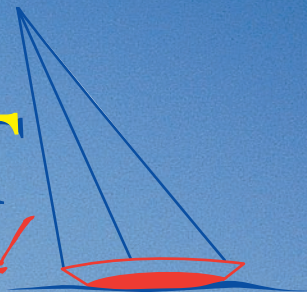


# GOOD OLD BOAT

*Still sailing after all these years!*



JANUARY/FEBRUARY 2000  
ISSUE 10



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## 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.

**Offering a resource** – By pooling the knowledge of our readers, we're creating a directory of the suppliers of parts and services we all need.

**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.

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## About the cover . . .



Least readers think otherwise, naval architect Ted Brewer is not the only one in his family with talent. His wife, Betty, sent this photo after the two of them had been gunkholing around the Canadian shores near their new home on Gabriola Island in British Columbia. This evening shot was

taken in Clam Bay, Thetis/Kuper Islands, just south of Gabriola Island.

*the view from here*



## *Just don't forget to go sailing*

**I**n a recent conversation, a *Good Old Boat* reader recited the “one thing leads to another” litany. You know the drill. “I took this apart and found that . . . which required that I remove this . . . and when I did, I found . . .” This reader, like many of our readers, was probably working on his first “big boat” restoration, but he was pretty handy and had already dealt with several problems in a respectable way. He even had a smaller boat that was giving him his “sailing fixes” while he worked through the restoration. The problem was that he had bonded with the big boat, not the smaller one, which he and his friends knew to be a poor sailing vessel.

The big one was a Cape Dory, which I thought would probably reward his restoration efforts nicely. Anyway, his enthusiasm was invested in the boat on the hard next to his house. He was a doer, not a talker, and the boat on the hard would sail some day, but it had not done so yet during his ownership.


I was reminded of our recent trip to Maine, where we did a story about an Allied Seabreeze that had been brought back from unusable condition by another reader. He had put three years into the restoration, and was not, in his opinion, finished when he said: “Enough is enough. She’s going in the water this season. I’ll finish later.” When we saw her, the boat was safe and functional, and the interior was “done.” Actually, the interior was completely redone and extensively modified as well. It looked pretty good, and the owner was rightfully proud of his work.

The interior of that boat was not as spiffy as a brand-new boat at a boat show, but quite nice by any other more realistic standard. The exterior was functional, and painting the topsides was on the to-do list. We happily shot pictures and will show them to you when the article comes up on the schedule this fall. Not Bristol Fashion yet, but a good old boat, and getting better by the season. Definitely shipshape. Definitely safe and functional.

I suggested to the Cape Dory restorer that at some point, when she was safe and functional, he should suspend the restoration for all or part of a season and take her sailing. I reasoned that he might even do some of the restoration differently once he’d had a chance to sail the boat and see what he liked and didn’t. I cited the Seabreeze restoration as an example of this kind of thinking, and he said that made sense.

As a retired dinghy racer, my own sensibilities had been blunted. I’d spent hundreds of hours seeking speed in the hull, gear, skipper, and crew, and a few minutes washing off the topsides with a hose. The only appearance I was interested in was the appearance of my transom in front of the rest of the fleet at the finish line. When I took up cruising, nothing changed for me.

My partner and wife (and editor) was a little different. She tolerated the dusty chalky blue topsides of our C&C 30 for as long as she could, and then started applying pressure for change. We got quotes of \$100 to \$150 per foot from professionals who said they would make our boat look like new. They could, too. But *Mystic* was not new, and in the end we rolled and brushed a one-part urethane on her that didn’t look too bad from a distance of about 10 feet and beyond. We were happy — even got some compliments — and spent maybe \$500 plus our labor on the whole project. Bristol Fashion? Certainly not. But then, how good does a 23-year-old boat have to look? In the antique furniture business they call it patina. If you have a priceless antique, you don’t want to refinish and lose the patina.

Boats are different of course. Above all else, they must be shipshape — meaning, in this case, functional and safe. For some owners, they must also be Bristol Fashion or as close as possible to that level of finish. For others, Bristol Fashion may be an unreasonable goal or only realizable at the expense of years of on-the-water time. There is room for all views in this, but don’t forget to go sailing. 

*by Jerry Powlas*



## Voices from everywhere

### Home ports for good old sailors in this issue

#### Blasted leaks

I was hoping you folks had done an article on the O'Day, but since you haven't, how about a good old article about good old leaks — how to find them, the best way to stop them. I've got one that is phenomenal, actually ghostly. One day it drips into my head sink — convenient, yes — the next day onto my chart table — not convenient.

I've pulled out the portholes and resealed them. I've put enough 3M 5200 clear on the starboard side that when we tack, it sometimes takes a little longer. In fact one night during a typical Chicago downpour, I sat aboard with the hatch shut, my flashlight shining on where I thought it was leaking and nothing — DRY! The next morning there was a puddle on the chart table. At any rate, the problem keeps 3M stock up there; West Marine has a reserved parking spot for me in front of the store; and the local liquor store delivers.

I've only read two issues, and I love it; a far cry from the typical sailing magazines where I spend more time throwing out inserts than reading articles about \$500,000 boats that I can't afford anyway.

**Bill Christ**  
**Chicago, Ill.**

*The best way to find that kind of leak is to locate where it is going in. All you can see from the inside is where it goes after it goes in. Try this:*

*With duct tape, close every known air exit. Yup, the whole boat. Even the exhaust pipe. Connect a shop vac blowing backward to the boat (maybe through a taped-up ventilator) and lightly pressurize the boat. Use some flimsy stuff to seal the boat so you don't develop too much pressure inside.*

*With the boat under pressure, you'll find all the places you should have taped but didn't. Tape those, too, and then paint the boat with a rich soapsuds mixture. The offending leak will blow soap bubbles like a five-year-old kid on a windy day.*

*Mark and seal that hole and keep painting until you know where (all) the water comes in. Once you know that, you may wish to clean things up and, in some cases, reverse the vacuum cleaner to suck on the interior. Same deal: not too much pressure. Then you can paint*



*the leak with epoxy and have it sucked into the offending opening.*

*This last part is only appropriate for some kinds of leaks. Others are best treated by removal of the offending part and rebedding.*

*By the time 3M and West Marine find out you have solved your problem, they will be overstocked, and sealants will have to go on sale. Then the rest of us can stock up.*

#### Good customer service

I wanted to pass along what great customer service I received from the maker of a malfunctioning volt meter. I had installed their volt meter last year on our 1979 S2 9.2A. At the end of this season, the meter failed to indicate the proper DC voltage.

I emailed the company, Blue Sea Systems out of Bellingham, Wash., and within an hour, I had their reply saying a new meter was being sent out free of charge. The meter has arrived, and I am one very happy customer. All they asked was for me to send the old one back, so the problem could be found. Now that is what I call taking care of business and the customer. Blue Sea will be at the top

of my list when I need electrical goodies for our good old boat.

**Dave White**  
**Gates, Or.**

#### Dave Autry's new toy

It was somewhat because of your magazine that in April I started looking for the boat I intended to build 35 years ago. I found *Aquarius*, a 1969 Arthur Piver-designed Lodestar 35 trimaran in Mystic, Conn. Although she's unlike the boats I designed and built for production, *Aquarius* is all I imagined. After singlehanded her down to Port Royal, S.C., I have scheduled an extensive rebuild by multihull guru Warren Lee Thomas. She survived [hurricanes] Dennis and Floyd with minimal damage so, in a few months, with new sails, decks, hatches, ports, diesel engine, interior, and paint job, we'll be off to paradise . . .

**Dave Autry**  
**Amarillo, Texas**

*(Dave is the designer of the Blackwatch 19 featured in the January 1999 issue and still causing a buzz in our mailbox.)*

#### Thanks, Steve

Being in the business of selling a mast-climbing product, I wanted to compli-



ment Steve Christensen and your magazine for the fine article "Up The Mast" in the September 1999 issue. True to your history, you got the right person for the job. Steve's coverage was complete, informative, and bias-free. He definitely has paid his dues aloft. I've read similar articles in the upscale sailing magazines and none compares. I was especially pleased with his suggestion that bosun's chair users can get better access to the masthead by fashioning a pair of rope steps, since my company, Mast Mate, had just come on the market with such steps made of 2-inch nylon webbing. These can be seen on the new products page of the Mast Mate website, <<http://www.mastmate.com>>. My compliments for a fine article and an excellent magazine.

**Gary Wheeler**  
Augusta, Maine

### The Green Flash!

Yes, Virginia, there is a Green Flash. I've seen it with my own eyes. The sky was clear and the heavens a vault of cobalt blue as the sun set. Genie and I were seven miles offshore in the Gulf of Mexico, en route to the barrier islands, as the sun's orange orb settled onto the watery horizon. As Genie frantically took picture after picture of the setting sun, I remarked that conditions were perfect for the fabled Green Flash . . . if, indeed, it did exist.

I watched closely as the orange disk disappeared below the horizon. The second it sank below the line of the horizon, a green haze appeared followed immediately by an emerald green circle of light that looked exactly like a huge traffic light. Then it was gone.

The fabled Green Flash was not a flash at all but a dramatic green light only God could create. Excited? I was so excited I relived the moment over and over and can still see the event in my mind's eye. Genie, too, saw the green haze and light, so there was a witness to it all.

For posterity, the event occurred Friday, Oct. 1, 1999, seven miles south of Pass Christian, Miss., in the Gulf of Mexico. If luck ensues from sighting the Green Flash, I should be a very lucky man right now, but the car broke down on Saturday, so maybe luck is in the perception, not the reality.

**Bill Sandifer**  
Diamondhead, Miss.

### Correction

*We heard from Stuart Ofer, the maker of Pearson logo clothing noted in our Pearson Resource section on Page 24 of the November 1999 issue. His business is A-Z Embroidery, and the preferred email address to use is [atozvt4@cs.com](mailto:atozvt4@cs.com). We received word of his service via email from another Pearson sailor late in our production cycle and gladly note this improved contact information.*

### All's well

Life is good once again. My latest copy of your magazine has arrived, although it was a little rough around the edges (I guess the mailman is a sailor, too). Nevertheless, I put the kids to bed early and settled in to enjoy some sailing stories and view pictures of boats, boats, and more boats! Especially the ones drawn by Scott Kennedy. Perhaps his drawings will find a place in future articles.

A special note to Karen: I know this is felt by a lot of other readers (wannabe writers). We would like to thank you for giving us a chance to put something — no matter how small, be it a picture of us in your good old boating wear, or perhaps an article in Reflections, or even a review of our (dear to our hearts) sailboat. It is nice to receive your magazine and also to be able to be involved. Makes us feel like part of the good old boat family. After searching for a magazine that holds my interest from cover to cover, I'm happy to say that I am home and can hardly wait for the next issue to arrive. And if the mailman wants to read it from cover to cover, he is welcome. I always want to lend a hand to a fellow sailor or wanna-be. He just might want to buy a good old boat like one of ours someday and what better place to get the idea from?

**Jim McCarty**  
Glens Falls, N.Y.

*It just so happens that Jim has a review in this issue on Page 74. We appreciate all our contributors and the participation from around the country and beyond (see the map on the opposite page).*

### Constructive criticism

My wife and I have just returned from the U.S. Sailboat Show in Annapolis. We

enjoyed the show and learned much that will be useful to us as we continue to restore and upgrade our Sea Sprite 27. The great shock came when we looked at the prices of new boats. We find it difficult to see how one can justify the cost of a quality new boat, when there are so many good old boats out there which, with care and attention (and some money), can give many years of pleasure.

I have one criticism of your magazine. Good old boats are often sailed by good old readers whose eyesight, particularly in dim lighting, is not what it was. For me, the inside of your back cover is often difficult to read. Please do not allow the use of background designs and pictures behind the printed copy to spread any further.

Please keep up the good work, and try to publish more often. The wait between issues is too long!

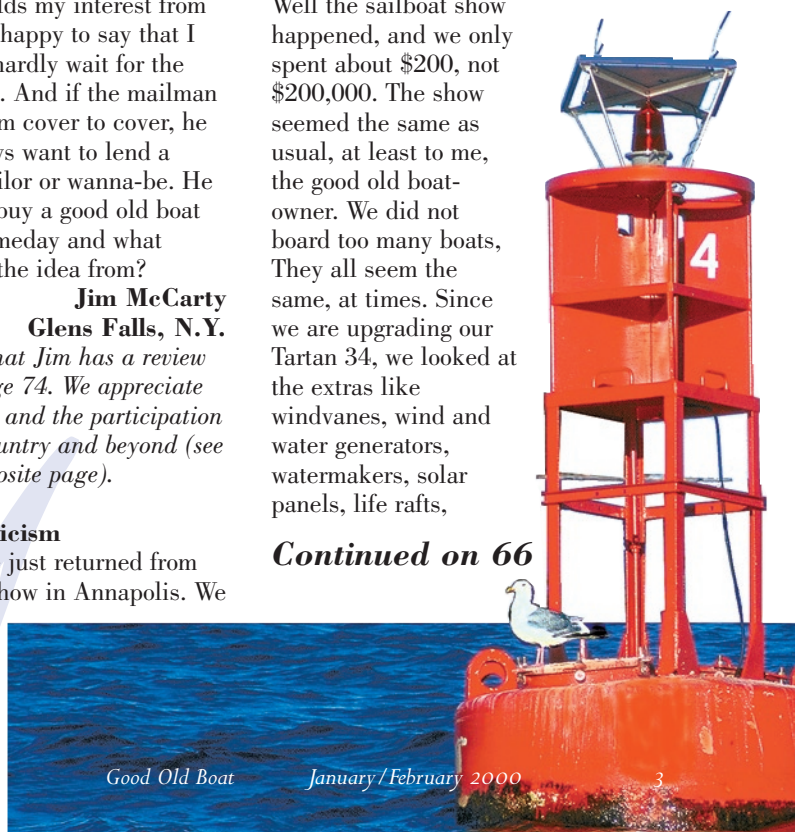
**Richard Morris**  
Jeannette, Pa.

*Richard, you're not the first to tell us about this type-over-pictures dilemma. (In fact, our good old eyes aren't what they used to be, either). We hope the November 1999 issue and this one are improving on that. Let us know what you think about those two Reflections columns, in terms of readability.*

### Annapolis Sailboat Show

Well the sailboat show happened, and we only spent about \$200, not \$200,000. The show seemed the same as usual, at least to me, the good old boat-owner. We did not board too many boats. They all seem the same, at times. Since we are upgrading our Tartan 34, we looked at the extras like windvanes, wind and water generators, watermakers, solar panels, life rafts,

**Continued on 66**





# C&C Redwing Beautiful Blackbird



A sailboat to fit Bill and Nancy Leonard's lifestyle had to be aesthetically pleasing. It had to sail well. And it had to look good. Moored in front of the beautiful home they designed and built themselves, this boat had to complement the house from the water and be a joy to look upon from the shore.

Outdoor people, the Leonards spend much of their time at home on one porch or another, on a dockside deck, or in the greenhouse that extends the outdoor season on Michigan's Upper Peninsula. So it's perfectly under-

standable when Bill says, "We figured we'd be looking at our sailboat on the mooring 90 percent of the time. It had to be nice looking. We wanted to be able to see it and smile." With her classic Alberg-esque lines, their C&C Redwing elicits that smile.

The Redwing isn't like the rest of the Canadian-built C&Cs that came a bit later and are so common on the Great Lakes. A 30-footer, she was replaced by the ubiquitous C&C 30, the boat Jerry and I sail. Only 145 to 150 Redwings were built by Hinterhoeller between 1967 and 1972, before they cast those

plans aside in favor of the C&C 30, of which more than 800 were produced between 1973 and 1985.

Since the Redwing came relatively early in the history of production fiberglass boats, Cuthbertson and Cassian were clearly influenced by the designs of Carl Alberg. The Redwing has the recognizable wooden cockpit coamings and the pedestal-mounted winches. She has that beautiful upswept stern and a narrow beam. At 21 feet 9 inches, her waterline is much shorter than her 30 feet on deck would lead you to believe. And space below is tight, as can be expected of all boats with the Alberg look.

## Surprising shape

What is surprising about the Redwing is her shape below the water. Designed as a family racer/cruiser, the Redwing has minimal wetted surface below — no doubt a revolution for her time. Her keel is the same inverted shark fin found on the early C&C 30s that followed in her wake, and her rudder is an unusual affair that looks for all the world like the blade of a scimitar (*see illustration on Page 12*).

Bill and Nancy use their Redwing exactly as she was intended. They participate in club races on Sundays, and they take an annual two-week cruise to Isle Royale on the other side of Lake Superior. Isle Royale, a pristine national park, is one of the most desirable destinations on Lake Superior. It's a long day's sail from their home on the Keweenaw Peninsula of Michigan's Upper Peninsula.

The Leonards bought their 1970 Redwing in 1994 and named her, appropriately, *Blackbird*. They began their annual excursions to Isle Royale the following summer.



Bill started sailing dinghies many years before that, while growing up in Connecticut. His formative years at the seacoast have been a defining factor for the Leonards throughout their years together. They had to be by water because Bill can't imagine life any other way.

Bill discovered this need when he went to Indiana's Rose Hulman Institute for his civil engineering degree. Nancy, a Hoosier, met her Connecticut Yankee there. She was attending Indiana State, working on a teaching degree. The two worked for a short time at their intended professions in Indianapolis and sailed a Sunfish on Eagle Reservoir there.

But it was the time of peace, love, and flower children . . . a time for dreaming dreams. In

1973, they quit their jobs and sold their home to chase a

dream. They bought a Volkswagen camper bus and spent the summer circumnavigating Lake Superior by land and living on \$10 a day, as the books of the time said they could. They were looking for a home by water, one where they could put down roots.

### Bought a farm

The community of Houghton, on the Keweenaw Peninsula, attracted them as the home of a growing technical university and a community influenced by the water surrounding it. That fall they bought a farm that hadn't been inhabited in 40 years. After doing a lot of work to make it habitable, they moved in on May 6. It burned to the ground with all their possessions on May 13. Many family treasures were lost, of course, but they are philosophical about the loss. They lived through

it, saved by their faithful Saint Bernard dog, who awakened them in time.

But they were new to the community, and they had nothing but the smoke-permeated clothes on their backs, a large dog, and the VW van. Some people in the community helped them make a new start. More than 25 years later, they have become so much a part of the Houghton and Chassell community that a similar loss would bring an outpouring of support — personal and financial. In addition to their status as well-known merchants there, Bill serves as Chassell Township Supervisor, and both volunteer their time in many areas of community life.

After the fire, they bought a small store in Chassell, a small town just south of Houghton. There they opened a gift shop and rented out apartments upstairs, living in one of these

themselves. The gift shop flourished, and the civil engineer and special-education teacher never returned to their "careers." Instead they discovered their artistic and aesthetic sides. It is this sense of beauty that defines their lives today.

### One and the same

The Leonards transformed the shop building into a place of beauty with a delightful garden in the back, and filled it from wall to wall inside with tasteful treasures beautifully displayed. They named the store *Einerlei* <<http://www.einerlei.com>>. At the time, they were studying German and learned that *einerlei* meant "one and the same." To them, the concept meant having your work and play intertwined and indistinguishable. Over the years, the shop crowded out the apartments and



**Blackbird, above, is part of the scenery at the Leonards' home.**

**At left, she races on Portage Lake not far from her mooring.**

grew to include a building next door and a second shop in downtown Houghton.

Meanwhile, Bill and Nancy were enjoying sails on a 17-foot Windjammer daysailer, and converting a log cabin on the shore into a spectacular home worthy of a feature in *Home & Garden*. In fact, it was featured in *Country Living* magazine in June 1983.

During this time, they discovered the joys of sailboard sailing and had a series of his-and-her sailboards that could be launched from the beach in front of their home. When the home-building project drew to an end, it was time to buy a cruising sailboat, and they selected *Blackbird*, based on her pretty lines. They didn't first sail her or have her surveyed. Luckily, she sails like a dream, and very little refitting was necessary.

We sailed with Bill and Nancy in late June. It was Sunday, time for a club race, and their crewmember was unable to come along. This was good news to Jerry (*Good Old Boat* technical editor and my husband), who still misses his

**by Karen Larson**





*A Redwing deserves a red spinnaker, above. At top right, Bill works the spinnaker pole and Nancy pauses during a quiet moment aboard. The compression post, at lower right, is in the way of access to the V-berth and prevents two doors near the head compartment from closing. It spends most of its life stowed in the quarter berth.*

racing days on a Flying Scot in an active one-design fleet. There are not enough sailboats on the entire Keweenaw Peninsula to create a one-design fleet, but the club members race PHRF and have a good time with the boats they've got.

### First over

The Redwing crossed the line first in two races, and may well have won the races once the ciphering was done. That didn't matter. There was plenty of wind, and everyone seemed to be having a good time.

The club races on Portage Lake, a wide spot in the Keenaw Cut. It is unlikely that Bill and Nancy would ever be accused of carrying too little sail when they race. The day of the race, they hoisted a Mylar 170 before the first race in light-to-moderate winds with large black clouds looming on the western horizon. They carried this sail through both races and through the pleasure sailing that followed, even when a cold front arrived toward the end of the day, bringing very fresh winds for a 170-percent genoa.

The Redwing has a high ballast ratio in a fairly narrow beam by modern standards. But the big gusts could do no more than roll her rail down a bit and shoot the spunky 30-footer forward. Bill says he likes to sail her with up to 25 degrees of heel and has observed no loss of speed at the higher angles of heel. So this couple does not do a lot of reefing or headsail changing.

Racing on the Leonards' Redwing is meant to be fun. Exchanges between skipper and crew are conversational in tone with an occasional laugh. Still, make no mistake: the Redwing was first over the line each time, and they made sure they didn't give away an inch. That day, Nancy was at the helm for both races. Bill was skipper, tactician, and deck ape. Jerry served as utility string-puller of jib, main, and spinnaker sheets.

### Compression problem

After many years, one problem for the Redwing and others with a deck-



stepped mast is that the deck begins to sag under the load. Delamination is sometimes an additional

problem. John Vigor has said that deck-stepped masts often lead to trouble in the end. The Redwing had indeed experienced some trouble with hers. She was designed to have a removable compression post located under the deck beam that spanned two bulkheads forward and aft of the head compartment.

It's possible that if the compression post had been left in place continuously while sailing, the mast wouldn't have been able to distort the deck beam and crack the forward bulkhead. But as Bill points out, the interior of the boat is virtually unusable with the compression post in place. Access to the V-berth is nearly impossible, and the two cleverly arranged doors that close off the hanging





locker, V-berth, and head aren't functional with the post in place because they won't swing through their intended arcs. Only the most dedicated of owners will have used the compression post routinely.

Since Bill and Nancy did not use the compression post all the time, they eventually noticed that the deck beam, an aluminum weldment, was bent, and the bulkhead supporting its forward end had a small stress crack. Bill modified the deck beam by increasing the thickness of the panels and the depth of the webs. As a rough guess, it might now be four times as stiff as it was. Then he put aluminum doublers on both sides of the forward bulkhead beam inside the cabin and through-bolted them on close centers. The original wooden beam is reinforced in this way to several times its original strength.

### Not easy

Other sailors may wonder why the designers at C&C didn't take these kinds of measures to begin with. There may not be any good answer to this except to say that a lot of otherwise very acceptable recreational sailboats were designed with mast steps (deck- and keel-stepped) that would eventually prove to be inadequate. Perhaps it's not easy to estimate the compression loads of sailboat masts and to provide a structure that will last for 30 years. It's all the more tempting to keep unnecessary weight out of locations as high as the cabintop, which is perhaps why so many deck-stepped masts seem to have been underbuilt.

*Blackbird* continues to be exactly what Nancy and Bill wanted when they bought her: a complement to their home, a boat that sails well, and an important component in their lifestyle. They are not planning to sail to Tahiti some day. If a plan of that nature begins to develop, they agree that a bigger boat would be in the picture.

Right now, they are happy to spend a couple of weeks in the northern paradise we know as Isle Royale, using an inflatable kayak as their dinghy, and racing for fun with friends on the Keweenaw. They also use their shore base for launching a canoe for quiet paddles in the nearby marshes and their sailboards for the occasional whisk away. *Blackbird* is just one part of their lives, not an all-consuming displacing passion as sailboats can become for some of us. The Leonards have created a nice balance in their lives, one that is both remarkable and exemplary for the passionate sailors among us.



*Karen Larson is editor and publisher of Good Old Boat magazine.*

***Blackbird's racing crew — Bill, Nancy, and Jerry — above right. In the center, crossing the finish line in first place. At right, Blackbird at play: cruising Isle Royale.***





# Sublime



Superior. Since buying this 1968 Redwing in 1997, they taught themselves to sail, as Brian says, “through trial and error.” During a couple of cold Thunder Bay, Ontario, winters, the two attended Canadian Power and Sail Squadron boating and piloting courses.

Naturally, the most advanced course is out there cruising, and they did not delay this practicum. During their first season, they began longer cruises along Lake Superior's north shore, around Isle Royale (where they easily could have met Bill and Nancy Leonard — we first saw both Redwings during our own cruise to Isle Royale in the summer of 1998) and farther south across the big lake to the Apostle Islands at the northern end of Wisconsin.

Their cruising and seamanship courses have been mixed with elbow grease and sweat equity. They have completely sanded and refinished all exterior teak, revarnished all interior teak, constructed a cockpit floor of white cedar, reupholstered the cushions, built a variety of teak racks and holders, and installed a CD player and speakers. They also sanded the deck and interior surfaces with 150-grit production paper and painted these surfaces with Interlux Yacht Enamel rolled on and brushed out, and they replaced the flameproof propane stove surround with 1/16-inch stainless steel plating.

Andy Hooker came of age with *Battlestar Pegasus*, or \**Pegasus*\* for short (with the asterisks suggesting stars for “Battlestar”). Like the Novaks and the Leonards, Andy's boat name draws on the boat itself. In this case, the wings of the flying horse are, you guessed it, red. Since his mother was an equestrian, the red-winged horse seemed appropriate for the family. This

boat, primarily used for racing on Lake Ontario, is rigged and fitted out with a

flourish. A resident of Youngstown, N.Y., Andy is president of the Lake

***Joanne and Brian Novak, above, are turning Scimitar into a showpiece as well as a cozy cruiser. They claim to be novices, but their sail trim, at left, shows them to be quick studies.***



getting to know her inside and out as they refurbish and sail her. At the other end of the spectrum, Andrews Hooker has been sailing and racing aboard his Redwing for the 30 years she has been in his family. His father bought

her from the factory in 1969. Since 1986 she has been Andy's restoration project and racing yacht.

Brian and Joanne are turning *Scimitar* (so named, we suspect, for the unusual shape of the rudder) into a cozy home for their cruises on Lake

***by Karen Larson***

**W**hether you're a racer or a cruiser or a racer/cruiser (like Bill and Nancy Leonard in the previous article on Pages 4-7), the C&C Redwing is just right. Brian and Joanne Novak are cruisers, new to sailing, who were captivated by the Redwing and are



Yacht Racing Association. In spite of that status, he has to win each LYRA race fair and square. *\*Pegasus\** is set up with winning in mind.

"It's a real pleasure to sail a pretty boat, and more so to pass a newer boat while racing. At the dock, people remark what a pretty old boat she is, but it is quite a 'neck snapper' when this good old boat goes sailing past them," he says. "It's good to win races. It is better to win comfortably in a pretty boat. It is great to kick butt in a good old boat."

By the time he purchased *\*Pegasus\** from his father, Andy says he had "a very good idea of improvements that needed to be made . . . time and wallet size dictated progress." In his zeal, only the keelbolts, V-berth and starboard interior have been left untouched.

Although his wife, Pat, selected the material, Andy did the reupholstering, adding convenient storage



*Andrews Hooker has turned his Redwing 30 into a serious racer and occasional cruiser. The traveler control lines lead to "Hooker cams," which override the cams at the end of the traveler, allowing it to be adjusted by the crew forward in the cockpit. In the same way, the mainsheet trigger cam, mounted on the starboard cabintop, will override the cam mounted on the fiddleblock at the end of the boom above the traveler.*

# to Serious

*C&C Redwing  
plays it both ways*



Made of two pieces of 1/4-inch Lexan, it has the current racing instructions sandwiched in between for quick reference.

All mainsail control lines are led aft, and cleats and leads are located for function and ease of use by a racing crew. He even replaced the hinges on the port cockpit locker with a piano hinge, so jib sheet tails don't get pinched inside when the locker is opened.

Andy's tiller and rudder have been remade. He explains, "A few years ago while playing in the whirlpools upstream in the Niagara River, I 'found' the foundation to the old Lewiston-Queenston Bridge while traveling at 13 knots over the bottom in a 7-knot back eddy. Needless to say, it destroyed the rudder and snapped the tiller. I replaced the rudder with an elliptical rudder I made, giving better downwind control. As the original 1 1/2-inch rudderstock bent in the incident, I went to a 2-inch rudderstock and Harken rudder bearings. This necessitated replacing the rudder tube. The tiller I laminated out of 18 pieces of ash.

With these steering improvements, I was able to fly down the lake at 10 knots with the chute up while enjoying dinner. The elliptical rudder has the same surface area as the largest of the four rudders designed for the Redwing 30 by C&C."

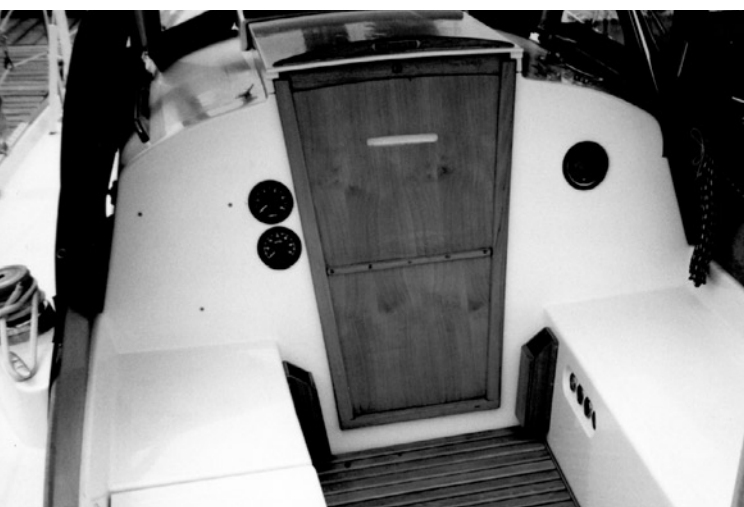
Neither *\*Pegasus\** nor *Scimitar* is equipped with the compression post which is on *Blackbird*, a boat manufactured in 1970, a year after *\*Pegasus\** and two years after *Scimitar*. Like *Blackbird*, *\*Pegasus\** has had to have her mast step reinforced, but *Scimitar*, perhaps because she was not raced often, is still using the original step without a problem.

Andy concludes, "While *\*Pegasus\** is raced extensively, her improvements make her very easy to sail and trim quickly when I'm out for the occasional pleasure sail or delivery. She handles all sea conditions like a lady, being very seakindly due to her displacement. The 7-foot 3-inch long cockpit seats allow for ample seating when out sailing. And who wants to be down below when you're sailing?"



bags and a strap to hold the cushions out of the way when the belowdecks space is more important for such operations as folding spinnakers. He added backing plates for the stanchions, but later adopted an unconventional approach to this subject, eliminating lifelines altogether. Andy says, "On our first race after Awlgripping topsides, deck, cockpit, and cabin, the lifelines had not been installed yet. The crew enjoyed not having to 'skirt the jib' with every tack. While admiring her on the mooring after the race, we all concluded that she looks much cleaner without the lifelines. They have remained in my garage ever since, with no crewmembers going overboard."

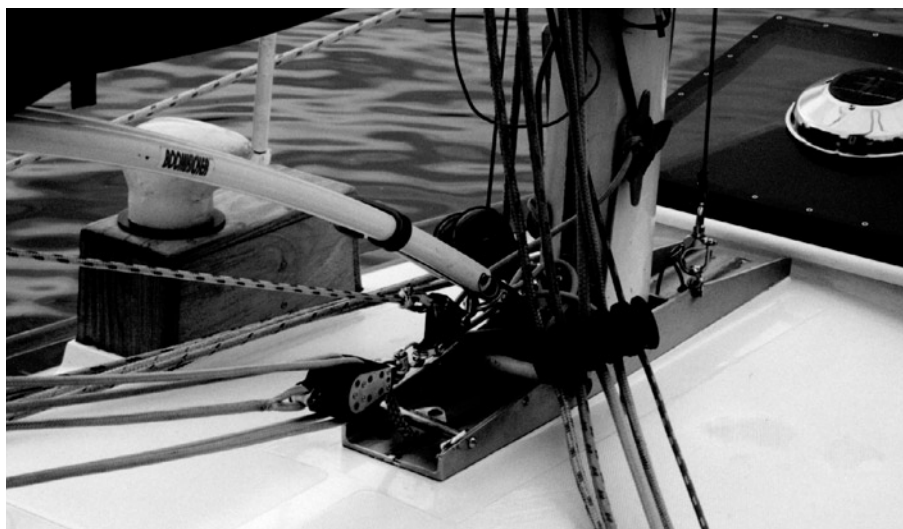
Like the Novaks, Andy created shelves, added speakers, and redid floors, installing teak-and-holly flooring and replacing floor stringers. He removed the stove, installed an electric pump in the sink to drain the icebox, and added refrigeration. He replaced the companionway hatchboards with a solid teak hatch (modified from a Catalina). The sliding hatch at the companionway has another novelty.



***On Scimitar, Brian and Joanne recovered cushions, added cockpit flooring, applied elbow grease to all interior and exterior teak and sanded and repainted all deck and interior surfaces.***



*Brass plaques in the main saloon, below, represent \*Pegasus'\* racing victories between 1972 and 1998. The cabin lamp in that photo is a 1913 Pierce Arrow coach lamp. It originally ran on acetylene, but is now wired for 12-volt. Seat cushions are tied back in "racing position." Andy tried a variety of hatch-spring openers and settled on the simple approach shown at top right — he props it open with a "racing tube." At center right, the original aluminum mast step has been replaced by one made of stainless steel. The boom kicker eliminates the need for a topping lift so the boom won't crash on anyone's head when reefing. At lower right, the floor Andy installed and the hinged opening which allows for increased ventilation in the bilge.*





# Redwing 30

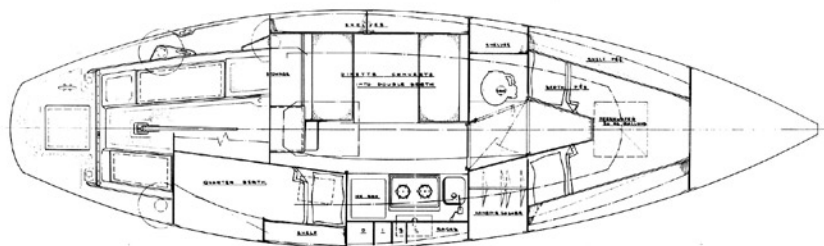
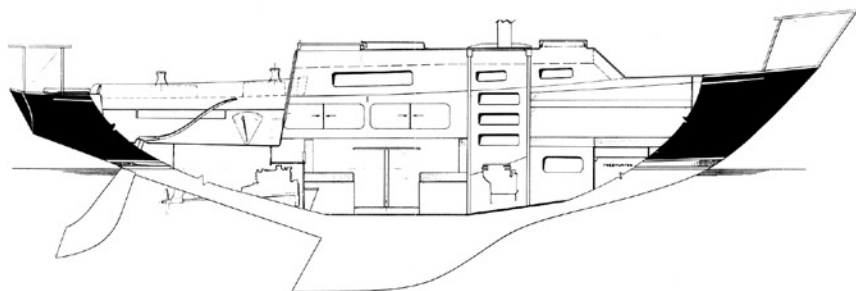
## C&C racer/cruiser

The Redwing 30 was designed by George Cuthbertson and George Cassian in the good old days of the Cruising Club of America (CCA) handicap rule. Her long ends and modest draft were almost dictated by that rule, and her sweet sheer and handsome, traditional appearance were the accepted style for cruiser/racers of her day.

I worked for George Cuthbertson from 1957 to 1960, so when *Good Old Boat* asked me to review the yacht, I jumped at the opportunity to contact him and get some inside information on the design. Cuthbertson and Cassian (later to become C&C Yachts) designed the Redwing in 1966, about the same time as their famous race-winning 40-footer, *Red Jacket*.

As George pointed out, the late '60s were years of great change in the design of yachts. The CCA handicap rule was giving way to the IOR rule, and designers had to rethink the entire hull shape, from bow to stern and from sheer to keel. A comparison of the Redwing 30 and the C&C 30, which replaced her a few years later, is very interesting and indicative of the types of yachts dictated by the rules.

The C&C 30, while of similar displacement, spreads that displacement along a 3-foot-longer waterline than the Redwing, and the difference in the displacement-to-length (D/L) ratios of the two vessels is very marked indeed. With her extra 14 inches of beam, the C&C 30 is bound to have considerably greater form stability. Her added 6 inches of draft, along with her shallower, beamier hull gives her a deeper and more effective fin as well. It all adds up to a boat well able to stand up to that extra 54 square feet of sail, and one with substantially improved performance.





# a true classic

However, the Redwing was still very much state-of-the-art when she was designed, and her performance greatly impressed my old friend Richard (“Jud”) Henderson when he wrote her up for *The Telltale Compass*, as reported in Vol. 2, No. 10 of that newsletter. The yacht was able to

compete with CCA cruiser/racers of her size and larger

and still win more than her share of silver. Jud wrote very favorably about sailing aboard one of the Redwings and commented on how she simply gobbled up competitors that rated a foot or so higher under the CCA rule. That is due, in part, to the unusually high ballast/displacement ratio, which keeps her standing up to the breeze despite her modest beam and her generous (by CCA standards) sail area.

In light weather she would still shine, as her short waterline, modest beam, and relatively slack-bilged hull help to reduce wetted surface, the major cause of resistance when the winds soften. Redwing’s spade rudder and shark-style fin were also state-of-the-art for the late ’60s. Her all-lead outside ballast gave her an edge over many competing yachts, which had lead pigs (or worse) set in concrete in a hollow fiberglass keel.

One note on the rudder: I had always wondered about that unusual scimitar shape until George told me it was a change that the builder made to reduce pressure on the rudder from the propeller slipstream when the yacht was under power. In any case, it worked; and Jud Henderson commented on the rudder’s effectiveness, particularly when running under spinnaker. I don’t consider the Redwing 30 to be a true bluewater yacht, due to her lack of a bridge deck and her deck-

stepped mast, although I’m sure that many of them have made extensive offshore voyages.

However, more than 30 years after she was designed, she is still a very viable coastal cruiser. If you can find a Redwing in

good condition, at a fair price, you will have a fine yacht that will give you














good all-round performance in a handsome package. By any standards, she is a classic.



*Ted Brewer is one of North America’s best-known yacht designers, having worked on several America’s Cup boats and designed many good old boats.*



*by Ted Brewer*

THE PERFORMANCE FLEET		
<b>CAPRICE</b> <i>built by Canadian Sailcraft</i>		16'
<b>PACESHIP 17</b> <i>built by Paceship</i>		17'
<b>BLUEJACKET &amp; MORCEE</b> <i>built by Paceship</i>		23'
<b>REDLINE 25</b> <i>built by Bruckmann</i>		25'
<b>VIKING</b> <i>built by Ontario Yachts</i>		28'
<b>NORTHWIND</b> <i>built by Paceship</i>		29'
<b>REDWING</b> <i>built by Hinterhoeller</i>		30'
<b>CORVETTE</b> <i>built by Belleville Marine</i>		31'
<b>INVADER &amp; FRIGATE</b> <i>Belleville Marine</i>		36'
<b>CRUSADER</b> <i>built by Belleville Marine</i>		40'
<b>REDLINE 41</b> <i>built by Bruckmann</i>		41'
<b>WHITBY</b> <i>built by Whitby Boat Works</i>		45'
 <b>CUTHBERTSON &amp; CASSIAN</b> Performance design 10 Front St. S., Port Credit, Ontario Canada (416) 278-5081		

*The Redwing and a few of her close relatives in the late 1960s and early 1970s.*

## A quick comparison

	REDWING 30	C&C 30
<b>LOA</b>	30 ft. 3 1/2 in.	30 ft. 0 in
<b>LWL</b>	21 ft. 9 in.	24 ft. 9 in.
<b>Beam</b>	8 ft. 9 1/2 in.	10 ft. 0 in.
<b>Draft</b>	4 ft. 6 in.	5 ft. 0 in.
<b>Displacement</b>	7,458 lb.	7,900 lb.
<b>Ballast</b>	3,630 lb.	3,650 lb.
<b>Sail Area</b>	404 sq. ft.	458.8 sq. ft.
<b>Ballst/Displ. Ratio</b>	48.7%	46.2%
<b>Displ/Length Ratio</b>	323.6	232.6
<b>SA/Displ. Ratio</b>	16.93	18.51
<b>Capsize Safety</b>	1.8	2.01

# Installing a new

*In the November 1999 issue, well-known marine author Don Casey described how to remove the old engine from your good old boat. Now it's time for the final exciting step . . .*

**E**ven though engine brochures generally provide all the measurements you need, it's hard to reconcile them in three dimensions while the old engine is still in place. That's why I delayed ordering the new engine until the old one was out and I could see exactly how a new one would fit.

To do this most effectively, I used a half sheet of foam insulation board, a razor knife, and a roll of duct tape to construct a rudimentary three-dimensional model. This took about 20 minutes, and it let me see exactly how much space there would be between the flywheel housing and the hull, between the top of the engine and the cockpit sole, between the alternator and a scupper hose.

I was able to move the foam "engine" easily to the limit of the stringers to evaluate clearance and access. An unplanned benefit of the foam engine was that it also helped me visualize the configuration of the new exhaust system and the routing of fuel lines and control cables. It also revealed, to my consternation, that the old rails weren't parallel.

Now, confident that the real engine would hold no surprises, I gave my dealer the green light. A truck showed up at the yard exactly a week later with the new engine.

## **Fuel-tank issues**

Don't overlook the fuel tank. If the existing tank is galvanized — not

uncommon for gasoline — you must replace it. A galvanized tank will flake particles of zinc into diesel fuel, blocking filters and injectors.

If the tank isn't galvanized, but is captured by the engine, replacing it now might be a case of "a stitch in time." Our fuel tank happened to be made of Monel metal, but I still wanted to pressure test it for leaks. This became easier when I discovered that a 1 1/4-inch threaded PVC plug was a perfect fit for the deck fill. I drilled a hole in the plug and installed a standard tire valve. I clamped short lengths of fuel

*'Getting it under the cockpit was the reverse of dragging the old engine out, except that I couldn't bear the thought of scraping that shiny paint off the bottom of the oil pan.'*

hose to the outlet and vent fittings, then squeezed the hose closed with Vise-Grip pliers. A half-dozen strokes with a bicycle pump put the tank under light pressure, which I checked with a gauge. Never (I repeat, never) put more than about 3 pounds of pressure in the tank. When the tank was still under pressure the following day, I was satisfied that it was sound. (See *Good Old Boat*, January 1999, for more on tank repair and replacement.)

The next issue was 30 years of sludge. Having the tank professionally cleaned might have been a better option, but good access lured me into cleaning it myself. I drained the tank, then "scrubbed" the interior with rags stapled to a dowel. It turned out to be a tedious process, but eventually the rags came out clean.

If you convert a gasoline tank to diesel, you'll need an additional fitting

for the return of excess fuel. The neatest way to accomplish this is to drill a hole in the vent connection (remove it first, of course) and braze a hose barb over this hole. Return fuel is hot and should not go directly back to the engine, so do not put the return line barb on the pick-up fitting.

## **Finding the prop line**

With the tank checked and cleaned, I turned my attention to the engine bed. The existing stringers were too tall, but it was essential to get them to the right height relative to the propshaft. I did this by stretching a string through the stern tube and across the engine space. Outside, I fastened the string to the rudder. Inside, I tied a heavy weight to the string and hung it over a length of cleat stock with a notch in the top surface to catch the string. This was clamped to either side of the engine hatch. By moving the notched board up and down, and from side to side (and with smaller adjustments of the outside attachment point) the string can be positioned in the center of the stern tube at both ends. This is the centerline of the propshaft, and it must also be the centerline of the transmission's output shaft.

## **The engine and shaft must be in precise alignment.**

More to the immediate point, because the distance below the driveshaft centerline is the same for all four mounts on the Yanmar, this string also marks the correct incline for the engine stringers. To project this line onto the stringers, I cut two lengths of square stock to an interference fit between the stringers, wedged them in place just touching the string, then leveled them



# engine

## *Part 2: Getting it to fit*

side to side with a bubble level. (I had already checked to make sure the boat had been blocked up level.) Tracing their top surfaces onto the stringers gave me the necessary two points to draw a line at the same height and incline as the shaft centerline.

But the bottoms of the mounts aren't at the same height as the shaft. On this particular engine, Yanmar specifies a position of from 0.87 to 1.42 inches below the shaft centerline. Reasoning that the mounts would compress with time, I chose the end of the range that gave me the highest stringers. Allowing a few extra thousandths for the planned overlay of glass sheathing, I drew a second line on the stringers 0.95 inch below the first. Using a circular saw and a clamped board as a guide, I cut each stringer on this second line. Because the rise of the hull interfered with the saw at the aft end, some handwork was required to complete the cuts.

The old rails were 1 1/2 inches too far apart in the front and nearly 3 inches too far apart in the back. I addressed this by sistering 1 1/2-inch thick white oak to the inside of the rails. Ideally, these pieces should have been wedge-shaped, but I couldn't see any easy way to accomplish that, so I simply chamfered the top after installation to provide adequate clearance for the engine. I also added a couple of wooden gussets to the outside of the stringers, more to dampen vibration than to add strength. A couple of layers of fiberglass cloth over the rails and generously lapped onto the well-ground hull, completed the engine bed.



*Leveled cross pieces just touch the centering string and help transfer the shaft centerline to the stringers.*

### **No heavy lifting**

A simple plywood jig eliminates the need to move the heavy engine onto the bed until you are ready to bolt it in place. Make the jig from a flat piece of 1/2-inch plywood the length and width of the engine. With one end representing the mating surface of the drive flange, use a square to mark a centerline on the board. Measure from the flange end and the centerline to locate exactly the four holes for the flexible mounts, and drill them to the same diameter as the matching holes in the engine brackets.

Attach a perpendicular piece of plywood on the centerline at either end of the jig. These should be slightly longer than the distance between the bottom surface of the mount brackets on the engine and the centerline of the drive shaft — a dimension provided on

the engine drawing. Mark this distance on centerlines extended (with a square) from the jig centerline and drill 1/4-inch holes at the marks. Saw into these two holes so you can slip them over the centering string.

Rerig the centering string, making sure it is in the center of the stern tube at both ends. Bolt the flexible mounts to

*by Don Casey*

the jig and set it on the engine bed, guiding the centering string through the saw cuts into the 1/4-inch

alignment holes. Slide the jig fore and aft and side to side to position the mounts where you want them, then turn the adjusting nuts — the ones underneath — to raise or lower the jig until the centering string is in the center of both holes. Be sure you keep the jig level side to side and the mounts

parallel to the centerline. Trace the mount holes onto the stringers, then remove the mounts from the jig and — without turning the adjusting nut — bolt them to the corresponding mount bracket on the engine. A word of caution here: even though the mounts look identical, there may be a difference in the elasticity between front and rear, so make sure you position them correctly on the jig to start with.

Drill the stringers for the lag screws that will hold the mounts in place, and you are ready to install the engine.

### In with the new

When the new engine arrived, the masts were still out of the boat, so I had the yard lift the engine with their boom truck and lower it through the companionway into the main cabin.

Getting it under the cockpit was the reverse of dragging the old engine out, except that I couldn't bear the thought of scraping that shiny paint off the bottom of the oil pan. I tacked a cleat stock stop across the end of a small rectangle of plywood and set the engine onto this "sled" for its short ride aft.

When the engine was in place, I installed the lag screws, snugging them down, then backing them off half a turn to allow some later lateral adjustment of the engine.

### Prop and shaft

Prop configuration — diameter, pitch, number of blades, blade area, and so forth — is another subject altogether, but you do need to know the maximum prop diameter to determine the appropriate shaft diameter. The formula for propeller diameter is  $(632.7 \times \text{shaft horsepower}^{0.2}) / \text{shaft RPM}^{0.6}$ , but as a practical matter, prop diameter on a sailboat is more often determined by clearance or acceptable drag. For example, the Yanmar I had selected, with a 2.61 reduction gear, is best mated to a 16-inch prop, but allowing the necessary tip clearance of around 15 percent of prop diameter, hull configuration limited me to a 15-inch prop. (I could have selected a lower reduction gear, but I preferred the slower shaft speeds.)

The rule of thumb for shaft diameter is one fourteenth of prop diameter. That is 1.07 inches for a 15-inch prop, which squares well with Yanmar's recommendation of 1.1-inch shaft diameter for this engine. This assumes bronze or stainless steel, but you can safely reduce the

diameter of a Monel or Aquamet shaft by 20 percent. Our existing Monel shaft could have done the job, but it was more important to me to have the engine as far forward as possible.

To determine the length of the new shaft, I temporarily bolted the shaft half of the new coupling to the drive flange. Inserting the old shaft into the stern tube to the mark I had made before extracting it, I was able to measure from the interior face of the flange to the end of the old shaft. I needed a shaft exactly 10 inches longer than the old one. But to isolate the prop electrically, I had decided to insert a flexible coupling in the drive train, which would move the coupling aft 1 inch.

The 7/8-inch diameter of the old shaft was marginal, so I decided to make the new one 1 inch in diameter, if I could do it without modifying the stern tube. A quick check of catalogs revealed that I could buy a 1-inch Cutless bearing with the same shell diameter as the 7/8-inch bearing. The prop shop had a 1-inch stuffing box that would fit my stern tube, priced at less than \$50, complete with a new hose.

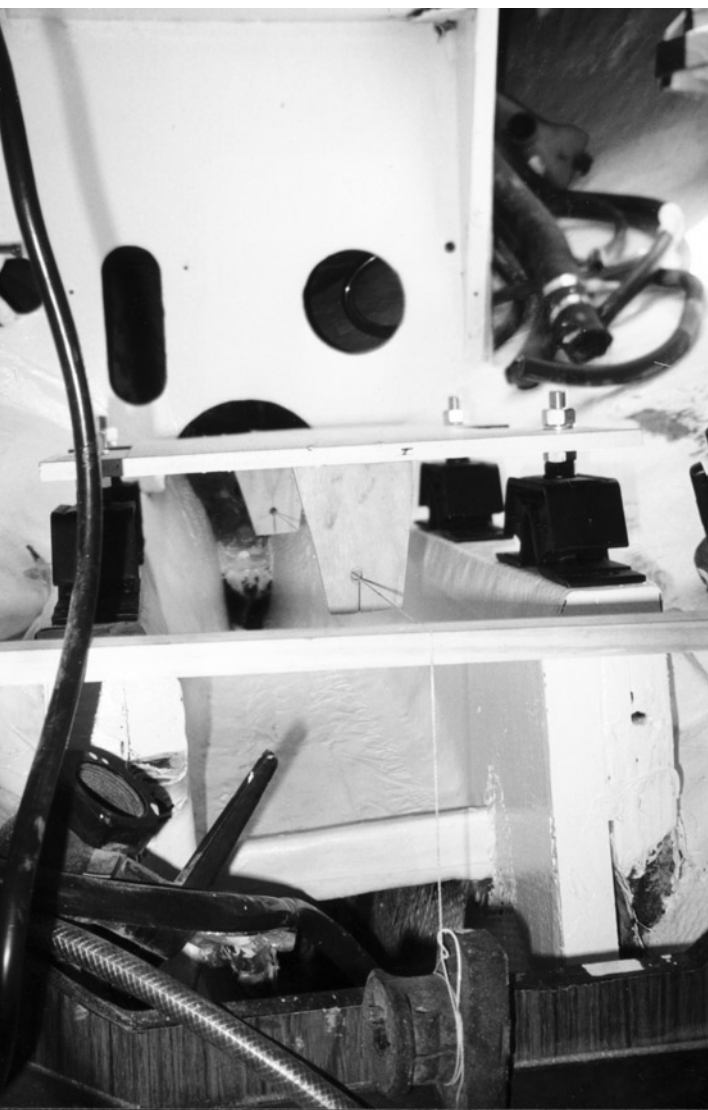
I ordered a 1-inch Aquamet 19 shaft, 9 inches longer than the old one, and had the prop shop fit and face the coupling. They also reconditioned the old prop and rebored it for the larger shaft. Prop shops often designate shaft length to the small end of the taper, so be careful that you tell them exactly how you arrived at your measurements. A drawing is a good idea.

With all the parts in hand, I installed the new Cutless bearing, quad-clamped the new stuffing box in place, inserted the new shaft, and installed the new flange.

### The crowd roared

With the shaft flange just shy of the drive flange, I moved the shaft up and down to find the center position. Supporting it there, I checked for misalignment with a straightedge. None. I slid the shaft forward and the coupling mated with a satisfying thunk. The crowd roared, but it was the centerline string and the plywood jig that deserved all the glory.

I checked the space between the two halves of the coupling with a feeler



*Plywood jig centered on the centering string.*



gauge. The maximum gap was about 0.012. Not good enough.

### ***The engine and shaft must be in precise alignment.***

Yanmar specifies a maximum face runout of 0.008, so I tapped the forward mounts slightly to starboard and gave the adjusting nuts on those same mounts about a half turn. The maximum gap dropped to 0.005. Now it was good enough. The boat would likely change shape slightly when it went back in the water, and I would recheck the alignment then.

Finally, I separated the coupling and reassembled it with a flexible doughnut (Drivesaver) between the flanges.

### **Dripless packing**

Because I find simplicity nearly always superior at sea, I decided against a mechanical shaft seal. But I was interested in trying dripless packing in hopes of minimizing how many times I would have to tighten the stuffing box.

Dripless packing turned out to be easy to install, captured on either end with rings of standard Teflon packing. The only drawback so far is the substantial cost.

### **Wiring and plumbing**

It would have been easier to install the fuel and seawater filters and the coolant subtank while the engine compartment was empty, but I wasn't sure of their exact locations until the engine was in place. The engine came with the subtank and a Racor fuel filter, and at the suggestion of Mike Muessel, president of Oldport Marine Services in Newport, R.I., who served as my technical advisor, I selected a Vetus above-the-waterline raw water filter.

The subtank came with its own hose, but the barb at the engine fill faced the wrong way. To keep the hose run as short and straight as possible, I unbolted the filler neck and turned it around, taking care not to damage the gasket.

The water connection should have been a snap — a 3/4-inch hose from the through-hull fitting to the filter, and a second hose from the filter to the engine. Inexplicably, however, the barb

on the engine turned out to be 5/8 inch, so a hose adapter was required. Always make raw water connections with reinforced (suction) hose so it will not collapse if the through-hull or the filter become partially blocked. Double clamp all below-the-waterline connections.

Fuel hose (types A1 or A2) makes fuel connections as easy as water connections. The line from the tank to the engine is broken twice, once for the shut-off valve and again for the primary filter. The return line leads directly from the engine to the tank.

The most difficult connection is probably the exhaust. Waterlift mufflers have become nearly universal, but they must be installed properly or they have the potential to flood the engine. Guidance is widely available. (*Refer to Part 1 in the November 1999 issue of Good Old Boat.*)

I elected to install a Vetus waterlift muffler, but because the bilge configuration prevented mounting it well below the mixing elbow, I used a galvanized nipple and a threaded coupling to raise the elbow. This provides increased resistance to backflooding and has the added benefit of raising the water injection connection above the waterline, eliminating the risk of water siphoning into the engine through the raw-water pump. A gooseneck muffler at the transom that takes the exhaust line right up to the underside of the deck before exiting the transom somewhat lower, should prevent following seas from forcing water back into the engine.

### **Single-lever control**

Out in the cockpit, I installed a new single-lever engine control — the old engine had a separate shift and pull-up throttle. I used an old cable as a “scout” to determine the route and length of the new cables.



***Using a centering string to determine the propshaft centerline.***

The cockpit was also the logical location of the new instrument panel, although the installation instructions cautioned against exposing it to the weather. Recessed enclosures are available, but in our cockpit there was no place to install one. The alternative was a custom teak frame with a gasketed acrylic cover.

I was disappointed to discover that the only instrument on the “instrument panel” was a tachometer. No oil gauge, no water-temperature gauge, no ammeter, and no engine-hours meter. Lights and alarms are certainly better at announcing a problem, but I find gauges very useful in heading off the kinds of problems that eventually sound an alarm. Gauges are on my shopping list.

The good news is, after you mount the panel, wiring it up is dead simple:



***Cutting down the engine stringers to the correct height.***

connect one end of the furnished harness to the plugs hanging from the back of the panel, the other end to the plugs on the engine. That is it.

The only other electrical connections are the battery cable connections to the starter. If you are replacing a gasoline engine, be cognizant that the starting loads will be much higher for the diesel. Your existing battery cables are probably too small. How big they need to be depends on the current draw of the starter motor and the round-trip length of the cables. The appropriate cable size for our installation was 2/0. Don't scrimp here. This will make the difference between starting and being dead in the water when your batteries are low.

## **Running the engine**

Fill the engine and transmission with the specified oils. Make up a 50/50 mix of antifreeze, and fill the header tank and the subtank. Fill the fuel tank with fresh fuel and bleed the fuel system according to the engine-manual instructions. The only remaining requirement is a flow of cooling water.

In the yard, I disconnected the pick-up hose from its through-hull and stuffed it through a nearby 1 1/2 inch through-hull fitting for a (disconnected) cockpit scupper. Outside the boat, I supported a bucket against the hull and over the fitting, with the pick-up hose


extending down into the bucket. A running garden hose secured to the bucket kept it full and overflowing. I also used the hose momentarily to prime the pickup line. If you don't have a convenient through-hull, you can wedge the bucket next to the engine and let the bilge pump take care of the overflow.

To get oil to the engine before starting, it is always advisable to spin it with the starter for about 5 seconds while continuously pulling the kill knob to prevent starting. After this precaution, I turned on the key, hit the starter, and the engine fired, clattered for a moment, then settled into a satisfying purr. A look over the side confirmed that the cooling water was flowing through the engine and out of the exhaust. In fact, I was surprised at how much water the pump drew. When I increased the engine speed, the faucet had to be wide open for the garden hose to maintain a full bucket. Don't let the water level drop below the pick-up hose or you will burn up the pump impeller.

Once in the water, you will need to check engine/shaft alignment one more time. Take the time to tweak it in as close to perfect as you can get it. After a couple of engine hours, open the throttle all the way to see if your prop selection was correct. Ideally, the engine should just reach the maximum specified RPM. If it runs faster, you need more pitch. If you can't reach maximum revolutions, less pitch is indicated. However, being slightly

overpropped (too much pitch) does put more power into the water at cruising RPM, not altogether a bad thing.

## **Worth the effort?**

Lower levels of irritation and worry are intrinsic benefits of a new engine, but installing it yourself offers other bonuses. There is, of course, the pocketful of money you will have saved. Doing it yourself lets you determine the level of workmanship. You can also expect a satisfying sense of accomplishment. But perhaps the biggest advantage is an immediate intimacy with the new engine. The knowledge of how all the components work together and what they need from you to keep working provides a matchless basis for a long and happy symbiosis. 

*Don Casey abandoned a career in banking in 1983 to devote more time to cruising and writing. His work combining these two passions has appeared in many popular sailing magazines. He and his wife, Olga, cruise aboard their 30-year old Allied Seawind. They like to point out that they've done all the work themselves with no adult supervision. Don co-authored Sensible Cruising: The Thoreau Approach and became the authority on boat fix-it projects with his book, This Old Boat. He is the author of a series of how-to books in the International Marine Sailboat Library Series (Sailboat Electrics Simplified, one of these, is reviewed on Page 74). Don has also written Dragged Aboard — A Cruising Guide for the Reluctant Mate.*





# Fighting foul

**F**or hundreds of years, copper was the only effective anti-fouling for boat and ship bottoms. First it was used in the form of tacked-on copper sheathing, then in copper-oxide paints. But copper has never been a fully effective deterrent to sedentary sea life, and it is only a minor discouragement to weed and slime. So it was with great enthusiasm that mariners of all sorts embraced tributyl-tin (TBT) antifouling paints when they appeared, for they really and truly worked.

Unfortunately, they worked too well. They killed or damaged sea life, especially crustaceans and mollusks, well away from the boat's bottom, so TBT paints were ultimately banned to recreational boaters in this country and many others. TBT is now classified in the U.S. as a pesticide.

TBT antifouling paints were such a success while they were available that copper-based bottom paints nearly disappeared. But since the widespread restrictions on tin paints in Europe, Canada, and the U.S., copper-based bottom paints have once again become the mariner's mainstay against barnacles, mussels, oysters, seaweed, algae, and slime.

The boat-paint industry has tried, with some success, to make copper-based paints more effective. Compared to TBT, however, copper and its oxide, cuprous oxide (and copper thiocyanate, another derivative of cuprous oxide) are not particularly toxic, even to the small plants and animals that foul boat bottoms. In high-enough doses, for a long-enough time, these copper biocides can kill shellfish like barnacles, the worst fouling bane in salt water, but they work as much by "discouragement" as by killing power. These metals "taste" and "feel" both chemically and electrically unpleasant to plant, animal, and bacterial life.

*For good old boaters,  
life holds three certainties:  
death, taxes, and antifouling.  
We tell you what coatings are  
available and how they work*

*by Larry Adams*

Bottom paints use two different methods to dissolve copper salts into the surrounding water. The "conventional" method is by leaching or dissolving copper compounds through a water-permeable (but not water-dissolvable) paint base or "binder," which may be soft or hard, or anything in between.

The tiny copper particles gradually leach out of the paint, until there are none left to dissolve. Some time before this, however, the amount of copper being bled out of the paint — originally quite high, but declining over time as less and less copper is left to dissolve — becomes too low to be an effective antifoulant. Then the old bottom paint has to be replaced or recoated.

## **Impermeable paint**

The other method of delivering copper into the surrounding water is with a paint that is impermeable to water, but that dissolves and/or wears away little by little. These ablative or "self-polishing" paints do not allow the copper bound in them to leach out through the paint; only the copper exposed at the paint's surface is able to dissolve into the surrounding water. Because only "fresh" metal is exposed, there is no need for overly large amounts of copper initially to make up for depleted levels later, so ablative bottom paints can get by with notably

lower proportions of copper than similar "hard" paints. Early ablative paints were on the soft side, but now the copolymer binders for ablative paints are generally of medium hardness. Because they are usually softer than the modified epoxy or vinyl binders used for "hard" leaching paints, abrasives do not give as much protection against scrapes as "regular" paints. Then again, because they wear away in use, they do not build up with repeated coatings. Furthermore, they can be exposed to air on the hard almost indefinitely without suffering any loss of antifouling properties.

## **Sloughing paints**

Old-fashioned soft sloughing paints have been around for over a century, and they are still the least expensive antifouling paints available. Because the rosin binder used as the base for these paints is so soft, it cannot be sanded or burnished to a racing-smooth finish, and it is very easily rubbed off. This can be an advantage at haul-out time, however, as these paints are easily removed by pressure washing, allowing recoating without buildup. Sloughing paints cannot stand much exposure to air without rapidly losing their effectiveness, so they must be immersed within a couple of days of application. That, plus their extreme softness, makes them completely unsuited for use on trailered boats. For non-racing boats that are hauled every

# Properties of common bottom paints

Modified Epoxy	Ablative Copolymer	Vinyl	Sloughing (Rosin)	Teflon (Racing)	Tri-Lux (Al)	
Yes	No <sup>1</sup>	Yes	Yes	Yes	Yes	Loses effectiveness in air. Must launch after painting.
Hard	Med	Hard Smooth Scrubable	Soft	Hard	Hard	Hardness
Dif.	Easy <sup>2</sup>	Dif.	Easy	Dif.	Dif.	Ease or difficulty of removal
No!	No!	No!	No!	No!	Yes	Use on aluminum (requires primer)

**Good Old Boat's pick:** *Ablative copolymers are best in most cases. It is difficult to justify sloughing paints. Never use paints containing cuprous oxide on aluminum. Which paints can be applied over which paints? Get some advice about this before you put one type of paint over another. Some general catalogs carry this information. If you can't find it, contact the paint vendor.*

<sup>1</sup> Very desirable feature

<sup>2</sup> If it is there, it is working. Normally just add more paint.

winter for the off-season, sloughing paints can be an economical season-long antifouling solution, especially in moderate- to low-fouling areas, where their generally lower copper quantities are offset by quick release rates. Rosin-based sloughing paints are very easily brushed or rolled on, and their simple removal means that the entire job can be done by a boatowner with very little painting (or sanding) skill or experience.

## Sandable finishes

At the other end of the hardness spectrum are vinyl-based paints such as VC Offshore, Interlux Baltoplate Racing Finish, and Woolsey Vinelast, all of which provide a very smooth, sandable, burnishable surface. These paints are especially appreciated by racers who need the slickest surface possible on their hulls and are willing to go to the extra trouble of fine-sanding

them. VC Offshore also has Teflon as a go-fast, surface-slicking additive.

Like other non-ablative paints, vinyls are contact-leaching paints, dissolving their biocides (cuprous oxide in all three of these paints) into the surrounding water through a water-porous but non-dissolving base. In fact, vinyl paints are so hard and tough that they are difficult to remove, either by sanding or by chemical removal. This makes them great for trailering, beach-launching, and other rough treatment that would be tough on softer paints, but it also presents a removal problem after repeated coatings have formed an excessive build-up. Vinyls also use solvents so powerful that they will lift almost any other kind of paint, so they can only be used over a bare hull or a previous coat of vinyl.

## Modified epoxies

Most boatowners find something in between extra-hard vinyls and soft

rosins more practical. The majority of conventional, leaching bottom paints are hard or medium-hard modified one-part epoxies (epoxy-esters). In these paints, there is a wide variety of copper levels and release rates. Some paints offer less fouling protection or shorter effective lives at a reduced cost. It is important not to fall into the trap of thinking that more is better, however. More antifouling than necessary accomplishes nothing, but it costs more and dumps more copper salts into the water.

Many good bottom paints are formulated to last several seasons, which requires slower biocide release than single-season paints, plus enough copper to last through two or more years. These paints inevitably cost more than single-season paints, but the savings in hauling, prepping, and painting costs can easily outweigh the extra expense.



Like vinyls, however, most epoxy-based leaching paints cannot be left out of the water for more than a month or two; exposed to air they lose their effectiveness little by little, so conventional multi-season paints cannot be used on boats that spend much of the year on land.

## Water-based paints

A number of new water-based paints have joined the modified epoxies and copolymers on the shelves of chandleries in the past few years. Most of the new water-based paints are self-polishing or ablative paints like the other copolymers, but water-based paints can be formulated as water-permeable, hard, leaching paints as well, like Woolsey Hydrocoat, a hard, burnishable, Teflon-impregnated paint intended to appeal to racers. It has the same general benefits and drawbacks as other leaching paints, but because it is water-based, Hydrocoat (and other acrylic paints) release less volatile organic compound (VOC) vapors into the air when they dry (or cure). They are easier to thin and clean up, too, of course, but not necessarily to apply, as they are more sensitive to temperature and humidity than other paints.

Because of their low VOC production, water-based bottom paints are sure to be the wave of the future when the Environmental Protection Agency begins to enforce the tougher air quality standards already on the books. Right now California and, to a lesser extent, Michigan are the only places in this country placing restrictions or bans on high-VOC antifouling paints, but the paint companies are well on the way to compliance whenever it is demanded.

## Incredible variety

If water-based paints are the way binders will go, ablative surface paints, whether water-based or not, set the standards of overall performance, so it is little surprise that the manufacturers are spending most of their research-and-development funds on acrylic ablative bottom paints. For the moment, though, an incredible variety of paints is available, including both hard and self-polishing paints of every strength and durability, at least one of which

will surely match up with your own local conditions, boat use, and budget. There are plenty of specialty paints as well, such as VC 17m, the very-thin-coat Teflon-and-copper "speed-skin" paint so favored by many racers, despite its limited antifouling capabilities.

Other bottom paints worth a look are Hot Bottom and No-Foul ZDF. Barnacle Ban Hot Bottom V-15 is a hard vinyl leaching paint that uses Habañero hot-pepper oil, which contains a very strong alkaloid to beef up its modest 33 percent cuprous-oxide biocide and deter fouling growth. E Paint No-Foul ZDF is another vinyl, but with an ablative medium-hard surface (or an extra-hard non-ablative finish for the Racing White version), that uses zinc oxide to produce hydrogen peroxide under sunlight. The peroxide works as an antiseptic against small animals (like barnacle larvae) and bacteria, but breaks up quickly into plain water and oxygen, leaving no biocide in the water.

## Aluminum hulls

Copper and cuprous-oxide paints cannot be used on aluminum, as they cause galvanic corrosion that destroys the hull. Tri-butyl-tin paints are still available to licensed professionals for use on aluminum hulls, though with lower release rates than pre-tin-ban paints had. Military vessels and boats over 82 feet long also may use TBT bottom paints in U.S. waters, but the United Nations has recently been asked to consider an international ban on tin paints for ships as well as for smaller craft. For the moment, however, TBT bottom paints are restricted in North America and most of Europe, but still available in many other parts of the world. Here, only small spray cans of TBT can be sold, for use on aluminum outboards and outdrive units.

There is still another choice for owners of aluminum-hulled boats: the toxin copper thiocyanate. It will not cause galvanic corrosion of aluminum as long as the hull is properly primed first to eliminate electrolysis. Unlike TBT paints, which can only be sold to and applied by licensed professionals, copper thiocyanate paints such as Interlux Tri-Lux II, an ablative copolymer, are available to anyone, so

do-it-yourselfers can put them on. Copper thiocyanate paint works just as well on other kinds of hulls, too, so its use is not necessarily restricted to aluminum-hulled boats. But it is more expensive than comparable cuprous oxide paints, so it has little draw for owners of fiberglass, wooden, or steel boats. A new formulation of Tri-Lux is about to be introduced this spring. It will have a proprietary organic biocide booster that will control slime.

## Copper in epoxy

More expensive than any bottom paint alone (but similar in cost to an epoxy barrier coat plus paint) are the copper-in-epoxy gelcoats such as American Marine Coatings' CopperPoxy and Hi-Tek Coatings' Epco-Tek. Long-term performance and cost-effectiveness reports on metallic copper-epoxy gelcoat bottoms has been mixed, but they offer the potential of 10-year and longer protection against both fouling and osmotic blistering, if properly applied. Application demands a high level of skill, however, and should not be tackled lightly by amateurs.

## Too slick to grip

Fouling-release coatings are not toxic paints, but slippery surface coatings designed to prevent foulants taking hold. Interlux Intersleek, the successor to Interlux Veridian, is a multi-layer silicone coating. Eccotech Wearlon is a silicone-in-epoxy matrix with a hydrophobic non-stick surface, used to protect against mussels and other sorts of fouling. High material costs and the need for special (expensive) professional application put these coatings well beyond practical consideration for most boats, but the idea of a non-toxic, permanent antifouling coating is certainly an attractive one.



*Larry Adams is a long-time sailboat racer, cruiser, and tinkerer. He frequently contributes technical articles, reviews, and photographs to sailing magazines. He has rebuilt a couple of good old boats himself, a 1973 Cal 21 and a 1977 J/24.*





# Quit

**Y**ou're all settled in for the night in that well-protected cove, when the wind picks up. What had been a nice quiet anchorage is now alive with motion as the wind causes the boats to weave back and forth on their anchor rodes. Your boat rolls and jerks from one "tack" to another, and you begin to worry about what all this motion is doing to the set of your anchor. Your nice quiet evening is now anything but restful.

Most people call this weaving back and forth "sailing at anchor." But my favorite nickname for the activity is "horsing around" because the image it creates is so descriptive of the motion. And while the name may sound like fun, the motion it describes can lead to real problems.

What causes this phenomenon? For most boats, the center of effort (or windage) of the topsides and rigging is well forward of the underwater center of

lateral resistance. This means the boat is out of balance while on the hook, and doesn't really want to weathercock. Whenever the boat drifts backward during a gust (or there is a slight change in the wind direction) the bow will fall off faster than the stern, putting the boat broadside to the wind. Once that happens, the bow continues to fall off, and the boat will "sail" away in the new direction, up to as much as 30 to 40 degrees off the wind, until brought up short by the rode.

It seems as if the boat should eventually settle down, given a steady wind. But in reality, the wind is never steady in either direction or strength for very long. During the lulls, the boat is drawn forward by the weight of the rode (creating slack), only to fall back and turn broadside during the gusts.

Why all the concern? Well, at the very least, all this weaving back and forth can make things uncomfortable down below. More importantly, it is quite possible for two boats anchored side by side to get "out of phase" while sailing at anchor and actually collide. We witnessed this a few seasons ago while anchored in Bear Drop Harbor in

the North Channel on a day with gusty 25-to-30-knot

*by Steve Christensen*

winds. Two nearby anchored boats began to sheer, on opposite tacks, and exactly out of phase. The boats kept getting closer and closer with each tack as the skippers looked on helplessly. A collision was avoided only when one skipper broke the cycle by letting out more rode.

By far the biggest concern of "horsing around" is the effect it has on the set of your anchor. The shock loads



# horsing around!

## *Use a riding sail to steady your boat at anchor*

on the rode from coming up short on opposite tacks are practically at right angles to each other, and all this stress can eventually break the anchor free. Even if the anchor holds, the sideways motion at the bow can chafe right through a nylon rode in a few hours.

So, if you want to sleep better at anchor, you need to do all you can to reduce this sailing at anchor.

But what *can* you do? While we've never tried it, a couple of skippers we have met swear by anchoring *stern-to*. This places the center of effort behind the center of resistance, and keeps the boat steady. (It also looks *really* weird.) The downside is that some boats are not very seaworthy stern-to, and most companionways are not designed to be very weatherproof from the stern. So I would worry about being caught in a storm anchored backward, but in fair weather it seems to work quite well.

The best thing you can do to reduce "horsing around" while at anchor is to use a riding

(or anchor) sail. We first learned about riding sails by reading Steve and Linda Dashew's *The Bluewater Handbook*. It seemed like a good idea, so we had a local

sail loft make one for us, and have used it every night at anchor since. The ability of a riding sail to reduce horsing around is just amazing and has to be

seen to be appreciated. On that day in Bear Drop Harbor when many of the other boats were sailing up to 40 degrees off the wind, our riding sail kept the bow of our Ericson 38 to within five degrees of the wind direction. Considering how well they work, it is surprising that you don't see more of them being used. (We've only seen *one* other riding sail in 10 seasons of cruising the Great Lakes.)

Just what is a riding sail? It's essentially a small and heavily built mizzen, rigged on the backstay, and sheeted forward. The added windage of the sail brings the overall center of effort well aft of the center of lateral resistance. Now when the boat drifts backward during a gust and the bow begins to fall off to one side, the effort of the wind on the riding sail quickly pushes the stern in and brings the boat back head to wind.

A riding sail should be constructed board-flat, of heavy (4- to 8-ounce)

cloth, with a hollow foot and leech to reduce flutter, and a straight luff with hanks for attaching to the backstay. Adding full-length battens to the sail is also a good

idea to reduce slatting in high winds. As for size, a good rule of thumb is to have the sail made about the same size as a storm jib, or from 5 percent to 10 percent of the total sail area. In fact,



**Rag Doll at left at anchor.**

***Detail of her riding sail above.***

you can use a storm jib on the backstay as your riding sail. And for that matter, ketches and yawls can achieve the same effect by just leaving their mizzen up (perhaps with a reef or two). But since whatever you use will be left up constantly while at anchor and exposed to a *lot* of ultraviolet radiation, it's a good idea to have a dedicated riding sail, and not subject your storm jib or mizzen sail to all that abuse.

How do you rig a riding sail? First, attach a pendant between the stern of the boat (the top stern rail works well)

### Contacts

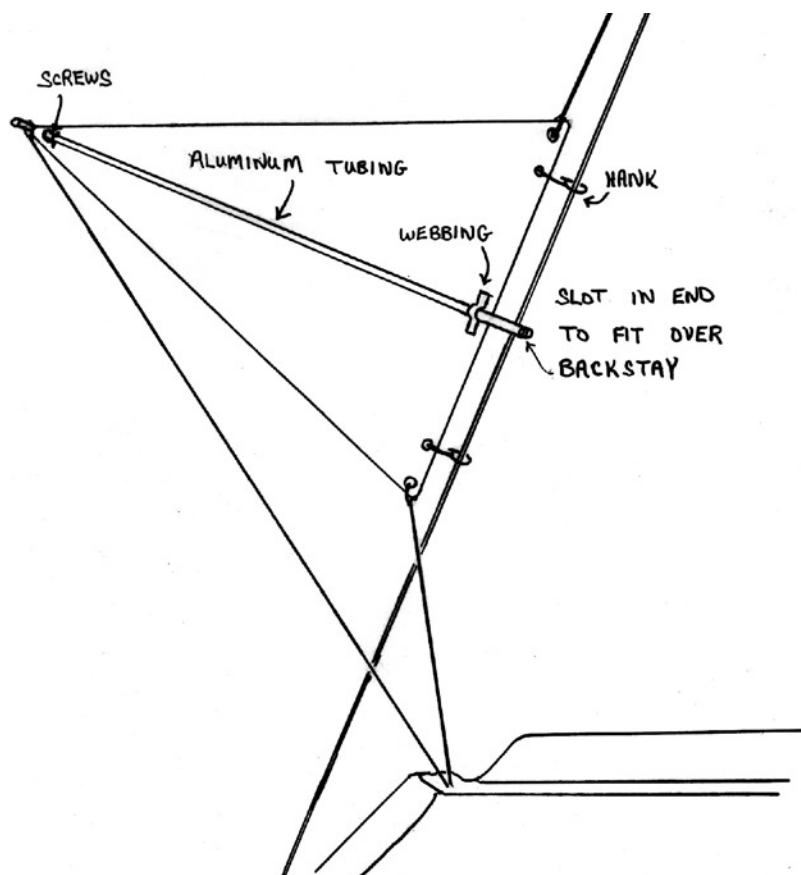
**Kent Sails Co.**, 35942 Jefferson, Mount Clemens, MI 48045; 810-791-2580.

**Sailrite**, 305 W. Van Buren St., P.O. Box 987, Columbia City, IN 46725; 800-348-2769; <<http://www.sailrite.com>>



and the tack of the sail, long enough to keep the sail well clear over the cockpit. Then attach a halyard to the head and hoist the sail aloft. Finally, rig a sheet from the clew to a place on deck amidships, or — better, but more

work — run a sheet to each side of the deck or cabin house. You can leave the sail flying free like this, but it will tend to slat a bit in high winds. So it's best to attach the luff of the sail to the backstay with a number of hanks.



Riding sails may not be common, but any sail loft can make one up for you. Or you can contact Sailrite, which markets a basic anchor riding sail kit with a 75-inch leech, a 58-inch luff, and a 72-inch foot (15 square feet) designed for boats over 20 feet. It costs between \$68 and \$73, depending upon the size of the snaps needed to fit your backstay. This kit was just upgraded to use Top Gun sailcloth, rather than Dacron. This makes the sail hold up much longer.

Our riding sail came from Kent Sails, in Mount Clemens, Mich., and is 150 inches on the luff, 124 inches on the leech, and 62 inches on the foot (26 square feet) with seven hanks along the luff.

Kent Sails designed our current riding sail with a fiberglass rod running between the backstay at the luff and the grommet at the clew. This rod does a nice job of stiffening the sail, and keeps it quiet in high winds. But more than that, this unusual design has the interesting feature of holding the clew out away from the backstay, in much the same way a wishbone boom on a sailboard holds the clew of the sail out from the mast. With the clew held out taut, you can swing the sail around on the backstay to point aft, which not only gets it out of the way of the cockpit, but has the advantage of putting the sail's center of effort even farther from the bow, making it even more effective at keeping the boat steady.

If you already have a riding sail with hanks on the luff and would like to try this arrangement, it's a simple matter to modify the sail to be able to point aft. All it takes is a few feet of hollow aluminum rod, a short piece of webbing, and a couple of sheet metal screws.

First lay out a line between the luff and the clew, perpendicular to the luff, and mark where the line meets the luff. Then buy a length of hollow aluminum rod that is at least 6 inches longer than this line, and slightly smaller in outside diameter than the clew grommet (so the rod will slide through the grommet). Using your sail repair kit (you *do* have one aboard, don't you?) sew about 4 inches of 1-inch webbing to the side of the luff at the position you marked, with

***Modifications to the aft-pointing sail.***



enough slack to hold the rod. (The purpose of the webbing is to keep the rod in position on the backstay.) Then cut about a half-inch-deep slot into one end of the rod so the end fits over the backstay.

The final step needs to be done with the sail hanked onto the backstay and hoisted taut. Slide the slotted end of the rod through the clew grommet, through the luff web loop, and over the backstay. Then pull the clew out taut, and mark the point on the rod where it enters the clew grommet. Remove the rod and mount a couple of sheet metal screws at that point on the rod, which will keep the clew from sliding down the rod toward the backstay. Next, cut the excess rod off about 4 inches beyond the screws.

When you now place the slotted end of the rod through the web strap, then the other end through the grommet up to the screws, and finally slide the slot over the backstay, the clew should be held out nice and taut. Finally, just rotate the whole sail aft, and add a sheet from the end of the rod to each corner of the stern rail. Using rolling hitches for each sheet makes it easy to adjust the centering of the sail. And that's it — you're done.

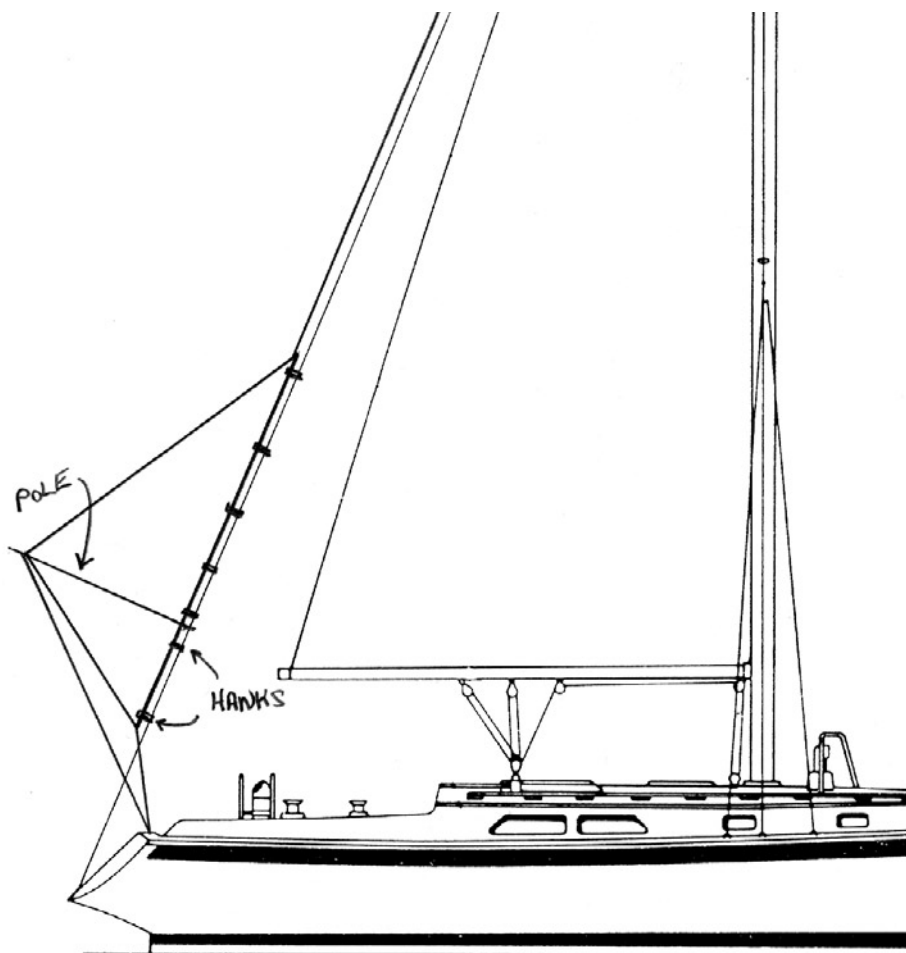
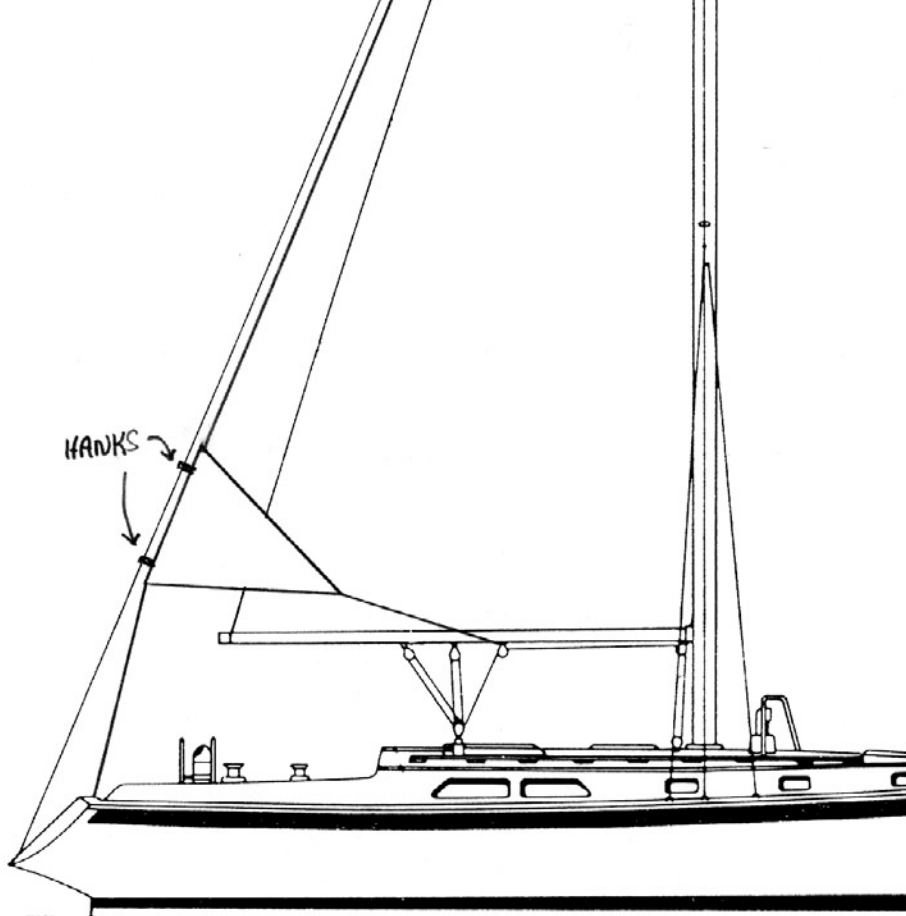
A nice side effect of any riding sail is that it makes your boat easier to find in a crowded anchorage, as there aren't too many boats out there with big white triangles at their sterns. (This has come in very handy when returning by dinghy from a late evening ashore and trying to find our boat by flashlight.) Our unusual aft-pointing rig is also very sociable, in that we usually have at least one sailor in each anchorage stop by to ask about it. Last summer we even had the skipper of a nearby Alberg 30 so intrigued that he spent an hour trying to construct a similar rig using his storm jib and a telescoping awning pole. At one point when things weren't going too well and the pole fell to deck for the second or third time (there was no webbing at the luff to hold the pole in place) he good-naturedly called over, "Look what you started!"

Whether you choose the traditional forward-sheeted arrangement, or the unusual aft-pointing rig, I highly recommend you consider using a riding sail to steady your boat at anchor. Leave the "horsing around" for on shore.

Steve Christensen and his wife, Beth, sail their Ericson 38, Rag Doll, out of Saginaw Bay on Lake Huron and spend each August cruising the North Channel . . . with their riding sail.



**Traditional riding sail top right. Rag Doll's aft-pointing riding sail at right.**



# The Git-Rot

**W**hen my husband was a sophomore in high school, he and his friend Mike bought an old boat they found in a yard up in Traverse City, Michigan. It was a 19-foot daysailer, constructed of molded three-inch-wide planks of mahogany overlaid by a layer of poorly applied fiberglass.

A small bronze plaque in the forepeak proclaimed that the boat had been built in the late 1930s by an aviation company named Kagard. The sails were Boston originals, made of cotton. The inventory was small but serviceable and included a mainsail, a working jib, and a storm mainsail sewn to belly out and spill air.

The auxiliary engine was a 5-hp Wizard outboard of unknown age. My husband, Clancy, estimated that the centerboard, constructed of wafered steel and lead, weighed in between 400 and 500 pounds. The boys sailed the boat on Big Glenn Lake for the next two summers. After graduation, college loomed ahead and the boat was left on a trailer in a relative's barn.

Several years passed by. College, marriage, and kids took precedence. Clancy moved to Florida with his young family, leaving the wooden boat behind. While he lived in Florida, he honed his sailing skills on a Flying Dutchman. He sold the Dutchman before his return to Michigan and was boatless until after

*60 percent Git-Rot  
and 40 percent mahogany,  
this 1930s daysailer  
never stopped leaking*

his divorce. During the first year of our relationship, Clancy traipsed back to Traverse City and salvaged the old boat from the barn. Mike was no longer interested in the boat and turned over his interest to my future husband. At that time we both lived in the city and had nowhere to store a boat. A kind friend with a double lot allowed us to park the boat and trailer so we could begin the restoration process.

## **Injecting Git-Rot**

The first thing that became apparent was that a lot of dry rot had set in under the fiberglass. Clancy crawled around the interior of the hull with a Phillips-head screwdriver, poking, prodding, and injecting the bad spots with Git-Rot, a penetrating liquid epoxy. The next hurdle was a slightly delaminated mast, which he proceeded to glue and bolt together. It wasn't pretty, but it was solid. A lot of the hardware was either worn or gone, so he made several trips to various hardware and boat stores to replace

what had been broken or lost. New turnbuckles were installed on the stays and shrouds. We were ready to go.

The day of our maiden launch loomed gray and gusty. We hitched the trailer to the truck, and off we went to put the boat into Reeds Lake, in East Grand Rapids. We launched the boat from the public ramp, and she immediately began to take on water. Clancy assured me this was normal, that the wood had to swell to stop the leakage. Heck, I was in love. I believed him.

Fortunately, he had thrown in a small bucket. The engine cranked over with no effort, and we motored out into the lake for our first sail. This was my first sailing experience. I came from a motorboat family and was familiar with boating but had never been on a sailboat. Clancy raised the sails, and off we went. Boy, could that boat go! We toodled around Reeds Lake, Clancy sailing, me bailing. The wind piped up past the point of being comfortable so we decided to call it a day. We prepared to tack and — twang! — a shroud came loose and a spreader banged up against the main.

*by Catherine Haight  
illustration  
by Dave Chase*



# boat



## We have a problem

We doused the sails, and Clancy turned to start the engine. A most horrible grinding noise came when he pulled the cord. No start. He pulled the cord again, and the grinding continued, but still no start. He pulled back the housing, tinkered with the air supply, then the gas, and then the spark plugs. Still no start.

After 30 minutes of pulling, grinding, and tinkering, Clancy informed me that we had a problem. Little did I realize that I should *never* have mentioned that I had my Senior Lifesaving Card and could swim a mile. Seeing that he couldn't swim more than 50 feet without sinking, the dubious honor of swimming the boat back to the ramp became mine. He tied a rope to the bow eye, and off I swam.

The next day we took the engine to the local outboard fixit shop. When we

picked it up, we were informed that it would now start — but they usually didn't work on lawnmower engines.

For our second jaunt to Reeds Lake, we decided to invite a friend. Ralph had worked his way through college by serving in the merchant marine and had done some heavy voyaging on freighters in Lake Superior. He came prepared, his feet ensconced in his merchant-marine-issue deckboots. Oh well, we told ourselves, if it comes to the worst, he can use them to bail with.

The wind was up and gusting. We sailed close-hauled, tacking back and forth across the lake with the rails in the water. There were no reef points on the mainsail, and we hadn't thought to bring the sailbag containing the stormsail. Ralph turned the most peculiar shade of green. Clancy and I looked at each other and shrugged. Ralph never asked to sail with us again.

We decided to sail a new lake for our third adventure. We had been informed that Bostwick Lake, north of town, was very sailable. We had no trouble launching, and the engine fired right up. This time, we brought along Clancy's two boys, Ian and Brad. The boys were a little skeptical about the expedition but did what they were told while we raised the sail and beat a course up the lake.

## Bailed furiously

Water began to seep in. We had planned well, though, and had thrown in two bailing buckets. We sailed for an hour. Halfway back, the wind died. We doused the sails, and Clancy pulled on the starter. Nothing. As we drifted along, we took on more and more water. The centerboard housing was leaking. The boys bailed furiously, grumbling

about the wacky things their dad thought was fun.

Clancy looked at me. I knew what was expected. Over the side I went, rope in hand, side-stroking my way back to the ramp. The boys were not impressed with their future stepmother.

We bought more Git-Rot, more epoxy, more filler, and more grout. By this time, we figured the boat was 60 percent Git-Rot and 40 percent mahogany. Clancy pottered around with the engine and got it running one more time. Fall arrived, school started, and the boat was put away for the season. The boat sat on its trailer for two years.

We married and moved out to a small town east of Grand Rapids, putting the boat in the backyard. Then the sailing bug bit us again, and we decided to fix the boat once more. This time, we decided to do a total restoration. We decided to remove all the old fiberglass from the hull so that every bit of dry rot would be in full view. The centerboard housing had to be fixed, and several other minor repairs had to be made. Clancy used the truck and the come-along to remove the centerboard from the housing.

## Everything stank

We decided that the best way to remove the fiberglass was by the heat-and-yank method. Clancy worked with a propane torch and locking pliers. I used a torch and a large paint scraper. For weeks we torched, yanked, and scraped. On the first day of our endeavor, we realized we were poisoning ourselves with the fumes. We tied wet rags around our faces. The process stank. Our clothes stank. Our hair stank. Our skin stank. And the stench wouldn't wash off. The boys refused to have anything to do with us when we were in our "boat mode."

After we had removed the majority of the fiberglass, we realized we had another problem. The glue that had been used wouldn't come off, and large portions of thatchy-looking cloth backing still adhered to the wood. We began to sand. Then we spent hours trying to get fiberglass fibers out of our fingers. We finally came to the conclusion that this boat was never going to be fair, and filled whatever

holes we could, slapped the paint on, and called it good. We were running out of summer and wanted an outing, so we planned our next sail carefully.

We chose a hot August Saturday. The wind felt like it had been blowing across a desert. We decided to take the boat up to Wabasis Lake, about 25 miles northeast of Grand Rapids, because it had a nice picnic area and swimming beach. We had to have something to bribe the kids with.

## More bailing

There was a lot of traffic on the lake that day. Fishing boats were trolling along, ski boats were zooming back and forth, and a few catamarans were zipping here and there. The lake was weedy, and the water was muddy, so we headed out to the middle where things

*'Clancy assured me this was normal,  
that the wood had to swell to stop the leakage.  
Heck, I was in love. I believed him.'*

wouldn't be so stirred up. The boat leaned against the wind and began to pick up speed. Wham! We were aground. The centerboard was protruding through the housing. Water poured in. Clancy pulled on the starter furiously. I yanked the sails down. The boys bailed and sputtered.

I got my rope and didn't wait to be told. Over the side I went, into three feet of water and a foot of muck. I am not a squeamish person, but lake muck is just not my thing. There were too many weeds to swim through. I envisioned thousands of leeches attaching their slimy selves to my body. I began the long slog back. Clancy sat in the boat, and I walked the boat back in. There was something wrong with this picture. I decided right then and there that I'd had enough of sailing that particular boat.

One warm fall day I looked out the dining room window and saw a stranger examining the wooden boat and trailer in our driveway. I went out into the yard, wondering what was up. The man looked up and apologized for intruding. He had

seen the boat from the road and was intrigued. He asked if the boat was for sale. I was incredulous. For sale? Someone would pay *money* for the boat?

## A miracle sale

Clancy and I had discussed how much it was going to cost to do further repairs and had decided that mahogany made very good firewood. And this man wanted to buy it. He explained that he had just taken the Power Squadron course, and that a friend of his was interested in wooden-boat restoration. He asked how much we wanted for the boat.


I seized the day. I told him that if he hitched the boat up right then, he could have it for \$200. The man was overjoyed, drew out his checkbook, and wrote out the check. He hitched the

trailer to his truck and off he went, never to be seen or heard from again.

I didn't say anything about what I'd done. No one noticed that the boat was gone. One day, three weeks later, Clancy came to me and asked: "Where's the boat?" I handed him

the check and told him the story. He laughed, took the check, and deposited it into our account.

One bright spring day we were out for a drive, just enjoying the weather, when what should we see but a little yellow O'Day 22 sitting in a driveway, looking quite forlorn. Clancy stopped the truck. We gazed out the window at her. A man came out and asked if we were interested, because his wife said he had to sell her.

And we started all over again. 

*Catherine and Clancy have been sailing together for 20 years. Over the course of time, they have sailed the 19-foot daysailer, an O'Day 22, an O'Day 27, and their current boat, Chanteuse, a 32-foot Kirié Elite Mark II. They cruise Lake*

*Michigan on vacations. Cathie lept ahead and made a boat purchase of her own this year, a Butterfly, which she intends to refurbish over the winter and race next season.*





*Good old vendor*

# Consignment stores a 'slice of heaven'

To a sailor who likes to tinker about on his boat, and who takes great pleasure in just being in a marine supply store, Marine Exchange seems like a slice of heaven. Located on Route 1 South, in Peabody, Mass., just a few miles north-northwest of Boston, Marine Exchange carries within its 6,000 square feet of interior just about

*If you're looking for good old parts for your good old boat, good old vendor Marine Exchange might be able to help*

any piece of equipment, new or used, that any sailor could ever hope to find. Shoppers discover a crew of employees who know their business and, most likely, a lot about their boats, what rigging they support, and what gear is probably aboard.

One staff member who learned that I own a 1974 Cape Dory Typhoon enthusiastically discussed ways to manipulate certain mechanisms, unique to Typhoons, that can be employed under the right conditions to squeeze out an extra knot or two. And I thought I knew my boat!

The business was born 30 years ago when two couples who loved sailing combined their meager resources to rent a small space in Danversport and open a consignment business. They went to yacht clubs, marinas, and marine suppliers looking for discarded or unused equipment to sell on consignment.

From the start, they were generous with credit and advice, relying on the innate integrity and camaraderie of the sailing community to sustain them. Word-of-mouth advertising kicked in. Their reputation grew as their market expanded. Soon they were the ones being sought out by the likes of O'Day Yachts,

Hood Yacht Yards, and other companies of national repute.

As the business grew, so did the strains associated with growth. The original partnership dissolved. Under the terms of the agreement, the store's inventory was separated into two piles, one party being responsible for dividing the goods, the other having first choice of which pile to claim. So with considerably less inventory, the Montague family stayed the course of the business. Arlene and her two sons, Kevin and John, were confident that success would be theirs if they redoubled their efforts and kept the needs of their customers as their primary focus. Despite the financial constraints caused by the dissolution, they leased space in a larger store in Danversport and even opened a second outlet in nearby Marblehead.

**by Bill Hammond**

This arrangement lasted only a few years. The family

and staff were being spread too thinly between the two stores. The next move was to consolidate into one store in the heart of one of New England's great sailing centers — Peabody, Mass.

The Montague family's sailing background is replete with good old boats. Their first boat — “excluding the Sunfish,” Arlene notes — was a wooden Dragon sloop, 30 feet long with a 6.5-foot beam. Next was a wooden Alden Traveller, 42 feet long including the bowsprit. This boat was bought at





an auction in Maine, its only crew being a family of squirrels living in the cabin. The total restoration of this boat provided excellent experience and insight for the family's future as marine suppliers and consultants. Ultimately, in consideration of time constraints in care and maintenance, the Montagues bought their first fiberglass boat, a Bill Tripp-designed Galaxy 32.

Marine Exchange staff members tend to be avid sailors. Many race on their own or customers' boats, in local waters or in larger regattas such as the Newport-to-Bermuda race. If a distant customer needs work done on a boat, Kevin, John, or another qualified staff member may go to the customer. On one occasion, John flew to Chicago to refit a Sea Tiger 34 moored in Lake Michigan. Not only did he construct the new rigging and spars to the customer's specifications, he also saw to their proper installation.

On another occasion, Kevin received a desperate call from a customer in

New Jersey, the owner of an older wooden boat. "I'm planning a sail down to the Caribbean," he said, "but my insurance company won't insure a boat with wooden masts on this kind of trip." Kevin was soon aboard to step newer, aluminum masts.

Other staff members are equally accomplished and are on a first-name basis with many of their customers. Steve Barry, master splicer, is an expert in his field. He oversees the splicing of any line sold by Marine Exchange. He takes particular pride in his rope-to-chain splices. New England Ropes, based in New Bedford, is the supplier of choice.

Dawn York, the store's purchaser, also happens to be the store's expert on Global Positioning Systems. Marine Exchange may carry

older gear, but it is well versed in all the new technologies and instruments. And Brian Muse, the company's electrical expert, has the ability to break down even complex riddles into components that ordinary sailors can understand.

Marine Exchange continues to enjoy steady growth. Each year it mails more than 15,000 catalogs to people throughout the U.S. and Canada. Customers can call toll free, send an email message, or visit the company on its Internet site. During the noon hour on any day, the store is busy, with many customers and browsers sporting business attire. "Sure beats a

corporate lunch," one such customer told me with a wink.

Its inventories and services have grown considerably. Twenty-five percent of the in-store inventory has been previously used. Factory closeout sales and inventory overstocks on selected gear are common. As of this writing, there is a closeout sale on such Edson products as destroyer wheels, tri-spoke wheels, davits, and bilge pumps, many at a 50 percent or better discount.

Winch exchanges are a special service of Marine Exchange. The store sells new Lewmar self-tailing winches, and by special order, Harken winches. They will accept your old winch as partial payment according to its condition. Marine Exchange's formula is: "Your old winches + Cash (not as much as you think) = New self-tailing winches for your boat." The older winches are offered for sale at considerable savings.

Marine Exchange can make up new rigging or completely re-rig a boat for



*At left above, founder Arlene Montague with a rope and splice custom-made for a Boston tugboat. At right, master splicer Steve Barry practices his art.*



customers. The store also sells used marine engines, both diesel and gas, in addition to anchors, boom vang, blocks, electronics, furling systems, navigation lights, ropes, spinnaker poles, paints, heads, shackles and deck hardware, rigging hardware, genoa systems, EPIRBs, and a trove of other essential marine products.

In spite of rapid growth, the company's founding spirit has stayed with Marine Exchange. "I come here two or three times a week," one customer explained to me, "either going to or from work or during lunch hour. I just like being here. The people are wonderful, and I always learn something. Sure I buy a lot, but the prices are right and the quality excellent. Here you get what you pay for and a whole lot more."

"If that man doesn't find what he wants," Kevin added, a moment later, "we'll refer him to another outlet, even though he's one of our most loyal customers. What goes around comes around. Other stores have referred customers to us, and we'll do the same for them. Maybe the sailing industry is unique in this respect, though I doubt it. It's really just common sense."

Arlene puts it this way: "We're all sailors here. We love our boats, and we love our customers. It's that partnership that makes our business work."

*Bill Hammond, has been in the publishing industry for 25 years as a salesman, editor, publisher, and investment banker. He is currently a publishing consultant and chairs the business advisory board of Good Old Boat magazine. He and his family sail a 1974 Cape Dory Typhoon on Minnesota's Lake Minnetonka.*



Send us word of stores we've overlooked which also specialize in the sale of used marine gear, whether on consignment or otherwise. We'll share these additional gems through the *Good Old Boat* newsletter we print for subscribers on alternate months. If you don't subscribe, what are you waiting for?



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## The consignment solution

# What to do with used boat gear; where to find “good old stuff”

### Bingham & Associates

Ray Bingham says being the match-maker for sailors and used gear is “a lifestyle.” He spent a lot of time prowling the shelves at a friend’s marine consignment shop in Virginia. Later, when he and Donna moved to Pensacola, Fla., they opened their own shop. “It’s a way of giving back to the cruising community,” he says.

The name Bingham & Associates may be a bit misleading, since the business is a mom-and-pop shop, but “associates” are the customers who buy and sell there. Since opening day in October 1997, the shop has

been in the black, Ray says. They told fellow boaters they were opening a consignment shop and needed their support. “In the true spirit of boating,” Ray notes, “folks pointed and said, ‘There’s the dock box. Help yourself.’” He adds that he and Donna are “the sellers’ friends and the buyers’ friends, because otherwise this stuff sits in dock boxes.”

Bingham & Associates takes all marine equipment on consignment. It fills two buildings, and large items such as masts, dinghies, and small sailboats (primarily trailer sailers up to 30 feet) overflow into a fenced compound outside. Most items come from boaters, with the remainder coming from stores that have closed out inventories. The consignment fee is usually 30 percent of the selling price (10 percent for boats), and the seller can name either the final price or what he wants to get out of the item. In either case, Ray and Donna are there to offer advice on market demand and to help suggest a fair price. This is normally 50 percent of the original cost, depending on condition.

“We’ve got the odd and the unusual,” Ray says, “antiques, books, recent charts, and sails.” The store is also a Seven Seas Cruising Association

cruising station, offering special help for cruisers who need a lift, advice, or directions. And it offers an equipment loan service for those things sailors need occasionally — swaging tools or bosun’s chairs for example. Ray echoes the sentiment expressed by those at Marine Exchange when he says that if Bingham & Associates doesn’t have it, he’ll suggest alternative shops that might. In fact, he welcomes new shops in his area. From the looks of it, the community of consignment retailers seems to be as

friendly as the community of sailors. That makes marine consignment work a nice business to be in.

The best thing about the business would have to be the customers,” Ray says. “Boat folks are great people. We have made a lot of new friends. We get some great discussions going on nautical trivia, and at 4:30 p.m. we open the ‘spirit locker.’ And having someone come back with ‘That worked great’ is all we need.”

Ray pauses for a moment and continues, “Of course, we would trade it all for a good cruising boat or \$50,000 cash.”

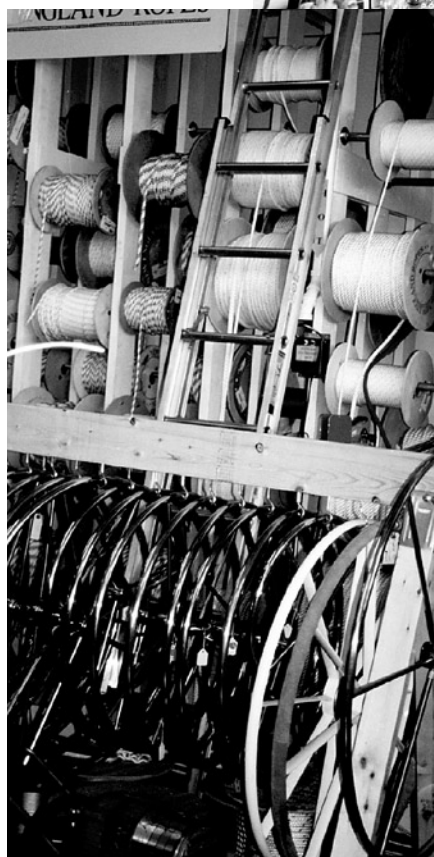


*If this looks like your kind of place, it is. Stores offering nautical gear on consignment and as used equipment are popping up all over.*

### Popeye’s Marine Exchange

Dean Sevon bought a struggling marine exchange shop in the Seattle, Wash., area in June 1997 and turned it into Popeye’s Marine Exchange, a flourishing consignment shop.

“I began immediately bringing in maintenance products, due to the close proximity of the only haulout yard in town,” Dean says. “Consignment gear kept coming in, and I had no intention of getting out of that market. I’d like to say that we specialize in hard-to-find items, but we sell everything from used anchors to VHF radios. I try to avoid





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other types of electronics because of the rapid changes in models and technology, and there is no way I can guarantee them."

Popeye's has grown to include a full line of marine equipment, Dean notes, excluding clothing. Books are popular sellers, especially how-to books. He says the store is getting more and more new sailing hardware and gear, winches, blocks, and deck hardware. And they stock electric windlasses and a bow-thruster or two. Popeye's even has a few marine gift items — one thing Dean swore he would never handle.

Popeye's operates strictly on consignment, Dean notes. "The owner sets his own price — sometimes I help; we try to keep it low, hoping that someone else can put the item to a good use. My theory is that good-working, well-made equipment should be in use and not left sitting on a shelf or in a garage."

It should be noted that in all cases, a consignment or used-equipment store should be browsed early and often. Inventory is fluid and fleeting — here today and gone tomorrow. Persistent shoppers find what they're looking for; other shoppers are simply lucky.

Like the Bingham's, Dean says Popeye's offers rentals and loans of items that are difficult to justify purchasing for use once or twice. "These include a moisture meter, rigging tension gauges, bearing pullers, hand swaging tools, and the like," Dean says. "I don't know if it will ever pay for the investment, but the good will sure seems to help!"

The best part? "Other than being around people who have the same love for boating and the water that I have and helping them make their boating experience more enjoyable," Dean says, "I get to lock up the store and walk about a hundred yards to the marina and my home that I am restoring, my Cal 39, *Mistral!*"



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Features: Renaming your boat; The Black Box Theory; Love at first "site;" Ode to summertime

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# The Folkboat

## Little beauty with a big heart

**T**ORD SUNDEN'S NORDIC FOLKBOAT is a sailing legend. She was one of the few items of exceptional merit to emerge from the horror years of 1939-1945 when much of the world was experiencing the convulsions of war.

Sunden's home country was Sweden, which had declared neutrality in World War II. In the early 1940s the Swedes organized an international competition for a new common Scandinavian class of sailboats. The organizers were looking for a cheap, fast, seaworthy, one-design racing boat that could also

*by John Vigor*

be used for family cruising during weekends and holidays.

Nearly 60 designs were entered for the competition, but none was accepted outright, and Tord Sunden, then an amateur yacht designer, was chosen by the organizing committee to pull together the most promising aspects of the top four designs submitted.

The result was the nautical equivalent of the German Volkswagen, the

people's car. She was named the people's boat, the Folkboat. But little did the organizers of the competition imagine how successful she would be. Eighty orders poured in from all over Sweden before the final plans were completed.

Today, 60 or so years after the first Nordic Folkboat was launched, there are thousands of Folkboats afloat: wooden ones and fiberglass ones. The majority are in Europe, with Sweden leading the pack, followed by Denmark, Germany, Finland, and the





# *The equivalent of the German Volkswagen, the Swedish Folkboat was designed for the people*

United Kingdom. There are about 120 in San Francisco, where the San Francisco Bay Folkboat Association administers the fleet, and where the Folkboat's wonderful heavy-weather performance is much admired.

Besides the Nordic Folkboats, all of which comply with the class's one-design rules, there are thousands of near-Folkboats, close look-alikes such as the Contessa 26 (*featured in the September 1999 issue*), most of which attempt to increase her interior living space with more beam, a longer waterline, and a larger coachroof, while retaining her fabled seakeeping qualities and her classical good looks.

In 1966 Tord Sunden introduced a variant of the classic Nordic Folkboat that lacked the traditional lapstrake planking. It was carvel-planked and featured a shallower, self-bailing cockpit. She also was more luxurious below. She was known as the International Folkboat, but the Scandinavians regarded that description as misleading, and referred to her only as the "IF Boat." The term International Folkboat survived in the United States, however, and the International Folkboat Association of San Francisco Bay held sway over their racing and cruising activities there.

## **Basic design**

The original design concept had a long, overhanging stern, like a 30-Square-Meter's. But that was later chopped off, probably because a long overhang adds considerably to building costs. The result was a much more seaworthy transom stern. The transom, however, was given a handsome rake so it would better match the moderate overhang of the bow, and thus the after end of the full keel also was clipped away to line up with it. That, together with the generous cutaway up forward, greatly reduced the wetted area of the keel without affecting its efficiency. Early critics thought the raked rudder would make steering difficult under some

circumstances, but experience proved them wrong.

The first boats were, of course, built of wood. Their hulls were clinker-built, or of lapstrake construction, with each strake overlapping the upper edge of its neighbor below. This makes the boat strong and light. It also adds greatly to her looks by repeating and emphasizing the sweet lines of her sheer.

The first fiberglass Nordic Folkboats were legalized in 1977 and were exact reproductions of the wooden boat, including the overlapping strakes. They



raced on equal terms with wooden boats and were forced by the strict one-design rules to use wooden masts.

The International Folkboats were regarded as a separate class, although their overall measurements and design were basically the same. They, too, were

produced in fiberglass, but with smooth topsides and lighter aluminum masts.

Between 1967 and 1984, when production ceased, Mariefholms Bruk, of Sweden, launched more than 3,400 International Folkboats, hitting an annual record high of 552 boats in 1975. After that, there was a steep decline in demand, although almost 1,000 were sold in the next nine years.

Production of fiberglass Nordic boats also continued apace, and a Danish boatbuilder, Folkebådcentralen A/S, of Kerteminde, has now built more than 900 Nordic Folkboats that are solid GRP replicas of the original wooden-hulled design, lapped strakes and all.

The Folkboat has a rounded underbody with fairly slack bilges, a combination that makes for slight initial tenderness but more than compensates for it with comfort at sea. After that initial tilt, she stiffens up considerably, so much so that she is able to race in winds strong enough to keep other classes in port. The topsides and the cabintop are low, offering little resistance to the wind and making no concessions to creature comfort below. The foredeck is uncluttered — there are only a hatch and a mooring cleat to stub your toes on — and convenient to work on.

The cockpit is a compromise between the needs of racers and cruisers — barely big enough for a racing crew, barely small enough for serious deepsea cruising. Some Folkboats have a deep cockpit that is more sheltered and more comfortable, but it drains into the bilge. Serious deepsea sailors will want the other version, a self-bailing cockpit that will not endanger the ship if it fills with water. The rudder hangs outboard of the transom, a simple, strong and easily accessible arrangement. The tiller sweeps across the after deck, but doesn't interfere much with the crew in the cockpit.

The engine is a matter of choice and depends on whether your boat is Nordic or International. Some boats have a

well in the cockpit for an outboard motor of between 5 hp and 8 hp. Others mount an outboard on the transom. Still others prefer an inboard auxiliary, usually a single-cylinder diesel. If you're planning an ocean crossing in a Folkboat, it would make a lot of sense to choose an outboard, and to keep it on the transom. If you find it interferes with your self-steering gear, you may have to house it in a well, in which case you can either leave it down, causing a little drag in the water, or remove it and store it below while you're on passage. The inboard engine makes more sense for weekenders or coastal cruisers who won't miss the valuable stowage space as much as the bluewater cruisers will.

### Accommodations

It doesn't take long to describe the Folkboat's accommodations, although they, too, can vary according to whether she's Nordic or IF, and from builder to builder. On the IF boats, there's usually teak everywhere, and vinyl headliners. The hull is lined with padded vinyl, too, in place of the wooden ceiling. The V-berth has two berths more than 6 feet long, and the main cabin has two settee berths which are even longer. Some boats have an enclosed head compartment, and others are supplied with a portable head. There's a rudimentary



galley, and there may even be a small chart table. There's usually a hanging locker somewhere, and a few lockers and shelves scattered around the place, though not nearly enough for a long voyage. Nowhere is there sufficient room to swing a cat, and nowhere is the headroom more than 4 feet 8 inches.

The interior is bright and airy, though, especially with the companionway sliding hatch open, and seems very welcoming and protected in contrast to the exposed conditions of the cockpit.

### The rig

The Nordic Folkboat is a Bermudian sloop with a wooden mast and a conspicuous fractional rig — the forestay joins the mast about two-thirds of the way up from the deck. This makes for a small working jib and a large mainsail. It is, perhaps, not as efficient as a rig with a larger jib, seeing that the jib does most of the work when going to windward, but it certainly makes for happier cockpit crews when the load on the jib sheets is small.

Folkboats not subject to the one-design racing rules usually have modern masthead rigs and aluminum spars. Many of the boats in the United States are rigged that way. If you're more interested in crossing oceans

***Frank Costello's 1972 International Folkboat, Espresso, sails in California waters near Ferndale. Frank writes, "I used to sail these boats 25 years ago on San Francisco Bay but never could afford one. Finally, my salary caught up with depreciation, and I purchased one."***







than in racing around the buoys, the aluminum masthead rig might be preferable because it makes provision for double lower shrouds in place of the single after lower shroud that is standard on wooden masts.

The mast is stepped on deck but appears to be well supported by a massive deck beam and seems not to compress the cabintop as so many others do. Presumably, after more than 50 years of racing and ocean cruising, the builders of Folkboats have got it right.

Right from the beginning, Nordic Folkboat owners agreed to race without spinnakers, to make thing easier for family sailors and shorthanded crews. But those gung-ho Finns couldn't stand it. Even though they couldn't compete internationally with spinnakers, they raced with them among themselves.

"We simply think that sailing with a spinnaker is more fun, and that it makes sailing more colorful," explained a member of the Finnish Folkboat Association.

## Performance

Any class that is still going strong after more than 50 years obviously has something good going for it. The Folkboat has several excellent features, not the least of which is her performance. For a full-keel boat, she is surprisingly fast and close-winded. Her PHRF rating is 228 for boats with outboard engines and 234 for boats with inboards.

On top of that, she's easy to handle. A picture of IF Boat 377 (*Magnificent*

*Obsession*) published in *Latitude 38* magazine in June, 1998, shows her rail-down just outside San Francisco's Golden Gate in 25 knots and more. She has one reef in the mainsail and full working jib — and her tiller is being held dead fore-and-aft. No weather helm there.

The Folkboat is indeed revered for her ability to carry sail in strong winds, and no doubt her extra-heavy keel is largely responsible for this. The ballast ratio is an extraordinary 54 percent, which means the iron keel alone weighs more than all the rest of the boat. Little wonder that Folkboats were, and still

are, so popular in the blustery San Francisco Bay area.

Her performance as a seaboat is legendary, of course. It wasn't just a coincidence that two of the six boats in the first Singlehanded Transatlantic Race, in 1960, were Folkboats. Valentine Howells raced in the conventional Folkboat *Eira*, while Colonel H. G. ("Blondie") Hasler sailed a much-modified Folkboat, the famous *Jester*, which had a standard hull but a flush deck with a central control point and a Chinese lug rig.

The long keel gives the Folkboat good directional stability, and this, together with her zesty performance and her easy motion, makes her a sensible choice for a singlehanded voyager or a young couple — and we say a *young* couple only because young people are more likely to be forgiving about the Folkboat's biggest disadvantage, her lack of interior space.

## Known weaknesses

After nearly 60 years of production and real-life testing, there are no weaknesses left in the Folkboat that are not patently obvious, such as the cramped accommodation quarters. This is a very open, honest boat.

If you're contemplating buying one for a long voyage, you'll have to look for the wear and tear applicable to boats in general. Inspect the hull for the dreaded boat pox, if she's GRP, and be careful to locate any areas of rot if



*The table in Espresso is interchangeable, serving as a cockpit and a dinette table.*



she's wooden. Dance on those fiberglass decks and tap away with your screw-driver handle.

As always, even if you think you know it all, it's a wise move to get a second opinion. Let a qualified surveyor check her out. It's your life that's at stake.

### Owner's opinions

This is another boat people fall in love with so passionately that it's difficult to get an owner to say a word against a Folkboat. Her classic beauty alone is enough to still all criticism.

Yet the physical exploits of her devotees give us valuable insights into her abilities when the sole arbiter is the sea itself. Blondie Hasler's wooden *Jester* is both a good and a bad example of this. Good, because she crossed the Atlantic 14 times. Bad, because she was eventually lost at sea without trace. But she was very old and she had suffered more punishment than a dozen normal boats.

From the waterline down, *Jester* was a normal Folkboat, but the rest of her had been greatly modified by her owner, who was much given to invention and experimentation. She was a very early model, and in fact sailed from 1952 to 1959 with Hasler's "lapwing" rig before he threw that out and installed a junk rig for the 1960 Observer Singlehanded Transatlantic Race.

Hasler came in second in that race, a remarkable achievement. He was only eight days behind Francis Chichester's *Gipsy Moth III*, a much bigger and faster 39-foot sloop that crossed the finish line 40 days after the start. *Jester* was driven hard, and was reduced in

one gale to what Hasler described as "four reefs down."

The other Folkboat in that race, *Eira*, came in fourth out of six in 63 days. *Eira* was knocked on her beam ends, and Valentine Howells put into Bermuda to replace a chronometer he had lost and to repair some damage.

In 1963, Adrian Hayter circumnavigated the world alone, sailing halfway — from England to New Zealand — in *Sheila II*, a 32-footer. But he completed the New Zealand-to-England leg in a Folkboat called *Valkyr*. Mike Bale also sailed from England to New Zealand in a Folkboat called *Jellicle*, and had a crew for part of the way. In 1975, a 55-year-old Australian grandmother named Ann Gash sailed around the world single-handed in a Folkboat called *Ilimo*. She chose the east-to-west route via the Panama Canal, but had the boat shipped for part of the way, from Ghana to England.

More recently, a British Folkboat called *Storm Petrel* was completing an unusual circumnavigation in 1998 with

solo sailor Tony Curphey aboard. It was unusual because Tony's wife, Suzanne, was also making a singlehanded circumnavigation aboard her own boat, a 30-foot Seadog ketch called *Glory*. They had originally set out separately, not knowing each other, but they met in New Zealand and got married in the Solomon Islands.

Tony's Folkboat often beat Suzanne's Seadog into port on subsequent legs of their tandem voyage and regularly clocked up 130 miles a day in the trade winds. Their plan, once they had completed their solo circumnavigations, was to sell their boats, buy a bigger one, and carry on cruising — but together this time.

There are undoubtedly many other Folkboats that have sailed around the world and around Cape Horn, single-handed and crewed, whose names have not been recorded in the annals of smallboat sailing. There was a time, 50 years ago, when such voyages were rare, and records were kept of individual exploits. Now that they are more commonplace, nobody seems to be



*Frank writes, "The only complaint I ever heard was that they just didn't hold enough beer for a long voyage. I know that might sound a little funny, but once you have sailed on one, it becomes the measure of all other boats you may sail. I bet you won't find many that handle as well."*



keeping the tally, which is a great pity. Perhaps the Internet will one day find a place for the Roll of Honor of smallboat circumnavigations; if it does, the Folkboat will surely feature prominently.

## Conclusion


According to Marek Janiec, a member of the Swedish International Folkboat (IF) Association's technical committee, there are about 2,000 IFs in Sweden, and the market price there for a boat in excellent condition is about 60,000 Swedish kroner, or \$7,400 U.S. There are about 4,000 IF Boats scattered

throughout the globe, which makes it the biggest deep-keel racing class in the world.

"In Denmark, the price is 20 percent to 30 percent higher, and down in Europe, still 20 percent more."

So — would you score a financial coup by going to Sweden, buying a cheap Folkboat, and sailing her home? Probably not, although it's a very attractive plan, in any case. Second-hand International Folkboats sell on the West Coast of the United States for between \$10,000 and \$14,000, so the savings are not substantial in actual

dollar terms if you factor in travel and accommodation charges. A brand-new fiberglass Nordic Folkboat costs about \$40,000 in Denmark.

Wherever you buy one, a Folkboat represents good value for a boat capable of carrying one or two people around the world, albeit in cramped surroundings. Besides that, if you have any finer feelings at all, you'll have to agree that she's one of the most beautiful boats ever made to go to sea. Just looking at her riding to anchor in her own reflection in a tropical lagoon will make your heart leap with delight. 



## In Short

### Folkboat

**Designer:** Tord Sunden (1942)

**LOA:** 25 feet 1 inch

**LWL:** 19 feet 8 inches

**Beam:** 7 feet 2 inches

**Draft:** 3 feet 11 inches

**Displacement:** 4,322 pounds

**Sail area:** 258 square feet

**Ballast:** Cast iron, 2,315 pounds

**Spars:** Wood/aluminum

**Auxiliary:** Outboard or inboard, gasoline or diesel

**Designed as:** One-design family racer/cruiser

**Note:** These dimensions were supplied by Folkebadcentralen A/S, in Kerteminde, Denmark, builders of the fiberglass Nordic Folkboat.

## In Comparison

♦ **Safety-at-sea factor:** 8 (Rated out of 10, with 10 being the safest.)

♦ **Speed rating:** Fast for her size and displacement.

♦ **Ocean comfort level:** One or two adults in fairly cramped conditions. ("If you want to stand up," said the famous British designer Uffa Fox, "go on deck.")



*John Vigor is a freelance journalist based in Oak Harbor, Wash. He has raced, cruised, and written about boats for more than 30 years. He's the author of two new books, The Seaworthy Offshore Sailboat: A Guide to Essential Features, Gear and Handling (International Marine), and Twenty Small Sailboats to Take You Anywhere (Paradise Cay), which is the source of this and other reviews in this series. He also wrote Danger, Dolphins and Ginger Beer (Simon and Schuster), a sailing adventure novel for 8- to 12-year-olds; The Practical Mariner's Book of Knowledge (International Marine); and The Sailors' Assistant (International Marine).*

**Editor's note:** We're looking for photos of the **Pacific Seacraft 25** (scheduled for the March issue), the **Pearson Triton** (which will run in May), and the **Southern Cross 31** (which will be reviewed in the July issue). PS 25, Triton, and Southern Cross 31 owners, let us know if you've got photos of interiors, your boats at the dock, and especially of your boats under sail; old brochures and manuals; line drawings; owners' comments; or resources (organizations or vendors) which might be helpful to other sailors with your boats. We will return all materials and savor the comments. We look forward to hearing from you!



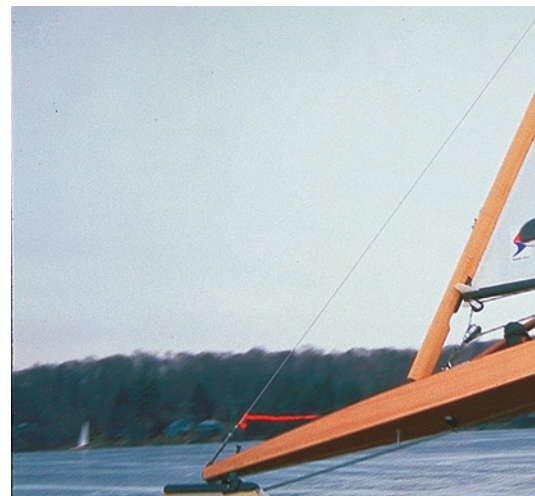


# Wintertime . . .

. . . and the Sailing is . . . cold, hard,



*The Detroit News class, shown above, at “flies” across the frozen water at 40-60 mph. World champ Ron Sherry was clocked at 94 mph in the 1999 Detroit News World and North American Championships in Montreal last February. The Skeeter, at 18 feet long and 18 inches wide, is smaller and lighter. Larger and with more sail area, these boats can reach 85 mph and upward from there. Should*







*and fast*

*right, and below, typically  
mph, although current world  
ph. These photos are from the  
merican Championships near  
left, is an even hotter boat.  
boats tend to move at speeds of  
be enough to melt the ice ...*



*photos by Catherine E. Firmbach*





# It's about time

I received a radio license in the mail some time ago, and it gave the renewal date as "09." It took me by surprise, as I realized that this meant the year 2009. As the millennium approaches, computer programmers are scurrying to modify software for the year "00," and programs for business and government computers are being examined for potential disasters. This all results from mankind's having arbitrarily divided life into discrete intervals of time — so let's take a look at how these segments evolved.

When we check the time while we're afloat, we normally just look at a watch or a marine chronometer in the cabin — that's all there is to it. If we need more accuracy for resetting clocks and watches, our GPS provides a convenient reference to "true" time, or we can tune in to the radio signals of the National Institute of Science and Technology (NIST) in Fort Collins, Colo. The time signals they broadcast originate in their atomic clock, which deviates less than one second in a million years.

Of course, there are those time/speed/distance calculations that have to be done occasionally. And for the offshore sailor, time correct to the second is essential for celestial navigation. For most of us, however, our only concern when it comes to time is resetting our clocks, watches, tape recorders, and answering machines twice a year between Standard Time and Daylight Saving Time. As for determining the date, we just look at our calendar or wristwatch without a thought.

The more we examine the subject, however, the more we realize that the time of day and the dates of history are not the stable mileposts we once thought they were, but rather

*As Einstein pointed out, it's relative  
— but even for lesser mortals  
who sail good old boats,  
it's relatively complicated*

mankind's sometimes inept way of linking a written calendar with the movement of heavenly bodies.

Three basic guideposts have been used by diverse cultures throughout the ages to determine time and dates:

- *The day*: one rotation of the earth on its axis.
- *The week*: loosely, one fourth of a lunar month.
- *The lunar month*: the time it takes the moon to revolve around the earth.
- *The year*: the time it takes for the earth to orbit the sun.

## Oldest observatory

Scientists theorize that the monuments at Stonehenge, England, constructed about 1500 B.C., may be the oldest

solar  
observatory  
surviving  
today — one  
that was  
based on

*story and photos  
by Donald Launer*

measuring special events in the passage of the sun.

What is the problem, then, with basing our time and dates on the heavenly bodies? Well, for one thing, the exact time and the dates we learned in history class are not necessarily what they seem. If you look at your calendar, George Washington was born on February 22, 1732. But if you were to ask George when he was born (no mean feat), he would say, "February 11, 1731," — a different day and a different year. How come?

The big problem in measuring time began when man first started to record

events based on the lunar month. The early Roman high priests regulated the calendar, but they did their job poorly. By 46 B.C., those lunar calendars had become so hopelessly confused that Julius Caesar ordered a new calendar system — the Julian Calendar, named after him — to be inaugurated. The Egyptian calendar, devised by Egyptian astronomer Sosigenes, was much more accurate than the Roman calendar, and this is the system Caesar adopted. It seems that Caesar found more than love in Egypt.

The new Julian calendar specified that there would be 12 months in the year (roughly based on the lunar cycle), alternating between 30 and 31 days each, with the exception of February, which would have 29, except on every fourth year, when it would have 30. This "leap-year" day was added whenever a year was divisible by four, to make up for the fact that it took the earth 365 1/4 days to rotate about the sun.

## Robbed a day

But when Julius Caesar inaugurated the new calendar, things didn't quite match up with the heavens, so during that first year they had 15 months. Later, Emperor Augustus felt slighted because the month bearing his name had only 30 days, so he robbed a day from February to make August as "big" a month as July, which was named for Julius Caesar. Already, you can see that we're in trouble.

But once all the confusion was straightened out, it seemed that





everything was progressing nicely. All was right with the world. Or was it? Actually, 365 1/4 days was 11 minutes and 14 seconds short of the earth's orbiting time. This didn't seem to be a big deal — but minutes and seconds add up year after year, and some 1,600 years later, in 1580, the spring equinox on the calendar was 10 days before the actual time when the sun crossed the equator. This was unacceptable to the Vatican, since Easter's date is based on this spring equinox as well as the lunar phase. Again, things were starting to become messy.

In 1582, Pope Gregory XIII assembled a commission, which included the best astronomers of the age, to solve the problem. As a result of that commission, the Gregorian calendar, named for the Pope, was adopted. The calendar for that first year was rather unusual. The day after October 4 was October 15. This was a neat way of skipping 10 days, and bringing the Christian world's calendar in step with the solar system once again. To make sure this error didn't happen in the future, the calendar was once more

modified with the rule that every 400 years, the extra day in February would be eliminated on a leap year. Wow, they finally had it all straightened out.

### Queen's orders

But even with this modification, the Gregorian calendar is not perfect. It has an error of one day every 3,300 years — and we haven't reckoned with religion and politics. The new calendar originated

*'The time of day and the dates  
of history are not the stable mileposts  
we once thought they were'*

in Italy, a Catholic nation, and was quickly adopted by other Catholic nations. But England was a Protestant nation in the middle of a religious reformation. They wouldn't be told by a Catholic nation what calendar they should use. So, by order of Queen Elizabeth I, England remained on the old calendar. Not a big deal? Wrong!

As time passed, the disparities between the two calendars grew. If a Canadian trapper left Quebec on a one-day trip to New York on January 15,

1690, after he paddled his canoe across the St. Lawrence River and landed on the New York shore, the date would be January 5, 1689. Seemingly, he would arrive in New York more than a year before he had left Canada. Talk about a time warp.

How could this happen? Well, French-speaking Quebec used the calendar of Pope Gregory. New York, on the other hand, was using the old Julian calendar. In the Julian calendar, New Year's Day is March 25, so that January, February, and most of March were part of the previous year. You can see the fix they were in.

Finally, by the early 1700s, most countries changed over to the Gregorian calendar — but England was still a holdout. Since international trade was beginning to proliferate, and the confusion was mounting, something had to be done. At last, in 1752, England and her colonies decided to go with the "New Style" calendar (they resisted calling it the Gregorian) that put them in step with most other nations. That year, in England, September 2 was followed





by September 14, and New Year's Day became January 1.

For historians, the use of different calendars during that period presents a dilemma when relating the dates of historical events. An event described in English history does not necessarily have the same date as that event described in the history of another nation.

### Stumbling block

As we've seen, determining the date has always been a problem, but it wasn't only the calendar that caused problems. The measurement of time during each day has been a great stumbling block, too, especially for mariners.

Less than 250 years ago, ocean voyages were chancy at best because captains couldn't determine their longitude accurately. To calculate longitude (unless you're prepared to spend hours using the Lunar Distance method) you need to know the exact time of day, and no clocks of that period could keep accurate time aboard a ship. To reach their destinations when traveling east or west, skippers would "sail a latitude," that is, go to the latitude of

their destination and keep sailing on that latitude until they ran into their destination (sometimes literally).

Pirates and warring nations, on the other hand, were delighted with this arrangement. They would hang around the latitude of a popular destination, awaiting some unfortunate ship that was sailing the latitude to that port. Some poorly educated skippers couldn't do basic arithmetic and were even unable to do a simple noon sun-sight with a sextant. For them, even latitude was a mystery. There's the story of an unschooled New England sea captain who would regularly make trips to Bermuda. When asked how he did it without a sextant, he replied: "Well, I just head south 'till the butter melts, then turn east." The story is probably apocryphal; things were definitely not that simple for old-time sea captains.

### Too primitive

Ships throughout history have kept track of time while at sea but by a method too primitive for determining longitude. During a voyage, time was measured with an hourglass. Actually, it was a half-hour glass. The sailor on watch would ring a bell whenever the sand ran out and the half-hour glass was turned over. The two

bells, which indicated the top of the hour, were grouped together to eliminate confusion. The sailors' four-hour watch was thus broken up into "eight glasses," and at the end of their watch, it was eight bells. Then the new watch took over, and the process was repeated. The same ship's bell measurement of time is still being used aboard vessels today, but the hourglass has been relegated to the mantelpiece at home.

The hourglass was a very important fixture aboard ships of that period. It literally governed the sailors' lives, so much so that many 18th-century pirates, including the notorious Blackbeard, used it as a symbol on their flags, in a defiant gesture to show that they knew their time was running out. Today, about the only time we see an hourglass is on our computer screens when we're waiting for the machine to perform a complicated function.

In the 1700s, vessels were beginning to travel the world frequently, and the inability to determine longitude was a problem that had to be solved. Finally, England's Parliament offered the unprecedented sum of 20,000 pounds (about \$12 million in today's buying-power) to the person who could develop an accurate method of determining longitude at sea.



## Lunar distance

At that time, there were clocks of great accuracy, but they all depended on a pendulum, which was unusable aboard a pitching, rolling ship. In addition, temperature, humidity, and changes in atmospheric pressure played havoc with the mechanisms. Because clocks seemed impractical, it was assumed that longitude would eventually be determined by observing the movements of celestial bodies. In fact, a method was finally devised, the Lunar Distance method, which measures the angle between the moon and certain stars. This method could determine longitude — but only if you successfully completed more than four hours of complex spherical-trigonometrical calculations. This was not the *practical* answer to the problem.

A self-educated carpenter proceeded on a different tack. Englishman John Harrison taught himself clock making and set out to build an accurate timepiece made with wooden gears. After 40 years of work, and many political and mechanical frustrations, he developed an accurate shipboard chronometer that used a spring and balance wheel instead of a pendulum. With Harrison's marine chronometer, longitude could finally be determined by ships at sea, and after many years King George III awarded him the prize. One of his wood-gear clocks, built in 1722, is still operating and keeping good time, but Harrison's marine chronometer, although incredibly accurate for its time, couldn't hold a candle to today's quartz-oscillator watches costing less than \$10.

## Several definitions

In specifying time, a day is broken up into 24 hours (which originated with the ancient Egyptians). This, in turn, is broken up to 60 minutes in the hour, and 60 seconds in the minute (a development of the Babylonian culture).

For measuring periods of less than a second, we (thankfully) use the metric system, with prefixes of milli, micro, and nano. This is all fine, but just determining how long a day is gets complicated. Though we innocently assume that a day is the time it takes the earth to revolve once on its axis, there are several other definitions,

*‘Well, I just head south  
‘till the butter melts,  
then turn east’*

which make a day longer or shorter depending on which celestial body is used as a reference point.

The solar day is measured by the meridian passage of the sun — “high noon” — but our orbit about the sun is elliptical, so the speed of the earth changes in its orbit. Thus, the length of the solar day changes constantly throughout the year. This is inconsistent with evenly running clocks so, to solve this problem, the length of a solar day is averaged over the period of a year, and the result is the mean solar day. The difference between the solar day and the mean solar day, is “the equation of time.”

We’ve all seen on globes in school a big figure-eight (usually overlaid on an empty expanse of the Pacific Ocean) called the *analemma*, a diagram of the sun’s daily declination north and south of the equator, from which the equation

of time may be deduced. Our backyard sundial measures the *true solar day*, which is why it is sometimes a quarter-hour or more off from our clock time, the *mean solar day*. It is accurately measuring sun time, not the averaged-out time our watches are giving us. By using the analemma graph on our globe to

establish the fudge-factor, we can use our sundial to determine the time as we experience it.

## Sidereal day

In addition to the mean solar day, we also measure a day in several other ways. There is the sidereal day, which measures the earth’s rotation relative to the stars, rather than its rotation relative to the sun. The sidereal day is about four minutes shorter than the mean solar day. The sidereal day is of vital importance to astronomers and of some interest in celestial navigation. Had enough? There’s more. To name a few other ways of measuring the time of day, we have: Greenwich Mean Time (GMT), Zone Time (ZT), Local Mean Time (LMT), Ephemeris Time (ET), Dynamical Time (DT), Coordinated Universal Time (which is abbreviated with the mixed-up letters UTC), International Atomic Time (TAI), Pulsar Time, Radiometric Time, and, of course, Daylight Saving Time (DST), among others.

Greenwich Mean Time (now almost universally replaced by Coordinated



Universal Time) is based on the prime meridian (0 degrees longitude), which passes through Greenwich, England. We use this prime meridian to establish longitude and the 24 time zones around the world. Unfortunately, in the late 1800s there were several different prime meridians. Each country wanted the prime meridian to go through its own territory. England wanted it at Greenwich, France wanted it at Paris, and other nations had their own agendas. Again, time and politics clashed.

In 1884, a conference of 26 nations assembled in Washington (presumably we were a neutral nation) to determine where the prime meridian should be, but the assembly broke up without unanimously agreeing. Most, but not all, of the countries in the world now use Greenwich as the prime meridian, but there has never been any worldwide agreement on the subject.

### Millennium greeters

The Millennium First Sail Organization (MFSO) is sponsoring an around-the-world rally to celebrate the new millennium. The sailors plan to be on the International Date Line in the south Pacific Ocean (180 degrees from the Greenwich meridian) when the year 2000 arrives and thus become the first people in the world to greet the new millennium.

Of course, their enthusiasm doesn't take into account that this new millennium is measured by a calendar that has been modified many times by political and religious factions; that New Year's Day is arbitrarily January 1; that it's only the year 2000 because we have 10 fingers on our hands, and count things by 10s; and that it's only a new millennium for those cultures that use the Gregorian calendar; and that scholars now believe Christ was born several years earlier than we previously thought, so that the millennium actually occurred several years ago. This is the fault of Dionysius Exiguus, a Catholic monk of the 6th century, who made an error

in calculating Jesus' birth year. There's also the argument that the beginning of the new millennium is actually at midnight on December 31 in the year 2000, a year after their planned rendezvous. Oh well, it should be an interesting cruise anyway.

I'm reluctant to even mention the fact that the earth's rotation on its axis and its time to orbit the sun are both slowing down, due to the gravitational effects of other heavenly bodies in our solar system as well as the friction produced by our tides. This also requires modifications to a constant time system. And I guess people aren't too concerned about the

*'Sailors plan to be on the International Date Line when the year 2000 arrives and thus become the first people to greet the new millennium'*

"leap-second" that we have nearly every year, when the last minute of December 31 has 61 seconds.

### Not constant

As you can see, all through history we have tried our best to establish the "correct" time and date — and it has been a struggle. When we finally thought we had things pretty well straightened out, along came Albert Einstein to throw a monkey wrench into our best-laid plans. The laws of Galileo and Newton, now called classical laws, considered that time was a constant. But in the first decade of this century, Albert Einstein's theory of relativity postulated that time is not constant, but varies with speed, gravity, and mass. This theory was proven in the most



**Cesium Standards (atomic clocks) such as this are used by the television networks to control their time and frequency. (Photograph courtesy of David Fredericks, ABC-TV.)**

basic of terms when atomic clocks, based on the resonance of a cesium atom, were taken aboard high-speed jets on around-the-world flights in 1971. When they were returned to earth, their time-difference, as compared to identical atomic clocks that had been on the ground, was just as Einstein had predicted; while traveling at high speed, time had slowed down and the clocks no longer matched those on earth. This was just another of the many proofs of Einstein's theory that time is not constant.

Of course, Einstein's predictions don't affect us much, unless we plan an extended trip into outer space, so let's just be happy with those dates and times that we experience in our everyday lives — our fragile Gregorian calendar, and the fiction of constant time, our Coordinated Universal Time system. Now, would you like to know about the 39 other calendar systems that are in use around the world?

*Donald Launer holds a USCG captain's license and is a frequent contributor to boating periodicals. He has taught celestial navigation and is author of the book, A Cruising Guide to New Jersey Waters. He sails his schooner, Delphinus, out of Forked River, N.J. See Page 78 for a different perspective of Don.*





# Woman looking for man *with boat*

**Y**ou may have seen the comic strip featuring the guy placing the ad that says, "Man looking for good woman (who can clean and cook fish, sew, dig worms, and who owns boat and motor). Send photo of boat and motor." Recently I've met some women who just might be the answer to this man's prayers.

These women can fix his motor while *he* cleans the fish and cooks them. They're women with the attitude that no task is too difficult for them to master. Sometimes they tackle plumbing, electrical wiring, and rigging problems. Some of these women own and maintain their own boats and others work aboard them as paid crew or have in the past. In some cases, men aren't even in the picture.

**Hope Beecher Wright** has been a sailor all her life. For her fifth birthday, her father built her a sailboat. It was five feet long, called a Pipsqueak, with a bright red lateen sail, a little deck with a bow cleat and stowage down below. The keel bolted on, and it came with its own trailer. At age 5, she



**Hope Beecher Wright**

*No task is too difficult  
for these female sailors  
— they navigate, paint,  
fix the engine, and cook*

packed her peanut-butter sandwich, a jar of water, life jacket, and portable radio.

She was gone for the day. Out daysailing and exploring. Spring always meant time in the boatyard painting the bottom of her own or the family's boat. Summer meant independence.

She recently bought a 1968 Bristol 27 from Ramon Diaz, a retired engineer. She says, "He's 82, and sharp as a tack. I look at him and I see my late father. Struggling with illness, he wears a smile on his face and a

song in his heart. I want to make Ramon happy, to sail on his old beloved Bristol in Bristol condition." She admits it needs a lot of work.

## **Right attitude**

Hope has taken this project on with the right attitude. "I am a single woman, an experienced sailor, and I feel confident

that I can handle the task at hand," she says. She will replace deadlights, install four portholes, recover cushions and make seatbacks, make a small galley, make a bulkhead table, buy and install a head, put stern rails on, and make an awning and dodger.

She says, "I'm buying an old outboard motor from one friend, getting an old mainsail from another friend. Hey, you know, where there is a will, there is a way. Having a supportive group of great friends makes life so much easier. Someday I will be able to return their favors."

She admits that the biggest challenge on her boat is twofold, "the time to do the work and the money to pay for it. My father had a saying. The difficult

takes time, the impossible just a little longer."

Hope and her boat projects suffered a setback earlier this year when she fell head over heels down a flight of stairs. She has been in physical therapy ever since.

*by Beverly Jill Warner*

*... send picture of boat*

## It's a mindset

Hope's philosophy on sailing is that it is the ultimate challenge, physically and mentally. It has become a way of life . . . a mindset. She says she is drawn back to the water when she is experiencing stress in everyday life, adding, "The ultimate challenge comes when mind and body work together automatically to get you safely from Point A to Point B. It could just be across a five-mile-wide lake, a 1,500-mile coastal cruise, or a long open-water crossing. The key is being prepared before you go. Know where everything is. Read reference material and have notes handy in case the going gets rough. Have confidence in yourself, a positive mindset. Then you can enjoy the trip."

Hope believes that to fully enjoy sailing, you also must have an appreciation of nature and believe that a higher being made it all possible. She says, "I have seen the most wondrous scenes at sea which could never be duplicated anywhere else. All senses come alive. You know that this is what living is all about. Harmony. Interdependence. Phases of the moon and tides, currents, winds. Think about all the creatures swimming under your keel, watch as a frigate bird makes an appearance, and



you know you are near land. Become a resting place for an exhausted gull after a storm. You have to know what you are doing, because one mistake can take your life or someone else's."

Now in her 40s, Hope continues, "I think sailors are a bit of an elite group . . . not financially, just intellectually perhaps. We are more sensitive than most, always have 'our radar on.' We pick up on things all around us because that is how we are programmed," she adds.

## Taught navigation

When she was 18, Hope was delivering boats. She earned her captain's license and taught navigation at Marine Simulation, in New York City. Her captain's license later became a master's license with an auxiliary sail addendum and a radar unlimited

endorsement.

She says she can't imagine her life without salt water and something that floats.

She lives on a small peninsula overlooking a marshy wildlife preserve on one side and a rocky shore on the other. When she was a youngster, her family often spent nights aboard their boats. She used to wake up before the rest of the family and

row the dinghy out. Once, she rowed the dinghy ashore to explore the Port Jefferson sandpit bird-nesting area. She was too young to understand the warning sign, so she walked into the area. The birds dive-bombed her head. Her screaming alerted her father, who dove into the chilly water and swam to shore. He found Hope cowering with her eyes shielded by her hands. He grabbed her up like a football and ran with her out of the area.

At the time of her accident, Hope was working as Executive Director of the Bayside Historical Society, located where Long Island and the East River converge in New York. There she was involved in planning the Maritime

Festival and putting together a permanent exhibit, "The Spirit of Sail: A Salute to the Tall Ships."

She says, "Being a life-long sailor, of course I have water on the brain, and it was reflected in my programs."

Hope was also working a part-time job as Assistant Manager at the new West Marine store in Port Washington.

As a job perk, employees receive a discount on marine equipment and supplies, an important factor for this self-

sufficient sailor. After this interview was conducted, *Good Old Boat* asked Hope to serve as director of marketing, managing advertising contacts.

Beyond healing and getting that boat shipshape, Hope says her long-term plans, "include being on the water . . . anywhere, anytime."



**Cilla Lundstroem**





## Living wood

**Cilla Lundstroem** lives on Tranholman, an island in the inner Stockholm archipelago in Sweden. She came to our attention on an Internet listserver discussion group for women cruisers. She's a 36-year-old skipper, islander, campaigner, and entrepreneur who owns more than one boat. Her main boat is *Joanna av Stockholm*, a 43-foot traditional wooden boat. Built in 1974, *Joanna* is a replica of a 1900-1910 Sandkil.

These boats were used to transport sand and lumber from the countryside into Stockholm.

As the owner of a wooden boat, Cilla believes, "Wood has its own life." Her philosophy on maintaining her boat is always to keep the hull healthy, changing planks, doing linseed oiling, and keeping up with tar treatments. "My boat is 43 feet long and 15 feet wide, clinker, so there is much surface to scrape and oil. In the beginning of the season, the arms ache after some hours. But, with some days' work, one learns how to adjust tools and the body to the movements so that minimum effort is made. My favorite work is to mix the linseed oil and turpentine and see how the boards drink it. I like the tarring as well," she says. For bigger renovations, she brings in people who offer help and advice.

She admits to liking most of the work she's done on her boat but, when she gets stubborn about doing it herself, there have been a few problems . . . such as the time when, with the engine torn apart, and pieces lying around, she had no specific plan for the next step. She says, "I just sat and worried about it for days. I've seen grown men stress over that one."

Cilla has strengthened the deckhouse foundation and has made plans to add a new interior to it. She bought the boat in 1989 and has made longer charter cruises to the Baltic countries and to

Denmark. She also uses her boat in sea safety and navigation courses.

## Different seas

But her sailing is primarily coastal. "The sea I know is the Baltic. It is a cold and very deep sea in northern Europe. The waves get sharp, narrow, and high, icing over

in winter and wonderfully connecting lots of countries and islands together. I've made daysails in other seas and find them all very different. Sea water isn't just water at various places. It creates whole different ecological and human cultures. It also has different colors, movements, and scents," she says.

Other boats in Cilla's fleet include a wooden sailing dinghy (an old rescue boat) and a small wooden rowboat. She personally maintains these three vessels. Her partner maintains three fiberglass transport boats they own together. They also own a Shark 24 in a partnership, a buoy boat, and a couple of workboats in a separate



partnership.

When she's not sailing, Cilla is the coordinator for an international organization that provides Internet access and defends Internet user's rights.

She isn't planning any long cruises for the near future, Cilla says. But she'll always be "attached to the sea because it is never the same. It surprises, challenges, and gives new ideas and views." This summer, she dressed in early 1900s costumes and offered historical tours aboard the *Johanna av Stockholm*.

## Teacher and author

**Susan Peterson Gateley** has sailed Lake Ontario for many years. She's a 48-year-old sailing instructor who is licensed by the U.S. Coast Guard as a master to 25 tons. An upstate New York native, she has also lived in Maryland, Massachusetts, and Iowa.

Susan is a classroom teacher and has written books on her sailing experiences. With a master's degree in fisheries science, she also has worked as an ichthyoplankton taxonomist.

She says, "One of my earliest memories



**Susan Peterson Gateley**

of visiting the lake was searching the beach for pretty pebbles. The variety of polished, colorful stones fascinated me then, as it does now. The stones underfoot represent a billion years of geologic history jumbled together. "In that area, on Lake Ontario's south-eastern coast, lie unusual landforms that geologists call drumlin fields. These landforms end abruptly in a series of highly eroded, steep bluffs. The beach underfoot, the gullies, rills, slumps, and slides of each bluff represent hours, days, and weeks of erosion.

These bluffs change so quickly, Susan says the change is noticeable each time she sails by. This is part of the fun, part of the experience of sailing on Lake Ontario. Because of this constant and rapid erosion, the bluffs discourage colonization by plants and animals. However, they are inhabited by a variety of birds that are always there for the watching.

## New webpage

Susan started a newsletter, *Lake Ontario Log*, seven years ago and just recently discontinued publishing this singular mix of history, ecology, and sailing memories. Not long ago she introduced a webpage <<http://www.silverwaters.com>> to educate visitors about Lake Ontario and to introduce her sailing classes. These classes are varied. Her Start to Sail course is taught aboard a 19-foot Lightning sloop. With this course, she teaches basics like getting underway, picking up a mooring, docking, and basic safety afloat — but then she goes one better. She's added simple ship-keeping and maintenance skills to the curriculum.

Some of her classes are taught aboard the 32-foot Sparkman & Stephens sloop she bought with a partner. During one of these courses, Susan was asked to help cure a woman of her fear of heeling, at the request of the woman's

husband. Susan recalls that this woman did seem a bit nervous at first in a 15 knot breeze but soon she was quite at ease. "Not being a psychologist, I just chattered away at her and acted normal,"

Susan says, "And soon she did too. A few days later her mate called and said, 'What did you do? She's cured.' In retrospect, the wife and I decided she had simply been trying so hard not to be afraid that she got nervous about being nervous."

## Biggest challenge

Together with her new husband, Chris, Susan offers special sailing excursions throughout the summer. They are especially interested in helping other women get afloat with their own boats.

"I suppose the biggest challenge is to keep pushing to learn and to try new things. It's awful easy to get in that old rut and stay there," she says. As far as maintaining the boat is concerned, now that she's married she admits that she and her mate share in that. "I don't do electrical work though, that's strictly Chris' department," she adds. When they talk about doing an ocean passage, she's the one who's far from certain that she has the nerve to do a big offshore trip, even though she has sailed to



Bermuda in the past as a crew member.

In *Sweet Waters*, one of three books she's written, Susan presents stories from the log of her previous

boat, a 23-foot, 50-year-old sloop called *Ariel*. She sailed Lake Ontario solo from 1979 to 1996, "searching for stories." In *Ariel's World, an Exploration of Lake Ontario*, Susan tells about cruising to historical ports, visiting a lighthouse keeper, putting out a trotline for eels, and meeting all kinds of other colorful individuals along the way.

These three women are representative of many more like them. As role models for other sailing females, they are ambitious, adventurous, and intelligent in their own pursuits. They know who they are and where they're going.

*Beverly Jill Warner has been a sailor for 10 years. She's the proud owner of two vintage sailboats, an all-wood 1963 Colin Archer double-ender and a 1976 Albin Vega. Her dream is to locate one boat on the Upper Atlantic Coast and the other in southern Texas.*

*A single sailor, she has learned to maintain her boats and feels pride in doing so.*

*Good Old Boat* is looking for other noteworthy sailors — men and women. If you know of people you think we should profile, please contact Karen Larson: 7340 Niagara Lane North, Maple Grove, MN 55311-2655, [karen@goodoldboat.com](mailto:karen@goodoldboat.com)





# The small convenience of a whisker pole

*Petite pole packs plenty pull*

**W**hisker poles have come a long way since I sailed up the Pleasant River, in Addison, Maine, using a battered broomstick to hold out the jib of my leaky little flat-bottomed skiff. It was fun, but this equipment and technique had its limitations. That was in 1980, and since then a lot of thought has gone into whisker-pole technology and construction. Today, even the best-equipped good old boat can benefit from another look at whisker poles and their uses.

If you've never used a whisker pole, don't be put off

by a piece of equipment that seems designed for racers. You don't have to be an America's Cup champion to get the most out of your whisker pole. Cruisers can benefit tremendously from using them. And, even if you're already hooked on your aging, non-adjustable wooden whisker pole, you should use it properly, know what size is right for your boat, and understand the options you have if it should ever come to grief.

Whisker-pole basics seem deceptively simple at first. Basically, the function of a whisker pole is to extend the clew of the jib to windward when you're sailing off the wind. This prevents the jib from being blanketed by the main and helps shape the jib to get the most power out of it. Although a jib usually is not as efficient a downwind sail as a spinnaker, when it is projected outboard to windward, it can add a significant amount of boat speed.

While whisker poles are simple in concept, improvements have made them easier to use.

## **The basic set-up**

The first indication that you need to set up your whisker pole is a slackening of the headsail sheet. In most boats, this occurs when you're about 150 degrees off the wind. When the jib droops in the lee of the mainsail and the boat slows, it's time to put the whisker pole to work.

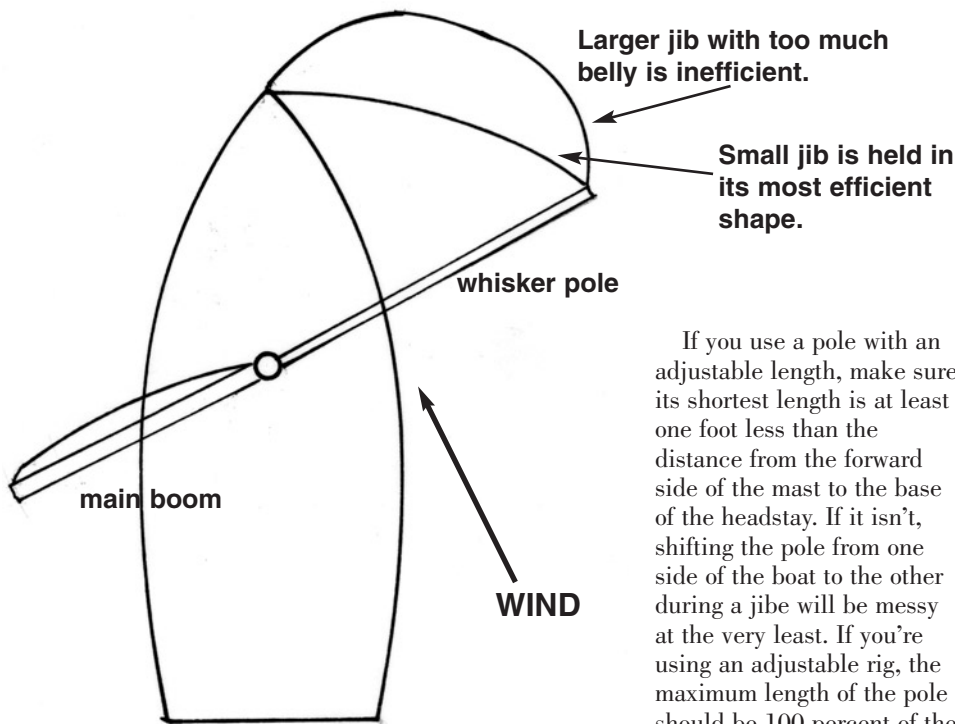
Occasionally, I've found wind or sea conditions too rough to set up the whisker pole, even though the sheets and foresail are drooping. A whisker pole is basically a light-air device, useful primarily in winds of 18 knots or less. Stronger winds make whisker-pole work too dangerous. Also, even in light air, I've learned rough seas from an offshore storm make it wiser to postpone the use of a whisker pole. Except for times when a highly skilled crew is aboard, the whisker pole should be employed only when the foredeck is relatively stable and dry.

When you're setting it up, first clip the whisker pole into the foresail clew

or clew bowline. Then push the sail out to windward and attach the inboard end of the pole to the mast. The pole's narrow end should always be outboard; the thicker end, inboard. On larger boats, a whisker-pole topping lift is also attached to the outboard end before the clew is pushed out to windward. On most good old boats, however, the topping lift is unnecessary.

I'm not a spinnaker kind of guy. But using a whisker pole makes me think that somewhere in my subconscious lurks a spinnaker zealot. That's because it's always best to have the jib and whisker pole set on the side opposite to the main boom, just as a spinnaker pole is. This wing-and-wing setup offers the best results when the pole is trimmed so it lies essentially in the same plane as the boom, making it all look like a two-part spinnaker, as illustrated on the next page.





***Keeping the whisker pole and the main boom on the same plane and perpendicular to the wind yields best results.***

***Without a telescoping or properly sized fixed whisker pole, larger jibs work inefficiently. Fixed poles are best used in boats less than 35 feet in length.***

Although the jib sheets are used for most adjustments, a topping lift and a downhaul (usually a foreguy) will help keep the pole in a fixed position and help shape the foresail for best results. On bigger boats, a pole car affixed to the forward side of the mast will help keep the pole precisely perpendicular to the mast.

Once the pole is rigged, you immediately get good news from your speed-indicating instruments. Normally, I can add nearly one full knot of speed to my aging wooden sloop's efforts. Although I still use an old-fashioned, fixed-length pole, I've been on boats with modern telescoping poles that often add more than a knot. For a long-distance cruise of, say, 300 miles, a whisker pole can get you to your destination a half day ahead of when you would have otherwise arrived. That may just get you into a safe harbor ahead of a nasty storm or at least in time to grab a cold one at the local sailors' safe haven.

If you use a pole with an adjustable length, make sure its shortest length is at least one foot less than the distance from the forward side of the mast to the base of the headstay. If it isn't, shifting the pole from one side of the boat to the other during a jibe will be messy at the very least. If you're using an adjustable rig, the maximum length of the pole should be 100 percent of the length of the foot of the largest foresail you plan to use.

When jibing with a whisker pole, the maneuver is best done by taking the pole down completely, adjusting the boat's course, and then reattaching the whisker pole on the new windward side. To take the

pole down, simply reverse the procedure you used to put it up, detaching the foreguy first, then detaching the pole at the mast, taking off the topping lift, and so on. Be particularly careful taking down a pole that has come under increased load. In such a situation, the jib may try to yank the pole right out of your hands. To prevent that, the helmsman may have to bring the boat up a bit before turning off the wind.

To get the most out of the jib, be sure as much of it as possible is exposed to the wind. This is why some good old boats carried two whisker poles. One was for a large jib, the other for the small jib. Using an undersized pole is counterproductive.

## **Which pole and why**

With the days of all-wooden whisker poles not that far behind us, I still believe they have a place on good old boats. For a boat less than 30 feet in length, a hefty, modified closet pole can make an inexpensive whisker pole. At a marine junkyard, you can always scrounge up appropriate fittings for each end of such a pole. For \$30 or so, you can make a fixed-length whisker pole to practice with. Then you can decide whether something fancier, and more expensive, is worth it.

Once you're ready to move to expensive (\$200 to \$1,000) manufactured aluminum whisker poles, proceed cautiously. Make sure the whisker pole you buy is strong enough to handle the largest headsail on your boat in conditions that you would expect to encounter with that headsail. You can get load limits from the pole manufacturer and your sailmaker. If your boat's designer is still around, contact him. As a general rule, though: when in doubt, always choose a pole with a slightly larger diameter. Whisker poles get most of their strength from having larger tube diameters, not from small-diameter, heavily built tubes. So this is one case in which girth is good. Additionally, most adjustable poles have the maximum working length clearly labeled on the pole.

Whisker poles come in two basic varieties: fixed-length and telescoping. If you plan to sail with several jibs, you should consider a telescoping pole because you can adjust the length to get the most out of each sail. A telescoping

## **Resources**

For more information on whisker poles and related equipment, contact these manufacturers:

**Amco Marine Co.**, P.O. Box 915, Dover, DE 19903; 302-730-4566.

**Atlantic Spars**, 317 Chester Ave., Annapolis, MD 21403; 410-269-6042.

**Forespar Products Corp.**, 22322 Gilberto, Rancho Santa Margarita, CA 92688; 714-858-8820.

**Hall Spars**, 17 Peckham Dr., Bristol, RI 02809; 401-253-2552.

**Harken Yacht Equipment**, 1251 East Wisconsin Ave., Pewaukee, WI 53072; 414-691-3320.

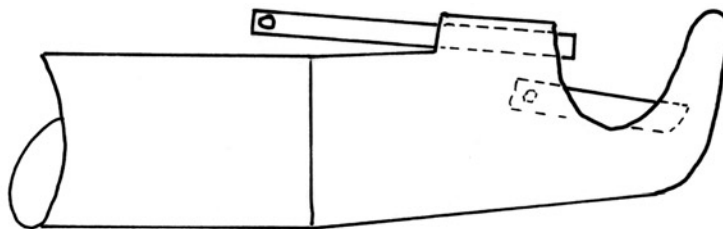
**Offshore Spar**, 5200 E. Russell Schmidt Blvd., Chesterfield, MI 48051; 810-598-4700.



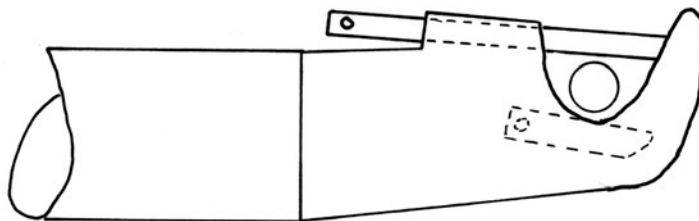
pole consists of two tubes, one inside the other, and it will have one of three mechanisms to adjust the outer end of the pole: a pin lock, twist lock, or a line-controlled system. The line-controlled system is probably the best because it allows you to adjust the pole when you are standing close to the mast. The other two adjustment systems require that you stand somewhere near the middle of the pole to make the adjustment. This may not be a problem in light air, but when the wind is blowing a little, it becomes a more precarious location.

Additionally, a line-controlled adjustment system allows you to make an infinite number of settings. In contrast, the pin-lock system allows incremental adjustments of 8 to 12 inches. The pin-lock system features a spring-loaded button that pops into a preset hole in the outer tube of the pole. Of course, the line-controlled poles are the most expensive type, followed by the pin locks, then the twist locks, and the fixed poles.

A twist-lock pole operates on a “jam” system that wedges the two sections of the pole together. Like the line-controlled pole, this feature allows the pole to be adjusted to any length. Both the pin-lock and twist-lock poles are harder to adjust under load than the line-controlled pole. Be particularly careful when using pin- or twist-lock whisker poles. There are points at which you can get your fingers jammed in the mechanisms. Always relieve compression loads as much as you can before making adjustments or taking the whisker pole down.



**With the securing pin pulled back, the triggering mechanism moves up into place.**



**When the line drops into the whisker pole end fitting, the triggering mechanism is depressed, and the securing pin snaps shut.**

*Trigger-actuated whisker pole end fittings make setting up the gear quicker and safer.*

### For best results

Most whisker-pole tips have some sort of spring-loaded locking mechanism at either end. Although you can still find a pole with a blunt-pointed end that is inserted either into the clew grommet on the headsail or into a clew ring of some sort, most of these are used aboard small racing boats. They are also used aboard boats like mine, where the owner is a cheapskate and doesn't mind an old-fashioned mechanism that has no moving parts to break down.

Still, most poles these days have spring-loaded locking fittings on either end that are either hand-actuated or “trigger” style. A hand-actuated mechanism requires that you pull a pin back and hold it there while you attach the pole end to a jibsheet or to a mast fitting. A trigger mechanism lets you pull the pin back and set it there. The fitting's slot will remain open until it makes contact with a line or fitting, then the pin snaps shut.

The majority of whisker-pole end fittings used to be made from cast aluminum with stainless steel springs and pins. But the newer poles made by Hall Spars and Forespar have composite machined aluminum end fittings that are as strong as, and half the weight of, the older cast aluminum devices.

Carbon fiber fittings and poles are available but make little sense on any boat other than a dedicated racer's vessel.

For boats less than 35 feet in length, you may be able to use a large fixed pad-eye mounted on the forward side of the mast. However, for larger boats, a far better installation is a pole car mounted on a track attached to the mast. The more reliable pole cars use ball-bearing track systems.

Proper stowage of the whisker pole is also important. Many whisker poles are stored vertically on the mast. This has the advantage of placing it in service quickly, and the disadvantage of exposing it to salt crystal build-up

which, if not cleaned regularly, can affect the pole's performance. To make cleaning easier, store the whisker pole attached to the inboard side of the boat's lifeline stanchions. Fittings to accomplish both of these stowage arrangements are readily available in most marine catalogs.

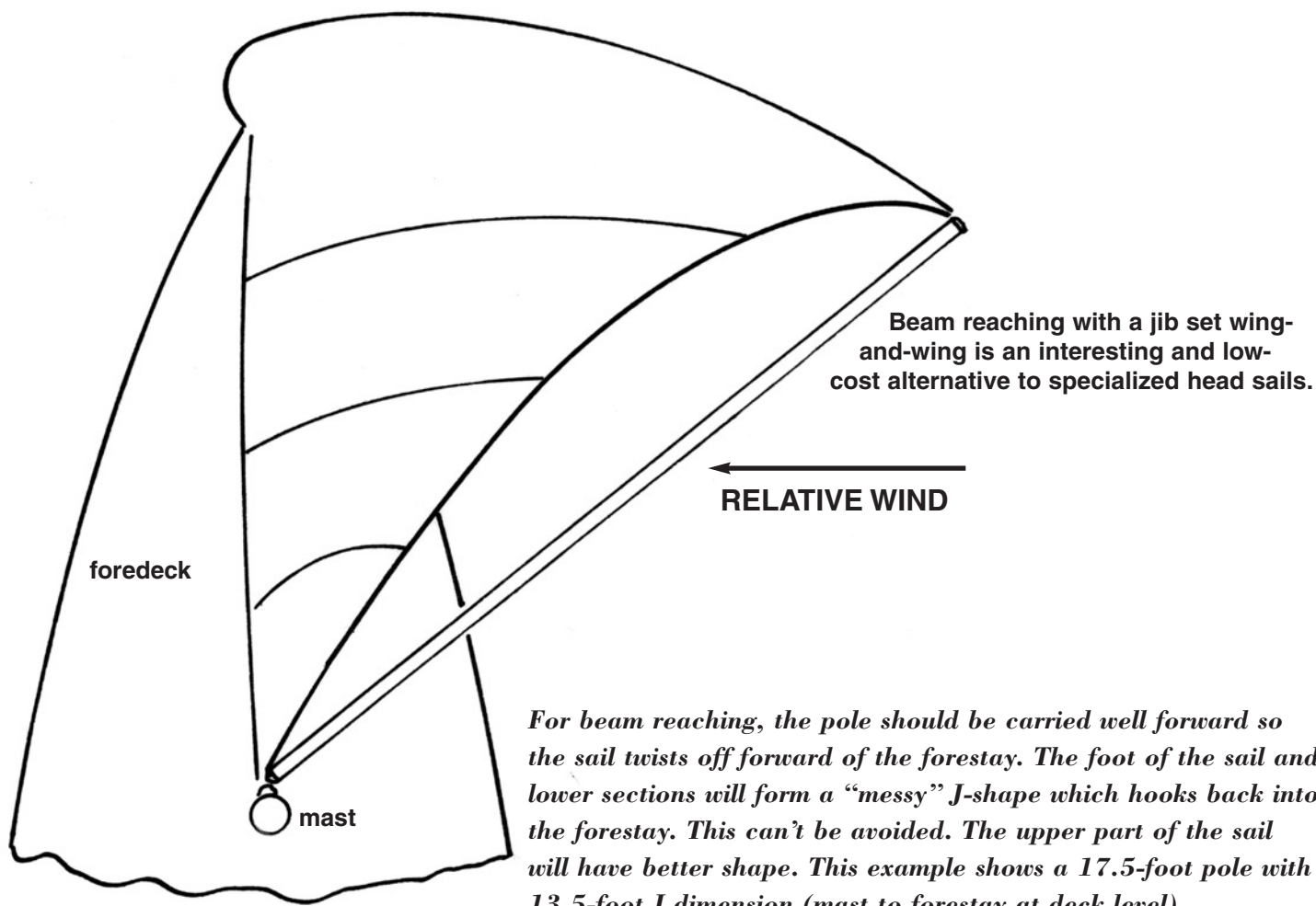
As noted, the bottom line for a new aluminum whisker pole can vary from just under \$200 to well over \$1,000, depending on your boat size, the pole's construction, adjustment features, and so forth. Also, you should add another 20 percent or so for additional gear you'll need to properly set up, control and stow the pole. Thus a whisker pole can be a major investment in your good old boat's rig. But once made, it's one relatively small pole that's guaranteed to vault you into the ranks of faster boats.

*Ken Textor has lived and worked aboard boats for 22 years. In addition to work he did for the former*



*Small Boat Journal, he contributes to a number of sailing magazines and has written a book, Innocents Afloat: Close Encounters with Sailors, Boats and*

*Places from Maine to Florida.*



# Not just for running anymore

**W**hile normally thought of as a downwind technique, it is possible to sail wing-and-wing as high as relative wind abeam. Not only is it possible, it is quite desirable to do so. The boat will be very fast, and there will be a nice overlap in the highest sailing angle using wing-and-wing and the lowest effective sailing angle with the jib eased off and carried to leeward. Near wind abeam, the boat will be quite fast with the jib on either side.

You need a topping lift and some form of downhaul to achieve this high pointing angle wing-and-wing. Neither of these needs to be complicated or expensive. When sailing at high

relative wind angles, the pole must be quite far forward. The normal luff of the sail becomes the leading edge, and proper sail shape requires that the pole be topped quite a bit to allow the leading edge of the sail to form a fairly deep smooth curve all forward of the forestay.

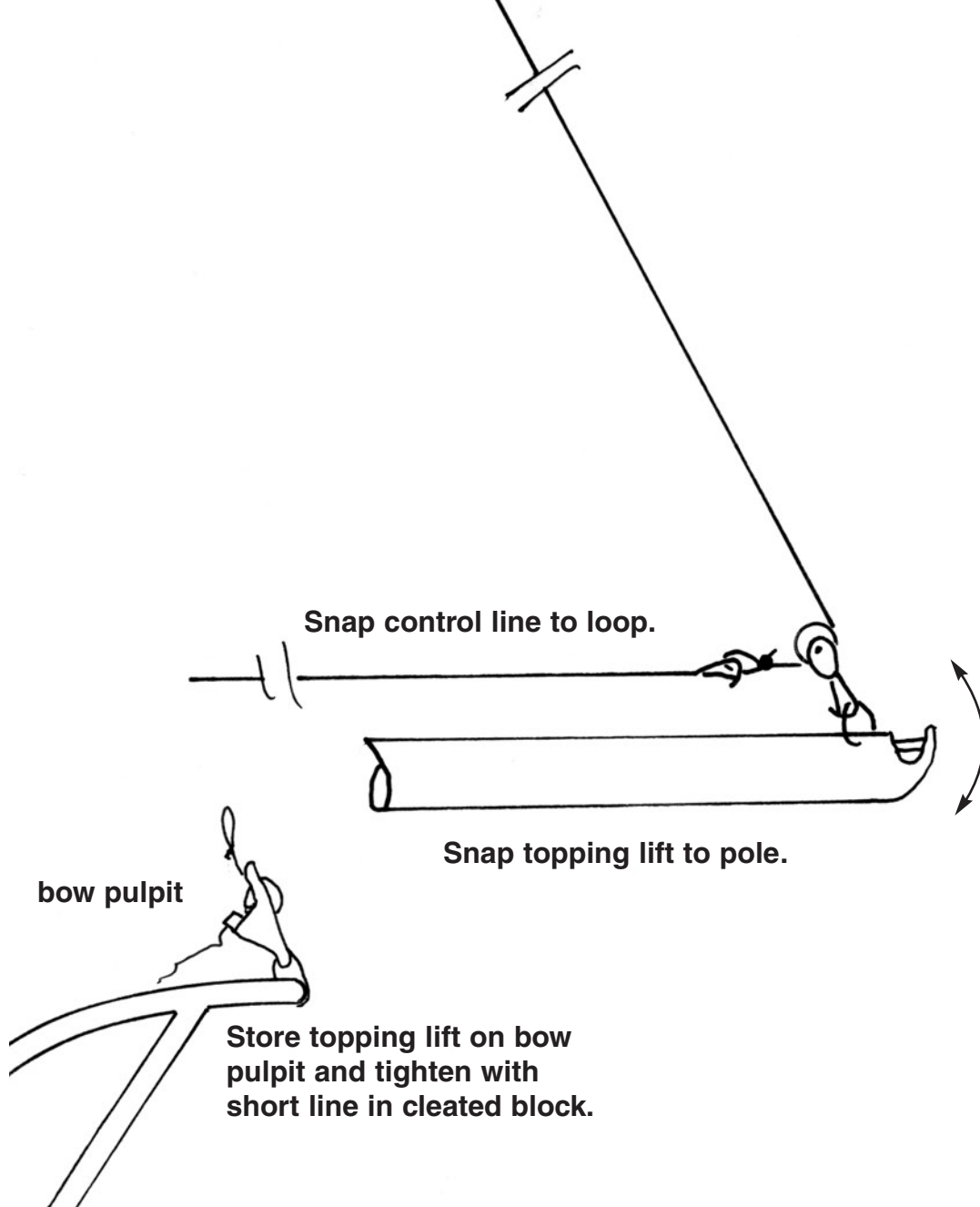
The trailing edge of the jib (what is normally called the luff when flown conventionally) will look very bad, being hooked back out of the fair curve of the middle of the sail into the stay. Don't worry about that too much; there is nothing you can do about

it, and the jib will pull very well even with this imperfection. Sheet the main in to something more like a close reach. It is sailing in the flow from the jib, and that flow will be from much farther forward.

Steer the boat as high as possible until the sail is on the verge of backing. There is no great loss of control if it goes aback, and a slight alteration of your course will bring it back. If you must sail higher than wing-and-wing will carry, head up, let the jib back, and then ease the windward sheet and let it blow through the foretriangle. This is a nice easy transition. Pull the pole last, or leave it up, if you think you may be able to roll down again soon.

*by Jerry Powlas*





The normal way to install an adjustable topping lift is fairly invasive. I don't like to drill new holes in my spars because over the years most of the spar failures I've seen on most boats have started at holes that were added for new gear. Instead, we ran a line from a spare attachment point on the masthead crane down through a small block attached to a snap shackle. This line is stored on the bow pulpit ahead of the forestay (*see illustration above*). When we set the pole, we snap the shackle to a loop on the pole end and snap another control line to a loop in the line from the masthead where it comes out of the block. This effectively extends the line from the masthead.

This second control line is led to a cleat on the mast or through a fairlead at the mast base to the cockpit depending on just how serious we really are about flying the pole. If a lot of pole adjustment is anticipated or we expect to be able to sail wing-and-wing for a long time, we run the control to the cockpit.

As the force of the wind increases, it pushes the middle of the sail forward and to leeward and makes the pole rise. This changes the sail shape and causes some loss of control and performance. We move the windward jib block well forward when sailing wing-and-wing so that it is more in opposition to the topping lift. The higher we point, the more forward we move the block. In this

way it acts more like a foreguy downhaul on a spinnaker rig. This is particularly important in giving good control at high pointing angles.

I really enjoy flying spinnakers on racing dinghies, but in my opinion a spinnaker on a 30-foot boat would be a handful for the two of us, while sailing wing-and-wing on a beam reach is easy, safe, simple, and almost as fast.



*Jerry Powlas is technical editor of Good Old Boat magazine.*

# The co

As a person to whom *quality time* and *time aboard* are synonymous, I often daydream of idyllic passages through tropical seas with steady trade winds, puffy white clouds, and sun-sparkled wave tips at my back. Moments later, reality returns to find me clutching a warm coffee mug and watching my steaming breath join the rest of the condensation coating a frigid cabin. Or it finds me pondering, with burning eyes, the flies gathered on the mainsail during a windless, steamy August afternoon.

We need to cope with an amazing range of temperatures and conditions over the course of a typical boating season. Moreover, we do it in a comparatively Spartan way, without a basement full of extra equipment. We do our best to cope with this temperature range for two basic reasons: comfort and safety. A sailor preoccupied with discomfort is going to be at a disadvantage when decision-making time suddenly arrives.

Basically, we must address two environmental issues while boating; how to stay warm when it's cold, and how to cool off when it's hot. Let's look at the mechanics involved and then take them in turn.

Heating and cooling are two sides of the same coin: the physics of heat transfer. When heat is transferred from place A to place B, A will get cooler while B gets warmer. There are three ways that heat is moved around:

- *By conduction*, when your hand touches a hot stove, directly transferring the stove's heat.
- *By convection*, when fan-blown air delivers heat from the stove.
- *By radiation*, when the hot stove's surface or its flames emit infrared waves that warm the objects that absorb them.

Those are warming situations; but keep in mind that if you were the stove, they



# Comfortable cruiser

would be cooling situations . . . different sides of the same process. To stay comfortable, our human efforts are directed at either enhancing or reducing the transfer of heat.

## Staying warm

### Types of heaters

There are several ways to combat cold. Each of the following five basic types of marine heat generation has advantages and disadvantages.

**Electric heat** is quick, inexpensive to install, very easy to start and adjust, requires no exhaust venting, and doesn't add moisture to a boat's already moisture-laden atmosphere. It is also impossible to use away from the dock without running a generator. Electric heat must be carefully designed to prevent shocks and fires. And, finally, not all marinas provide sufficient power to run these heaters. There are electric furnaces with blowers and air ducting to efficiently heat the long skinny interiors of boats, but many medium-sized boats can do quite well with a portable, fan-assisted electric heater. If your home port is north of the Mason-Dixon Line, dockside electric heat represents a good investment for chilly mornings and evenings, often extending a season by two or three months. When buying a portable heater, make sure that it has:

- a three-pronged safety plug;
- a thermostat that shuts it off at the desired temperature;
- a tip-over sensor (if it's portable) that shuts it off should a wake or other sudden motion knock it over; and
- a ground-fault interrupter (GFI) or receptacle. In fact, all alternating current-powered appliances aboard should have, or be plugged into, a GFI.

*Controlling your environment makes you a better, safer sailor*

*by Bob Wood  
illustrations by  
David Chase*

Those precautions, along with sensible and prudent operation, will make electric heat an enjoyable convenience.

**Solid-fuel heaters** have the advantage of burning a wide variety of readily available fuels such as charcoal and wood. They produce a quiet, dry heat and sometimes a nice ambiance if the fire is visible. The price is also moderate, and they can be used under way or while you're swinging on the hook. On the downside, they do require venting, and their smoke can foul sails or topsides. They take the longest of all heaters to begin producing heat, and a bag of charcoal is not the

cleanest item to be rattling around in a locker. Finally, burning ocean driftwood can create mildly corrosive smoke that hastens your heater's demise. Still, solid-fuel heaters, with their warmly glowing flames, rank second of all heating types with traditionalists.

**Propane, butane, and compressed natural gas (CNG)** are gas fuels with some commonalities. They are quick to produce heat and difficult to fine-tune; they will work at the dock or under way; and they are clean-burning.

Most require venting, and I would advise against those that don't on two grounds.

First, some of the catalytic types that don't require venting are designed for a semi-open space with plenty of fresh air moving through . . . and moving the waste products out as well.

Second, the combustion process for gas fuels produces a lot of water vapor that will be deposited in the dark cold corners of your boat unless it is vented outside with the other fumes.

There can also be a definite fire hazard when you use a portable catalytic heater in your boat, especially while under way. I would caution against doing it. Period.

CNG is lighter than air and will, therefore, not settle in the bilges like propane could. CNG is also much harder to find than propane wherever you sail. Propane is quite safe when it's installed with properly isolated storage bottles, a correct solenoid shut-off valve, systematic maintenance of the lines, and a good gas-detection alarm. If you already have propane for your galley, it

may make sense to use it for heating, also. Permanent marine propane heaters are more expensive

than solid-fuel ones, but less expensive than liquid-fuel heaters.

**Liquid-fuel heaters** are primarily kerosene- and diesel-fuel heaters. They are the benchmark by which traditionalists rate all others. They provide a steady source of low-cost heat while under way, on the hard, and all points between. If you already have a diesel-fuel galley stove, you probably don't need a heater, since the stoves I've been around warm a cabin very well.

*'An airtight heated cabin is an invitation to disaster.'*

The heaters require venting, and the smoke can stain sails over a period of time. They are also among the most expensive of the different types of heaters. Since they require gravity-fed or pressurized fuel, a special tank is sometimes the easiest way to install the system.

Lastly, your cabin can get smoky if fluky winds swirl fumes from the stack back around the mandatory open hatch or port. A diesel-fuel heater is for hardcore sailors who rejoice in the glitter of frozen halyards.

Serious stuff.

Alcohol heaters are portable and inexpensive, but not in the same league as kerosene/diesel types. Their flame is difficult to see, increasing the possibility of burns, and they pump lots of undesirable water vapor into the cabin air. It's hard to recommend them for boating purposes.

**Hot-water radiators.** This last heat source is probably the least used. Radiators produce heat from the water used to cool your inboard engine. These are not often seen on sailboats, despite the fact that many a voyage transforms our wind yacht to a displacement-powerboat-with-mast.

Radiators work only when the engine is running, which allows powerboats to make good use of the free, quiet heat. They produce a dry heat with no venting required, no fire danger, or smell. They begin providing heat within minutes of the engine's being started, and are easy to adjust. Most installations are custom-made and, therefore, can be expensive. The radiator preferably uses the heat-exchanger fluid since it's hotter, but raw cooling water can be used — although a broken hose or fitting could flood the cabin.

### Humidity's effect

Humidity, or water moisture in the air that you're heating, makes a difference. The more water moisture, the more heat that air can hold. Dry air requires a higher temperature to be comfortable. Since most heat sources do not add water vapor, the air becomes drier as it gets warmer. Unless you have the perfect boat with bone-dry bilges, chain stowage, lockers, and bedding, you

probably won't have to worry about over-dry air while bobbing on the waves. The exception would be heating while hauled out during sub-freezing winter weather; then a pan of water boiling on the stove might help.

### Circulation — air layering

A boat has a lot of nooks and crannies, is poorly insulated (compared to a house), and usually has a single point of heat. If a fan isn't used to push the air

*'A sailor preoccupied with discomfort is going to be at a disadvantage when decision-making time suddenly arrives'*

around, the nooks and crannies and outer surfaces stay clammy while the air immediately above the heat source becomes uncomfortably warm.

Unless those on board can levitate to the 72°F air layer, everyone is going to be miserable — cold and clammy from the knees down, and feverish from the shoulders up. A fan is essential for heating comfort. Small, low-wattage fans can be mounted in passageways forward and aft to immensely improve the main fan's function. Layering is good for clothes, bad for cabin air.

### Ventilation

An airtight heated cabin is an invitation to disaster. At the very least, you're inviting headaches, as the oxygen content is depleted by fuel-burning heaters. Carbon dioxide and carbon monoxide levels increase, aggravating the stale conditions.

Moisture from respiration and perspiration has no place to go to, except onto exposed surfaces. It will cake your sugar and salt into unusable blocks. You need to have a hatch, porthole, or Dorade vent partly open, even if it's below freezing and snowing sideways.

### Drafts

The opposite of an airtight cabin are drafts so bad that a candle or lantern can't stay lit. This is unworkable, because all the air that you're heating is leaving. It's going to take a lot of fuel to raise the temperature if you're heating the entire Western Hemisphere. You don't need all downwind hatches open . . . maybe just one, or a half of one.

### Clothing

Don't overlook the value of dressing for temperature rather than changing the temperature for your dress. It's quite possible to be comfortable at 55°F or cooler temperatures with warm boots, hats, and gloves. You lose the most heat from not wearing headgear . . . a warm hat and scarf are probably worth 5°F of cabin temperature by themselves. You've heard it before, but dress in layers: a layer closest to the skin that will wick moisture away, then a bulky insulating layer or layers to hold body

## The numbers game

There are formulas for converting watts to Btu (British thermal units), determining resistance to heat loss (insulation factor), and number of tons of air conditioning needed. But forget the numbers; boating's wide array of types and conditions make them impractical. Your electric heat will be limited to what your marina can provide: typically enough to run a 1,600-watt heater at 110 volts.

With care, this will keep a saloon and one stateroom comfortable down to around freezing . . . remembering that comfort is a relative term. Any requirement greater than that in size or temperature is going to require a fuel heater. Heaters made for permanent marine installation will advertise figures in Btu output, but basically they'll be good for boats up to about 45 feet and temperatures down to 30°F. Dealers in marine air conditioners will help you figure your cooling requirements based on climate, boat insulation, and installation location.



heat in, finally an outer layer that's wind-resistant, to reduce loss of heat by convection or drafts. If you typically sail in colder weather, have boots large enough for two pairs of socks and make the outer layer a pair of good-quality wool . . . wool retains heat even when it's wet.

## Keeping cool(er)

For many sailors, comfort means any way to stay cool on hot days. For some, staying cool is synonymous with air conditioning, but there are other approaches.

## Air conditioning

Marine air conditioning is much like marine electric heat; it works well with shore power, with gen-set power, or with an extremely long extension cord. For powerboaters, there are air conditioners that work from a power take-off on the engine. Like radiator heating systems, the engine has to be running for power take-off systems to operate. Air conditioning accomplishes at least four things: it cools the air, creates air movement, removes excess moisture, and filters some airborne particles.

It also requires a well-sealed cabin to be effective, and a compressor location with plenty of fresh-air circulation to take away the heat. Systems can be on the pricey side, but if you're lying alongside the dock at West Palm Beach for an extended stay in July, life as we know it suffers without AC.

## Circulation

Air circulation helps in reducing the effects of uncomfortable heat. It promotes the evaporation of perspiration, which lowers our body temperature and makes us smile. If your boat is swinging on the hook, or otherwise moored on a windless day, circulation is spelled f-a-n-s.

For a very few dollars (less than \$10) mail-order suppliers such as Northern Hydraulics or Harbor Freight often sell small, surplus, 12-volt box fans that draw less current than a light bulb. You may even find some that have hinges, so they fold against a bulkhead when not in use. Having two of them in the main saloon and one in each stateroom is not overkill, and your batteries won't go dead in a day, either.

For best results, aim them directly where people will sit (or lie) at about chest level. They make a big difference and also help during the frosty season for distributing your heater's munificence. If you run your engine about an hour a day, your batteries will never suffer any undue drain.

Under way or on any windy day, circulation is spelled h-a-t-c-h-e-s. The more, the merrier. The bigger, the better. Opening ports are nice but usually too small, and their insect screening further reduces the airflow. Ideally, on a good old boat of about 35 feet, there should be two hatches in the cabin overhead, one above the galley and one above the seating area. There should also be an overhead hatch in each stateroom. All of this is in addition to opening ports.

Incidentally, I don't like forward-opening hatches in the V-berth area or anywhere else. Boarding seas will quite

*'Liquid-fuel heaters . . . are the benchmark by which traditionalists rate all others'*

likely carry them away if they catch them undogged. Trawlers, whose foredecks are much higher, fare much better with forward-opening hatches.

## Ventilation

Hand-in-hand with circulation goes ventilation. On hot sultry days, you need fresh air below, unless you're running the air conditioner. Seasickness is not eliminated by fresh air but it sometimes helps. And fresh air always helps those who are aboard with the seasick victim. Fresh air also means keeping engine room air separate from cabin air. Even in a spotless engine room without exhaust leaks, engines get hot and fill the air with lubricating-oil fumes and bilge fumes. They need lots of fresh air and ventilation, but not via the cabin.

There is one particular no-win situation: running downwind under power. It's much better to bear off a few degrees than to suffer the exhaust fumes in the cockpit and cabin, no matter how good your ventilation is.

## Liquids


Our natural cooling systems depend on the evaporation of perspiration (sweat) to reduce body temperature. The moisture for sweat is carried by the vascular system. If you don't drink sufficient water, your blood doesn't have as much to give the skin, and you're going to feel warmer.

Drinking lots of liquids on hot days helps our cooling systems. Taking salt tablets helps the body increase the vascular volume, thus more liquid is available for the skin. For those of us on the far side of 39, perspiration is generally reduced. We therefore really appreciate any additional cooling efforts.

## Humidity

Increased humidity slows our rate of perspiration evaporation, and thus our cooling off. You will feel more uncomfortable at 90°F and 90 percent relative humidity (RH) than at 90°F and 50 percent RH. Aside from cranking up the air conditioning or heading for the clubhouse, combating high humidity requires shade, air movement, and loose-fitting clothing.

## Shade

The value of shade is often underestimated when you're trying to cool your boat. A Bimini top is wonderful for the cockpit if the sun is directly overhead. Short side-panels dropping down from the Bimini about a foot will increase its shade area by at least 50 percent and won't noticeably reduce the ventilation, especially if the panels are made from weighted screening. Lastly, consider a Bimini extension over the cabin roof. Shading this area will definitely make the cabin cooler and help the air conditioner. 

*Bob Wood learned to sail on small O'Days more than 30 years ago. He has owned an odd assortment of sailboats and sailed them in waters from the Florida Keys to British Columbia's Gulf Islands and from New York's Finger Lakes to Colorado's and Idaho's impoundments and reservoirs.*





# Storm-warnings and

**B**y the time the sawdust had settled beneath a banquet tent by the Sampit River in Georgetown, South Carolina, one Saturday last October, a new world record had been set in competition boatbuilding, and a late-season Atlantic hurricane was well on its way.

As it turned out, on this part of the coast, midway between Charleston and Myrtle Beach, Hurricane Irene blew through the next day as a tropical storm, wet but well offshore . . . not the kind of storm anyone here will remember much about this time next year. As for the boatbuilding, visitors to this year's Georgetown Wooden Boat Exhibit — and the 12 two-person teams who competed for top honors in the show's centerpiece, the annual Wooden Boat Challenge — won't soon forget it. For one thing, sawdusty as it was, that tent was one of the few dry places in a wet, windy town; for another, these guys were fast.

Willie French and Jim Harmon, two local cabinetmakers, built their 12-foot Teal dory in one hour, 27 minutes and 26 seconds, besting Marc Wrenn's 1998 record by almost a half hour. Two more teams finished within two hours, and almost all the others were done in three.

Times are important in the world-record competition, but quality is equally so: not just because a team of crackerjack boatbuilding veterans examines the worthiness of every seam, joint, cut, sheer, and fastening in the

finished boats, but also because the building of these dories is followed immediately by their baptism — a relay race across the Sampit River and back to the town docks. And as one competitor observed, the Sampit — with a steel mill upstream and a paper mill just above that — might not be your first choice for a river to swim.

## Standardized contests

Held each October the past four years in Georgetown, the Wooden Boat Challenge had its beginnings in the early 1980s when John Hansen introduced a boatbuilding competition to the Newport Wooden Boat Show. The emphasis of the early, “quick and dirty” contests was on speed, with quality a

minor consideration; and since competitors could build almost anything and call it a boat, one early winner built

a 15-minute surfboard.

Rob Dwelley, a boatbuilder and nautical entrepreneur from Westport, Mass., began to orchestrate more standardized contests in 1987, beginning at the Norwalk Oyster Festival in Connecticut.

“I wanted to establish a world-record event,” he explains, “and to do that we had to have all the competitors build the same boat and meet the same criteria for quality and craftsmanship.”

Dwelley chose the Teal, a 12-foot rowing/sailing dory designed by Phil Bolger, as a boat that a competent backyard builder could finish in a day.

For the competition, the Teal is equipped for rowing only. The builders start with uncut marine plywood and lumber, identical sets of plans they've received in advance, plenty of marine caulk — all of these provided by corporate sponsors — and whatever tools, power or manual, they bring along. They must adhere closely to the plans, with one exception: they can make their oars any way they like. Once the clock starts under the big tent, each team works in a cordoned-off section as spectators mill from team to team and Dwelley, perched on a high ladder above it all, keeps up a running play-by-play.

## Relay rowing

In Georgetown, when the boatbuilding ends, the competition crosses Front Street to the river. After carrying their dories aloft through the crowd, the teams vie for a \$500 cash prize in the Goat Island Challenge, which combines the scores for speed and quality of boat construction with the relay rowing race — an event that, to the spectators at least, is equal parts high competition and low, sometimes soaking, comedy.

“When we started the wooden boat show 10 years ago,” says Sally Swineford, a Georgetown restaurateur and key show organizer, “we wanted something that would bring visitors in the fall. Georgetown has been an important seaport since the early 1700s. We wanted to emphasize that heritage and raise money to establish a maritime museum. Since wooden boats are living history, the show was the perfect way to do that. When you add in the

*story and photos  
by Chip Smith*



# stopwatches

## *At the Wooden Boat Challenge in Georgetown, S.C., a world record falls as a hurricane approaches*

boatbuilding, you give the event a whole new dimension — action, competition, fun. We've had wives and husbands compete, fathers and sons. We've gotten bigger crowds, more interest, every year."

At day's end the boat construction tent was converted into a banquet hall for competitors, exhibitors, and sponsors. Rain squalls lashed the sodden waterfront, and what might otherwise have been a lackluster boat show — only a half-dozen or so of the 40 expected in-water exhibitors chose to sail here with a hurricane coming — was hailed a success. Competitors toasted and roasted one another, vowing victory next October.

As for Jim Harmon and Willie French, beaming with the new world record and the "Golden Gun" trophy — a gilded caulking gun, actually — they admitted they'd never match that time next year.

"We'll be back," said Harmon, "but we're talking about doing the whole thing with hand tools, just for fun. We ought to be able to finish a boat inside four hours. Then again, 12 feet is a long way to rip marine plywood with a handsaw."

"That's the way of it, these days," laughed French, a New Zealander. "Soon as a guy takes one world record, he wants to change things just a bit —

so he can take another."

*Chip Smith is a writer, photographer, and small-boat sailor living in Murrells Inlet, South Carolina.*

*Rob Dwelley, originator of the world-record Wooden Boat Challenge, is available to help you establish such a competition in your town. You can reach him by phone at 508-636-3605, or by email at [rsdwelley@meganet.net](mailto:rsdwelley@meganet.net).*

***A spectator examines a just-completed Teal dory above left. At top right, Mike Fennel and Eric Biastre work to fasten the stem of their dory. Todd Frizzelle, on dock, prepares to launch partner Mark Bayne into the Sampit River and into the rain. Below, Susan Sandes tallies competitors' scores.***





*Restoration relived*

# Rebirth of *Carina*

husband was getting what is called “six-foot fever” . . . something all sailors seem to catch at some point in their sailing careers. Stephen caught an eight-foot strain of this fever.

So now there was a classic boat that towered over the O’Day 22 next to

30 years of debris strewn about, but there was also a stench of diesel fuel and mildew strong enough to gag anyone walking through the companionway.

At that point I thought: *This is going to be an exercise in futility. It’s definitely a boat we should **not** have.*

Nevertheless, during the day, while everyone else was at school and work, I decided to clean it up just a little. Three hours later, after I heaved 11 large green leaf-bags, filled with everything from pieces of frayed line to 30-year-old charts, overboard, Stephen came home and showed me the long list of “projects” that this boat needed — not in order to sail, but simply to float again. I realized suddenly that the game had hardly begun.

## The hull

Luckily, the gods of good weather answered our prayers shortly after we took delivery of “the heap.” The first order of business was exterior aesthetics. Armed with a gas-mask-like air filter and a box of 40-grit sandpaper, our esteemed captain took to the daunting task of removing all the urethane paint that had built up for nearly 33 years on the topsides. Nearly 20 hours later, the hull, although still not fully stripped of its paint, was once again smooth, and our skipper had taken on the appearance of Papa Smurf.

When you undertake a task such as repainting the hull of a 30-foot vessel, you often wonder just how much paint it will take to cover all that surface area. But perhaps we didn’t wonder enough. After browsing the aisles of the local marine suppliers, we somehow managed to buy enough Hatteras White to paint the Alberg five times over, at two coats

**T**he fall of 1997 brought with it the usual sights . . . the oranges, yellows, and reds of the leaves, the crisp night air and the sounds of children rushing to get a seat on the school bus. But one autumn was a bit different. I’ll never forget the sight of that semitrailer with its billowing soot exhausting into the sky, driving up our small residential street, 60 miles from the nearest salt water. Cradled behind it, was a beautiful (so I was told) classic Alberg 30.

I had not been consulted about the purchase of this sailboat, nor had I wanted to be. I thought the 22-foot O’Day we’d owned for the past eight years was perfect for our needs. A family of five could do a little day sailing on Buzzards Bay and then go home. Little did I know that my



it. I cannot honestly say this classic design was a “beautiful” boat as far as I was concerned. The hull was painted robin’s-egg blue, the teak (all of it) was black with gray specks, the lifeline stanchions were bent, the white

fiberglass decking was blackened, and the name painted on the stern was not something that I wanted my three children to repeat. And that was just the outside.

Down below, the scene was something from the evening news: “Tornado Rips Through 30-foot Sailboat Interior.” Not only did the interior have

*by Joyce Sousa  
with son  
Christopher Sousa*



# Vela

*It took willpower, elbow grease,  
and a whole lot of paint, but  
in the end a skeptic was won over*

per application. Oh yes, we bought a lot of paint.

But at least the painting went well. The first coat looked brilliant in the

late fall sunshine. The warmth of the Indian Summer worked its magic as the paint dried. The next coat also came out great, except for slight blushing in the finish. Within the next week, all the exterior teak had been sanded and sealed, and the exterior actually looked presentable again.

## **The deck**

Then we started on the next job, an inspection of the deck. Many boats from

the 1960s and 1970s are plagued with deck delamination. Over the years, the wooden (usually balsa) core within the sandwich of fiberglass has soaked up water that has seeped in around badly sealed deck fittings. After a time, the water rots the balsa, and the decks become spongy. But Alberg 30, hull #114, was quite a different story. During the earlier production years (1960s), Albergs were manufactured with Masonite coring, rather than end-grain balsa, in the decks. Therefore, our boat had no water intrusion whatsoever, and the decks were as solid as the day they were attached to the hull. Masonite is also stiffer than balsa, so this boat had no stress fractures. We were happy, to say the least, that the deck needed no structural repair.

## **Down below**

Newer boats often have headliners. These are great for eye-pleasing views



*At left above, Alberg 30 Carina Vela sailing once again — this time on a cruise to the Isle of Shoals. Co-author Chris in the cockpit maneuvers the tiller by foot. Above, Captain Stephen and his now much more loyal crew, Joyce. At right, Carina Vela in the slings as she is about to be immersed at Gloucester, Mass.*





**Above, during the refit process the boat's "small, but workable galley," as Joyce describes it, and the V-berth under renovation.**

of boat-show quality cabins, but are a maintenance nightmare if you need to rip every piece of wiring out of the boat. This was precisely what we needed to do to *Carina Vela*. The lack of a headliner made wiring much easier.

When we purchased her, the wiring was bunched with tape and terminated with wire-nuts. Wiring was strewn about and routed in endless loops around the cabin. Not one light worked.

During early December all wiring and the fuse panel were removed from the boat and placed in a trash barrel (we kept one bunch as a souvenir). That month, we ordered a custom breaker panel from Bass Electronics, and we bought large spools of wire. In the bitter New England winter months that followed, the skipper and I worked, with the aid of space heaters, roughing in nearly 200 feet of wire to the area that would house the new circuit panel and to the locations of the new brass light fixtures. The tinned wire was crimped and soldered to forestall corrosion. Due to the amount of work still required in the cabin, we did not install any lighting or the box to house the circuit panel for another few months.

The interior of the cabin was the same "robin's-egg blue" color as the topsides and happened to be in the same condition. Before covering the boat for the winter, Steve had sanded, scraped, and epoxied the inside of the cabin to a very smooth surface. Blue dust covered the inside of the cabin all winter, but we consoled ourselves with the thought that it would be removed come springtime.

During the winter months, we also removed all the gate-valve seacocks and through-hulls to prepare for replacement with full-flow ball valves and new through-hulls. We also removed the entire stern-tube/prop-shaft assembly during the fall (which required removal of the rudder), and ordered new ones. This included replacement of the worn bronze shaft with stainless steel, a new stern-tube/Cutless bearing assembly, and a new dripless stuffing box. These items by themselves were a costly venture, but we felt the investment was warranted because of the added insurance they gave us.

The portlights on this vintage vessel were so badly scratched and fogged that

they, too, needed replacing. We tried to remove the original aluminum window frames, but the anodizing had worn off long ago, and the frames fractured and fell apart in our hands.

## Finishing touches

I felt a developing connection to *Carina Vela*. She had become beautiful to me, and the finishing touches would be mine. The portlight curtains were white-on-white, tied onto mahogany-stained rods. This made for a wonderful contrast to the interior of the mahogany-and-white cabin.

We recovered the cushions with Sunbrella fabric in Pacific Blue, which complemented the large red and blue throw pillows. One glance into our world of varnish revealed an antique beauty that we had seldom seen in similar boats.

The first season aboard came and went, and it was a sad day when *Carina Vela* was pulled from the water and placed on her cradle for the harsh New England winter months ahead.

We decided that year to store her in the marina in Gloucester. I was actually looking forward to watching those streams of billowing soot from the semi hauling our magnificent sailboat up the street. Looking out of my bedroom window this winter won't be the same . . . she won't be sitting on her jackstands, the largest object in the neighborhood.

After sailing on *Carina Vela* for the past two summers, I have discovered that I enjoy being out on the open ocean, reaching for the warmth of the sun and feeling the salt spray upon my face.

I've grown to respect her and the ritualistic dance she does with the waves. Maybe what I've learned is true . . . I've had an experience with calming the fury of the sea in a vessel that is truly worthy of her name: *Carina Vela*.



*Carina Vela is sailed out of Ipswich, Mass, by Stephen Sousa and family: Joyce, Chris, Becky, and Rachel. Authors Joyce and Chris are pictured on the previous page.*



# The naming of *Carina Vela*

When you purchase a "new" vessel, the name needs to suit those who will be trusting their lives to her seaworthiness. As I have mentioned, the previous name was a mouthful, and not one I would want to keep. Our last boat was named *Serendipity* . . . a great name; however, a very popular one.

I do understand that the sea gods prefer one to carry the same name over from boat to boat, maybe altering it just so slightly by adding a Roman numeral. But, since we were virtually going to have a "new" sailboat, I thought Neptune would be forgiving this time around.

So now we began a search for a new name that fit hull #114. This was my "project," since there were so many in which I did not participate. Like nearly

every sailor, I wanted to have a name that would represent the sea and the stars, by which sailors still navigate to this day.

My son, Chris, an avid amateur astronomer, had several books on the subject of constellations and it didn't take much time to come across some meaningful Latin. In fact, there were two constellations in the southern skies that fit the bill. *Carina*, translated, meant keel; *Vela* meant sails.

*Carina* alone would have been appropriate, because the Alberg has a very long, full keel. However, the addition of *Vela* completed the name and added a romantic flair to a boat that had graced the waters of New England and the Chesapeake for the past 33 years.



*Carina Vela sailing on Ipswich Bay.*

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## Continued from 3

EPIRBs, SSB, ham, dinghy davits, battery monitors and, well you get the picture. I wonder how Vespucci, Magellan or Slocum ever went sailing? It does get intimidating.

**Frank Himes**  
Annapolis, Md.

### Medicine article was great

We are in Curacao planning to cruise the Pacific. I used your articles about updating your medicine chest on board (July 1999 issue). It was the most informative piece I have read on the subject. I was able to get nearly every drug mentioned from a local pharmacist. Keep up the good work!

**Maureen and Tom O'Brien**  
Palm City, Fla.

### Where's the pressure?

I've waited and waited, but there have been no high-pressure maneuvers for me to purchase your magazine. This may sound like "sour grapes," but I'll give you a couple of examples of why I've lost faith in magazines. After subscribing to two magazines for a year, they started sending renewal notices after two months' time. Another editor sent two free issues but also sent a subscription notice back-dated two months, for one year's subscription. It took three letters of cancellation to get away from this thief.

**Eugene Lavallee**  
Cape Coral, Fla.

*Know what, Eugene? The same thing's happened to us. We have one sailing subscription going through the year 2003, because they keep telling us it's time to renew, and we fall for it! At Good Old Boat we may be annoying from time to time, but it's more likely due to incompetence and naïveté, not aggressive sales policies.*

### Decisions, decisions

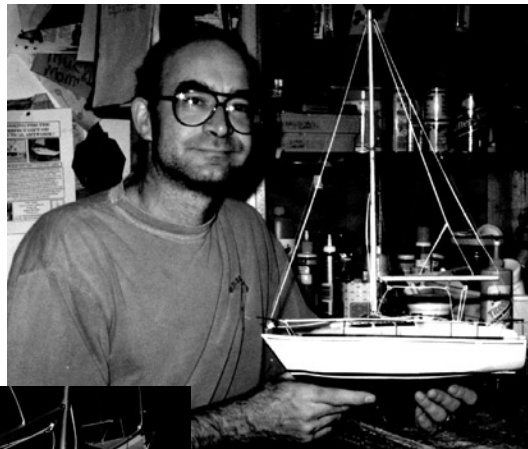
I'm looking forward to the next issues of *Good Old Boat*. Eva (my spouse) said last night that I'm only allowed two boat magazine subscriptions this year

(bought new main last week) so *Good Old Boat* is one, and the other I haven't decided as yet.

**Wayne Gooderham**  
Bolton, Ontario

### Collector

Over the years I have collected a lot of good old boats. I presently have a gaff Flicka, Seawind ketch, Pearson 35, Pearson Wanderer, and a Sparkman & Stephens Columbia 29. Also a few assorted small boats. I sorta discovered an amazing economic theory that got me entangled with a fleet of boats. When I was younger, I had no money to buy a beautiful, expensive boat. Then later on, when older with more money, I discovered I could afford one of these beautiful boats which now was a bargain just because it was older. As time went on and I got older and made more money, the boats got older and cost less money, and the cycle continues.



**Modelmaker Tom Thomas shows off the Bluewater 277 model he built for Good Old Boat sweepstakes winners John and Sue Kowalczyk (see note at right).**

I like your magazine idea. People who have to care for aging boats learn a lot about boat husbandry because of the skills and knowledge developed during the process of maintaining them. So they become self-reliant sailors who can keep these wonderful old boats going.

**H. Garey Linthicum**  
Sherwood Forest, Md.

PS: Today I was torn between an aging Bristol trawler and a matured Sabre sloop. It seemed a shame not to give them a loving home for an outlay of money hardly enough to buy a good used car.

### Happy winner

Received the bag this afternoon [*won as one of three subscribers in the Good Old Boat contest*] and I am really delighted with your efforts. I wish I had my boat ready to sail so the bag's first use would be on the water. Can't wait that long to show it off, however, so will use it on our next land trip to break it in. Thanks again for the outstanding job.

**Rick Laws**  
Kennewick, Wash.

*We told Rick, "Now you see why we wanted Ken Kloeber of Weekend'R Bag <<http://members.aol.com/WkndrBag>> to make these bags for our prize drawing. We just love our bags also." And we asked if we could quote him. He came back with this:*

By all means, you can quote me. I am very pleased with my prize. I've never seen a bag with more cubby holes and places to store things in all my life. The zip-off end is the "cat's meow."

### Note from modelmaker Tom

As line drawings were unavailable, the Bluewater 277 model (*shown at left*) was built for contest winners John and Sue Kowalczyk using 10 photos of the boat, measurements, and sketches. The hull, keel, and cabin are carved from solid wood and assembled. Deck details are hand-carved. The mast and boom are shaped and painted, stepped and rigged. I hope John and his family will enjoy it as much as I enjoyed building it. <<http://www.nauticart.com>>

**Tom Thomas**  
Kearney, Mo.

### Can't live without it

I have decided I can't live without your magazine, winter coming and all . . . I was at Barker's Island (in Superior, Wis.) yesterday looking at all the boats and got a serious case of two-foot disease. A Pacific Seacraft 20-foot Flicka caused all of the feelings. What a little sweetheart!

**Michael "Bones" Bowden**  
Minneapolis, Minn.

*For the record, Mike sails a Montgomery 17. We heard from another sailor who says he's developed "Flicka-lust" after seeing our November issue.*

### Flickas? Not all were pleased

John Vigor's review of the Flicka left me wondering if he has actually ever sailed on one. The review reads as if he were speculating on performance, based strictly on dimensions. His repetitive

**Continued on 69**





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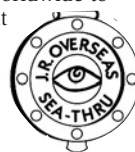
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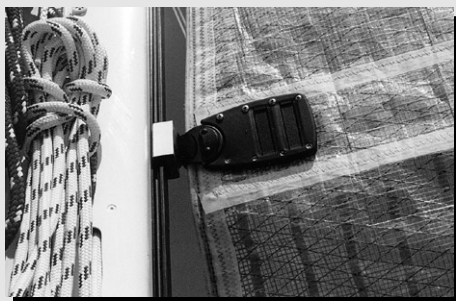
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## Continued from 66

use of value-laden terms such as bath-tub-sized toy, tubby, pug-ugly, tot, and so forth do not give us a sense that this is an objective review. No serious sailor ever calls a boat "cute." He faults the boat for characteristics that many, many boats have, such as needing to reef in 25-knot winds. He imputes a safety rating without stating its basis and without suggesting what characteristics lead to higher ratings.

So all in all, his constant damning with faint praise, unsupported assertions, extensive use of highly subjective adjectives, and vague allusions to performance and safety characteristics leave me, and I suspect many others, wishing for a more objective, fact-based, review. This one does not do justice to a fine boat. It is not good journalism, either.

**Mike Nelson**  
Yellow Springs, Ohio

### Flickas? Another view

There are "rumbles" afoot that John Vigor damned the boat with faint praise. Frankly, I disagree with the detractors of the article. Flickas are, in fact, cult boats. Some call them "cute" (which I think John did in excess) but nonetheless they are at least (and probably mostly) that. *Practical Sailor* said pretty much the same in their February 1982 analysis.

Yet, how can you criticize a small cockpit in a 20-footer if you don't criticize a 36-footer for not having a helipad? I think it's obvious that there are faster 20-footers, but nobody faults a Bristol Channel Cutter for not being a greyhound at 28 feet. What is missed is the true — undeniably true — pith of John's article. We who treasure these craft have solace enough in knowing the boat is capable of going "out there," if we are also capable. That — plus the "Posh" image that a well-kept, yet capable, boat of this size engenders — is at the foundation of Flicka ownership. We all "Walter Mitty." Why not do it in the Flicka context?

The Flicka is a small boat for big reasons. Salty and of traditional mein, seaworthy by careful, respectful nabobs, and, like a dowager duchess — worthy of her keep as a staid representation of what was and is "pug ugly" until the worthy 20-foot successor comes along. I would love to write the reprise on that boat.

**Bill Strop**  
Kansas City, Mo.

### Bayfields also

As an ex-owner of a 1978 Bayfield 25, the *Reggae*, (sail #368) on the south shore of Long Island, I feel I have to point out that there were two versions of that vessel. The first had a longer cockpit and shorter house with a dinette layout. This vessel had a shoal-draft (2'11") keel and a shaft with a P-strut. The later model had a longer deckhouse with standard settee and a full keel with cutaway forefoot, keel-hung rudder and a draft of 3'6". . . a much better sailing boat (for a Bayfield, that is). I don't

know at what hull number the change was made; maybe Ted Gozzard would remember. I sailed the *Reggae* for seven years and sailed her a lot. I replaced her with a Bristol 29.9, *Solitaire*, in August 1996. I have since retired and now have less time to sail than ever

Keep the good work on the magazine . . . love it.

**Rudi Oudshoorn**  
Bellmore, NY

Send questions and comments to Good Old Boat, 7340 Niagara Lane North, Maple Grove, MN 55311 or by email to [jerry@goodoldboat.com](mailto:jerry@goodoldboat.com). Limit them to 150 or fewer words (we reserve the right to edit).



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**Dave Herzog, 218-238-5002**

**218-238-6105 (fx),**

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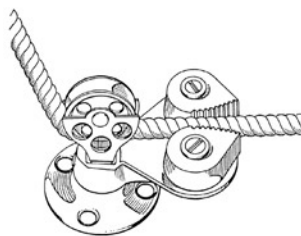
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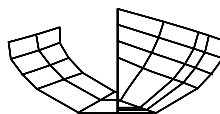
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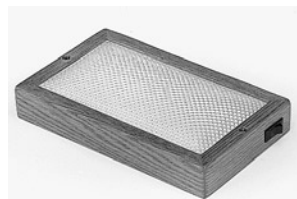
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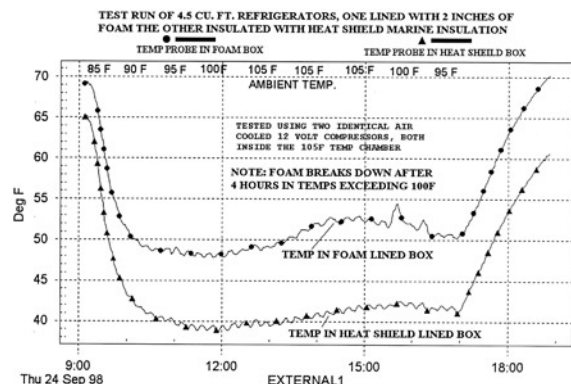
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# Lazy day reading, technical and otherwise

## A sextant makes sense

To some modern navigators the admonition: “Do not rely on a single source of navigation” means they are safe with a second GPS receiver aboard. I remember one night sailing down the East African coast, in and out of the 5-knot wandering Agulhas Current, when the U.S. Air Force shut down the GPS system. My almost total dependence on “reliable” modern navigation systems (loran, Satnav, and GPS) over the past 30 or so years had made my ancient celestial knowledge rusty. The cruise along the African coast became a very uncomfortable trip. Fortunately, I had aboard my cherished — and equally ancient — British, pre-WWII sextant of brass, silver, and ivory.

Perhaps with today’s nearly total reliance on modern navigational systems, *100 Problems in Celestial Navigation* might fill an important role, rather than — as you might initially think — just stimulating the memory, or providing games for armchair sailors.

The celestial learning curve may have some sharp spikes in it when you’re trying to recapture old knowledge at the navigation table aboard a tossing sailboat at sea, with saltwater-soaked skin and only three hours sleep over the past four watches. Confidence may be lacking in the solutions. Safety may be lacking in the results.

Navigators — beginning and experienced — can enjoy fascinating voyages at home or aboard a boat in the stillness of the harbor. Gray’s second edition of *100 Problems* puts you back to sea in a realistic way with problems designed to review and instruct. It gives you the vicarious enjoyment of actually being there. These are not just academic “canned” problems. The author includes “blunders” to test problems you might experience during real voyaging. He doesn’t always offer neat solutions. Problems are designed to test your judgment and ability to

search for alternative clues, proving that navigation is not all science but a creative art as well.

All reference tables are included to complete the voyages presented, as is a sight reduction form for publications H.O. 249 or H.O. 229. Furthermore, an appendix includes a review of procedures for all the necessary methods. After completing just a few of the 19 book voyages, both the pollywog and shellback should navigate comfortably by celestial spheres with newfound confidence.

I found this book to be a refreshing approach to the study of celestial navigation. It removes the typical pedantic study and adds stimulating, imaginative adventure. The beginner learning celestial navigation will experience the problems of voyaging across the equator or international date line, and the “old pro” might be reminded of former voyages. The reader/navigator can never get lost. The answers are in the appendix — not so at sea, unfortunately.

***100 Problems in Celestial Navigation; Self-Contained — With Answers***, by Leonard Gray (Paradise Cay Publications and Celestaire, Inc; 1999; 168 pages; \$19.95.)

*Reviewed by Tom Beard,  
Port Angeles, Wash.*

## Boatbuilding family portrait

Douglas Whynott spends June 1996 to July 1997 observing events at the Brooklin Boat Yard in Maine. It turns out to be a significant year for observation, and he weaves a detailed tapestry of the boatbuilders, the townspeople, the boats under construction and repair, and members of the White family, who run the yard. He makes you understand the people involved and teaches you a great deal about boatbuilding.

The emphasis is on three generations of Whites, beginning with the famous E. B. White, an amateur sailor and famous author who also worked for *The New Yorker*. E. B. wrote for adults and children, but it is for the children’s books, such as *Charlotte’s Web*, that he is best remembered, along with the ever-popular grammar guide, *Strunk and White’s Elements of Style*.

E. B. White moved to Maine in 1938 to become a writer, after spending

summers there while working in New York. In Maine, he passed his love of sailing on to his young son, Joel, who later studied naval architecture and eventually became owner of the Brooklin Boat Yard.

In 1997-98, the slice of time under Douglas Whynott’s microscope, Joel is battling (and eventually dies of) cancer, and his son Steve, has taken over the operational responsibilities. But Joel remains upbeat and continues working and designing a couple of boats, one of which is completed. He is also doing some oral readings of his father’s works, which are being commercially taped and sold as *White on White*.

Whynott ties all this together with profiles of town life, the boatyard, the workers there, Joel’s special relationship with Jon Wilson (the founder of *WoodenBoat*, which is headquartered nearby), and the glory of Maine.

At one point in the book, Bob, one of the yard workers, tells the author, “The displacement of a boat is a good indicator of the time and money involved.”

Whynott responds: “Displacement is also equal to the weight of the boat, right?” Meaning that the amount of water displaced by a boat is equal to its weight.

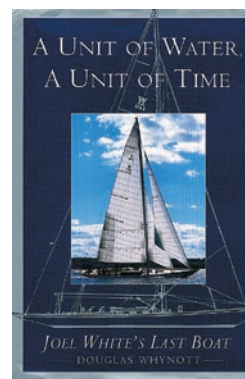
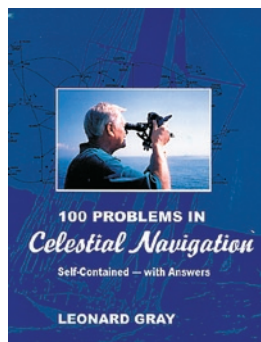
“Exactly equal,” Bob says.

“These seem odd equivalencies,” the author muses, “the idea that a water’s weight could be equal to the time and money spent displacing it. Didn’t that make a unit of water equivalent to a unit of time, and didn’t this seem right, that in the boatbuilder’s realm, water could somehow equal time?”

It’s getting to know those who inhabit the Brooklin Boat Yard and reading Whynott’s quirky insights that make this book a joy to read.

***A Unit of Water A Unit of Time: Joel White’s Last Boat***, by Douglas Whynott (Doubleday; 1999; 303 pages; \$23.95.)

*Reviewed by Karen Larson,  
Minneapolis, Minn.*



## On Tristan Jones's boat

It is nice to see a story about an older boat and one rich in history like Tristan Jones's *Sea Dart*. I have followed some of Jones's writing and knew he was quite an adventurer, one who has sailed many an ocean. You won't be disappointed with the chapter devoted to his story of life under sail on *Sea Dart*. Although it follows what has been written in other works, the book gives a more condensed version of his life.

The book tells of *Sea Dart*'s ever-changing owners who, in one way or

another, try to keep up her beauty through expensive refits. Several times, owners felt the price was too high and tried to find organizations willing to take over this little part of history. As she is an old wooden boat, many were

wary of the price they would have to pay to maintain *Sea Dart*.

It would seem that with all her credentials, *Sea Dart* would have no trouble finding an owner who would maintain her properly. But Tristan Jones set forth a list of wishes that he hoped would be followed by anyone who took over the ownership. He stated that she could never be resold for profit. The boat was to be put to good use, teaching children to sail, as he had done all his life. In the end, *Sea Dart* does find the "perfect home" and today continues showing what great adventures can be had, even in a small old wooden sailboat.

*Sea Dart* was built in 1960 as a shallow-draft family cruiser in England. Who could have foreseen what an ocean sailing vessel she would turn out to be? This boat is filled with the history of a wonderful life under sail. She has traveled across oceans, logging thousands of miles, with a list of ports of call that would make any of us jealous. She has traveled countless rivers and inland lakes along with crossings of mountains and jungles. She was sailed, trucked, shipped, dragged by oxen across uncharted land, and put

on a train. This is just a small part of the travels of a very different-style boat.

Although this story takes a lot of shortcuts in telling about the life and times of *Sea Dart*, it makes for some interesting reading. If it whets your appetite to learn more about the sailing life of Tristan Jones and his boat, then it has done its job. There is a fine bibliography that will guide you to even more details about the life of a very entertaining man and his many loves, the boats he has owned, and the oceans he has sailed.

***Sailing Among the Stars: The Story of Sea Dart***, by Laurel Wagers (Sheridan House; 1999; 128 pages; \$9.95.)

Reviewed by Jim McCarty,  
Glens Falls, N.Y.

## Don Casey makes it easy

Don Casey wants to make electricity as simple as possible. So in *Sailboat Electrics Simplified*, part of the International Marine Sailboat Library series, he omits extensive theory and keeps his explanations brief. Yet the necessary information is there for the would-be doers of the world.

Don promises a simplified presentation of electrical systems and delivers on that promise. He has written several books meant to make complex technical topics accessible to non-technical sailors. The challenge is to deliver just the right amount of information — not too much, or you lose the reader, and not too little, or the reader will get into trouble for want of understanding and guidance. Don gets it just about right.

Following the introductory sections on safety and basics concepts, Chapter Three has an excellent explanation and discussion of batteries: how they work (and fail) and how types differ from one another. He covers starting, deep-cycle, gels, and AGMs. This may be the best-written survey of current battery technology in print.

He also covers DC and AC wiring, from wire types and selection to over-current protection, and includes helpful

tips on wiring methods. He recommends the use of good materials and practices. But he is practical in his approach and points out ways to save money. For example, while there is a growing trend in new boats to install circuit-breaker panels that look like they would be appropriate for controlling a nuclear power plant, Don points out that there really isn't anything wrong with using fuses. He notes that if a boat is properly wired, circuit breakers offer very little advantage, since there will be very few occasions when a fuse would blow or a circuit breaker would trip. This is valuable advice because a centralized circuit-breaker panel, besides being expensive, will often require twice as much wiring.

There is a well-thought-out chapter on troubleshooting, which includes a fine section on using a digital multimeter. Don's philosophy on multimeters is simple: If you don't have one, you need one. If you have an old analog meter, replace it with a digital multimeter. With this tool, you can troubleshoot all the electrical power systems on your boat.

This hardcover book also offers good sections on shore power, lightning protection, bonding, and radio-frequency grounding.

It relies heavily on illustrations. The excellent additions have been done by the author, and by Kim and Jamie Downing, and by Jim Sollers.

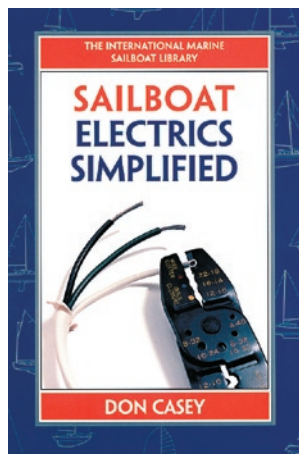
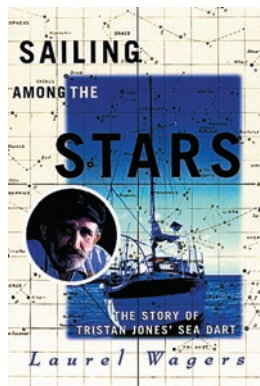
Sailors who are highly motivated, willing to read, and ready to study this book will be able to delve more deeply

into the mysteries of their boats' electrical systems.

Batteries included. Careful reading required. A good book.

***Sailboat Electrics Simplified***, by Don Casey (International Marine; 1999; 176 pages; \$21.95.)

Reviewed by Jerry Powlas,  
Minneapolis, Minn.





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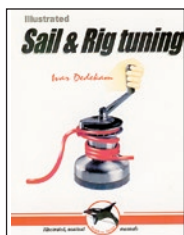
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**Michael and Patty Facius, above**



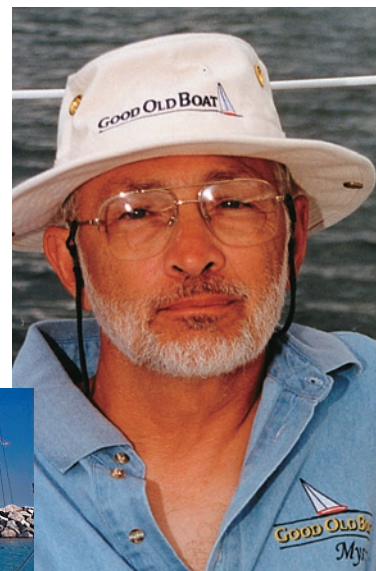
**Michael and Patty Facius**, above, made our day. First they sent these great photos (proving that we have, in fact, sold a couple of *Good Old Boat* hats. See? There they are: two ball caps!) More remarkable than that, they took us seriously. In our November 1998 issue Jerry wrote about the vang/preventer we use on our C&C 30. Lo and behold, one year later, Michael and Patty have one just like it . . . and they *LIKE* it as much as we do! (They write: "Thanks for introducing the idea and all your added help, via email, as we figured out block and line sizing, etc.") They sail a C&C 30, named *Callisto*.

**Ken Kloeber**, at right, is the guy who really makes the *Good Old Boat* hats, shirts, and embroidery happen. His is the address on the opposite page. He does the work. All we get is the glory. The dog is Puppy. But friends can call her Pup. She's 17 years old and still sailing. She helps Ken sail *Positive Impact*, a Catalina 30.

**Jerry Powlas**, at top right, is modeling the Tilley hat. Jerry is *Good Old Boat's* technical editor and co-founder.

**Mike Perlman** is hiding there in the tiny photo with the short-sleeve shirt. He sent a jpg file, which is why it's so small, but we just had to get him in here in spite of the limitation of jpg files, which are best used on the World Wide Web. Mike sails a Pearson Ensign, *Zephyr*. We don't think your name *has* to be Mike or Michael in order to get on these pages, but it helps!

All hats and shirts have the *Good Old Boat* logo embroidered on them. You can have your name, boat name, boat type, yacht club . . . whatever personalizes it for you . . . up to two lines, for an extra \$6<sup>95</sup>. Want larger sizes? Smaller sizes? Children's sizes? Different colors? Something on the collar? On the sleeve of the short-sleeved shirt? That and much more is possible. Please ask Ken. (He's the nice guy pictured here.)



**Jerry Powlas, above**



**At left, Mike Perlman and Zephyr, a Pearson Ensign**



**Maker of these shirts and hats, Ken Kloeber, and his boss, Puppy, above**



# A mid-winter

While the rest of the boatyard slumbers  
beneath a blanket of snow,  
he steals aboard to reminisce

**B**arnegat Bay lies on the New Jersey coast between Manasquan and Atlantic City. Annually, it changes, like a chameleon, from the bright colors of a summer resort to the slate gray of a no-man's-land in winter. It is here that I visit my schooner, *Delphinus*, in the winter months, to provide her comfort and to give her the assurance that there are warm breezes and sunny skies to come.

The road leading to the marina where *Delphinus* winters in the water passes through the old town of Barnegat on the edge of the New Jersey pine barrens. Heading seaward from town, the woods slowly recede into tidal marshes and streams. There's an artesian spring just off the road before the marina. Although it's only a few feet above sea level, it gushes fresh and clear, winter and summer, providing the assurance that not far below, the earth is oblivious to our winter storms. I stop and fill a water jug I'll use for coffee on board.

Just around the next turn in the road, the scene comes to life. Ahead is an old wooden bridge, arching across a tributary to the bay. The many tidal streams that cut through the meadows and woods are ice-covered and scoured of snow by the malevolent northeast winds. Beyond the bridge, a forest of masts identifies the marina. To the right, the half-submerged sedges that, in warmer seasons, provide the breeding grounds for this interface of land and water, now have their marsh grass combed flat by gale winds and snow.

## Standing sentinel

Off the channel, a boat that had lived too long lies submerged, canted on the sloping bottom, her plumb bow proclaiming her years. Beyond the elbow of land where my schooner hibernates, the bay opens up. On the horizon is the island of Long Beach, where Barnegat Lighthouse, dressed in the red-and-white of a British Grenadier, stands sentinel over treacherous Barnegat Inlet.

I drive across the bridge and turn in at the marina. As I move through the trackless snow along the slips, I see unfrozen water around the boats, dimpled by air bubbles rising from the bubbler system. Some boat covers billow like spinnakers in the northeast wind. Others, weighted with ice and snow, hug the contours of the decks, while still others, through either age or neglect, flap in the wind, tattered and ravaged by the

gales of winter. Looking farther up the slips, I see my schooner. The winter cover is intact, and she's floating on her lines. Though I expect no problems, it's always a relief to see her safe.

I stop the car in front of my slip and get out. Even in daylight, there's that certain slant of light in the sullen mid-winter sky that gives it an ominous pewter color, subordinating the dimly visible sun.

## Mournful song

The shrouds whistling in the wind, the moaning of stretched mooring lines, and the timpani of halyards striking spars fragment the solitude of the marina and transmute nature's message into a mournful song.

## Reflections



# visit



As I stand alone amid the effusion of sounds, I look across the open water in the bay. Wavelets, irritated by the wind, show their teeth as they chew away at the edge of the ice, creating a scimitar of white. The private channel markers — cedar saplings with red triangles and black squares tacked on top — have disappeared, lifted inch by inch by the ice at each tidal change.

Dusting snow scuds across the ice until it falls into oblivion in patches of dark, unfrozen water, where old squaws swim and dive, their black-and-white plumage mimicking their environment.

The cold wind is penetrating. I turn and crawl under the cover of my boat. The gray of the sky enhances the darkness below. In the cabin, I light the kerosene trawler lamp above the table and pour some alcohol into the preheat cup of the stove. As I wait for the coffeepot to steam, I check the through-hulls, hoses, and stuffing box. I pump the bilge dry and add antifreeze.

## Closer identification

I pour my coffee and sit down at the settee in the self-enclosed world of the cabin, wrapping both hands around the coffee mug for warmth. To be on board again is a comfort to the soul.

My eyes roam the cabin. There is, for me, a closer identification with my boat than for most sailors, for I built her from a bare hull. I alone know what unseen bulkhead reinforcements, electrical wiring, and backing plates for my deck fittings lie beneath the mahogany paneling. The time-consuming hull insulation, also unseen, was well worth those extra weeks of work, designed to fashion my schooner into a comfortable cruising home.

On the bookshelf my log, charts, and cruising books, although almost new, have the smell of attic-kept books. I pull down the log and leaf through its pages. Last year's tide table marks my final entry, decommissioning day in November. I thumb through the pages of past cruises, remembering that day in June when we left New York

Harbor in a dense fog and 11 hours later turned toward land and saw the entrance buoy to Barnegat Inlet emerge from the mist; and the hot, humid day in the Gulf Stream off

Florida, when we took the sails down and jumped overboard for a swim.

## Anticipation

Those blank pages of the logbook, yet to be filled, provide the anticipation of cruises to come. This year we plan to explore the estuaries and islands of Chesapeake's Eastern Shore, and for next fall we plan a trip to the Florida Keys.

The ship's clock on the aft bulkhead strikes seven bells. I glance up — it's time to head home. In spite of the cold, as I leave the cabin I feel relaxed and renewed, already looking forward to my next visit. Then there will be only scanty patches of snow, darkening with age, as spring moves north to reclaim the shoreline. The marina will no longer be deserted and the metamorphosis will begin to take place as, one by one, the boats, like living things, emerge from their tarpaulin cocoons, ready to spread their wings of sail.

I lock the cabin door and crawl out from under the winter cover into the cold and gray of reality. Or have I just left it?





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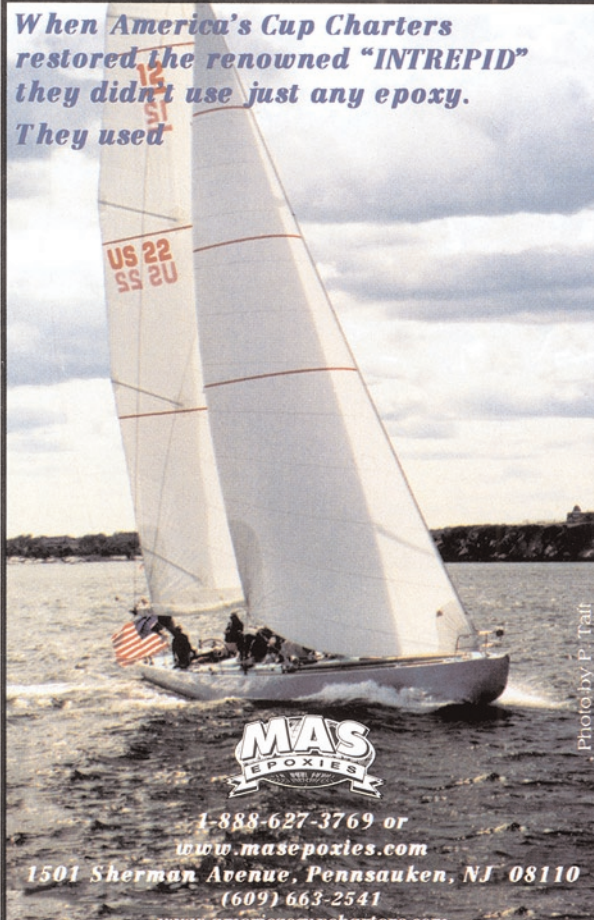


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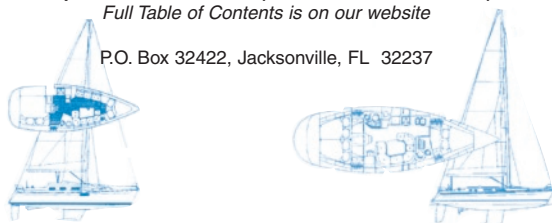
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