulkhead to comfortably seat six, galley to port and double quarterberth to starboard. Inexpensive, replaceable carpeting in the main saloon creates a homey ambiance that the Deckers protect by having wet, sandy sailors clean up before venturing below.

Fran praises her gimbaled three-burner propane stove with its oven large enough for an 8-pound turkey, the lockers in every nook and cranny, and the comfortable angled, contoured cockpit seats. Ample hatches provide excellent ventilation at anchor or underway.

Double Decker's fin keel/spade rudder configuration officially draws 4 feet, 9 inches, but was over 5 feet when they were cruising. After the Deckers moved ashore — a three-day unloading project — they had to recompute the original waterline.

Lines run to the cockpit for easy single-handing. Port jibsheets are flecked with red, starboard with green, a help when inexperienced charterers assist.

"Two can live aboard *Double Decker* in great style, four can make do, six can survive. A dockside party for 15 is fun but a zoo," says Bob.

> "Double Decker *suffered a knockdown, her starboard windows were smashed in, and water half-filled her hull."*

"The Cheoy Lee 35 is as good a cruiser for a couple as you can get."

Cruising dreams

Fran would like more cruising. "I'll go sailing any time, anywhere, on any boat for any length of time," she says. She dreams of cruising *Double Decker* in the Bahamas.

Last year she helped neighbors sail their new 50-foot catamaran from South Africa to Marathon. "I'd do it again," she says. "We hit 21 knots in rough weather at first, but usually made 8 to 12 knots. When the speed dropped below 6 knots, on went the engine."

Bob is content with "the best of both worlds" balance they've struck between living aboard and ashore. "We're barefoot people who love Key West, partying, and sailing," he says.

"This spring we saw a video of *Double Decker* racing, the first time we'd ever seen her underway. She has such beautiful lines. We were very proud."

The Cheoy Lee 35

A used production boat is a bargain

by Ted Brewer

Cheoy Lee 35

Catalina 34

Morgane Le Fay

Bob Perry told me that when he designed the Cheoy Lee 35 in 1978 he styled her after the Luders 33 and similar classic CCA-type cruiser/racers. He succeeded admirably. With her nicely balanced ends and sweet sheerline, she would have looked right at home in any gathering of Luders, Rhodes, Sparkman & Stephens, and other fine auxiliary yachts in the 1960s. The only above-water sign of her birth date is the tall rig, as her mainsail's 3.5:1 luff/boom ratio is definitely extreme compared to the under 3:1 ratios of the old CCA standards.

It was a bit difficult to dig up sufficient information on comparable designs, as I don't like to do a write-up unless I have all the pertinent information, plus drawings of the sailplan and underbody. I looked at the Tartan 33, but she is hardly comparable because of her shoal and chunky Scheel keel and fractional rig. I came up with the Catalina 34, but she is a much newer design, of course. In desperation, I decided to include one of my old custom designs, *Morgane Le Fay*, which is of similar size, designed for the same purposes, and designed within three years of the Cheoy Lee 35.

In my own defense, I have to say that the *Morgane Le Fay* was a custom design, so her maximum draft was, as is usual, dictated by the client. With only a 5-foot draft on a heavier hull, the boat's fin simply cannot be as effective in taking her to weather as the fins on the other boats in this comparison. In reviewing their underbodies and the statistics, I have to believe that the Catalina 34 with her deeper, more efficient, fin and her spade rudder would have an edge to windward over the Cheoy Lee 35 and an even larger edge over my *Morgane Le Fay*. The latter could definitely use another 6 to 9 inches of draft.

However, cruising folk do not always sail to windward, and they often find themselves caught out in stormy seas. Under those conditions, the heavier displacement ratios of the Cheoy Lee 35 and the *Morgane Le Fay* will tend to pay off in greater motion comfort. To put it simply, the boats will rise more slowly as the seas pass under them, and this makes life a little easier for sailors with queasy tummies.

Understandably, the Catalina 34, with the longest waterline, widest beam, and lightest displacement of the three, has a very low Motion Comfort Ratio, lower than that of several 30-footers, and even some 28-footers I've written up for this series. She will tend to be corky in a seaway. Her light displacement and generous beam also gives her a relatively high Capsize Screening Factor, slightly over the desirable 2.0. This is not a major problem as she has a generous ballast ratio and, in any case, was not intended as a Cape Horner. The 34 was designed more as a fast and roomy coastal cruiser with the potential of voyages to the Caribbean in season, and that job she does well.

The Cheoy Lee 35 and the *Morgane Le Fay*, though quite different in many respects, were both designed as bluewater cruisers and are well suited to extended voyaging. Is one better than the other? That's difficult to say, as much comes down to personal choice, but I will point out one thing: a custom-designed and custom-built boat, such as the *Morgane Le Fay*, is only for those with very deep pockets these days. A Cheoy Lee 35, in good basic condition and with some money spent on upgrading the sails, rigging, and any other problem areas, will seem like an incredible bargain in comparison.

Boat	Cheoy Lee 35	Catalina 34	*Morgane Le Fay*
Designed	1978	1985	1981
LOA	34' 10"	34' 6"	33' 10"
LWL	28' 7"	29' 10"	29' 0"
Beam, max.	11' 2"	11' 9"	11' 0"
Draft	5' 4"	5' 7"	5' 0"
Displacement	3,000 lb.	11,950 lb.	13,950 lb.
Ballast	5,330 lb.	5,000 lb.	5,500 lb.
Sail area (SA)	565 sq. ft.	528 sq. ft.	618 sq. ft.
Displ./LWL ratio	248.6	201	255.3
Beam/WL ratio	0.391	0.394	0.379
Ballast/Displ. ratio	0.410	0.418	0.394
SA/Displ. ratio	16.4	16.2	17.1
Motion Comfort Ratio	26.3	22.0	28.8
Capsize Screening Factor	1.9	2.06	1.83

The history

C&C Yachts, the largest-ever builder of sailboats in Canada, was named for two of its founding partners, George Cuthbertson and George Cassian, both yacht designers. But the story of C&C Yachts runs far deeper, to George Hinterhoeller, to two other boat-building firms — Belleville Marine Yards and Bruckmann Manufacturing — and to a stockbroker who had the bright idea of bringing them all together to form a single company that would shape and profoundly affect the entire North American sailboat industry. A number of the company's innovative building techniques were widely adopted by others. C&C's rakish designs and lightweight construction excelled on the racecourse and were cruised by many families around the Great Lakes and around the world.

George Cuthbertson

George Cuthbertson was born in 1929, in Brantford, Ontario. His father died when he was 13, precipitating his family's move to Toronto. The next year he joined the Royal Canadian Yacht Club's junior sailing program where he was introduced to the sport as well as to the form and structure of sailboats. A 1983 corporate history of C&C Yachts says, "He was beginning to see beauty, grace, and speed as qualities that could be governed by mathematics, albeit a mathematics tempered by artistic instinct." Making drawings, often of ships and airplanes, was a favorite pastime of his. Soon he was drawing sailboats, too.

At age 17, Cuthbertson was made the club's official measurer, a testament to his ability in mathematics. In 1950, he graduated from the University of Toronto with a degree in engineering. His first job was with the Swedish ball-bearing manufacturer, SKF, but he soon teamed up with fellow club racer Peter Davidson to build small fiberglass boats.

Beginning in 1953, the two young men built about 80 Water Rat dinghies. There wasn't a lot of work for yacht design in Canada at that time, so they operated a yacht brokerage, which imported yachts from Europe, under the name of Canadian Northern Co.

His big break in yacht design came when the Canada's Cup was revived in 1954. This was a match-racing event between selected yacht clubs — U.S. and Canadian. It was contested in 8-Meter yachts between Cuthbertson's Royal Canadian Yacht Club and the Rochester Yacht Club in the U.S. Cuthbertson was hired to rework an existing boat named *Venture II*, owned by Norman Walsh. Cuthbertson drew the modifications, and he and Davidson also crewed, winning three straight races to return the cup to Canada for the first time since 1903.

This timely success landed Cuthbertson a handsome commission from Norman Walsh: *Inishfree*, a 54-footer which was launched in 1958. Her successful racing career established the young designer's reputation. He and Davidson dissolved their partnership when Peter moved to the U.S. to become a sailmaker.

Cuthbertson modified a number of European yachts for the North American market. These Canadian Northern 35s were designed and built of steel by Kurt Beister in Norderney, Germany. A half dozen were built by Cliff Richardson in Meaford, Ontario, including one named *Carousel* for Perry Connolly. This relationship would continue to be beneficial for both men.

"At this time, Ted Brewer was very involved with our brokerage and import activities," Cuthbertson says. "Ted was with us for about three years, functioning as a yacht broker (and a very effective one) while studying yacht design in his spare time through the Westlawn course. In time, he also moved to the U.S. to take a job with Luders Marine Construction in Stamford, Conn., and so began his distinguished career."

George Cassian

In 1959, aircraft designer George Cassian walked in the door of Cuth-

bertson's office in Port Credit, Ontario. A project he'd been working on involving the Avro Arrow jet fighter had been canceled, and he was in search of design work. Cuthbertson told him that there was little to be had in the marine field and that his fledgling firm made most of its money brokering boats, many from Europe. Cassian still was interested, and a few days later Cuthbertson offered him a job, which he held for less than a year before bolting to Detroit, hoping to make it big in the automobile industry.

They kept in touch, however, and it wasn't long before Cassian asked for his old job back. This time he wanted a share in the company as well. Cuthbertson sold him a 25 percent share, which eventually was increased to a third. Their partnership was formed in 1961 as Cuthbertson & Cassian.

Cuthbertson managed the business, doing much of his design work late into the evenings. The two worked in collaboration, with Cuthbertson doing the preliminary lines and calculations and Cassian the interior plans and details. Later they would come to be known by staff as "Cumbersome and Casual," a humorous reflection on their differing styles. Their first designs included a 34-foot steel boat, *Vanadis*, built by Kurt Beister in Germany and *La Mouette*, built of wood at Metro Marine in Bronte, Ontario.

The stage was set for Cuthbertson's return to fiberglass, a material he had not worked with much since his early experience of building Water Rat dinghies. The opener came from yet a third George, this one named Hinterhoeller.

George Hinterhoeller

Born in Austria, where he learned the boat carpenter's trade at the Frauscher yard, George Hinterhoeller emigrated to Canada in 1952. "I arrived in North America, where the streets are paved with gold," he wrote, "with a box full of tools, a training in boatbuilding, and $30 in my pocket." He had a job waiting for him at Shepherd Boats in Niagara-on-the-Lake. "This was a model boatyard and the premier powerboat builder in Canada," he said. "The only trouble was that, as an ardent sailor, powerboats were not my love."

In his spare time Hinterhoeller began building sailboats. Sandy Edmison bought a Y-Flyer from him, which won the Canadian championship. As the design of *Inishfree* had done for Cuthbertson, this bit of providence propelled Hinterhoeller into a full-time business of his own. Hinterhoeller incorporated in 1963 and, in all, built 40 Y-Flyers.

When that market dried up in 1959, he designed the 24-foot Shark, an incredibly fast sloop that once *averaged* more than 10 knots in an 80-mile race. Interestingly, in 1964 a Shark took line honors in the 40-mile Blockhouse Bay race, finishing just ahead of the 56-foot *Inishfree*.

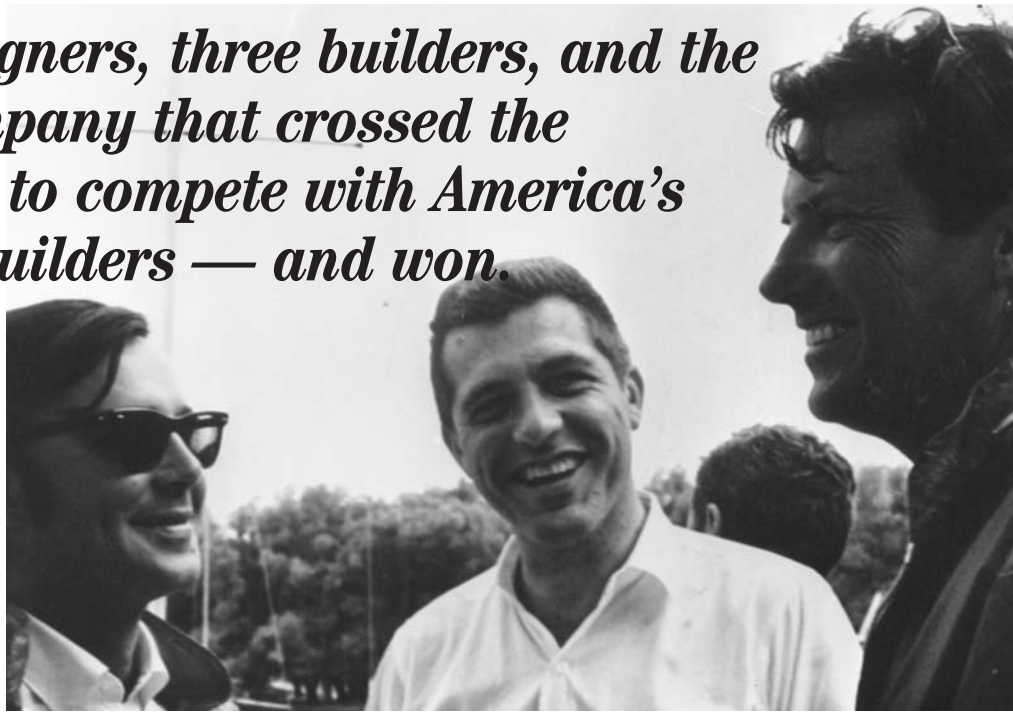
It was with the Shark that Hinterhoeller made the transition from wood to fiberglass. "The first boats were of cold-molded plywood construction," he said. "Then Bill O'Reilly came along and stated that he liked the design but wanted a fiberglass boat. 'But fiberglass is no good,' I countered, after which he asked how familiar I was with that material. Bill introduced me to Bert Miller, who built fiberglass powerboats as a hobby.

"Bert was an exuberant person, a tool and die maker with several patents to his name. He said, 'Why don't you come to my shop on Saturday morning and help me build a 16-foot hull?' On one Saturday morning a 16-foot hull? I thought the man was pulling my leg. But I watched Bert spray the gelcoat at 8 a.m., at 9 a.m. two more fellows showed up, and by 11:30 the job was completed. I was stunned. I drove home shaking my

# of C&C Yachts

A tale of two designers, three builders, and the publicly held company that crossed the Canadian border to compete with America's best racers and builders — and won.

by Dan Spurr



John Reeves

Facing page, *Red Jacket*, the winner of 11 of 13 races in her first year, making history for C&C Yachts. At right, George Cassian, George Cuthbertson, and Perry Connolly in high spirits in 1969 at the launching of *Manitou*. Perry Connolly was the original owner of *Red Jacket*.

head all the way. Then I called my business partner, Gordon Brinsmead, informing him that there was indeed a faster way to build a boat."

Other Hinterhoeller boats of the early 1960s included the Niagara 30, the Hinterhoeller 25 and 28, the latter his own designs. When he decided to commission an outside designer for his next boat, he selected C&C. The design they delivered was named the Invader 35, their first boat in fiberglass. About two dozen were built, followed by the more popular Redwing 30 and 35. (The latter was never sold as the Redwing 35, rather as the C&C 35, because it came along just as C&C Yachts was being formed.)

Other players

In 1965, Ian Morch of the Belleville Marine Yard commissioned C&C to design the 31-foot Corvette. The centerboard sloop was built of fiberglass and numbered several hundred before production ceased.

The same year, Canadian yachtsman Perry Connolly, who a few years earlier had bought a 35-footer from Cuthbertson, asked C&C to design a custom 40-foot racing machine for him. The design directive called for flat-out speed. Connolly said he wanted "the meanest, hungriest 40-footer afloat," Cuthbertson recalls.

The builder selected was German-born Erich Bruckmann, who had emigrated to Canada just two years after George Hinterhoeller, in 1954. Bruckmann had been shop supervisor at Metro Marine when *La Mouette* was built. In 1966 he set up his own boatbuilding company, Bruckmann Manufacturing, in Oakville, Ontario. *Red Jacket*, as she was christened, was his first job.

"Despite a number of forays into the cruising genre, primarily with the Landfall series, C&C's bread and butter always was the racer/cruiser, with emphasis on the racer."

Cuthbertson avers that *Red Jacket* was the first boat with a balsa-cored hull (other earlier boats had balsa-cored decks, and powerboat builders were using it in transoms and superstructures). No doubt the weight savings and panel stiffness of her cored hull contributed significantly to her racing success.

During her first summer racing on Lake Ontario, *Red Jacket* took 11 of 13 starts. In 1968, she won the SORC, which was a series of six races with the major two being from St. Petersburg to Fort Lauderdale and from Miami to Nassau. *Red Jacket* made a name for her owner as well as for her designers and builder. She is still actively raced by her owners, members of the Royal Canadian Yacht Club.

C&C Yachts formed

The four eventual partners — Hinterhoeller Ltd., Belleville Marine Yard Ltd., Cuthbertson & Cassian, and Bruckmann Manufacturing Ltd. — were small outfits, none with many employees, but they recognized a certain interdependence. Hinterhoeller and Bruckmann bought stanchions from Belleville Marine Yard's machine shop, and all three were working closely with C&C's seven-member staff, building boats to their designs.

Though there had been some informal discussions between the four about pooling their efforts, it was not until Bob Sale, president of the investment firm of Walwyn, Stodgell & Co., made a formal proposal that things began to move forward. Sale owned a Corvette 31, knew the various operations, and believed there were distinct advantages for each.

George Hinterhoeller described these events: "In 1969, Bob Sale, a stockbroker, asked (us) how we felt about forming a publicly owned holding company. We liked the idea, and by fall we were one big happy family.

"The value of each company was determined in part by the earnings of the year prior to amalgamation. Ours was the lowest. Miraculously, from that point on we provided the lion's share of the (business of the) three boatbuilders, even before the shop expansion.

"We decided that my company should build keelboats 25, 27, 30, 35, and 39 feet long. The Bruckmann-built Redline 25, and our Hinterhoeller 25, Hinterhoeller 28, and Redwing 30 were phased out. By about 1972 we displayed our fleet at the Annapolis Boat Show."

The C&C corporate history states, "On September 26, the lever was officially pulled that brought their independent operations together under one roof, to be known as C&C Yachts Limited. In addition to varying cash considerations, each company acquired 150,000 shares in the new venture. These companies continued to function as individual entities, with the parent company responsible for the financing, marketing, and accounting for the group."

Owing to his degrees in engineering and business administration, Ian Morch of Belleville Marine Yard was made president. George Cuthbertson directed the design effort, Erich Bruckmann the custom work, and George Hinterhoeller production.

The year of the merger, 1969, was a high-profile year for the young company. It was Canada's Cup time again, and Bruckmann built three C&C designs for the Canadian defense of the cup. *Manitou* was the eventual winner of the trials and won the series 4-0 over the Sparkman & Stephens-designed challenger, *Niagara*. Perry Connolly was skipper and one of the three owners. The sailing world took notice.

"The exposure and high public interest doubtless had a lot to do with the success of the C&C Yachts Ltd. public offering later that year," Cuth-

George Cassian, at left, in the early days (early 1960s). George Cuthbertson, on facing page, in the late 1980s.

bertson recalls.

In addition, in 1971 *Endurance*, a C&C 43, won the Chicago-Mackinac in a fleet of more than 300, Cuthbertson notes.

"Probably our most successful year on the racecourse and in the public profile was 1972," he continues. "Not only did *Condor* win the SORC overall (our second), but we took three of the five classes. Also *Robon*, a C&C 61, was first to finish of 180 starters in a heavy upwind Bermuda Race, defeating six maxis in the process. Second overall was our 50-foot *Phantom*."

"Probably the most popular model of all time was the C&C 27, first introduced in 1970 and reissued in four versions, plus a 26-foot version that looked a lot like the last 27 iteration."

Expansion of the plants

The 1970s were good years for the sailing industry, and C&C Yachts experienced similar growth. Not only was fiberglass making boat ownership less expensive and less maintenance-intensive, but the energy crunch of that decade, headlined by the OPEC oil embargo, made sailing more affordable than powerboating.

During those years, C&C was also designing boats to be built by others. "At home," Cuthbertson says, "Ontario Yachts built the Viking 22, 28, and 33/34 plus the Ontario 32. Paceship built four or five of our designs in Nova Scotia. In the U.S., Lindsey Plastics (later Newport Yachts) built many Newport 41s. In England, Anstey Yachts built the Trapper 27, 28, and 35 (which was a C&C 35). We did the Whitby 45 for Kurt Hansen of Whitby Boat Works. We designed several yachts for OY Baltic in Finland and the Benello 37 for Cantiere Benello in Livorno, Italy. There were others, but those are the ones which come to mind."

With the strong Canadian dollar, trade between America and Canada favored the latter; U.S. boats sold in Canada were subject to a 17.5 percent tariff, whereas Canadian boats sold in America paid only a 3 percent tariff. The industry as a whole was growing at double-digit speed — 10 to 15 percent a year — and C&C Yachts participated fully in that prosperity.

Going in, Belleville Marine Yard was the largest of the three builders, with a 20,000-square-foot facility and 55 employees. By 1970 it would add another 12,000 square feet. In 1969, Hinterhoeller's 57 employees built 181 boats. Its 20,000-square-foot addition doubled capacity to 386 units.

"The plant expansion, development work, and production came off without a glitch," Hinterhoeller said. "We now had some 100,000 square feet of floor space, five production lines, and 150 people on the shop floor. Soon thereafter, we purchased an adjacent piece of land and built the development shop, machine shop, and spar shed, adding another 20,000 square feet. Belleville Marine Yard was closed down as a result of consistent losses after amalgamation."

A dealer network was established and expanded during the early 1970s. By September 1970, five dealers were added in Canada and eight added to the 15 already established in the U.S. Models included the C&C 25, 27, 30, 35, 40C, and the custom C&C 61, probably the largest semi-production fiberglass sailboat of that time. *Sorcery* won a number of races, and her lean and mean lines were exciting just to look at. The next year, 1971, the C&C 39 was introduced. Total sales that year reached $5.2 million.

But all was not rosy. Ian Morch's Belleville Marine Yard was losing money and probably as a means of avoiding bankruptcy, he vigorously pursued a plan whereby operations would become more centralized. Cuthbertson opposed the plan, seeing virtue in their degrees of autonomy. After a number of heated board meetings, Morch's proposal was accepted, and the four firms became as one.

"The holding company was transformed into a wholly owned corporation," Hinterhoeller said. "That is, C&C Yachts, and names like Hinterhoeller, Division of C&C, disappeared. I voted for this transition, which proved to be a mistake."

Production at Belleville Marine Yard ceased. This shifted the production burden (other than Bruckmann's custom work) to Hinterhoeller, and a plant expansion was undertaken. Personality differences were not resolved by these moves, however, and Morch resigned. He bought back the assets of Belleville Marine Yard and then was forced to sell them to Credit Foncier.

The board named George Hinterhoeller to succeed Morch as president, but it was a role for which he was not particularly well suited, nor one he liked. A boating writer described him as a "craggy man, with a worn look, who smokes heavily and looks across at a pile of telephone messages with small enthusiasm . . . a dreamer with dirty hands."

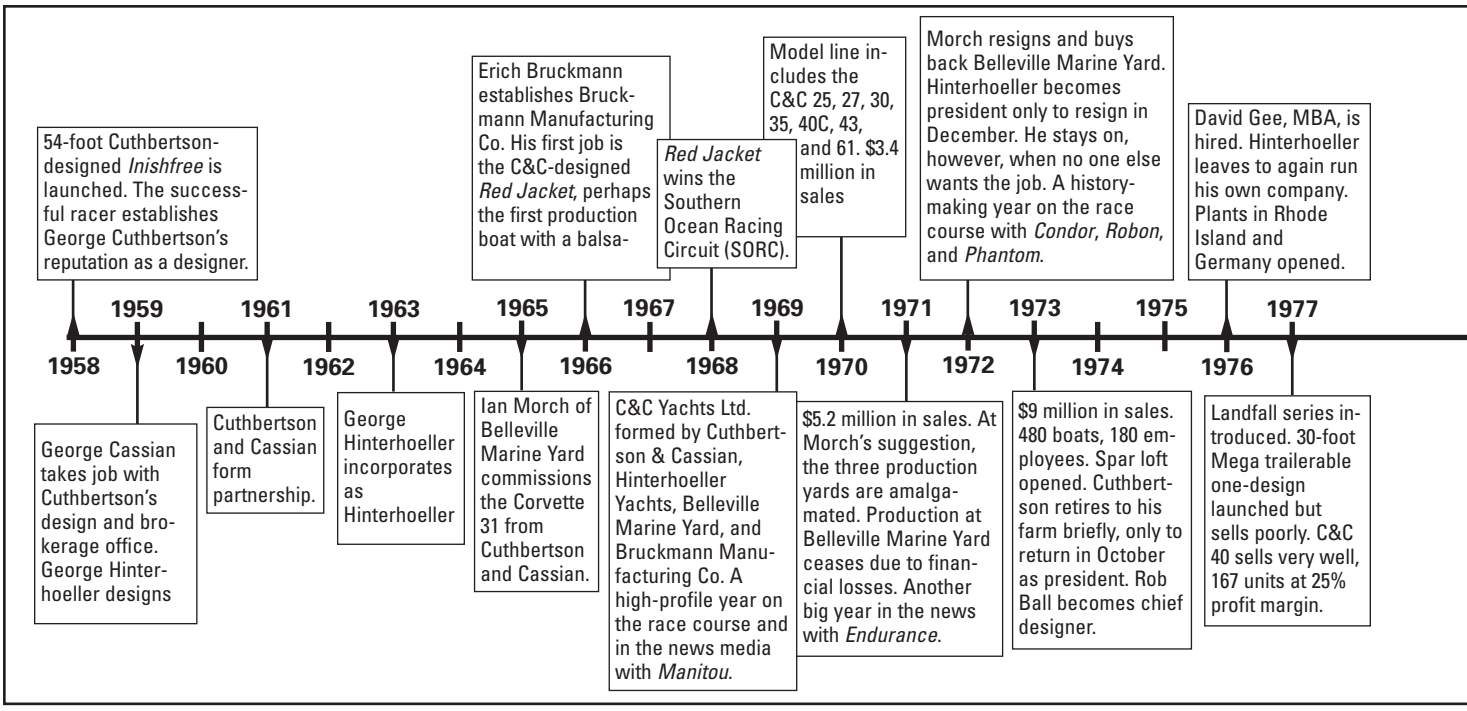
He lasted less than a year before returning to the shop, which was his love. Among his innovations were placing hulls in holes dug in the shop floor so workers didn't have to climb ladders, a trailer with hydraulic arms to move hulls, and the reverse flange hull/deck joint with vinyl rubrail sandwiched in between, which became a standard industry practice. Hinterhoeller eschewed split molds and did not like large molded interior pans and headliners that prevent "proper" bonding of bulkheads to the hull.

In the spring of 1973, Cuthbertson burned out and retired to his farm to recharge his batteries. Rob Ball became chief designer in his place. Cuthbertson couldn't stay away for long, however, returning at the end of the summer and agreeing to take the helm of C&C, a position he retained for eight years.

Committed to performance

Despite a number of forays into the cruising genre, primarily with the Landfall series, C&C's bread and butter

John Reeves



always was the racer/cruiser, with emphasis on the racer. By using balsa core in hulls as well as decks, C&C proved that for most uses, and certainly racing, lightweight, stiff hulls are superior to heavy, single-skin hulls.

C&C's first real commercial success was the C&C 35, essentially the same boat as the Redwing 35 designed originally for Hinterhoeller. First off the line was *Redhead*, taken to the 1970 SORC with Bruce Kirby, editor of *One Design & Offshore* magazine, at the helm. Unfortunately, *Redhead* was rigged for light air, and that week it blew. She broke a rudder in the St. Petersburg to Ft. Lauderdale race. "We did not feel *Redhead's* performance was a disappointment," Cuthbertson said. "And neither did the public, I guess. The C&C 35 sold like crazy and was later identified, with the C&C 61, as two of the definitive designs of the era." Success again visited C&C in 1972, when *Condor*, the prototype for the Redline 41, won the SORC, as noted previously.

Probably the most popular model of all time was the C&C 27, introduced in 1970 and reissued in four versions, plus a 26-foot version that looked a lot like the last 27 iteration. Somewhere around 1,000 27s were built. The C&C 30 came out the following year and also developed a huge following. A few years later, when management thought that the C&C 25, 27, and 30 were growing tired, it tried to replace them with the C&C 24, 26, and 29 but with poor results. Like most, if not all of the large production builders, C&C found itself competing with its own used boats: why buy a new 29 when you can buy a four-year-old 30 that's bigger, better equipped, and costs less?

By the end of 1973, there were 180 employees producing 480 boats in six models, plus four models at Bruckmann's plant. C&C was having terrific success in penetrating the U.S. market. But, Cuthbertson recalls, "There was a lobby active in Washington seeking to impose a heavy import duty because we had gained such a high portion of the U.S. market. We needed more productive capacity and decided to locate in the U.S. as a defensive measure against possible imposition of such a tariff."

"C&C's first real commercial success was the C&C 35, essentially the same boat as the Redwing 35 designed originally for Hinterhoeller."

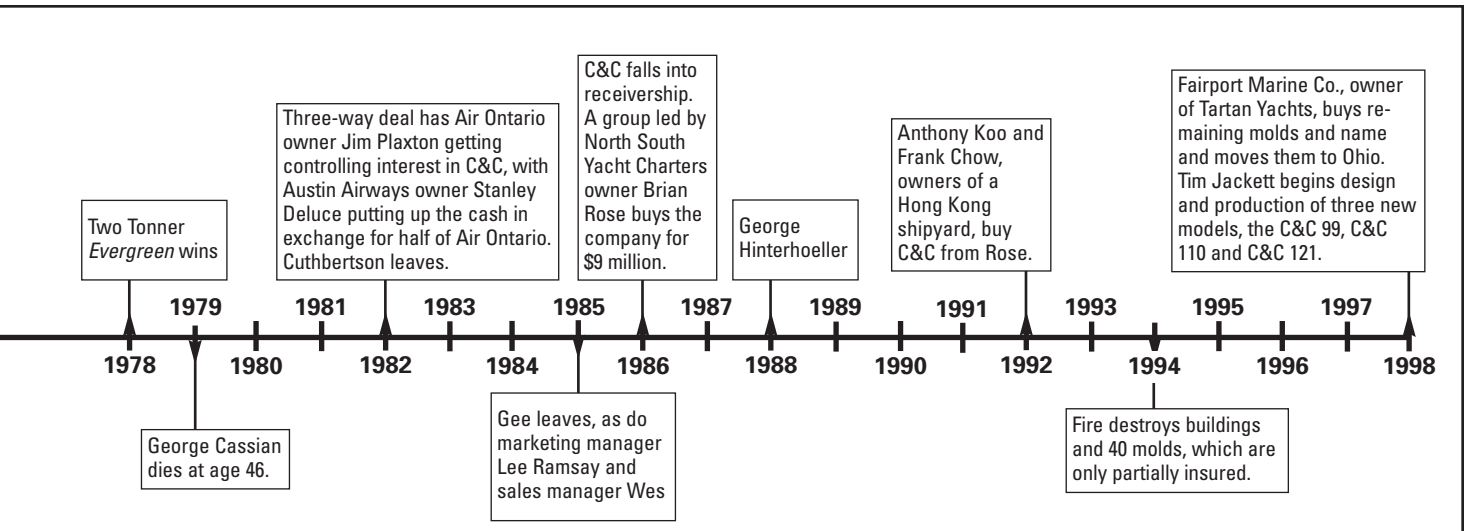
In February 1976 C&C opened a 56,000-square-foot plant in Middletown, Rhode Island, financed in part by a $1.5 million bond sale from the Rhode Island Port Authority and Economic Development Corporation. The C&C 24, 29, and the new 33 were scheduled to be built there, as well as the Mega 30.

Ahead of her time

The Mega, introduced in 1977, is one of the most interesting boats ever built by a high-volume production yard. It was the brainchild of C&C and North Sail's Peter Barret, who proposed to serve as the class-association president. Their idea was a trailerable one-design, but so many demands were placed upon it that the boat ended up at 30 feet with standing headroom, a self-tacking jib, and a retractable bulb keel. "In some respects, such as the open transom and the deckhouse configuration," Cuthbertson says now, "the design anticipated the future."

Only 150 Megas were ever sold. Cuthbertson explained the public's dismal reaction: "We became too concerned about the trailerability aspects just at a time when people stopped buying big cars, let alone trailering big loads behind them. Trailerability aside, the concept was good; the failure was in execution. The market refused to embrace Mega for three reasons: unorthodox appearance, mediocre performance (particularly upwind), and many warranty problems. On the plus side, C&C produced a useful 30-footer at half the price ($16,000) of a typical C&C 30-footer. Now, if we had just done it right . . ."

This disappointment was offset by two highlights of 1977-78, the first of



C&C history in review 1958–1998

which was the introduction of another C&C 40, which raced well, and 167 were sold.

And a C&C won the 1978 Canada's Cup. Her name was *Evergreen*. She was a most unusual boat, perhaps the most sophisticated of her time. The Two Tonner's hull was cored with balsa, the norm for C&C, but her deck was a paper-honeycomb laminate, and the bulkheads were cored with an aluminum honeycomb. She had a four-spreader, hydraulically tuned rig and a jibing daggerboard.

Changes

C&C's international ventures didn't end in the United States. The same year it moved to Rhode Island, C&C got a loan from the city of Kiel and the state of Schleswig-Holstein, West Germany, to build a 27,000-square-foot plant there. Workers were trained by C&C staff, and in 1978 production of the C&C 30E, 24, and Mega began. As luck would have it, the deutsche mark chose that time to jump from 32 to 65 cents Canadian, making it cheaper for C&C to build at home and ship overseas than to build abroad. The company reported an annual loss of $496,000.

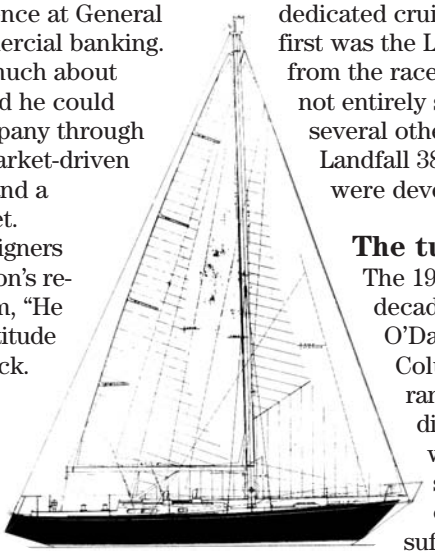
By now, George Hinterhoeller had left C&C to recreate Hinterhoeller Yachts as an independent company. "A number of factors, which I don't care to describe, led me to the conclusion that we should part company," he wrote. He left at the end of 1975 and by 1977 had persuaded four former C&C employees to join him in building several designs by Mark Ellis, who'd also been employed by C&C. These were the Niagara 35 and the Nonsuch line of catboats.

In 1976, Cuthbertson hired David Gee to oversee Erich Bruckmann's custom division. Bruckmann was an expert builder, and Gee came with an MBA and experience at General Foods and commercial banking. He didn't know much about boats but believed he could improve the company through team building, market-driven product design, and a corporate mindset.

One of the designers said of Cuthbertson's return from the farm, "He had a different attitude when he came back. Cuthbertson said that while everyone wanted to design race boats, even a good one didn't stay on top long. He said it was a fickle business . . . and aimed us more toward a combination boat."

Hence, the general purpose racer/cruiser that can compete in Wednesday-night club races and also take the family on a week's cruise with some degree of comfort. But it was the speedy end of the performance continuum that identified C&C and to that end the boats had to be light (balsa cored) and fast looking: Cuthbertson's knife-edge bows, reverse transoms, and strong sheerlines filled the bill. The perforated aluminum toerail, to which one can shackle blocks anywhere, became a C&C trademark and was much copied by others.

In 1977, the Landfall series of dedicated cruisers was initiated. The first was the Landfall 42. This break from the racer/cruiser formula was not entirely successful, though several other models — the Landfall 38, 39, and 48 — also were developed.



***Red Jacket* sail plan**

The turbulent 80s

The 1980s was a difficult decade for boatbuilders. Cal, O'Day, Pearson, Ranger, and Columbia, to name a few, ran out of money and disappeared. While C&C would weather the storms of recession and cultural change, it also suffered.

As a publicly held corporation, C&C was unique in the industry. But C&C owner and Air Ontario businessman Jim Plaxton became nearly obsessed with wanting to buy the company and, after a protracted battle, he finally got controlling interest. His initial offer of $3.1 million ($4.50 per share) for 51 percent of the shares was turned down. Next he offered $5.25 per share for 70 percent. Cuthbertson and the

C&C Yachts 1968-2002

C&C 24	C&C 30 Mk II	C&C 35 Mk II	C&C 40
HR 25	Mega 30	C&C 35 Mk III	C&C 41
C&C 25	Redwing 30	Landfall 35	Landfall 42
C&C 25 Redline	Corvette 31	C&C 36	Landfall 43
C&C 26	C&C 32	C&C 36 XL	C&C 44
C&C 26 Wave	C&C 33	C&C 37	C&C 45 C
C&C 27	Viking 33/34	C&C 37 R	(Star catamaran)
HR 28	C&C 34	C&C 37 +	Landfall 48
C&C 29 Mk I	C&C 34 R	C&C 38	C&C 51
C&C 29 Mk II	C&C 34 +	Landfall 38	C&C 54
C&C 30 Mk I	C&C 35 Mk I	Landfall 39	C&C 57

Note: Not listed are the custom boats, most of which were built as one-offs by Bruckmann's plant.

The four models below were designed by Glenn Henderson late in C&C's life and have uncertain production runs.

C&C SR 21	C&C SR 25	C&C SR 27	C&C SR 33

other directors owned 65 percent of the outstanding 404,000 shares and held out for $6 per share, emboldened by year-end profits of $1.7 million on sales of $39.6 million.

Plaxton was undeterred. To raise the cash he formed a partnership with Stanley Deluce, owner of Austin Airways. The deal went down in January 1982, with Deluce paying the C&C shareholders and in return getting half of Plaxton's Delplax Holdings, which owned Air Ontario. Plaxton replaced Cuthbertson as chief executive, and Gee stayed on as president.

It was another case of an MBA believing he can run any kind of business, because the principles taught in the classroom and boardroom are the same for any industry. But C&C wasn't the first boatbuilder to prove the danger of such thinking. The errors are several: first, the building of large boats continues to resist labor-saving shop methods such as injection molding and, second, the pleasureboat industry is swayed by hard-to-predict vagaries of the economy and cultural trends, the high cost of slip space, perceptions of onerous maintenance, and state-by-state tax laws.

Under a cloudy forecast, Gee jumped ship in 1985. Marketing manager Lee Ramsay and sales manager Wes Dalby did the same, leaving Stanley Deluce's son, Bill, in charge. C&C fell into receivership in April 1986.

In June, a Toronto group, headed by charter operator Brian Rose, bought C&C for $9 million. In 1992, Anthony Koo and Frank Chow of Wa Kwang Shipping in Hong Kong took C&C off Rose's hands, but within a few years they, too, would be gone. In 1994, a devastating fire destroyed 40 molds and three C&C 51s under construction. Insurance covered only part of the loss, and Koo and Chow found it too expensive to restart. The doors closed. Tooling for just the C&C 36 was shipped to China with the vague notion of possibly supplying the Asian market.

In 1998, the Fairport Marine Company, which had bought Tartan, purchased the name and remaining molds. None of the old designs were built by Fairport Marine, however. The president and designer, Tim Jackett, designed several new boats, the C&C 99 (32 feet), C&C 110 (36 feet), and the C&C 121 (40 feet) as lighter, cleaner, more performance-oriented alternatives to the increasingly sluggish Tartan cruiser lineup.

The early staff in a photo by George Cuthbertson: Mark Ellis, Steve Killing, Rob Mazza, Rob Ball, Tony Godwin, Ruth Gard, George Cassian, Ruth Coombes, and Len Cox.

Epilogue

C&C was a source of national pride for Canada, and rightly so. It competed head-on with U.S. builders and won, not only on the racecourse but also in the showroom. In its first 17 years, C&C built 7,000 boats. They were sufficiently fast, good-looking, and well built that the company survived the persisting tensions of its four founding members. It is not surprising, however, that C&C eventually succumbed to the cancer within and the many slings and arrows loosed upon it: the 15 percent U.S. tariff, a strong U.S. dollar (which opened the door for French giants Beneteau and Jeanneau), a policy of accepting C&C trade-ins at original prices, and its own high prices . . . not to mention the other economic and cultural factors noted earlier. Interestingly, the two large U.S. builders who did survive — Hunter and Catalina — are closely managed by hands-on owners, not corporate teams.

George Cassian died of a heart attack following a strenuous squash tournament in 1979 at just 46 years of age. George Hinterhoeller's new company also changed ownership several times during the 1980s. He retired for good in 1988 and died in the spring of 1999. Erich Bruckmann is retired, but his son, Mark, carries on the tradition of building boats under the family name.

George Cuthbertson lives a quiet life on the same property to which he fled in 1973 trying to escape the workaday world of C&C Yachts. Most of his papers have been given to the Marine Museum in Kingston, Ontario. Presently, he is awaiting a new sail for one of his Water Rat dinghies, which he converted to sailing. Nearly 50 years old, this Water Rat shares, along with its designer and builder, a wonderful legacy that still is the pride of Canada.

by Don Launer

New engine or rebuild? And should you install it yourself?

Repowering *Part 1, the decisions*

CHANCES ARE YOUR BOAT IS LIKE A member of the family. You could no more dispose of it than sell your only child. But, inevitably, the day arrives when you realize that your power plant is on its last legs, and there are some important decisions to be made.

Some boatowners go to the boatyard, write a check, and say effortlessly, "Call me when it's ready." For most of us, however, it's a traumatic moment. After all, repowering an inboard auxiliary sailboat is a lot more involved than simply dropping a new outboard onto the transom.

For diesel engines, the symptoms begin to develop years before things become critical. Whereas your brand-new diesel would start within the first turn, now the cranking takes longer — and, if the weather is cold, much longer.

When Rudolf Diesel first patented his engine in 1892, it was a revolutionary idea. His engine used the principle of auto-ignition of the fuel. This idea, based on the work of English scientist Robert Boyle (1627-91), was that you could ignite the fuel from the heat produced by compressing the air in the cylinder. If this compression were great enough, the temperature in the cylinder could be raised enough to ignite the fuel-and-air mixture. In modern diesel engines, this compression ratio is between 14:1 and 25:1, which raises the temperature of the air in the cylinder to well above the burning point of the diesel oil that is injected into the cylinder (about 1,000°F).

Compression, then, is the key to a successfully operating diesel. But when a diesel is up in years, cylinder walls and piston rings are worn and fouled with deposits, so they no longer make a good seal. Valves and valve-seats have also become pitted and fouled and don't seal properly. Thus, it becomes much more difficult to get the compression necessary for ignition, especially when the engine block is very cold and rapidly saps away the heat of compression.

Biting the bullet

When the day finally arrives for you to bite the bullet, there are two options: get the engine rebuilt or buy a new one. If the horsepower of the old engine was perfect, if it pushed you through heavy winds and waves when they were right on the nose, and if that engine has always been freshwater-cooled and has not had other serious problems, rebuilding that old engine might be more compelling. Certainly it would be less expensive.

But if your present engine is very old and has had raw saltwater cooling, chances are that having it rebuilt will not be practical. There will be rust, frozen bolts, parts to replace, and probably great difficulty in getting those parts. Even though the cost of rebuilding an old engine is typically about half that of a new engine, you may very well be throwing money away on a rebuilding venture. And if you have always felt that you could use just a few more horsepower to get you through those nasty conditions, now is a good time to upgrade.

Remember that when you decide to go with a new engine there are many more costs involved than just the price of the engine itself. Engines today, which provide the same horsepower as your old engine, are usually lighter and smaller and rotate at higher speeds.

These smaller dimensions in width, height, and length make it almost certain that your engine bed will have to be rebuilt to accommodate the smaller engine, since its mounts will probably be closer together.

It's also important to know the type of transmission on your new engine. Basically, there are three different types:

- ***Parallel*** is a transmission whose propeller-shaft coupler is in line with, or parallel to, the engine's crankshaft.
- ***Angle-Drive*** is a transmission whose coupler is at a downward angle to the crankshaft.
- ***V-Drive*** is a version in which the transmission is forward of the engine and makes a V-turn to drive a propeller shaft leading aft.

Each of these configurations presents its own problems when rebuilding the engine bed.

The smaller fore-and-aft dimensions will probably also mean that you'll need a new and longer prop shaft unless you can set the new engine farther aft on the beds. Having a new shaft is probably a good idea anyway. After the old engine has been removed and the old shaft has been slid out of its stuffing box, you'll probably see rings of wear in the shaft where the stuffing box (and sediment) have created grooves. If your old shaft is more than a decade old, you'll probably find that the flange coupling is so frozen onto the shaft with rust that it's impossible to free it without further ruining the shaft.

Also, if you didn't previously have a flexible coupling or Drivesaver, now is a good time to add this item, which will help protect your new transmission in the event of the propeller picking up a piece of wood or a heavy line. If you're already using a flexible coupling between the engine and the shaft, chances are that the bolt holes in this flexible coupling or Drivesaver will not match your new engine's coupler, and a new, matching, flexible coupling will have to be purchased.

As for the propeller, there's a 50-50 chance that the new engine may rotate in the opposite direction from the old engine. (If your present engine turns the prop shaft counterclockwise in forward gear, as seen from the stern, you now have a left-hand prop. If the new engine has a clockwise rotation, you need a new prop.)

Even if the direction of rotation of the new and old engines is the same, chances

"… if your present engine is very old and has had raw saltwater cooling, chances are that having it rebuilt will not be practical."

are that the engine speed, the horsepower, and the transmission gear ratio of the new engine will be different from the old. This will probably mean a new propeller of different pitch, diameter, or number of blades, making your old prop obsolete.

Free consultation

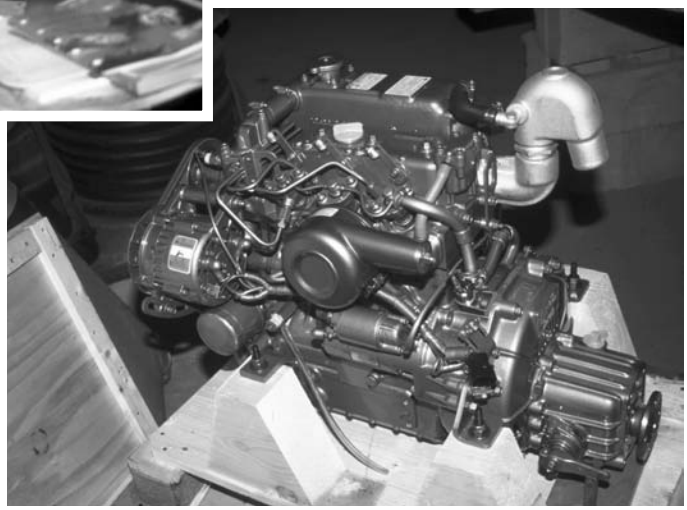
Most engine installation manuals give charts showing the recommended prop for your particular displacement and hull configuration, and most propeller manufacturers provide a free consultation service to determine the type of new prop you'll need when repowering. Michigan Propellers, for instance, has a Pleasure Boat Prop-it-Right Analysis Form, which will suggest the correct propeller for your new engine.

On some boats, the engine and propeller shaft are deliberately installed at a slight angle off the fore-and-aft centerline of the boat. This may have been done to offset the tendency of a single engine to push the stern to one side or the other or to allow the shaft and prop to be removed without removing the rudder. If your boat has an offset driveshaft, repowering with an engine whose shaft rotates in the same direction as the old engine may be preferable. *(We have an offset shaft on our C&C 30. We repowered with opposite rotation and are satisfied with the outcome. It seems like this should have mattered more than it did. —**Ed.**)*

The smaller proportions of a new engine and the rebuilding of the engine bed will also mean that your present oil drip pan beneath the engine will no longer fit, and a new pan will have to be fabricated and installed.

There is one complication of a physically smaller engine that may be overlooked. If you'll be using your engine to supply hot water through a heat exchanger, the water connections on the new engine might well be lower than on the previous engine. If the heat-exchanger water lines from the engine to the hot water tank slope upward, an air-lock can develop in the heat-exchanger coil in the hot water tank that will prevent water flow and, consequently, heat exchange.

One way to overcome this problem is by installing an expansion tank at the highest point in the water



Previous page, on a cold February day, Don studies his engine replacement information. *Delphinus* rests outside awaiting her new engine.
Above, discussing the proposed engine replacement with Tom Dittamo of Harbor Marine Engines.
At right, the new Yanmar 3GM30F is delivered early, which gives Don adequate time in which to measure it and familiarize himself with it.

lines at the hot water tank. The pressure cap on this tank should match that of the one on the engine, and filling the water system can be done through the filler cap of the new tank.

Fuel-return line

With diesel engines there's another thing to consider. Some diesels had just one fuel line going from the tank to the engine. Most modern diesels, however, also require a fuel-return line from the engine to the tank (often called the overflow fuel line). Depending on an engine's design, the amount of fuel returned to the tank via this line can vary greatly.

If you had an engine with a single fuel line, the chances are that you don't have a fitting on top of the fuel tank(s) for this new fuel-return line. This problem can usually be solved by removing the current air-vent fitting at the top of the fuel tank and substituting a T-fitting. One side of this T can then still be used for the air vent while the other side can be used for the fuel-return line. This problem also will be encountered when changing from a gasoline engine to diesel.

It's also likely that with a new engine, the water, fuel, and exhaust systems may have to be rebuilt or re-sized. Even if this isn't the case, when the old engine is removed is a good time to replace those old hoses.

If you are considering selling your boat within the next few years, it might be tempting to believe the value will increase enough to offset the money you have put into a new engine and its installation. But although a boat will be worth more with a new engine, the increase in value will probably not equal your investment when you sell your boat. The same caveat is true if you convert from gas to diesel. But here we are discussing repowering your boat because you want to use it for many more years, not with the idea of selling it.

"If you are considering selling your boat within the next few years, it might be tempting to think that the value will increase enough to offset the money you have put into a new engine and its installation."

Do it yourself?

Most owners will hand over the repowering project to a knowledgeable, qualified, and reputable installer. Still, it's valuable to know the potential problems along the way. If you have decided to have the job done professionally, there are several preliminary steps to take:

- Only accept bids from installers who have actually examined your boat.
- Consider the reputation of the installer and the yard.
- Ask whether they have installed this type of engine before.
- Ask for references from owners of boats similar to yours who have had the same job done.
- Make sure that all associated work is specified on the proposal.
- Be sure that the final installation will conform to American Boat and Yacht Council (ABYC) standards.

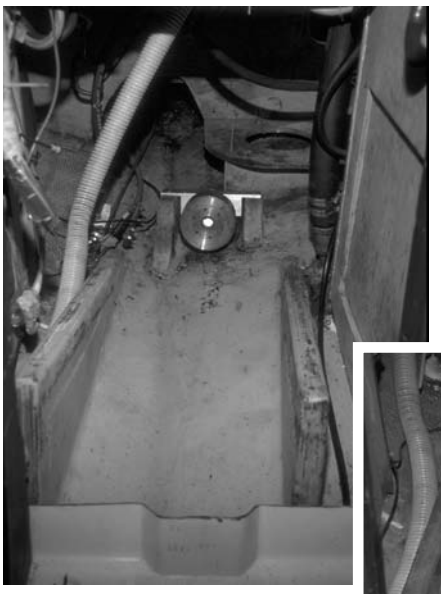
Some boatowners will want to tackle the job themselves. If you do your own installation, there are much greater benefits than saving money. You will end up with an intimate knowledge of your new installation. This, alone, is a great incentive.

If you decide to do the job yourself, it's still a good idea to have a professional in your corner, someone who is a dealer for your new engine or who has done engine installations, and whom you can trust, talk to, and order parts from. If you're doing your own work, the closer the yard is to your home, the better. And if you don't want to tackle the whole job yourself, you may elect to do just the engine rewiring, the exhaust system, the water system, or the fuel system, after the new engine has been installed on its bed and aligned.

Whether you do it yourself or have the engine installed by a professional, the job requires engineering judgment and good mechanical skills.

We were fortunate that for years there was an engine mechanic near us who would give us excellent and detailed advice whenever we had a do-it-yourself engine job to tackle. Tom Dittamo, owner of Harbor Marine Engines, in Lanoka Harbor, N.J., has his business in a marina less than 15 minutes from our home. Tom is also a Yanmar dealer, so we chose that yard, Laurel Harbor Marina, in Lanoka Harbor, for our haulout and engine replacement.

We bought our new engine from Tom six months before beginning our project. He stored it in his shop at the marina during this time, which allowed me to go in for all the necessary



Before and after: preparations for the installation of a smaller Beta Marine engine in a C&C 30 required a new engine bed and oil drip pan to be constructed. This boat began life with an Atomic 4 which was later replaced by a Bukh and finally the Beta.

measurements whenever I needed to. This enabled us to plan well ahead for our project and purchase all the ancillary gear necessary. (This early engine purchase, which was suggested by Tom, also saved us 5 percent on the manufacturer's price increase that went into effect shortly after we ordered the engine).

Replacing an engine often means replacing the propeller as well. At left, the C&C 30 gets a new right-hand Michigan Wheel 15 x 9 2-blade propeller. Later this was replaced by an Autoprop. Below, the author's Lazy Jack 32, *Delphinus*, undergoes a similar propeller exchange.

Start early

Changing inboard engines is not a simple project. If you are very adept at major projects, if you are a good mechanic, if you have lots of time and patience, and most of all if you enjoy working on boats and this type of challenge, then you should start doing your homework and putting together a loose-leaf notebook.

Begin buying the necessary parts months in advance. I started buying my conversion gear six months before the start of my project, and that was not too soon. I discovered that the delivery of a new prop would take six weeks and the longer prop shaft would take almost as long, even though it was always: "I'll have it for you next week."

It's important to learn as much about your new engine as possible before you start the project. There are many engine distributors who offer one- or two-day seminars specifically targeted at owners of auxiliary engines. Mack Boring & Parts Company, which sells Yanmar engines and parts, has one- and two-day owner seminars on Yanmar engines that are invaluable. These classes are given at Mack Boring locations in Union, N.J., Wilmington, N.C., Middleborough, Mass., and Buffalo Grove, Ill. The classes cover the theory of operation, explain all the parts of your new engine, cover routine maintenance, and include a hands-on session that gives participants the opportunity to do routine maintenance on the engine they will actually own, including adjusting and bleeding it.

Incidentally, one item that is invaluable in setting up the placement of a new engine on the rebuilt bed is an engine jig, which can usually be rented from the engine distributor. The jig consists of light-weight metal framework that locates the proper position of the engine mounts and shaft alignment. It copies the exact size and angle of the real engine and can be aligned with the prop-shaft coupling, revealing whether there has to be any change made in the engine bed or mounts long before the engine is swung into position.

The alternative to the engine jig uses another type of alignment method that will be discussed further in Part 2 of this series, which will run in the November/December issue of *Good Old Boat*.

Installation manuals

Nearly all engine manufacturers have comprehensive installation manuals that are essential for the do-it-yourselfer. These manuals, which should be part of your repowering notebook, have step-by-step installation instructions, including alignment procedure; wiring diagrams; engine specifications, dimensions, shaft and prop recommendations; and fuel, water, and exhaust-hose requirements. It's also a good idea to purchase a service manual for your engine. It will be a handy reference for the future, and it gives some installation information that isn't necessarily shown in the installation manual.

New engines come with their own instrument panels. If you have an instrument panel recess in your cockpit, especially one that is molded into a fiberglass boat, make sure that the new engine's instrument panel will fit into the old recess. If it won't, it might be tempting to try to use the old panel with the new engine, but this usually is asking for a lot of headaches, including replacing the tachometer, oil and temperature gauges, and wiring. Some manufacturers have several panel options of different sizes. Yanmar, in their GM series for auxiliaries, have three control panels of varying sizes and options.

Repowering a boat from a gasoline engine to diesel power needs extra consideration. Diesel engines of equivalent horsepower are usually physically larger than their gasoline counterparts. You may find, however, that the Atomic 4 in your boat has much more horsepower than the diesel you will replace it with. Many smaller boats were powered with an

A4 and a direct-drive transmission. Only half the engine speed range, and thus roughly half the horsepower, was used. These direct-drive boats were equipped with very small props.

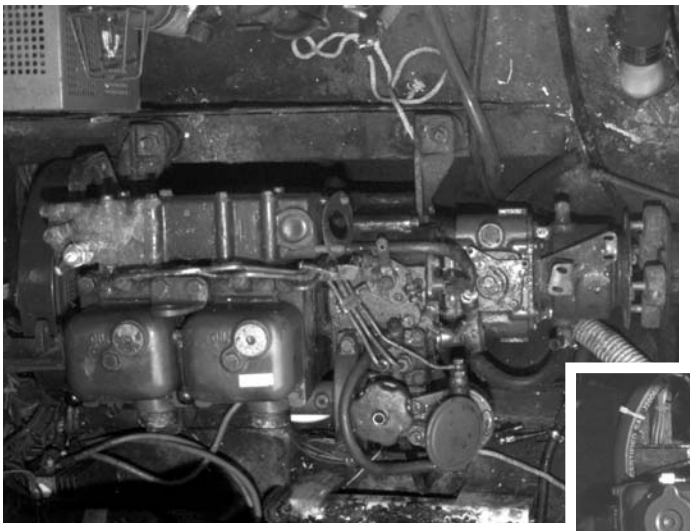
Bed modification

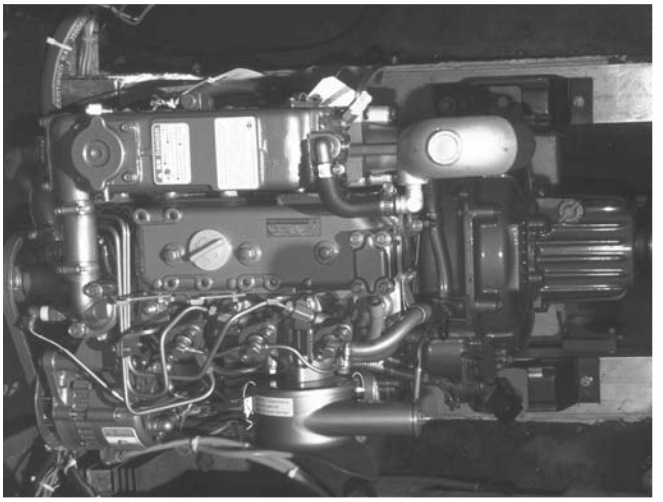
Even if you're sure an appropriate diesel will fit in the engine compartment, you'll probably need to rebuild or modify the engine bed. Consider the maximum-diameter prop that can be fitted to your boat and still have the required tip clearance. Match this against the prop that the new engine will need. Not all gasoline tanks and fuel lines are compatible with diesel fuel and, as mentioned previously, a fuel-return line will also have to be added. The primary water-separator/fuel filter will also need to be replaced. In some cases, the prop shaft may have to be increased in size which, in turn, means a new stuffing box.

"When Rudolf Diesel first patented his engine in 1892, it was a revolutionary idea."

Most of us have a pretty good idea how much power we need, based on the performance of our previous engine. The old rule-of-thumb for auxiliaries of 2 hp for every 1,000 pounds of displacement is usually pretty good. If you really want to get into the calculations, then consult Dave Gerr's *Propeller Handbook* or Francis Kinney's *Skene's Elements of Yacht Design*. Another source of information is at <http://www.boat diesel.com> on the web. This site, which provides a wealth of information on diesels, charges a $25 membership fee. If you click on Propeller/Power/ Shaft Calculations, you can find the proper shaft size, the power required for a given hull, and the recommended propeller specifications.

Be sure to check the alternator options available for your new engine. If your electrical consumption is high, as is the case with a refrigeration system or a watermaker, be sure to specify the appropriate alternator when you order the new power plant.





Out with the old (Volvo), above. In with the new (Yanmar), at right.

Engines for an auxiliary must, above all else, be reliable. When selecting the manufacturer of your new engine, do your homework. Talk to other sailors who have had an engine replacement recently and get their opinions. Get information from various engine companies and local marine mechanics, check out these engines at boat shows, and talk to the manufacturers' reps.

When you're finally back in the water with a new engine, you'll feel much more inclined to take that long cruise you've been delaying for years, safe in the knowledge that you have a new power plant of high reliability for which parts are readily available.

Part 2 of Don's repowering series, with a focus on installation, will appear in the November/December 2002 issue of Good Old Boat.

Resources for engines, information

American Boat and Yacht Council (ABYC)
410-956-1050
<http://www.abycinc.org>

Beta Marine
252-249-2473
<http://www.betamarinenc.com>

BoatDiesel
<http://www.boatdiesel.com>

Harbor Marine Engines
Laurel Harbor Marina
609-971-5797

Mack Boring
908-964-0700
<http://www.mackboring.com>

Michigan Wheel Corporation
616-452-6941
<http://www.miwheel.com>

Perkins-Sabre
253-854-0505
<http://www.perkins-sabre.com>

Vetus
410-712-0740
<http://www.vetus.com>

Volvo Penta of the Americas Inc.
757-436-2800
<http://www.penta.volvo.se>

Westerbeke Corporation / Universal
508-823-7677
<http://www.westerbeke.com>

Yanmar America Corp.
847-541-1900
<http://www.yanmar.com>

Propeller Handbook, by Dave Gerr
Ask BookMark 763-420-8923
<http://www.goodoldboat.com/bookshelf.html>

Blown around

Married sailor luckily survives midlife love affair

by Nathaniel Poole

I SUPPOSE I WOULD HAVE TO DESCRIBE IT as a midlife crisis. I have no other name for a situation in which an otherwise sane and thoughtful man would, without warning, plunge so blindly and calamitously into the shadowy world of boat ownership. I have been blindsided by aging hormones and am at a loss as to where I should turn.

My life had been that of a typical married, 40-year-old suburban male, when from deep inside my subconscious rose a hunger, a need for all things salty. One day I'm waging war with slugs in the garden and the next I find myself pacing docks, anxiously peering into windows, and lovingly running my hand along varnished brightwork.

I suppose I shouldn't be surprised. Many years ago, at the innocent age of 16, I had sworn a pact with a buddy of mine that someday we would procure a boat and sail to the Galapagos Islands. Unfortunately, the friend moved away, and I become lost in those inevitable distractions of life: marriage, children, and career.

But the call could not be silenced forever, and one morning I woke up as the proud owner of my very own boat, *Yuena Kulayu*.

You might ask: What is a *Yuena Kulayu*? It's the name of our 26-foot 1978 Thunderbird. This delightful appellation comes from the Nootka Indians who live on the West Coast of British Columbia, and it means "blown around." I find the name rather charming; I've decided to keep it.

It was strictly accidental that *Yuena* and I met. One fateful day I found myself looking at sailboats and perusing the classifieds in a few local newspapers.

I had no idea what I had in mind when I noticed *Yuena* in the paper and called her owner, but she was described to me in such loving terms I knew I had to meet her. I was directed to her, and fell in love at first sight.

Brain turned off

Now I know experts insist that one should invest in a complete survey of any used vessel before parting with a dime, and normally I would follow such prudent advice, but like so many other middle-aged males, unfulfilled dreams were beckoning me from a hidden place deep inside, and like an amour-struck adolescent, my brain quietly turned off.

Yuena hadn't been "blown around" for about five years. The previous owner had hauled her off to a storage yard with plans for some maintenance and repairs, but as is so common with these things, it was put off and put off as she slowly sank into the turf.

She was a bit disheveled when I met her. Her brightwork hadn't seen varnish in years, the deck paint was peeling, and the tarps she had been half-heartedly wrapped in had long ago rotted into nasty little bits of plastic confetti. There was an old wasps' nest snuggled up in the forward berth, and rainwater had puddled in her bilge. Her wooden hatches were a frightful sight, though the worst damage appeared to be her transom where the fiberglass had cracked and peeled off the plywood underlay.

But I was in love. I knew very little about boats, but I could easily recognize that she was an honest-to-goodness sailboat. She had a keel, a mast, and a very cute and cuddly cabin. As I sat in her cockpit my eyes glazed over, and I imagined myself at her tiller somewhere in the North Pacific en route to Alaska. I was in the teeth of a gale, and green water was flowing over her decks as I courageously fought the storm, cheered on by the ghosts of Frobisher and Magellan. (I swear a five-year-old peanut butter sandwich that had crawled off and died in the corner was chuckling at me.)

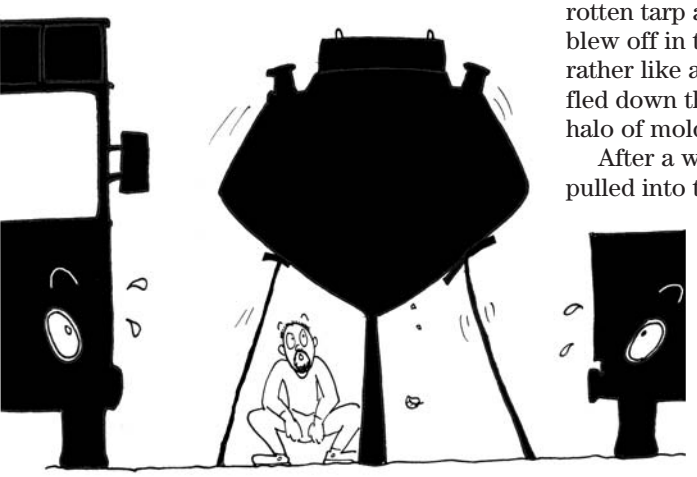
Went for a song

I'm not a complete idiot; I did my best to give her a thorough and comprehensive examination. But since overall she appeared structurally sound, and the owner was letting her go for a song (a death knell?), I decided to fulfill my secret, life-long dream and purchase her, where-is, as-is. Unfortunately, she was in a yard where there was no power for tools. Since it also was a long way from home, I decided to have her hauled to a storage yard that provided power and cheaper storage and was only a few minutes from my place.

Moving her was eventful. When I arrived at the yard we were already two hours behind schedule — the boat hauler had gotten stuck in traffic moving the remains of someone else's boat (that had been burned to the

waterline in a party that had gotten out of hand). I was met at the yard gate by a surly gentleman who wanted to see my receipt of purchase, and when I showed it to him sniffed that the yard fees were five months in arrears and that he would not release the vessel. After several heated phone calls to the previous owner and his banker, the yard manager agreed to set *Yuena* free, insisting derisively that he "wanted that piece of junk outta' my yard anyway."

By now I was in a testy mood — I was paying John, the boat mover, $75 an hour, and he had spent the last 30 minutes leaning against his truck counting the sparrows in the yard.



Eventually, we pulled the trailer around in front of *Yuena* and got everything into position. That's when I heard him mutter the word I dreaded: "Damn." Calmly and without a great degree of interest or concern he repeated himself: "Damn . . ."

With a trembling voice I asked what the problem was. He pulled his cap off and scratched his neck with it. It turned out that the boat had stood there for so long it had begun sinking into the ground, and he couldn't get under the keel with the trailer. I won't get into details, but the solution involved crowbars and a great deal of sweating and cursing on my part. John remained unfazed. After all his years in the business I guess he had seen it all (or maybe from the vantage point of $75 an hour he was able to have a different philosophical perspective on such "potholes in the road of life").

"I'm very thankful that the gods that watch over foolish, middle-aged men in crises were keeping an eye on me that day …"

Running free

Eventually we got her jacked up enough to slip the trailer under her keel. Just in time for rush hour, we were on our way. My new love was a bizarre sight as she blew down the freeway, swaying like a drunken sailor and wagging her saucy bottom at me as I followed behind. With every bump she would list heavily, and rotten tarp and bits and pieces of her blew off in the wind. She seemed rather like a newlywed zombie as she fled down the road, surrounded by a halo of moldy confetti.

After a white-knuckled eternity, we pulled into the storage yard — her new home. It was a terrible squeeze trying to fit *Yuena* between a tent trailer and a motor home, but after several attempts, John fit her in. As he prepared to pull out his trailer, he asked me for my blocks, and I marched proudly forward with the 2½-inch peelers (fenceposts made from the leftover heartwood from logs) I had bought at the side of the road for a very good price.

He took one look at them, and for the first time that day I saw him rattled. "That's what you're gonna *block* her with? Oh, man, I hope you got insurance," he said darkly, glancing at the shiny new motor home parked less than a meter away from her towering hull. The peelers had seemed robust enough when I had bought them, but standing there with *Yuena's* 4,000-pound bulk teetering over me, I suddenly felt doubtful. But I had nothing else on hand, and so I propped her up, and very slowly, very carefully, John pulled out his trailer. And there she stood, all mine and ready for the love and care that I would administer to her — if she didn't fall over.

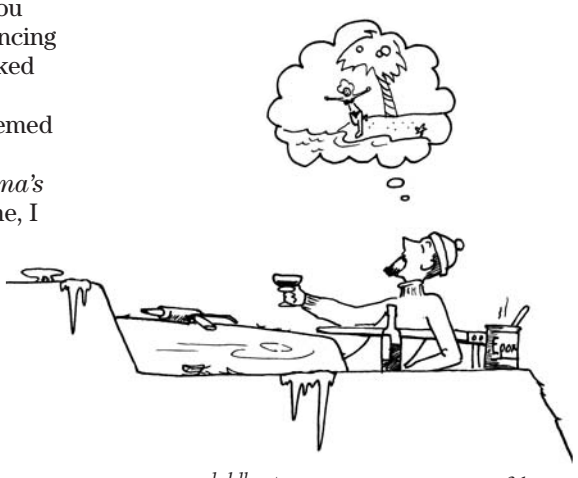
We both stood there and watched to see if she *would* fall over, but nothing happened. Only the telltale bowing of the peeler toothpicks indicated that gravity was working against me. John took my money and thoughtfully suggested that I build a cradle for her — that very night. As *Yuena* looked as if a gull lighting on her could have toppled her, I took his advice and quickly built a sturdy cradle for her out of 4 x 4s. I have no fear now of scrambling around on her decks; an earthquake couldn't put her off her legs.

Not lost after all

I started this essay by claiming that I was lost; actually I think I've found myself. As midlife crises go, I now think mine was pretty mild. If some of my friends are any indication, I could have bought an expensive sports car, quit my job, or pursued a new love interest, but instead I spend my free time quietly caulking seams, mixing epoxy, and dreaming of piña coladas and tropical beaches.

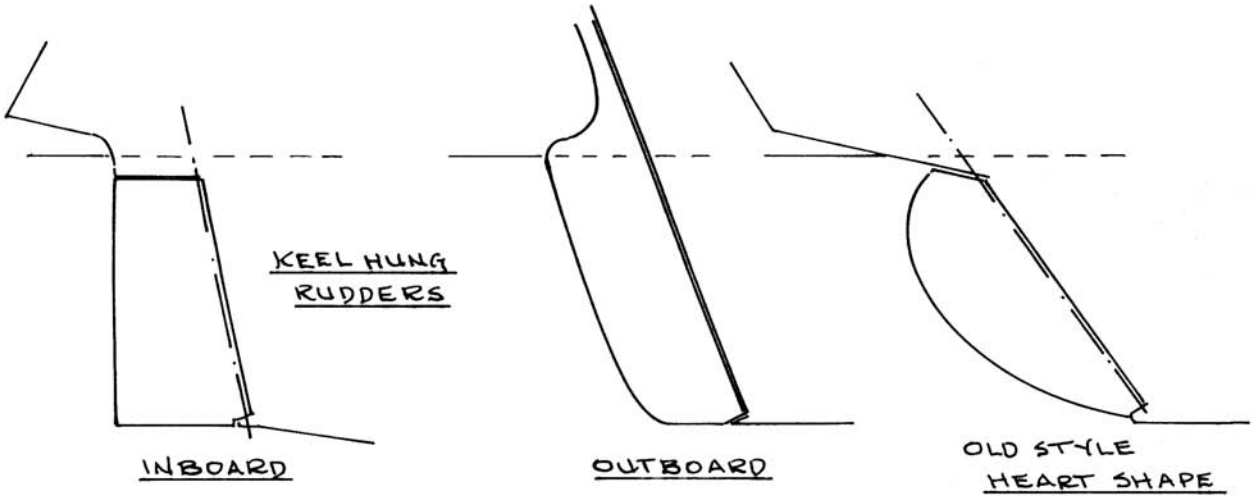
Given the deplorable state of my cognitive abilities when I bought *Yuena*, I'm very thankful that the gods that watch over foolish, middle-aged men in crises were keeping an eye on me that day — *Yuena* has no major problems, and my wife is not overly threatened by this new love of mine.

By spring, *Yuena* will be in the water, and she and I will be off exploring new horizons. Until then, I'm glad that winter is coming. I won't be able to buy that motorcycle I've been thinking about.



Rudders, skegs, and

The main purpose of the rudder is to steer the boat, of course, but far too many sailors do not realize that the rudder also performs a secondary, and very important, task. Provided the boat is properly balanced so she has a weather helm of 2 to 4 degrees, the rudder will also be adding substantial lift to windward. However, excess weather helm will add to resistance, while lee helm will actually create negative lift, pulling the boat to leeward. We covered this in an earlier article about helm balance (*Good Old Boat*, November 1999), and the skipper should keep it in mind, as a well-balanced yacht is both more efficient as well as a joy to sail.



Keel-hung rudders

Many older boats, such as the Folkboats, Albergs, Southern Cross, Luders 33, and similar classics are full-keel designs with the rudder hung on the aft end of the keel. Keel-hung rudders are traditional and can be one of two types: outboard rudders, with the rudder mounted on the transom or on the stern of a double-ender, or inboard rudders, with the rudder stock emerging through a rudder port in the hull. The latter is more efficient when the boat is well heeled and the rudder is put hard over as it is less likely to ventilate (suck air down the low-pressure side) and so lose lift and steering ability.

The difference in the two types is not critical to the average cruising skipper though, and thousands of outboard-rudder yachts have made long and successful voyages, including the Hiscocks' *Wanderer III* and Vito Dumas' fast and rugged double-ender *Leigh II*.

The profile of older-style, keel-hung rudders was generally almost a half-circle on the trailing edge, or shaped like half a heart. Tank testing in the late 1950s and early 1960s showed that the better shape was to have the rudder squared off at the bottom, parallel to the waterline. As well, the top of the inboard rudder should be carried very close to the hull so the gap between the rudder and the hull is as small as possible. Less than a quarter-inch is desirable, and the thickness of a well-worn dime is better yet. Tests have shown that a gap of even a half-inch can reduce rudder efficiency by almost 10 percent due to ventilation. It will also increase resistance by several percent due to crossflow across the top of the rudder from the high- to the low-pressure side.

Of course, if the hull is deeply veed, the gap between the rudder and hull will open up as the helm is angled to weather and then cross flow and ventilation are assured. The "princess fairing" (see sketch on Page 24) is a fixed fairing above the rudder that carries out the streamlines of the hull and keel. The fairing moves the rudder top below the surface, out of the more turbulent water near the hull, reduces cross-flow at small rudder angles, and increases efficiency by reducing ventilation.

Vulnerability

Keel-hung rudders are usually fitted with a bearing at the heel of the rudder, and this can be a vulnerable item in a grounding. Some protection is given if the bottom of the rudder and its unprotected heel bearing are raised well above the bottom of the keel. Additional security can be given by fitting an intermediate bearing partway up the rudder, as it strengthens the entire assembly and may permit continued steering even if the heel bearing is damaged.

With keel-hung rudders, the propeller aperture is usually a cutout in the keel forward of the rudder and often a part of the rudder is cut away to permit the removal of the prop and/or shaft without having to remove the rudder itself.

However, this cutout does reduce rudder efficiency to some degree, so the cut-away in the rudder should be as small as possible. The thickness of the keel-hung rudder will depend on the scantlings of the rudder post, so it may be quite thick at the rudder's leading edge and then have a straight

spades

What type of rudder's on your boat? Advantages and disadvantages of each

by Ted Brewer

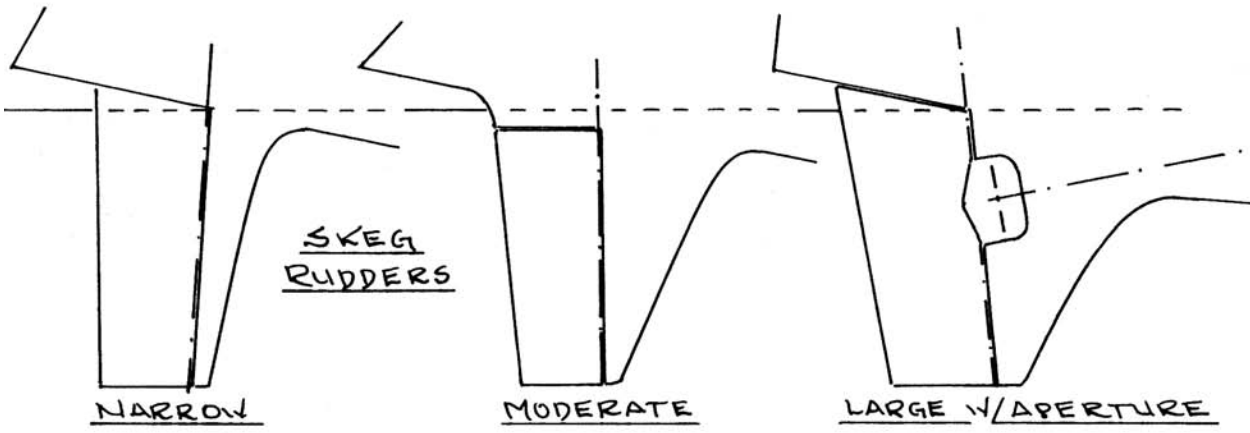
taper to a minimal width at the trailing edge.

Skeg-hung rudders

The use of a skeg ahead of the rudder provides several benefits that are important to the cruising sailor. With a fin keel and a skeg-hung rudder, the designer can create a yacht with all the directional stability of a full-keel vessel but with reduced wetted surface, a more efficient fin shape, and generally better all-round performance. Compared to a spade rudder, the skeg raises the helm angle at which the rudder will stall (lose lift and steering ability). It provides a larger control area, thus adding to directional stability (like the tail feathers on an arrow), and it delivers better control at high angles of attack, as when the helm is yanked hard over to counter a serious broach.

Unfortunately, the skeg-hung rudder also presents more resistance than the typical spade rudder, so it has gone out of fashion on high-performance auxiliary cruisers and is never seen on contemporary racing yachts.

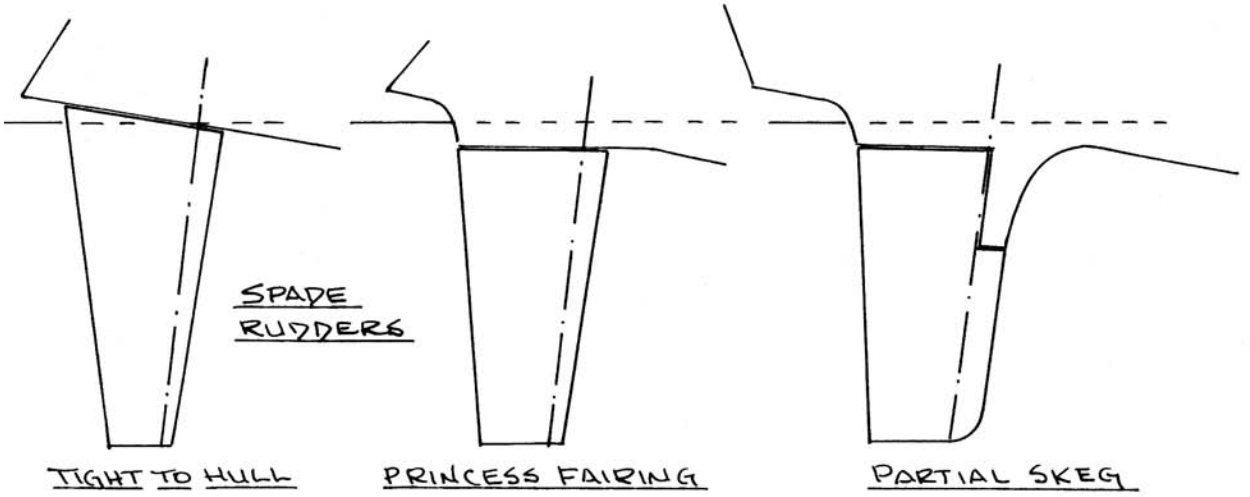
Skegs come in various shapes and sizes. The rudder/skeg can be deep and slim, or shoal and wide. In either case, the area of the skeg immediately ahead of the rudder, perhaps 10 percent of the rudder width, actually contributes to steering and can be considered a part of the rudder's area. The area of skeg forward of that 10 percent may add to directional stability but it is also added wetted surface and resistance. On some yachts, the skeg is wide enough to have the propeller aperture fitted in the skeg itself, similar to a full-keel boat. This adds extra drag and reduces rudder efficiency, but it also protects the propeller and shaft by eliminating the problem of damage when the boat is lifted with slings, a feature appreciated by many cruising skippers.



Skeg-hung rudders are not as vulnerable to damage as spade rudders since the skeg adds strength and permits the fitting of a lower bearing. I like to see this bearing fitted partway up the skeg so that it is less likely to be damaged in a serious grounding. Then the rudder may be operable to give some degree of control even if the lower part of the skeg and/or rudder is broken away. As well, the skeg-hung rudder is not as likely to be damaged by drift logs and floating containers as the spade rudder is, nor is it as prone to being hung up on fishing-pot warps or kelp.

Like the keel-hung rudder, the skeg rudder should have its lower end squared off parallel to the waterline, and the top of the blade should be very close to the hull or fitted with a princess fairing. The skeg/rudder in plan view should be a streamlined shape, similar to a NACA 00 section, with the maximum thickness about 30 to 40 percent abaft the leading edge (see illustration on Page 25).

Depending on the length of the skeg/rudder, the maximum thickness of the foil may vary widely, from as low as 5 percent to 7 or 8 percent of the chord. The skeg directs the water flow and reduces the tendency of the rudder to stall so the skeg/rudder can get by with a relatively slim section compared to a spade rudder.



Spade rudders

Spade rudders are common today on vessels ranging from dinghies to maxi yachts of well over 100 feet, and the reason for this is simply efficiency. The spade gives the best combination of minimal drag combined with maximum lift and turning moment for its area. Offsetting this to some degree is the fact that the spade rudder may not have the directional stability of a skeg- or keel-hung blade and can require more attention at the helm. Unfortunately, it is also an effective snag for pot warps and kelp, and can be easily damaged in a serious grounding.

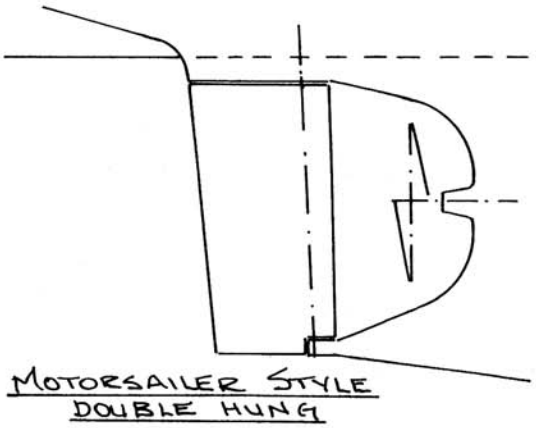
Tests have shown that the spade rudder, like the fin keel, increases in efficiency with an increase in aspect ratio (AR). The AR of an object is the ratio of the span squared to its area. It can be simplified as the depth divided by the mean chord (the average fore-and-aft length of the rudder, usually found at a depth halfway between the top of the rudder and the tip).

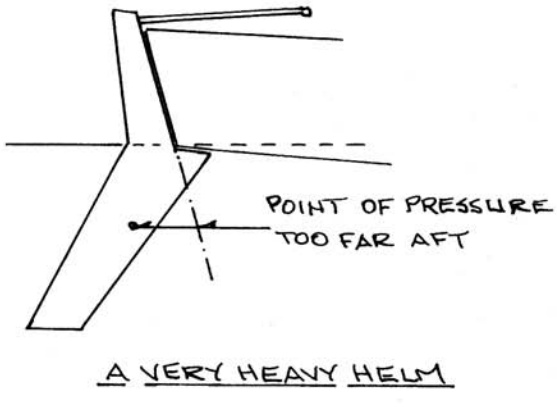
Tests have shown that, at a rudder angle of five degrees, increasing the AR from one to four will almost double the lift for a given area while, at the same time, resistance is reduced. However, as the AR is increased the stall angle decreases. Tests of a rudder with an AR of one showed that it stalled at 20 degrees, while another with an AR of four stalled at only 13 degrees. Spade rudders with ARs of two to three, which tend to stall at 15 to 16 degrees, provide a good combination of lift, low drag, and efficiency.

According to Millward (University of Southampton, SUYR Report #28) the blade shape, in profile, was found to have the least drag if the chord width at the tip was about one third of that at the top of the rudder. This proportion is shown in the first spade rudder in our sketch above. However, few designers go to that extreme of tip width/upper width today, possibly because they want to put more blade area low down where the water pressure is slightly greater. Many contemporary yachts have rudders with elliptical tips, but the squared-off tip, parallel to the waterline, can have an advantage. There may be some added resistance due to the tip vortex from the squared-off blade but it would seem to be possible to eliminate this problem by using a small end plate. Unless an end plate is fitted, the shape of the tip itself is best cut off square, as this showed a very slight advantage over rounded or veed tips, increasing the apparent aspect ratio by a whopping 0.04 percent.

Sweepback angle

Early spade-rudder yachts often showed substantial sweepback angle, similar to many early fin keels, and were probably designed more for appearance than any other reason. Such a rudder, or fin, certainly appears more "streamlined" and speedy than a vertical blade, but the

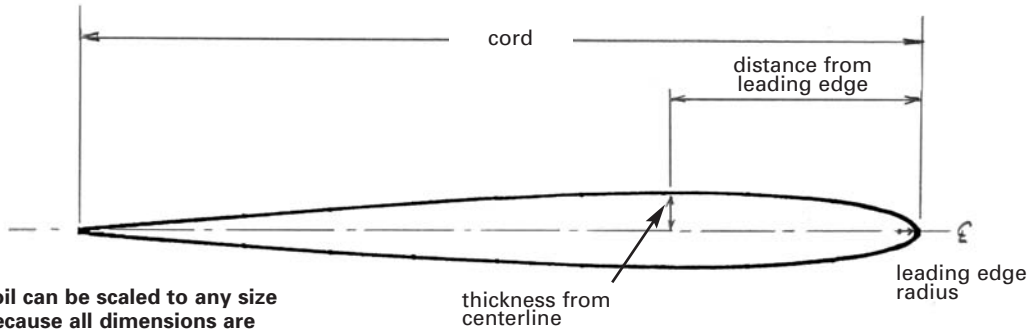




latter is far more effective in performing its task. Large sweep angles, either forward or aft, result in high resistance while angles of five degrees or less have shown the best results in reducing drag to a minimum.

A well-designed spade rudder section should resemble an airfoil, of course, and, again, a NACA 00 section with its maximum width about 30 percent abaft the leading edge has advantages over a low-drag section. The low-drag shapes, such as the 66-00 series with maximum thickness at 45 to 50 percent of the chord length, are not suitable for rudders, as the low-drag foil is less efficient and develops greater resistance when turned to normal weather-helm angles.

Distance from leading edge *(Percent of Chord)*	**Thickness from centerline** *(Percent of Chord)*	
	NACA 0009	**NACA 66-009**
1.25	1.42	1.03
2.5	1.961	1.368
5.0	2.666	1.88
7.5	3.15	2.283
10	3.512	2.626
15	4.009	3.178
20	4.303	3.601
30	4.501 (max)	4.173
40	4.352	4.457
45	—	*4.499 (max)*
50	3.971	4.475
60	3.426	4.204
70	2.748	3.428
80	1.967	2.263
90	1.086	0.961
100	.095	0
Leading Edge Radius	**.89% chord**	**.53% chord**



Foil can be scaled to any size because all dimensions are percentages of cord length.

Foil thickness should range from 9 to 10 percent of the chord length. Thinner sections have the lowest drag when not developing lift, but they develop high resistance when the side force is fairly large, at a typical rudder angle of 4 degrees or more. The thin section also stalls at a small angle compared to a thicker foil. Tests showed the stall angle to be 9 degrees for a 6-percent thickness and 13 degrees for 9-percent. Indeed, a 12-percent thickness ratio did not stall until 16 degrees but also had a slightly higher resistance for a given side force.

The table shows the offsets for a 0009 airfoil compared to a 66-009. Note the location of maximum thickness.

A well-designed spade rudder can have a very light helm as the blade can be given balance by locating a good amount of the blade area forward of the pivot line. Most normally shaped spade rudders have their center of force operating at a location about 24 percent abaft the leading edge. If the rudder were pivoted on this line the helm would be extremely light, requiring no effort to hold or change direction, but it would give absolutely no feedback to the helmsman. It would be like having a piece of limp spaghetti in your hand!

On the contrary, if the pivot point is too far forward, the helm will be very heavy and tiring, requiring great force to move. Indeed, I know of one design where it took the strength of a gorilla to steer the boat as the designer had drawn the rudder with its center of force far abaft the pivot line (see sketch on Page 24). It did look streamlined though! The well-balanced spade rudder will have somewhere between 16 and 20 percent of its area forward of the pivot line, giving a good compromise between the "feel" of the yacht and the effort required to turn the helm.

Finally, the helmsman of a spade rudder yacht must realize that the high-aspect-ratio blade will stall out at a much lower angle than that of the rudder on the trailing edge of a keel or skeg, so it requires a different handling technique as a result. As we have seen, large helm angles can result in added resistance as well as loss of lift, so changes in course must not be made with a sudden, big change in the rudder angle.

Rather, the turn should be started with a relatively small rudder angle. As the boat begins to turn, the water flow near the stern will change direction relative to the hull and rudder. Then the helmsman can steadily increase the helm angle as required to complete the course change. A further point to note is that the rudder forces increase rapidly with boat speed. So, in light air it is important to avoid pushing the helm over too quickly or the rudder may stall. As the wind pipes up and boat speed increases, the rudder can be turned more rapidly without ill effect.

Pearson 26 upgrade

Turning an old daysailer/weekender into a self-sufficient modern cruiser

by Douglas Nikkila

For years I dreamed of seeing the world from the deck of a sailboat. My mind was filled with images of anchorages near and far. Three years in the Canadian Navy reinforced my passion for the water and gave a new meaning to "it's in my blood."

I grew up sailing dinghies in Canada and had longed for the day when I could purchase my own boat. But I had neither the finances nor the right partner to bring my dream to fruition. Similar to the change in current or the ebb and flow of the tides, 1993 introduced me to Bonnie (now my wife) and gave us the ability to finance a sailboat we could fix up and sail.

In the fall, after scouring the area for a 22- to 26-foot boat, we settled on a 1973 Pearson 26. Its condition was far from perfect, but the price was right. She had been raced for years and neglected for many more. The signs were everywhere: faded and damaged gelcoat, bent stanchions, broken or missing hardware, and a dated and worn interior. Yet the potential was there. We just had to make it happen.

Bonnie is a teacher, and I am self-employed. Since most of our summers would be spent cruising, we wanted our new boat to be as comfortable as possible. I have been around boats for most of my life and have my own cabinetmaking business, which made me a little less fearful of the upcoming refit. Once the boat was out of the water and home, we erected a plastic-and-wood enclosure to protect the boat and us from the elements.

Because of the age of the boat and the fact that some blistering was found during the pre-purchase survey, we opted to sandblast the bottom. The bottom could dry out during the winter. Meanwhile, we stripped every piece of hardware from the deck and interior. We even removed the ports and the interior fixtures right down to the hull liner.

Cardboard mockups

The next couple of months were spent drawing up plans of what we wanted the interior to look like. Making up full-scale cardboard mockups was the key to a successful interior layout, giving us a feel for how everything would fit and function before building the real thing. We spent the remainder of the winter gathering information and purchasing necessary items.

By the middle of March, the refit began. I was in for three hectic months. To me, a Pearson 26 interior is not very functional. As with most boats designed for daysailing, little thought had been given to cruising amenities, and a lot of space was wasted between the hull and the liner. Making the most of the interior was a challenge. I had to cut away a fair amount of the hull liner prior to making modifications.

In the bilge I epoxied fir stringers to help stiffen the hull and provide support for the new teak-and-holly sole. I also epoxied new partial bulkheads and cabinets to the hull, adding even more strength. With this done, in went the modular cabinetry, two iceboxes, a bookcase, cabinets for pots and pans, a storage cabinet in the head, clothing storage in the V-berth and cabinets across from the head. I notched a section of the V-berth to create more room in the head area and to make accessing the V-berth easier. I added cabinets in every space I could get to.

We replumbed the boat with a stainless-steel sink and a foot pump in the galley, a bladder tank for fresh water

Above, *Xingu*, before and after her refit. Douglas and Bonnie Nikkila at home on board. Note the window modifications to accommodate opening ports.
Facing page, Douglas and Bonnie removed most of the interior and hull liner to begin the refit. The completed interior at far right.

under the starboard settee, and a bladder-style holding tank under the port settee. We installed one manual and two electric bilge pumps along with new seacocks in the bilge and, for the chef, we fitted an Origo 3000 alcohol stove.

New everything

The wiring was outdated and required a major overhaul. The installation of a new electrical panel, the heart of the system, was followed by tinned copper wiring, halogen reading lamps in the V-berth, DC outlets throughout the boat, a Loran, VHF radio, new Autohelm Bidata speed/log/depth instruments, a solar panel to charge the batteries, a gasoline fume sniffer/bilge blower and a large plywood/epoxy battery box under the cockpit.

Pearson 26s were built without opening ports. To improve ventilation, we installed Beckson plastic opening ports in the V-berth and head. We used ¾-inch Lexan with cutouts for opening ports in the large main saloon windows. The overhead hatch in the V-berth was another weak spot, which we replaced with a new Lewmar Ocean hatch (definitely a wise investment).

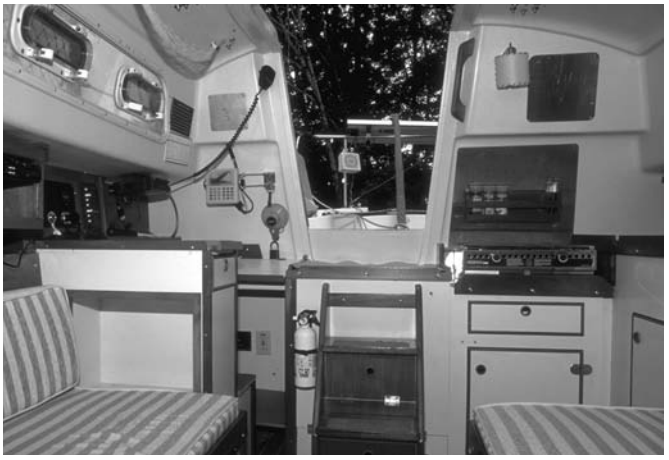
I consider the mast-step support beams to be problematic in many Pearson 26s. Our beam was cracked when we bought the boat, and I have since seen many others in poor shape. Ours was made of laminated pieces with a contact-paper covering. A small deck leak is all that would have been necessary to turn that support into sawdust. I made our new support by laminating white oak strips and putting in three pieces of threaded rod for additional strength. This may be overkill, but I could sleep like a baby knowing it was not going to collapse.

Besides helping me whenever possible, Bonnie finished out the interior. She did a wonderful job, making new cushions and painting the interior woodwork and hull liner.

Wave protection

Tackling the exterior was the next step. Since the companionway on a Pearson 26 is low, we decided to add 12 inches to the bottom of the hatch to prevent potential boarding waves from making their way belowdecks. Under both cockpit lockers, I epoxied in shelves for the 5-gallon outboard tanks. These were plumbed to a three-way valve and a Racor filter, which made changing fuel tanks a breeze. To ward off the potential for hazardous fumes in the cockpit lockers, we put in a sniffer/bilge blower along with plenty of natural ventilation. We never had the alarm go off. It is unlikely to have an ignition source problem in the bilge with an outboard for power.

We knew we had to paint the deck and topsides — a job I was not looking forward to. We chose white for the deck and black for the topsides. As with any painting project, 90 percent of the work is preparation. For what seemed like weeks, we filled, faired, sanded, primed, sweated, and cursed the day we bought this scrap pile. Eventually we prevailed. Interthane Plus two-part polyurethane made painting a breeze after the preceding



torture. When we finished rolling and brushing three coats, the boat looked like it had just rolled out of the factory. The yard workers were sure we had sprayed the boat. That's how shiny it was.

For the first time since this tremendous undertaking had begun, our spirits were renewed. A light was rising on the horizon. With the painting completed, drilling holes for hardware was a bit unnerving. But with careful measuring, everything went together without a hitch. New stanchions and lifelines with opening gates, a small teak anchor platform and roller (nonexistent on the original Pearson 26), rope clutches, organizers, roller furling, genny tracks, and a mainsheet track were some of the additions. On the cockpit sole, seats, and coamings, we put Treadmaster non-skid, which we consider an excellent choice. On the remaining decks we added sand to the final coat of paint. With hindsight I would opt for something else for non-skid. The decks wound up being a little more slippery than I would have liked.

Bottom painting

Our anticipated summer vacation was fast approaching, and we had yet to tackle the bottom. More filling, fairing, sanding, priming, sweating, and cursing was followed by the barrier coat and bottom paint. Weeks before, we had made plans to take a vacation on our new boat with another couple who owned a Beneteau. We were running out of time; the boot stripe and bottom paint were still wet when we launched our pride and joy. We named her *Xingu* after a tributary of the Amazon and also one of our favorite beers. Although we spent the trip meandering down the Hudson installing last-minute hardware, we had a most memorable vacation.

Over the next few years, we added many other items: a dodger, a larger holding tank, and, amazingly, more storage. We have cruised the coasts of New England and New Jersey and up and down the Hudson River. Then, with about $9,000 depleted from our bank account and more than 600 hours of work behind us, we left our home on the Hudson River to cruise up to Thunder Bay, Ontario, on Lake Superior, where I grew up dreaming of far-off harbors. To celebrate the dream becoming reality, I thought it fitting that we should sail our new summer home up there to visit.

For two years, *Xingu* wintered in Thunder Bay. The second summer was spent cruising Lake Superior, and the third summer we sailed her back to the Hudson. In those three years on the Great Lakes, we put more than 3,500 miles on our revamped Pearson 26. She came through with flying colors.

Back when we first purchased *Xingu*, our humble ambitions were to fix her up and do a few overnighters aboard. Cruising has turned into so much more for us. It's a way of life we have come to enjoy immensely. We have since sold *Xingu* and are refitting a 32-foot Westerly Fulmar which we hope will take us a little farther afield. In the meantime, our thoughts still go back to the wonderful times we had on our modest little Pearson 26.

***Xingu* during and after the refit at right and above. Having a boat at home and protected from the elements makes a big difference when the job list is extensive.**

Blondie Hasler's legacy

A single-handed pioneer of Folkboats and self-steering

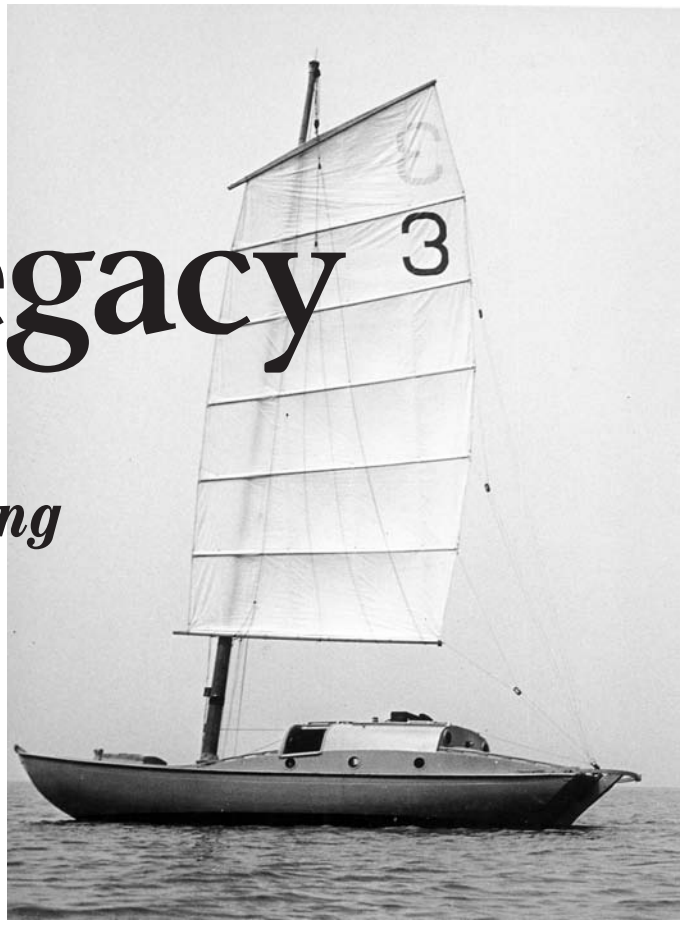


Photo courtesy of Mrs. Bridget Hasler

by Dieter Loibner

The Folkboat was designed as a family racer/cruiser, but over the years it has earned an extraordinary reputation for seaworthiness, and many of these slim 25-footers have sailed around the world.

To find out when the Folkboat joined the ranks of bluewater vessels, we need to look back to the early 1950s and to the story of Colonel Herbert George ("Blondie") Hasler, D.S.O., O.B.E., of the British Royal Marines. In addition to his love for extreme ideas, Hasler deserves credit for a number of achievements that have changed single-handed sailing, ocean racing, and the world's perception of Folkboats. To gauge his resolve and bravado it helps to know that he led Operation Frankton, one of the most daring commando actions against the Nazi occupiers of France. In December of 1942, 10 men in five folding kayaks were dropped off by a submarine at the mouth of the Gironde River near Bordeaux. The mission of the "cockleshell heroes," as they later were called, was to paddle 60 miles upriver at night, in order to blow up enemy cargo ships in Bordeaux. Only Hasler and his crew survived after accomplishing the mission. They escaped and made their way across hundreds of miles of enemy territory to Gibraltar.

After his discharge from the military, Hasler became a liveaboard, but he had bolder, more adventurous things in mind than staying put in a marina. In 1953, he contracted the yard of Harry Feltham in Portsmouth to build a carvel-planked Folkboat hull with a special superstructure with three hatches that allowed him to sail single-handed while adjusting the sail trim and course from down below — without ever going on deck.

Hopeless expectation

In the foreword to Phil Weld's book, *Moxie*, Hasler describes the reasons for his choice of boat: "Until 1952 I had always sailed and raced in conventional boats, but I wanted to make long ocean passages and soon came to realize that it was hopeless to expect to be able to raise a crew of congenial friends who could get away for long enough at the right time. I would have to be able to sail single-handed, but I knew from experience that efficient single-handing in conventional boats calls for a nautical athlete with an appetite for continual hard work and exposure. I was nearly 40, lazy by nature, and preferred cunning to brute force. I got myself a new 25-foot Folkboat hull, named her *Jester*, and began with very little money to develop on her three things that I needed: a rig that could be handled at all times without going on deck; an enclosed cockpit with a watchkeeping position that allowed you to face out in the open air whilst protecting your head from rain and spray; and a windvane steering gear that would steer her on all points of sail and which could be adjusted from the cockpit."

The result was a boat that looked like a compromise between a Folkboat, a submarine, and a Chinese junk, but as history proved, it was functional, and Hasler had every reason to call *Jester* "a good joke." She was built from mahogany over oak with heavy scantlings and had no aft cockpit like the original Folkboats. The round hatch amidships was reminiscent of the commander's hatch on the conning tower of a sub. The spray protection Hasler had in mind was provided by a rotating canvas hood that could be folded away. Instead of an internal combustion engine, Hasler opted for a long sweep that he stowed on the foredeck for sculling the boat in calm waters, a concept that North America's most conspicuous cruising couple, Lin and Larry Pardey, repopularized a few decades later.

Dead end

His experiments with a single-hander-friendly rig initially led him into a dead end. His first try was a lapwing. In this configuration, the sail was wrapped around the rotating, unstayed mast and doubled back onto itself for sailing upwind. For downwind legs it could be spread apart to increase sail area, boomed out on two poles in wing-and-wing fashion. To reef it, the sail had to be furled around the mast. It all sounded good on paper but did

Above, *Jester,* the highly modified Folkboat loved and raced by both Blondie Hasler and Mike Richey.

not work well in practice, so Hasler started to look into junk rigs, which had been refined over thousands of years and seemed to fit his needs.

His solution for *Jester* was a balanced Chinese lug rig that had a sail area of 243 square feet, close to the original Folkboat's. This rig had numerous advantages, aside from its simplicity. It automatically depowered in heavy air through the mast's bend and the twist in the upper portion of the sail that spilled pressure. Because a portion of the sail always was forward of the mast, it also counteracted weather helm, a customary problem for long-keel vessels with small or no headsails. Consequently, the steering gear was under much less load. Finally, the sail could be reefed very easily and incrementally, panel by panel, without any effort or the need to tie reeflines. Hasler rigged sheets from the battens down to the deck and simply chose the reduction of sail area by pulling the appropriate line. The sail would slide down along the mast to which it was attached by batten parrels. The excess cloth was caught by lazy-jacks that ran all the way from the yard down to the boom.

Vertical tiller

Hasler's most important legacy lies in the refined steering mechanisms that he developed for *Jester*. For manual steering, he used a whipstaff that was installed forward of the main hatch, so he could stand up, face forward, arms on deck, and direct the boat by pushing the vertical tiller with his knees.

His true act of genius has survived until this day, unbeknownst to thousands of sailors who have come to rely on windvane steering mechanisms. Like *Jester's* rig, this part also saw two stages of evolution. First Hasler favored a trim tab that was attached to the trailing edge of the rudder. The windvane was set to the prevailing wind direction and would change the boat's course if the wind direction changed, keeping it on the same pre-set wind angle. Hasler noted that this system lacked power sailing downwind, where it mattered most. His improvement included a servo mechanism to harness water and wind pressure, which then

"Hasler's most important legacy lies in the refined steering mechanisms that he developed for Jester."

are used to operate the cables of the steering gear. This system was also adaptable to different conditions, sail configurations and hull shapes.

Hasler claimed that on the four Atlantic crossings he would eventually undertake with *Jester*, he steered only 50 miles by hand; he left the rest of the approximately 12,000 miles to his self-steering mechanism. Although many more refinements were to follow over the years by others, Hasler had laid the groundwork for reliable and practical self-steering mechanisms, which have become standard for thousands of single-handers and short-handed cruisers since.

Why does the world know so little about Hasler's contribution? One reason may have been his lackadaisical approach to bureaucracy. He never bothered with patents, loathing the fact that this meant dealing with courts and lawyers.

Race to New York

Now that he had a fine seagoing vessel, still a Folkboat in dimensions, hull shape, and character, he needed to create an event to put it to the test and measure up to others. The year was 1959 and single-handed ocean racing, far from being as popular as it is today, was considered a game for lunatics and suicide candidates. Hasler's idea was a single-handed transatlantic race to New York, but he neither had a club to sponsor it nor an opponent to race against. The solution arrived in the person of Francis Chichester, who had already made a name for himself as a pioneer in single-handed aviation.

Chichester was ready to take on the challenge with his 39-footer, *Gipsy Moth III*, and bet a half crown that he could beat Hasler and *Jester* to New York. Chichester, who suffered from lung cancer and at that time ran a store for nautical supplies in London, pulled a few strings and managed to convince George Everitt, the commodore of the Royal Western Yacht Club in Plymouth, to organize such a race.

The London daily newspaper, *The Observer*, agreed to bring in sponsorship and media coverage and so the OSTAR, the Observer Singlehanded TransAtlantic Race, was born and quickly was dubbed "the most sporty event of the century."

Five boats were entered for the first race. Chichester and Hasler aside, the competitors included Valentine Howells, from Wales, who

Blondie Hasler in 1960, at the time of the first OSTAR, at right. Below, in Scotland in 1985.

Photos courtesy of Mrs. Bridget Hasler

Billy Black photos

Although he did not race to win – just for the fun of it – Mike Richey continued the tradition of singlehanded ocean racing on *Jester*. He's shown here following the race in 1996.

also sailed a Folkboat, *Eira*; David Lewis, a London doctor who was interested in the medical aspects of such a trip, entered *Cardinal Vertue*, a 26-footer; and a Frenchman, Jean Lacombe, showed up with a 21-foot plywood construction, *Cap Horn*.

Early pioneers

Compared to today's racers in carbon-fiber monsters (mono and multihulls) guided by electronics and satellites and competing for line honors in transoceanic races, Hasler and his colleagues were the pioneers rolling west in horse wagons. The amazing thing was that all five boats, inadequate as they may have seemed, finished the race despite having to deal with more than just their fair share of rough weather.

Chichester won his half crown and the race by posting a time of 40 days, followed by Hasler in 48 days. Lacombe came in last, after a whopping 74 days. Howells was beaten up in a ferocious storm that knocked him down so hard that his chronometer broke. He already was without electrical power so he had no light and no means to receive the GMT radio signal for the rest of the trip. Hasler, who sailed a more northerly route than Howells, also came out of a nasty storm that forced him to sail with the Number 4 reef for days on end.

After so much excitement, the OSTAR became an institution and, four years later, Hasler and Chichester were going at it again, this time in a fleet of 15 boats. The finish was moved to Newport, Rhode Island, and the pace was a lot faster. Our two heroes trimmed considerable time off their first crossings in 1960. Chichester finished in 29 days and 23 hours, and got second. Hasler took 37 days and 22 hours, and finished fifth. The big winner, a sensation at the time, was a French sailor, Eric Tabarly, with *Pen Duick II*. His time of 27 days and 3 hours set new standards. It made him an instant hero in France.

New record

Over the years, the event has endured, attracting fleets in excess of 100 boats and spiffy high-tech craft vying for prize money and record times. In 1992, when the race was called Europe Star '92, a German lawyer, Karl Brinkmann, raced a Nordic Folkboat and finished in 37 days and 23 hours, an hour behind Hasler's time in 1964. In the same race, a Bulgarian woman, Petja Christova, set a new unofficial Folkboat transatlantic record with 35 days and 6 hours.

It should be noted that each time Hasler raced *Jester* across the big pond, he also sailed her back on her own keel. After the race in 1964, Hasler made the decision to sell her, but not before he pulled another stunt. Shortly after returning, he brought her up to Scotland's famous lake of Loch Ness for a month of "monster patrols," sponsored by *The Observer*. It was a typical Hasler gig. Although he claimed quite credibly to be a believer in Nessie, the affair was definitely tongue in cheek, mocking the establishment.

Jester's saga was to continue under the aegis of her new owner, Mike Richey, a friend of Hasler's and at the time the director of the Royal Institute of Navigation. Richey sailed her six more times in the single-handed transatlantic race, which he called "a race for every animal in the zoo."

Richey did not race to win. More often than not he finished outside the 50-day time limit or he abandoned the race either to turn back or to head for other destinations. Single-handing was a way of life for him, like it was for Hasler, a way to make the trip count more than the arrival. "You spend a lot of time wishing you were somewhere else," he said in an interview in *WoodenBoat* magazine. "But it is fun, a nice way of life. We spend much time looking for reality. It gives you a sense of reality." Amazingly, Richey still was at it in his 80s, battling the ocean for months on end, confined to the cramped, stripped-out interior of *Jester* that offers sitting headroom only, just like the real Nordic Folkboat.

Rolled, dismasted

Eventually, all things must come to an end, even for a tough little warrior such as *Jester*. In 1986, on her 13th Atlantic crossing, *Jester* was rolled and dismasted 300 miles offshore from Brittany. A freighter picked up Richey's distress signal and plucked

Hasler contnued on 71

Sailing Out of Bounds

After 10 years of cruising, a Yankee family still lives its dream

by Barbara Theisen

OUR DREAM TO LIVE THE CRUISING lifestyle started, oddly enough, high in the Rocky Mountains. We were a young couple with no boat, no money, and virtually no sailing experience. That didn't stop us. We knew we could eventually obtain those things. So we started with more important things — the qualities we knew would help us make our sailaway dream a reality — qualities such as independence and an adventuresome spirit and perhaps the most important quality of all, a belief in ourselves and our dream.

So how did we go about finally getting sailing skills, money, and a boat? Educating ourselves about cruising and sailing was fun, fairly inexpensive, and involved a simple contribution of our time. Reading was a great way for us to start out. Boat shows added to our growing knowledge. On-the-water experience was slowly gained when we bought a 1976 Balboa 26 to sail on Colorado's Lake Dillon in the summer and Utah's Lake Powell in the winter. We also knew that we didn't need to know it all before we started cruising, thank goodness, because we're still out there learning after more than 10 years of liveaboard life.

- ***The money:*** We never had much of that and probably never will. But we learned that we can substitute hard work for cold cash. We also know that despite what magazines, manufacturers, and retailers tell us, we don't need it all. In fact we've learned how little we actually do need.
- ***The boat:*** With our budget, we knew we would need to find a good, old boat. We would pay in blood, sweat, and tears as well as with our hard-earned money.

Getting closer

A few years after the conception of our dream we moved a little closer to sea level with the hope of finding and moving aboard our dream boat. We were now a family of four, as our two daughters had arrived several years before. Wisconsin was our home state and seemed a great place for the next phase of our dream. We started looking for an older fiberglass sailboat. We thought a center cockpit would be safest with two young children aboard, and we wanted an aft cabin to provide some privacy.

In 1990, we found our boat, a 1974 Gulfstar 41 sloop we named *Out of Bounds*. She was a strong, well-built boat that needed lots of cosmetic work and a few upgrades. But the price was right. At the end of April, my husband, Tom, and I sailed her from her slip at the Grosse Point Yacht Club, near Detroit, to her new home on Lake Michigan's Green Bay.

We spent a week sailing her home and moved aboard immediately. Ours was the first boat in the water at our marina that spring. Tom headed off to work, and I began my first day of liveaboard life, a day I had dreamed about for years. Unfortunately, about an hour after Tom left we had a freak spring snowstorm that left about six inches of heavy wet snow behind. We had an electric heater that valiantly tried to keep up with the falling temperatures. But every time the wind blew, our shorepower cord (which had a slight defect, I think) fell out of the boat's receptacle. I would have to decide — should I open the hatch and let all the cold air in so I can plug the power back in? Or should I wait until the temperature in the cabin drops and I *have* to go out and plug it back in?

Listing pier

Once when I was outside plugging the cord in, I noticed that the finger pier we were attached to was now listing at a 45-degree angle. I wondered how long the pier would stay attached before our boat and the pier drifted off down the river. I was fairly certain I wasn't yet ready to try moving the boat single-handedly to another slip — especially in a blizzard. I tried calling the marina on the VHF, but they weren't officially open yet, and no one responded. I would have to go for help. But I couldn't leave our two three-year old daughters alone on a boat that might break loose.

All smiles: Kate and Kenna, above.

I bundled up the girls in their snowsuits and got them in the cockpit. We couldn't get off the boat and onto the finger pier because we'd slide into the water. So I walked one daughter to the bow. I jumped off the bow onto the main dock and had my daughter jump into my arms. I walked her to dry land and instructed her to stay put. I went back for daughter number two. In decreasing visibility, we walked across our private island home, crossed a footbridge and found help at the marina office.

Back at home again with our boat now secured to a concrete bulkhead, I put the girls down for their naps. The wind had stopped, the storm had passed, and the sun came out. The May temperatures quickly rose into the 40s, and the snow began to melt. The boat began to leak. I reached into my hanging locker to get another sweatshirt and found I had to wring out the sleeve. I sat down in the main saloon and watched a river of water coming down the mast. Yet all I could think was: I'm living aboard a sailboat. This is the most wonderful life anyone could imagine. And I meant it. I've never forgotten that wonderful feeling.

More storage

Our first upgrades to *Out of Bounds* came that following winter while she was hauled out. We tore out the forward head and shelves and added drawers to increase storage. A diesel heater was installed to provide heat, and the old alcohol stove was replaced by a three-burner propane stove and oven. I get nauseous just priming an alcohol stove. After 10 years of daily use, our Force 10 propane stove is still cooking up great meals and has never given us any problems.

I primed the aluminum mast and painted it white, which improved the looks belowdecks. We added a mast boot to keep the water out. We soon learned everything there was to learn about the fine art of caulking.

We had new cushions made for the main saloon. The old cushions had no "cush" left and had been upholstered in the lovely 1970s color scheme of olive green and orange (by then quite faded). One mistake I made here was in the color choice of the new fabric. Everything I read

Kate enjoys reading.

about living aboard suggested using light-colored fabric to avoid a dark and dreary living area. My first inclination was to go with a darker fabric that would hide dirt and stains — we did have two toddlers, and spills were inevitable. But I didn't want that claustrophobic feeling the books warned me about, so I choose a beige fabric. I soon discovered I should have gone with my gut instinct. Over the next few years the cushions began showing a bit of engine grease from Tom's wayward finger, a pink Kool-Aid stain, and many other signs of an active family of four living aboard.

Cruising kitty

Spring arrived, and we launched *Out of Bounds*. Our immediate goal was not to sail off to the far corners of the globe. We spent the next couple of years attached to our shoreside commitments, mainly a paying job that was building up a cruising kitty and paying for the boat.

But every weekend from May through September, we were out cruising. We explored Green Bay, enjoying the Door County anchorages. We spent a month cruising Lake Huron's North Channel every summer. These years offered great lessons in living aboard. We learned how our boat systems worked as well as how to maintain and repair them when necessary. We learned how to anchor in a variety of bottom types and weather conditions. We practiced anchoring and hoisting anchor under sail. We learned how to dock in currents. We increased our knowledge of navigation.

In 1993, we made our next big move. We spent six months sailing up Lake Michigan through the North Channel and Georgian Bay, transited the Trent-Severn Waterway, crossed Lake Ontario, joined the Erie Canal, sailed down the Hudson river out into the Atlantic, down the Chesapeake, and into the Intracoastal Waterway, which took us to our new home in North Carolina.

For a Yankee family, this state was full of surprises, all of them a sailor's delight. We sailed up creeks, yes creeks — some of which are navigable for many miles. Rivers host regattas and can be sailed for 10, 20, even 30 miles or more. Pamlico Sound, one of the largest enclosed bodies of water on the East Coast — second only to Chesapeake Bay — often holds so little water that I swore it would be easier to walk across than find enough water to sail in.

And then there was the ocean, beckoning some days with her gently rolling waves and brisk salty breezes and warning us away on others with ferociously growling breakers and storm-force winds. Waters teemed with creatures previously unknown to us. Shorelines here were draped in Spanish moss and overhung with live oaks. Uncrowded anchorages abounded.

Anchored in Belize.

Wild horses

We choose to live at anchor. One of our favorite anchorages was in Taylor Creek in Beaufort, N.C. Along the southern shore of the creek is Carrot Island, home to about 30 wild horses. Our daughters quickly made the island their backyard and "adopted" the wild horses. Dolphins were frequent visitors to our anchorage and once entertained us with our own private dolphin show. For hours we watched the 20 or so bottlenose dolphins, some accompanied by their young, as they leaped, splashed, and showed off for us.

In July of 1996, our idyllic North Carolina anchorage was rocked by the first of seven hurricanes that *Out of Bounds* would endure over the next few years. She was unharmed during our first-ever hurricane, big bad Bertha, although boats all around her were sunk or thrown against the shore.

But we weren't so lucky when Hurricane Fran hit us in September of that year. Despite our best preparations, Fran pushed our boat into about three feet of water. Since we draw five feet, we returned to find her at a rather disconcerting angle and showing off a bit more bottom than seemed appropriate. Furious Fran had left her with a variety of deep scratches in her gelcoat and a bent shaft. Fortunately we were insured, as the cost to "refloat" *Out of Bounds* (at the usual cost in our area of $100/foot) meant we had a bill of $4,100 before we were even hauled out.

Once hauled out, we decided that would be a great time to do many of the major projects we had been hoping to do. First on the list was painting her topsides and deck. This meant taking off — screw by screw and bolt by bolt — every piece of hardware and gear on the boat: rubrail (which we replaced), winches, ports (which we also replaced), teak handrails, cleats, hatches, and so on. I'll let the numbers paint a better picture. It would have cost us $13,000 to have the boatyard repaint topsides and deck. But by doing all the work ourselves, including sanding and priming and letting the yard spray on the two-part polyurethane paint, we reduced our costs for material and yard labor to about $1,000. But the $12,000 in savings was hard earned.

***Out of Bounds* in Belize.**

Kate and Kenna find a starfish.

Tom takes the girls sailing.

Boatyard delays

This was time-consuming work, and we were often delayed. First we had to wait three weeks for the insurance adjuster to arrive. ("Don't touch anything, I need to see the damage.") It was understandable considering the massive destruction done by Hurricane Fran. The weather rarely seemed to cooperate — perhaps because we needed perfect weather — which, naturally, we had while waiting for the insurance adjuster. Too cool, too hot, too windy, wind from the wrong direction, just rained, might rain, pouring rain.

Worst of all were our own delays (spending an hour looking for the right tool, forgetting to recharge the cordless drill, thinking we had another box of stainless-steel screws when we really didn't, and the hardware store was closed.) Since Tom was working fulltime, we realized we were going to be in the boatyard for a long stay. And being in the boatyard tended to make our to-do list grow bigger, rather than smaller. Now was the time to "just do it," we decided. We ended up living in the boatyard for a year.

Six years had passed since we first had the cushions reupholstered. With a family living aboard full time it was that time again. This time I chose a dark blue fabric and have been happy with my choice ever since. We are fortunate that *Out of Bounds* has plenty of ports and hatches that let in a great deal of light. We also have very little dark wood below, so even with the dark fabric (brightened with some

Kenna and Kate at home on board.

throw pillows) she has never appeared dark or dreary below.

One day, while the cushions were out being reupholstered, I found myself staring at the white plywood back to our settee, which was normally hidden by a cushion. What was behind it? A small hole drilled in the wood revealed empty space. Empty space! On a cruising boat that's like hitting the jackpot. Tom enlarged the hole and installed a shelf the length of our six-foot couch. That empty space is now my "pantry" and is accessible by moving the cushion.

More work

Tom also did a variety of other projects in the boatyard. He built bookshelves, a stern storage box for our propane tanks, an anchor platform with anchor mounts and rollers, and replaced our inflatable's floorboards. Our old heavy-duty Singer sewing machine was running fine on an endless supply of 110 volts, and we kept busy with various projects — repairing an awning, sewing a new mainsail cover, making winch covers, and so forth.

Tom, with the help of a diesel mechanic, rebuilt our Perkins 4.107 diesel. We finished up by coating the bottom with enough antifouling paint to last a couple years in tropical waters.

When we relaunched in the fall of 1997, *Out of Bounds* looked great. We headed south to the Bahamas. Since then we have done a few other upgrades as time and money allowed. We've added some equipment such as an SSB radio with a modem that allows us to send and receive email. We replaced the ancient roller furling gear and the headsail.

We also added a solar panel and a wind generator. Once we had plenty of electricity (well, actually, there never seems to be enough), Tom built a refrigerator/freezer. After 10 years of liveaboard life without refrigeration, this was a great addition.

***Out of Bounds*, a Gulfstar 41.**

Mostly we've continued to cruise. Our latest adventures have taken us back to the Bahamas and on to Cuba, Mexico, Belize, and the Rio Dulce of Guatemala.

Our sailaway dream began the moment we moved aboard *Out of Bounds*. For us, living aboard and cruising is a lifestyle. It's not a vacation or something we do on weekends. And we didn't wait until that elusive day when we could afford a new boat equipped with all the latest gadgets to begin living our dream. Instead we found an affordable boat, and we did without many conveniences that most people take for granted.

Better beer

But now, believe me, that frosty beer from the fridge tastes all the better when we sit in the cockpit watching the sun go down off the second longest barrier reef in the world after a great day of diving.

The cruising lifestyle has given us the opportunity to spend time together as a family — time for our kids to really know us and time for us to truly know our children. Home-schooling our daughters has brought a wonderful joy to our lives. I can't imagine a better way to raise a family.

As I think back on our years of cruising, I realize that it wasn't money or sailing skills or even owning a boat that made our dream a reality. It was the qualities of independence, an adventuresome spirit, and the belief in ourselves and our dream. And we've always known that whether we're living in a marina tied to shoreside commitments or dropping the anchor inside a coral atoll, we're living our dream of sailing *Out of Bounds*.

Barbara Theisen and daughters.

Midnight deck dancing

Cruising Baja Part 2: Hot tips for cool cruising in the Sea of Cortez

by Roger Ross

The second of two parts dealing with preparing yourself and your boat for tropical cruising south of the border in Mexico's Baja California. Learn how to beat the heat, anchor correctly, ready your boat for the return trip . . . and much more.

IMAGINE A PEACEFUL NIGHT AT ANCHOR in the Sea of Cortez. An afternoon of snorkeling and an evening beach party with other cruisers have left you tired. It was absolutely still when you dinghied back to the boat, so you decided to leave up the awnings that had protected you from today's intense sun. Climbing into the V-berth felt especially good.

But it's midnight now and something has awakened you. In the few minutes you've been awake, the wind has increased from 10 to 30 knots. Lightning flashes over the hatch and you hear the rumble of thunder — *Chubasco!*

You wake your mate as you climb out of bed and fumble for the switch that turns on the spreader lights. Soon two sleepy people are doing a midnight dance out on the deck under the spreader lights ripping down the awnings before the wind can destroy them.

Within minutes, the wind is blowing more than 45 knots. While sudden Chubasco winds are not a nightly occurrence, anyone who spends much time in the Sea of Cortez will experience them. One challenge of designing an awning system for Baja California is a quick-removal feature.

Mexican palapas with palm-frond roofs are common for a reason: the Baja sun can be intense. The inside temperature of our boat was reduced by 10 to 15°F when we put up awnings to shade the entire boat. Baja cruisers put a lot of thought into their various sunshades, and it took us a few tries to get our own system completed. We added Textilene snap-on covers to the windows on the hard dodger so we could still see out through the screen-like material. We liked shade when we sailed, so we ended up with a well-braced Bimini made of 1-inch stainless-steel tubing that stayed up all the time. The Sunbrella cover could be removed, but it seldom was. It withstood winds of 50 knots more than once. The outboard-motor hoist, rail-mounted barbecue, and sail controls were fully functional with the Bimini in place. The aft-cockpit seat/storage boxes I added gave us a comfortable place to sit in the cooling shade of the Bimini.

No chafing problem

Our largest awning connected to the front of the Bimini with zippers, and extended forward to the mast. The Sunbrella was supported by 10-foot tubes of 1½-inch PVC that rested on the mainsail cover over the boom. Chafing the sail cover was not the problem one canvas book warns about with this design. But an awning located at a higher level will allow for more air circulation. Using the boom resulted in a lower system that gave us less windage and was stronger.

I drilled holes in the ends of the tubes to connect bungee cords that ran to the deck and railing. The cover was held to the tubes by Velcro pockets and by clips at the ends of the PVC tubes. It was worth the time to use lightweight cord in a slack position to double-up on the bungee cords. This limited the bungee stretch and kept the wind from getting under the edge of the cover and lifting it like a sail. I had a lot of time and

money in the final awning so I tried to protect it from damage.

In sudden wind conditions we could unclip, unzip, and un-Velcro the cover from the PVC frame and stuff it into the cockpit in less than two minutes. Under way, the PVC tubing was tied to the stanchions out of the way on the sides of the foredeck. It might take 15 to 20 minutes to get the whole awning re-assembled at a new anchorage, but it could be removed in a hurry if needed. As time went on, we added lightweight side covers that could be hung from the main awning to shade the cockpit from low angle sun in the morning or afternoon.

An additional part of the system was a triangular, lightweight, ¾-ounce nylon cover that I sewed from part of an old spinnaker purchased for a few dollars at a swap meet. This cover shaded the foredeck area in front of the mast and was tied around the furled genoa forward and to the PVC tubing behind the mast. We took this lightweight awning down at sunset.

Cockpit shade

The final part of the system was an additional cover made from the ¾-ounce material that we used when underway on hot days. It shaded the cockpit by connecting to the back of the dodger and the front of the Bimini.

A gentle breeze can make living conditions ideal at anchor, but sometimes it gets hot, humid, and still. Over the years, I've tried 12-volt automobile fans and inexpensive computer fans to circulate air in the boat. It was worth the money also to get a few of the efficient and quiet Hella-brand two-speed fans. Because the natural airflow of a boat at anchor will be from the bow, it makes sense to use fans to help air move in the same direction. We each had a fan over the V-berth sleeping area, and there was a nav-station fan, a galley fan, and a main saloon fan.

Many cruisers overlook the importance of getting fresh air into and hot air out of the diesel engine compartment. I installed a small fan to help air in and a larger unit that exhausted warm air through a cowl vent on the transom coaming. The engine ran well, and we never overheated an alternator with this system. The life of in-line bilge blower fans is limited to a couple of hundred hours. They are not designed for continuous use, but they are inexpensive at $20 and easy to replace (carry a spare). Another solution would be to spend the money for a more expensive squirrel-cage unit.

Water cooling

Diving off the boat to stay cool is a must in Baja. During the middle of summer, we spent as many as six hours a day snorkeling and exploring, hunting fish for dinner, and just staying cool in the water around the boat. We ended up with a high-quality stainless-steel swim ladder that extended 3 feet underwater to make boarding easy. It had mounts on the starboard deck, and we also installed mounts to store it in a folded position in front of the dodger while underway.

On the port side, opposite the swim ladder, we hung a simple boarding step *(photos on next page)* that allowed us to unload supplies or passengers from the dinghy. It also served as a good place to stand and fish while at anchor and could be unclipped and used as a swing-style seat that we lowered into the water from the dinghy davits on hot days. It was something I fabricated in a few minutes using a section of old 2 x 8 plank with a carpet sample stapled on for traction and to protect the boat.

Refrigeration

Life without cold beer on a boat is possible, but what's the point? In reality, we often ran out of beer and survived, but the refrigerator was invaluable for keeping fish fresh for a few days and for keeping produce from perishing quickly in the heat.

There are several ways to power a refrigerator. I know of people who have spent more than $10,000 on elaborate refrigerator/freezer systems. We met several cruisers with powerful engine-driven compressor systems who eventually tired of running their engines for an hour or two each day at anchor. Furthermore, the complicated systems do break down.

I heard a story about a group of cruisers who began to follow a large yacht with a huge freezer packed with meat and ice cream. The yacht's expensive refrigeration system would fail on a regular basis. When the fridge broke down, its sumptuous contents were destined to spoil, so they would be distributed to other cruisers in the anchorage. The rumor that we were part of this parasitic group is not true, but the rumor that a person with a good background in refrigeration will always find work is true.

We were at the other end of the refrigeration expense spectrum and got along well with an investment of

Majo Blues **rests quietly on a hot, breezeless evening in the Sea of Cortez, facing page, with lightweight awnings in place. This page, the cockpit awning provided shade even while sailing. Note the batch of Dorado Jerky drying in the sun.**

about $600. In fairness, this does not take into account the battery and charging system needed to supply the power. In modifying our refrigeration system we kept the original built-in, top-loading box from the factory but replaced the old out-of-production refrigeration unit. I feel that a 12-volt refrigeration system is the way to go, even though it was our largest single source of battery drain. Adding a water-cooling system does increase efficiency — until the salt water destroys it. I believe in keeping it simple without the water-cooling option. A less complicated air-exchange system that is installed with good ventilation for the compressor and exchanger can last 10 years with virtually no care.

Without spending much money, we added Styrofoam insulation to the inside of the box, which also reduced the area to cool. We insulated the lid and replaced the seal. Many cruisers have had good experience with the Adler/Barbour units. Ours was a Norcold with an L-shaped evaporator in our small top-loading box. We learned to change our habits so we did not open the box too many times in a day.

Ground tackle

All the fun stops when a boat drags onto the beach . . . or worse. There are enough other factors to keep you from sleeping at night without worrying about your anchoring system. Why not move up one size from what is usually recommended? A strong manual or electric windlass is a must on a cruising boat our size. Most cruisers use a single anchor (Bruce, CQR, Delta, and so on), and my preference for anchoring in the prevalent sand in Baja is a claw anchor such as a Bruce or a Simpson Lawrence.

We also carried a Danforth for stern anchoring. This type of anchor has amazing holding power in sand and does not depend on weight to do the job. But the Danforth is not the best choice for the bow anchor that will have to reset itself when the wind or tide changes and the boat pulls from the opposite direction.

We carried 300 feet of all-chain rode for strength and weight, but since chain can't absorb shock a snubber or shock line is also needed.

After the anchor is set, the snubber line (30 feet of ½-inch three-strand dockline, in our case) can be secured to the chain with a simple rolling hitch. Additional chain is let out while dropping the rolling hitch into the water until the line is stretched tight with the chain sagging beneath it. This shock line is attached to a bridle on the bow cleats or a designated anchor cleat. We dropped the spliced eye of the dockline over the bollards on the windlass itself. The line must be chafe-protected (covered with hose sewn into place) near the cleats or where it goes over a bow roller next to the chain.

"Life without cold beer on a boat is possible, but what's the point?"

If the boat has a long bow platform, it's best to use a bridle to take stress off the platform. We also added a strong chain stopper that would keep forces from being transferred directly to the windlass if the snubber broke or came loose. We tied off the end of the chain with a section of line that can be pulled out on deck and cut in an emergency. When you can imagine your boat staying put with the wind blowing 45 knots as the bow bucks up and down in huge swells like a scared horse, you've probably done all you can do.

Swinging space

Most anchoring in the Sea of Cortez is done over a sand bottom in 15 to 30 feet of water. Tide changes can exceed 15 feet in the northern part of the sea. Winds can come from any direction at any time, and the interval between dead calm and 40 knots of wind can truly be only a few minutes. Make sure your boat is safe from obstructions in all directions of swing, and remember to add the length of your boat to your swinging radius. In close quarters take time to back down on your anchor toward the rocks in question even if you are backing into the present wind. Many of the charts for the Sea of Cortez are lacking in detail, and they are often incorrect. Some charts of this area have not been updated in more than 100 years.

It's usually best to enter a strange anchorage at low tide, if possible, with someone on the bow to watch for rocks visible just below the surface. Entering at high tide can yield surprises when rocks appear later. Consider anchoring temporarily in a deeper spot and exploring for a more protected location in the dinghy, looking into the water with a dive mask.

You may be anchored here for a while, and if you are too tired to check things out and do it right now, think of what it will be like when 40-knot winds are putting you on the rocks at 1 a.m. I made a practice of diving into the water and checking out the bottom and the anchor. Occasionally I found rocks in the area that could tangle our chain, so I searched for a better area in the dinghy and took the time to re-anchor.

There were many times in Baja when I set a stern anchor up by the beach to keep *Maho Blues* pointed into the swells. This allowed us to enjoy anchoring in beautiful places that other boaters avoided because of the swells. After the primary bow anchor was set and the boat was safe to swing a full 360 degrees, I got in the dinghy and set our Danforth with 25 feet of chain and 100 feet of line in shallower water near shore. The stern anchor was set for comfort, not safety, and if it was cast off or even cut loose, our bow anchor was still there to hold us.

I was amazed on a few occasions when the wind blew 40 knots from our stern and the ½-inch line and the little Danforth held us. Pulling up a Danforth that has worked itself deep into the sand may require a steady pull for several minutes before it releases. I did have to cast the stern anchor off a few times in strong winds from shore. I was always able to retrieve it when things settled down.

Passagemaking

It gets rough out there. It's no fun dodging your gear and supplies as they fly around the boat. It's also important that you don't go flying around the boat. Take time to install locks on all doors and drawers, to install hooks for bungee cords, and to strap down anything that can move. Install grabrails so you can move around the cockpit and down below with one hand continually holding on to the boat. Pack soft things between hard things. Pack yourself between pillows so you can get some rest when you're off watch.

I added a removable inner forestay to our boat and used only the staysail when the wind got up to 30 knots. We also had a third reef point in our mainsail, and the lines for reefing were always in place. We learned to keep our meals simple and small during passages, and we traded the watch at three-hour intervals.

Even in coastal cruising we sometimes made four- and five-day passages to take advantage of good weather. My favorite piece of equipment on a passage? A reliable autopilot. Our Navico Wheelpilot 5000 was excellent.

"Most anchoring in the Sea of Cortez is done over a sand bottom in 15 to 30 feet of water. Tide changes can exceed 15 feet in the northern part of the sea."

The Baja bash

The trip from San Diego to Cabo San Lucas on the tip of Baja is 800 miles of sailing off the wind with ocean swells helping to push you south. It is a relatively easy passage, even though there are only two major protected bays along the way that offer the chance to take on fuel, water, and supplies. Many boats that are not particularly well prepared survive this trip and spend time in the Sea of Cortez. But at some point most people want to return to the United States and Canada.

Some cruisers with boats that sail well head out to sea for hundreds of miles and then tack back into San Diego, and it is usually a rough trip. Most people choose to motorsail a shorter coastal route that offers a few places to rest and take on fuel. This infamous 800-mile passage against the wind is known as the Baja bash, and the trip takes its toll.

Engine and transmission failures are common, thanks to eight or more days of continuous motoring into the wind and seas. Many boats have decks covered with extra jugs of reserve diesel fuel. Sensible spares to carry for this trip include belts, a spare raw-water pump or impeller, and fuel filters.

A raw-water strainer should be installed so it is easy to service when the boat is underway in rough weather. Before heading down to Baja, it's certainly worth making sure that your boat is in a thoroughly seaworthy condition and that you can carry enough fuel to get back up the coast.

The boat

I loved the strength and size of our 1974 Cal Cruising 35 the first time I saw her. The boat was designed for cruising with a powerful diesel, large fuel and water tanks carried low in the hull, a huge galley, a good-sized head with shower, two large hanging lockers, and huge amounts of storage everywhere. Down below didn't seem so much like "down below" with the plentiful light and excellent visibility provided by the large windows. The boat immediately seemed like a comfortable home with the potential to be a sound cruiser.

She had an incredibly strong, nearly full keel with a cutaway forefoot. The rigging and the spars were larger than I'd seen on other boats this size. I knew this was not the fastest boat that Bill Lapworth ever designed, but all his boats sail well. With the ability to carry 160 gallons of diesel fuel and 110 gallons of water as it came from the Jensen Marine yard, the Cruising Cal 35 was definitely designed as a long-range cruiser.

Problems? The portlights were too large for safe offshore passages, and the cockpit seemed too big and open.

Baja continued on Page 73

Facing page, Bette Ross and the boarding step/swing seat used for climbing aboard from the dinghy as well as for simply cooling off. This page, Bette enjoys the shade of the cockpit awning and the comfortable cockpit seats.

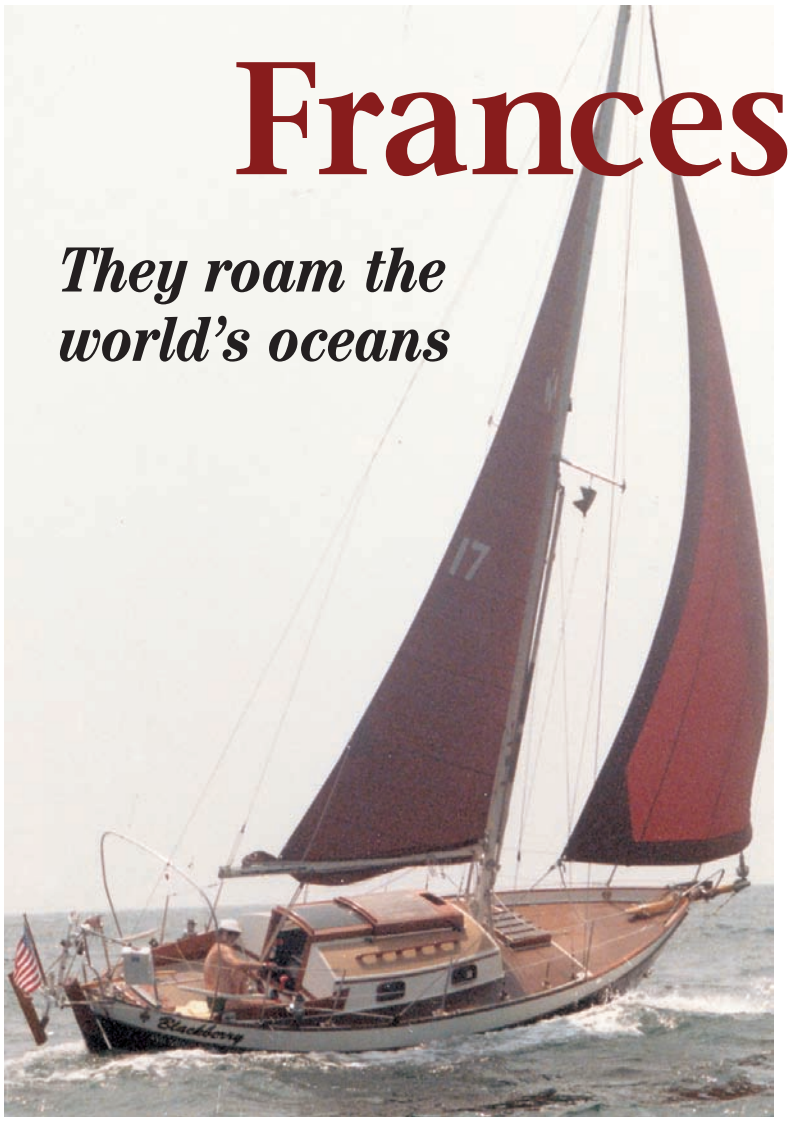
The Sensuousness of

by Willard Bond

Sails

Frances 26/

They roam the world's oceans



Brewer and Lynn Ezzell sailed their 1978 Morris 26, *Blackberry,* in North Carolina waters before selling her for an Endeavor 42.

The British manufacturers of Frances 26 sloops managed to characterize them perfectly in remarkably few words: "They routinely roam the world's oceans." Enough said, old chap.

In fact, the Frances 26 has an Anglo-American heritage, for she was designed by one of America's best-known smallboat architects, Chuck Paine.

Morris Yachts, of Maine, originally built the Frances as the Morris 26 — about 35 to 40 of them came off the production line there. In total, about 200 were constructed professionally, and about 40 more have been built by amateurs from sets of plans — still available, incidentally, from Chuck Paine's design office in Camden, Maine.

Until recently, the boat was offered by Victoria Yachts, in Hampshire, England, but at the current time there is no manufacturer building the boat from the molds which are reportedly resting unused in a field in Holland. If you want one of these gems your choices are to buy a used one, build one, or have one built as a one-off from the plans.

Significantly, the Frances 26 was designed by Chuck Paine for his own use. She was, in fact, his first design as an independent naval architect, and she had to be capable of cruises from Maine to the West Indies and back crossing the unpredictable Gulf Stream. She also had to be capable of being sailed by only one or two persons.

For his own comfort and safety, Chuck chose a traditional, long-keeled hull with moderately heavy displacement, an outboard rudder, and short ends. It's interesting that so many designers who plan to cross oceans in their own boats choose that time-tested formula, no matter how many fancy fin and skeg boats they draw for others.

This boat is almost a starved Colin Archer, except that her sternpost is straight, not curved, and the forward end of her keel is cut away slightly for better maneuverability, less drag, and better directional stability downwind. Chuck Paine says the cutaway also stops her from developing weather helm.

Although many of these small voyagers are now routinely roaming the world's oceans, you won't find many used ones for sale on the open market. At the time of this writing, Morris Yachts was advertising four for sale from $38,000 upward. But this is the kind of boat owners tend to hang on to for life, so when they do come up for sale they're quickly snapped up by savvy sailors who've been waiting in the wings for their chance to pounce. Better get in line.

Basic design

One unusual aspect of this boat's design is the amount of weight she carries on her keel. The ratio of ballast to displacement is 51 percent. In other words, more than half the total weight of the boat resides in her ballast keel. Such a high ratio is rarely seen in a cruising boat, but it argues well for her ultimate stability. Should she ever be rolled over by a rogue wave (and that possibility should never be dismissed no matter the size of the yacht) she will undoubtedly regain her feet very swiftly, probably before too much water has found its way down below.

Her hull is solid, hand-laid fiberglass, made to Lloyd's specification. The gelcoat was colored according to the owner's choice. The fiberglass deck has a core of balsa wood, except in those places where fittings are bolted through — there the core is a more substantial material known (appropriately enough) as coremat.

Each end of the hull is pointed and joined by a full-length keel of traditional proportions, modified slightly (as if the designer were making a nodding concession to modernity) by removing a thin crescent from its forward edge.

The freeboard is generous but cunningly lessened visually by what

Morris 26

by John Vigor

Greg and Jane Pusch sail their 1983 Morris 26, *If*, near Massachusetts. She had an extensive refit in 1996, so Greg thinks of her as a "1996 good old boat."

is called a "gunwale styling line." And yes, she has proper gunwales, capped by a solid teak toerail.

Her coachroof is high, angular, and truncated. It stops short of the mast, and by rights ought to look unflatteringly boxy. For some reason though (perhaps because of its deep crown or the shape of its ports), it earns the epithet "purposeful" rather than the disparagement "ugly." In any case, it provides full standing headroom in the main cabin below, which is no mean trick on a 26-footer.

This is one of the last remaining boats provided with the cruiser's friend, a proper samson post on the foredeck. Nothing is more convenient for mooring lines, anchor lines, and towing lines, yet fewer and fewer modern sailors ever get the chance to test its virtues against the inadequately sized and awkwardly placed deck cleat that has become the mediocre standard.

The sliding hatch over the companionway is made of ⅜-inch thick acrylic plastic material. It slides on brass runners inside a fiberglass turtle, or sea hood, that prevents heavy water from finding its way under the hatch into the accommodations.

Teak coamings surround the modestly sized, self-bailing cockpit, which has a vented locker for propane gas and a large lazarette aft. The tiller sweeps the aft end of the cockpit but without getting in the way too much. A more inconvenient obstacle is the mainsheet, which attaches to a deadeye on the bridgedeck. Even at the cost of some efficiency, the mainsheet might better be sheeted to a horse spanning the pulpit, as it was on the original Frances.

You'll find all kinds of power plants in the Frances, ranging from 5 to 25 hp, but the standard engine was a diesel, the freshwater-cooled Volvo Twin 2010, which develops 10 hp. That's slightly more power than the 3-hp per ton often recommended for modern cruisers, but it certainly won't be too much in heavy weather.

Victoria Yachts commendably went to some trouble to reduce noise by lining the engine compartment with an insulating foam that incorporates a lead barrier.

Accommodations

Since most of these boats have been built to the requirements of individual owners, who knows what you might find down below? Their coachroofs, or lack of them, reflect the status quo in the eternal battle between the hedonists, who insist on comfort below, and the Spartans, who are happy to suffer for good looks.

A handful of Franceses were built with a raised deck amidships. They are very sleek, very pretty, but they offer no standing headroom below. They make Spartans very happy indeed. The majority *(and those pictured here* ***–Ed.****)* have a raised coachroof to open up the accommodations, and while some of them have a jaunty, truncated cabintop (an uneasy truce, but acceptable to both armies) others have a coachroof that extends forward of the mast in total surrender to the hedonists.

In a refit there's wonderful scope for redesigning the interior. If you very sensibly decide that four berths are two too many for this boat, you can get rid of those rarely-used V-berths and put something more useful in their place. And if you simply can't live without a double berth, it's easy to make an extension berth from one of the settees in the saloon.

The galley, the head, and the chart table, like movable feasts, are to be found all over the place on various boats. You can, in fact, squeeze four full-sized berths into this hull and still have room for all the rest, but if you're planning to sail single- or doublehanded, as the majority of long-term cruisers do — you will probably prefer to have fewer bunks

and more specialized accommodations for cruising with two.

The rig

The rig is another area in which variations abound. You can find masthead sloops, ⅞ths-rigged sloops, and cutters with a bowsprit. Victoria Yachts supplied a thoroughly modern, silver-anodized mast, stepped on deck with airfoil spreaders and an internal conduit to keep electrical wires from slapping around inside the mast and driving you crazy.

The boom, also silver-anodized, has a built-in groove for the mainsail foot boltrope and an internal reefing system for two slab reefs. There's a special winch to aid jiffy reefing and a fancy casting near the gooseneck with four built-in jammers for the reef lines and the clew downhaul.

The sail area, incidentally, is exactly 30 square meters, or 327 square feet, with a slight majority of it in the mainsail so the headsails can more easily be managed by short-handed crews. If you're familiar with the old International 30-Square Meter class, you will be fascinated by the fact that the same sail area that drives those glamorous, but malnourished, 40-foot racers so quickly and efficiently is needed to push the sturdy Frances 26 along in rather more prosaic fashion.

Performance

This is a seakindly boat, as comfortable in broken water as any 26-footer can be expected to be and more seaworthy than most. Her pointed stern will win the approval of many traditionalists who believe that it parts following seas as does the stern of a lifeboat and thus makes the hull more seaworthy. Even those who scoff at such a theory on the grounds that if a big wave is going to come over the stern, a pointed end won't stop it, must agree that is it pretty to look at.

Her performance to windward will depend to some extent on the rig: a masthead sloop with a hanked-on foresail will probably do best because the size of the headsail is important. It's more efficient than the mainsail, area for area, because it is not affected by the power-wasting vortices spawned by the mast.

She's a little shallow-drafted for premium performance on the wind, so she'll need to be sailed a bit freer and a bit more upright in heavy sea conditions, but in light or moderate weather she might surprise a few competitors. Like most full-keel boats, she comes into her own as you ease her off the wind, and there's no reason why she shouldn't notch up some pretty respectable daily runs on an ocean passage.

Known weaknesses

- ***Expense.*** Custom built new, or used, this is not a cheap boat. If she's well maintained, though, she could make a safe, solid investment because there always seem to be more people looking for used boats of this type than there are examples available.
- ***Lack of availability.*** If you want a used one, you'll probably find there are fewer than half-a-dozen for sale in the U.S. at any time. You may have to find one yourself and haunt the owner until he or she sells her to you.

Owner's opinion

In this case, the owner's opinion is the designer's, too. Chuck Paine's original Frances, named for a friend in London, had a ⅞th sloop rig for no better reason than the fact that it looked pretty. For the same reason, she also had a flush deck instead of a raised cabintop.

Chuck calls her a mid-Atlantic boat. "I wanted to combine the qualities of the best of British and American design," he says, and she has, in fact, appealed to people on both sides of the Atlantic."

He designed her as a deepsea voyager with ruggedness, character, and good looks. She had to be small enough to suit a modest budget but large enough to survive at sea. But it was his concern with seaworthiness that was paramount. That's one of the reasons he gave her a whopping 51-percent ballast ratio.

"She has very positive capsize numbers," he says, "She can heel a very long way over before she reaches her limit of positive stability."

The interior of *Blackberry* is one of many possible custom configurations. Standing headroom on those 26-footers with a raised coachroof is a definite plus.

The Ezzells' *Blackberry* is almost as pretty out of the water as she is in her element. Notice the aft samson post at left, the aft lazarette, and the tiller sweep. The mainsheet attaches to the bridgedeck, center. At bottom, *Blackberry*, previously known as the *Pearla B*, shows off her Chuck Paine lines.

To the uninitiated it may seem paradoxical, but despite all this weight hanging from her keel, Frances is a little tender initially. Many of the most seaworthy yachts share this tendency to heel quite easily to 10 or 15 degrees, and then suddenly stiffen up, refusing to heel further until the wind really starts to blow seriously. The reward for this lack of initial stability is increased ultimate stability, a feature that should be borne in mind by every prospective ocean sailor. If she's ever hurled upside down by a giant wave, Frances will bob upright again promptly. A very stiff boat, one that gains her initial stability from wide beam, will take much longer to recover, and may even sink before she does.

You don't have to worry about the cockpit being too big on this boat, either. "It's small," says Chuck, "it's safe for ocean cruising."

If you're sailing a sloop-rigged Frances under all plain sail when the wind starts to rise, you should first reef the mainsail, he advises. If you're sailing the cutter, however, with a roller furling headsail on the bowsprit, you should roll up the Yankee completely and hang on to the staysail.

The idea is to lessen her angle of heel as much as to keep her helm balanced. In fact, Frances does not seem to suffer from weather helm. "She's the most beautifully balanced boat of her type that I have ever sailed," Chuck says, throwing modesty to the winds.

"She's not as bad to windward as you might suspect, either, especially

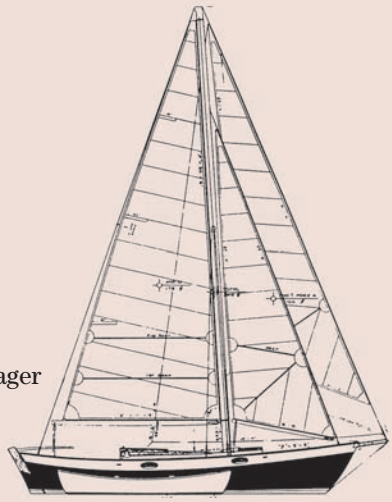
In short

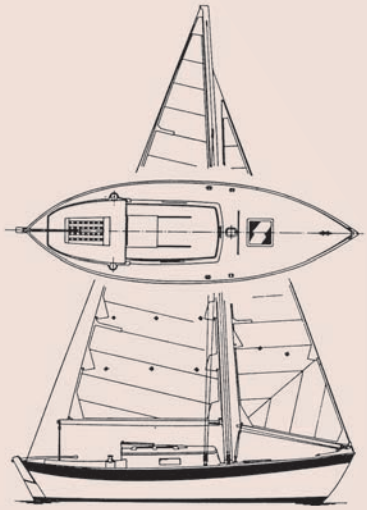
Frances 26/Morris 26

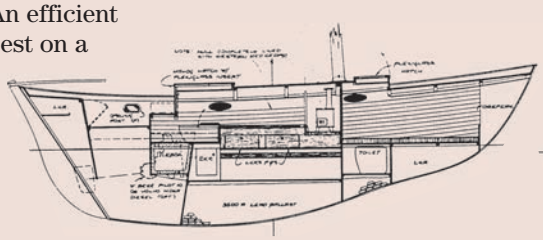
Designer: Chuck Paine
LOA: 26 feet 0 inches
LWL: 21 feet 3 inches
Beam: 8 feet 2 inches
Draft: 3 feet 10 inches
Displacement: 6,800 pounds
Sail area: 327 square feet
Ballast: 3,500 pounds
Spars: Anodized aluminum
Auxiliary: Volvo 10 hp diesel
Designed as: Easily managed ocean voyager

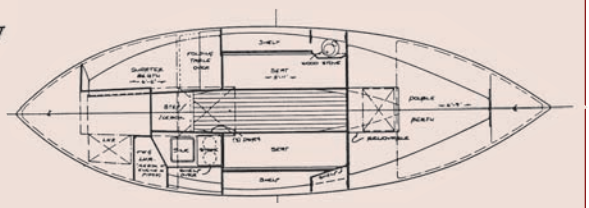
In comparison

- **Safety-at-sea factor**: 8 (Rated out of 10, with 10 being the safest.)
- **Speed rating**: An efficient performer but best on a reach.
- **Ocean comfort level**: One or two adults in reasonable comfort.









in moderate weather, but her best point of sail is a reach, anything from a close reach to a broad reach. Dead downwind, like any small boat of this type, she rolls."

Conclusion

Like many a jewel, she was costly for her size, but she brings a great deal of pleasure for a very long time. Even if money is an object, there are very good reasons for buying this sweet but tough little boat. There are no new boats available at the moment, except by having them custom built, which is expensive. This boat has a very high displacement-to-length ratio, which is exactly what her design type calls for. Compare her to other boats of similar displacement, not similar length on deck.

The Puschs' *If* is a "short cabin trunk" version of the Frances/Morris 26. Notice the "gunwhale styling line" which seems to visually reduce the high freeboard. Pretty as a picture, these boats are known to be seakindly ocean vessels.

by Steve Mitchell

The magic *of* boatbuilding

Plywood-and-epoxy kits add up to easier boatbuilding

People have been building small wooden boats for eons in a process often shrouded in mystery. Steam boxes and molds for lapstrakes immediately come to mind. But with modern epoxies, high-quality plywood, and the advent of kits cut with computer accuracy, building a wooden boat has never been more popular or simpler.

Well, more popular, anyway. The *simple* part depends on your skill with tools (albeit minimal), your ability to follow directions and, perhaps most importantly, your patience. But building a small boat is no longer a black art, largely due to the efforts of Chesapeake Light Craft or CLC for short. As CLC president John Harris puts it, building a boat "isn't witchcraft anymore."

CLC was founded in 1991 in Chris Kulczycki's basement. "The company started as a result of a series of magazine articles Chris wrote," says John. "Chris was a journalist working for sailing magazines. He built a kayak for himself and wrote an article about it. He received such a huge response from readers asking for the kayak plans he decided to start a company selling them.

"He did that for a couple of years, and then people started asking for kits for the boats. In 1993, he started shipping kits. I came onboard in 1994 as a subcontractor building kits and joined the company as shop manager in 1995."

Rapid growth

CLC's kit business has grown to approximately 2,500 kits a year produced in its Annapolis, Md., facility. The company has expanded the product line along the way to include prams, canoes, dinghies, and small sailboats. "We realized we could do other boats besides kayaks," John states. The new offerings caught on. CLC currently offers 29 kits, from a rowing shell to a wherry, with more models on the drawing board, many aimed at sailors.

John goes on to state the obvious: "We're nuts about boats here. The people working here were drawn to CLC by an interest in boating and, more particularly, in wooden boatbuilding. They have a wide variety of backgrounds and talents, and we use it all. We're lucky to have them. It's a strange niche business we're in. It's a big sandbox here. We get to play with boats all day."

John Harris himself is a good example of how CLC uses many talents. A music major in college, his avocation is performing as a jazz trombonist — as if playing with boats all day weren't enough. If you buy the CLC video, *The Zen of Wooden Kayak Building*, for an entertaining peek into the process, John is the host and star of the show, which includes a trombone-playing clip. But his talents don't stop there. He's also the artist who draws the illustrations and schematics that grace the CLC catalog and website.

"I built my first boat at 14, a rowing shell," he says. "I keep the bow of it here in the office for humility. The fit and finish were pretty awful. I eventually cut it up so no one would drown in it. I use that bow in talks today as an example of how *not* to build a

boat. I got a lot better a lot faster after that. Later, I made a nice double-ender that was featured on *WoodenBoat's* Launchings and Relaunching page. I was 16, and that was heavy stuff. I never looked back. I was building boats every chance I got all through college. I graduated with my music degree and went right into boatbuilding."

John Harris, CLC president, started building boats at age 14.

Owns nine boats

In true CLC spirit, John admits to owning nine sailboats of varying styles and lengths. He readily ticks off the sailboats of other CLC employees as well. No doubt about it, these people are of and by the water.

It's easy to spot that this company is nuts about wooden boats when you walk into the Annapolis showroom. Kayaks, canoes, and prams line the walls with customer testimonials and photos filling in the blank spaces. A fine layer of sawdust from adjacent production areas covers everything. The sweet perfume of wood greets the nose. It all blends in, alerting your senses to the special nature of what goes on at CLC.

"It's become easier to build a wooden boat in the last 25 years," says John. "In the 1960s if you built a wooden boat you had to use old plans from the 1930s, '40s, or '50s, and epoxy was largely unknown for this purpose. You would've had trouble getting the right supplies. The epoxies and high quality plywood available today make it possible for just about anybody to build a good-quality boat, especially with a good set of modern plans or a kit. I think that's why people are more interested in trying it now."

CLC uses a patented variation of the stitch-and-glue process called "LapStitch" to make some of their hulls. This process yields a hull with a lapstrake appearance and provides the builder with a way to have a very controlled jigging of the relationship between planks. The edge of one plank is milled to about half thickness in a complex curve that allows the mating plank to be precisely located against it.

The planks are then wire stitched together like conventional stitch-and-glue construction. The resulting hull shape can be very precisely created.

Controlled cutting

Several years ago, CLC spent $40,000 for a Computer Numerically Controlled (CNC) cutter, which is essentially a very large, computer-controlled router that cuts out pre-programmed parts. Previously, all parts were cut by hand using jigs or patterns, a time-consuming process that made it tough to keep up with demand. The CNC cutter is fast, and not only allows for very precise cuts, but also enables the various parts to be nested in a sheet of plywood, thereby reducing waste.

"For some, boatbuilding is a lot like eating potato chips — you can't stop at one."

CLC also devised its own scarfing machine so kit builders don't have to learn that difficult woodworking skill. The pre-scarfed parts make it a simple matter of gluing two pieces of plywood together with epoxy to make, for example, a 16-foot kayak from 8-foot-long sheets of plywood.

The kits come complete with everything the boatbuilder needs: plans, detailed instructions, epoxy, fiberglass, and fasteners. CLC ships them airfreight, usually in three cartons — a couple of them are rather large, so be prepared.

Even the plywood CLC uses is special. It's okoume plywood, made in European mills from plantation-grown African mahogany. It's marine-grade, made to a special British standard. This is not the case with cheaper plywoods sold in your neighborhood home center. Even exterior-grade plywood has voids.

Great lumber

"There's a sense of craft with wood," says John. "The wood we supply with the kits is the best wood you can find in the whole world. You can't go to the local lumberyard or, in many cases, even a local cabinet shop and find wood of the quality we use. I like that part about building boats here — we always have some great lumber lying around.

"Once when I was in high school I needed a mast thwart for a sailboat I was building, but I was out of money and lumber. I needed 30 inches by 3 inches of clear wood. The basement of my parent's house had rows of bookshelves with a lot of inherited books. I removed 30 inches' worth of books and cut the piece I needed out of the middle of a shelf. I balanced the books back over the hole, and I had my piece of wood. My parents didn't find the hole until they moved, and they immediately knew what had happened. I was out of college by then, so they couldn't do a whole lot to me."

According to John, "CLC started supplying kits almost right away to the WoodenBoat School in Maine for their classes. We work very closely with them. We've found that classes are a way to bring people into kit building a little sooner, especially if they're unsure of their ability. We started holding classes ourselves here in Annapolis because they are a great outreach for our company."

CLC also provides kits for boatbuilding classes held by the Alexandria (Virginia) Seaport Foundation, the San Francisco Maritime National Historic Park, the Mariner's Museum (Newport News, Va.), the Lake Champlain Maritime Museum, and others.

"Probably 75 percent of our customers are first-time boatbuilders," John says. "Word of mouth from our classes is huge. We bring folks into class, and they get off to a great start with their boats because they have an

instructor available to help. They can take a week off to concentrate on the boat so the project isn't spread out over 18 weeks at home. They can get at least 70 percent of it done in one week and just need some evenings or weekends at home to finish it. They get a big head start in class."

Great experience

Bill Finnegan, a judge in Marion, Ohio, agrees with that assessment. He took a CLC class in Annapolis because "I had no woodworking experience at all. I had never even used a hand block or a sander. The class was a great experience, and I enjoyed it very much. Instructor and CLC production manager Bill Thomas was very patient. The things he pointed out were real helpful. I learned an awful lot from him. I could build another kit on my own now."

Indeed, many students later buy other kits. For some, boatbuilding is a lot like eating potato chips — you can't stop at one.

"We work really hard to make the classes universal in the skills people learn," says John. "They learn to work with epoxy and with fiberglass — transferable skills they can use on a project on their big boat if they have one. It's not just how to build a kayak.

"Our boats go to a wide range of people. A fellow named Brandon Nelson on the West Coast built a Chesapeake 18 and paddled it a thousand miles, all the way down the Baja — just a true adventure type. He was looking for the most boat for the least money, and one of our kits was a great way to do it.

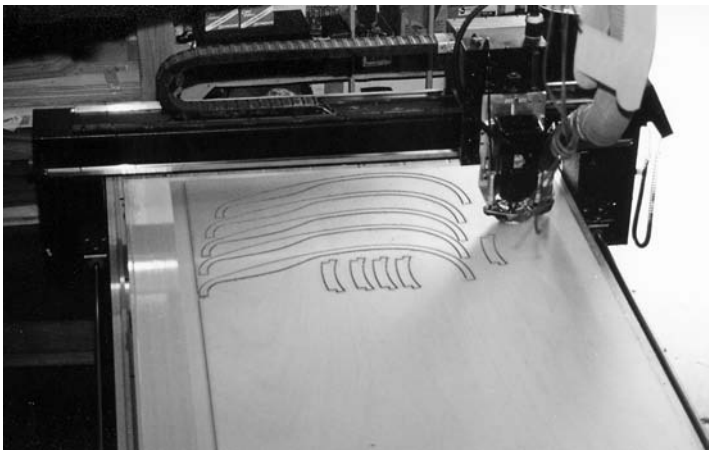
"We also have retired guys who may or may not have worked with wood before, but have time on their hands. Building a boat is absorbing, challenging, and stimulating, so they'll build a kayak. Maybe they don't really like kayaking that much, so they'll give it to the grandkids. Or they may advertise it in the paper and sell it.

"That's one theme that seems to run through our funny little niche business . . . that half the fun of the whole project is building the boat. People may like using it, but they like building it just as much."

"I think more and more people are going to discover that wooden-boat building is a fascinating life experience."

Typical project

John Herr, of Mechanicsville, Md., is one CLC customer who built a Chesapeake 18 kayak at home, a process that took him "about seven months, but I was only working on it at nights and on weekends here and there." His experience of taking several months to complete the project is probably typical of most people who build a kit at home.



CNC cutter saves time, cuts down on waste, and increases accuracy.

He says, "It pays to take your time, to read the instructions, and to call CLC with questions or problems. I must have called them a half-dozen times. These guys are always there to answer your questions. They were great. And there also is nothing you can do to that boat that some epoxy won't fix."

He also provided CLC with comments on the manual, a process CLC invites to improve the instructions. Such customer feedback is invaluable to CLC and demonstrates how committed the company is to improving its offerings.

What lies ahead for CLC? "I think more and more people are going to discover that wooden boatbuilding is a fascinating life experience," says John Harris. "It's giving birth. You start with nothing more than a pile of wood and end up with a floating work of art. We can reach more people through classes and by offering more and different types of kits.

"We have a whole range of nice rowing and sailing boats coming out that will have lots of appeal, small rowing and sailing craft in particular. Right now about half of our business is in raw materials, too — fiberglass, epoxy, tools, and accessories. Most of our business now comes from the Internet, and that will only increase."

Free information

In fact, all boatowners should visit the CLC website for information on working with varnish, paint, epoxy, and fiberglass, if nothing else <http://www.clcboats.com>. The site gets about 40,000 hits a day. "It's just crammed with free information," says John. "We have hundreds of pages of information on such topics as how to apply varnish, how to apply varnish over epoxy, how to apply marine polyurethane paints over epoxy, how to work with fiberglass. There's lots of information there for everybody, not just kit builders.

"We have a strong presence in boat shows, mainly ones for canoes and kayaks, or for wooden boats. We also go to the Annapolis Sailboat Show because you see more and more of our kayaks on sailboats. It makes a lot of sense because they don't take up much room, and they're very light. Some of our wider ones are stable enough to get into and out of from a stern ladder.

"We'll also be doing more prams and sailing boats in the next couple of years that can be used as dinghies." CLC's Eastport Pram is already a popular kit for sailboat owners to use as a dinghy. It's also the simplest kit to build.

If you're in the market for a dinghy, look at it this way. Instead of towing a piece of rubber or plastic behind your sailboat, you could be towing a work of art thanks to a CLC kit — and without a bunch of hocus-pocus.

An instant chart plotter

It may be quick and dirty, but it's also cheap and handy

by Brooke Elgie

Many years ago, when the sailing sickness first hit me, one of the first things I did was to buy a nice new copy of *Chapman's Piloting, Seamanship and Small Boat Handling* and set out to work my way through it from one end to the other. I didn't make it, of course, but truth be told, I did learn a lot, and I'm not one bit sorry for the effort I put into it.

Knowing how to advance an LOP, calculate a tide, or predict the effect of a current are valuable skills that no serious boater should lack. The practical fact, though, is that we very seldom have any occasion to use many of those skills, and like any skill that goes unpracticed . . . well, you know where this is going. My *Chapman's* is way back there with our other purely "reference" books. The skills I remember are the skills I use; *Chapman's* is there for all the rest of it.

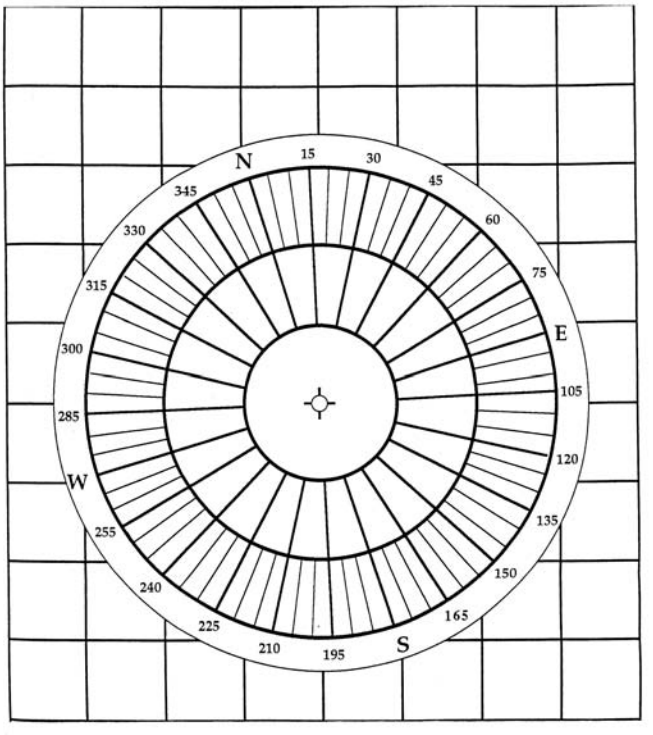
In fact, the majority of texts on piloting that I've ever seen, *Chapman's* included, appear to be aimed at the guy (ever noticed that it's always a guy?) who does his piloting from a "bridge" and who I always imagine to be standing behind a helmsman, hands clasped loosely behind his back, occasionally murmuring, "Steady as she goes." None of them raise an image of a guy who would ask, "What do you think, honey, could that jib halyard stand a little tug?"

The day-to-day piloting we do on *Persistence* is a rough-and-ready kind of thing. When we emerge into open water, we need to identify several distant points. In unfamiliar territory, we often need to verify that the headland on the chart is the headland that we see over there. Our weather is often terrible and, under way, the chart lives in the cockpit in a Plexiglas holder. The only course lines on it were drawn at the galley table last night at the latest. Parallel rules in the cockpit? As the kids say, "Give me a break!" I can barely manage the dividers and the hand-bearing compass. What we need is something simple, with no moving parts. Oh, and cheap, because it *will* go overboard.

Which way up?

I tried one of those stiff, clear plastic plotters with a lot of numbers and lines radiating from a protractor-like item on one edge. I could never remember how to orient it on the meridian (or did it go on the parallel?) or which set of numbers to read. Then there was always the "correcting add east" business: ". . . so, let's see, that means I subtract the variation from the plotter reading to get magnetic? Or add?" You get the drift. It's not for nothing that Wendy refers to me as "Captain Luddite."

Then, several years ago, the magazine *Messing About In Boats* printed this little item, and things got a whole lot simpler. The "guy on the bridge" wouldn't like it, but it has proven its usefulness to us over many, many miles of cruising, lots of it in remote areas of British Columbia and Alaska. I pass it along to you — one sailor to another. It's no substitute for the parallel rules when critical work is required, but it's plenty accurate for 90 percent of the chart work most of us actually do.



It is little more than a clever transparent compass rose that you can put anywhere on the chart and get direct magnetic bearings. The cleverness lies first in its being transparent, and second in the background grid that allows you to easily orient it on the chart. Here's how to make one.

Cut out the rose and position it on the grid so that the variation for your usual cruising ground is "dialed in." Hold the two pieces in position with tape or glue. Take the assembled item to a copy shop and make a photocopy on plain paper. Clean up any broken lines and white-out any spots on your paper copy. Then have

the copy shop make several copies of that copy on acetate film — the stuff they use for overhead projectors.

You will now have a usable instant plotter. Handle it carefully because the printing ink does not adhere well to the acetate film. Having the copy shop folks laminate the acetate solves this. You will have a choice between a thicker or a thinner laminating film. The thicker stuff will yield a more durable plotter that is somewhat easier to handle, but the process may leave the plotter a bit lumpy.

Not big bucks

Different shops seem to have different levels of success with this step. The thinner film will be smoother but less stiff. We are not talking big bucks here, so have them do a couple of each. Save the paper original and save the extra acetate copies to be laminated later.

After using the original version on charts for a while, I made a reduced-size copy of the original that fit over the screen of our radar. Now, by holding the smaller version over the radar screen, rotated so that the ship's magnetic heading is at the top of the rose, I can directly read the magnetic bearing of anything I can see on the screen. It's a whole lot quicker and more intuitive than moving a cursor around and reading numbers off the screen — not as precise, of course, but great for those times when quick is better than precise.

You will find your own ways to use the plotter but here are a few of mine. Grab a bearing with the hand-held compass; position the plotter so that number is on the known (or tentative) landmark, keep the plotter square on the chart, and you will have a quick and dirty LOP. I've found that, more often than not, one decent LOP, coupled with a bit of judicious looking around, will give me a position that is reassuring — if not dead accurate.

We cruise areas where navigation aids are sometimes few and far between, and I often rely on the bearings of natural ranges. When any two points are in transit or when a point has a certain bearing, I have a usable LOP. Our charts have a lot of these drawn permanently on them and nothing, of course, beats a straightedge and a sharp pencil for this work. Still, I will often grab the instant plotter for a quick position check. I even eliminated any initial fumble to get the plotter's correct side face up by writing "north" with a heavy felt tip pen on the top edge.

A final note: by playing around with the image size of the acetate copy, you can make the background grid of your plotter yield any convenient distance scale. With a little practice, you'll find this quick and dirty plotter to be a valuable piloting tool.

by Jerry Powlas

Another neat trick

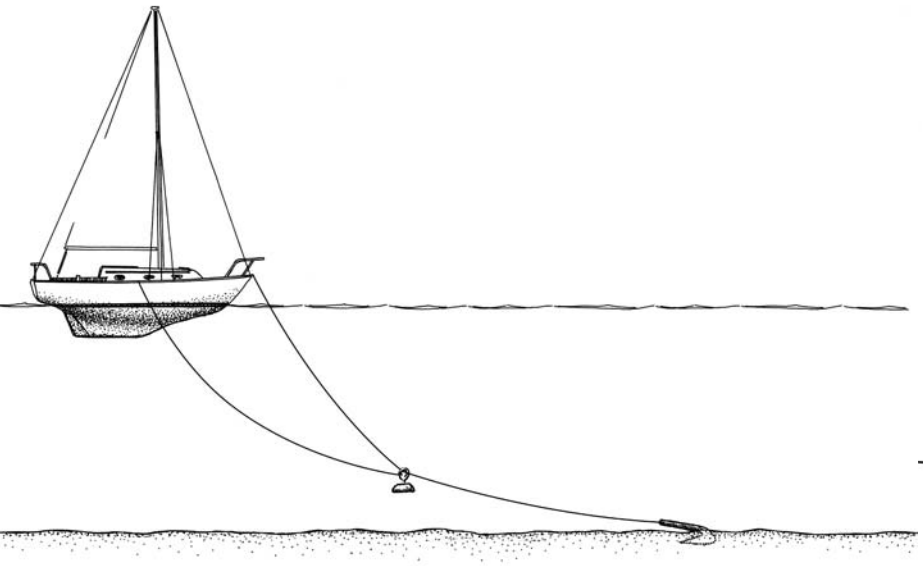
In my Navy days I used to plot fixes on a chart table the size of a drafting board. It was so large we never had to fold a chart. The plotting tool was a "parallel motion protractor," the same device I used for drafting tasks later in life. The fixes were relatively hard to come by, but plotting them was easy.

Now the reverse is true. With GPS I get lat and lon to more significant digits than I can use on most charts. The fixes are easy to come by, but plotting must be done on charts folded at least twice, located on a galley table. This is a common situation and leads to interest in every new and innovative plotting tool, which might make this task faster and more accurate. I won't say I've tried them all, but I've *tried* to try them all.

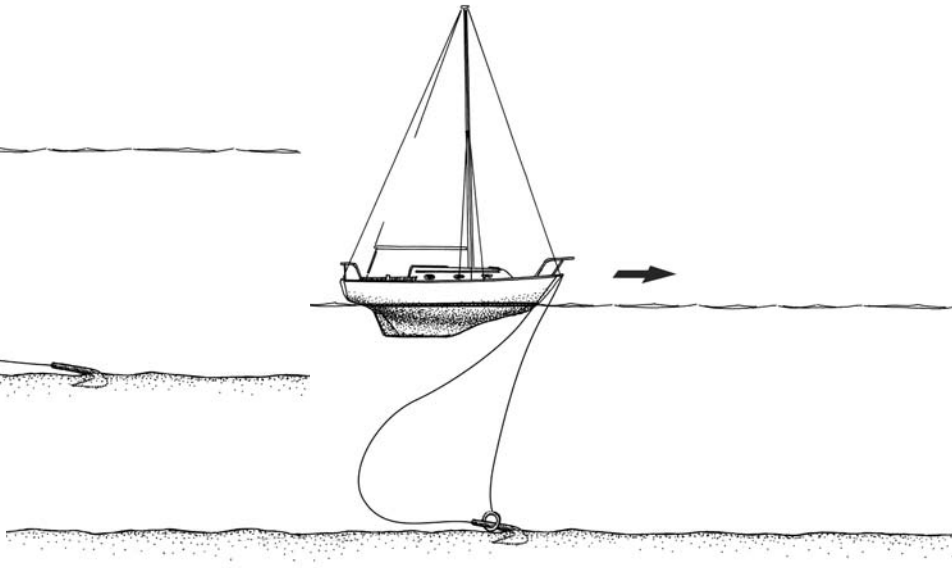
The latest, from Weems & Plath, is called a GPS plotter. It's similar to parallel rules, but by use of a clever "panagraph" mechanism, the left and right rules extend away from each other at right angles to the straight edges. This feature allows for a slightly different plotting technique which can be faster. The manufacturer claims that it will reach anywhere on the chart without "walking," but I suspect I'd have no trouble finding charts that need to be walked to reach the middle. This is not a serious shortcoming; the device walks just fine.

How did we like it? Well, we split one-to-one. Karen liked it well enough to use it, so we will continue to carry it aboard and be glad to have it. I'd have to play with it some more for it to feel comfortable. At the moment I like our old-fashioned parallels and the Bi-Rola Rule. I also liked our old computer chart plotter which was fried by the lightning strike. It is history, and we have not found anything that really replaces it yet . . . so we are plotting with a pencil.

by Terry Ambrose



Angel in use at anchor

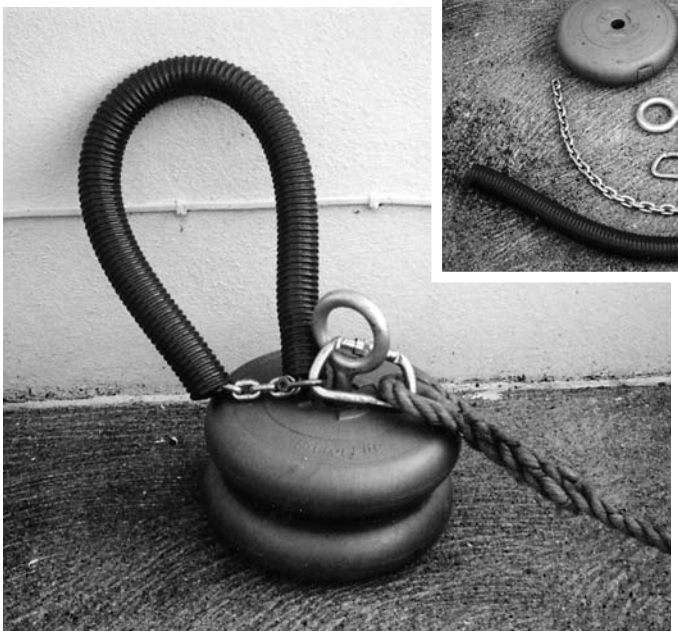


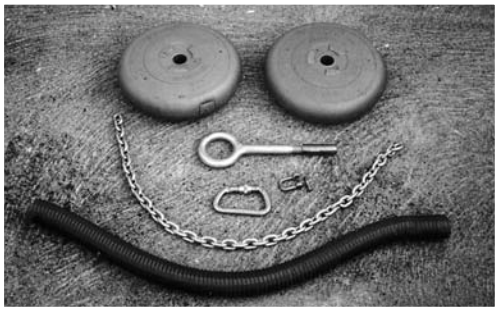
Angel assissting in the retrieval of a fouled anchor

A guardian angel

When the weather worsens while we're at anchor, we all like to think we have a "guardian angel" looking after us. Well, a few experienced cruising skippers do. Why not join their ranks and carry your own angel — otherwise known as a chum, rode rider, or kellet?

In the past, most small boats carried these devices to beef up their ground tackle because the traditional fisherman's anchor was not particularly effective in small sizes. The earliest reference I have found dates back to 1875 when a version of this device called a chum was made in Scotland for a well known chandler, so they are not new, just forgotten *(see sketch on opposite page)*.

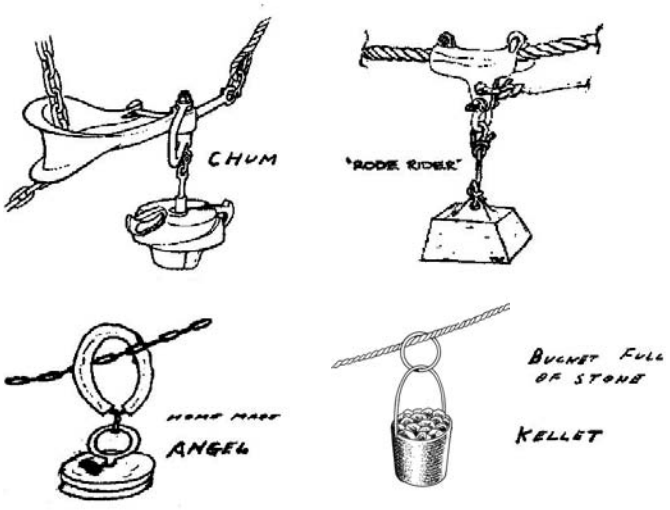




Bits and pieces, above, and the completed angel, at left. Sketches at top show the angel in use as intended and also deployed (in a pinch) as a means of removing a stubborn anchor.

The advantages of angels are:

- The holding power of the anchor can be increased by up to 100 percent. This is achieved by reducing the angle of pull and keeping the chain closer to the bottom.
- Snatch is also reduced by decreasing the ability of the chain to lift off the bottom when set back by wind and wave.
- The angel and anchor are lifted separately, so they are more easily deployed, recovered, and



Over the years, sailors have been very creative in creating and naming heavy objects used to keep their anchor rodes from yanking their anchors loose.

stowed than a larger anchor with equivalent holding power used without an angel. This lessens the risk of back injury and requires less strength from the person handling the anchor gear.

- An angel can be made for a few dollars. The design I have used on my 26-foot cat also acts as an anchor-recovery device.

Making an angel

Take two surplus 14-pound lifting weights, which many of us have lying around from attempts at fitness training, which, in my case, did not last long or work. (I had hopes of having a body like Arnie . . . we are all entitled to our dreams.)

Visit your local hardware store for a three-foot length of stout chain, a length of 1½-inch flexible hose, one large eyebolt, one screw carabiner, and a D-shackle. You now have all it takes to make you own "guardian angel."

Using an angel

An angel is an excellent way to keep most of your chain on the bottom if you are using a chain-and-rope rode. It is set one-half to two-thirds of the way down the length of the anchor rode, just off the seabed. You will find the motion of the boat is greatly reduced, and the anchor will be less likely to drag.

There is also a bonus: if you remove the chain and hose from the weights you can use this as a recovery device, should your anchor foul the bottom *(see sketch on opposite page)*. Take up the slack on the anchor rode, lower the chain/hose ring down to the anchor, slacken off on the anchor rode and the line attached to the ring. Motor forward about twice the depth to the anchor, and make the ring line fast. With a little luck, the ring line will slide down the anchor shank, and when you heave in, it will pull the anchor out backward. Take care not to catch the anchor or ring lines in the prop.

Underwater weights

by Jerry Powlas

It's a variation on the old joke. Which is heavier: 14 pounds of lead, 14 pounds of steel, or 14 pounds of concrete?

Because of the difference in density, concrete is much more buoyant in water than lead or steel. If weighed under water, where the angel does its work, an angel made of lead that weighed 14 pounds in air would have a net negative buoyancy, or downward force, on your rode of 12.7 pounds. The steel weight that weighed 14 pounds in air would have 12.2 pounds of downward force in water.

But the concrete that weighed 14 pounds in air would have only 8 pounds of downward force under water. Keel ballast obeys the same rules. The most compact ballast is lead, followed closely by steel, with concrete following as a distant third.

So plan ahead. Buy training weights made of steel if you plan to take them to sea.

Custom rubbing strakes

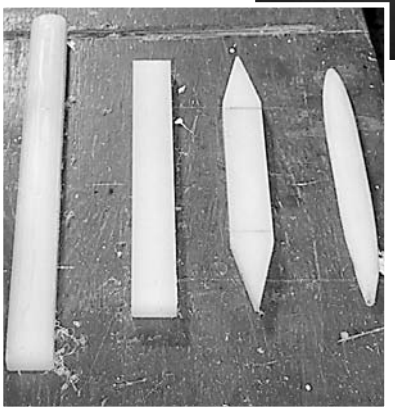
by Al Horner

In a fit of enthusiasm, I decided to paint *Time Out's* ancient and slippery deck with non-skid paint. It was a difficult decision, but it was made for me when I darned near ended up over the side after a particularly aggressive powerboat left me in her wake at close quarters.

Well, one thing led to another, and since the rest of the boat now looked a bit shabby, compared with her new non-skid, I ended up painting the cabintop and rubrail as well. She looked great.

The thought then came to me that my mooring lines would rub away the nice new paint, and that it might last just six months. I investigated various options such as stainless-steel rubbing strakes — too big and too expensive. I thought of aluminum, but that becomes grubby too fast, not to mention what it would do to my lines. I thought of teak, but that's another piece of sacrificial wood to worry about.

Then I came across a high-density, low friction plastic called UHMW polyethylene that could be worked with woodworking tools and polished by running a propane flame across it — although I don't advise even thinking about doing that on the boat. *(UHMW stands for ultra-high molecular weight –**Ed.**)* I think StarBoard has similar properties, but this material was available in a 3-pound bag of off-cuts from Lee Valley Tools (800-513-7885).

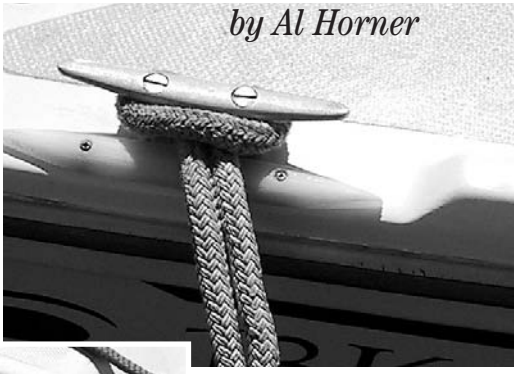


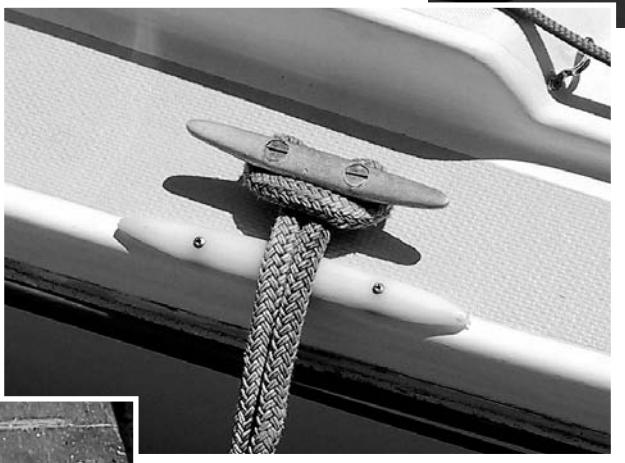
The starting point was to rip the plastic board into working pieces for the four strakes. The actual shape and measurements will be an individual thing to suit each boat. Mine were 7 inches long, ¾ inch wide, and ⅜ inch high. The width was dictated by the thickness of the board; everything else was flexible.

I used a radial-arm saw, but a bandsaw or a hand ripsaw will work as well. Use a ballpoint pen to mark the lines. Pencil barely shows up and rubs away with simple handling of the board. It is definitely a low-friction material.

After a practice cut or two to see how the plastic would handle in the saw, it was evident that it cut cleanly with a ton of shavings but not much dust. Wear a dust mask and eye protection anyway.

The evolution from sawn pieces was to shape the ends with a long bevel and then, using a plane and rasp, shape the top into a smooth curve. The end points were cut with a small backsaw, but a coping saw will also work. I used a plane to shape the blanks roughly and round the top, and then finished by filing to the finished size and shape with a rasp. A coarse mill file will also work but will be much slower. Finish files barely cut the plastic, and sandpaper just left fuzzy threads on the surface, so don't bother with them. *(You can use a router on this material, too. –**Ed.**)*





Strakes in use on Al's boat at the bow, at far right, and stern, above. Steps in forming the strakes, at left.

I took the advice of the manufacturer and ran the flame from a propane torch over the surface of each strake. Let common sense prevail here. Place the strakes on a clean, heatproof metal or ceramic surface. Make sure there are no plastic shavings left in the area that could melt or burn, and be careful with the torch. I tested a piece before doing the strakes and found that the surface melts readily, but it takes a lot of effort to make the plastic burn.

After each strake was flamed, the plastic took on a smooth, hard surface. I pre-drilled each end for #6 pan-head screws so the screw heads would be below the surface of the strake. Installation on the boat was a case of drilling holes to match the holes in each strake, applying Sikaflex to the back of each strake around (and in) the screw holes, and fastening the strakes to the deck.

Having used the strakes for a few months, I'm pleased with the results. They stay clean, will not corrode, and are easy on the lines. I tested one of them with anchor chain and, apart from some dirt marks from the chain, there were no signs of wear or scratching. A wipe with a damp cloth had it clean again. The strakes stand up to a lot of abuse without losing their slippery surface.

Not bad for about five hours of work and a couple of dollars.

by Theresa Fort

Cruisers' email

Amie Fort uses the family Pocketmail Composer to send email messages through a public phone.

When cruising, we keep in touch with family and friends with email, using our Pocketmail Composer. We bought our Pocketmail device and signed up for the mobile email service in December 2001. Apart from a rough start-up, we have been quite happy.

The system consists of a pocket-sized messaging device, plus a yearly or monthly service you pay to retrieve email using either the device or an Internet-linked computer.

There are several email devices that can be used with the Pocketmail service: Pocketmail's own Composer, the Sharp Tel-Mail TM-20, and the JVC HC E-100. They all work the same way. To send or retrieve email, you call a toll-free number (in the United States and Canada) and hold the back part of the device up to a personal phone, most payphones, and even some cellular phones. The device communicates with the Pocketmail server until a special grouping of beeps tells you it's done. Lights on the front of the device tell you the progress being made.

We chose the Pocketmail Composer because of the larger memory (12 MB) and the capability of linking it to our laptop (which we found later to be too much trouble to get it to work consistently). Our rough start was due to our high expectations with the system. We had visions of typing email messages on our laptop, synching them with our Composer, and sending them from any payphone available while we traveled. We even expected to use the system with our Sprint PCS cell phone while we had it.

Difficult to use

But we found the software for the PC link difficult to use even though we consider ourselves to be mini-geeks. And, though the company claims their device will work on PCS phones as well as most other cell phones, we found it worked only sporadically with a Nextel cell phone we tried and has never worked with our Sprint cell phone, even using an analog service.

We found later that Pocketmail does not work with phones that compress and packetize their information (digital cellular phones do this). We have yet to find a payphone that doesn't work with the system for this reason, but we have been told of their existence.

Since we have numerous email addresses (with two teenagers and a business), we set up the mailbox consolidation feature that allows the user to receive email for up to four different addresses through one Pocketmail email address. We thought this feature would be very handy, but actually it slowed our message-receiving to a wait of two to four days, sometimes more.

We canceled the mailbox consolidation (easily done on the messaging device) and have learned to keep it simple. We use the email-forwarding service available from our web hosting service and type our messages in using the small keypad on the Composer. The keypad is easy to use and becomes second nature within a week.

The advantages to this email system outweigh the disadvantages. The costs involved are small, the messaging device is easy to use, and sending and receiving email messages is quick and painless. We paid $99 for our new Composer and a yearly fee of $149 for the Pocketmail service.

Second-hand device

You may even be able to get a used email device through Internet auctions or from other cruisers. The going rate seems to be about $50 for a used one in good condition. The monthly cost for the Pocketmail service is $14.95.

The service has been quite reliable since we have been using it — it has been down only two days consecutively and another half-day. By talking to others who have used the service for more than a year, we have learned that the company's reliability has been consistently improving. Weighing the downtimes over the time it takes to find an Internet café, waiting to get online each time, and system slowdowns on the Internet itself with unreliable connections, we find it far better to use Pocketmail. Our email sending and receiving is just a phone call away.

One drawback to the service is the Pocketmail customer-service department. On average, it takes two days for representatives to respond to you through email, the company's preferred method of contact. There is a telephone number that allows you to speak to a human, but it's not a toll-free phone call. Problems do eventually get solved with a little patience and sometimes a little money.

There are a few limitations to sending and receiving email with Pocketmail. Messages sent and received are in text format only. HTML-style messages, attachments, or pictures cannot be received or sent. And messages are cut off after a particular number of characters that you set, with an ultimate limit of 6,000. But when you need to, you can send and receive attachments and pictures by using an Internet-linked computer and logging onto the Pocketmail website.

Pocketmail is not a perfect system. But it is quick and easy and works anywhere in the world where a telephone is available. For keeping in touch by email while cruising, we think it is the best choice available.

Using a fenderboard

EVERY SAILOR IS INSTRUCTED, ENCOURaged, and eventually submits to reading Adlard Coles's *Heavy Weather Sailing*. Sometimes we find extreme circumstances at sea. Besides, it's a bit exciting to *read* about being in extreme weather conditions. But what about docking? Reading about being in extreme docking conditions may not be as exciting, but steaming your pride and joy toward an irregular concrete, steel, or wooden structure with nails, rebars, and bolts protruding into your berth is reason for excitement!

Some of these docking situations are easily handled with a fenderboard. The board spans fender-swallowing gaps, creases, and holes in an otherwise unapproachable wall or dock, providing a regular continuous surface for the fenders. Using a fenderboard may allow you to tie up where you want to; it has allowed us to park for free, avoiding crowded, expensive marinas. I would point out that docking for free in unusual places is fine and good, but seek out the property owners to get permission once you've tied up. And leave the site as you found it.

To start, place two fenders over the side, spaced adequately to support your boat. Then span the distance with a board, overlapping each fender a bit. Ordinary fenders. Typical wooden board.

The size of the fenderboard used is proportional to the size of your vessel, the amount of protection you desire, and the number of hours (or dollars) you spent sanding, repairing, filling, fairing, priming, and painting your vessel.

On *Windigo III*, our Islander 37, we use 27-inch round fenders and a 12-foot, pressure-treated 2 x 12. Smaller boats (20 to 30 feet) can use standard white fenders and a 6-foot 2 x 4. Because you can use any old board, it is possible to practice with different sizes to arrive at a usable combination for your vessel.

A longer and wider board will accommodate more varied docking situations, but the ultimate size will be limited by your storage options and your physical ability to maneuver the board into place. Our 12-foot board lies nicely on our side deck, tied off to the shroud chainplates.

I have found that using the very large 27-inch round fenders without a board accommodates many of the less extreme circumstances. (Interestingly, we have never needed to use the board in any of the locks we've transited while heading south through the nation's heartland on the Tennessee-Tombigbee and other waterways.)

The fenders are hung as usual

by Kevin Hughes

Creative docking with the help of a fenderboard aboard *Windigo III*.

from the rail. The board is simply hung outside of the fenders by lines tied through holes drilled near each end. The lines supporting the board should be tied well ahead of and behind the fenders on the rail so the board will rest on both fenders. Some skippers attach the fenders to the board, making a unit that is placed over the side, but it's easier to store two fenders and a board separately, making the fenders available for use by themselves.

What would be an impossible fending surface becomes inviting using the fenderboard. A corrugated-steel seawall. A high dock with pilings or vertical members 8 to 15 feet apart. An old lock wall or concrete seawall. Piers, pilings, and mooring cells designed for much larger vessels. In fact, if the fenderboard is not long enough to rest on two members, just use one. If your boat is properly tied with breast and spring lines, a fenderboard centered on one supporting member will provide a very secure berth.

Sail covers

by Lin Pardey

Being able to get the sail cover on quickly means we don't have to resent the time it takes to protect our sails. Just as important, if a halyard starts slapping the mast just when we are starting to doze off, we hate having to open up the sail cover to get at the halyard or cleat to tighten it. Thus, we had our recent sail covers made so the cover stops behind the mast instead of going around it to fasten at the front. Instead of snaps or hooks, we use a simple lacing that we secure with a cleat (*see photo at far right*).

As the object of a sail cover is to keep as much sun off the sail fabric as possible, we get the cover maker to keep any holes for lazy-jacks as small as possible. We have seen flaps secured in place using Velcro. While this seems like a good idea, the Velcro tends to load up with dirt and stray threads, and it doesn't always align well. After two or three years, the flaps don't stay closed properly. The twist-lock fasteners *(in the photo at right)* have worked perfectly for five years.

We store *Taleisin's* working jib on the bowsprit except when we are at sea in rough weather. The sail cover not only protects the sail, but by adding a small nose cone on a piece of shock cord, we protect the entire bowsprit. Since we added this nose protector, we have doubled the life of our varnish.

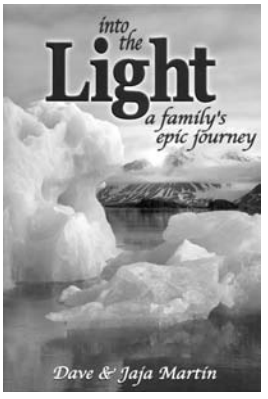
This and other useful cruising tips are on Lin and Larry's new website. Go to: <http://www.landlpardey.com>.

Not having a sail cover that wraps around the mast makes it easier to get to halyards and cleats, above.
The addition of a nose cone protects the brightwork on the bowsprit, at left.

To the Arctic with Dave, Jaja, and kids

Into the Light, by Dave and Jaja Martin (Beowulf Press, 2002; 330 pages; $29.95.)
Review by Hugh Owens, Pocatello, Idaho

THIRTY-SOMETHINGS DAVE AND JAJA MARTIN WERE IN THE MIDST of what they termed their "midlife cruising crisis." They had already sailed around the world in a Cal 25, and Jaja had just given birth to their third child. Restless, they were looking for a new direction for their lives. They found it in a rough, 33-foot steel boat perched on jackstands in a weed-infested North Carolina boatyard in 1996.



Into the Light begins with the Martin family departing Bermuda in 1998 on what would become a two-year journey to Iceland, the Faroe Islands, Norway, and remote Spitzbergen, an island group in the Arctic Ocean pack ice only 600 miles from the North Pole. They departed with three children under the age of seven on a daring odyssey wintering over on their boat, *Driver*, in remote villages in Iceland and the Lofoten Islands of northern Norway. They enrolled Chris and Holly in the local schools, forging close personal bonds in these Viking communities.

This book is much more than a sailing voyage into the high latitudes. It is first and foremost a study of the personal dynamics, growth, and development of an enchanting family on their voyage of discovery to untamed and unspoiled nature.

The Martins are not mainstream cruisers. They are unconventional in their choice of destinations and thoughtful in their approach to how they live their lives and raise their children. They take pains to explain why they relentlessly seek adventure while demonstrating how they responsibly manage the risks inherent in their radical choices through careful planning and skillful execution.

The use of flashbacks and witty dialogue enliven and delineate their distinctive character. Despite an emphasis on the psychological aspects of cruising, *Into the Light* has page-turning moments of dry-mouthed terror and danger, which test the courage and mettle of this young family.

The book could be improved by displaying the Martins' fine photography, which can be seen in the Sailors' Logs section of Steve Dashew's superb cruising website at <http://www.setsail.com>. Sadly, the pages of the text are entirely bereft of photographs. Only the dust jacket has a few tiny thumbnails. The few black-and-white silhouette maps at the end of the text are of poor quality, making reference cumbersome. Good-quality charts and photographs in the body of the text would improve readability.

The Martin family returned to Norway in the summer of 2002 to retrieve *Driver*, returning via Greenland. The story will continue to unfold for this inspiring, intrepid family.

Arrested at gunpoint on round-world trip

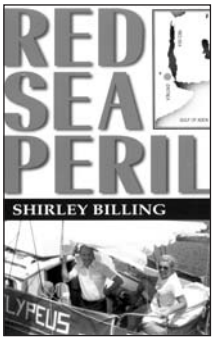
Red Sea Peril, by Shirley Billing (Sheridan House, 2002; 256 pages; $16.50.)
Review by Chris and Debbie McKesson, Bremerton, Wash.

"IT SEEMED A VERY LONG DAY CONFINED TO OUR ROOM. STILL NO hot water. We couldn't shower; it was too cold. We waited for someone to come and question us. Nobody did. Our imaginations ran riot. Why were they keeping us?"

Peter and Shirley Billing on board *Clypeus*, their Endurance 35, entered the Red Sea with excitement and trepidation. What would the marsas, the strong winds of the area, be like? Would they encounter dust storms, heavy shipping, pirates? They had been told to expect some of the clearest waters in the world with abundant corals, sea life, and lonely shores . . . a final taste of tropical seas before their return to the cooler waters of the north.

After fighting hot, strong headwinds off the coast of Eritrea, *Clypeus* and her crew anchored for some much-needed rest. "A million bright stars twinkled overhead. Hills of white sand and scrub stretched away to the south. The crescent of aquamarine bay was wonderfully quiet. Peace at last!" Shirley's words on that quiet night stand in sharp contrast to the events of the next few weeks.

On March 19, 1996, on the 13th anniversary of their departure from St. Katharine's dock, London, to sail around the world, Bill and Shirley were abducted from their yacht at gunpoint and taken ashore for questioning. Transported to Assab then flown under fake identities to Asmara, the Billings were subjected to 18 days of custody. Unable to leave their hotel, they relied on their yachting friends, family, and eventually the English press for their release. Although never formally accused, they understood they were considered to be spies and were being treated as such.



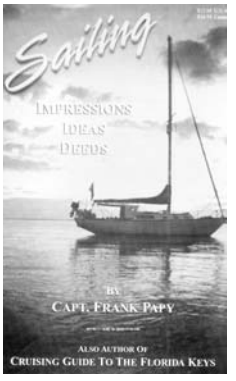
But *Red Sea Peril* is more than an account of the Billings' capture and confinement. The tale of their ordeal is bracketed by other, happier reminiscences; from Thailand to Sri Lanka, Maldives to Oman. Wild elephants, monkeys, ancient ruins, and natives in flowing robes walk the pages of this fascinating look into the cultures of the East.

The Red Sea, the legendary "Gate of Tears," stretches their courage and resourcefulness to unexpected limits. *Red Sea Peril* is a stirring account, passionate and truthful, of an experience few travelers would wish to find themselves involved in. It is certainly not the usual cruising story, and the cabin discussions it has provoked on our boat are very different from most. We enjoyed the book and don't hesitate to recommend it to friends.

Living the sailing life to the fullest

Sailing: Impressions, Ideas, Deeds, by Frank Papy (Frank Papy Publisher, 2002; 151 pages; $12.95).
Review by Karen Larson, Minneaplis, Minn.

Pull up a stool at a tiki bar and listen to Frank Papy spin a few yarns about his life and times in and around boats. If you can't catch up with Frank in the Florida Keys, his latest book, *Sailing: Impressions, Ideas, Deeds* will be a close substitute. When you've finished the book you'll feel like you know Frank Papy, author of *Cruising Guide to the Florida Keys*, charter skipper, delivery captain, longtime member of the Conch Republic (the Keys), and no doubt a skilled sailor.

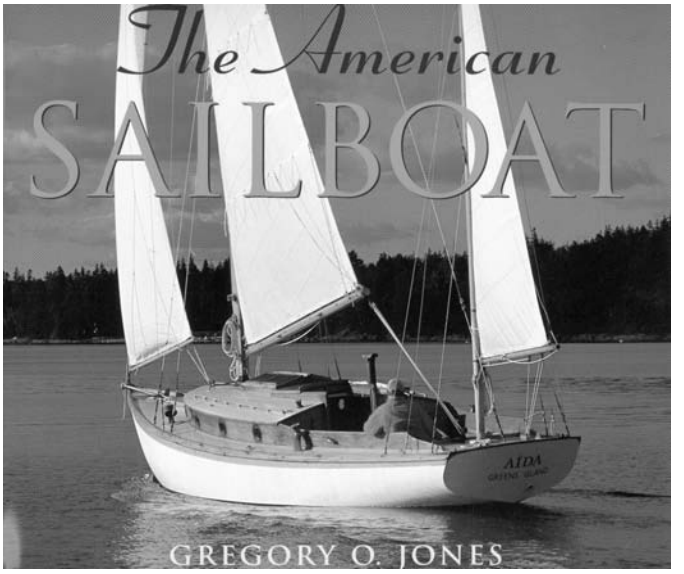


In his book, Frank demonstrates his cheerful approach toward life, shares some philosophical musings, and adds a very useful tip or two. Like any conversation in a tiki bar, these are random events. But no matter. Frank didn't set out to light up the sailing world with a new book. "Sporadic tales of sailing" is how he describes the book.

And so they are. One of his musings follows after he's taken in the excesses of the Miami Boat Show. "We have come a long way in the 100 years since Joshua Slocum sailed around the world by himself in a 38-foot wooden boat with only a compass, paper charts, sextant, an old clock in one hand, and no engine. I wonder what he would say if he came back now and saw all this modern stuff, carbon-fiber masts, cellophane sails, glass hulls, winged keels, and especially electronic devices which tell us constantly where we are, not by the stars he used, but by our own stars we put up there ourselves. Electricity runs all of this, using stored energy from the sun. Autopilots are interfaced with GPS to tell us where to go. The autopilots are also connected to radar and depth indicators so we don't even have to stop along the way . . . except to pick up some more rum."

What tips might you take away from a book such as this? Applying RainX to goggles will help you see through those stinging wind-driven raindrops when you've got to be out in a storm. And if you don't like the hood in your foulweather gear because when you turn your head the hood remains stationary and blocks your view, why not stitch clear panels in the sides of the hood?

An undercurrent throughout the book is the notion that you might as well experience and enjoy life as it is — appreciate the good that comes your way, and don't let the rest of it trouble you. Living life to the fullest is all in the attitude, and Frank Papy's got the right attitude. You can't help but like a guy like this, so pull up a stool the next time Frank's doing the talking at a tiki bar near you.



A history of local pleasureboats

The American Sailboat, by Gregory Jones (MBI Publishing Company, 2002; 168 pages; $34.95).
Review by Art Hall, Pownal, Maine

The American Sailboat takes us through a literary and pictorial history of American pleasure craft. As readers, we are given a whirlwind tour of our nation's coasts, bays and inland waters.

Such a story has a tremendous amount of potential material to draw from. Perhaps the toughest choice author Greg Jones had to make was deciding just what to include. For that reason, I suppose it was only natural that I found myself wondering why some of my favorite classes weren't included in the book. Certainly, most of us whose sailing is limited to our home waters have a limited appreciation for other regions and their local craft. *The American Sailboat* will broaden your horizons.

Sailors are dreamers, and dreamers love pictures of boats. No story such as this could be told without photographs. We are treated to previously published classics from the Rosenfeld collection and others from a variety of original sources. I would have enjoyed more detailed drawings. They, too, convey the story of a particular boat and provide the opportunity to study the designer's creation in detail.

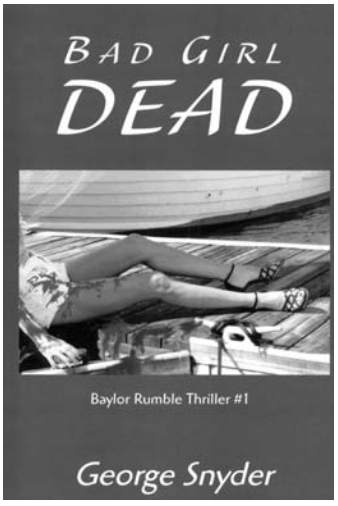
Greg elected to conclude this chronicle with boats produced in the 1970s. At the risk of offending some readers, I will concur that this was a good idea. Many of the designs produced in the last 20 years freely boast of a European influence. Perhaps the author and I are of a like mind and just can't warm up to many of the recent offerings on the mass-produced American market.

It is clear from the outset and throughout the book that this is an overview rather than a highly detailed account. No particular class, region, or era has received an undue amount of attention. There is just enough information discussed about a particular boat, club, or manufacturer to whet your appetite and seek more information from other sources.

Sailing thriller, page turner

Bad Girl Dead, by George Snyder (Xlibris Corp., 2001; 335 pages; $20).
Review by Daryl Clark, Minneapolis, Minn.

IT WAS A LONG WINTER AND AN EVEN LONGER SPRING, here in the land of Ventura . . . Minnesota, that is! Spring departed, mosquitoes arrived, and we stopped dreaming about sailing. First we wore out the pages between the covers of each and every *Good Old Boat* magazine. By then we had tired of articles on the latest boating gear.



Unfortunately, I don't have enough money in the kitty to join those suffering with the cruising lifestyle — at least not yet! So I read books. But I'm not looking for just any book. I want one I'll find difficult to put down . . . a book to curl up with and let my mind paint its own picture of adventure.

Recently, just such a book arrived, one that fit the bill. It came along in a svelte little package with a catchy title: *Bad Girl Dead*. This is the author's first in a series of "Baylor Rumble mystery thriller novels." And what an adventure it is! A roller coaster ride of uncommon sailing adventure replete with romance, murder, intrigue, and some of the most bizarre characters this side of Afghanistan. Our hero and main character is one Baylor Rumble, a true gentle sailing spirit, who is biding his time on the West Coast while trying to put together the makings of a cruising kitty.

But before he can depart, the lives of desperate and, believe me, fiendish characters block his escape from the confines of Newport Beach Marina. Author George Snyder paints these characters with a quixotic brush. He describes a world that Baylor would rather not be a part of, but can't control . . . one in which it will take all his cunning to survive.

Be prepared to spend some time with this one, as you may be hard pressed to put it down. One word of caution: if you are weak of stomach, please do not attempt to read just before bedtime — your stomach will more than likely churn with every thrilling chapter as Baylor makes his way through "murder, mayhem, and marauding women" — until, with luck, he "solves this caper."

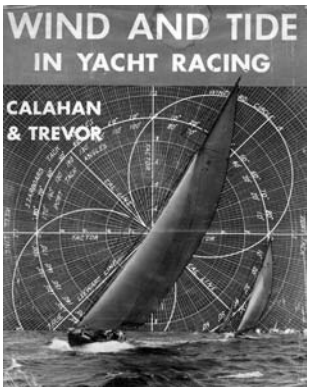
Old manual can help today's sailor

Wind and Tide in Yacht Racing, by Harold Augustin Calahan and John B. Trevor (Harcourt Brace and Company, 1936; 145 pages).
Review by Will Clemens, Los Altos Hills, Calif.

HOW MUCH TIME WILL YOU SACRIFICE BY SAILING AT A MORE comfortable angle to the wind? Why does that gust of wind "come from the side" when you thought you were close-hauled? Would you like to know more about the principles of sail shape without getting too technical? *Wind and Tide in Yacht Racing*, a vintage racing text claiming to be the first scientific explanation of apparent wind and wind shifts, can help you understand and visualize these factors.

Parallelograms illustrate the differences in angle and velocity of true and apparent wind. Plotting tools help you determine true distance from an upwind destination and analyze trade-offs between increased speed and increased distance for different sailing angles. A photograph of a square-rigged tall ship with topsails trimmed further aft illustrates apparent vs. true wind better than any text or parallelogram. *Wind and Tide's* detailed discussion of apparent wind and sailing angles is not found in today's general sailing manuals.

This book's discussion of currents, a topic covered thoroughly in today's coastal navigation texts, still contains some unique gems. For example, an adverse current can actually improve your ability to point upwind, as long as you can sail faster than the current. And the "lee-bow" method of using a current to push you to windward could occupy the tinkering pilot for many afternoons.



The book has some shortcomings as a manual. The "8 Ball" plotting chart and some formulas will test the patience of those rusty on algebra and geometry. In addition, principles are occasionally given as truisms without adequate explanation (for example, "naturally, if we increase the apparent wind velocity . . . we will increase the boat speed.")

Finally, this book offers the reader incidental views into the quaint world of pre-war East Coast yachting. Though the text is intended as a universal scientific discussion, the reader is assumed to be sailing on Long Island Sound ("the foremost yachting waters in America"). In determining compass variation, the reader is encouraged to eschew the azimuth ring and instead use a wad of gum, a toothpick, a fine chronometer, and the time signal from WOR in New Jersey.

Wind and Tide's simple block diagrams and clear explanations simplify the fundamentals, whereas a new racing text, with an emphasis on gear, instruments, and precision, might intimidate (or bore?) the non-racer. With just the concepts, you will appreciate our sport more, you may squeeze a little more performance from your old boat and baggy sails, and you may avoid homeward slogs to windward. Used copies are available for between $10 and $20.

For sale

Freedom 33 cat ketch
1980. White carbonfiber spars, green Awlgripped hull, new Edson wheel steering, new full-batten sails, new stove, refrig., and autopilot. Solar and wind generators help make this the ideal single-handed island liveaboard sailboat. Located in Miami Beach. Asking $46,000.
Chris Spohr
508-362-2248
chrisspohr@pocketmail.com

S-2 9.2a
1977, 2-owner, freshwater boat in beautiful cond. UK Sails and electronics new in past 4 years. Barrier coat, VC-17, wheel steering. Atomic 4 30-hp runs perfectly. Interior and exterior teak refinished. Always dry, no deck leaks. Ready to sail. Includes shorepower and new custom cockpit cushions. Wood cradle. Lying Holland, Mich. $26,500. Owners getting S-2 11.0. Definitely the best 9.2a and value on the Great Lakes. Call for complete listing.
John Toben
989-725-7871
jetsails@yahoo.com

Pacific Dolphin 24
1975. Stout Sparkman & Stephens-designed weekender whose sister ships have made bluewater passages. A traditional masthead sloop with pretty lines. Shoal draft less than 3' with a centerboard to 6'. Refurbished electric-start Mercury 7-hp OB out of sight in engine well. Stored in heated garage 3 years. All hardware removed. Woodwork removed and stripped ready for finish of your choice. Many new upgrades included (six brand-new opening bronze ports, a never-used 150 genoa and Furlex furler to name a few). Double-axle trailer. Located in Chanhassen, Minn. I have more than 20k in her but will sell for $10,000 (I want to buy a bigger boat!). Call for photos, more info.
Hal Newell
952-442-6364
952-401-0111
ficadoor@aol.com

Islander 37
1968 Bruce King-designed tall rig. 28'8" LWL, 10'10" beam. Completely restored, pristine, beautiful mahogany/teak interior, Universal 23-hp diesel, low hours, in the water, ready to go. *Quest* is a classic. Looks new; turns heads. Faster than larger boats and a beauty to sail. Hood main, Doyle 135 genoa. Sleeps 6. New: interior cushions, lifelines, electronics, autopilot, shaft/cutlass, charger. Other new extras. Owner buying a larger boat. Located in Cape Cod Bay. $70,000/OBO.
Kathy Malloy
781-585-8021
617-529-8021 cell
kmalloy@mwgbiotech.com

Allied Seabreeze 35
A true classic. *Anemone* is hull #68 built in 1968. She's a solid boat in good cond. located in Savannah, Ga., waiting for your personal touch. VHF, depth, radar, bullet-proof Westerbeke 4-107 diesel, sails in good cond., full keel with 3'10" draft or 7' with centerboard down. Ideal for coastal waters. $29,500.
Guy Fred Lucree
912-897-7369
FredL@snfhc.com

Columbia 26 MkII
1964. Moyer Atomic 4. VHF, DGPS, new cushions, sails good cond. Full keel. Draws 3'5". Located in South N.J. on custom wood cradle. Asking $6,000.
Bruce Fraser
610-865-1386
609-971-9140

Morgan 384
1984 Ted Brewer-designed cruiser. Always in fresh water. Cadillac of Morgans. Exc. cond., only 2 owners. Sleeps 8, cruises 4 comfortably. New 45-gal holding tank. Furling jib, Perkins 50-hp diesel, and 40-gal fuel. Dodger, Bimini. Seaworthy dinghy and small OB. LOA 38'4". Beam 12'0". Draft 5'0". Mast height above water 54'0" without antennae. 18,000 lbs disp., ballast 6,800 lbs. Ready to sail away. Call for full inventory list and features. Lying Traverse City, Mich.
Al Bonney
231-223-4064
albonney@pentel.net

Bristol 24 and gear
1969. LOA 24'7". Beam 8'. Draft 3'5". Displ.5,900. Hull dark. grn. Deck beige. Topsides white. Tanbark Stackpak, full-batten main with lazy-jacks. Roller furling. Working jib. Spinnaker with pole. Bottom barrier-coated. Teak cockpit grate. Insulated and wooded out below. New wiring, circuit breakers. VHF, compass, depth, speed. Danforth. Yamaha 9.9 4-stroke. Jackstands. Porta Potti and icebox. 30-amp shorepower. *Also a 27-year collection of marine equipment, electronics, line, and fittings.* Call and ask. In Grand Island, New York.
Jim Tomkins
716-773-5268

O'Day Tempest 23
Manufactured in Brompton, Ontario, Canada mid-1960s. Exc. cond. Complete rework in 2001: bottom paint, professionally sprayed hull, deck/topsides paint, refinish all interior/exterior wood, total electrical rewiring. Sails include main, jib, storm jib, and spinnaker. 6-hp Johnson in lazarette. Trailer available. $3,700 OBO.
Ed Bush
770-656-8534
edbu59@yahoo.com

Pearson Wanderer
1967. Hull #64. LOA 29'8". LWL 23'3". Beam 9'3". Draft 3'5"/6'8" (keel/cb). Displ. 9,800 lbs. Yanmar 13-hp diesel. 25-gal. water. Docum. Very good cond. Tiller. Manual windlass. Samson post. 4 opening ports. Roller furling. Bimini. Refrig. Propane stove. GPS. Depth, knots. new VHF with RAM. Custom breaker box. Battery charger. Oversized alternator. Mast rewired, new anchor and steaming lights (2002). Hull painted (2001). New bottom paint (April 2002). Groco HF head, holding tank, Y-valve, macerator pump. Spinnaker and pole. OB bracket. 11-ft. inflatable. Rail-mounted propane grill. 25-lb. CQR. Danforth. More. Lying Rappahannock River area of Virginia. $20,000.
Tom Cockrell
540-586-6375
rebinva@cablenet-va.com

Irwin Competition 37
1973. 50-hp Perkins diesel, roller furling, stereo, head w/shower, hot water, large sink in galley, alcohol stove/microwave, large cooler, refrigerator. New exterior paint 1995, new Bimini. Marine radio, Loran, autohelm, knots, depth, compass. Boat has lots of storage and sails great! At Kentucky Lake near Paducah, Ky. $26,000.
Tom or Lois Richardson
636-458-3685(H)
314-644-2332(W)
llrthr@onebox.com

Tartan 30
1977. Steel cradle. Winter cover. Nice. $24,000.
Doug Brewer
715-924-2772

Chrysler 26
1977. Shoal-draft centerboard. Good cond. Fast, seakindly cruiser designed by Halsey Herreshoff. Sleeps 4. Includes 3 good sails, new compass, new running rigging, Uniden VHF, older Honda 7.5 four-stroke, cradle. Lying St. Lawrence at Johnstown, Ontario, near Odgensburg. $4,349 US.
James Lambton
613-286-2461

Sea Sprite 30
1983. Beautiful cond. Professionally maintained exterior varnish. New electronics. Low engine hours. A must-see boat for anyone interested in this type of boat. Asking $53,900.
Jon Opert
703-538-3837(H),
202-293-8200(W)
jopert@krooth.com

Mercator Offshore 30
1971 heavily built fbgl ocean-capable cruiser. LOA: 30', beam: 8'10", draft: 4'8". Extensive refit 2001. Volvo diesel, solar, windvane, autopilot, full suit of sails, new cushions, new paint, barrier coat, extensive ground tackle. Email us for a complete list of equipment and history. Ready to take you anywhere. Alaska-Panama-Bahamas vet. Lying central Atlantic coast Fla. May deliver on East Coast. $22,000.
Chuck and Theresa Fort
301-203-0515
theforts@fortworks.com

Bayfield 40
1983 cutter ketch. Comfortable liveaboard for two. Well-maint'd long-distance cruising boat. Dual staterooms. See Nov. issue 1999 *Good Old Boat*. $105,000. In Cheboygan, Mich.

Doug Kelly
989-734-3886

Ericson 26
1987. Bristol cond. Fractional rig. 70% Yankee, 100% jib, 130% genoa, cruising chute. Full dodger and canvas. Universal diesel with 1100 hours. Loaded for coastal cruising. A safe, fast little cruiser, perfect for a family of 4. 20 gal water, 15 gal fuel. Cruising range under power 300 miles at 5 knots. $20,500.

Chris Lab
619-224-2682
858-790-6520
chris.lab@medimpact.com

Allied Seabreeze
1966. 35-foot fg. sloop. Keel/cbd. 29-hp Perkins diesel. Roller furler. Full-battened main. Spinnaker. Lewmar winches. VHF, autopilot, GPS/chart plotter. New Interthane topsides, refinished deck and teak. New life-lines, standing and running rigging. Propane stove and cabin heater, microwave. 1000-watt inverter, Marinetics electrical panel, 100-amp alternator. Dodger/Bimini. More. In Deldaville, Va. $42,000.

Eric Powers
804-706-1427 (h)
804-798-6525 (w)
epowers@erols.com

Cheoy Lee Newell Cadet
1966. *Renaissance* is a 27' fbgl sloop. Full keel. Disp. 6,900. Ballast 2,700. Volvo MD1 inboard diesel. Tiller, VHF, 2-burner Origo stove, head, 30-gal. holding tank, 10 gal. water, 9 gal. fuel. Teak deck, Spruce spars. 6'1'' standing headroom. Roomy sidedecks, no leaks. Brightwk. in exc. cond., topsides very good. Interior good. Engine reliable. Spars rebuilt in 2000. Tanbark sails purchased new in 2000. Daysailer/pocket cruiser. Steel cradle, dbl. harness, anchor, more. Engine manual, partial set of drawings. Great starter boat. In Chicago. $12,000 OBO.

Bob Mayerhofer
773-847-6147 eve.
rmma@megsinet.net

Tartan 30
1978 Sparkman & Stephens classic. LOA 29'11'', beam 10'0'', draft 4'11'', displ. 8,500 lbs. Excellent cond. Freshwater boat. All sails incl. cruising spinnaker. VHF, depth, Loran, knots, shorepower, battery charger, solid fuel cabin heater. Dinghy. $19,500 OBO. In Michigan.

Gerry Dyer
616-956-3475

Freedom 33 cat ketch
1982. 5.5 draft. (See review, May 2002 *Good Old Boat*). Radar, extra-deep cycle batteries, charge controller, autopilot, 2 suits sails, ash/oak interior, 2 hanging lockers, interior and cockpit cushions, refrig., 3-burner propane stove/oven, storage, hot/cold pressure water, shower, sleeps 6, dodger, 2 anchors, ladders, custom helm station, radar screen integrated w/GPS, depth, knots. More. In Huntington, Long Island, N.Y. Asking $40,000 OBO.

Sandy Count
516-536-7138
rscount@att.net

Tripp 30
1960. Solid fiberglass, Dutch-built, full-keel classic cruiser in exc. cond. following extensive 1999 refit. Looks terrific and sails beautifully. Yanmar diesel, new (2001) main and jib, 6' headroom, enclosed head, hanging locker. $19,500 In Ossining, New York.

Mike Beil
212-396-1135
mikebeil@yahoo.com

Westsail 32
Hull #47. 1972. New engine in 2001. Everything upgraded in last 2 years. Factory custom-built boat. Radar, Maptech, autopilots, dingy with Nissan, 5 sails. In *Good Old Boat* September 2000. Sailed down river system from Lake Michigan last fall. Lying Port Charlotte, Fla.

Russ Oldfather
941-625-1869
judieruss@aol.com

Nor'Sea 27
Lightly used 1978 tall-rig, aft-cockpit model. Solid offshore cruiser in very good condition. Never had an inboard, no through-hulls below waterline. Recent survey. 3'9" draft. 6'1" standing headroom. 7 bronze opening ports. 3 sails in very good condition. Whale Gusher 25 manual bilge pump. 25-lb. CQR w/rode. New headstay w/Sta-Lok fitting, new bottom paint. Interior semi-finished. NO TRAILER OR MOTOR. Serious inquiries only. In Michigan. $17,500 firm.

Kirk McAnsh
989-471-5207
ktmcansh@voyager.net

Endurance 35
Award-winning ultimate cruiser design. Half completed to artisan standards. Value $83,000. $46,000 in materials alone. Most materials for completion included. Best reasonable offer.

James Neal
904-692-1920
jjneal@aug.com

Gear for sale

Life raft, oven, more
Life raft, Plastimo 6-man offshore mod. $750.
3-burner kerosene stove w/oven, Kenyon Marine pressure tank. $150.
2-burner kerosene counter-top stove, Kenyon . $40.

Catherine Webb
561-798-1074
kix428_2000@yahoo.com

Drifter, Lewmar winches
Drifter with snuffer. Never used. Luff 26.6. Foot 15.6. 230 sq. ft. Multi-colored. $650 (Can.). Winches. Lewmar #3 Never used. With covers, handle, and mahogany laminated pedestals. $300 (Can.).

Gerry Cotter
604-898-5709
gericotr@shaw.ca

Barient winches
Pair of #12 Barient winches and handles. Chrome, single-action, perfect shape.

Pete Beer
504-589-7510

Wanted

Trailer
Looking for a trailer for a Bristol Corinthian (located in Vermont). Prefer dual axle.

William Blackmore
207-864-5411
blacky@prexar.com

Used folding prop
Looking for used folding prop in exc. cond. Any make. 12- to 13-in. diameter. with 9- to 12-in. pitch. 1-inch drive.

Mike Wren
920-387-9027
wrrw@powerweb.net

Aries windvane, etc.
Looking for an old model Aries windvane. Reasonable price. Also looking for 4-person life raft.

Al Prerost
270-843-0666

Representatives
Looking for representatives to demonstrate T-Scrub, the water-powered scrubber, for cleaning the top and bottom of a boat while standing on the dock. Excellent percentage of sales. Earn while having fun with your friends.

Vrhel Inc.
877-287-2782
www.t-scrub.com

Everything you wanted to know about classified ads:

Classified ads (for sale and want ads for boats, gear, etc.)

- 1 free ad per year to subscribers.
- $25 per ad for non-subscribers (or second ad for subscribers).
- $20 per photo for subscribers and non-subscribers.
- Total word limit: 75 words.
- Send email text to: karen@goodoldboat.com
- Or by post to: *Good Old Boat,* 7340 Niagara Lane North, Maple Grove, MN 55311-2655.
- Photos may be emailed as jpgs or sent by post for scanning at *Good Old Boat*.
- Payment is made in advance by check or credit card.

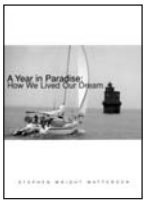
Classified display ads (boxed ads for products services)

- $25 per column inch, sold in half-inch increments.
- May not exceed 3 inches.
- Column width is 1 5/8 inches.
- Subscribers may have $25 discount once each year.
- Artwork to be scanned is an additional $20 (one-time scanning charge).
- Classified display advertisers are invoiced following publication of the issue including their ads.

Books/Videos

Good Old BOOKS!
used - scarce - hardback available from
Jack Owen's OLD BOOK SHOP
1207 N. Dixie Hwy.
Lake Worth, FL 33460
Many maritime books (and others) in stock
For listings: 561-588-5129
www.anoldbooklook.com

A Year in Paradise:
How We Lived Our Dream



They sailed from the Great Lakes to the Florida Keys and back living aboard for a year! This book is entertaining and chock full of useful details. It is fully described on the website:
www.yearinparadise.com
Order on the website or directly from the publisher: $14.95 + $3 s/h:
EAGLE CLIFF PRESS
31346 Lake Road
Cleveland OH 44140

Capt'n Pauley
VIDEO PRODUCTIONS
Featuring our new video –
TERNABOUT:
Upgrading a Trailerable Sailboat
$24.95 + $3.50 S&H
423-989-3159 phone
pesterle@preferred.com
or visit our website:
www.captnpauley.bigstep.com

Wake of the Green Storm

Author Marlin Bree was sailing alone on Lake Superior July 4, 1999, when the "storm of the century" erupted. *Wake of the Green Storm* tells of his survival in 110-mph winds in his 20-foot sailboat.
• *San Diego Log*: "Equals any oceanic adventure." • *Great Lakes Cruiser*: "Incredible." • *Library Journal*: "Recommended."
Autographed book, $17.45, including shipping. Marlor Press: 800-669-4908

New Book!
THE WARM DRY BOAT
How to keep your boat warm and dry. Ventilation, stoves, furnaces, maintenance, etc.
(604) 731-6608

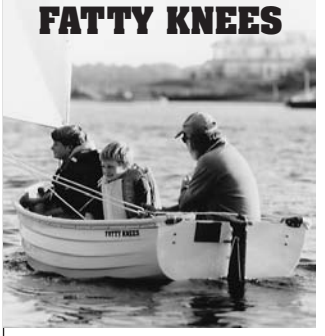
Books Online
www.sevenseas-mn.com
Seven Seas
2827 Dupont Ave. S.
Minneapolis, MN 55408
612-879-0600

Atomic 4 Video
41-minute video. Expert mechanic demonstrates maintenance procedures
$35 plus $3.50 shipping
Paypal, money orders, or checks to: **JDA Inc.**
54 Forrester St.
Newburyport, MA 01950
Questions:
john@dalpe.com

Lin and Larry Pardey:
traditional sailors in a computerized world
landlpardey.com

Boats

FATTY KNEES



Great fun begins with a great dinghy!
Fatty Knees 7', 8' and 9' models, easy to row and simple to sail and most importantly, great fun.
Edey & Duff, Ltd., Dept. K
128 Aucoot Rd., Mattapoisett, MA 02739 (508) 758-2591
www.fattyknees.com

Good old boats for sale
- Large selection of used sailboats on our lot at great prices
- We can sell yours on consignment

Annapolis area
See our Web site for details:
www.grabbagsailboats.com

Independence Boatworks
www.independence boatworks.com

REMANUFACTURED SAILBOATS
• Half the cost of new
• Full warranty
heritageboatco@aol.com
419-349-4001

Boatbuilding

Got Wood?
Got Varnish?
(Want it to last longer? A lot longer?)
Contact us:
800-234-0330
www.fiveyearclear.com

St. Angelo Hardwoods
500 Wood St.
Bristol, RI 02809
401-253-3620 • 401-253-3720 fx
FEQ Teak Lumber
4/4-16/4 x RWL Lumber
Widths from 6-18"
Lengths from 6-18'
Teak Decking
VG Teak Decking designed to hold caulking even better by using a "T" profile.
Samples available.
Email: teakman@att.net
www.stangelohardwoods.com

THAI TEAK MARINE CO.,LTD.
ESTABLISHED 1972
MANUFACTURER OF TEAK YACHT FITTINGS
COMPETITIVE PRICES
QUALITY GUARANTEED
FREE CATALOG
ORDER DIRECT
FAX: 0-11-6602-933-1296
www.thaiteakmarine.com

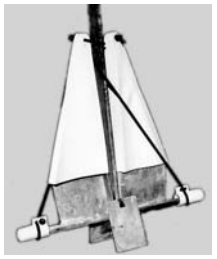
$33 Non-Blushing Marine Epoxy
Epoxy resins, fillers, blister and barrier kits.
Underwater repair epoxies.
Lots of other epoxy products too!
Progressive Epoxy Polymers
Ph 603-435-7199 Fax 603-435-7182
www.epoxyproducts.com/marine.html

RAKA EPOXY AND FIBERGLASS
We have several types of epoxy resins for coating, gluing, and composite construction. A huge selection of fiberglass in knitted biaxials, triaxials, woven materials, carbon, and kevlar, and all with the lowest prices anywhere. Call us, and we ship your order the same day. See our Internet catalog, <www.raka.com>, or give us a call, 561-279-8929.
***RAKA* INC.**
41 N. Congress Ave. #8B
Delray Beach, FL 33445

Products

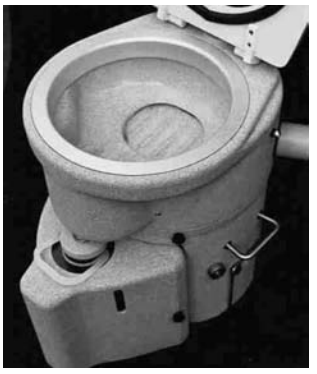
Don't ruin your sails with rust stains from the bleeding rust of stainless steel. Only **Bristol Bronze** produces the authentic bronze sail rack and sail slides. For catalog, send $5 to Box 101, Tiverton, RI 02878-0101 • 401-625-5224
www.bristolbronze.com

ANCHOR BRA™



Protect that Good ol' Boat. Anchor Bra™ fits Danforth anchors 15 to 40 lbs. Protects decks and skin from gouges. Only $25.

www.borelmfg.com
800-824 4449
BOREL MFG. INC.
Redwood City, CA



The first ever portable sized composting toilet.

www.airheadtoilet.com
866-556-1571

Bulwagga Marine Anchors

Proven superior *in* independent tests against "the best"

1-888-674-4465
www.bulwaggaanchors.com

PEARSON
PORTSMOUTH, RHODE ISLAND, U.S.A.

Dress up your Pearson. Replace your deteriorated plastic Builder's Plate with a bronze duplicate from **Bristol Bronze.** For a catalog, send $5 to Box 101, Tiverton, RI 02878-0101 • 401-625-5224

www.bristolbronze.com

Full-Service Custom Canvas Shop

Bingham Boat Works Ltd. Established 1930

Bingham Boat Works LTD.

Bimini Tops, Dodgers, Sail Covers, Cockpit Covers, Mooring Covers, Cockpit and Deck Cushions

Winter discount!

906-225-1427
906-225-0050
Fax 906-225-0604
BoatsWeDo@aol.com

CELESTICOMP V

As Reliable as the Stars

Do professionally accurate celestial and DR navigation. Easy to learn. You don't need math, star identification skills, bulky books or an almanac. A sophisticated computer that fits into your shirt pocket and reduces sun, star, moon, and planet sights. Also does great circle, DR and many more navigation chores. Used by the Navy. Ask for free booklet: *Comparing Celestial Computers*

celesticomp.com
john@celesticomp.com
206-463-9626

Cape Horn

Integrated Self-Steering

Renders others Obsolete

Internally connected to yacht's steering system

www.capehorn.com
mail@capehorn.com
1 800 CAP HORN

450 479 6314 (fax 1895)
316 Girouard St. Oka QC Canada J0N 1E0

SURVIVAL EQUIPMENT

For all Boats!

Fiorentino Para-Anchors
1-800-777-0732

www.Para-Anchor.com

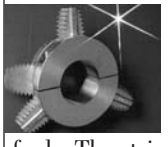
NEW* COBALT BOAT KNIFE WINS #1 RATING BY *PRACTICAL SAILOR

Here's a state-of-the-art, corrosion-proof **COBALT** folding knife that absolutely cuts through the toughest line and net! Made for harsh ocean conditions – no rusting, unparalleled edge holding, cutting penetration. Sharpens fast. Non-magnetic, safe around compasses, electronics. Only 2.2 oz, 3" blade, comfortable grip, slender profile, tight pocket clip. Our customers love them; you will, too, or your money back. $139+s/h. Buy 3 for $299, save 28%!

BOYE KNIVES

Quality since 1971
800-853-1617
www.boyeknives.com

STRIPPER PROPELLER PROTECTOR



The most reliable engine in the world is useless if the propeller fouls. The stripper will keep your propeller free from floating rubbish.

BEST MARINE IMPORTS
Unique products for all your sailing needs.
1749 E Hallandale Beach Blvd., Box 299 • Hallandale, FL 33009
888-784-8611
954-458-4939 fx

bestmarineimports.com

WET EXHAUST ALARM

Monitors wet exhaust temp. in case of cooling water failure, the most common problem on diesel engines. Easy to install band type sensor.

www.borelmfg.com
800-824 4449
BOREL MFG. INC.
Redwood City, CA

Smooth Sailing

OVER ff FOSS FOAM **30 YEARS**

FOSS FOAM

Rudder Replacements

FOSS FOAM PRODUCTS
OF FLORIDA, INC.

7060 Hwy 41 North
Williston, FL 32696

Tel: 352-529-1104
Fax: 352-529-1106
www.newrudders.com

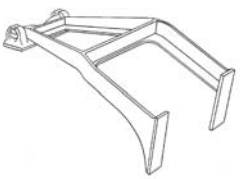
Cal • Hooks Marine • Sovereign Catalina • Irwin • Spindrift • Com-Pac Marine Innovators • Starwind • Caliber **Endeavour** • Starrett • Captiva Mirage • Tanzer • CSY • **Morgan** TMI • G Cat • Nimble • Watkins Gulfstar • **O'Day** • Traditional Watercraft • **Hunter** • Pearson

---

FLAGSTAFFS
Traditional Styling
Ash - Mahogany - Teak
Non-Fouling Burgee Flagstaffs

SHROUD ROLLERS
Ash - Teak - Mahogany
Please Send or call for Catalog

Bete-Fleming, Inc.
Box 906, Mattapoisett, MA 02739
888–758–4996
www.bete-fleming.com



Bristol Bronze produces more than 500 unique marine fittings such as the outboard motor bracket above. For a catalog, send $5 to Box 101, Tiverton, RI 02878-0101 • 401-625-5224

www.bristolbronze.com

Products, cont.

Save Dying Batteries *with BatteryMINDer!*

The "charger with a brain," it conditions "sulphated" batteries and charges any type 12-volt. Batteries once considered beyond recovery can be brought back to long-term useful condition.

$59.95 includes ground shipping
Call to order: 800-821-0207
Online brochure, ordering:
www.navstore.com
Great Lakes Marine Specialties

Rigging Only

Small ad. Small prices.
Best pricing on:

- winches • furlers • lifelines
- poles • windlasses • vangs
- standing and running rigging
- blocks • travelers • etc.

Problem solving is our specialty. Catalog on request.

Voice: 508-992-0434
Fax: 508-999-0488
ww.riggingonly.com

Classic Rope Fenders

Cotton, roblon or buff polyester
Box 42, Beulah, MI 49617
231-882-4898
cbump71@hotmail.com

South Shore Yachts

- Navtec Norseman Gibb sales, service
- Full service rigging shop
- C&C parts, manuals, info.
- Interior redesign

905-468-4340
905-468-1538 fax
www.ccyachts.com
sservice@niagara.com

MOISTURE METERS for fiberglass and wood

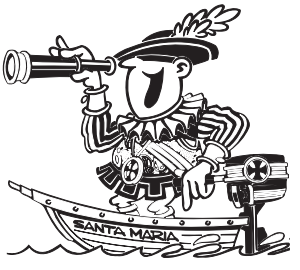
Non-destructive, hand-held meters for assessing moisture levels in fiberglass and wood. Simple to use, understand and evaluate. Sold worldwide to surveyors, repair yards, brokers, yacht designers, architects, insurance adjusters, U.S. Navy and Coast Guard. 9-v battery furnished. Limited warrantees – up to 2 years.

J.R. Overseas Co.
860-927-3808
860-927-3719 (fx)
www.jroverseas.com
jraabe@snet.net
PO Box 370, Kent, CT 06757

Keep your valuables on board with Matella stanchions

Safety, Strength, and Engineering
www.Matella.com
909-584-0168

Have you seen our website lately?



www.good oldboat.com

UNSCREW-UMS™ broken-screw extractors

Remove damaged fastenings. Minimal damage to wood. Hollow tool uses stub as guide. Sizes to remove screws from No. 2 to No. 24, lags, nails, and drifts.

T&L TOOLS
24 Vinegar Hill Rd., Gales Ferry, CT 06335
Phone: 860-464-9485 • Fax: 860-464-9709
unscrew-ums@tltools.com
www.tltools.com

TillerTender

A classy addition to your classic *Good Old Boat*. Fits snugly between the cockpit seats of Tartans, Pearsons, Cape Dorys and many other classic boats. Holds the tiller at any position when needed – or removes entirely in seconds. Solid teak and bronze – a tiller control you can be proud of!! For further information see:
www.TillerTender.com

Your Beautiful Boat Deserves a Beautiful Boat Hook

- 6'6" varnished mahogany pole
- Solid bronze hook fitting
- Floats upright for easy pick up

The "proper" boat hook: $149 plus $12 S/H.

Boat Name Engraved $10 extra

BROCHURE/ORDER
1-800-925-5598
Fax: 401-423-9238
Visa/MC Accepted

Jamestown Sailing Gear
P.O. Box 475, Dept. G
Jamestown, RI 02835
www.jamestownsailinggear.com

Traditional Marine Stoves

Solid Fuel
Cast Iron & Porcelain
Heating
Cooking

marinestove.com 718 486 8049

Custom Stainless Parts

Custom stainless steel marine hardware made to your design or standard dimensions. We also supply classic Tartan sailboat replacement parts.

Whitewater Marine, Inc.
P.O. Box 610595
Port Huron, MI 48061-0595
810-987-4837

Clothing

Marine Art

Immortalize your beloved boat in an original oil painting. With over 10 years experience in boat portraiture our artists will create an heirloom, which you will cherish forever. Supply a photograph of your boat and we will do the rest. Completely risk free ordering, pay nothing until you approve your proof.

The Design Works Gallery
toll free 877-732-6245
www.BoatPortraitStudio.com

Sails

Vinyl Boat Lettering

Registration numbers
Custom graphics
Application to Removal
We have what you need to get the job done!

The Vinyl Image
(508) 998-8821
Visit us online at
WWW.THEVINYLIMAGE.COM

Classified deadlines

Issue	Date
Nov. '02	Sept. 1, 2002
Jan '03	Nov. 1, 2002
Mar. '03	Jan. 1, 2003
May '03	Mar. 1, 2003
July '03	May 1, 2003

him and the wounded *Jester* from the sea, documented by a photo that had the boat dangling from a crane, bow pointing skyward and the remains of the snapped spar sticking out.

The final act in *Jester's* legendary existence came on July 15, 1988, during the next race, at the position of 38°08' north, 58°43' west, 470 miles out of Halifax. After a series of knockdowns in severe weather, Richey set off his EPIRB. The Coast Guard sent planes to check on him and coach his rescue by the *MS Nilam*, a freighter that diverted course. Richey had second thoughts about this rescue business. Yes, *Jester* was severely damaged, but she was still afloat. However, the forecast was bad and the coast was more than 400 miles to the west, under the given circumstances a week, probably more, of sailing on a wounded craft.

After much agonizing and weighing the options, Richey agreed to abandon *Jester* and transfer to the *Nilam*. After an unsuccessful attempt to tow her hull behind, she was cut loose, and Richey had to watch helplessly as she bobbed in the wake astern and slipped out of sight to meet her fate. *Jester's* disappearance proved to be traumatic for her skipper. For a long time Richey held the belief that he was taking an easy way out by choosing the safe course of action.

"Men personalize their boats like no other artifact. I felt I had failed her, that I should have stayed with the boat," he wrote about his emotions in the aftermath of *Jester's* loss. "Better to pass boldly into that other world in the full glory of some passion than fade and wither dismally with age," he borrowed from James Joyce.

Many fans

But not all was bad. *Jester* was more than any old boat. She was inseparable from the history of the OSTAR and single-handed ocean racing. And she had a large fan base. A trust was formed to finance the building of an exact replica for the next race in 1992, which also commemorated the 500th anniversary of Christopher Columbus' legendary voyage to the new world. Nigel Rowe, who chaired the trust and otherwise was a pivotal figure in the creation of the OSTAR, summarized

Courtesy of Mrs. Bridget Hasler

***Jester* in Plymouth Sound in 1960.**

the reason for such an undertaking succinctly when he said that "*Jester* epitomized that spirit of adventure and courage that characterizes so much of Britain's maritime history."

The new *Jester* was built at Aldeburgh Boatyard in Essex, a shop that specializes in building small keelboats such as Dragons, cold molded and in fiberglass. The lack of detailed construction lines of the original forced the yard to use Folkboat drawings. The new version was cold molded from four diagonal layers of khaya with an outer layer of

> *"You spend a lot of time wishing you were somewhere else, but it is fun, a nice way of life."*

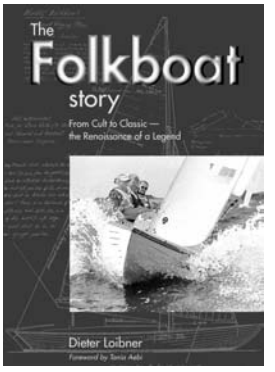
Brazilian mahogany. The frames were laminated, the floors were solid mahogany and the deck consisted of two layers of ¼-inch marine plywood. The overall weight was similar to the original, but weight distribution, due to the light hull construction, was different. The most difficult part, according to the builders, was crafting perfectly fitting mast wedges for the unstayed rig so they wouldn't work themselves loose. Richey also re-created the simple but effective original sail that he came to appreciate on all his previous voyages, joking that *Jester* had the "ideal geriatric rig."

Fast passage

Richey and the new *Jester* participated in the 1992 race and sailed one of their fastest passages, finishing in 45 days and 15 hours and celebrating the skipper's 76th birthday somewhere out in the Atlantic. The boat wintered in Newport, and Richey sailed her back to England the following summer to announce his retirement from that kind of sport, making way for a younger female skipper who, unfortunately, never got the hang of sailing and enjoying *Jester*. So when 1996 rolled around, Richey was at it again. After the race he laid her up in Newport for the winter and sailed back east again the following summer. En route he celebrated his 80th birthday, toasting his late friends and soulmates, Hasler and Chichester, who had shared Richey's passion for the ocean, single-handed racing and a Folkboat's seakeeping abilities.

What was an addict going to do when the 2000 race was about to start? Richey saddled *Jester* once again for his ninth race and the boat's third. This time, however, they did not finish, due to a cooker that blew up, forcing them to divert to the Azores. Knowing there was no chance of making the time limit for that race, the skipper decided to sail back to Plymouth. They arrived at their home port safely after three months at sea, only to find that *Jester's* free mooring had been seized by the authorities. After all those years and miles, what a sad joke. *(Mike Richey wrote about his experiences in the 2000 race in* Cruising World, *February 2002* ***–Ed****.)*

Reprinted from a new book by Dieter Loibner, The Folkboat Story: From



Cult to Classic, the Renaissance of a Legend, *published by Sheridan House. For fans of the Folkboat and all her kin, this book is a treasure.*

Baja continued from 39

There were few grabrails inside. The overall lines were excellent to my eye with one exception — it looked as though Bill Lapworth was tired by the time he reached the transom. He drew a nearly vertical line and said, "There. I'm done."

Modifications

I doubt that anyone ever made more cruising modifications to one of these boats than we did to ours. The nearly vertical transom that I joke about turned out to be exactly what allowed the dinghy davits to function so well. This boat can handle being loaded: we weighed 22,000 pounds with the tanks full and all our cruising gear and provisions onboard. The boat handled well, and the cockpit stayed dry.

Windows were replaced with ⅜-inch acrylic that was through-bolted to inch-thick hardwood frames. I was unable to break the plastic with a hammer when I tested it, and they never leaked a drop of water in six years. We removed the aft and largest window on each side of the cabin and glassed it in but covered an acrylic blank to maintain the three-window look on each side of the cabin.

"The rumor that we were part of this parasitic group is not true . . ."

We glassed in an additional bulkhead to support the new Harken traveler on the cabintop. We added grabrails everywhere. I cutter-rigged the boat. We added six stanchions to the cockpit along with cockpit storage boxes and a teak helm seat. I replaced the original fixed three-blade prop with a feathering Max-Prop. Dual fuel filters and a changeover valve were installed. Ventilation portlights were added for the V-berth, a stronger gooseneck was fabricated, and we ended up with plenty of rope clutches and a total of eight winches. The list goes on.

The key to a good boat is that everything works well together. The old Cal Cruising 35 had the strength to get us where we wanted to go and the ability to carry the supplies needed to extend our stay. The windows provided excellent visibility during passages and made it possible to enjoy the scenery at anchor. The spacious cockpit was a wonderful, comfortable place in which to enjoy life in Baja.

Closing thoughts

People who love boats seem to also love sharing ideas and information. Each boat has its unique features and there are always other ways to do things. We are grateful to all the people who have shared so many boating and cruising ideas with us over the years. Living aboard *Maho Blues* and cruising taught us the joys of the simpler life and changed us forever. We learned to live with limited space, limited shopping facilities, and even a limited income. These things were traded for more time to enjoy each other, to enjoy what we had (great boat included), and to explore new cruising grounds.

Keeping the birds off

I just finished reading the May 2002 issue. The last sentence of Will Sturgeon's article, "Guano with the wind," needed an answer. Five years ago we ran stainless-steel wire above our spreaders as he recommends. Everything was great until last year, when a pair of ospreys decided the masthead of our Pearson 35 was a good fishing spot. I cleaned fish bones off the deck for a month. Then one day I found part of my Windex on the cabintop.

That was the last straw. It was time to rig the pigstick (also pigginstick). This is a 3-foot lightweight stick, broom handle or 1-inch electrical conduit. Pigsticks were meant to carry the owner's pennant at the masthead, so the flag could fly above the wind instruments and antennas and not get fouled in the halyards. It's tied to a light flag halyard with a block at the masthead. The flag halyard is connected to the pigstick at the base and a third of the total length above the base.

When hoisted, two thirds of the pigstick sticks up above the masthead. I don't leave my pennant on the pigstick but I tied some orange ribbon to it. This has kept the birds off the masthead for the most part. On several occasions I've had to yank the flag halyard and tap the bird to make it fly away. One of them seems more determined than the other. Lately they've decided the neighbors' boat is a better fishing spot. A side note: there are four bridges between my dock and the Gulf of Mexico. The charted height of these is 45 feet above mean high water. The bridges have settled, and the clearance is only 44 feet 6 inches. My mast is 44 feet 9 inches above the water. We used the pigstick at low tide to test the clearance gauge that is posted on the bridge.

Joe Fleming
Harbour Heights, Fla.

Watch the fishing regulations

I just received the July 2002 issue. The article, "Go fish!," seems to contain nothing on dealing with freshwater fish. It also contains one item that is illegal in some areas — the use of a set line. That's found under the heading "Bottom fishing." Along the West Coast, there are many areas where such a setup will get the boater in serious trouble with fisheries officers who will charge them with a violation of fishing regulations.

Roger McAfee
Vancouver, British Columbia

Defiant confession

I thought I would comment on your "Defiant confession" (July 2002). I've been involved in product and structural testing for the last 13 years and agree with your editorial.

I own a 1979 Pearson 26, which has been in the Great Lakes its entire life. It was fitted with a gate valve for the head intake. Last season, I decided to rebuild the Raritan MSD on my boat. About three to four months into the season, it stopped drawing in flush water. Since it was late summer, and the sailing I had planned for the rest of the year was club racing and daysailing, I opted to put off tearing the head down again until the off-season.

Winter came and went, and it was time to put the boat back in the water. The head still hadn't gotten my attention. A month after launch, circumstances allowed me a little down time, and I decided to have a look at the head. I first went to ensure the valve was open before trying again to pump flushing water. When I opened the locker where the intake valve is located, I was surprised to see several inches of water in the locker (which is part of the interior pan and doesn't drain into the bilge). I bailed this out and was troubled to see that the valve was spraying a stream of water out of the side of the housing. I opened/closed the valve, but the stream was constant.

I was able to get the boat hauled the next day. I opted to replace the gate valve with a ball valve (not a flanged seacock type, unfortunately, but rather an inline valve). In the course of doing this, I was shocked to find that a small crack had developed in the bottom of the locker, and that the locker **was**, in fact, draining to the bilge. Since my boat has been a dry one, with no stuffing box (outboard auxiliary) to deal with, I had no electric bilge pump fitted. The slack bilge in the Pearson 26 was full to the brim, but still below the floorboards. Had this gone another day, I would have had interior water damage.

It is now apparent that the gate valve failed last year, late in the season, and caused my newly rebuilt head's malfunction. A ⅜-inch-long crack had developed in the body of the gate valve, preventing the intake pump from developing suction. The gate valve was otherwise functioning properly — the gate opened and shut easily, but the crack was in a location where it didn't matter if the valve was open or closed. The valve showed no signs of advanced corrosion. The appearance of the crack suggested a freeze-induced failure, but the failure actually occurred in late August or early September last season.

The only other through-hulls on my boat are the cockpit drains, into which the galley sink also drains. These are, in theory, "protected" by solid bronze

George Colligan writes, "This photo (of Susan Colligan) was taken aboard our Tartan 34, *Temujin*, during Susan's chemotherapy treatment. The Twin Towers are in the background. It's ironic that we never thought one part of the picture would *not* be here anymore, but at the time we were not really certain *Susan* would still be here. Sailing has played a huge role in her recovery – the rest, relaxation, and genuine separation from the care of the work-a-day world she experienced while aboard enabled her to focus totally on getting well. Our Tartan 34 proved the perfect venue for us to recover and regroup our lives."

tapered plug seacocks. Unfortunately, they are the type that has an "ear" onto which a handle is placed to operate the seacock. A previous owner's holding tank installation prevents anyone but a tiny contortionist with superhuman strength from being able to operate them, so in practice, they are no better than standpipes. One day I will get around to doing something about those.

Chris Delling
Sterling Heights, Mich.

More defiance

I really liked your "Defiant confession" in the July 2002 edition. This is not the sort of advice one is going to find in the "other" slick national sailing pubs. But it is right on target. As another owner of a 1976 C&C (Last Tack, July 2002), I have often wondered why C&C installed gate valves on most of its boats while, at the same time, it opted for more expensive items elsewhere. Most C&Cs 30 feet and under, for example, came with over-sized standing rigging. As a result, my original rig lasted until last year, many more years than one would normally expect. But the use of the gate valves is curious.

When I bought my boat about five years ago, I automatically assumed I should replace the gate valves, as that was "the current wisdom" about such things. But then, perhaps like you, I began thinking about the fact that you never close scupper drains and, if you did, you would not forget that fact, as the precipitating reason for so doing would make an indelible mark on your psyche. More importantly, the old adage you recall in your column about not fixing things that ain't broke solved the dilemma for me. They ain't broke and ain't gonna' get fixed. Nice column.

Warren Milberg
Annandale, Va.

Your sage advice

Being a tinkerer as much as a sailor, each boat I board provides as much opportunity to find nifty little projects as it does to create dreams of secluded anchorages. But not all projects are equal, and you were on the mark in suggesting that some projects intended to correct a defect may not improve the boat significantly. Thanks for the reminder that a system that has worked for 30 years may not need an upgrade simply because it is not what the sailing press currently suggests.

I feel mixed emotions about Simon Hill's "Prepping your boat for sale" (July 2002). It is amazing how many boats are up for sale looking as if the previous owner has been hauling dirt on deck. More amazing is that some brokers often overlook this and place a dirty boat on their dock. A few years ago I sold a Catalina 25 quickly and for several thousand dollars more than other 25s on the local market simply because I pressure washed it prior to sale. Now that I'm back in the market for another boat, I hope not too many people will take Simon's message to heart, clean their boats, and raise their price.

Keep up the good work. It is nice to have a relevant sailing periodical for the rest of us!

Mike Mathews
Houston, Texas

This photo just in from the nice folks at TillerTender: classy hands-free sailing. And wait! Isn't that also a comfortable Sport-A-Seat there at the helm? Who could ask for more?

Bravo (defiantly)

Bravo! I think many times people over-complicate things and add items that are not strictly necessary. I have a 1979 sailboat with a Yanmar 2QM20, and I tell you I must add a tachometer immediately. Oftentimes, I tell others: your engine has 20+ years without a tach, what's to say one is really needed? Or I say just throttle up until the transom dips below the water, and you have found your cruising speed. I realize I am supposed to sell people things for their boats, but sometimes advice is better than product. Where does this well-meaning, but not always needed, advice come from? My research indicates that it's from "the guy on the dock," an anonymous but full-of-advice person. He knows it all and is persuasive; he sends us (at Torresen Marine) a steady stream of customers ready to move up to a three-blade prop so they can back up better, add a huge alternator so they can run household appliances while sailing, and make things generally complicated.

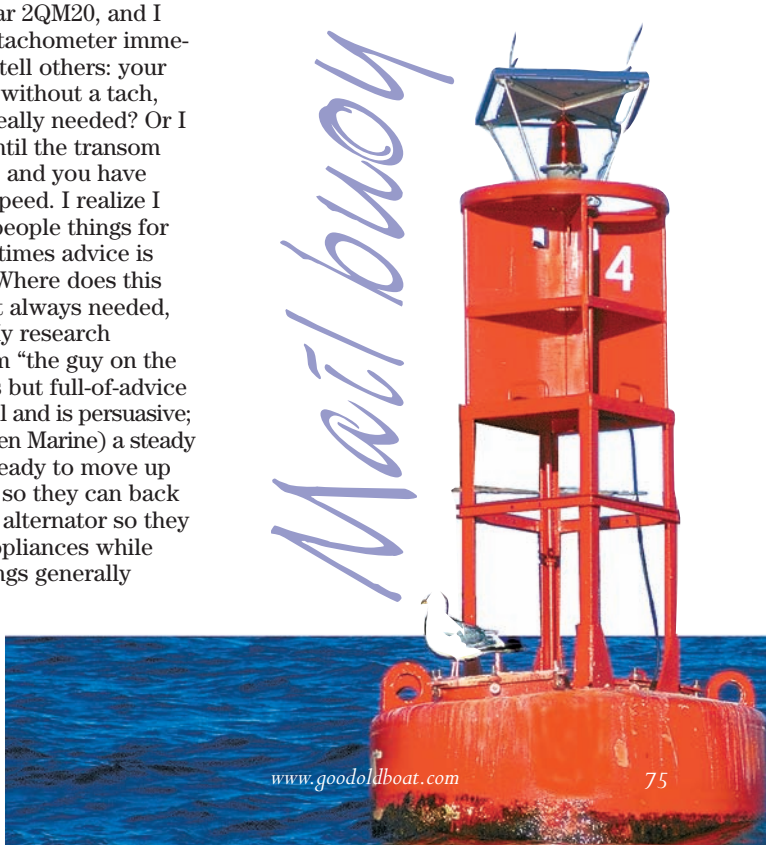
I must confess that oftentimes I believe this guy has an engineering background. He is deeply mistrustful of simple solutions and wants to know arcane details of material like the grade of steel in his prop shaft. I wonder how he can get his head out of his reference books to leave the dock . . . which he does in .802 less seconds due to his new prop!

Anyway, an early morning vent, but glad to see someone espousing this line of thinking!

Ike Stephenson
Muskegon, Mich.

Taking a stand

I just wanted to thank you for being bold enough to take the stand you did in the July 2002 issue. Prudence says to replace those old gate valves, and there have been documented cases where they have failed for all the reasons that we know about. I will be, and have been, the first to tell anyone asking, to replace those old valves. However, like yours, my 33-year-old Columbia 26 MkII still has two gate valves remaining. One is for the cockpit drains and the other is for the raw-water inlet for the head. I chose to leave those two in place on the recommendation of the fine surveyor who inspected *Legacy* on purchase day haulout. His words were, "If the valve is functioning, does not show obvious signs of failure, then leave it alone." That was against all advice I had heard, but this man was to be trusted. The only gate valve that was suspect was the head outlet valve; it would not completely close. The surveyor recommended that it be replaced. When I removed the valve



(that was another horror story), I dismantled it and found it had some minor corrosion, such that it would not seat in the closed position (common with gate valves that are not used frequently). I cleaned it up, and it worked perfectly. I had already purchased a fine bronze ball valve, so I just chucked the gate valve and installed the new.

As for the two remaining gate valves, I regularly work the raw-water valve in the head . . . it is fine. The valve for the cockpit drains is left alone. Should I have to replace the hoses, then I hope the valve will close . . . which is one reason I might go ahead on my next haulout and replace it, along with the hoses. I don't think they are time bombs waiting to go off, but if you are worrying about them, then replace them. Thanks for taking a stand.

Dennis Lancaster
Bellingham, Wash.

More on sea anchors

You may recall discussions in the January and May 2002 issues of Good Old Boat *about sea anchors. We received another long letter on the subject recently from Zack Smith with Fiorentino. Since we don't have room to print it for you here, you'll find that in the August copy of the* Good Old Boat *newsletter. If you're not a subscriber and would like to see the newsletter, please ask.*

Editors

Devon Yawls are back

From a recent news release: The popular British sailing dinghy, the Devon Yawl, which was produced in the U.S. in the late 1970s is being produced once again on this side of the ocean.

Originally produced in Connecticut by Devon Smallcraft, Inc., fewer than 100 of this 16-footer were built in the U.S. Of these early boats only one has been located recently. However the old molds were discovered in Portland, Conn., and have been acquired by Andrew Siwik, owner of Classic Boat, also located in Portland, Conn.

The Devon Yawl Association in Great Britain clearly has high hopes for this performance daysailer, which is raced in one-design fleets in England. The association has allotted sail number DY1000 onward for the new U.S. fleet. DY1000 was launched Jan. 8, 2001, on the Connecticut River. By mid-June Classic Yacht had completed the third new Devon Yawl. For more information, contact Andrew Siwik, 860-794-0233, classicboat@snet.net.

Voyager Windvane distributors

We were very pleased to see contact information for the Voyager Windvane manufacturer included in your July 2002 issue. It is a finely crafted self-steering servo-pendulum windvane. Hotwire Enterprises is now the U.S. distributor for Voyager and will exhibit one at the boat show in Annapolis, Oct. 10-14, we will have not only the vane but also the manufacturer, Peter Tietz, at our booth.

Libbie Ellis and John Gambill
Hotwire Enterprises
www.svhotwire.com/

While you're in the neighborhood
One thing more while you're at the Annapolis Sailboat Show: On Oct. 11, 12, and 13, the 2002 Hospice Turkey Shoot Regatta for classic sailboats will be held on the Rappahannock River in Lancaster County, Virginia. Proceeds go to the Northern Neck Hospice. The *Godspeed*, a replica of one of the ships that carried America's first permanent settlers to Jamestown in 1607, will serve as committee boat. Three skipjacks will race for the Skipjack Trophy. For the first time the Regatta will include races for fleets of small boats such as Sunfishes, Fireballs, and 420s. Spectators aboard the *Miss Ann* from the Tides Inn Resort will select the best-looking boat for the Miss Ann Trophy. To participate, boats must be of wood or of a classic design that is 25 years or older. For information, contact Yankee Point Sailboat Marina at 804-462-7018, <http://www.yankeepointmarina.com> .

Southern Chesapeake trailersailors
In the spirit of "If you build it, they will come," I have started a Yahoo! group and website with the intention of creating a community for promoting interaction among owners of trailerable sailboats in the southern Chesapeake Bay region (and perhaps beyond). My hope is that trailersailors will use the group to share advice and ideas about trailersailing topics and to organize sailing outings.

The Yahoo! group address is <http://groups.yahoo.com/group/scbtrailersailors> and the website address is <http://www.geocities.com/nmirtt>.

Thanks for all you've created and contributed to us "regular" sailors through *Good Old Boat*. I only wish the magazine came more frequently!

Raleigh Martin
Chesapeake, Va.

Blast from the past
A year ago June, I was in Detour Village, Mich., on the verge of my first adventure into the North Channel. By chance I met a wonderful couple at the dock. They welcomed me belowdecks, and exhibited the patience of Job as I asked dozens of questions about the cruising lifestyle. They helped ensure that this rookie's trip was a "good one." When I left, it felt like someone had shown me the secret handshake for the hottest club in town. My trip was that much better for having met this great couple.

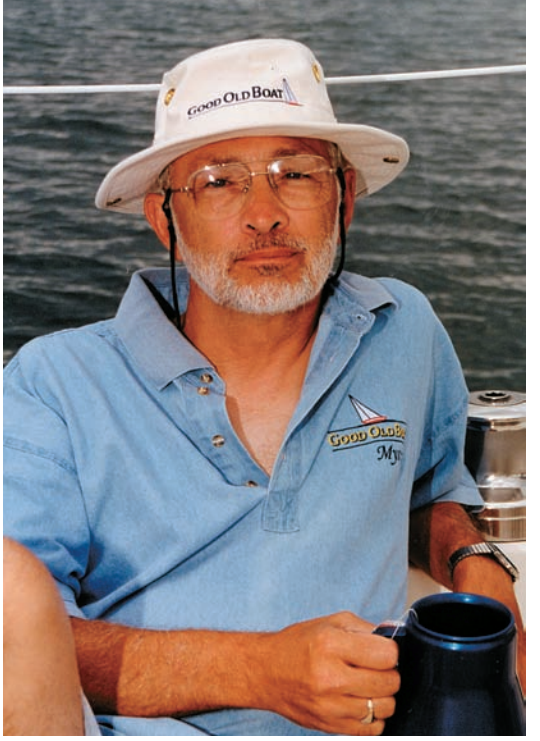
So it was great to read the "Single-line docking" article in your July 2002 issue and notice the name *Old Sam Peabody*, penciled into the drawing. It's nice to know they are still out there. I wanted to say "thanks." David and Susan are true ambassadors to the lifestyle, and I look forward to seeing them again down the line.

Jim Miller
Key West, Fla.

Raging hormones
Your magazine was introduced to me by Wes Farmer, and when I received your generous gift of a sample, I was disappointed because I had made the decision a few years ago not to subscribe to any other boating magazines. Then I read it cover to cover — twice. It was like the raging hormones of youth. I justified breaking my virtual vow by the idea that I owed it to you, both for the timely article on sealants (from Wes) and the article on an easy and inexpensive way to retain a quality rubrail on a boat when the vinyl insert is no longer available.

Tom Wynne
Chalfont, Pa.

Send questions and comments to* Good Old Boat, *7340 Niagara Lane North, Maple Grove, MN 55311-2655, or by email to jerry@goodoldboat.com. Please limit messages to 150 or fewer words. We reserve the right to edit.



Sailing, and the nature of time

In periods of honest reflection, I realize that I'm 60 years old, and I'm not going to get to be 160 years old. I'm closer to the end of this voyage than the beginning. There are still many choices to be made from many options, but none of the options include making time run backward. That's the nature of time.

Time, in and of itself, has no meaning. It has no meaning philosophically, and it has no meaning technically. Physicists who claim to understand time, speak of it as a way of ordering events. No events, no order, no meaning for time.

I didn't say that just to be confusing. It is the events and their order that give meaning to time. That is the technical side which, left alone, will take care of itself. The philosophical side will quickly pull up short and ask, "What events do you wish to fill your time with in those areas where you get a choice?" Now it is about values.

Values are a personal thing. I won't bother you with mine. Specific values are not the point. The point is that values define time in the only way we can perceive time. Values involve serious things like philosophy, religion, duty, and honor as well as the lighter things like beauty, humor, and joy. Values are extremely rich and complex and personal. Unavoidably, they will define our time.

As a practical matter, at a level we can feel and understand, time cannot be made to run backward. It can't even be made to stand still. Each revolution of the engine changes it a little. We only see the result when it wears in . . . and then wears out. As a practical matter, life is like sight-reading music. It's one time through; play it the best you can. If you try to go back, some critical things won't be the same, which is why you really can't ever go back.

All these things make time precious.

Sailing a boat takes a lot of time. The maintenance side takes more time. But perhaps "takes" is a poor choice of words. Perhaps sailing defines a large amount of time, giving it meaning. My life flows through that set of events instead of some other. Sailing needs to be in the order of events that define my time.

I haven't mentioned money because I think money is like air and water. If you don't have enough, it's a big deal. If you do have enough, more won't change things much. Others who have tossed away lucrative careers to go sailing must share this view. The trick is to know how much is enough.

The magazine you are holding in your hands is about passions, which are values writ large. It's about people who put sailing in their lives. Some may even define large parts of their lives in that way. Any part is better than no part.

Two odd conclusions derive from all this contemplation. The first is that if you are inclined to go sailing, you should do so. Anywhere, any way, any boat . . . the details probably don't matter. The second conclusion is that in offering this magazine we are not competing with other magazines for your money. We are competing with them for your time. So thanks . . . for your time.

United States Sailboat Show®

33rd Annual Show

TRADE/PRESS/VIP DAY OCTOBER 10
GENERAL ADMISSION DAYS OCTOBER 11 - 14, 2002

Annapolis, Maryland

The nation's oldest & largest sailboat show

All the new racing and cruising sailboats from U.S. and foreign builders from here and abroad.

World's largest multihull display courtesy of *Multihulls* magazine.

Smaller boats — from one designs and trailerables to sailing dinghies and inflatables.

Plus a vast array of sailing equipment, accessories and services.

Seminars — Friday through Monday, sponsored by The Sailing Company, publishers of *Cruising World* and *Sailing World.*

HOURS & ADMISSION: Thursday, VIP Day, 10 a.m.–6 p.m. $25 per person; ALL Ages
Friday–Sunday 10 a.m.–7 p.m. Monday (Columbus Day) 10 a.m.–5 p.m.
$15–Adults $7–Children (age 12 and under)

VOLVO

ORDER TICKETS IN ADVANCE AND $AVE

U.S. SAILBOAT SHOW®

_____ Adult tickets @ $12 = _____
$15 at the gate

_____ Child tickets @ $6 = _____
$7 at the gate (age 12 and under)

_____ VIP tickets @ $25 = _____
per person, ALL ages
(Good for Thurs., Oct. 10 only)

PAYMENT

Total amount enclosed $_____

Make check payable to **BOAT SHOWS.**
(U.S. FUNDS DRAWN ON U.S. BANKS ONLY.)
NO CREDIT CARDS. Prices include tax.
No pets or strollers. (GOB/SEP)

Name_____

Address_____

City_____

State_____ Zip_____

Phone_____

Each ticket good for one day only.
Tickets Non-Refundable
No advance tickets will be sold after the show opens.

Mail check and coupon to:
Boat Shows
P.O. Box 3183
Annapolis, MD 21403

For ticket info: (410) 267-6711
www.usboat.com
Orders received less than one week prior to show will be held at Will Call.

Directions: Take Route 50 to Exit #24 (Annapolis/Rowe Boulevard); follow signs to nearby parking and shuttles.

SOUTHWEST

Southwest Airlines is offering a 10% discount on most of its already low fares for air travel to and from the shows.You or your travel agent may call Southwest Airlines Group and Meetings Reservations at 1-800-443-5368 and reference the assigned I.D. code J5167. Reservations Sales Agents are available 7 am to 8 pm Monday - Friday or 8:30 am to 5:30 pm Saturday and Sunday, Central Time. You must make reservations five or more days prior to travel to take advantage of this offer.

The memories live on

by Carol J. Rhodes

It was late afternoon on a bleak November day as I walked through the small shipyard on Long Island Sound, a place where boats too old to sail were kept for scrap and spare parts. I had heard my beloved *La Gata* was there.

When my husband and I moved back to Texas 25 years before, we sold *La Gata* to a newly married couple who were planning to live aboard her. Over lunch during a recent trip back to the area, good friends told us the couple had gone their separate ways after only a few months, that the boat had been sold again and again and finally abandoned.

While I was making my way through the rubble of this rundown place, the wind picked up, noisily slapping water against the shoreline and the three old boats tied to a crumbling pier. After an hour's search, I had almost given up hope of finding my boat. Then, rounding the corner of a dilapidated old shed, I saw her. I would have known her anywhere, although the name was missing from the stern.

The once-proud sloop rested uneasily on her side among the remains of a wooden cradle that had collapsed. Her aluminum mast and boom lay alongside, the stays broken and twisted. Hatches and companionway doors were missing, and the cabin had been stripped bare. Still in its mounting, the tiller was broken. The end of it, where my hands had rested so many times, now dangled like a badly broken leg. Remains of the previous night's rain gathered in puddles along the deck. Tattered, faded remains of the red-and-white sailboat-printed curtains I had sewn showed through the forward porthole.

I wondered how long had she been here like this, waiting for someone to reclaim her, to scrub her teak and polish her brass, to make her proud again. Sitting on the side of the cockpit, I remembered some of the adventures and good times our family had shared aboard *La Gata*: riding out a hurricane anchored in the cove of Fisher's Island. Running aground on a falling tide while waiting for the Minaus River railroad bridge to open. A middle-of-the-night rescue of three people whose boat had sunk off Port Washington. The trip to Block Island. Vespers races on Thursday evenings in the summer.

***LaGata* (the cat) pulls *Gatita* (the kitten) now only in Carol's memory.**

I had hardly noticed how dark it had gotten, until the beam of a flashlight and a man's voice calling, "Lady, you gotta' be goin' now. Time for me to close up," brought an end to my reverie. Reluctantly, I said goodbye once again to my boat. But this time, I wouldn't be seeing her with new owners standing proudly on the deck as they steered her out of the channel and into the sound.

I would, instead, remember a boat that shouldn't be in this place at all. I glanced over my shoulder one last time and saw her running before the wind, my husband at the helm, my son and I working the winches.

Creating a community

Good Old Boat magazine is about:

Creating a community of sailors – Through our directory of sailing organizations and contacts, we're developing links between sailors **<http://www.goodoldboat.com/assoc.html>.**

Offering a resource – By pooling the knowledge of our readers, we're creating the directory we all need: the suppliers of parts and services for our boats **<http://www.goodoldboat.com/suppliers.html>**.

Keeping our boats afloat – Our technical articles focus on maintenance and upgrade issues and give them the space they deserve.

Celebrating older-model sailboats – We emphasize pride of ownership.

- Call: 763-420-8923; Fax: 763-420-8921 • Email: karen@goodoldboat.com or jerry@goodoldboat.com
- Send letters: *Good Old Boat*, 7340 Niagara Lane North, Maple Grove, MN 55311-2655

Welcome aboard!

We've got a site to see!
www.goodoldboat.com

GOOD OLD BOAT

7340 Niagara Lane North
Maple Grove, MN 55311-2655

Printed in Canada