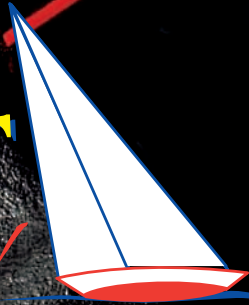


# GOOD OLD BOAT

*Still sailing after all these years!*



JANUARY/FEBRUARY 1999  
Currently available by subscription only





# This Issue



## GOOD OLD BOAT

### Editor and Publisher

Karen Larson

### Technical Editor

Jerry Powlas

### Editorial Board

Ted Brewer

Don Casey

George Day

Ron Dwelle

### Contributing Editor

Bill Sandifer

### Proofreaders

Pat Morris, John Vigor

Volume 2, Number 1 *Good Old Boat*,  
(ISSN 1099-6354) published six times a year by:  
Partnership for Excellence, Inc.  
7340 Niagara Ln. N.  
Maple Grove, MN 55311-2655  
phone: 612-420-8923; fax: 612-420-8921  
email: karen@goodoldboat.com  
web: <<http://www.goodoldboat.com>>

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**Editorial contributions** are handled with  
care, but no liability is accepted.

**Opinions expressed** by the writers are not  
necessarily those of *Good Old Boat* magazine.

### Subscription rates:

One year/two years:

U.S. - \$39.95/\$74.95US

Canada - \$45.95/\$86.95US

Overseas - \$63.95/\$123.95US

**Address changes:** Please contact *Good Old Boat*.

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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 in-depth technical articles focus on  
maintenance and upgrade issues and give them the space they deserve.

**Celebrating older-model sailboats** - We emphasize pride of  
ownership.

- Call: 612-420-8923; Fax: 612-420-8921
- Email: karen@goodoldboat.com or jerry@goodoldboat.com
- Send letters: *Good Old Boat*, 7340 Niagara Lane North,  
Maple Grove, MN 55311-2655.

*Come aboard!*



*the view from here*



# Where's Wanda?

*My thanks to those who showed other women the way ...*

**W**anda, where are you now? A counselor at Minnesota's Camp Birchwood, you taught me the rudiments of sailing years ago. Like you, I was a counselor there, teaching crafts and maintaining order in a hut full of unruly girls. You had a hut full, too, and taught sailing. Sometimes, for sport or leisure, you took me out sailing during time off. You taught me the names of the lines and rigging and let me take my turn at the tiller. You taught me a tack from a jibe. I wasn't into the details at the time, but I bet those were Thistles or Lightnings we sailed so long ago.


That was a magical summer for a young Hoosier girl. I saw my first northern lights — the best display I've ever seen in all my Minnesota summers since then. I never dreamed I'd end up sailing in these northern waters regularly. I grew up on two skis at the end of a towrope behind a powerboat. Our family had a lot of fun water-skiing, and I learned the distinction between bow and stern, port and starboard. That left

training in much of the rest of the terminology to you, Wanda.

Later, much later, I met a sailor. I thought I knew a few things about sailing after our outings so many years before. He was and still is patient and understanding with me as he teaches me the rest (and there's so much more to learn). Sometimes, it turns out he doesn't know it all, and we learn together. I don't think we'll ever stop

learning about this activity we enjoy so much. With many thanks to you and many more to the skipper who

patiently takes me with him and teaches me as I'm ready to learn, I've been having a wonderful time expanding on the earliest concepts you taught me.

There must be dozens or hundreds of Wandas out there who led other women to sailing. (By the way, those young campers must be in their 30s and early 40s by now!) On behalf of them and others like me, Wanda, let me say, "Thank you." And one more thing, are you still out there sailing? 

*by Karen Larson*







# Contributors

**Jerry Powlas, Pages 60, 66, and 72, on the boom scouting the horizon for the next issue**, is technical editor of *Good Old Boat* magazine. In an earlier life he was director of engineering for a refrigeration manufacturing firm until sailing's siren song lured him into something less stable but more fun. He and his wife, Karen Larson, sail *Mystic*, their C&C 30, on Lake Superior.

**Stan Terryll, Page 26 illustrations, on the boom drawing a picture**, has a passion for art, boats, airplanes, and the blues. An art teacher from White Bear Lake, Minn., he designs, builds, and sells small boats as a hobby. Stan also markets limited-edition art prints, primarily with nautical themes. We'll showcase his work one of these days.

**Sven Donaldson, Page 32, in the bosun's chair**, has a background in marine biology, 35 years of sometimes serious sailing, and four years as a sailmaker. He currently works as a marine technical writer and editor and spends, he says, a disproportionate amount of time on junior sailing activities.

**Ted Brewer, Page 22, hoisting the flag**, is one of this country's best-known yacht designers, having worked on the America's Cup boats *American Eagle* and *Weatherly*, as well as boats that won the Olympics, the Gold Cup, and dozens of celebrated ocean races. He also is the man who designed scores of good old boats ... the ones still sailing after all these years.

**Norman Ralph, Page 21, at the mast hoisting Ted**, and his wife, Jeanette, were late bloomers when it came to sailing. After buying a Compac 16 in 1986, they sailed a series of Midwest lakes and reservoirs in a variety of boats. A 1988 trip to the Gulf Coast exposed them to year-round sailing and sowed seeds that initiated early retirement and a move to Lake Pontchartrain in Louisiana.

**Dan Smith, Page 52, at the mast hoisting Norman**, boarded a coal freighter as deckhand in Toledo four days after graduation from high school. His sailboats have included a Snipe, a Flying Scot, a Morgan 22, a Dickerson 35, and an Allied Seawind 30. Hurricane Andrew destroyed *Kohinoor*, the Seawind, in 1992. Dan bought a Marshall Catboat and enjoys winters gunkholing in the Florida Keys.

**Mike Corcoran, Page 7 illustration, hidden from view but hoisting Dan**, and his wife, Maurine, began sailing with a Bandit 19 (which he says he used to think was SO BIG!). They currently sail a Tartan 31, *Four Winds*, on Lake Superior in the waters near Duluth.

**Geoff Parkins, Page 44, cranking the winch**, lives aboard his good old boat, a 46-foot Ted Brewer-designed cutter called *Ocean Tiger* with his girlfriend, Lori, Jake the black Lab, Buster the parrot, and Dirty Kitty. He is restoring a 1965 Pearson Vanguard which can be seen at <http://members.aol.com/gparkins/index.htm>.

**Bob Haussler, Page 18, tailing the sheet**, is a biologist working for the California Energy Commission. After selling their Baba 30, Bob and his wife, Nancy, purchased and live aboard *Swan*, a William Garden-designed ketch. They've sailed together for 29 years up and down the West Coast and to the Marshall Islands.

**Karen Larson, Pages 43, 46, and 56, in the companionway**, is editor of *Good Old Boat* magazine. She has written about sailing for *Sail*, *Cruising World*, *Sailing*, *Northern Breezes*, *Lake Sailor*, and *Lifeline*. Her publishing career began as a newspaper feature writer and page editor and later grew into a thriving newsletter production business.

**Bernard Joseph, Page 6, at the wheel**, and his wife, Hildegard, have sailed extensively on the Great Lakes and made passages to and from the Chesapeake one summer on *Astigafa*, their Alberg 35. Bernard has crewed in a number of Chicago-to-Mackinac races and, as he says, unsuccessfully campaigned his own Columbia 8.3 in club races. (*Wait a minute! The last time I got to drive! How come HE gets to be at the wheel, and I have to be in the galley?* -Ed.)

**Bill Sandifer, Pages 12, 49, and 51, bringing the fuel tank**, is a marine surveyor and smallboat builder who has been living, eating, and sleeping boats since the early '50s when he assisted at Pete Layton's Boat Shop, building a variety of small wooden boats. Since then Bill has worked for Charlie Morgan (Heritage), Don Arnow (Cigarette), and has owned a commercial fiberglass boatbuilding company (Tugboats). Bill and his wife, Genie, currently sail a Pearson Ariel which he restored from a total wreck.

**Dave Chase, Pages 2 and 56 illustrations, recording the action for this drawing**, is a maker of drawings and paintings and foolishness like this caricature of the contributors. With his wife, Susan, he spends summers sailing the Great Lakes in good old *Old Sam Peabody*, a Cabot 36. Some folks say he looks a lot like his caricature; others say he flatters himself.

**Eric Broudy, Page 73, getting into the dinghy**, sails his Ericson Independence, *Rigel*, on Narragansett Bay and yearns for shorter winters. He left corporate publications work to do freelance work on subjects close to his heart, such as good old boats and sailing.

**Ken Textor, Page 26, rowing the dinghy**, has lived and worked aboard boats for the past 22 years. In addition to work he did for the former *Small Boat Journal*, he regularly contributes to *Sail*, *Cruising World*, *Yachting*, *DownEast*, *Maine Boats and Harbors*, and *Boating World*. In addition to writing, he provides boat deliveries and pre-purchase surveys for other mariners.

**Larry DeMers, Page 40, below deck**, has an avid interest in the Internet. His sailing experience started 30 years ago with a wood Melges C-Scow. Now he and his wife, Jan, sail *DeLaMer*, a Cape Dory 30, on Lake Superior. An electrical engineer, Larry is also interested in making video tapes for fun and more recently for profit.

**Reese and Marilyn Palley, Pages 9 and 62, below deck**, have been sailing partners for 20 years. Marilyn is 30 years younger than Reese but has an older (and wiser) head. They live in Key West facing the empty sea. *Unlikely*, their Ted Brewer cutter, is their third leg, completing perfect "passages à trois." Reese has published three books: *There Be No Dragons*, *Unlikely Passages*, and *Unlikely People*, all with Sheridan House.

## Quick tips

Here are some ideas you might want to mention. I've tried most of these, and they work:

**Icebox** – I insulated mine from the inside because I was unwilling to disrupt the woodwork in my Bristol 32. I sanded the interior gelcoat and wiped it clean with acetone. Then I glued two layers of Reflectix (R-16) and a half-inch layer of polyurethane foam to interior walls and lids with epoxy and put two layers of fiberglass over that. After fairing with VC-Watertite, I finished the project with Interlux polyurethane paint. The entire project only removed 3/4 inch from the interior wall, and insulation was increased by R-34. The cost was less than \$70. I finished a two-week cruise with some of the ice I had started with, and this was a hot August.

**Halyard** – I made a plate which fastens to the deck at the base of my mast, to which I can shackle blocks in order to run halyards to the top of the doghouse near the companionway. This allows me to hoist sails and reef from

the cockpit. I also rigged a downhaul line to my genoa halyard, which allows me to pull the sail rapidly to the deck as the boat turns head to wind.

Because the sail is pulled to the deck, you can end up with the sail flaked on your sidedeck in one to two seconds when you choose. This is using a retro-groucher hanked-on sail. I call this "paupers' roller furling."

### Interior wood –

Teak is very expensive. An alternative that often matches teak without stain is black walnut.

This can be

found in lumberyards at a fraction of the cost of teak. Walnut, like teak, is an oily wood which will resist rot when sealed properly. It is very tight-grained and strong, so be prepared to wear out saw blades and sandpaper faster than with more commonly used woods. Other woods to use are cherry, ash, hickory, and curly maple, which all have very nice grain and can be more attractive than teak, if finished properly.

Thanks for a great publication.

Douglas Axtell  
Pultneyville, N.Y.

## Another good idea

I sail a Skipper 20 and do not have a proper "anchor locker." Looking about for a container that would hold the rode (150 feet of 3/8-inch nylon and 15 feet of chain) and be convenient to coil the rode into, I found the perfect storage device at the hardware store: a cord storage wheel. It is bright orange and about 16 inches in diameter. The best part is that in the center of the wheel is a small grip that you hold in one hand while you crank the wheel with a small knob on the side, and PRESTO the rode and chain are neatly coiled. I remove the shackle from the anchor and store the rode belowdeck out of the way. The wheel cost \$6.95.

Ken Young  
Cape Coral, Fla.

## For Columbia owners

I have owned two 1972 Columbias. After months of engine stalls and burned out "add-on" electric fuel pumps, I discovered a 2-inch diameter loop in the fuel line of my first Columbia. The loop was hidden between the outer and inner hull and rested almost vertical against the starboard outer hull just aft of midship. Hence, vapor locks. This problem drove me crazy trying to diagnose, so it was one of the first things I looked for on my second Columbia. Yep! Same loop, same place.

Michael Hubble  
Wellington, Fla.

## Word to the wise

If you're going to install a totally SEPARATE starting battery system and

want a separate starting battery switch, make absolutely sure that you can also do a crossover to the house batteries if the starting battery fails for any reason. Ours didn't have that crossover (separate switch, remember) and it cost plenty to get that taken care of. All of which begs the question: when are you going to have an article on electrical systems for good old boats? And how about an article on the "delightful" discoveries readers have made when they purchase a used (oops — previously owned) good old boat? Granted, a thorough survey is supposed to help alert you to some of the most serious problems, but what about non-critical, but annoying stuff like weird wiring, plumbing additions, changes from hell, bilge beasts that suddenly surface when you're 50 miles offshore, etc. You know, the what-the-hell-were-they-thinking-of-when-they-did-that stuff.

Kerstin Oman  
Bellingham, Wash.

## About that vang/preventer ...

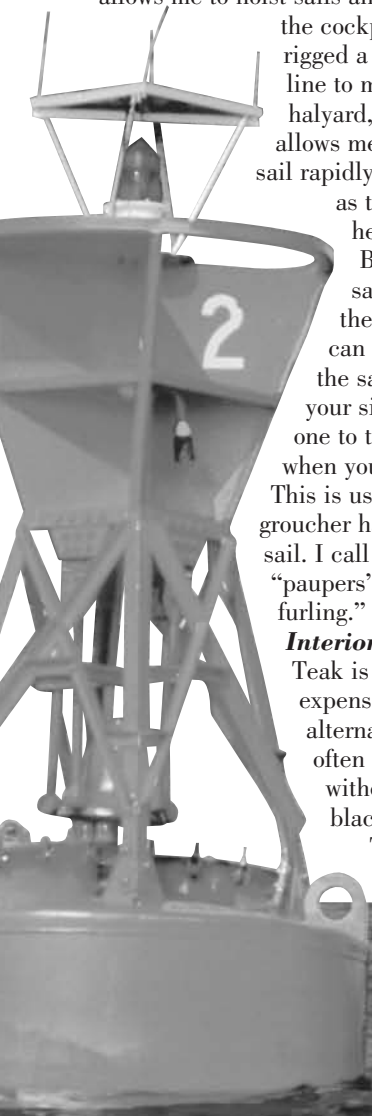
Thanks a lot for your magazine. It was very interesting and the type of boat magazine I like (as do many others it appears). Your article about the vang/preventer was specially interesting to me, as I had a similar arrangement on my 33-foot Norwegian 3/4-ton IOR back in 1987. The system worked very well. In my book, however, I have only described the conventional preventer arrangement.

Ivar Dedekam  
Oslo, Norway

*Ivar has written an excellent book on sail trim which we will review in the next issue. Until then, you can refer to his website: <<http://www.dedekam.com>>*

## Duh!

The best ideas are always so obvious. I recall describing how to make handrails to a *This Old Boat* reader in front of Tom Wolstenholm — New England boatyard owner and old (wooden) boat restorer extraordinaire — and after I said, "Now just cut the board down the center, and you have two perfectly matched handrails," I



could actually see the light bulb over Tom's head.

So when you threw in that bit from Matt Grant about extra slides above the headboard, I just wanted you to know that is the first time I have ever encountered this idea, and it is a keeper. Even if you don't own a trysail, just one extra slide as a convenient way to rig a baby backstay to stop crosswind pumping is worth the price of the magazine.

Beyond that, I want to also compliment you on your "Prioritize" piece — well done and right on the mark. There is, however, one aspect of boat ownership that we overlook at great peril. Sometimes, when all the need-to-do projects offer precious little promise of pleasure, the "right" thing to do is to select one of the optional projects. It is essential to break up drudgery with fun by occasionally doing a project that is aesthetically pleasing, provides a new toy, or is just what you "want" to do. All the "required" things still must be done, but interjecting some joy can make the process far less onerous.

By the way, lest you think I am singling you out for praise, the whole magazine was once again terrific. Congratulations — again.

Don Casey  
Miami, Fla.

*Thanks, Don. Perhaps I was taking that subject too seriously. Certainly the mission of a recreational sailboat is to have fun, so an upgrade that is fun might reasonably make it to the top of the list.*

*wanted to know if any of the upgrades that Tom offers would have made a difference in Dan and Cathy's decision to change to a diesel.*

Thank you for the excellent opportunity to talk with Dan Hauptert and allow me to pass along his comments on his Atomic 4-to-diesel conversion. I spoke with Dan in October and had a wonderful time discussing the issues he had with his Atomic 4. I only wish we could have had the conversation before he had decided to replace his engine with a diesel, as he may have chosen a different course of action.

Dan's primary issue with the Atomic 4 is the one which got me into the upgrade business originally: reliability. Dan commented that he just never was sure whether the engine would start or not. We talked about the electronic ignition conversion. I shared with him that the primary selling point of the electronic package is that you eliminate the points and their tendency to corrode and/or close up (due to wear of the cam follower), leaving the engine unable to be started.

His second issue had to do with fuel economy. I am sure the diesel does do better than the Atomic 4, but with the right prop and our upgrades, I am not sure just how significant the difference would be.

Dan's third concern was the whole gasoline issue. I hear this quite a bit, and I shared with Dan that indeed there is one safety concern that all Atomic 4 owners should be very much aware of. That is the diaphragm in the original mechanical fuel pumps. It will fail at some point. (If you think about it, all of the original ones are at least 20 years old now.) When it does fail, it does not leak gasoline into the bilge, but rather into the crankcase, which is not a whole lot better. This problem is eliminated by the replacement of the mechanical pump with one of our electric fuel pumps. This pump may still fail at some point down the road, but it will not leak fuel.

Dan had installed freshwater cooling on his Atomic 4 but suffered from low operating temperatures, as most Atomic 4s do with the original thermostat and temperature control system. He was interested in hearing that we offer a new means of getting the temperature up to 180 and being able to control it at that temperature.

Lastly we talked about the lack of an oil filter on the Atomic 4 and how nice one would be, even if it was a system which filtered only some reasonable portion of the oil flow. Again, I was able to share with Dan the filter system we offer.

Except for the fuel-consumption issue, our upgrade kits could have eliminated Dan's concerns with the Atomic 4 and perhaps changed his decision to convert to a diesel.

Tom Stevens  
Indigo Electronics Inc.

### A note from Lin Pardey

I hope *Good Old Boat* continues to prosper and grow — it is right on the mark. There are literally thousands of good boats ready to take their owners on lovely local and offshore cruises. They don't need expensive gadgets — they just need simple upgrades to make them even more enjoyable to use.

We've just returned to the U.S. onboard *Talesin* for the first time in 15 years. We're loving the East Coast and the people we meet as we explore the back creeks of the Chesapeake. In a few weeks we will put the boat in a boat shed so we can go to California to do a few seminars and all-day presentations. For sailors who would like to learn more about offshore cruising, we will be presenting the following all-day seminars, the last seminars we'll be doing for at least a year, maybe two:  
**Jan. 14 - 7:30 p.m. slide presentation, Ventura Calif.,** Call 805-654-6459.

**Jan. 15 - 8 p.m. slide presentation, Costa Mesa, Calif.** Call 714-432-5880.

**Jan. 16 - All-day seminar, Costa Mesa, Calif.** Call 714-645-9412.

**Jan. 23 - All-day seminar, Ventura, Calif.** Call 805-525-0064.

**Feb. 3 - All-day seminar, Atlantic City, N.J.** Call 617-720-8606.

**Feb. 4 - 8 p.m. slide presentation, Atlantic City, N.J.** Call 617-720-8606.

Lin Pardey

### Hallberg-Rassy hull #1

My boat is hull #1 of the Monsun series of H-R boats. Because Hallberg-Rassy was formed from a combination of two boatbuilders, the first boat the new firm built was the 21-foot Monsun, and the one I have, hull #1, is the first boat that bore the name "Hallberg-Rassy." I have owned the boat for the past four years and have cruised it all over Long



*This came with a subscription check from Jerry and Catherine Kornish of Port Orchard, Wash. It was a doodle on the business reply envelope, turning our good old boat into a Catalina with one very happy sailor. Thanks for brightening our day with that drawing, Jerry and Catherine!*

### More on the Atomic 4

**Editor's note:** We asked Tom Stevens to contact Dan Hauptert (whose story runs in the September issue of *Good Old Boat*) and discuss the Haupterts' experiences with their Atomic 4. We

**Continued on Page 70**



*Cruising memories . . .*

# Great, but not paradise

In years gone by I'd thought about building a boat. It had been a near-lifetime dream. In my Navy days I spent many an hour looking at the plans published in *Rudder* and reading Chappelle and other great writers. While stationed at Glenview Naval Air Station, not too far from Lake Michigan, I spent evenings with a fellow sailor, rigger Nelson Molson, drinking Harvey's Bristol Cream sherry and talking about that bluewater trip we'd do after being discharged.

We even went so far as to buy an old 12-foot sailboat that we planned to restore and learn on. Boy, were we green. The boat was in such bad shape that we never sailed it. We didn't even repair it, let alone restore it.

Right after my discharge, I followed a friend's lead and applied for a job as a deckhand on *Josephine III*, a grand old sailboat moored at the Grosse Pointe Yacht Club. As I remember, it was owned by a big wheel in the automobile industry. Because I dawdled about instead of going down immediately to the Coast Guard office in Detroit to get my seaman's papers, I didn't get the job. No matter. I forwent the sailing experience and, at the urging of my intended

wife, Hildegard, got an honest job with General Motors at the Research Laboratories, married shortly thereafter, and started to raise a family almost immediately.

In the mid-to-late '60s, my friend Tom Schreiber bought a

Cal 25 and asked me to crew. We spent some great years in the money in most races because of Tom's excellence. By this time, the builder itch had long vanished. Fiberglass had replaced wood as the material of choice for boats. It was now a lot easier to buy a good boat than to build it, but I never thought of owning one. Well, we did

*"Boy! You sure bought a piece of sh--, didn't you?"*

*"Well," I agreed, "I have to fix up a couple of things."*

*"You're gonna sail this around the world?"*

have part ownership in a Grumman canoe with a sailing rig, but that hardly counts.

How the owner urge returned escapes recollection, but in 1979 Hildegard and I took courses at Annapolis Sailing School, chartered a Seaforth in Lake Erie for two weeks when we returned and decided we liked sailing. Late that year we bought a Columbia 8.3, named her *La Yu*, and spent much joyful time over several years sailing lakes St. Clair, Huron, and Erie.

When 1986 and my retirement rolled around, we decided to take the leap. After selling *La Yu* to Carl Schulte, who still owns and sails her regularly, we went to Florida,

hired a local surveyor who didn't know anything about sailboats, bought a 1964 Alberg 35 and shipped it back to Michigan. I didn't plan on becoming a boat builder; I only planned to fix up the rough edges, test sail her on the Great Lakes, and then make our way to exotic places and Paradise.

Hildegard and I took a lot of time deciding on a name. One cannot treat naming as a trivial matter when the vessel is to be your home and transportation to see the world. With music such a strong part of our lives, we were pretty sure that the name would have to be on a musical line. You see a lot of *Andantes*, *Adagios*, *Vivaces*, and such on the water. We tried to think of something not so common. I suggested

*Polonaise* — not only musical, but also a statement of our heritage. In a stroke of musical punning and historical brilliance, Hildegard came up with *Astigafa*.

Perfect! The boat came from the Beatles period; the name is an acronym for A Splendid Time Is Guaranteed For All — with an extra A thrown in for easy pronunciation. John Lennon sings the words at the end of the song "Being for the Benefit of Mr. Kite" from the Sgt. Pepper album. We certainly expected to have a splendid time on her in Paradise.

Actually, Marshall Crenshaw came up with that name for his first

*Artist's rendering of Astigafa awaiting the next adventure.*

Mike Corcoran

**by Bernard Joseph**





band and their first recording studio in Royal Oak. Since the name was legally registered, we probably should have asked his permission to use it. But Marshall had honed his trade in our basement, his band cracking the plaster, gouging the walls, shaking the putty out of the windows, loosening doorknob screws, and (infrequently) bringing the Berkeley police to knock on our door asking the guys to pipe down. We figured he owed us.

The boat arrived at North River Road Marina on the Clinton River. My good friend, ham radio buddy, and sailboat rigger extraordinary, Jon Kaplan, took a look at her as the semi pulled in and said, "Boy! You sure bought a piece of sh--, didn't you?"

"Well," I agreed, "I have to fix up a couple of things."

"You're gonna sail this around the world?"

My rejoinder of, "Maybe not all the way," may have shown a slight lack of confidence by this point.

"Ya better stick around here for a while," he concluded.

I had prepared a new nameplate for the transom to cover up the original *Casta Diva*, and went through the propitiation ceremony attendant to changing the name of a vessel. I offered a Christian prayer; I mumbled something to Allah and Buddha; I poured wine into the river for Neptune; I passed out cigars and offered the smoke to Aeolus; although the moon wasn't up, I offered Druidic rumblings to her, telling her I'd play Donizetti's *Norma* when I got home; I made offering to the four corners to ask Manitou's blessing; and finally, following Chinese tradition, I lit a row of firecrackers to drive away evil spirits. I didn't know how many to use but a dozen, to represent the Zodiac, seemed appropriate. I lined them up on a board under the transom and touched them off in turn with my cigar. The last firecracker didn't go off.

"You're f---ed now," said Jon.

I knew he was a great rigger; I didn't know he was a seer. In backing the boat out of the launch slip to turn it around so we could step the mast, I heard a loud clunk. The wheel spun out of my grip, and the boat circled backward, helpless in mid-river. After the rescue boat, for a pair of 20-dollar bills, towed me back to the slip, I determined that loose setscrews permitted the prop shaft to screw itself out of the coupling. I should have suspected that: when we did the sea trial in Fort Lauderdale, engine vibrations had thrown the coupler bolts. The loud clunk was the prop slamming

### *"Like it or not, I became a boatbuilder at that instant."*

into the rudder and jamming it against the stop. That was fortunate in a way. Had the prop not been in a rudder aperture, the whole shaft would have come out of the boat, and water would have poured in. More than one boat has sunk because of that.

Like it or not, I became a boatbuilder at that instant. With makeshift tools of an unbelievably crude nature, I got the shaft back into the coupler, secure enough for a short, cautious trip downriver to my home, hoping all the time that I wouldn't have to use reverse. After going aground on a sandbar and maneuvering gingerly for about 10 minutes without using reverse, all to the delight of shore folk watching, I got off and got home.

Hildegard and I spent five years rebuilding the boat. We did some great summer sailing in her, hitting all the Great Lakes save Ontario, which we planned to sail on our way out. But the remaining nine months of each year were spent in blood, sweat, and tears. Between us, we acquired about five new scars, a few tens of stitches, a cracked rib, a

couple of torn ligaments, an occasional utter hatred of each other and the boat, and, ultimately, respect for each other and the boat.


We had some good sailing times. *Astigafa* took us to all the Great Lakes, the St. Lawrence and Hudson rivers, through 64 locks, along the Atlantic coast to Chesapeake Bay and back. We accomplished part of the dream with some splendid moments.

We navigated through peasoup fog and rocks in Lake Superior to find a magnificent anchorage in the Agawa Islands. As we went through Quebec's Chambly canal system, which takes you from the St. Lawrence River to Lake Champlain, we happily thought that we were in France. In Sandy Hook Bay, Hildegard harvested enough mussels for two meals and a couple of snacks. She had always

wanted to do that. We had a really splendid time in Annapolis when our daughter visited us. We three stuffed ourselves at a raw bar on local clams, oysters, and crab.

Even some of the bad times had an element of goodness, if only because of a realized sense of accomplishment. Having to dive *sans* wet suit in 64-degree water to verify that we had indeed broken the rudder was not pleasant when going in nor staying under. Yet the exhilaration following the dive, and the pride in being able to fashion a jury rudder and get us safely to Annapolis made up for some of the misery.

However, in spite of five years' cleanup work, the remnants of the fizzled firecracker stayed with us. I'll not repeat the problem litany.

Because of all the work that it took to keep *Astigafa* going, and my own uneasiness, we didn't get to the white sands, palm trees, and blue skies. It's great out there, but it's not Paradise. 

*Contact Good Old Boat to share your cruising memories.*



*In 1978 I was overcome with the desire to have a new good old boat built. A boat that would sail gently around the world and would take, within reason, whatever the furies would throw at her.*

**by Reese Palley**

*This conceit required a boat with a cute, roundy backside, a long seakindly keel that would death-grip the seas and, a thing that was not being done at the time, a pilothouse wherein I could recline in warm and luxurious decadence as the winds blew up to around impossible.*

*The only designer who filled this unlikely bill was Ted Brewer. Thus was Unlikely born and during the next 20 years, in 35,000 miles of circumnavigation, Ted's boat (not mine, really his) cozened and comforted us and kept us safe ... of course we never ran into much more than 50 knots ... until ...*

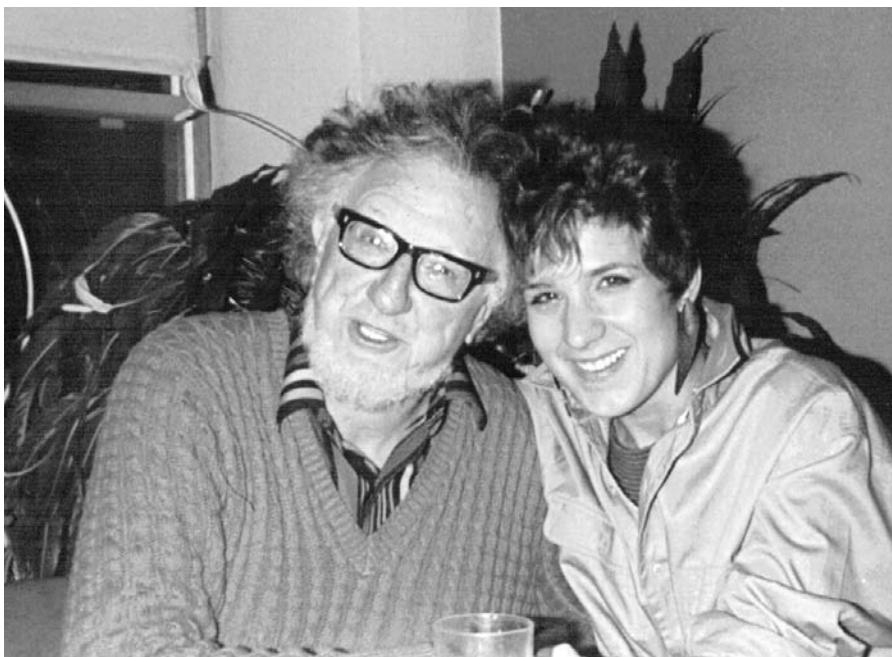
# *Surviving Georges*

**T**he truth is that it is almost impossible to make secure preparations for your boat for any hurricane above force one.

Any boat at anchor or at dock which does survive a major storm needs one large dollop of good luck. Some survive and others do not, and the difference rarely depends on how effectively the boat is prepared.

Is staying with your boat an option? It is my experience from actual storms, that if a wind rises to 50 knots (that is still 50 percent

**Reese Palley, aided by his wife, Marilyn, is the author of *There Be No Dragons*, *Unlikely Passages*, and *Unlikely People*.**



below hurricane force), you will not be able to take any actions to improve your boat's survival while at anchor or tied to a dock. The winds of hurricanes scream beyond description. Not only do they nail you to the deck, but they can also suck the very breath out of your lungs.

A real danger of staying aboard is from flying objects torn from your boat, from other boats nearby or, indeed, from the shore. During a strong blow, the air is filled with objects traveling at speeds easily capable of impaling you to your mast.

Do not stay aboard. Do not underestimate the storm's strength and do not overestimate your own. In anything over even minimal hurricane force, you are less than the proverbial straw in the wind.

Hurricane predictions have risen to a fine art but not yet to a proven and infallible science. Predictors can answer the questions of *where* and of *when*, and they have good information concerning the predominate winds of a hurricane but — and this is a large but — the evidence is accumulating that vagrant winds of tornado force which lie embedded within the hurricane and far exceed the speed of a hurricane's winds of circulation do much of the damage.

Let me tell you the tale of how we almost lost *Unlikely* in Hurricane Georges. We live near Key West, Fla. *Unlikely* is docked behind a strong concrete seawall in a 40-foot-wide canal. This is a little awkward since *Unlikely* is 46 feet in length. The extra six feet, along with higher-than-predicted winds, are what almost sank her.

I was in Spain doing a piece on the fascinating Basque country and the terrible Bay of Biscay when I

first heard that Georges might well strike my home and boat. I managed a quick flight home and arrived at the Key West Airport on the last flight in before they closed the

*“The mourning lasted the entire night, and since my whole sense of self, my relevance, has been linked to Unlikely for 20 years, the emotional blow of contemplating her loss was unbearable.”*

airport. I was rushing to get in, while everybody else was fighting to get out. A local TV crew found this highly amusing, but since my deadly serious business was to protect my boat, my companion of 20 years, I was not amused.

By now we knew that the storm would surely pass over the Keys at some point. Most of us hoped it would miss us entirely, since Key West had not experienced a hurricane since 1965. Many storms had approached but, as hurricanes generally do, they veered northward at the last moment. We felt protected by Cuba which, being a large land mass, either takes the sting out of a blow or bends it north toward the Carolinas.

This time, however, the hurricane acted as no other had done in all the years that hurricanes had been tracked. Hurricanes always lose strength over land. Georges hardly did. When he approached Cuba, he slyly sidled just off the northern coast and built strength over the open sea. More unbelievably, Hurricane Georges

started out thousands of miles to the east and made an unwavering, straight, beeline course toward Key West. No other hurricane had ever failed to wander. Georges, seemingly with a mind of his own, broke the mold. It was as if Georges was sentient and was intent on hitting Key West.

I arrived at my home on Geiger Key just a few hours before Georges blew in. I was able to prepare, as well as I could on information received, my beloved *Unlikely*. We had been told to expect very high storm surges, as much as 8 or 9 feet, and winds that probably would not exceed 85 mph. On the basis of this, I rigged *Unlikely* more for surge

than for wind in the middle of the 40-foot-wide canal. I used four ¾-inch nylon anchor rode, each 100 feet long, as springlines. I reckoned that these would handle any reasonable surge, and we had some indication that, in passing over Cuba, the winds might well drop a bit.

In the actual unfolding of the storm, my rigging proved inadequate because the conditions we eventually faced were far from what had been predicted. While the tiedown would have been correct for predictions of an 8-foot surge, the actual surge was barely 3 feet over normal high tide. But what almost sank *Unlikely* was the winds which rose on Geiger Key to a screaming 120 mph while I was prepared for only 85.

The long nylon spring lines were unable to hold against these howling winds and stretched until *Unlikely* was thrust on her beam ends against the opposite sea wall. Had the winds been as predicted, or had the surge been higher, the lines would have held. But as she was pushed up against concrete walls, the lines chafed on the concrete and broke, releasing *Unlikely* to barrel



down the canal as the fury of the storm rose and as darkness fell.

The last I saw of her — just before dark — she had fetched up across the canal, and since she was longer than the canal was wide, her bow rose up and rested on one sea wall, and her stern was thrust down below the other. Her stern was so low in the water I was convinced that she was holed and filling, and I prepared mentally to mourn her loss. The mourning lasted the entire night and since my whole sense of self, my relevance, has been linked to *Unlikely* for 20 years, the emotional blow of contemplating her loss was unbearable.

What made matters worse was the length of time that I was entangled emotionally in the belief that *Unlikely* was gone and the amount of hurricane time to which she was subjected. Hurricane-force winds rarely last for more than an hour over any point of land. Furthermore, hurricane winds are deprived of their full force by interaction with a landmass. In Hurricane Georges, Geiger Key endured an unheard-of 12 hours of hurricane-force winds. The paucity of the landmass in the Keys allowed the winds to scream on at full force for what seemed an eternity as the storm wall, the right-hand terrible quadrant surrounding an unusually large eye, slowly and inexorably moved across Geiger Key.

It was bad enough that the predictions about windspeed and surge were wrong, but *Unlikely* was also asked to survive 12 unheard-of hours of horrendous winds and leaping wind-driven seas pounding her up against an unyielding concrete wall.

It is not surprising that in that terrible night, that endless 12 hours, I gave up on *Unlikely* as I watched the seas break up and scatter the six-inch-thick concrete slab that lay under our home. *Unlikely* was insured but not for enough. No boat ever is. What she was not insured for was the 20 years of love and respect that she gained in our eyes in the course of a circumnavigation through all of the terrible and not-so-terrible seas of the world. To have survived 35,000 miles of foreign and sometimes uncharted seas, and then to come a cropper in my own back yard, was the final irony. Just before dawn broke, I wept for her.

But as the winds wound down and the light grew in a wildly cloud-scattered sky, the incredible sight was of *Unlikely* still afloat in the canal. She was bobbing about in the remaining winds, unfettered and unattached, rubbing her tough flanks against unforgiving concrete.

*“To have survived 35,000 miles  
of foreign and sometimes  
uncharted seas,  
and then to come a cropper  
in my own back yard,  
was the final irony.  
Just before dawn broke,  
I wept for her.”*

But she floated! We still had our boat. Thank you, once again, Ted Brewer!

I climbed aboard and went below, anticipating rising water, but I could find no evidence of holing. She had taken hurricane-driven salt water through every above-the-waterline crevice, and there are many in all sailboats. All the

electronics above decks and below were ruined. Everything on deck (I had left her rigged for a passage to Cuba) which I had no time to stow before Georges struck — sails, life raft, dinghy, bikes, and lines — were scattered, lost, and sunk over hundreds of miles of sea. Additionally her starboard chainplates were ripped out. But, amazingly the mast held (I believe partly due to a blue goo called Spartite which welded the mast to the deck.)


We still had our boat.

It is beginning to be understood that while macro winds of a hurricane can be accurately predicted, the micro tornadoes that a hurricane spawns in the wall of the eye are entirely chaotic and can no more be predicted than can an individual wave in a wind-tossed sea. It was a small tornado which delivered 120-mph winds over Geiger Key while, less than six miles away, the City of Key West suffered only hurricane force one, and then only for an hour or two as the eye, not the fierce right forward quadrant, passed over the city.

In the light of the tornado activity, which is now being demonstrated by satellite photos of hurricane-ravaged places, there is no positive, sure manner of securing a boat.

The best way to deal with a hurricane is not to be there. Sail

away to a safer (not guaranteed) area, tuck her into the mangroves or simply pray that the vicious mini twisters that hurricanes spawn might as likely miss as hit you.

With the help of the understanding Bankers Insurance Company and a bunch of dollars of our own, *Unlikely*, the ultimate good old boat, will sail again as good as or, perhaps, better than new. 

# Tanks: Easy to forget,

**Y**ou've found your dreamboat, had it surveyed, and signed up for a long and happy relationship. The broker said it holds 20 gallons of fuel and 40 gallons of water. He didn't say where the tanks are located. The boat surveyor's report didn't mention tank condition. He did look at the tanks, didn't he? Well, not necessarily.

I just had my boat surveyed for insurance purposes, and the surveyor asked me how much fuel and water I carry. He made a note of the quantities for his report, but never looked at the tanks at all. He never asked me about their location, or whether they were full or empty, tight, full of holes, or anything else for that matter.

Most books on small-boat design gloss over and dismiss tanks with a paragraph or two. The designer assumes the builder will create suitable tankage at the location designated, yet tanks determine, in large part, the capability of our boats in terms of range under power and the duration of fresh water availability.

I once owned a Cape Carib 33 ketch in Singapore. It was a Brewer-designed fiberglass sailboat, ketch-rigged, with a Volvo diesel. The boat performed well under sail or power, however we kept getting diesel fuel in the bilge after a rail-down sail. I checked the fuel lines, the filter, the vent line, the fill line, and all were tight. It was only when, under sail, I climbed into the leeward cockpit locker that I could

see diesel fuel running down the outside of the tank on the leeward side.

When I illuminated the area between the tank top and the underside of the cockpit floor (a very small area), I could see corrosion and holes in the tank top. It only leaked when we heeled over.

Apparently the tank top was dished down and water accumulation had eaten holes in the black iron surface. The only remedy was to replace the tank, which meant removing the engine, a very large job.

This same boat had its water tank built into the wineglass section of the full keel. It was simply the inside fiberglass cavity of the keel above the ballast, dammed off and covered. The water that came from the tank was putrid.

In an effort to make the tank usable, I cut a large clean-out hole in the top and thoroughly cleaned the tank and filled it with a mixture of ¼ cup of bleach for every gallon in an attempt to "purify" it. (**Editor's note:** *Don't exceed a teaspoon per gallon to purify.*) My efforts

proved to be a big mistake. The tank was clean, and the water ran clear thereafter, but it never lost the taste and smell of chlorine no matter how many times I flushed the tank with fresh water. The fiberglass had absorbed the chlorine and would not let go of the scent. Subsequently, I learned that a solution of one quart of white vinegar added to every five gallons of water in the tank and allowed to agitate for several days, then drained and flushed will remove the chlorine taste and smell.

Here, on one boat, are two examples of tank problems that are more common to good old boats than you might think. When fiberglass boats were first built, the tanks were the same as those which

## Note: Tanks in the Fog

The following three articles offer three solutions to tank problems: replacement, recoating the exterior, and repairing leaks with epoxy. All are solid techniques for dealing with your tanks. Less clear-cut is the choice of materials, if replacement is required. Two naval architects we respect endorse the use of aluminum tanks, provided attention is paid to the alloy (5000 series). At least one reader is having a lot of trouble with her stock aluminum tanks (alloy unknown). Stainless gets mixed reviews as well. One naval architect said categorically that stainless should not be used for tanks. Other authorities accept stainless, if the alloy is carefully selected (Bill Sandifer says 316L or 317L). We all know "black iron," which is really low-carbon mild steel, rusts. But it has a good record in cases where the tank was properly built, coated, installed, and of course maintained. High density polyethylene does not rust, but we have seen it fail mechanically where it did not have proper support. A friend's waste tank failed at the inlet twice because of stress on the entry hole from the fill hose. So there is no one perfect material. As in fog, proceed carefully. The way is not clear.

—Ed.



# too important to dismiss

had been traditionally installed in wood construction: copper or Monel fuel tanks, and Monel, tinned copper, or stainless steel water tanks.

If a wood boat was big enough to be fitted with a diesel engine (prior to today's small diesels), the diesel tanks were "black iron" (mild steel) painted on the outside and pickled (by diesel fuel) on the inside. These tanks served well and were suitable for their intended purposes.

My 30-year-old Pearson is fortunate to have Monel fuel and water tanks. Monel is a fine, long-lasting material for tanks, but it has become hard to get and expensive in recent years.

I priced the cost of a basic 4-foot x 10-foot, 16-gauge sheet of 316L stainless steel with 400 series Monel. The stainless cost \$218 per sheet, while Monel was \$1,008 for a sheet the same size. The distributor told me this was the best price he had seen for Monel in 30 years. Now we know why it is not used for tank construction anymore.

With the advent of "economies" in the fiberglass boat business, fiberglass boatbuilders began to look at the high cost of the metal tanks and decided they could build tanks, particularly water tanks, cheaper with fiberglass.

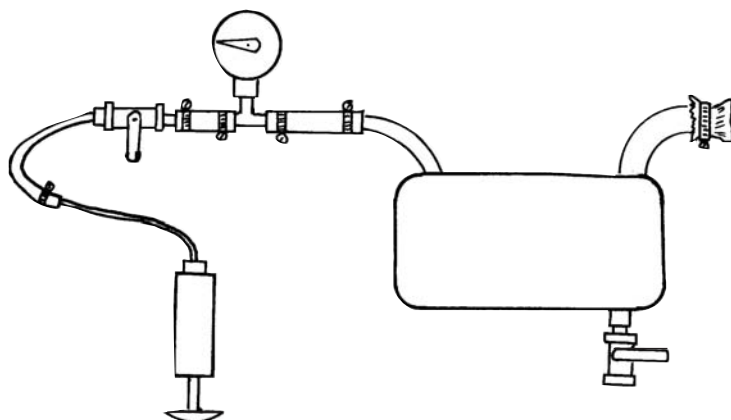
No one knew of the porosity of fiberglass or the weakness of the bond between molded tank bottom and top. Many, many tanks were built. As time passed, the fiberglass "taste" in the water became a problem as did the separation of the

tank top from tank sides due to boat motion and the sloshing of the water in the tanks.

Most fuel tanks continue to be built of metal, but often of corrosion-prone aluminum and stainless steel. Black iron is a good choice for diesel tanks, while 316L/317L stainless steel is superior for gasoline and water tanks. Rotomolded polyethylene is another choice which has appeared on the market in the last 10 years.

When we look at our boat tanks or the tanks in a boat we are interested in buying, what should we look for? The first step is to find the tanks. Most fuel tanks are located under the cockpit floor aft of the engine or nearby.

The water tanks can be anywhere, but because designers are intent on keeping weight low in a sailboat, the tanks will usually be under the V-berth, under the settee or berths in the main cabin, or in the keel cavity. If you follow the water supply line from the faucet in the galley or the head, it will lead you to the tanks. All these locations are hard to inspect and because the



*Pressure test apparatus*

tanks are "out of sight," they are usually "out of mind" for most boat owners.

The only way to visually inspect the tanks is to hire a very small person with a strong light and good eyesight or to be a contortionist. (*I, myself, fall into the latter category!*) When inspecting the tanks, wear thin gloves and feel as much of the tank perimeter as you can. Check the method used to secure the tank in place: metal or nylon straps, fiberglass tape, wood chocking, or mechanical fasteners. Check the structural integrity of the tank hold-down and supports carefully.

Remember that water and fuel weigh approximately 8 pounds per gallon, so a 40-gallon tank weighs 320 pounds when full, not counting the weight of the tank itself. The same tank, if half full, contains 160 pounds of liquid. That 160 pounds is slamming up and down every time the boat moves. If, in severe conditions, the boat were to fall off a wave and slam down, an inferior tank mount could come loose or fail altogether.

# TANKS A LOT

If all looks good with no apparent leaks, you can do an air pressure test on the tank. This can be performed professionally for a couple hundred dollars, or you can do it yourself for an investment in time, energy, and a little money. If you do it yourself, you will learn a lot about your boat in the process.

Close the tank shut-off valve at the tank. (*Oops, discovery number 1: It doesn't have one.*) Remove the fill plate from the tank and check the O-ring seal. (*Oops, discovery number 2: The O-ring may be long gone.*) Fit a shut-off valve at the tank, and replace the lost O-ring.

Now make up a short section of pipe the size of the tank vent line consisting of the following:

1. A method of connecting pipes to vent line (example: hose and hose clamps, screwed fitting, etc.).
2. A short section of copper tube or pipe with a tee fitting to fit a large diameter, low pressure gauge (0 to 5 psi maximum). A ball valve to fit the tube or pipe, a bicycle pump (hand style), and a method of attaching it to the end of the pipe. (*See illustration on Page 13.*)

If the boat is your own and has been out of service for some time, do yourself a favor and completely drain the fuel and water tanks. Be sure to properly dispose of the old fuel. When I do this, I let the fuel settle out in a bucket so I can observe the water that will inevitably settle out of the fuel. I then decant the fuel into a plastic gas can using a Baja filter. Then I pour the gas into one of my automobiles. The cars seem to have no problem with the older fuel, and it is properly disposed of. The remaining water that has been separated from the fuel is allowed to evaporate into the atmosphere. The bucket is wiped clean until next time.

If the boat is not yours, you should still test for water in the fuel. However this time you will have to use water finder paste. (*See sidebar for contact information.*) You can

hope that the fill pipe for the tank will be a direct drop into the tank. Place the water finder paste on the bottom four inches of a wood dowel, and slowly lower it into the tank. The paste will turn a specific color up to the exact depth of the water in the bottom of the tank. When I was a kid, I worked the fuel dock at a local marina where one of my duties was to stick the large gas tanks every morning with a rod and the paste to check for water. The water paste is very dependable.

While you're at it, try to feel the bottom of the tank with the dowel. Is it smooth or gummy? Does it feel like there are soft rocks down there? If it is anything but smooth and clean, the least you will need is a thorough tank steam cleaning by a professional firm that does these things. Check your Yellow Pages under Tank Cleaning. If they do not do small tanks, they can probably send you to someone who does.

Next, with the fill plate closed, the discharge valve closed, and the ball valve open, pump the bicycle pump to raise the tank pressure to 3 psi. **Do not increase pressure to more than 3 psi!**

Holding the pressure steady at 3 psi, close the ball valve. Note the time. Check the gauge for several hours or overnight. If it does not move from the 3 psi mark, the tank does not leak. If the pressure drops, the tank will have to be completely emptied for the next part of the test. Prepare a mixture of 90 percent water and 10 percent liquid soap in a small container. Repressurize the tank to 3 psi. Using a clean 2-inch paintbrush, paint the soap and water mixture over the fill plate, discharge valve, and test assembly. Bubbles will indicate the location of a leak. If no leak is evident in these areas, soap the seams of the tank and the fill pipe/tank interface as well as the vent pipe and discharge pipe interface. If you have good ears, listen for an air leak and try to localize the sound. (My ears are bad, so I use the soap).

## Water Finder Paste

Day Co. Water Finder  
1 Prestige Place  
P. O. Box 1004  
Dayton, Ohio 45401-1004

Other companies, such as Color Cut, also make water finder paste. It is usually available from companies that provide service station equipment. Look under Service Station Equipment or Service Station Supplies in the Yellow Pages of your local telephone book.

Pass your hand around the tank to feel for an air leak. Soap the supports (both sides) where the tank rests on them. If you still cannot find the leak, soap all tank surfaces, slowly — one surface at a time — and check for bubbles. The leak may be a worn or corroded spot in the tank plating rather than at a fitting or seam.

If it is a water tank, you can increase the pressure to 4 psi to make the leak more apparent. If you are testing a fuel tank, **do not increase the pressure.** Plan to remove the tank for repair or replacement.

Check underneath the tank with soap and a flashlight, if possible. If you still cannot find the leak, repressurize the tank to 3 psi and wait several hours. If the gauge again drops, the tank leaks and will have to be repaired or replaced.

With a water tank, it may be feasible to open the tank, drain, clean, and insert a bladder tank using the original tank as a container for the bladder. Tank location and economics will dictate this decision.

Many good old boats had tanks that were literally built into the boat before the deck was placed on the hull. This situation makes removal of the tank a large job that will include major demolition and rebuilding of the interior. Even when it is possible to remove the tank with little problem, the tank may not fit



through the companionway hatch for removal from the boat. Measure carefully, and sit and think for a while. Do not rush your decision.

If it is a water tank, it may be easier to disconnect the old tank and locate a new bladder tank under the main cabin berths. Clean and dry the old tank and leave as it is or use it for dry stores.

If the leaking tank is a fuel tank, there is no choice. It must come out. This is a job for a professional mechanic, boatyard, or talented amateur. If you're up to it, here's how. First, remove whatever is in the way of getting at the tank. If this is the engine, be sure you know how to remove and reinstall it. Carefully remove all fuel from the tank. Disconnect the fuel discharge line from the tank, but leave the shut-off valve in place. If the shut-off valve is not at the tank, leave it and the line running to it alone. Disconnect it from the engine as close to the tank as possible.

Open the tank fill pipe and fill the tank with water and a good emulsifying soap. Pump out and dispose of the contents properly, as the liquid will contain fuel particles. Fill the tank with water again. Disconnect the vent line at the tank to be sure there is no space in the tank for a pocket of fuel vapors.

Set up temporary blocking to hold the tank in place when you cut the permanent strapping. Disconnect the fill line, vent, and discharge line, as well as the fuel return line if it is a diesel tank. Disconnect the grounding strap. Using non-electric hand, pneumatic, or hydraulic tools, remove the restraints holding the tank in place. Once the tank is free of its permanent restraints, check to be sure the tank is completely disconnected. If all is OK, drain the tank again, collecting the drained water to avoid releasing any pollutants overboard. Extract

the tank from its bed and remove it from the boat.

If the tank was satisfactory in capacity, you may take it to a tank shop to have a duplicate made. However, before giving the shop approval to build a new tank, give some thought to the best material with which to build the new tank.

Many companies make rotomolded tanks for fuel out of cross-linked polyethylene. These tanks are immune to corrosion and are mass-produced, which makes them very price competitive. They are tough and durable and come in many shapes and sizes. It may be easier and cheaper to modify the tank bed to accommodate a stock polyethylene tank than to buy a custom-made tank.

Fuel tanks must be made from cross-linked polyethylene. Linear polyethylene is the one to select for potable water tanks. Be sure what type of tank you need to buy. They are not interchangeable.

The downside of the polyethylene tanks is that they are subject to chafe, cutting, and abrasion. The tank must be fully supported on the bottom and carefully restrained. Nylon strapping is recommended, as it will accommodate the tanks initial expansion upon first filling. If a poly tank will not work, consider a 316L/317L stainless steel, a 6 percent molybdenum alloy stainless steel, or a thick-walled black iron tank for diesel fuel. The size of the tank makes a difference. ABYC limits stainless steel fuel tanks to a maximum of 20 gallons.

Another alternative may be a flexible bladder tank. Today, many firms make flexible bladder tanks that will hold fuel, water, waste, and many other liquids. They are some-

times used to hold wine, vegetable juices, or chemicals for industry. More than 20 different types of materials are used to hold specific liquids. A tank made to hold water will not be good for gasoline and so forth. These tanks are convenient to install, as they will conform to spaces more readily. They will fit through a small access hole, when empty, and require less effort to install. The volume of an empty flexible tank is less than 5 percent of the filled tank. The low weight and great compactness make installation and use very easy.

The technology of flexible tanks is well-developed. There are many tank manufacturers supplying aviation and industry. The marine market for tanks is a very small

#### ABYC

American Boat and Yacht Council, Incorporated  
3069 Solomon's Island Road  
Edgewater, MD 21037-1416  
Attn: Renee Lazer, Assistant Membership Coordinator  
410-956-1050  
410-956-2737 fax

You must join ABYC to receive a copy of their *Standards and Recommended Practices for Small Craft* manual. Membership is \$125. There is an additional charge of \$135 plus \$10 shipping and handling for the manual.

The ABYC standards would be particularly helpful if a person were going to build or rebuild a boat. The organization is a good source of information and will help with obtaining insurance if the rebuilt boat complies with ABYC standards.

portion of the overall market. Flexible tanks can even be ordered in custom sizes to fit your exact needs. They will be more expensive and take longer to get, but they are a viable alternative to a custom hard tank and are definitely cheaper. Keep in mind that the life expectancy of a flexible tank may be substantially shorter than that of a hard tank, depending on the conditions in which it is employed, but as replacement cost is lower and

# TANKS A LOT

installation simpler. It is a trade-off worth thinking through.

About a year or so ago I tried to fit two additional 10-gallon water tanks under the V-berth of my Pearson. All the standard flexible tanks were too wide to fit the space available. One manufacturer quoted a price of \$130 each for the two custom tanks. This was double the cost of a standard flex tank but much less than the cost of hard stainless steel tanks which were

## US Coast Guard Code of Federal Regulations

Printed copies of the applicable CFRs are available, free of charge, from:  
U.S. Coast Guard  
2100 Second Street S.W.  
Washington, DC 20593-0001  
Attn: Richard Gipe  
Recreational Boating Product Assurance Division  
202-267-0985  
202-267-4285 fax

quoted at \$400 each. Flexible tanks have the same disadvantages as rotomolded polyethylene tanks except more so. They are subject to cutting, chafe, and abrasion. These problems can be overcome by careful installation. The tanks must be installed on a smooth surface. If the inside of the compartment where the tank is to be installed is not smooth, it may be covered with a glued-down sheet of thick neoprene. The tank is then mounted on top of the sheet.

Flexible tanks are usually secured through reinforced grommets at the four corners of the tank. The grommets need to be fixed to a strong point on the hull, such as a bulkhead or beam to make sure the tank does not shift. Even a 10-gallon tank will weigh 80 pounds when full. When installing these tanks, be sure to follow the manufacturer's directions on allowing for the movement of the fill, vent, and discharge lines when the tank is full or empty.

Many cruisers use flexible tanks to carry additional fuel and

water for a long passage. This is a good use of the tanks, as they can be stored away in a small space when not needed and yet provide great volume for the long haul. Careful installation is the key to a long leak-proof life for a flexible tank. Manufacturers include Nauta, Vetus, and Plastimo to name a few. (See sidebar on next page for contact information.)

Back to our inspection of the existing tanks in our good old boat. If, after inspection and the air test, the tanks in your boat or prospective boat pass muster, you should consider how to keep them in good shape. Check the exterior surface of each tank. Are there areas of abrasion, worn out coating, rust, pits, or corrosion?

If the tank can be easily removed from the boat for coating, remove it, clean it, resurface it, and reinstall it. If it cannot be removed easily, service it in place. Wash it with soap and water, sand any pits and corrosion down to good metal, wipe the surface with mineral spirits, repaint it with a high-grade metal primer, and give it a finish coat. Removable black iron tanks can be sandblasted clean and bright and electrostatically coated with powdered epoxy for a long-lasting coating (see *Bob Haussler's article on Page 18*), or cold galvanizing can be used to protect steel tanks after suitable surface preparation.

When replacing or servicing a tank, check the tank supports. Do they need reinforcement? How about the tank hold-down? Consider new strapping with neoprene cushioning between the tank and the straps. Finally, check fill and discharge lines. Marine engines vibrate and can cause hard fuel lines to fatigue or crack over time. Even flexible fuel lines with solid fittings can have problems.

Case in point: I was powering home one windless winter day when the engine stopped for no apparent reason. I ran through the usual checklist and could find nothing

wrong. I tried the starter, and the engine ran for 30 seconds then quit. By this time it was getting cold and dark. We were in the river near our home with no other boats about. My son had his new girlfriend out with us, and she was a nonsailor and cold. I tried the engine again, and it ran for 30 seconds and quit as before. Our strategy was that my son would steer while I started the engine. It ran, and we glided along for 30 seconds under power and another minute on momentum. We repeated this exercise for more than an hour and finally made the mooring. Fortunately I had ample battery capacity. Still, it was a long night.

Two days later I still could not find the engine problem until, in handling the fuel supply line from the filter to the fuel pump, I noticed a crack in the bayonet fitting of the fuel line. This tiny crack in the fitting had been allowing enough air into the fuel system to starve the engine under power but still allow enough fuel flow to start it momentarily.

Always check your fuel lines as part of your fuel system. Rubber lines crack from age and environmental effects. Wipe flexible hoses dry and check for an odor of fuel. If there is any sign of deterioration, replace with U.S. Coast Guard (USCG) approved Type A-1 (SAE F1527) hose for gasoline or Type A-2 for diesel fuel. Metallic hoses must be USCG Type A-1 hose for diesel return lines, USCG CFR 183.538, 183.540, 183.558 & 183.562. (See sidebar.)

Always keep in mind that any fuel or oil discharge from a boat that causes a visible sheen on the water surface is in violation of federal pollution regulations and subject to stiff fines. The Oil Pollution Act (OPA1990) requires that spills or even situations where fuel or oil has the potential of being spilled must be reported to the National Pollution Response Center (800-424-8802) as well as to the



USCG. Reports must be followed up with immediate action to prevent or clean up any spill.

The USCG requires positive steps to contain a spill. People who do not maintain their boats, perform preventive maintenance, or cooperate with them could be heavily fined. If a person does not report a spill, he or she could face criminal penalties and may be liable for fines up to \$250,000. Spills caused by any gross negligence or willful misconduct may result in fines of not less than \$100,000. Preventive maintenance of tanks, fuel, and oil systems are cheap insurance compared to the possible consequences.

There are many products in the marine market to help you comply with the laws. The 1998 BOAT/U.S. catalog has an entire page (*Page 415*) devoted to accidental spill prevention. Boat insurance policies will not pay your fine if you get one, but they usually will provide emergency assistance in dealing with a spill. Asking for help could mean the difference between a \$500 fine and a \$50,000 one.

Oh, enough doom and gloom, already! Let's recap. Take the time to inspect the tanks. Test if you have any doubts about the tanks' integrity, particularly the fuel tanks, on your existing or prospective boat. If you need new tanks, buy quality. Buy flexible, polyethylene, 316L/317L, 6 percent stainless, or black iron, depending on the tank's intended use. When I was building commercial diesel-powered workboats, we always used heavy-walled mild steel tanks, cold galvanized on the outside and pickled with diesel fuel on the inside. I was aboard one of my boats the other day, and it still had the original tanks in fine condition 30 years after they were built.


Make sure your tanks are well-supported and secured for heavy weather. You may never see a 25-foot wave, but years of four-foot waves can have the same

destructive effect. Think of your tanks as a system that includes fill pipes, vent, supply lines, filters, and grounding straps. All are part of the essential propulsion system on your boat. If you have metal tanks, keep them clean and protect from bilge water, salt water, and chemicals.

There are many tank builders and manufacturers. The sidebar at right lists a representative group. Check with boatyards in your area for recommendations on local sources. Make sure your tanks comply with USCG requirements,

CFR 183.510 through 183.590, and ABYC recommendations.

Remember, a fuel tank must be tested and certified as conforming to USCG requirements. Before you commit to having a fuel tank built, ask the builder to show you his USCG test program and the label he will provide to certify the tank, CFR 183.514.

All fuels are dangerous and polluting to the environment. Be safe and sure in their storage, use, and disposal. 

## Tank builders and distributors

### Builders

#### Rayco Manufacturing Company

6060 28th St. East, # 1, Bradenton, FL 34203; 941-751-3177. Custom tanks: stainless steel, aluminum, and iron (fuel, water, waste).

#### Holland Marine Products

3008 Dunbar St. West, Toronto, Ontario; Canada M6P 123; 416-762-3821; 416-762-4458 fax. Custom tanks: stainless steel, aluminum, and iron (fuel, water, waste).

#### Atlantic Coastal Welding, Inc.

16 Butler Blvd., Bayville, NJ 08721-3002; 800-434-8265; 732-269-7992 fax. Custom tanks: stainless steel, aluminum, and iron (fuel, water, waste).

#### Florida Marine Tanks

16480 Northwest 48th Ave., Hialeah, FL 33014; 305-620-9030; 305-621-8524 fax. Custom tanks: stainless steel, aluminum, and iron (fuel, water, waste).

#### Todd Enterprises

530 Wellington Ave., Cranston, RI 02910; 401-467-2750; 401-467-2650 fax. Tank manufacturer: polyethylene, stock sizes (fuel, water, waste).

#### Tempo Products Company

P.O. Box 39126, Cleveland, OH, 44139-3389; 440-248-1450. Tank manufacturer: polyethylene, stock sizes (fuel).

#### Ronco Plastics, Incorporated

15022 Parkway Loop, Tustin, CA 92780; 714-259-1385; 714-259-9759 fax; <<http://www.ronco-plastics.com>>. Tank manufacturer: polyethylene, stock sizes (water, waste).

### Distributors

#### Boat/U.S.

884 S. Pickett St., Alexandria, VA 22304; 800-937-2628; <<http://www.boatus.com>>. Tempo (fuel), Todd (fuel, water, waste), Sealand (waste), and Vetus (water, waste).

#### West Marine

P.O. Box 50050, Watsonville, CA 95077; 800-262-8464; 408-761-4421 fax; <<http://www.westmarine.com>>. Tempo (fuel), Todd (fuel, water), Skyline (aluminum fuel), Sealand (waste), Kracor (waste), Jabsco (waste), Plastimo (water), and Nauta (water).

#### Defender Industries

42 Great Neck Rd., Waterford, CT 06385; 800-628-8225; 800-654-1616 fax; mail@defenderus.com; <<http://www.defenderus.com>>.

#### Vetus DenOuden

P.O. Box 8712, Hanover, MD 21076; 800-398-3887; 410-712-0985 fax, vetus@aol.com; <<http://www.vetus.com>>. Flexible tanks (fuel, water, waste).

#### Fisheries Supply Co.

1900 N. Northlake Way #10, Seattle, WA 98103; 800-426-6930; 206-634-4600 fax; mail@fisheries-supply.com; <<http://www.fisheries-supply.com>>. Tempo (fuel), Todd (fuel, water, waste), Jabsco (waste), Whale (gray water), Vetus (water, waste), and Nauta (water).

# Rescue that rusting tank

Tucked away under the cabin sole floorboards, the average fuel tank doesn't get much attention from those of us who like to sail. In fact, it may be totally neglected until something major goes wrong. Even if you're good about preventive maintenance, your time and energy probably stop short of a detailed inspection of that fuel tank and of yanking it out, if necessary. The good news for many of us is that it is possible to refinish a problem tank without too much effort and expense. The key is to do it before it's too late. New tanks are expensive. But it is possible to maintain your existing tank in a condition that will be worthy of your confidence and reward you with years of trouble-free service.

In the bilge, the typical black iron tank — painted and installed at the factory — undergoes all kinds of insults. More than likely, its exterior will be assaulted by salt water, bilge cleaning chemicals, and a little diesel fuel now and then. The paint breaks down, and before you realize it, rust begins to do its thing on the undersides, even though what you can see from above may look fine. On the inside, if the tank is normally kept full and the owner is careful about filtering fuel before adding it to the tank, severe problems are not likely to develop.

Several years ago we were in the market to buy a used pocket cruiser. On board the Baba 30

cutter we eventually purchased, my first look at the fuel tank in the bilge compartment raised questions and concerns. A flashlight beam down the exterior sides of the black iron tank revealed puffs of rust blossoming midway down to near the bottom. The fiberglass walls of the bilge space were very close to the sides of the tank, so it was impossible to thoroughly assess the tank's condition without pulling it out. As built, the tank compartment was isolated from the rest of the bilge to contain diesel spills and to

isolate it from the normal slosh of bilge water.

Nevertheless,

water had entered this compartment somehow, probably working its way down from above, and the tank was immersed long enough over the years to deteriorate its gray enamel paint and initiate the rusting process.

The flashlight beam also revealed that the tank was sitting in a small puddle of liquid in the very bottom of the compartment. We sampled the liquid with a hand pump. It was mostly water with a little diesel fuel in it. The trace of diesel in the liquid sample raised the concern that the tank might have a leak. However, since the compartment remained dry after being pumped out and left alone for several days, fuel leakage through the tank walls or welded seams was apparently not a problem. We topped the tank off with fuel for this observation.

Some people wouldn't stop here, but would conduct a pressure

test to detect leaks. Pressure testing requires sealing all openings and pressurizing the tank by using a gauge, valve, and hand pump to achieve pressure. If the pressure is sustained at the original level overnight, the tank is deemed salvageable. I didn't have what was needed to conduct this test, but it would have provided valuable and more definitive information for us when making our decision about whether to buy the boat. Instead, we considered the worst case, which was the possible need to install a new tank, and got a quote for a new custom-fabricated aluminum-alloy tank. We factored this cost, \$400 to \$500, into our offering price.

Next, we pumped about 2 gallons of diesel from the bottom of the tank to see if there were any obvious problems brewing, such as microbial sludge and accumulated water. I was looking for the telltale greenish black or brown slime caused by bacteria and fungi that commonly infect diesel fuel, clog filters, and cause poor engine performance.

Fortunately, the sample was clean, and no water was present. Water introduced into the tank, such as by condensation, can provide a medium where organisms can thrive. Once we owned the boat, I made a mental note regarding the need to refinish the tank exterior but left the tank in place for a future appointment with the tank doctor. Every time I thought of pulling the tank and refinishing it, I delayed because the time the task

by **Bob Haussler**



might take would interfere with the much more exciting prospect of sailing. It turned out that the job, once started, took less than two weekends.

**T**he 30-gallon wedge-shaped, flat-bottomed tank, measuring 36 inches long and 18 inches high at its highest point, with a maximum width of 16 inches, appeared to be quite heavy and was secured in the bilge by three floor joists across the top. It had the usual hoses plus ground wires connected to it to complicate the task of removal.

Finally, after several years, while I was replacing some fuel system parts on our Volvo Penta diesel, I decided it was time to tackle that tank. We had just returned from a 1,300-mile trip, and the tank ended up on a **MUST DO** list before we headed offshore again.

The floor joists were easy to remove. We detached the hoses and wires, and my 15-year-old son and I lifted the tank out fairly easily. Once removed, it was painfully obvious that the tank should have been pulled and refinished years ago. The factory enamel finish was rusted through over most of the lower half of the tank. Pitting had begun on the black iron surface. My first reaction was to attach a wire wheel brush to my hand drill to remove the rust and old paint. After a few minutes with the drill and brush, it became clear that sandblasting was necessary.

I called around to find a metal coating shop able to sandblast and powder coat the tank with epoxy. Epoxy powder coating offers exceptional qualities: high impact resistance, virtually eliminating chipping and scratching; outstanding moisture, chemical, and corrosion resistance; and good control of film thickness, from less than one to more than six mils. Powders can be applied to all electrically conductive metal surfaces, such as iron, steel, and aluminum. Metals that don't rust



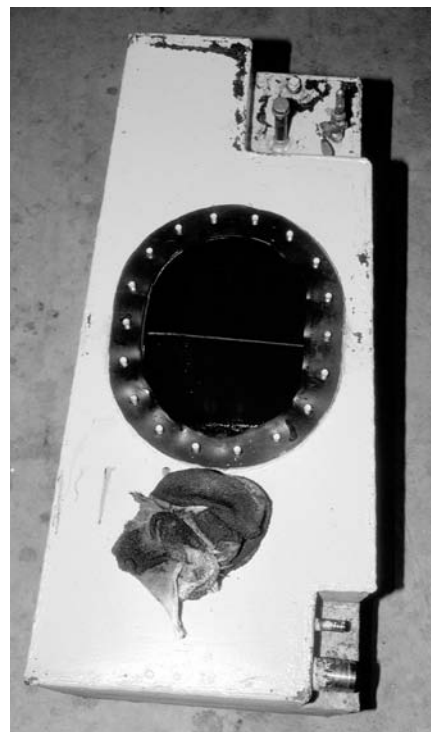
but may corrode in the marine environment can also benefit from the coating. The only limitation is that the object must be able to withstand temperatures of up to 400 degrees Fahrenheit without damage. In this case, I was not concerned about the temperature, save for a large rubber gasket seal at the inspection plate. We removed this before beginning the coating process.

Before we delivered the tank to the shop, we opened the inspection port and thoroughly cleaned the tank interior to remove the residual

*Once the tank was removed, we took advantage of the opportunity to give this otherwise inaccessible space a thorough cleaning, light sanding, and some new paint. The two removable lengthwise runners on the bottom at left are what the tank rests on. These are of painted hardwood and reduce chafe that would otherwise occur between the metal tank and fiberglass keel housing.*

*Rust covered the lower half of the tank (see photo below left). Once the rust was removed by sandblasting, pits were revealed that apparently had been forming for several years. Fortunately, these pitted areas weren't deep enough to affect the integrity of the tank. The tank could be reused, provided the rusting process could be halted. The only foolproof option available was to thoroughly sandblast the tank to remove all traces of oxidized iron down to bare metal.*

*This was a perfect time to clean the tank interior. See photo below. We used rags to mop up the remaining diesel and the few teaspoons of sludge that had gathered in the corners at the tank's lowest point.*



# TANKS A LOT

diesel fuel and some rusty sediment. This sediment hadn't shown up when fuel was hand-pumped from the tank bottom. Reducing the potential for water condensation inside the tank is not the only

reason why it's a good idea to keep your tank full. A full tank minimizes oxidation of the inside tank walls, reducing the chance for oxidation to eat away at your tank and welded seams.

Electrostatic powder coating is a fairly new high-tech metal coating process which uses dry powdered paint. The powders are applied using a special high voltage gun (100 KV or more) which charges the particles and causes them to cling in a uniform manner to the part being coated. The coated part is then placed in an oven at 300 to 400 degrees Fahrenheit to fuse the powder to the metal surface. It is heated for periods of 10 minutes to an hour, depending upon the size of the object. When cool, the part is ready for use.

The shop estimated the job cost at less than \$100. Garnet sand, which is hard and sharp, was used for the blasting. It's effective in removing rust, even in the pitted areas. The next step was to blast it with minute glass beads which polished the tank to a silver color, and removed any remaining rust, as well as "flash rust" that may have developed overnight between the time it had been sandblasted and then readied for the powder coat.

The powder coating, approximately six mils thick, consisted of 100 percent epoxy and had the appearance of gloss white

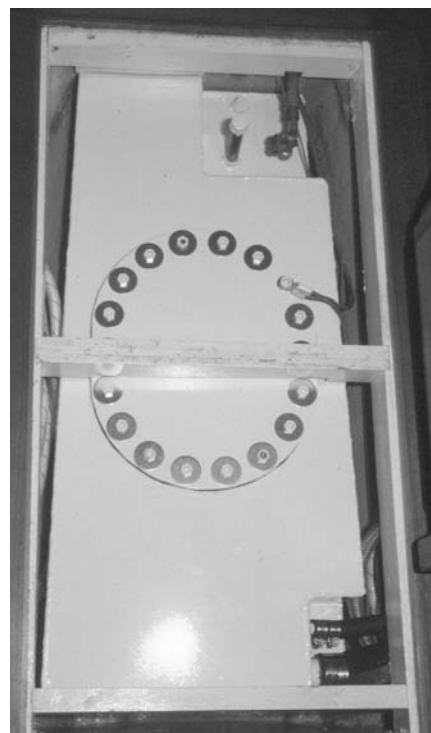
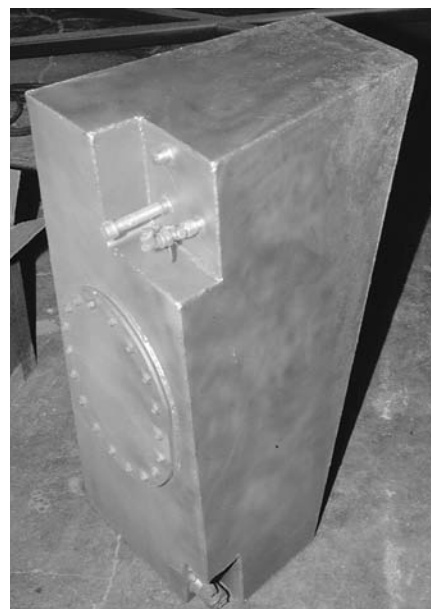



***Powder coating colors are rich and bright. The glossy white epoxy we chose, above, was applied to achieve a maximum thickness for long-term protection.***

***The garnet sand and bead blasting process was a crucial step to eliminate any trace of oxidized iron. Without this step, in photo above right, it probably would have been better to replace the tank rather than expend the effort and money to refinish it. The tank should now last another decade or two before it shows signs of exterior rust.***

***We achieved professional results, see photo at right, along with a great deal of satisfaction that the job was done right and will last.***

enamel. The epoxy powder was applied directly to the metal. No primer is used in the process, because the electrically charged powder requires bare metal to adhere. Light paint colors enhance your ability in the future to see any rust formation and, by using some touch-up epoxy paint over the years, you may be able to avoid another major refinishing job. While the job involved some hard work, it was easier than we had anticipated and cost much less than replacing the entire tank. The result is a tank that is as durable as the rest of the boat, along with some peace of mind that the next time we go sailing we can



depend on the tank to hold its contents. 

*This article first appeared in Baba Salt, the newsletter for owners of Babas, Pandas, Tashibas, Ta Shings, and other early Bob Perry designs. For more information about the newsletter, contact editor Rick Emerson: 215-855-1607 or rick@ssg.com.*



# The epoxy “cure”

One of the most annoying problems that can occur on a sailboat is a leak in the diesel fuel tank. If you don't have the time, expertise, or courage to attempt to repair it yourself, you can always arrange to have your boatyard repair it. But you can do it yourself, if you are willing to try.

If your boat is constructed so that tank removal is possible without major disassembly of the interior, make the repair with the tank removed. The repair will then be fairly straightforward. Since most diesel fuel tanks are made of aluminum or black iron, a welding shop can repair either material with relatively little expense. First remove the inspection cover and thoroughly clean the interior of the tank. While you're at it, inspect it for pitting and other potential future problems. If the tank doesn't have an inspection cover, now would be an excellent time to install one. If you ever get bad fuel or have a sludge buildup in your tank, you will be glad you have access to the interior of your tank to clean it.

If you cannot remove your tank or don't have an inspection port, let me walk you through my experience in repairing the fuel tank on our boat *Bluebonnet*, a Valiant 32. During the second year of a multi-year refit I was doing on the boat in our back yard, I became aware that diesel fuel was seeping into the bilge. We had bought the boat in Texas and had it trucked to our home in Missouri, where I was repairing extensive blisters and bringing the boat back to her former glory.

At first I pushed the leak out of my mind, since I was involved with other work on the boat. However, when the smell wouldn't go away I decided that it would have to be

fixed. The Valiant 32 has a 47-gallon aluminum fuel tank that is mounted aft of the L-25 Westerbeke diesel engine under the cockpit sole. Due to its size, the only way to remove it would be to remove the engine first.

Even then, removing the tank would have been questionable because offshore

sailboats tend to have small, narrow companionways. I

decided to repair the tank in place. The first step was to empty the remaining fuel from the tank. This was accomplished by pumping the fuel into five-gallon cans.

Squeezing into the starboard cockpit locker, I found that I could lie next to the fuel tank and work. I had 10 to 12 inches of clearance between the top of the tank and the cockpit sole. In the flat area on the top of the tank, I cut a 10-inch square hole with a right-angle drill and a sabre saw to give access to the interior of the tank. If you have removed your tank and are installing an inspection port, make sure the location will be accessible when the tank is re-installed. I removed the fuel gauge sending unit and set it aside. Then I cleaned the inside of the tank using rags first and solvents later.


During this process, the engine access panels were removed and a high volume fan circulated air throughout the area. I wore a respirator at all times. There was evidence of pitting in the aluminum in the lowest part of the tank, and one of the largest pits was paper thin. To repair the leak, I called Gougeon Brothers of Bay City, Mich. For blister repair on the hull, I had been using their West System epoxy and fillers.

I had called them before with other questions and found them to be very cordial and knowledgeable. I was told that they had used epoxy to repair fuel tanks with excellent results and was given instructions about how to proceed. With special attention to the pitted areas, I gave the entire interior of the tank a final

cleaning with acetone to remove any oily residue. I mixed

some epoxy and hardener with some filler to make a putty the consistency of peanut butter. This was worked into the areas where the pitting had occurred. After this cured, I sanded the area smooth. Then I lightly sanded the entire area with number 100 emery cloth and wiped it down with acetone. Using a disposable brush, I coated the interior with epoxy and hardener.

I then purchased a piece of 3/4 6-inch thick aluminum, 12 x 12 inches. I drilled three holes on each side 1/2 inch in from the edge. I centered this plate over the hole, scribed the top of the tank, and center-punched the holes. Then I drilled holes and tapped the top of the tank for 1/4 x 20 aluminum bolts. Aluminum bolts were available, and I used them to prevent corrosion. I cut a piece of gasket material to size and fitted it. Before the cover was bolted in place, I checked the fuel gauge sending unit and verified that it was working, then I installed it and replaced its gasket. I bolted the cover in place and used an RTV gasket compound that I purchased at an auto parts store.

After two years of service, including a trip down the Tennessee-Tombigbee Waterway, I have been very pleased with the repair. 

*by Norman Ralph*

# Fly it high, and fly

## *Nautical tradition dictates where and how you fly your flags,*

A few years ago we had just cleared Canadian customs and were heading out of Bedwell Harbour in the Gulf Islands of British Columbia when we noticed a handsome 45- to 50-foot sloop sailing into the harbor, hard on the wind and making good time. She was obviously a Canadian yacht, judging from the large red and white maple leaf ensign on her stern staff. But as we passed, I looked back and there on her transom was her name and hailing port, “\_\_\_\_, Anchorage, Alaska.” I turned to Betty and shrugged, “Now why in the world would a U.S. yacht be flying a big Canadian flag on her stern?”

The mystery was solved later in the season. We had just tied up to the city docks in Victoria, B.C., when a 38-40 foot sloop pulled in, also flying a good sized Canadian flag. We took her lines and helped the owner get settled. The docks were jammed with visiting boats;

we almost had to use a shoehorn to wedge the boat into a too-short space. The ensuing conversation went like this:

He: “Thanks for giving me a hand. It sure is crowded this weekend.”

Me: “You’re most welcome. Glad to help. Where are you from?”

He: “Tacoma, Washington.”

Me: “Then how come you’re flying a Canadian flag?”

He: “Oh that. My father said it’s courteous to fly a Canadian flag when visiting Canadian waters.”

Mystery solved! I’ll bet our Alaskan owner was also given similar advice. In this case, I enlightened the skipper so he would not be embarrassed during the rest of his Canadian cruise.

Another mystery, to us at least, is the size of many ensigns. I can’t believe that many boatowners are ashamed of their country, but it certainly appears that way when you see a boat with a miserably undersized, wimpy little flag hiding itself ignominiously amongst the life rings, man

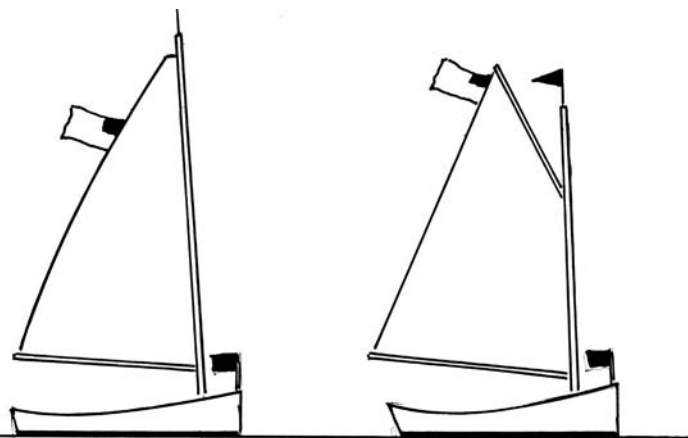
overboard pole, fishing rods, and dinghy. Seeing a comfortably large ensign makes me believe that the owners have a sense of pride in their vessel and in their country.

Just recently we saw a large oceangoing motor yacht, perhaps 120-130 feet long, anchored in Skagit Bay, and we knew right away she was British from the huge Red Ensign flying at her stern, long before the hailing port, London, England, was readable. Another grand sight that always gives us a thrill is seeing the *Katahdin*, a 1926 tug now converted to a yacht, breasting the waves with her eight-foot-long Stars and Stripes streaming proudly in the breeze, looking for all the world like the battle flag on a U.S. Navy warship. That’s showing pride in your country and pride in your vessel!

None of the following “rules” for flags are laid down by law, so you won’t be hauled into court if you break them, but they are laid down by nautical tradition. I suggest that you try to follow the traditions where possible, unless you really don’t care about the impression you and your boat make on the other sailors you meet on your cruises.

### **The ensign (or colors)**

If you are going to fly your country’s colors — and you should — then the correct size is one inch of length on the fly (the long side) for each



CAT BOATS  
ENSIGN ON STERN STAFF AT ANCHOR

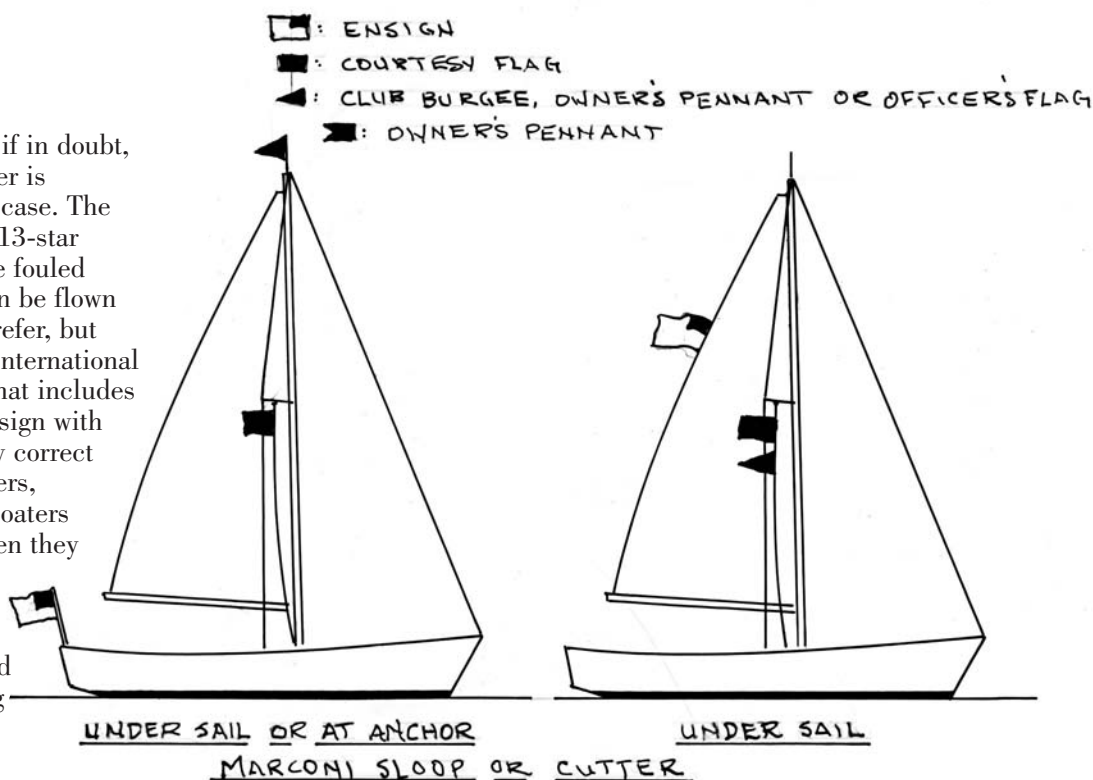
# it proudly

foot of boat length and, if in doubt, go one size larger. Bigger is definitely better in this case. The U.S. Yacht Ensign (the 13-star Betsy Ross flag with the fouled anchor in the union) can be flown in U.S. waters, if you prefer, but should not be flown in international or foreign waters, and that includes Canada. The 50-star ensign with its 13 stripes is the only correct flag outside of U.S. waters, although far too many boaters fly the yacht ensign when they head north.

The colors are taken down at sunset, of course, and not raised until 0800 the following morning. It is not necessary to fly your colors when at sea in international waters, but you should do so when sighting another vessel. Also, it is traditional that U.S. sailing yachts do not fly colors when racing.

Where to fly the ensign also seems to be a mystery to many. We have seen it flown at the bowstaff of power boats, from the spreaders of sloops, and on the mainsail leech of a ketch. The basics are actually quite simple.

On a motor yacht, the colors should be flown on the stern staff unless the vessel has a mast with a gaff. In that case the ensign is flown from the gaff, since that is the place of honor. Sportfishing boats that need to have a clear transom can fit a flagstaff on the bridge or fly their colors from the tuna tower.



NOTE OPTIONAL POSITION FOR BURGEE IF ANTENNA AT MASTHEAD

## story and drawings by Ted Brewer

Sailing yachts have a few more options. The typical Marconi catboat, sloop, or cutter may fly the ensign from the stern staff or the mainsail leech, approximately two-thirds of the way up. The latter looks particularly smart in my opinion, and it is

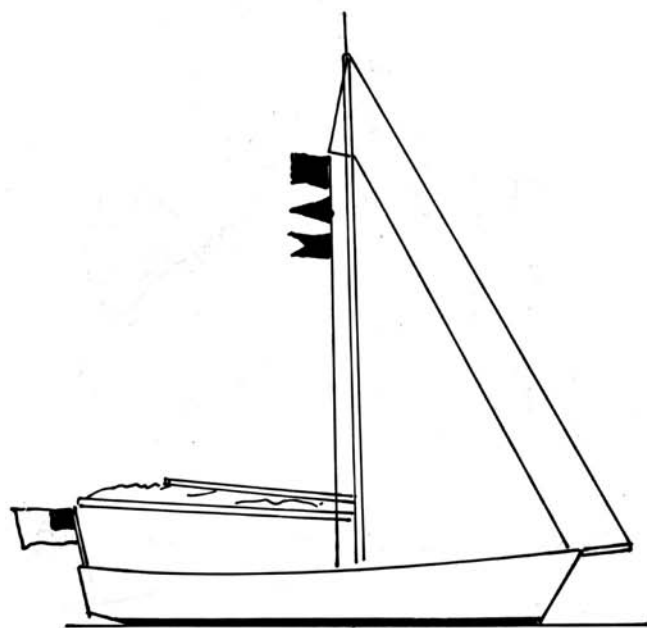
easy to do if you sew a couple of big stainless steel fishing line swivel snaps on the leech at the right spot. It is simple to snap the flag in place when you head out for a sail, and it never tangles. While we have seen many sloops with the ensign flying from the main backstay, it never looks correct. It is rarely rigged so it can be lowered at night and so it

is usually faded, ragged, and far too small. Your good old boat deserves better.

Gaff-rigged yachts should fly their colors from the gaff, in the position of honor, and two-masted gaff-rigged yachts fly the colors from the gaff of the aftermast. However, if the aftermast is Bermudan-rigged, as on many schooners, then the ensign should be flown from two-thirds up the mainsail leech.

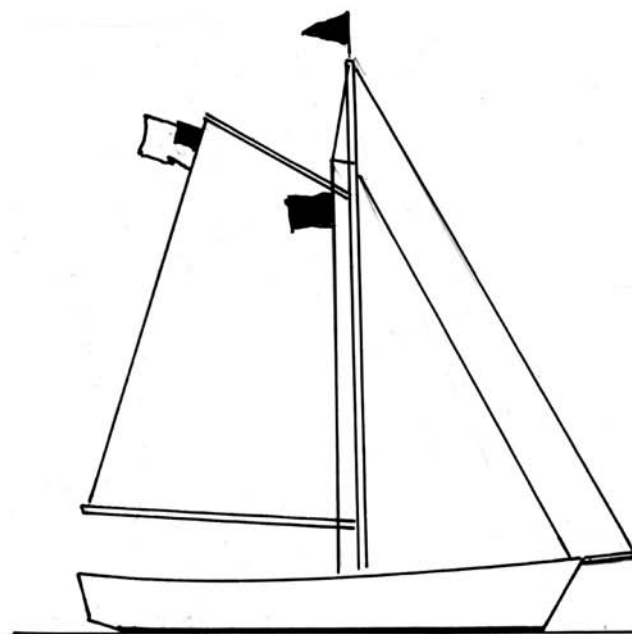
When the sails are furled — at anchor or when made fast to a pier — the stern staff is the proper spot for the colors. On yachts with long boom overhangs, such as some gaff-rigged craft, schooners, and ketches, the staff can be off-center, always on the starboard side, to clear the sheets. This can be a problem on a double-ender so, on our 30-foot





AT ANCHOR

GAFF SLOOP OR CUTTER



UNDER SAIL

NOTE: OWNER'S PENNANT COULD BE FLOWN BELOW CLUB BURGEE

yawl, I arranged a flag halyard from the masthead to the boom end, and that worked nicely.

### Yacht club burgee

The club burgee is traditionally flown from the bowstaff of mastless craft, such as runabouts; from the main masthead of sloops, cutters, yawls, and ketches; and from the foremast head of schooners. However, with all the antennas, windvanes, and similar impediments that decorate the mastheads of modern sailing yachts, it is virtually impossible to fly any flag up there without having it foul on something. As a result, most owners now fly their club burgee from a halyard on the starboard spreader.

### Courtesy flag

When you are visiting a foreign country, it is courteous to fly the flag of that country (but not from the stern staff!). That flag should be about half the size of your U.S. ensign. On mastless craft, it is flown from the bowstaff. On yachts with spreaders, the courtesy flag is flown from the starboard spreader, even if the U.S. ensign is flown from a stern staff. This is one of the few times when it is proper to have

a foreign flag flying above your country's flag, as the stern staff is the place of honor.

Most yachts have only one set of halyards on each spreader. So when you are in foreign waters, fly the courtesy flag above your club flag. If you do have two sets of halyards on your starboard spreader, then the courtesy flag would be flown separately from, and outboard of, the club flag.

There is one rather strange exception to the courtesy flag rules. According to Chapman's *Piloting, Seamanship and Small Boat Handling*, the courtesy flag is flown from the foremast head of a schooner when the craft is operating in the Great Lakes, St. Lawrence River, or adjacent Canadian waters. Doesn't that beat all? And I must admit that my experience fails me when it comes to catboats without shrouds or spreaders. In that case I would fly the courtesy flag from either the masthead or a bow staff and hope for the best.

### Owner's pennant

Now we are getting fancy! Still, since such a flag is not uncommon on larger yachts, it should be flown from the aftermasthead on two-masted vessels, both power and sail.

If you have only one mast and still wish to fly an owner's pennant, you will have to use your own judgment. From a halyard on the port spreader? Below your club burgee on the starboard spreader? It's your choice.

### Q flag

The International letter flag for Q, a solid yellow flag, is flown when you enter a foreign port and signals that the crew is healthy, and the vessel requests clearance. The Q flag is not necessary when entering Canada and some other countries, but check before you offend some pompous port official and sail into a sea of trouble.

### Diver down flag

The international flag for diver down is the alpha flag, a swallow-tailed flag half white and half blue, with the white nearest the staff. In North America we see rectangular red flags with diagonal white stripes on them used as dive flags for some reason. Keep clear of a vessel displaying either flag. I gave up scuba diving years ago, but if I were diving today I'd hoist both flags to be on the safe side as there are a lot of nuts out there.


## Miscellaneous flags

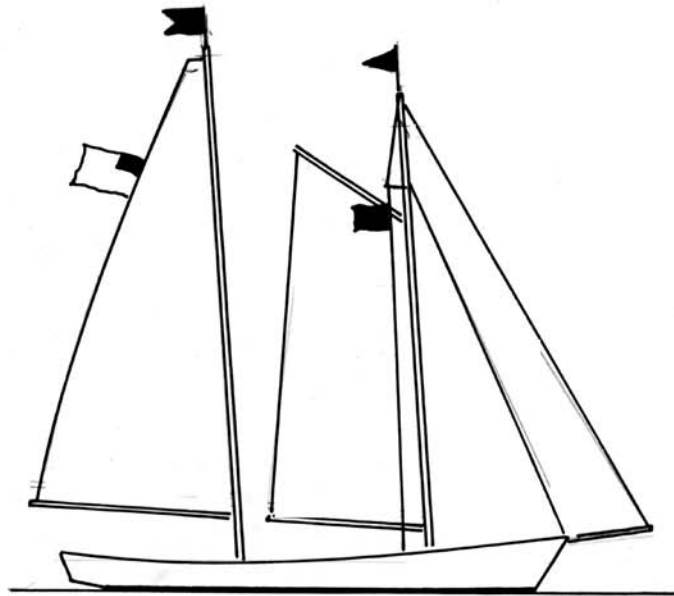
There are many other flags you can fly. The Union Jack (U.S., not British) is flown on a staff (the jack staff) at the bow, usually on larger vessels or naval craft, and only when anchored or made fast. Members of the U.S. Power Squadron or the U.S. Coast Guard

Auxiliary will be aware of how and where to fly their particular flags, I'm sure. Others might include yacht club officers' flags, an owner absent flag, and so on. If you simply must fly one of these, read Chapman.

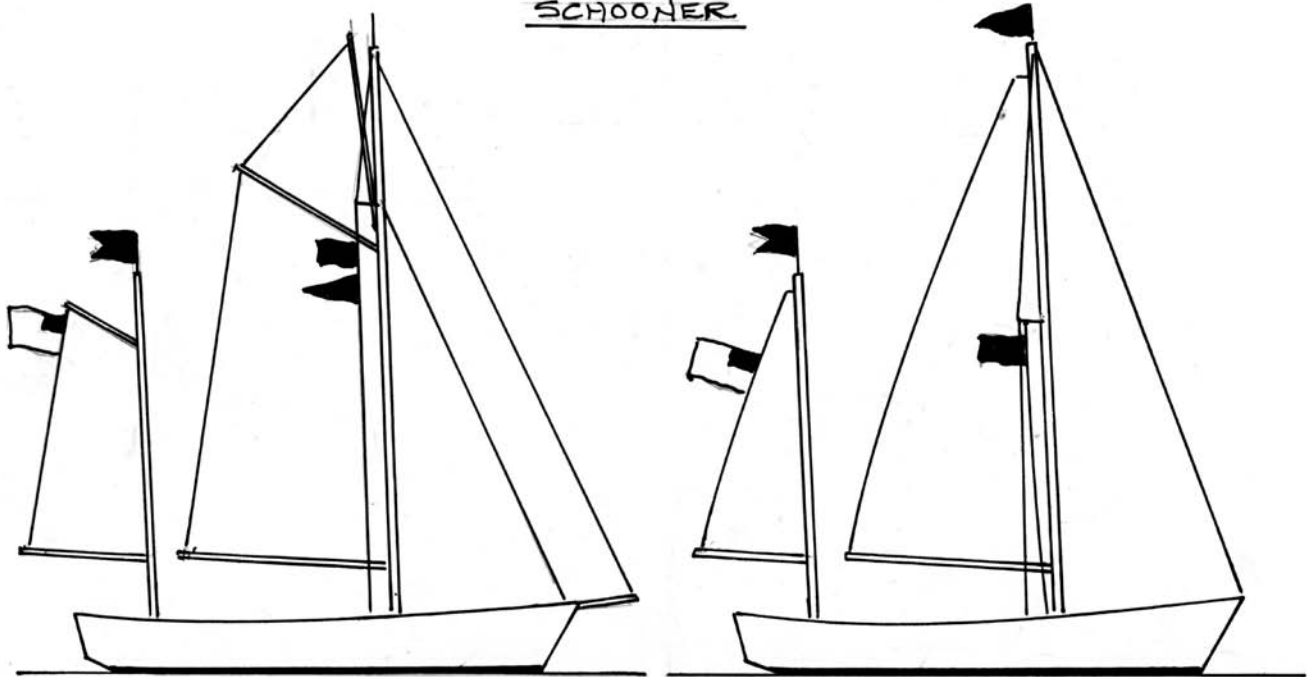
If you want to look like a tried and true fool, you can always fly a Jolly Roger, a cocktail flag, or a

battle ax. But please don't invite me aboard if you do.

Above all else, fly your country's colors high, and fly them proudly. 



SCHOONER



KETCH AND YAWL

BUY A 2-MASTER IF YOU REALLY MUST FLY AN OWNER'S PENNANT!

# The small matter of your boat's tender

Last summer, I sold my aging 12-foot skiff to a farmer who had recently moved from the Pittsburgh area to Maine. When he answered my classified ad, he said he intended to use the boat as a tender for a Hunter 26 he had recently acquired. He and his young wife were just learning to sail, and he didn't think he could afford regular use of the marina's launch to and from their sailboat on a mooring.

At first, I thought the guy was crazy. Such a big tender for such a small boat seemed ill-advised at best. And for rank beginners at sailing to undertake rowing too? But when the wiry farmer arrived to look the skiff over, the picture became clearer. "Even when we cruise for a weekend," he explained, "my wife wants to bring everything we might ever need along. So I need something that can carry a lot of junk."

Moreover, the Hunter was moored in a fairly exposed anchorage. When a rough chop developed, the farmer figured he needed a sharp, high-bow skiff like mine to cut safely through the mess. He had rowed on lakes in Pennsylvania and didn't think the coast would be much different. In the end, I had no guilt feelings. After he paid his \$250, we loaded 150 pounds of skiff onto a couple of old bales of hay, and he drove off.

The farmer's purchase was a perfect example of how to go about acquiring a tender for your good old boat. He sized up his needs,

checked his budget, combed the classified ads for a couple of weeks, and made his choice. Being a neophyte, he had no hangups on what a tender "should be." His criteria were more important than someone else's opinion. So I've developed a checklist of how anyone might approach the same problem the Pittsburgh farmer faced.

## Size, weight, capacity

As it was for the Pittsburgh farmer, determining the size, weight, and carrying capacity of your next tender is a personal choice. At a crowded yacht club dinghy dock, a 12-foot tender might be frowned upon. At your own dock, who cares? Likewise, if you intend to land on and push off lots of long sandy beaches, a 150-pound skiff could become more of an exercise in bodybuilding than you might like. And in places like Maine, sandy beaches are few and far between. Then is smaller the answer? Well, a wife and husband of 110 pounds and 150 pounds, respectively, wouldn't need much of a tender for a brief row to shore now and then. Then again, if she gets pregnant and he considers cheesecake a member of the primary food group ... well, you get the idea. Size your tender to your needs *and* expected needs very carefully.

Unfortunately, a tender's carrying capacity is a difficult number to nail down. New tenders usually come with a recommended safe carrying capacity. Sometimes, it's stamped right into the hull. But in most used tenders, the official carrying capacity has long since been forgotten. The U.S. Coast Guard has a complex and nearly incomprehensible formula for determining carrying capacity, and that's usually where the hull-stamped number comes from. But, in the absence of the Coasties' number, I've found the Subtract One Theorem works just as well: Ask the owner/seller how many adults he carried in the tender and subtract one. Multiply whatever's left by 160 pounds, and you get a pretty good estimate of the safe carrying capacity of the tender.

Other significant considerations include the tender's value as a maintenance platform. Most folks who maintain their own boats eventually do repair and

touchup work after the vessel has been launched. A stable tender is a big help with these chores. And of course a tender's towing characteristics and the ease with which you can stow it aboard the mother vessel are also worth considering.

*by Ken Textor  
illustrations by  
Stan Terryll*



## To power, not to power

There are three basic ways to move a tender through the water: by engine, by oars, and by sail. Each has distinct advantages and drawbacks. Having used each of the three at one time or another, I've found that doing what everyone else in the harbor, yacht club, or flotilla is doing is not always the best approach.

For instance, in recent years the popularity of outboard-powered tenders has increased exponentially. I suspect the main reason for this trend is an aging, weary baby boomer population that has taken lessons from convenience-oriented charter fleets and certain advertiser-driven boating magazines. The conclusion? The internal combustion strategy must be the overwhelmingly wise choice. But before you invest \$600 to \$2,000 in an outboard, consider some of the less-attractive aspects of powered tenders.

Boat insurance companies are swamped every year with hundreds of claims for stolen tender outboards. Because these outboards are lightweight and easy to resell for a couple hundred bucks, thieves love these engines and regularly target them, particularly when

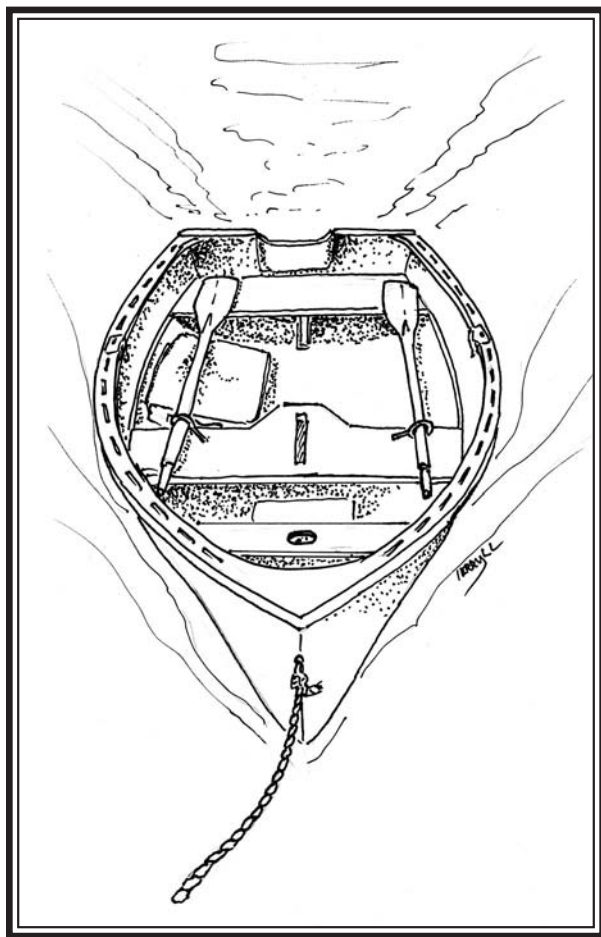
they're tied up at public docks near large metropolitan areas. Also, remember that before you head out into exposed waters, the tender's outboard must be removed and secured somewhere on the mother vessel. Spare gasoline also must be stowed somewhere on the mother vessel. These are messy jobs at best, dangerous, if done improperly.

Of course, with a second engine to maintain, appropriate spare parts and tools must be carried. Although outboards have come a long way in reliability, the potential for annoying mechanical breakdowns in the middle of a cruise is doubled when you own two engines. And you still have to maintain a pair of oars for emergencies, while at the same time ruling out the possibility of converting the little darling quickly and easily to a sailing tender.

Oar-powered boats are, of course, simpler and cleaner. Still, some tenders are virtually unrowable in all but the most peaceful conditions. Inflatable dinghies, particularly the less expensive variety, are notorious for this.

Moreover, some rigid, blunt-bowed, slab-sided dinghies cannot be rowed in a choppy anchorage. They take too much water over the bow and sides to be safe.

Sailing tenders are sweet when the wind



blows at exactly the right speed, usually somewhere between 5 and 10 knots. The wind is rarely this cooperative during most of my cruises. Moreover, sailing tenders require maintenance of a rudder and centerboard, both of which have the uncanny ability to become very scarce when needed. And the centerboard well can be a nightmare if not sealed with a watertight insert while the dinghy is being towed. More than one sailing dinghy has been sunk because water forced its way up the centerboard well and filled the bilges before anyone noticed what was happening.

## Inflatables, deflatables

Inflatable dinghies have come a long way since the days we called them "deflatables." Improvements in air chamber design and materials, plus advanced fabric assembly techniques, now make it possible for some manufacturers to offer inflatables with a 10-year warranty — something that would have put most of them out of business 15 years ago. Most manufacturers, however, still settle for a five-year

# Small wonders

warranty which you must read carefully before you purchase. Some warranties include so many exclusions as to be nearly worthless.

Then there's the decision between a solid floor and a fabric floor. In the old days, that was easy. Fabric floors slowed the boat to a crawl, offered a terrible standing or sitting platform, were impossible to bail out completely, and were prone to piercing and leaking. Solid wood, fiberglass, or aluminum floors solved most of these problems but created another big drawback: the elimination of easy stowage. Foldable floors addressed the stowage problem to some degree. But the inflatable that you could easily deflate, roll up, and stow almost anywhere became an ungainly pile of floorboards and fabric.

Inflatable manufacturers responded again, this time with a high pressure inflatable floor (HPIF), which has become popular in recent years. Essentially, the HPIF is a series of layers of bladders tightly stitched together which, when brought up to proper pressure, act very much like a rigid floor. Deflated, an HPIF rolls up easily. This all-fabric approach makes the HPIFs a little less expensive than their rigid counterparts and a little lighter. Performance through the water is about the same. Most HPIF owners caution that an electrically-driven air pump is essential for bringing the boat up to and maintaining proper pressure. When pressures are too low, the HPIF is no substitute for a rigid floor inflatable.

But can they be rowed? The answer is a simple yes and no. In absolute terms, you can row most inflatable tenders into a 12-knot breeze or a 2.5-knot current and expect to make some modest headway. However, if you like to row and expect to get somewhere in a 20-knot breeze or a 3.5-knot current, rowing an inflatable is an exercise in frustration. Even ardent

inflatable advocates concede an outboard is used on the vast majority of these tenders because rowing is only a backup system at best.

And can they be sailed? Well, in California there's at least one company that says "yes." Tinker Marine of Alameda (800-410-5297) advertises an inflatable that includes rudder, daggerboard, and sail for sailors who are absolutely devoted to inflatables.

Prices for a basic inflatable up to 12 feet in length range from \$700 to \$4,500. That doesn't include an outboard, but usually includes oars, a manual pump, and a patching kit.

## Prams, dinghies, punts

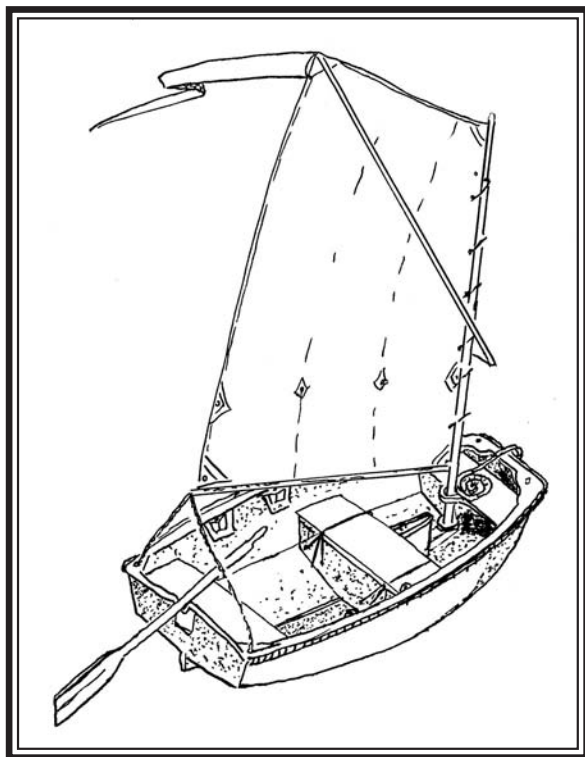
There are literally hundreds of designs for small tenders, which are known variously as prams, dinghies, and punts. Many of the designs can be built by just about anyone who can tell the difference between a spokeshave and a handplane. Most can easily be completed over the course of a winter's worth of weekends, making them a project you can start in the fall and expect to have ready for the next sailing season. The cost of materials usually runs from \$200 to \$500.

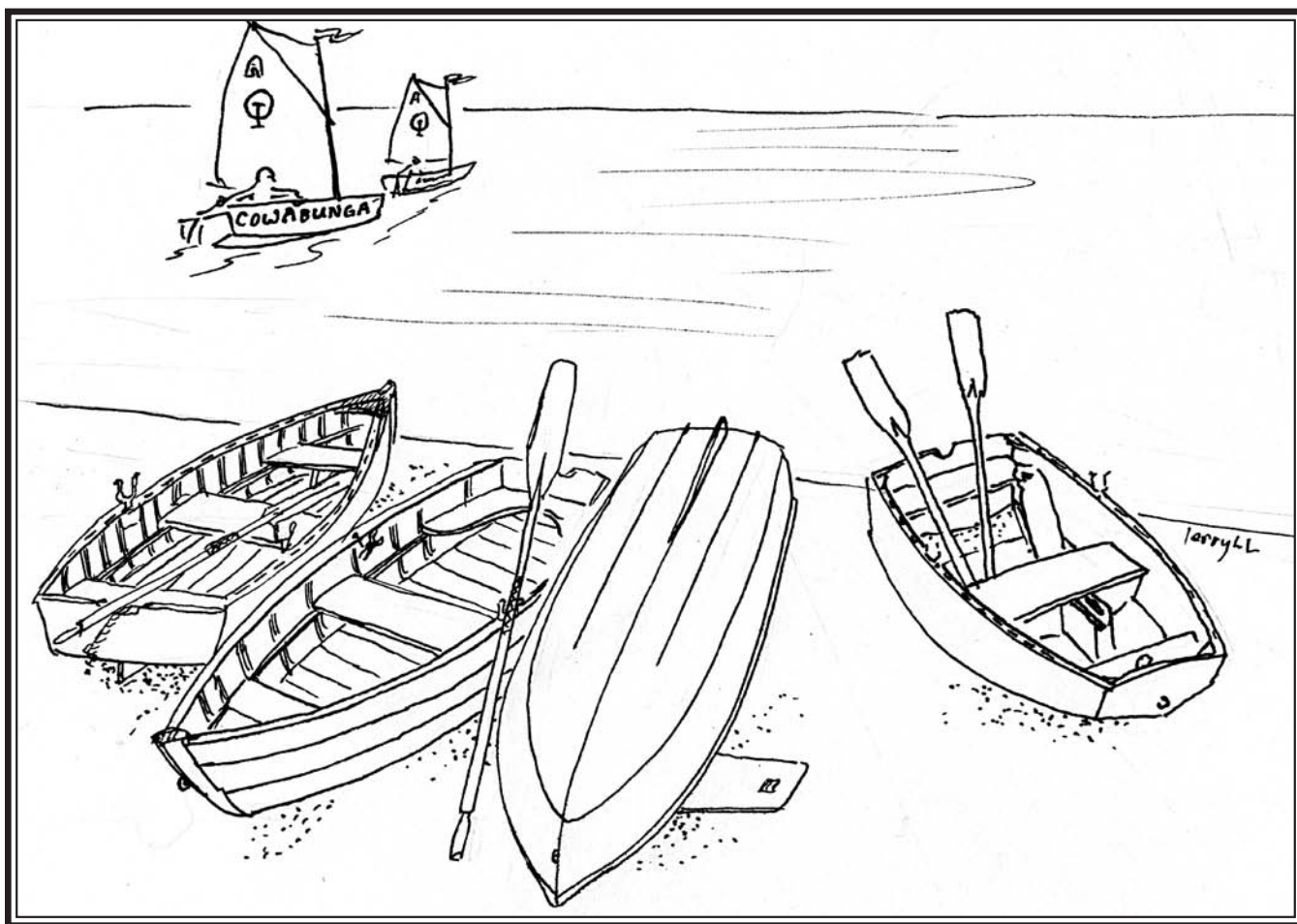
However, if you are not a fairly well-accomplished do-it-yourselfer, stick with simple plans for a tender, preferably a flat-bottomed design that calls for the use of marine-grade plywood throughout. Sticking with a tender designed only to row will also simplify matters and keep the price between \$100 and \$200. The best plans and building instructions for such a do-it-yourself vessel can be found in the book *Instant Boats* by Harold H. Payson. First published in a hardbound version

some 20 years ago, it is now available in paperback for \$16 from H. H. Payson & Co., Pleasant Beach Road, South Thomaston, ME 04858; 207-594-7587.

For those more adept at home handyman projects, there are several other aspects of tender construction to consider. First, if you are going to use epoxy or polyester resins on your chosen design, these materials must be used in a well-ventilated space. This generally excludes the basement of your house. If you opt to use a garage space, remember: some epoxies will work in sub-freezing temperatures, but most won't. Nor do polyester resins appreciate cold weather. Heat of some sort will be essential.

Also, when considering sailing tender designs, be sure you contact a few sailors who have actually built and sailed these rigs. Some sail well but row poorly, and vice versa. And depending on how you answer the towing question (discussed below), any tender's ability to be towed without a fuss may be critical. So get information from fellow sailors with real-life experience before you proceed.





## Be tender to yourself

Off-the-shelf solid tenders — both fiberglass and otherwise — are a world unto themselves. Eight nationally known builders regularly advertise some 16 tenders that are built to be rowed, sailed, or powered by an outboard. Among the 16 possibilities are tenders that can be folded up when not in use, and even some allegedly unsinkable versions. Beyond the nationally known builders (*see sidebar on Page 30*), there are also scores of local builders of solid tenders of all sorts.

In any case, when considering a solid tender, new or used, it is wise to steer clear of making your purchase until you've actually sat in the vessel in the water and checked out its behavior. Many solid tenders, particularly lightweight fiberglass versions, are far less stable than most boating people prefer. One's sense of stability is unique, varying from person to person. So don't depend on someone else's assurances of how stable the tender in question

is. Go to a boat show and try it yourself.

Workmanship in solid tenders runs the gamut from sloppy to finely fitted. Since most solid tenders are made of fiberglass, be on the lookout for bubbles underneath the glass mat webbing. Another common indication of shoddy workmanship is webbing that lays down unevenly or that hasn't been fully saturated with polyester resin, leaving turned up ends of exposed glass fibers. Uneven painting with drips and sags on the vertical surfaces of the inside of the hull are also a sure sign of poor workmanship. Avoid tenders like this.

## Kayaks, canoes, sailboards

In the last 10 years or so, off-beat tenders have become popular. Their advocates are devoted and numerous. But again, experience is the best teacher.

Kayaks, in particular, have become quite popular. The smaller versions are around eight or so feet in length and stow easily on a 35-foot sailboat. They are often lightweight enough to be literally

carried around while on shore.

Unlike a standard tender, you face the direction in which you're paddling. The cost is competitive with off-the-shelf fiberglass tenders (\$800 to \$1,200) and most are as durable as any other traditional type of tender.

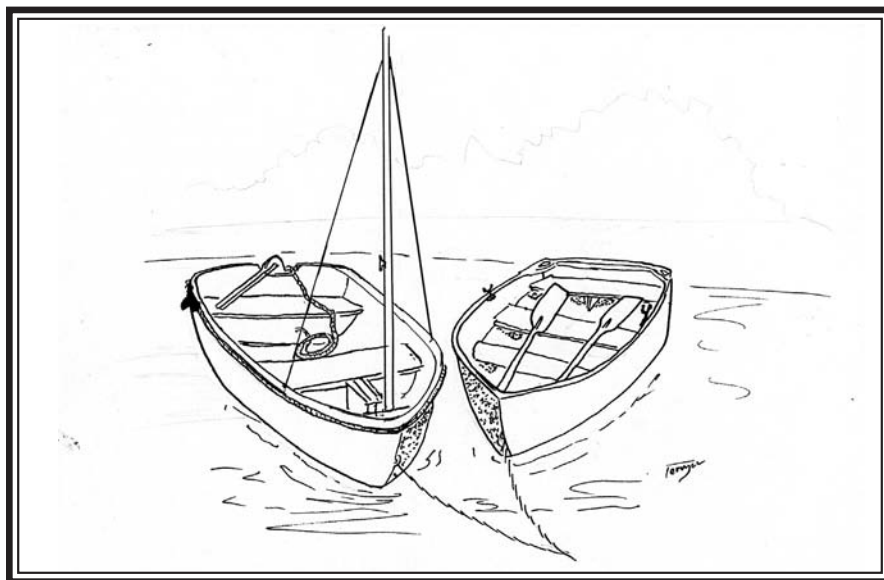
A kayak's stability, however, can be a problem. Most sailors can adapt quite readily to paddling a kayak and keeping it stable in ordinary sea conditions. Rough conditions, however, challenge even expert kayakers, and neophytes would do well to stay away from choppy waters. Moreover, kayaks that are a handy size have limited stowage space and, unlike traditional tenders, they cannot be used as a floating maintenance platform.

Canoes solve the kayak's stowage problems and offer a slightly better maintenance platform. They also allow you to paddle facing the direction you want to go. But stowing even a small 12-foot canoe on the deck of a 35-footer will be awkward at best. Towing a canoe is not a reasonable



These are the major manufacturers of rigid-hull tenders, their products and prices. Other manufacturers with competitive prices may be available locally, so check with your local yacht or boating club for further suggestions. Also check boating magazines, marina bulletin boards and the Yellow Pages. The prices below do not include shipping.

- **American Sail Inc.**, 7350 Pepperdam Ave., Charleston, SC 29418; 401-245-330 — *American Sail Dink*, 8' 1", 90 lb, \$1,495.
- **Bauteck Marine Corp.**, 2060 Dobbs Road, St. Augustine, FL 32086; 888-228-8325 — *Bauer 8*, 8' 1", 90 lb, \$1,700; *Bauer 10*, 10' 1", 130 lb, \$2,950.
- **Britannia Boats Ltd.**, Box 5033, Annapolis, MD 21403; 410-267-6442 — *Brittania Folding Dinghy*, 7' 10", 60 lb, \$2,140.
- **Edey & Duff Ltd.**, 128 Aucoot Road, Mattapoisett, MA 02739; 508-758-2743 — *Fatty Knees*, 8', 100 lb, \$2,745; *Columbia Tender*, 11' 6", 130 lb, \$3,445.
- **Hunter Marine**, Box 1030, Alachua, FL 32961; 800-771-5556 — *Hunter 90*, 9' 6", 95 lb, \$1,995.
- **Johannsen Boat Works**, Box 7048, Vero Beach, FL 32961; 800-869-0773 — *Trinka 10*, 10', 130 lb, \$3,990; *Trinka 12*, 12', 225 lb, \$4,150.
- **Stuart Marine Corp.**, Box 469, 38 Gordon Drive, Rockland, ME 04841; 207-594-5515 — *JC 9*, 9' 3", 145 lb; \$2,495.
- **Walker Bay Boats**, 15300 Woodinville-Redmond Road, Ste. C, Woodinville, WA 98072; 425-885-0389 — *Walker Bay 8*, 8' 3", 70 lb, \$899.



option and most are best used within the confines of a calm harbor.

Sailboards are obviously limited to all but the most hot-blooded folks or to sailors who stay in tropical and sub-tropical cruising grounds. Stowage on a sailboard is limited to what you can carry in a backpack. Mastering the art of sailboarding is more difficult than mastering rowing, but most sailors can get the hang of it eventually. The boards stow easily on a 35-footer and offer a moderately useful platform for maintenance.


## Boat overboard!

Throughout this discussion of tenders, there has been the underlying question of whether or not to tow the little boat behind your good old boat. How you answer this question will determine to a large extent what tender you buy or build.

Towing a tender is a quick and convenient way to bring the little devil along. But, depending on wind and sea conditions, and on the vessel's design, a towed tender can be anything from a minor headache to downright dangerous. In fact, in a heavy following sea, I've had at least one tender swallowed whole by a sneaky breaking wave. Even headed to windward on an ordinary, choppy summer day, spray can fill the tender enough to require bailing, which is a tricky proposition while under way. And of course any dinghy you tow will — again, depending on its design — slow the towing boat's progress by anything from a quarter to a full knot or more.

Bringing the dinghy aboard the mother vessel is the obvious solution. But this is easier said than done. Even deflatable dinghies are a hassle to get completely deflated, rolled up and tucked away somewhere convenient. (They also must be re-inflated which is also a time- and energy-consuming project when using the manual pump provided.) Solid tenders present even bigger problems. Lacking stern davits, the tender must be stowed upside down either just aft or just forward of the mast. But just getting an 85- to 150-pound tender aboard and in place is going to require some down-and-dirty muscle work even if you have a block and tackle to help.

Davits seem to be the answer here — until they catch an errant mainsheet or dock line. Davits also increase your good old boat's overall length, allowing dockmasters to charge you for the extra footage. These problems can be solved by installing custom davits designed to swing inboard when not in use. But then you're looking at spending around \$2,000 for such a setup.

Thus the best answer to all this is the age-old sailor's companion: compromise. As with just about everything else on just about every boat I've ever owned, a judicious compromise is the least expensive and most satisfying way to solve problems, big and small. Like the Pittsburgh farmer, know yourself and your needs well before you write that check. 

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### Feature boat

Cape Dory 30

### First list of sailboat associations and contacts

## September/October 1998

### Technical articles

Wet exhaust and other marine exhausts; What to look for when buying an older boat; Sailbrokers

### Feature boat

Ericson 35

### Features

Onboard communication; Nautical photographer; Sailing on the 'Net; Vendor feature on Sailrite

### History

Birth of the Valiant

## November/December 1998

### Technical articles

Deck delamination; Vang/preventer; Is fiberglass forever?

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# *Autry's Blackwatch 19* One salty little cruiser

*For lifetime sailors Gerry  
and Joanie Cotter,  
this Dave Autry classic,  
only 18 feet 6 inches on deck,  
is all the boat  
they figure they'll ever need*

**A**s I write this account, a brand-new mega-yacht, named *Mari-Cha III*, has just shattered the transatlantic record for monohull sailboats, crossing in just under nine days — more than two and a half days inside the previous mark. This all-carbon marvel is 147 feet long, can set up to 17,000 square feet of sail, and carries a racing crew of 22 who enjoy gourmet meals and hot showers on demand. Construction costs? Astronomical, considering that the luxurious, yet ultra-light, interior alone consumed 80,000 hours of production time. Is it any wonder that so many non-sailors regard our sport as extravagant and elitist?

Unfortunately, the flip side of the coin — countless thousands of folks who putter around happily in modest, affordable boats — just don't make the news like a record crossing or disaster at sea. All the same, it's stories like the following account of two active retirees and the salty little cruiser they've lovingly upgraded which represent the real heart and soul of pleasure

boating. In this respect, things have changed little since early 1903 when Erskine Childers published *The Riddle of the Sands*, a brilliant tale of small craft seamanship and espionage.

By most standards, the Blackwatch is pretty darned small for a serious cruising boat — a bit over 17 feet on the

waterline and around 23 feet overall including a substantial bowsprit. From plumb stem and deeply hollowed bows to graceful, wineglass transom, she looks as though she's sailed straight out of a bygone era — a junior sister to the fictional *Dulcibella* from Childers' famous novel. But the appeal of boats like these goes beyond nostalgia; their "antiquated" hull shapes will often deliver a remarkable blend of seaworthiness and performance. Just consider the globe-girding cruises of the Carrs aboard *Curlew*, the Pardeys with *Seraffyn*, or John Guzzwell's adventures with *Trekka*. No question, there's more to these "old-fashioned" designs than meets the eye.

*by Sven Donaldson*

## **Homespun boatbuilding**

The Blackwatch itself has an unusual pedigree. Designer/builder Dave Autry is a West Texan and a printer by trade, who got into the marine biz in 1976 when he started on a sturdy, homebuilt 14-footer that his kids could use safely on the rough, windy expanses of Lake Meredith. Before his cold-molded hull was even finished, several neighbors wanted sisterships, so Dave decided to turn the unfinished hull into a plug, used it to make a mold and started turning out fiberglass BlueWater 14s. These sturdy gaff-rigged cats featured spruce spars, a traditional barn door rudder, a ballasted swing keel, and a large, self-bailing cockpit. Despite their chunky looks, they offered a decent turn of speed and, for a while, were even raced as a local one-design class. A total of 44 were built.

The unexpected success of the BlueWater 14 prompted Autry and his friends to tackle a larger boat. The 18-foot Blackwatch incorporated a long, shallow, fixed keel that extended aft to meet the transom-hung rudder. Some 800 pounds of internal ballast, as well as a 15-gallon freshwater tank, were housed in the keel, yet the overall





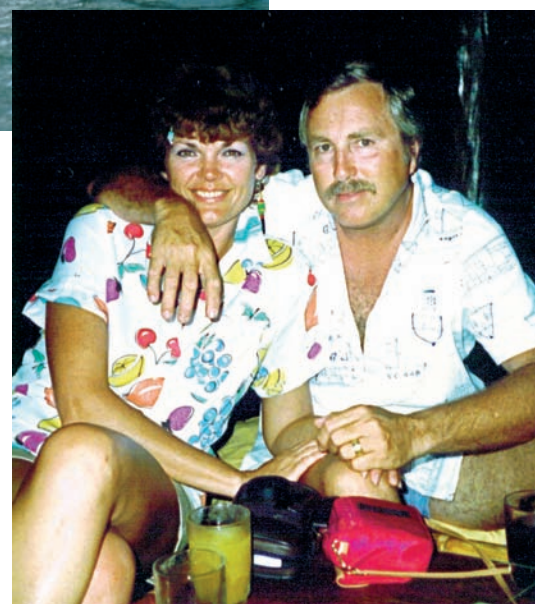
Garry Cotter

*At right, boatbuilder Dave Autry and his wife, Linda, enjoy a peaceful moment on the island of Tahaa, north of Riitia in the French Polynesians. His Blackwatch design caught the eye of Gerry and Joanie Cotter, who have restored Ocarina, above.*

draft of the boat was only 24 inches. An unstayed cat ketch rig was tested on the first Blackwatch, but all boats were eventually equipped as conventional Marconi

cutters, using a conservative single-spreader alloy mast and double lower shrouds.

Dave Autry designed his boats in his mind's eye; no line drawings were ever prepared! The Blackwatch







Sven Donaldson

bears a close resemblance to such well-known classics as the Cape Cod Catboats and would not have looked out of place in a Down East harbor back in the 1900s. The plumb bow, round-nosed deck-house and wrap-around cockpit coamings add character and time-tested practical benefits. Lean, concave waterlines toward the bow flair outward amidships to a fairly firm-bilged shape which provides good form stability, then falls away smoothly to a graceful wineglass transom. The maximum beam of 7 feet 11 inches is wide enough to allow for a snug, but livable, cabin without creating sidedecks too narrow to be practical.

Although neither the most spacious, nor the quickest micro-cruiser on the water, the Blackwatch clearly struck a chord with quite a few sailors, mostly in the southern and eastern states. Over a two-year span beginning in 1979, BlueWater Boatworks built 81 Blackwatches, and sold them through a growing network of dealers. Sadly, an economic downturn and serious difficulties obtaining suitable hardware prompted Autry to phase out of boatbuilding in 1981. The last few Blackwatches listed for \$15,000 — a fairly steep price back then for such a small boat, but one which reflected the sturdy construction and good quality of the equipment supplied.

## A perfect fit

Gerry Cotter knew nothing of Dave Autry and BlueWater Boatworks when he spotted an intriguing photo ad in the classified section of a Los Angeles paper during a trip to California. But he certainly liked the look of the salty, little Blackwatch and immediately contacted the broker for more information.

Gerry grew up boating in Nova Scotia and is something of a nautical history buff who thrives on marine museums, tall ships, and the like. So it's no surprise that a "pocket classic" like the Blackwatch would appeal to him. But just as importantly, a small, yet "serious" cruiser was exactly the sort of boat that fitted the retirement plans that Gerry and his wife, Joanie, had made for themselves.

Home for the Cotters is the Pacific Northwest — a small town in coastal British Columbia called Squamish, situated at the head of a glacial inlet near the famous Whistler Mountain Ski Resort. Recently retired from demanding careers — air traffic control and physical/occupational therapy, respectively — the two were tackling their retirement with energy and enthusiasm. Gerry and Joanie love boating and have previously owned a range of sailboats ranging from dinghies to a C&C 27.

However, other keen interests occupy much of their time: travel, music, hiking, skiing, and volunteer work as alpine guides. So in contemplating their "ultimate boat," the Cotters wanted something small enough to trailer and work on at home, yet comfortable and seaworthy enough for serious coastal voyaging. There was no need to ramp-launch on a regular basis, because convenient wet moorage is available at the Squamish Yacht Club, but the Cotters agreed they didn't want to become slaves

to a large yacht with major maintenance requirements.

Blackwatch hull #73 was up for sale following the death of her owner and surveyed in basically sound condition, although she'd suffered a bit from several years of neglect. The Cotters bought the boat, trailed her home, and set up a boatshop outside the garage of their suburban home. The boat remained there for nearly four years, eventually to emerge transformed, like a butterfly after metamorphosis.

## Reconstruction

Gerry freely admits to going "a bit overboard" on the refit, but regards the 3,500-plus hours he and Joanie put into the project as time well spent. Gerry treated work on the little boat as a new and compelling hobby, learning various aspects of the shipwright's trade as he progressed. Joanie showcased her sewing expertise making new interior cushions, coordinated bedding, cockpit cushions, and portlight curtains. She also constructed new covers for the sails, hatches, and other exterior woodwork, as well as a full cockpit tent that provides standing headroom while at anchor and converts to a Bimini with removable side curtains.

To begin the refit, Gerry stripped out almost every scrap of



interior woodwork and prepared to start afresh. The standard Blackwatch incorporates injected foam (for insulation and floatation) between the hull and interior liner as well as under the aft decks and cockpit. The robust single-skin hull and ply-cored deck and cabintop were in excellent condition — no upgrading required. Priority was given to strengthening each potentially weak link in the “rigging chain,” including chainplates, inner forestay tang, bowsprit fittings, and ultimately, a complete new bowsprit. Likewise the spars were upgraded with a stronger gooseneck, toggles throughout, internal halyards, reinforced spreader roots, and a gleaming polyurethane paint job.

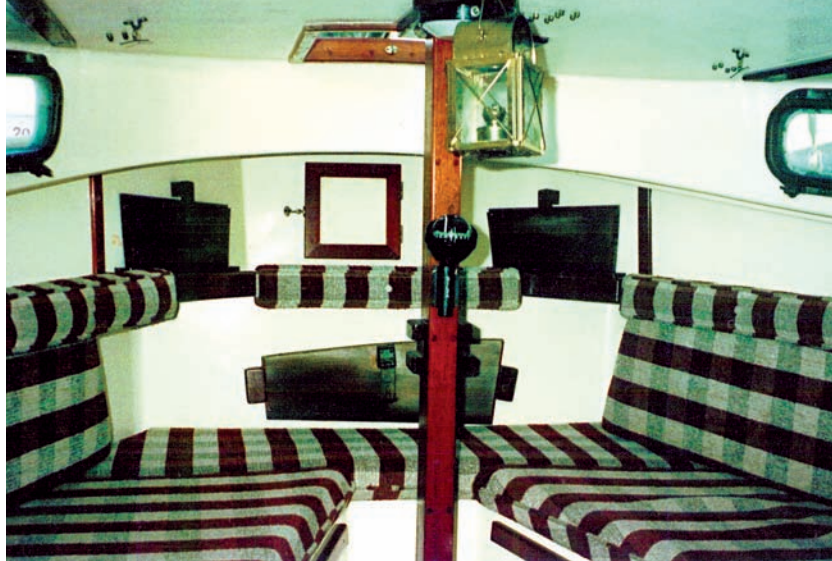
The Blackwatch was completely rewired to high standards, including a new main panel plus a subpanel, lighting, VHF radio, depth sounder, tape deck, and provisions for future additions such as a compact autopilot. New plumbing, too, was part of the refit: a larger stainless steel sink, a brass hand pump with in-line water filter, and a small holding tank to catch drain water from the sink and icebox. The toilet is a basic Porta Potti which slides into a cabinet beneath the sink. There are no potentially vulnerable seacocks; instead, gray water from the holding tank is pumped out through an above-water transom drain.

Cabin heat is essential for off-season cruising in the rainy Northwest, so Gerry fitted a Force 10 propane heater into a small space at the front of the starboard settee. There's a new, two-burner Force 10 stove on a slide-away mount to starboard of the sink, with a heavily insulated top-loading icebox opposite.

Beneath the cockpit, Gerry squeezed in a custom-built aluminum fuel tank holding 9.9 gallons — enough for a range of about 150 nautical miles, powering at 5 knots with an 8-hp Honda four-stroke outboard. At the back of the cockpit, he installed a propane locker with overboard drainage, complete with planked teak lid and hitching rail with belaying pins for an added nautical touch.

A key stage in the restoration was a complete exterior paint job using Awlgrip two-part polyurethane. This was done prior to the re-installation of deck hardware, new hatches, etc., but after the new propane locker had been carefully faired into the remainder of the cockpit. The Cotters did most of the laborious preparation — 22 days' worth — under the watchful eye of professional shipwright Clint Currie, who applied the final spray coats. The result is superb.

The original Blackwatch interior, judging by the Cotter's “before” photographs, was practical



Sven Donaldson

*Before and after photos (top two above) show touches of class added by the Cotters. Gerry milled much of his own timber for the interior woodwork. Part of the original design, fill-in cushions (not shown here) create a large double berth in the V-space. The galley, in the bottom photo, has a two-burner stove to starboard of the sink with a top-loading icebox opposite.*

**Blackwatch continued on Page 38**

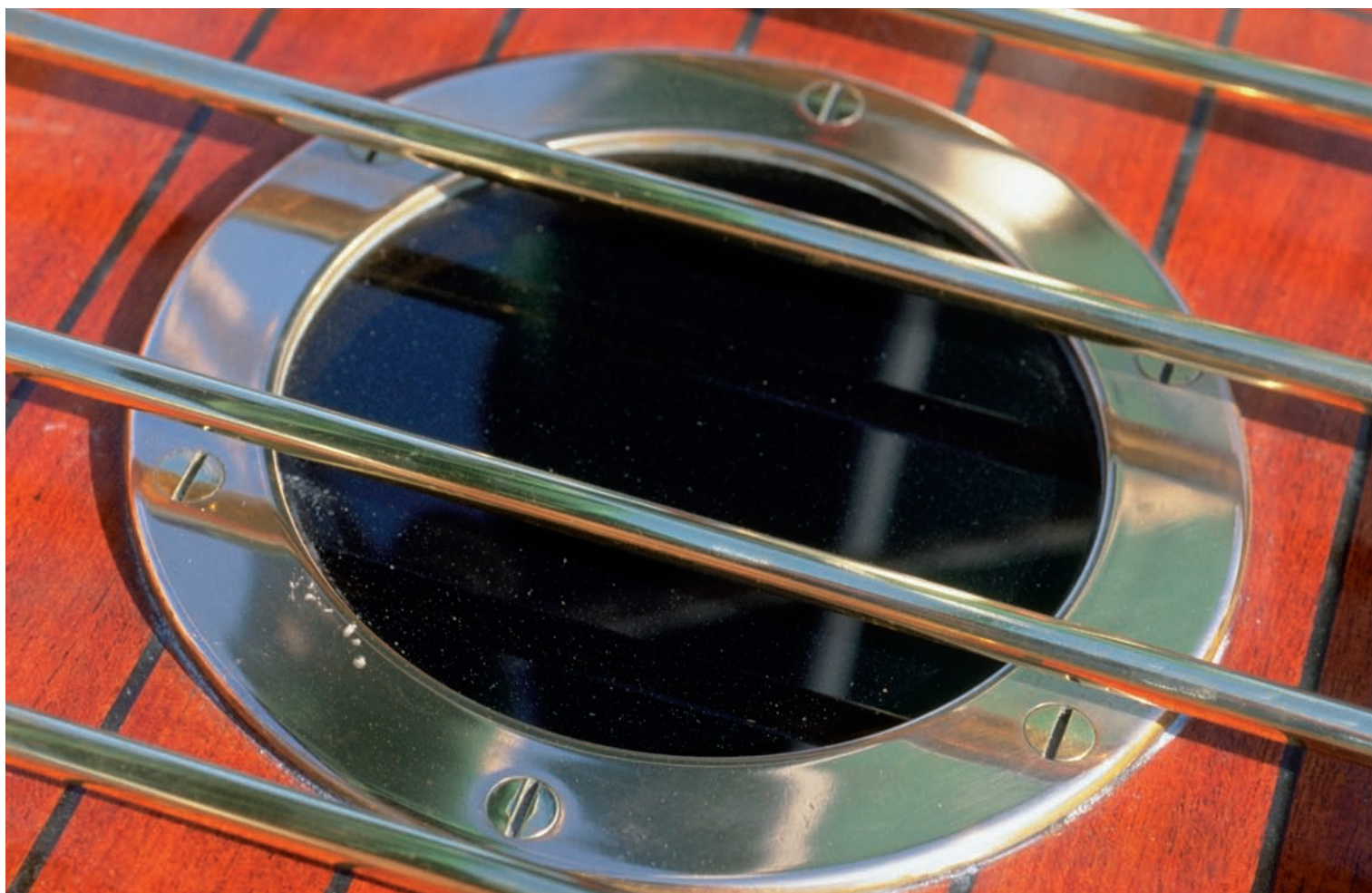








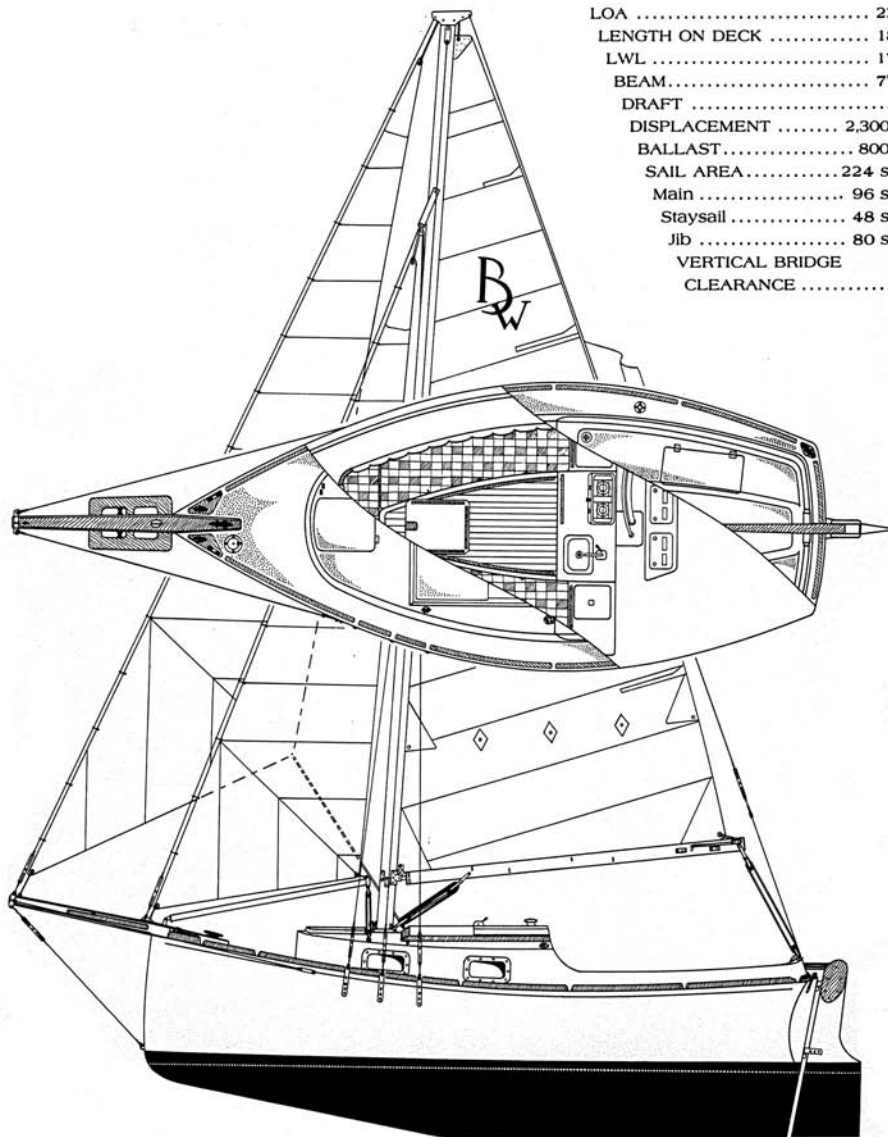
*photos by  
Garry Cotter*





## SPECIFICATIONS

LOA .....	22' 7"
LENGTH ON DECK .....	18' 6"
LWL .....	17' 6"
BEAM .....	7' 11"
DRAFT .....	24"
DISPLACEMENT .....	2,300 lbs.
BALLAST .....	800 lbs.
SAIL AREA .....	224 sq. ft.
Main .....	96 sq. ft.
Staysail .....	48 sq. ft.
Jib .....	80 sq. ft.
VERTICAL BRIDGE CLEARANCE .....	30'



spaces are dedicated to particular items. For example, the original bow locker (which once stored the ground tackle) has become a surprisingly capacious hanging locker that accommodates not only garment bags, but bedding, too. The anchor hawse pipe was relocated to the starboard side, allowing 300 feet of nylon rode and chain to occupy a previously under-utilized space. Incidentally, the primary anchor — a 20-pound CQR — might seem like overkill for a boat that displaces less than 1.5 tons, but the northern inlets of British Columbia are known for violent squalls, making good ground tackle a must.

Scrounging for “antique” marine equipment is par for the course when restoring a traditional boat like the Blackwatch. The boat’s bronze cabin portlights were original equipment, but Gerry scored numerous hardware items at nautical swapmeets and bargain stores, including a magnificent round portlight for the new forehatch. For a few items, i.e., the unique double anchor roller, he constructed wood patterns, so

a custom fitting could be cast in bronze — again, just part of the fun.

## By land or by sea

The Cotter’s “better-than-new” Blackwatch deserved, and got, a new dual-axle road trailer to replace the rather marginal single-axle one that had brought the boat home from California. The rig totals about 3,500 lb and tows easily behind a mid-sized sport utility vehicle. One real virtue of a trailerable cruiser is being able to live aboard while travelling by road — something the Cotters expect to do on some of their jaunts.

Ramp launching is facilitated by a 10-foot telescoping extension

## Continued from Page 35

and far from unattractive. It offered settees port and starboard with in-fill cushions to make up a large double berth, a galley module beneath the offset companionway, and a nifty portable table which mounted on the mast compression post. However, the Cotters envisioned something extraordinary and, in the end, achieved it.

The first step was a new cabin sole planked from 3/8-inch Honduras mahogany set in epoxy and caulked with polysulfide. Gerry actually milled much of his own timber for the interior woodwork, including yellow cedar headliners and rear bulkhead liners, plus

mahogany shelving and strip planking to cover the stark fiberglass interior liners. A self-taught, “recreational” woodworker, he clearly delights in this part of the work, putting extra effort into finishing details such as hand-carved feathering at the ends of some joinery. His removable drop-leaf table — a larger, more intricate version of the Autry original — is also a minor work of art.

At the same time, the practical necessities of life aboard a pint-sized boat demand that stowage provisions be a top priority. Gerry has addressed this need by building cabinets, drawers, racks, and cubby holes into every corner of the interior. Many of these stowage



on the trailer frame. To raise the mast, Gerry devised a bridle system which attaches to the chainplates for lateral support while the spar is pulled upright using the cockpit winches. A launch or recovery takes several hours — not ideal for a daysail perhaps, but certainly nothing that would discourage road trips to new cruising grounds.

After seeing the numerous additions the Cotters had made, I frankly wondered whether the boat might have gotten just a bit overweight — something that can easily happen with projects of this sort. Gerry was very conscious of this risk during the refit and strove to trim weight at every opportunity — replacing thick plywood components with thinner ones, eliminating some panels, and substituting a single battery for two. By his estimation, he removed 150 pounds and added just 100. I'm not entirely convinced, but the boat appears to float very much as she did in the "before" pictures, and hull shapes like this one are known to carry a few extra pounds with good grace.

There's no doubt the Blackwatch is a sweet sailing boat. Squamish is an unusually breezy site — popular with the sailboarding crowd — so I had the chance to test the boat in fairly rough water with winds ranging from 10 to 22 knots. In anything much over 12 knots, she goes to windward best under staysail with the Yankee jib rolled up on the furling gear. The little boat felt surprisingly powerful, and it wasn't difficult to average speeds a bit over 5 knots as measured by GPS.

Interestingly, the Blackwatch also pointed quite respectably, tacking through about 90 degrees and making only modest leeway (as judged by the wake). Folks who swear by deep-fin keels may find

this hard to credit, but the fact remains that a long shallow keel can deliver surprising upwind performance *provided it's built with square-cut lower corners rather than rounded ones*. It works because a sharp-edged keel promotes eddy formation as water flows diagonally beneath the hull, and the extra turbulence translates into lateral resistance. Classic boat designers, as well as more recent disciples such as Dave Autry, either understood this intuitively or discovered it through trial and error.

Beam reaching under the larger headsail in 15 knots, the little Blackwatch loped along at around 6 knots, attaining a high of 6.4 knots during a short stretch. For a boat with just 18 feet of effective sailing length and a displacement/length ratio over 200, this is excellent performance.

The ride in a 2-foot chop was fairly controlled, and only an occasional dollop of spray reached the cockpit. All in all, I was favorably impressed and concluded that the Blackwatch makes a very capable coastal cruiser. A few owners have reputedly taken their boats offshore, across the Gulf of Mexico and the like. In my opinion, this is pushing the limits, because any boat this short and wide will be

vulnerable to wave-induced capsize. But for someone determined to go bluewater cruising in a really small boat, it would certainly be easy to choose a lot worse.

### A worthwhile project?

There are doubtlessly some who will question the wisdom of pouring 3,500 hours and considerable out-of-pocket expense into a middle-aged fiberglass sailboat just 18 feet long. This sort of thinking doesn't trouble Gerry Cotter; the pleasure he and Joanie have obtained from working on the project and kibitzing with friends about it has easily made these expenditures worthwhile.

Naturally, a boat this cute is a guaranteed head-turner, and now that the Cotters have started their cruising, the compliments keep rolling in. She's a good old boat of course, but new enough in so many ways that a name change seemed appropriate. With four years to think about it, the Cotters finally decided to call her *Ocarina* — the name of a small wind instrument from the Peruvian Andes. For a creative, adventuresome couple who love both the mountains and the sea, it's difficult to imagine a better choice.



**Gerry installs Ocarina's nameplate.**

Joanie Cotter

# Winter aboard?



**I**t's the middle of the 1998/99 winter, and the snow and cold are presenting their annual intrusions into our lives. If you are the typical seasonal sailor, your boat is probably tucked carefully away on the hard, and you are already imagining your next sailing season. For many of us, winter represents an involuntary "down-time" in which we mainly wait until the hard stuff melts, and we are able to launch our "escape machines" once more.

But what if we were able to keep our boat in the water over the long winter? Impossible you say? What if we could not only keep our boat in the water, but actually live aboard during the winter and stay warm and cozy at the same time? Wouldn't that be a welcome answer to winter's "boatless blahs" that infect so many of us? Granted, there are some conditions that make this solution somewhat limited in scope, but for the fortunate ones who are able to do this, wintertime living aboard represents a unique and

challenging way for them to stay connected to their boats while the snow flies outside.

*Good Old Boat* magazine learned of two such stalwart individuals, living aboard their vessels over the winter ... in Canada! We gathered our virtual team of sled dogs and set forth across the frozen tundra to find these resolute icons of the sailing fraternity.

Our search took us first to Frenchman's Bay, where we found Stefan Mochnacki

living aboard *Somewhere*, his 1971 Grampian 30. Next, we visited Lake Ontario where we found Chris Stoyan living aboard his Corbin 39 Pilothouse, *Gulliver*. We tied our team of virtual huskies up, shook the snow off of our parkas and boots, and spent a bit of time visiting with both sailors, talking about their lives and their boats.

## **Stefan Mochnacki**

In Toronto, the winds and cold come early. By now, the heat of summer is a distant memory as are most of the things we accept as artifacts of summer: green grass, liquid water, and a clear sidewalk. Twenty miles east of Toronto, we come to a little bay, known as Frenchman's Bay, near the city of Pickering, Ontario. Here our virtual sled dogs are surprised to find open water surrounding the docks in the East

Shore Marina, courtesy of a bubbler system and warm water provided by the

effluent of a large nuclear power station!

Several boats in the marina have large plastic-covered wood frames erected over them. One such boat, a Grampian 30 named *Somewhere*, belongs to Stefan Mochnacki, a sailor, astronomer by profession, and hardworking webmaster of The Liveaboard Listserver (contact [Stefan@crux.astro.utoronto.ca](mailto:Stefan@crux.astro.utoronto.ca)), an email-based list service for people

*by Larry DeMers*



# In Canada?

*You must be joking! Would anyone willingly live aboard in the winter ... in CANADA? Well, yes, it turns out many do year after year ... by choice. Meet two individuals who live aboard near Toronto*

who live aboard their boats or would like to. Stefan's listserver was started in 1993 by Ray Wagner at the University of Virginia, but Ray soon found that a more permanent home was needed for the service. Stefan took it over in 1993, with 100 subscribers. It now serves around 700 members worldwide.

*Somewhere* is covered by a wood and plastic tent that even sports a protected entry system. According to Stefan, the Grampian 30 "is a tough, roomy, comfortable old boat, very stiff and safe in a blow. It's built to last, but it's a rather plain boat. There will be Grampians around long after their more glamorous contemporaries have gone to boat heaven. There is no better value for your money than Grampian, although they aren't truly bluewater boats, with the

exception of the 28. With a gale on the beam, my boat absolutely flies!"

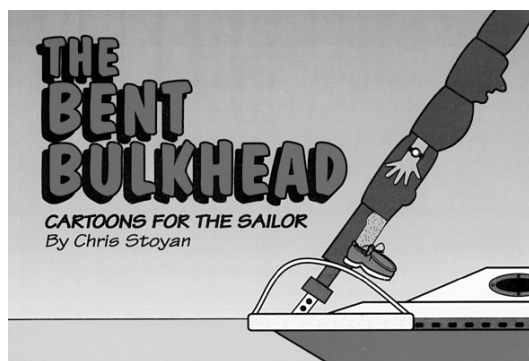
Stefan's boat has amenities such as refrigeration, pressure water, a good charging system, woolly upholstery on the interior topsides, a wood heater, electric/alcohol

stove, TV, and so on. He heats primarily with two 1500-watt ceramic-cube-type heaters. "It doesn't take much to make a boat like this habitable year around," he says. "If anything, summer living needs more attention. I upgraded

*It's not always freezing in Canada. Stefan enjoys a summer day aboard a neighbor's boat.*







says that in the 10 years he has lived aboard, he has never covered her! He adds, “the boat is Airex cored and is one of the thickest glass boats made. You ought to see how thick the deck is.”


*Gulliver* has little or no condensation during the cold Canadian winter, and Chris feels that the heavy fiberglass buildup and the

Airex coring are the reasons. There is plenty of room inside for two people, and it is quite warm with the help of a few strategically placed micro furnaces. He does find that long-term storage of clothing in lockers is best done using sealed plastic storage bags.

Chris operates a nautical website that is mainly a contact point for those interested in reading reviews of his book, *The Bent Bulkhead, Cartoons for the Sailor*. (Contact bent@pathcom.com.)

When asked about the downside of living aboard in the winter, Chris said it is often difficult doing laundry because of the cold. He also said that water was a problem in the winter — keeping it from freezing, as well as getting any to begin with.

The best part of wintering over in the marina are the friends you get to know. “They are the best people I’ve met in my 42 years of being around!” he noted. I asked Chris if he has converted many of his friends to his lifestyle. His reply was telling: “All my childhood friends have dropped in to see what it’s all about, and they all said ‘Yup, this is what I’m going to do: buy a boat and move aboard.’ Well, not one has done it yet!”

All in all, it looks like a nice way to spend your winter and stay connected. It certainly beats staring at dusty photographs and daydreaming of previous cruises and anchorages. Ah well, where did I put that last slide tray ...? 

the vents and installed a solar-powered fan over the head.”

I asked Stefan to describe what it’s like onboard a 30-foot boat for the whole winter. “Not bad,” he replied. “Not as bad as one might fear! The marina puts in bubblers, which bring up the warm, deeper unfrozen water. Below the waterline, things are relatively ‘warm,’ i.e., about 0 degrees Celsius.”

Electric heaters, a bit of insulation, and a plastic frame over the deck all serve to keep things toasty. When the weather gets unreasonably cold, Stefan uses the wood stove to bolster the heat from his electric heaters. He bought a diesel heater but has not installed it yet.

Stefan believes he suffers little with this lifestyle. “Of course there will be some depravations: I shut down all of the plumbing in the winter, relying on shoreside facilities and portable water bottles. I don’t use the onboard head in the winter, because the portable pump is too expensive.”

## Chris Stoyan

Chris Stoyan is a 42-year-old cartoonist who got interested in sailing when his parents took him along for a sail on their neighbors’ 25-foot Folkboat. The owner pulled a cold pop from the bilge, and Chris was hooked!

About 10 years ago, Chris experienced a change in his life’s priorities, an event which resulted in the purchase of his Corbin. He

# An idea grows with the sail

Ben Stavis is the kind of person who turns good ideas into reality. In fact, he turns good ideas into *really good* ideas. Ownership of a 41-foot Rhodes Reliant led to the development of an informal group of owners ... to the creation of an extensive maintenance manual for sailors (*check out his website listed elsewhere in this article for a look at this*) ... to the creation of a website for owners of Rhodes Reliants and Offshore 40s ... and eventually to the development of a plan to match the right kind of sailors with neglected and salvageable boats.

Ben couldn’t foresee what was to come at the beginning of this excursion, and perhaps that’s just as well. But the future is now, and Ben has just unleashed a **very useful idea**. Let’s start at the beginning.

Ben grew up sailing on a series of sailboats owned by his parents. The last of these, *Astante*, a 41-foot Rhodes Reliant, became his with the death of his father. Seven years later, Ben says his father is still with him in spirit when he sails or maintains *Astante*.

Ben has always watched for other Rhodes Reliants on his summer cruises to the Block Island and Cape Cod area. The informal trading of maintenance and upgrade information and addresses led Ben to the development of an owner’s network.

But he didn’t sit back and wait to discover sisterships on his cruises or for their owners to contact him. He contacted Cheoy Lee, the builder, looking for others; ran announcements in sailing

# rows: matching neglected boats sailors who will restore them

magazines; searched the web; and finally launched a website at <http://nimbus.temple.edu/~bstavis/reliant.htm>. He has now located approximately 90 of the 156 Rhodes Reliants built between 1964 and 1976.

Occasionally sailors looking for a neglected and available Rhodes Reliant contact Ben through the website to see if he knows of any boats in need of TLC and available at a reasonable price awaiting only the additional investment of sweat equity and do-it-yourself skills.

"From the web page, I occasionally get inquiries about boats for sale," Ben says. "Frequently (people are looking for) boats in very poor condition, available cheaply, and needing extensive reconstruction. I've been around boatyards enough to realize that every boatyard has its abandoned dreams, and I knew that some of our sisterships must be abandoned also, just hoping to be discovered by the right person. In fact, at the boatyard I use, a sistership had been completely taken apart for restoration, stayed in that shape and deteriorated for years, and then, unfortunately, the owner died suddenly. It took several years for the right person to find her and start rebuilding her."

This launched something on the order of a crusade. As Ben tells it, "I knew there must be other sisterships in this condition, looking for the right person to fix them up. I realized that


these boats are so far gone that no one would advertise them, and the way to match the boat with the dreamer was to try to get information from the boatyard owners, who were wondering how to get rid of these abandoned hulks. So I took out advertisements in *Professional Boatbuilder* and the American Association of Boat Builders and Repairers newsletter."

Ben reasoned that making a match between the do-it-yourself sailor with more enthusiasm than money could benefit both the new owner and the boatyard where these boats eventually became a storage and disposal problem. He also realized that the parts on these boats might help in the restoration of other boats. The next time he looked up, this idea had grown. Ben suggested that *Good Old Boat* magazine facilitate the matching of fixer-upper

boats with fixer-upper sailors, offered to make boatyard contacts to help locate the boats in need of TLC, and became a matchmaker for dreamers and neglected boats.

The October *Good Old Boat* newsletter ran introductory information on this concept and asked people who know of abandoned or neglected boats in

back yards or boatyards near them to contact *Good Old Boat*

with more information. At *Good Old Boat*, we will put up a new webpage, linked to our current site at <http://www.goodoldboat.com>, with this information, and we expect many people to benefit as a result of Ben Stavis' good idea. In the magazine and in the newsletter, we'll keep you posted as contacts are made, boats are found, the page goes up, and things begin happening. 

**by Karen Larson**

***Ben and his wife, Marjatta Lyyra, and dog Amy enjoy one of those sailing days which make those who don't have a boat stalk boatyards in search of a way to get out on the water.***



# Don Moyer breathes life into the venerable

*Reading the story told by an engine he is dismantling is a source of endless curiosity for Don Moyer ... a man who obviously enjoys the work he does*

**I** like old, quirky things. Maybe it's an unconscious rebellion against the constant barrage of bleeding-edge technology I face in my job as a network analyst. Maybe those roots lie deeper than that.

When my ninth-grade classmates were grinding their ears to a pulp with Van Halen and AC/DC, I was tucked away in a corner with an old atlas and "He Went to Paris" on the stereo. Instead of admiring the precision engineering that went into the torsion bar suspension on a Porsche 911, I like the "one-shot" kingpin lubrication system used on Morgan cars from 1910 to the present. My cousin used to make models of Miss Budweiser and knew all of the stats on the top-ranked unlimited hydroplanes. I built a model of the Cutty Sark that combined the traditional two-part hull with the never-before-seen unstayed polystyrene rig (I had a little trouble with the rigging).

Today, I hear all kinds of exciting news about the new high-efficiency, ultra-quiet, mega-reliable diesel engines that are being installed in sailboats and how the VolYan XP57 is the de rigueur choice for anyone thinking of repowering

their old clunker. Everywhere I turn I'm told of the deadly nature of the Unseen Fume, usually by a guy adjusting his propane stove with a cigarette hanging from his lip.

My slightly off-kilter, unreconstructed outlook on life digs in its heels when I hear this, and I think about the sweet little Atomic 4 nestled in the bilge of my old Pearson Vanguard. The boat and engine seem to complement each other, the way a modified tractor engine seems to complement an old British roadster. You can shoehorn a Honda engine into an MGA, but why?

To me, part of the appeal of having an old boat is having an old engine. The auxiliary power plant is as much a part of the soul of my boat as the varnished spruce boom is, and I'm in no danger of

replacing that with an aluminum headknocker. If I wanted perfect reliability and unparalleled safety, I'd buy a Honda Civic, park it in my garage, and never leave my house again.

Fortunately for old boat owners, Don Moyer thinks like I do. Don runs Moyer Marine out of his garage, rebuilding and upgrading Atomic 4s. My own Atomic 4 bought the farm three years ago, and Don sold me a rebuilt engine, drove it to Pt. Lookout, Md., and helped the guys there install it in my boat. Last winter, I made the trek from Annapolis to Harrisburg, Penn., to visit Don and to talk about the renaissance that seems to be breathing more life into the venerable Atomic 4.

**H**is shop is in a converted garage on a quiet side-street not far from one of the interstates that bisect Harrisburg. It's a small garage, and there aren't fancy signs and giveaway posters on the walls. It's not operating-room clean, and it's somewhat dim inside, but Martha Stewart doesn't work here. It is tidy, well organized, and efficient. The tools are used, but clean and put where they belong. There is a queue of blocks, heads, and complete engines waiting for attention along one wall. The parts department is on steel shelves along another. Don was in the middle of opening up an engine. We talked for the rest of the afternoon while he took the head off the engine and took a look at what was inside.

**story by Geoff  
Parkins  
photos by  
Stephen Moyer**



# Atomic 4

Those people who are doing exactly what they want to do with their lives have something in their work that never loses the new shine, no matter how long they have been doing that same thing. You can see it in a veterinarian, a schoolteacher, and a good bartender. I saw it that afternoon in Don Moyer. For him, reading the story told by an engine he is dismantling is a source of endless curiosity. As the head came off, he pointed out various discolorations, accumulations, deposits, and cracks that showed where maintenance was lax, where cooling should have been improved, and a host of nuances that an amateur, like me, would never see on my own. He talked about the engineering that went into the design of the engine.

Don asked me, “What do you think the engine was originally designed for? What was its original application?”

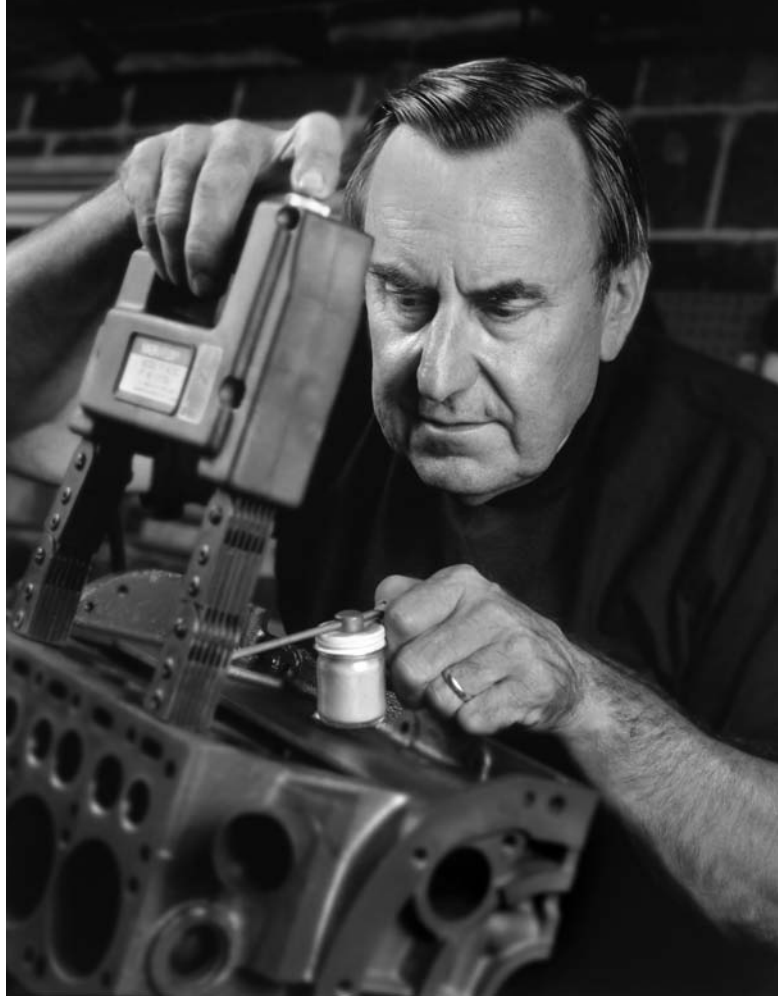
Uh-oh. Pop quiz. Think back to British cars. Side valves, low rpm. Tractor use? I said as much and was surprised by the answer. The Atomic 4, from metallurgy to oil passage placement, was designed to be used as a sailboat auxiliary. Every single Atomic 4 to leave the Universal plant was bench-tested and verified to deliver rated output. Don has the original factory dynamometer and is using it for his own rebuilding efforts.

For every step, Don had a nugget of information about a feature or weakness. I came away from the session with a far higher opinion of the Atomic 4 than I had when I first bought my Pearson. It is that aspect of what he does that

gives Don the most satisfaction. He likes seeing new people discover the Atomic 4 and learn what a great engine they have. With every rebuild, Don gives away a coffee cup with a picture of the engine on one side and the tune-up specs on the other. The words printed around the base of the mug read: “Faithful companion to over three generations of sailors.”


Don spent his career as an Air Force fighter pilot and much of that time as a flight safety officer, meaning that he was the guy who went up and determined whether an aircraft was safe to fly or not. That got him more stick time in single-seat fighters than most career fighter jocks, and it gave him a keen awareness of procedures, checklists, and safety. Understandably, he gets a little miffed when the Atomic-4-is-unsafe argument comes up. “Nonsense,” he says. “The Coast Guard does not have a single documented case where a failure in the engine itself was responsible for a fire. The only documented causes have been failures in the fuel storage and delivery systems.”

What does the future look like for Don and for the Atomic 4? For now, he’s happy rebuilding engines. He is concluding a long run as the editor of a newsletter filled with



***To the great benefit of sailors with Atomic 4s, Don Moyer thoroughly enjoys the work he does.***

technical tips and has just completed a comprehensive maintenance manual to take the place of the newsletter. His wife, Brenda, runs the business end of the enterprise, and they both enjoy sailing their old boat. Since the Atomic 4 is no longer produced, Don expects that the supply of engines will dwindle and the prices will begin to go up, but says there is no reason we won’t see them show a fourth generation of sailors how to get home with no wind.

Moyer Marine, Inc., is in Harrisburg, Penn. They offer a wide selection of repair and upgrade parts for the Universal Atomic 4 engine, and sell, rebuild, and repair the engines. To get in touch with Don, contact Moyer Marine at 717-564-5748. He will be happy to send you a current price list and a schedule of seminars and workshops. The new *Service and Overhaul Manual* is available for \$47. 



# Moyer M

## A successf

In 1985 Don Moyer was just another sailor with a “new” good old boat — a 1971 Seafarer 31 complete with an Atomic 4. His wife, Brenda, laughs at their naïveté in agreeing to attend a used boat show with the mission, “We’re not buying anything.” They were restoring a historical townhouse in Harrisburg, and they both had full-time jobs. It seemed like enough.

So how was a guy like this transformed into the Atomic 4 guru one boat and less than five years later?

“One thing about him,” Brenda says, “is he’ll delve into anything body and soul until he knows everything there is to know about it.” A man who enjoys knowing why things work and making them work better, Don soon had that Atomic 4 out of the Seafarer. In fact three or four perfectly good Atomic 4s came and went in that boat for the sheer joy of understanding and tinkering with them. “It got to be a humorous thing for people on the pier,” Brenda notes.

During the next four years, Don became the acknowledged guy to ask about Atomic 4 problems within their community of sailors. People asked for advice, and Don offered it. Eventually he began writing down new things he was learning about the engine and distributing this information to those who’d asked, in an effort to keep his previous advice as current as possible. This blossomed into a small newsletter to 65 people who Brenda identifies as “people we met along the way.”

Don’s springboard into regional and national prominence was unplanned. Early on, Dan Spurr,

*Don Moyer didn’t start out to become the Atomic 4 guru, he just loved “messing about with engines,” and an Atomic 4 was the engine he had ... the rest, as they say, is history*

***story by Karen Larson  
photos by Stephen Moyer***

# M arine: ful business that ‘just evolved’

editor of *Practical Sailor*, gave a positive — and unexpected (given his historic lukewarm feelings for the Atomic 4) nod to Don’s modest efforts. This important blessing made all the difference. Don hopes that at some level Dan has actually rekindled some sort of affection for the Atomic 4. But Don says more than likely the nod was simply an example of Dan’s profound interest in all aspects of the boating fraternity.

Then, Brenda says, she and Don left for a vacation. When they returned after a week, *Practical Sailor* had profiled Don and established him as the answer guy for the Atomic 4. “We had 75 letters in the mail slot, and the answering machine was full,” Brenda recalls. “We had to take a look at what we’d been doing as a hobby and what we wanted it to become.” They went into business, incorporating as Moyer Marine, Inc.

Don didn’t quit his day job however. He continued working at an environmental resources company until his retirement two years ago. While there, he was granted a number of patents which resulted from that need Don has to see how things work and to make them better.

His home-based business grew steadily until his retirement became not so much a retirement as a “job change,” as Brenda characterizes it. “He changed jobs and brought one home. It worked very well,” she says of the challenges of having a couple go into a full-time business together. “I reminded him, ‘You’re coming into my workplace now.’ ” Jokingly, she says she issued him the equivalent of her own “employee

handbook” and noted who had seniority around that office. “We learned to give each other space,” she says, adding, “This had become his dream, and I’m here to help him accomplish his dreams.”

In the beginning, Moyer Marine offered parts, the newsletter (which had gone upscale over the years and was named the *Atomic-4 Caster*), technical service and advice on the phone to newsletter subscribers,

engine overhauls and checkups, and workshops. Slowly the newsletter began melding into chapters of a service manual. And finally, Don felt he had run out of material for the newsletter itself, so in April the last newsletter will be mailed from Moyer Marine. But fear not because Don and Brenda have just published his *Service and Overhaul Manual*. It compiles the newsletter information in a manual format that







***Brenda Moyer supports Don's dreams.***

should be easier to use than the collection of newsletters.

The business has expanded in other ways over the years. John and Ardis Featherman, longtime friends of the Moyers, handle the sale of new Atomic 4 parts, although Don still sells used parts to people as the parts become available. The business relationship with Featherman Enterprises has freed Don from the computerized aspects of tracking parts inventory and billing.

Other relationships have developed as well. Don and Brenda have discovered a “metal genie,” Brian Nye, of Nye’s Machine & Design, who fabricates parts for the Atomic 4, such as the water pump extender bolt that Don designed to improve the Atomic 4 owner’s odds of getting at that bolt and removing it in one piece. They have a relationship with Spring Garden Repairs, which repairs blocks and heads for them when the need arises. And Don’s nephew, Terry Kuhn, of Engines by T.K., rebuilds the mechanical fuel pump

and helps Don in the rebuilding operation as needed. Don’s son, Stephen, the photographer who illustrated these pages and the cover, helps with the print production of the newsletter and manual.

Don still conducts workshops on the engine, and does rebuilds and engine checkups. He continues to offer technical advice on the phone when he’s home, but he’s not as tied to the phone as he was.

These days the Moyers want to go sailing, and they should.

Two years ago they sold the Seafarer and bought a 1980 Catalina 30. Don had a bias against widebody production boats, telling Brenda that boats, such as the Seafarer, were much safer in the event that they ever took multiple rolls some stormy night near a rocky shore ... and the rest of the litany. The trouble with the Seafarer was that it was a bit tight for two in the cabin. Brenda says down below they passed each other by sliding sideways. They like to entertain, too, and they felt the space was too tight for that.


They say friends chuckled at them behind their backs when they returned from that first used boat show beaming with the excitement of prospective boatowners. They told everyone about their “new boat” — about how it had everything on it and wouldn’t need another thing. “Ten years and \$10 grand later,” Don says, “we realized we’d done everything we could do to that boat except make it bigger. Then one day Brenda walked down

into (and it really *is* walking down into) a Catalina and asked, “Tell me again why we can’t have one of these?” Before long the Moyers had a Catalina.

The bad news was that the Catalina had a two-cylinder, 11-hp, Universal 5411 diesel inside. The good news was that the boat was being sold for a very low price because the diesel didn’t work anyway and of course Don intended to put an Atomic 4 in it. The bad news is that the engine is working perfectly now. Don discovered that someone had connected the hoses backward, and not even the diesel experts had caught on.

Don says of this engine that it was Universal’s first answer to the aging Atomic 4 fleet. But he mocks the thing: “All my friends have bigger engines in their riding lawn mowers,” he says. That diesel engine (perish the thought!) is going to stay in the Moyer’s boat for awhile, however. Don says, “Whenever I go near it, Brenda throws her body in front of it. She wants curtains, cushions, and so on. So it won’t get an Atomic 4 anytime soon.” As it turns out, that’s just as well. The shaft of the Atomic 4 is at such an angle that repowering with one would cause structural modifications to the boat itself. Even Don doesn’t relish that thought.

Besides, he’s just ordered an auto-pitching prop for it, which he notes is “worth 10 percent the retail cost of my boat, but is — by all accounts — a magical device. I’m like a kid at Christmas over this.”

Of course Don deliberated about whether he was being “called.” Perhaps this was a new directive, this time to save the Universal 5411. But Brenda’s common sense prevailed. “I asked him, ‘We’re still working on accomplishing this dream; could we put the next dream on hold for a while?’” she says. So expect the Atomic 4 guru to stay in the business for the foreseeable future. 

# The saga of the little engine that can

There it was: covered in rust and grime, cowering in the engine compartment of the 1961 Pearson Ariel in which I was interested. I asked the yacht broker if it ran, and he said, “Yea, last year. Try it.” I did. Nothing happened — not even a squeak. Thus began my association with a venerable, antique, 1979 Atomic 4, “the little engine that can.”

The battery was dead, and hand-cranking was not an option. I considered the engine to be a candidate for anchor status. Somehow the Atomic 4 convinced me to give it one last chance.

My rock-bottom offer for the Pearson Ariel containing the Atomic 4 was accepted. I immediately commenced to soak the plugs in WD-40 and let them sit for a few days. Two days later, I was able to remove the plugs and tried to rotate the engine by hand. No luck. It was frozen. I poured the better part of a quart of “Marvel Mystery Oil” into the cylinders, replaced the

plugs loosely and went home.

Four days later I

returned to the boat with a new battery, rags, and wrenches. I removed the plugs, covered the cylinder head with the rags to contain the oil I hoped would be expelled from the cylinders if the engine turned over, hooked up the battery and pushed the starter button.

WOW! It turned over in a rush, sending oil all over. But it was good oil and a good beginning. Over the next week I changed the oil; checked the water supply; drained, cleaned, and refilled the fuel tank; and changed the fuel filters. When I pushed the starter button, I heard the little engine try, but still it wouldn't start. I removed the carburetor, disassembled and cleaned it out, and tested the electric fuel pump. No fuel. The pump was not operating.

Off to the NAPA store for a new electric fuel pump. (The engine had been converted to an electric fuel pump by a previous owner). Back in the engine compartment, I reinstalled the carburetor, installed the new fuel pump, and tried again.

Success. The engine started and ran well. It

was going to be better as an engine than as an anchor after all.

Has it continued to run? Yes, but not always, and that's the point of this article. With everyday simple mechanical skills, the knowledgeable help of a White Knight in Atomic 4 Bronze (Don



Moyer), and a lot of faith in the basic design of this simple old engine, a long relationship of faithful performance can be achieved with the “little engine that can” most of the time.

For 11 hours, after the initial starting sequence, the “little engine that can” pushed my new Pearson Ariel home. The next challenge for the engine was to take the Ariel to the shipyard. Fate gave us 20 knots of wind on the nose for the 10-mile run to the yard. We did it at night, since my job interfered with a daylight delivery. The Atomic 4 pushed valiantly through the steep chop with the decks running water and the deck drains running into the self-bailing cockpit.

This was the night I discovered the secret of the large, chrome shift lever that rises totem-like from the cockpit sole. Since we had just purchased the boat and this was only our second trip, we wanted to be ready to take the engine out of

*story by Bill Sandifer*  
*photo by Stephen Moyer*

gear if it faltered. It never occurred to me that the sea was not so slowly filling the bilge through the shift lever hole when a wave drained into the cockpit. After making harbor and feeling really good about the performance of the engine, it was a shock to step into the cabin and into knee-deep warm saltwater.

**P**anic ensued until I realized that the sea water, had run through the shift hole, landed on the copper double wall exhaust pipe, was heated and then filled the bilge, and the Atomic 4 had kept running through it all! The bilge pump emptied the bilge, the engine continued to do its best, and a successful voyage was completed. It was a good thing it wasn't a 20-mile trip, or we would have sunk!

In the morning the boat was hauled, blocked, and washed. The next day was Saturday, and I arrived, full of enthusiasm, to find that the rudder looked like a shark had taken bites out of it, and the bronze seawater engine intake thru-hull was a bright pink. With a gentle tap of my hammer, the fitting disintegrated. I guess God looks out for middle-aged fools who love old boats.

Over the next four weekends, I dug a hole in the earth so I could remove, repair, and reset the rudder. I replaced the thru-hull, painted the bottom, and cleaned everything up. The Atomic 4 seemed to be watching it all and smiling at the two 30H gelcell batteries now sharing its compartment along with new wiring and selector switch. Launching day finally came, and the Atomic 4 took the Ariel home.

Several weeks later, the bilge again began to fill with warm sea water on a return trip from the offshore barrier islands. I had learned to close the shift hole when offshore, so that wasn't it. This time it was the original double-walled copper exhaust line that had corroded through on the underside (where you cannot see it) and was

merrily discharging its cooling water into the bilge. With the engine off and the bilge pump on, we sailed home and right into the slip! (A slip which we had specifically selected, by the way, just in case we ever needed to sail in and out. The ability to sail from and to the slip would allow us to keep sailing when the Atomic 4 needed an overhaul.) The Atomic 4 was down again, but not out.

I removed the entire old exhaust line and sold it for copper scrap, replacing it with a stainless steel mixing elbow and wet exhaust line. The mixing elbow was a gift from a friend who repowered his boat with a diesel. (Beware of gifts of used parts!) Two weeks later there was water in the oil. At this point, I was thinking, "Enough is enough!" I pulled the engine and sent it to the "mechanic" at the local shipyard for cleaning and repair. It was returned in two weeks pronounced "fixed." I reinstalled it, only to see the problem recur. (I'm tenacious, but smart?) This time the beautiful stainless steel elbow had a hole between the mixing chamber and the hot side which allowed the cooling water to back up into the engine when the engine was shut down.


**B**y this point, I realized that I could make as big a mess as the "professionals" and a lot cheaper, too, so I might as well do it myself. I pulled the engine out for the second time and took it home to the garage workbench. I removed the pan, head, manifold, and peripherals to the short block with internals. I cleaned the oil, water, and sludge from all parts, rinsed everything in diesel fuel twice to be sure all the old oil and water were removed, and reassembled it. Whenever I had a question, I referred to Don Moyer's Atomic 4 newsletter or the parts book for blowups of the assembled piece.

This time, I rebuilt the exhaust system into a dry riser using galvanized pipe fittings wrapped in 400°F fiberglass batting. I covered

the hot-wrapped portion in fiberglass cloth to the point on the down side of the riser where a tee fitting introduces the cooling water into the final wet section of the exhaust system. With that task completed, the engine was reinstalled and ran well for the next year without a problem. As you can see, the bulk of the Atomic 4's problems reside with its owners, not really with the engine itself.

**I**n subsequent years, we have experienced broken point springs (too long between tune-ups). Then there were cracked fuel fittings which allowed air into the line between the filter and pump. (This was in a river, at night, no moon, 6 miles from home, and the engine only running in 30-second bursts. It was a long night.) There was a stuck float in the carburetor after shutdown (fuel all over). We had an incorrect choke cable which kept the engine running partially choked all the time. And finally, after four years of service, there was a blown head gasket from the old green paper gaskets.

Through it all Don Moyer, the White Knight, patiently answered my many questions, sent parts as requested (no credit cards — send me the check when you get the parts), and helped me keep faith in the little Atomic 4. My boat operates 12 months a year, three days a week or more, if possible, on the Mississippi Gulf Coast and is pulled for a bottom job every three years. The engine gets no rest break — such as fall maintenance or spring tuneup — and yet it keeps going, and going, and going. I do routine maintenance on an annual basis.

Keep the faith, and put the effort into your Atomic 4, and you will be rewarded with a smooth running engine and the satisfaction of a job well done, all by yourself! This is the true story of eight years in the not-so-secret life of a 1979 Atomic 4. I believe I should have at least another 10 years of satisfaction from the little engine that can. 

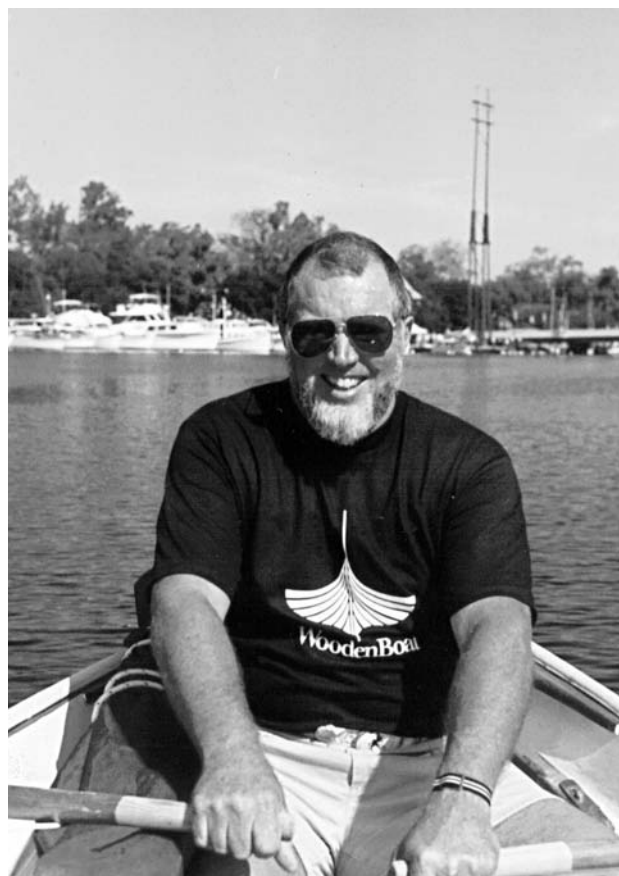


## Who is Bill Sandifer anyway?

*Bill Sandifer's experience, along with his prolific and well-reasoned writing, has caused us to take our Good Old Boat magic wand and bestow the title of Contributing Editor upon him. This month alone, his check for writing was so large that we offered a trade: he could take the magazine over and we'd do the writing. But he's too smart for that.*

*In his technical writing in past issues of Good Old Boat, and in more to come, Bill shares bits and pieces of his life and the work that went into turning an inexpensive boatyard relic into a Pearson Ariel. We thought it was time to give readers a glimpse into the soul of Bill Sandifer and a look at an image just a bit more realistic than the Dave Chase caricatures we like so much. We know, we know, Bill's wearing a WoodenBoat T-shirt in this photo. But we like WoodenBoat, too, and besides we haven't yet created a Good Old Boat T-shirt. We'll let you know when we do.*

—Ed.



# Of virtual reality and good old boats ...

**H**ave you noticed the swift acceleration of the world today? How, with virtual reality, you can experience the future that is not yet here?

In the "old days" (i.e., last year) I was semi-literate in computer usage and could not understand why people wanted their programs to *run faster*. Today, I'm impatient with the speed of my Pentium II computer and want it to *run faster*. I feel the life blood of my soul being sucked out of me by the pace of today's world.

The other day a Fortune 500 firm announced a 25-percent cutback in headquarters staff to "improve productivity and


PROFITS." What that means is that the remaining 75 percent of the staff will have to *run faster* to perform the work of the 25 percent who are no longer there. This scenario is repeated in thousands of companies across America and the world.

Where do we go, how do we cope with this acceleration of our world? Good old boats are one answer. Our boats represent a time and place where peace, quiet, and solitude can be found. They allow us to return to an earlier, happier, less-frantic time, when time spent on the water meant relaxation and renewal.

**by Bill Sandifer**

When I walk down the dock and see my boat peacefully moored on a placid body of water, I utter a deep sigh. I try to drink in the quiet sense of beauty, of rightness with the universe as it is meant to be ... not the high speed stresspad we now inhabit. I think just the age of our boats contributes a feeling of calm. They seem to say, "Come back with me, come back. Let's play, let's sail away, to peace and joy and yesterday."

The 4- or 5-knot speed of our crafts is diametrically opposed to the pace of the world. It is our anachronism, a window in time, when all sorts of good things had time to occur: tranquillity, love, and harmony with our planet. My boat is my lifeline to sanity and a Band-Aid for my soul. It's more than an inanimate object floating in a pool. It's a friend ... a companion ... a whisperer of dreams ... of dreams of release and escape ... of sunlit seas and moonlit nights.

We all accept the realities of our lives. If we work and strive to be what we are and do what we can but without the balm of our good old boats, we will burn out and up from the heat of acceleration. Without our good old boats, there are no Band-Aids for our souls. 

# Allied Boat Company

## *Builder of the Seawind and other legends*

The seed for the Allied Boat Company was planted in February of 1960 when Annapolis naval architect Thomas Gillmer designed a 30-foot ketch-rigged sailboat for Rex Kaiser, an attorney from Wilmington, Del. This boat would become the famous Seawind 30, the first fiberglass boat to sail around the world with a voyage beginning in 1964. Alan Eddy spent four and a half years circumnavigating the globe with *Apogee*, hull #1.

Lunn Laminates of Port Washington on Long Island Sound created the molds for this boat and built five of them. It's not clear how Lunn Laminates and the original group that was to form the Allied Boat Company were introduced. Perhaps Lunn Laminates sought sales help from the New York City firm Northrop & Johnson, due to their reputation as the most successful yacht brokerage firm on the East Coast.

Northrop & Johnson enlisted the aid of Thor Ramsing of Greenwich, Conn. Ramsing, in addition to being a well-known racing sailor, also had the financial resources necessary to initiate a new boat production company.

Allied's treasurer, Serge McKhann, filed papers with the states of Delaware and New York on Feb. 9, 1962, officially establishing the new company as Allied Boat Company, Inc.

The company was formed with \$70,000 in cash contributed by Ramsing, \$31,000 worth of molds contributed by Lunn Laminates, and \$31,000 worth of designs and specifications contributed by Northrop & Johnson. The company ownership was based on 96 shares

of stock with Ramsing holding 83 of these. The remaining 13 shares were divided evenly among James Northrup, George Johnson, and Howard Foster.

Foster, a marine consultant and representative for Northrop & Johnson, was named president. They agreed to establish the building site in Catskill, N.Y., in what was originally a brick plant. Located on the Catskill Creek just off the Hudson River about 100 miles north of New York City, it was an ideal place from which to build and launch their boats.

Ramsing did well racing his *Seawind*, winning prizes in the Southern Ocean Racing Circuit. The Allied reputation grew accordingly, but he was not complacent enough to produce just one

type of sailboat. From the beginning, Allied needed other models from notable architects in order to please larger families and deeper pocketbooks.

Ramsing also had been very successful racing his 46-foot *Solution* designed by Sparkman & Stephens. He reasoned that a smaller version of the same boat might be readily accepted. He asked Frank MacLear and Bob Harris to design the smaller boat. They created the 35-foot *Seabreeze*, a centerboard boat which could be rigged as a sloop or yawl. The company built 135 of these over a nine-year period beginning in 1963.

A short while later another well-known naval architect, Bill Luders, introduced the Luders 33, the third exceptional yacht to grace the Allied yard. Next, Allied added the Britton Chance-designed Chance 30. With its fin keel and spade rudder, it was a bit ahead of its time

and not received as well as the other "sturdier hull" models.

In 1964, only a year after forming the company, Ramsing sold his share of the partnership to Northam Warren, another well-known racing sailor. Warren also purchased the stock held by Lunn, Northrup, and Johnson, making him the primary owner of the Allied Boat Company. During the remainder of the '60s, Warren and Foster aggressively marketed the four models in the Allied line of sailboats.

Foster maintained control of production and sales at the factory while Warren went "on the road" attending boat shows and entering races with his *Seawind* 30. The company sold their products



by Dan Smith



ends



*The Allied Boat Company established its building site on Catskill Creek in Catskill, N.Y., 100 miles north of New York City. Just off the Hudson River, it was an ideal place from which to build and launch boats. For the company's entire time in business, from 1962 to 1981, it remained at this location. Northam Warren, at right, was the key leader during the company's best years.*

directly to customers; there were no distributors.

### **Northam Warren**

Northam Warren had a great perception and zeal for life. He was raised on Long Island, where his father, an avid sailor, saw to it that his children, including two daughters, each had a sailboat. The senior Warren raced centerboard boats when he wasn't attending to the family cosmetic business. Northam attended Princeton

University and won major sailboat races three out of his four years there.

After service in the field artillery in World War II, Warren owned several boats and traveled extensively to race them. Some of the races included the Annapolis to Newport Race, the Bermuda Race three times, the Chicago-to-Mackinac Race, and two Transpacs to Hawaii.



During my interview with Northam Warren, I learned that Allied became the first company to supply fiberglass hulls in colors other than white. This was an



exclusive option, which actually started with the Seawind 30, but was also available with their other models. The company's aggressive marketing strategies often gave it a jump on competition. "She'll cross an ocean if you will" was the oft-repeated motto associated with the Seawind 30.

Warren noted that another clever promotion was the annual Pinkletink, named after a frog which lives in a tree on Martha's Vineyard. Each year he had the factory do a special fitting job using all the latest and heaviest hardware. These boats were exceptional, sporting the latest in sails and the most sophisticated equipment on the market. Every part of the boat was "ultra-finished."

At the beginning of each season, Warren went racing with the Pinkletink. Well-known in the circuit and a crafty racing skipper, Warren, with this highly prized Seawind became a familiar figure from New England to the Caribbean. Anxious admirers knew this special boat would be for sale at the end of the season. After three years, many people were waiting to purchase these special Allied boats.

## Glen Neal

While Warren was promoting Allied products north and south via boat shows and racing circuits, Howard Foster and the factory had the responsibility of building boats to fill the orders he was creating. A primary member of the factory team was foreman Glen Neal, who was born and raised in Catskill. He was looking for work in 1966 to fill in the winter months that usually crippled his carpentry business. His timing was good. The Allied Boat Company, going strong at that time, had plenty of orders gathered from summer and fall boat shows and racing events.

Neal went to work for \$1.50 an hour. He planned to stay there through the winter, then start building houses again in the spring.

He didn't know or particularly care about boats, but it was a warm indoor job during the winter.

He immediately recognized the inefficiency of having too few pieces of equipment for use by too many employees. His department had only one electric hand drill and one sabre saw, for example. In order to retrieve these small power tools, workers made numerous trips to other parts of the shop, which wasted time and frustrated workers. After six months Neal presented Foster with his ideas for production improvements and was rewarded with a promotion to foreman of the carpentry and finishing department. He stayed with Allied from 1966 to 1972, during what appear to have been their most productive years.

According to Neal, Allied was recognized as a high-quality boatbuilder — possibly the third best in the world. I was unable to learn what companies the two other leaders were, but the integrity of Neal's interview lends credibility to this statement. Readers may speculate about the other two.

Neal ultimately led a crew of 35 who did carpentry work inside and outside: deckwork, handrails, bowsprit, and bulkheads along with some minor fiberglassing. A separate department did hull and deck fiberglass work. A third department did the wiring and electrical installations. The building process was synchronized, using a progress board and a card system to track projects as work moved each boat along the assembly line. Neal and his team added the finishing touches as the boats moved out the door.

Thanks to the efficiency in the plant, few boats were returned for rework. Allied could afford to give the owner a strong warranty. Neal occasionally went out on calls to deal with minor problems, like a blister on a wood bulkhead.

Neal said he prided himself on doing things right and that the Allied Boat Company was a good place to work. Peak employment reached about 130, and orders were

plentiful during the late '60s and early '70s.

Neal suggested that quality workers should receive top wages. He recommended to management that they offer a pension plan or an incentive program to help inspire employee output. He kept records of the trimming crew's performance and introduced competition to improve the quality of work. He was obviously a strong catalyst in the development of the Allied workforce and in the solid reputation which the company earned as a result.

## Times change

Over time, other models were introduced. The Greenwich 24, by George Stadel, was the smallest boat offered by Allied. Not as popular as the other heavier models, the molds were eventually sold off to Cape Dory and ultimately became the Cape Dory 25. The fleet was expanded to a 39-footer and the ultimate XL-2, a 42-foot sailboat designed by Sparkman & Stephens. Orders were plentiful, giving the appearance that all was going smoothly.

Early 1969 brought changes which would eventually make Allied flinch and ultimately cause it to falter. Oil prices would soon escalate from \$5 to \$20 per barrel. Because it is a principal ingredient in fiberglass, the steep price increase in petroleum caused a substantial rise in production costs.

In addition there were some leadership problems and personality conflicts in the front office, which introduced chaos in the company and caused many to leave. Assistant plant manager Bob Jones departed in 1969, closely followed by plant manager Walter Laskowski. The loss of these key managers in the production area negatively affected employee morale.

The unsettled mood reached throughout the administrative, engineering, and labor departments. Together with negative national and international economic influences,

the strains on Allied were taking a toll. Eventually, officers filed a mortgage foreclosure at the Greene County Courthouse on March 18, 1969. This notice signaled trouble in the front office at a time when the cash flow from orders should have been adequate to keep the company afloat. During this time increasing numbers of suppliers began to file judgments against the company. Some information suggests that Warren bought Foster's interest in 1971, thus making him the sole owner of Allied.

The period from 1969 to 1974 must have seen some very traumatic moments. Employees who were experienced and capable were leaving for other employment. Recognizing this downward spiral, Warren placed an ad in *The Wall Street Journal* in 1973 to sell the company, 11 years after it was formed.

## Saved?

At this point, a shining star appeared for the company. Robert Wright, a cruising sailor from Little Falls, N.Y., put together a partnership with two others and negotiated with banks and creditors to allow him to start building again. Wright was an electrical engineer, had obtained a law degree from Cornell University, and was experienced as a practicing attorney.

He and his partners put up \$200,000. That infusion of cash, together with the backlog of orders equal to six months' production and deposits of \$177,000, made the future look brighter for the new company, now called The Wright Yacht Company. Wright's wife, Jean, was secretary, and their son, Paul, was plant manager. These three knew the meaning of work and the importance of customer satisfaction.

During this time, Wright commissioned Thomas Gillmer to create another legendary Seawind, slightly larger than the original. This became the Seawind II. A

ketch-rigged 32-footer, it had the same hull as the previous Seawind. The Seawind II served as the flagship of the new company. Other new boats included the Princess 36, Mistress 39, and the Mistress Mark III. This nucleus of quality yachts promised to put Allied back on course as a front-runner in American boatbuilding. The promise, unfortunately, was unfulfilled.

Anxiety, possibly induced by stock market fluctuations and an unsettled economy, caused Wright's partners to retreat, taking their financial support with them. This left the firm in severe financial distress. Bills began to mount and liens against the company started appearing. Operations must have been fairly normal until the third year of their lease, since the first lien was not filed until July 1978.

The Wright Yacht Company was closed and the Job Development Authority (JDA) became holder and full owner of all Allied equipment, fixtures, molds, and real estate. The future appeared to offer little promise of salvaging what was once a successful boatbuilding enterprise.

Fortunately, the JDA located Stuart Miller, an attorney from New York City, who owned an Allied Princess. He was familiar with the company's reputation and apparently convinced the JDA he could save jobs for Greene County and make the business profitable once more. He also planned, coincidentally, to build a 50-foot sailboat for himself.

With Miller as the new CEO, another name change was introduced: CFG/Allied. I was unable to locate the meaning of these initials until Ed Hodgins, a faithful 15-year Allied employee, explained that they had stood for Conception for Financial Growth.

Miller assumed control of the company in early 1979. A report in a Seawind II newsletter claimed the 100th Seawind II was completed and delivered to Florida around the same time.

Articles in boating magazines tracked mistakes of CFG/Allied and reported attempts to rescue the company. One magazine was candid, placing blame on the company leaders for "not being familiar with special problems of building and marketing boats." The doors of this third generation of the Allied Boat Company were closed in April 1980.


## Closing chapter

Once again, the JDA was on the hunt for a buyer. They found a man with a working knowledge of marketing sailboats. Brax Freeman, a former yacht dealer, boasted of entrepreneurial skills. He promised to move the "new" firm, now to be named International Cruising Yachts, into a place of prominence in the boating world.

Freeman, according to employees, had a flair for entertainment and gave prospective buyers dinner and show tickets for evenings in New York City. These enticements were meant to lead to the purchase of one of ICY's sailboats. Freeman's tenure with ICY lasted until late 1981, when he collapsed under the financial pressures brought to bear by angry creditors and unpaid tax collectors. The closing chapter of this fine old boatbuilding company was being written.

Various letters from JDA seeking buyers for the land (5.05 acres) and equipment indicate their persistent efforts to recoup money lost during their many attempts to save jobs for Greene County.

Ultimately, the land was sold for approximately \$200,000, buildings were torn down, and an overcrowded complex of condos, each with a boat slip included, was constructed on the water's edge. (This venture, too, has since met with a number of obstacles.) An auction took place June 20, 1984, at which time all remaining equipment and molds were sold for \$40,000.

Thus, it was done — the Allied Boat Company was no more. 



Sailor and writer Webb Chiles is credited with saying something to the effect that when the engine in his boat died he was set free — no maintenance chores, no need to get fuel, no more worries associated with whether it would run or not.

I am married to a refrigeration engineer who was prepared to design the onboard refrigerator to beat all refrigerators, but the choice to live without an icebox during a recent vacation set us free in ways we hadn't expected. There was no need to run to civilization in a quest for ice. We had no worries about the quality of the food left on little ice or concerns about what must be eaten soon because it surely must have been thawed too long. And we didn't have to run the engine to keep a refrigerator alive.

Above all, our icebox was no longer a bottomless cubicle, the purpose of which seemed to be storing ice and little else. It became, instead, a marvelous vast storehouse for flour, spices, and canned goods. It offered stowage space the likes of which I'd never had on our bilgeless racer/cruiser.

The biggest freedom was in the escape from civilization. We

# Honey, I tossed



generally take our vacation cruises to the north shore of Lake Superior and Isle Royale National Park. In that part of the world, marinas and facilities are not handy. Civilization is usually at least a day's sail away. With ice melting in about six days, our stays in the wilderness were limited to about four days at a time or longer if we went without once the ice was gone, but planning for the transition is a bit challenging.

To avoid the awkward stage, we had proposed two possibilities: build a refrigerator or learn to live without ice. We chose to try the *sans* ice approach first. We may never again consider the alternative. Our diesel engine thanks us for making this choice, since it won't have the wear and tear associated with running a couple of hours a day for the sake of cold food. And we'll avoid the need to return to civilization in search of fuel to power the engine that keeps things cold so we don't need to return to civilization to buy ice. (If that isn't a Catch-22, what is?)

My first major adjustment, as provisioning officer onboard *Mystic*, was in cooking to avoid leftovers. At home I thrive on making large batches — pots of spaghetti for example — so I can freeze the excess for later use. Frozen blocks of spaghetti sauce and other mass-produced meals also helped when

we were living with a cooler. They served as “ice units” until thawed. Then we ate them. On board, with an ice chest for food storage, I couldn't cook by the potful, but saving leftovers to eat another day was not much of a problem.

With our changed lifestyle, however, I began buying the smallest cans and jars and thinking critically about how much rice or pasta to cook. It's a science. You don't want to go hungry, but on the flip side, you don't want to encourage overeating. And you certainly don't want to throw food away. We found, fortunately, that leftovers easily last one day, so when I miscalculated, we polished off the rest the following lunch or dinner. Some leftovers worked out nicely as omelet filling for the next day's breakfast.

### Eggs don't need ice

Omelets require eggs, of course, and we typically think of eggs as something requiring refrigeration. In her book, *Cooking on the Go*, (from 1971 and unfortunately out of print) Janet Groene argues that many foods do not need refrigeration:

“Because we have roomy refrigerators at home, we get in the

habit of chilling many items that can be kept safely without refrigeration. Cheeses and sausages traveled the world long before the days of refrigerators or ice lockers.

“Of course you keep fresh meats chilled for safety, but we have kept cooked meats for second and even third appearances on our table. Packaged bacon doesn't last more than three days in warm temperatures, but well-salted pork and slab bacon, as well as cured hams, date back hundreds of years before the discovery of electricity ... it really isn't necessary to go without many of the items you keep refrigerated at home.”

Groene notes that not too long ago people packed fresh farm eggs in salt, where they kept for a year. In three and a half weeks, we never had an egg go bad onboard *Mystic*, although I was skeptical at first. There are a number of actions you can take to help eggs last. One set of routines deals with sealing the shells. These involve smearing them with shortening, Vaseline, or salad oil. Other people swear by dipping them exactly two seconds in boiling water. Another set of routines involves keeping the inner membrane moist by turning the eggs regularly. Mother hens do this on

**by Karen Larson**  
**illustrations by**  
**Dave Chase**

# out the cooler

the nest. Just to be safe, I decided to grease the shells with Vaseline AND turn them every day. It's possible that either method would have been enough.

We are not big egg eaters at home, typically, but we left for vacation with nearly four dozen eggs, since I planned to use them in baking, hard boiled in salads, and in omelet making.

In the beginning I was cautious and tested each egg before using it. People who have lived without refrigerators suggest that you crack each egg into a separate container and not directly into your frying pan or bowl full of ingredients, so if it is bad, you can toss just the egg and not the rest of your meal. Even before breaking an egg, you can test it in a glass of water. If the egg has developed gas and floats, it's bad. If it sinks to the bottom of the glass, it's good. It's a bit like testing for witches in Salem. If she floats, she's a witch and has to be burned at the stake. If she sinks, what a pity. We'll let the record show that she wasn't a witch. This time-honored test works better for eggs than people.

## Cheese tricks

Refrigerators and coolers are also nice for keeping cheese. How do you go three weeks without cheese, we wondered. As it turns out, grated parmesan can last, as can cheese that comes in wax. In her book, *The Care and Feeding of Sailing Crew*, Lin Pardey talks of long-life processed cheese that can last up to two years without refrigeration in sealed containers, and of other wonders, such as canned cheese.

Lin probably led the way for all of us who have tried the non-refrigerated lifestyle. Not that she did so on purpose. She appears to enjoy cooking, and she and Larry both prefer fresh foods. So Lin prizes her well-insulated cooler on *Talesin*. Unfortunately the Pardeys' icebox runs out of ice on long passages and at anchor, just as ours does. As a result, Lin wrote *The Care and Feeding* in 1980 and republished it with new information in 1995. It's a terrific reference for anyone provisioning for a long trip or planning to do without ice.

Lin reports that waxed cheeses keep perfectly for up to two months

at temperatures below 55°F.

Unwaxed cheese, she says, "should be wiped lightly with vinegar and then wrapped in plastic wrap and stored where it will not be bumped around too much." She also discusses storage of feta and hard cheeses in oil.

I read Lin's book after we returned from our trip, however I had heard that cheese stored in olive oil will keep, so I tried that. I kept chunks of cheddar and havarti for three weeks in containers full of oil. The Tupperware container leaked and was a mess to store, but a jar with a tight lid worked very well. This process offers a nice way to store oil for cooking, too. The cheddar lasted well, while the softer havarti turned very mushy before we returned to civilization. Hard cheese is the key for this storage technique. Lin mentions in her book that cheese becomes "creamier" as it ages with this technique. I'd second that opinion. Lin's directions for storing cheese are more elaborate than mine and sound like a process worth trying. She also mentions the concept of waxing your own cheeses and of the "drunken Stilton." All of this is in the chapter she titles "Day 37" and should be in either version of her book. The Pardeys' books are available from Paradise Cay Publications, 800-736-4509.

## Baking aboard

The next obvious problem with life without an icebox is what to do when the bread turns blue. Over the past year or two we'd experimented with onboard bread baking. We'd cooked bread in our pressure cooker, pan-fried Indian fry bread, and baked a couple of yeast loaves. We make muffins regularly, but creating good bread was a bigger challenge. I wasn't crazy about the taste of the pressure-cooked bread, and baking yeast loaves seemed messy and time-consuming. This year, however, I came armed with 40 pounds of white and wheat flour (twice as much as we needed, it turns out) and a number of new

### Bread recipe (from *The James Beard Cookbook*, 1959\*)

1 package yeast	2 cups lukewarm water
2 Tbs. sugar	1 Tbs. salt
5-7 cups flour	(one egg white, if desired)

Dissolve the yeast in the lukewarm water in a large bowl. Add sugar and salt and dissolve them. Gradually add flour.

Turn out on a table and knead. Cover with the bowl and let it rest for 10 minutes. Knead.

Let it rise in the bowl for another 1-2 hours until it's double in bulk. Knead.

Form into two loaves (French-style long ones, round ones in an oven-proof bowl, regular pan loaves, etc.). Sprinkle the bottom of each container with cornmeal and place the bread on it. You don't need to grease these pans. Slash the tops of the bread and spread with an egg white, if desired. Let the bread rise another five minutes.

Place in a cold oven and turn it on to 400. It should cook in 35 minutes. (In reality, with our boat oven, we turn the temperature on about halfway, whatever that setting might be. Then when we think about it, we turn the temperature up all the way. We remove the bread when it looks done, but it probably takes longer than 35 minutes.)

*\*My copy was purchased in the '70s, but I guess it is a bit of a relic.*



yeast recipes. The second recipe we tried turned out to be such a winner that we never tried another one. It simplified the risings and didn't seem so messy somehow. It was a mock French bread from the *James Beard Cookbook*, and we liked it so much we'll be cooking our own bread with all that extra flour this winter even though Minneapolis abounds with wonderful bread shops. (See sidebar for recipe.)

With each baking I made two small loaves. The first we consumed almost in its entirety straight from the oven. There may

not be anything better than warm bread, and we reveled in the luxury of having it. The other loaf lasted a couple of days. Now that we've discovered this easy bread, we may leave the dock with fewer loaves of the store variety. We prefer those we can cook ourselves, and the vacation lifestyle seems to encourage the breadbaking routine. Marilyn Palley (see sidebar on Page 62) recommends a book called, *Fast Breads!* by Howard Early and Glenda Morris.

### Meat or meatless meals

Meat is another issue for the sans-cooler cook. While we don't eat as much meat as we used to, we weren't ready to go without. Canned chicken and ham are available on the grocery store shelves in small tuna-sized containers. I also found small containers of corned beef and tiny little hams, canned shrimp and crab meat, salmon, and fish balls.

There are a number of spreads along the lines of deviled ham and chicken. And of course there are small canned hot dogs (masquerading as sausages), Spam and other



# You what?

## *Tossed out the cooler?*

**T**he first time Karen suggested that we spend a whole vacation without ice, I talked her out of it. I had visions of a very unpleasant couple of weeks eating some of my least favorite foods ... all from cans.

I'd been a refrigeration engineer for about 29 years, and I had some strong ideas about what kind of refrigeration system should be installed in our C&C 30. I'd been designing the system in my head and on paper for about five years. I wanted something with less than half the run time of currently available systems, because I knew that once there was a refrigeration system on board, it would dramatically increase the energy budget. I'd heard horror stories of boats that have to run their engines one, and in some cases, two hours a day to keep that little tiny box cold. I didn't want the noise, wear, and fuel consumption. The design that I came up with was complicated and unproven, and it would add 70 to 100 pounds to the weight of the boat. Even doing all the work myself, the parts would not be cheap. Although I targeted much higher efficiency, the boat's upgraded electrical system would be taxed to about the reasonable limits of its capacity. I had put off building this monster for five years. Ice is really simple, and 70 pounds of it holds our icebox for six to seven days. We'd have to live on the boat forever to pay off the refrigeration system with the savings in ice.

The problem was that we really wanted more range on our vacations. We wanted to go out and stay out for more like a month without having to resupply anything. We'd solved most of the problems in doing that by the time Karen suggested going iceless the second time. She was more insistent this time. She wanted to do the research for an article, she said. That did it; I caved in. Well, almost caved in. I rushed out and bought a pressure canner and quickly canned some pork and turkey before we left. These meats proved tasty, and I will can more for next season, but frankly we didn't need them.

We ate very well for more than three weeks without any ice or refrigeration. The food was good. I enjoyed all the meals except one, which is probably better on average than I do ashore. From a systems standpoint, Karen solved the problem with the lowest-cost, lightest-weight option. The design five years abrewing in my head didn't compare with zero weight, zero cost, and good meals anyway. Karen truly had set us free.

I was so impressed with what she had accomplished that I suggested that we get rid of the refrigerator at home. It is a noisy, poorly designed thing that just might last forever out of sheer nastiness. She thought that might be going too far.

Moderation in all things, I guess.

*Jerry Powlas*

"delicacies." I also planned to supplement our supplies of meat with completely acceptable no-meat pasta meals. Jerry wasn't so sure he'd find even the occasional vegetarian meal to be all that acceptable. There's nothing quite like being held captive a day or two from a grocery store and learning there's nothing on board you like to eat. He may have feared this new "adventure" to be a ruse of mine to take a few pounds off him when he would be unable to defend himself. (See sidebar at left for his thoughts.)

I had just finished reading Don Casey's latest book, *Dragged Aboard*, in which he makes it seem like anyone is capable of canning meat. I was inspired by this and shared the book with Jerry, who went on a dedicated hunt for a larger pressure cooker — one capable of doing canning. The small one on our boat was not up to the task. In the days of microwaves, instant meals, and grazing, pressure cookers are becoming a thing of the past. Small ones, such as our boat pressure cooker, were available, but large ones may be disappearing from the North American scene along with buggy whips.

Jerry's search began with Target and K-Mart, where the small ones can be found, and moved to an upscale home cooking specialty store, where a sweet young clerk asked in all innocence, "Pressure cooker? Is it an electric appliance?" and led him to the toasters and coffee makers. Once he found the pressure cooker section, there were only small ones and another clerk who asked, "What do you do with one of these anyway?"

The obvious answer, for anyone who grew up with a mother who used one frequently, is you blow up your kitchen with these devices. It seems we all have fear-of-pressure-cookers tales to tell. Perhaps that's why they're falling from favor these days. Jerry finally landed a full-sized canning pressure cooker at the Fleet Farm store, a chain in our part of the country that caters to farmers, truckers, and other independent types.

By now, however, we were only a couple of weeks away from the start of our vacation, and we were in the usual pre-trip blitzkrieg of vacation preparations and work project wrap-ups. I was no longer interested in canning additional meat for our trip. One evening we invited Jerry's younger daughter over for dinner, and I prepared a pork roast and simultaneously baked a couple of turkey thighs for use in the next night's meal. Jessie is a marvelous pitch-in gung-ho daughter, and before the evening was over, the three of us had canned the remaining pork roast and turkey as a great group activity. We left for the trip with 11 half-pint jars of the best canned meat we'd ever tasted. Next year we'll do more of this and include cubed beef and hamburger.

### **Mayo's not untouchable**

We hear so many stories about mayonnaise and are likely to be confused by them. I'm no expert on the subject, but my current level of understanding is that if the stuff is kept pure, it can last. Mayonnaise mixed with other foods must be kept cool, it would seem. And you shouldn't "contaminate" a jar of mayonnaise by sticking a utensil back in there after it has been in contact with other food.

We have heard of some people getting small packages of mayonnaise from fast food places for their boats. That works, too. We bought small squeeze bottles of mayo, and one lasted two weeks. It was emptied before it began to smell or cause any concerns. Unopened jars of mayonnaise sit on grocery store shelves for months. As it turns out, they can do the same once they're opened, as long as other food doesn't come into contact with the mayonnaise. I'd love to understand why this is so and will welcome further dialogue on this subject for our Mail Buoy column.

### **Milk is a problem**

Cold milk only lasts a week or so. If it isn't kept cold, the number of days diminish dramatically, of course. I like milk. As an aging woman, I need to drink it or get my calcium in some other form. So I missed this on our vacation. I bought powdered milk, which we used in cooking, but I used it on cereal twice and never again. I never drank it straight. Jerry can happily drink that stuff, and I really wanted to be able to do so also. But life's too short. I ate cheese and took my vitamins. I'm told that UHT (ultra heat-treated) milk is a passable substitute, but I don't have any experience with it.

The following information is from Michael Greenwald's *The Cruising Chef Cookbook*, an excellent cooking resource I've just discovered (Paradise Cay Publications, 1996.):

"Pasteurized milk takes up precious space in the refrigerator and spoils within a few weeks. Long life, ultra heat-treated milk is an unrefrigerated product which comes in a paper box. It tastes as fresh as pasteurized milk, contains more vitamins, and lasts six months without refrigeration. It comes in half-quart and quart (liter) boxes which are slightly more expensive than refrigerated milk. This product is hard to find in the USA but is the most common way of buying milk in many parts of the world."

### **Margarine lasts well**

Butter and margarine are also part of the non-cooler cooking equation. I had read somewhere that stick margarine, softened and repackaged in plastic tub containers, keeps well without cooling. This is true. I had feared that it would turn into liquid gold without the help of an icebox, but it did not melt. Toward the end of our vacation, when we did a touch-and-go in civilization for diesel fuel and a pumpout, I was able to buy a few groceries at a camping store. We were running short on margarine, so I bought a couple of sticks of butter. I

repackaged these sticks in the margarine tubs, and the butter lasted as well as the margarine did.

### **Fruits, vegetables suffer**

By the end of three weeks, we were left with apples, oranges, grapefruit, potatoes, onions, garlic, and cabbage. We also had a large assortment of canned fruits and vegetables. The other fresh fruits and vegetables had long since vanished, and even the apples and oranges had seen better days. I had read about a West Marine product called Evert-Fresh bags, which keep certain fruits and vegetables fresh longer. These bags were particularly recommended for lettuce. The lettuce must be absolutely dry when placed in the bag, however. Unfortunately I shop at one of those stores which tries to impress shoppers with a fine-mist spray on the leaf lettuce and spinach. Even when I'm not provisioning for a trip, I hate that "blamed" mist.

I waited until the last day possible to purchase the fresh foods for our trip and wound up at home trying to dry out the leaf lettuce and fresh spinach. Something halfway, but not completely, dry went into the Evert-Fresh bags. The result was that these foods didn't last as long as they might have in a fresh-air environment. Wiser now, I will try this again with improved drying on our next vacation.

### **Ice for drinks? Come on!**

Cold drinks aren't terribly important to us. We didn't miss ice for our drinks, since we don't tend to put ice in them anyway. However, Lake Superior stays cold all summer long. The 50°F water is an excellent cooler for cans and bottles, if we choose to use it that way. We found that storing cans next to the hull below the waterline was enough for us.

We did meet one cruising couple traveling with a freezer, who offered to give us some ice, since they felt so sorry for us. But I had to turn down the offer. What could we




# The truth about Terry...

*Reese and Marilyn Palley take my primitive experiments to the next level of sophistication. They typically go cruising without meat and other fresh foods which are hard to store and which they believe cause seasickness and have other damaging effects on the body. Their article in Cruising World in May 1998 explains their unconventional approach to eating aboard. In this note, Marilyn expands the concept into a philosophy.*

do with a small supply of ice, when our cooler was already filled with bags of flour? Another pair of friends who anticipated seeing us on that vacation had just gotten their cantankerous refrigerator to work after several years of frustration. They were so self-assured now with their working freezer that they threatened to sail by pummeling us with frozen Brussels sprouts. This wasn't pity. This was revenge ... perhaps because we had chosen the easy way out.

## No big deal, really

Living without the cooler was not the challenge I had thought it would be, but I wasn't alone in believing that we were facing a tremendous lifestyle change and challenge. When buying supplies at the grocery store one day, my collection of purchases looked a bit unusual, so I mentioned to the clerk there that my husband and I were going off into the wilderness for three and a half weeks without refrigeration or a cooler. The clerk was so impressed you'd have thought we were heading off to scale Mt. Everest without gear.

But in fact Jerry and I were just going back in time to great-grandmother's day ... to a time even before the ice man came around from door to door ... back to a time when people canned and prepared food for the seasons when they wouldn't have any. Most of these people never had the luxury of sailing off to remote places in sailing yachts and living from the stores they had aboard. (Even the menus of the sailors of the same time period were far from grand.) Their lives seemed hard and uncompromising, while we experienced the best vacation we have ever had. There were no hardships. We were better off without the trappings of civilization because we didn't experience the tyranny of ice or endure the rattlings of the engine in order to keep a refrigerator going. Great-grandmother never had it so good. 


*An article about this vacation (not what we **ate**, but what we **did**) is scheduled to appear in the January 1999 issue of Sailing magazine.*

Being at sea on a sailboat is empowering. Leave behind on land all excess extravagances and hassles. Simplify. Simplify. Enjoy the basics. We have insulated ourselves psychologically and physically from a natural reality and convinced ourselves that we must have everything. Two life lessons I learned after my first time at sea — an Atlantic crossing from Dakar, Africa (no supermarkets) to Antigua — are first, the elimination of “stuff,” and second, the need for self-reliance in problem solving. One becomes “soft” on land. Without a store or telephone at sea, we have only ourselves to handle our needs and crises. How rewarding! Go to sea and take charge of your world.

*by Marilyn  
Arnold Palley*

Terry, who answered our ad for crew, arrived in the middle of the night. He left his comfortable English home and lifestyle to fulfill his dream of sailing across an ocean. We were pleased and grateful to have his presence, though we were concerned about his excess weight. His concern about us also grew as he toured our boat's galley. No refrigeration. Our larder was full of canned goods, grated parmesan cheese, UHT milk, cabbage, potatoes, onions, and limes. He was a meat man; his request for his “last supper” before we headed out to sea reflected this preference.

Three days of seasickness later, his system was cleansed. The wonderful “Sea Change” worked its magic on Terry. As his spirit resurfaced, so did his culinary creativity. With the *Fast Breads!* recipe book in hand, he insisted on being chef. We dined on three-course meals, all healthy and simple — good “diner” eats! Comfort food, easy to digest, nourishing, and tasty. “Gourmet” is a matter of perspective.

Arriving 23 days later at our destination, we celebrated at a local elegant restaurant. The dictionary definition of elegance is simplicity. As our sense of taste had heightened from being at sea, pasta al fresco was our choice. The full-length mirror of the restaurant's decor revealed a beautiful room and a much thinner, healthier Terry. 



# No cooler? What did you EAT?

Perhaps I can share a few menus — not recipes — I'm all for simple, uncomplicated onboard meals. I don't go along on sailing trips as the galley slave. I want to be on deck sailing and sightseeing, not below creating gourmet delights. My ideas were culled from those who've been there and done that: sailors Cathy and Dan Hauptert, sailors Ken and Pat O'Driscoll (who introduced us to cold pasta salad even though they were using a refrigerator), sailing writers Reese and Marilyn Palley (whose article in *Cruising World* in May 1998 was very timely and helpful), author Janet Groene, and world cruising women who communicate on a listserver I subscribe to. Next year I'll incorporate meal ideas from Lin Pardey also.

**Typical breakfasts** included omelets, cereal with blueberries or bananas (early in the trip while we still had the fruit and before I decided that powdered milk is not a beverage fit to ruin good cereal and fruit), pancakes, eggs, French toast, oatmeal, and coffee cake.

**Typical lunches** included ham, tuna, or chicken salad sandwiches; pasta salad; grilled cheese sandwiches and soup; peanut butter sandwiches; and leftovers. Canned spreads worked as picnic food when we wanted to leave the boat and spend the day exploring. Wary of taking a pre-made chicken salad or similar mayonnaise-based lunch along for a day in the sun, we ate strange spreads from small cans. These are adequate, but not exciting. The best is the deviled spread, but variety in all things mundane is best. They all got dull and downright boring after several similar lunches. But they fueled our bodies, and the sights we were able to take in while unattached to the mother ship fueled our souls. It's a tradeoff.

**Dinner presented** more variety. We had salad in the beginning, fresh broccoli for a while, and an endless variety of ways to cook potatoes. Canned vegetables picked up where the fresh food left off. Dinners included mashed potatoes with the meat we canned; pasta with beef and broccoli; chicken with rice and spinach; stuffed cabbage using canned corned beef; pasta with sauce (small jars of marinara, alfredo, clam and other sauces are available in the stores); and corned beef and cabbage.

I got creative with cold pasta dinners. Some of our favorites included pennette rigate pasta with canned corn, olives, canned shrimp, chicken, or no meat at all. After one such meal, Jerry vetoed the use of canned crab for this, but others might like it. I did. All this went well with whatever else I had to throw in. Carrot slices, hard-boiled egg slices, and artichoke hearts work, too. We mixed these ingredients with oil and vinegar dressing. I bought several small jars of prepared salad dressings for variety, but preferred the oil and vinegar styles best. Mayonnaise would work, too.

We made a scalloped potatoes and ham recipe in the pressure cooker that has been a real winner for two years now. We tried some prepared rice packages: curry, saffron, stir fry rice, lentils and rice, black beans and rice, red beans and rice, and so on with our canned meat or with canned sausages (a.k.a. hot dogs). Salmon fish cakes mixed from canned salmon and mashed potatoes were a big winner. The possibilities were endless.


Jerry (ever the engineer) suggested several years ago for our standard two-week vacations that I

create full menus on a spreadsheet and then sort this by item to determine how much of each item to buy. It's far more organized than I would have been, but it worked very well. However, when asked to share our provisioning lists with fellow sailors, I realized how hyperdetailed our food preparations appeared to be.

This year's longer trip helped me understand for the first time what planning must be like for a much longer voyage without reprovisioning stops. Although I did create daily menus, I didn't live by them. I had so much variety aboard in our food lockers that I cooked serendipitously ... more like I do at

home. It starts with, "Let's see, it's somehow gotten to be dinnertime. What

needs to be eaten? What is fast to prepare?" And finally, "What would we like to have tonight?" I often referred to my onboard menu lists for inspiration, but I was able to manage the use of fruits and vegetables, eggs and potatoes, leftovers and partially used cans of things more effectively without the constraint of a previously prepared menu.

This is how we'll go in the future. Menus will guide my shopping and help inspire my cooking, but daily meals will be planned at the time of the meal. That might be called "just-in-time menus." I'll keep the food lockers supplied as I would at home, and meals will happen when they happen. From now on, we will not bother with the hassle of ice for our weekend trips. We won't take a cooler full of ice and a few perishables back and forth to the boat. Even for weekend trips, we have been set free. 

by Karen Larson

# Sailing bookshelves sag with good books, magazines, newsletters...

While ago and some miles off Los Angeles Light, I was sitting in my boat with water over my shoes watching the remains of a breaking sea trickle out of the cockpit footwell. I remembered that dog hair slows the cockpit drains. I also saw that my GPS had salt water draining from the battery case. While both GPS and dog had remained on board during the mishap with a wave, only one of the two was sure to be the same following the bath. I looked at my compass with new respect and turned the boat toward home.

For those who find every now and then that they must use the steering compass as if they need it, *The Compass Book* will provide reassurance in quantifying the errors to be expected. For bluewater cruisers the question is simpler. Should a professional be paid to wring out the errors, or do

they elect to do this job themselves? The do-it-yourselfers among us take away from the job comprehensive knowledge of what we have done. The increased skill and satisfaction which come with swinging and adjusting your own compass stems from the learned ability to re-check this calibration during normal navigation and how to repeat the compensation any time or place this becomes necessary. An iron engine block amidships, the hatch rails of the cabinhouse, the stainless steel tanks, and the standing rigging all

deflect earth's magnetic flux paths in ways which can be measured and amounts which can be compensated.

Author Mike Harris provides a clear and concise guide to measuring compass errors and to positioning compensating magnets (also, for a metal boat, the irons) so as to reduce these errors to negligible levels. Swinging the boat and adjusting the compass will take an afternoon, much of which is lost in waiting for still water, taking sightings, moving magnets, swinging the boat, and letting the compass settle to repeat these steps. During this process you'll appreciate the simplicity of Harris' diagrams and worksheets. The method can be applied whether internal compensating magnets are provided with your compass or not.

As I approached the harbor, my dog began singing softly with the fog horns. The main channel and the heavy channel traffic lay safely to port. Having allowed for the actions of the southbound California current, the following sea, and windage, I think I know why steering compass, autopilot fluxgate-compass, and GPS heading never agree. Having swung the steering compass myself, I knew with confidence that one of the three was correct.

*The Compass Book, by Mike Harris. Available from Paradise Cay Publications, 800-736-4509.*

**Reviewed by Robert Chave**, an engineer who designs bits and pieces of spacecraft for NASA, and enjoys old boats.

Why do some yachts have long overhangs and sharp ends while others have plumb bows and very broad sterns? In *Yacht Design Explained*, Steve Killing and Douglas Hunter explain how different racing handicap measurement rules have spawned very different types of boats.

*Yacht Design Explained* is a well written and illustrated "explanation of the science behind the art of yacht design," the mission stated in the introduction. The authors start by presenting enough fundamentals to allow the reader to understand the more complex topics which follow. Simple nomenclature is followed by an explanation of line drawings, hull speed, drag, and stability. With these fundamentals in hand, the reader is swept along on a review of design considerations with

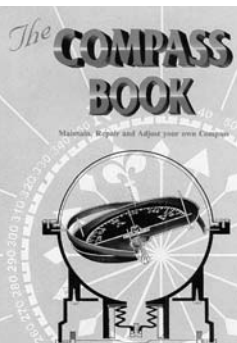
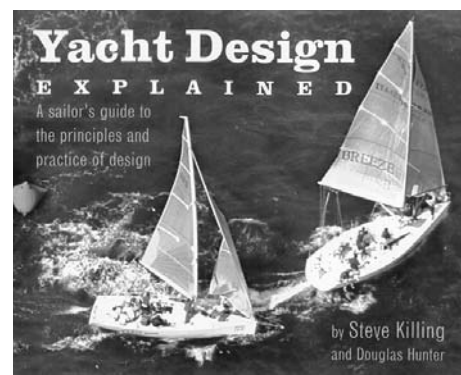
sections on hulls, keels, ballast, rudders, rigs, and sails.

There are numerous explanations and examples of how the CCA, IOR, and IMS measurement rules have influenced the design of racing and non-racing boats. Killing contends that some design characteristics that made sense for a racing boat being measured for a handicap make no sense for cruising boats. In some cases, adoption of the racing boat characteristics will actually make cruising boats slower. He contends that cruising boats tend to add these undesirable features just because they are fashionable, and he points out that when designing to a measurement rule, it is desirable to trick the rule by employing characteristics that the rule will measure as slow, while they are, in fact, not as slow as the rule predicts. A boat designed without regard to a racing measurement rule should always be a better and simpler boat.

Hunter's illustrations and Killing's text support each other very well. In many instances several examples are offered to explain the same point. This allows the reader to visualize the concepts with a richness not always offered in a technical volume of this sort.

Steve Killing also offers frank discussions of aspects of his personal career. He describes work that went well and work that did not go well. For example, he explains the limitations of scale model tank testing and describes how data from tank testing led to America's Cup boats that were notably slower because of features that tested well in the tank, but did not scale well to full-sized models.

The book ends with a section on the America's Cup. Killing and Hunter recap how the various measurement rules influenced the designs of the challengers and defenders. Breakthrough features like the winged keel are explained in





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terms of their response to peculiarities in the measurement rule. Killing contends that a winged keel is a solution that is rarely appropriate unless draft is severely penalized, as was the case in the 12-meter rule.

The book succeeds in making the America's cup design competition more interesting than the actual racing, in many cases, has been. For example, the recent monohull and multihull race/legal battle farce may have offered little for people keen on competitive racing, but it did generate some technically interesting boats.

In *Yacht Design Explained* the authors have not only demonstrated their mastery of the topic, they have made this complex subject very understandable. It is recommended reading for those who are curious about why boats are the way they are.

*Yacht Design Explained: A Sailor's Guide to the Principles and Practice of Design*, by Steve Killing and Douglas Hunter. Published in September by W. W. Norton, 212-354-5500, the book retails for \$49.95.

**Reviewed by Jerry Powlas**, Good Old Boat technical editor.

**W**ater Craft magazine is a little different. It is a publication from "across the pond" that has all the mystique that a lilting English accent gives to the spoken word. The magazine characterizes itself as a "magazine about practical and affordable boats." This is certainly true from their local viewpoint, but from the viewpoint of a North American reader, it is a magazine that features beautiful yachts and small boats with a great deal of character. Boats

with gaff and lug rigs and lapstrake hulls share the pages with Marconi rigs and fiberglass hulls. You won't see the Euro-look boats with bucket handle travelers in this magazine. It offers stories about more traditional boats, some with traditional plank-on-frame construction, some in steel, some in glass. Not all the boats are small, but the emphasis is definitely on smaller, affordable boats.

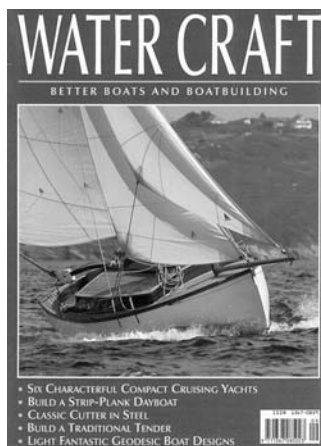
A fair amount of the content is about people building their own boats. The workshop pictures are of remarkably high quality, the equal of the boat and yacht photos which are also excellent. While the paper and photographs are coffee-table quality, the articles range from workshop stories to thoughtful boat reviews. It is a little different.

*Water Craft* is published six times per year, and is available in most countries, including the United States and Canada. You can probably tell that we liked it.

*Water Craft* subscriptions and sample copies for U.S. and Canadian readers are available from ArrowHeart Publications Ltd., P.O. Box 496, Boothbay, ME 04537. Phone: 800-804-7670.

Six issues USA \$38us; Canada \$39.50us.

**Reviewed by Jerry Powlas**, Good Old Boat technical editor.





[illegible]

*Cruising Coast and Islands* will be published every other month and cost \$29.95 for a subscription. For more information, see the website at <<http://www.tomneale.com>>, call 877-277-4628 (toll free), or write for a sample copy in care of P.O. Box 161, Gwynn, VA 23066.

Susan, who offers sailing lessons and day trips aboard a 32-foot good old boat, has collected stories from Lake Ontario netters, yachtsmen, artists, and lakeshore residents for a number of years. Many of the stories published in *Sweet Waters* were obtained while the author cruised in Canada aboard her previous boat, the 23-foot wooden sloop, *Ariel*.

*Sweet Waters* also contains a photo supplement with commentary by Sodus Point native Bill Huff. His photos bring alive days of steam tugs, schooners, ice yachts, and lighthouse keepers on the lake.

*The project from hell*  
**We told you ours,**

Boat projects tend to go the same way: decide on objectives, learn the lore, plan (but not excessively), then try it out. Finally, refine the outcome until you're satisfied. With boat projects, I usually run a couple of refinement loops on the project before I wind up satisfied and ready to contemplate the next project. That's how things usually went, that is, until I bumped into the project from hell.

*by Jerry Powlas*

So I began the research phase of our “weatherfax project.” Early on, I realized that it was difficult to pull all the necessary information together. That should have been a clue. We learned, for example, that the weatherfax broadcast station that covered Lake Superior was located in the Upper Peninsula of Michigan. That should have been another clue. I had a phone conversation with people there, but only understood part of what was said. That should have been a clue, too.

At some point, as I was reviewing the options and talking to others about equipment, it should have

# , now you tell us yours


occurred to me that we were unable to find anyone who was actually receiving weatherfaxes in Lake Superior. I missed that clue, too.

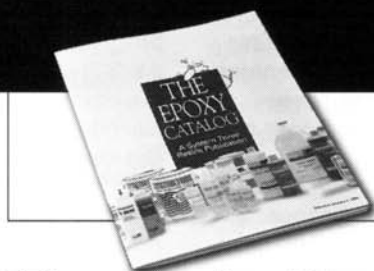
Before the dust settled, we owned two good-quality shortwave receivers, one dedicated decoder, and one laptop computer with special software. And I still had never received a weatherfax for Lake Superior. From home and from the boat, I copied weatherfaxes from stations on both coasts of North America as well as from Europe, Hawaii, and Japan. But I was never able to pick up a signal from the Great Lakes station on the Upper Peninsula. Believing we were in a "skip zone" near our home port, I tried to receive the data from other areas of the lake when we vacationed. But vacations don't come often enough, and the results were disappointing. Two years later, we learned that the station was discontinuing this service, and the project came to an unpleasant end. It was the most expensive thing I never did.

As it turned out, we were able to use the computer for other things and are glad we have it. The rest of the gear is wasted unless and until we travel to the coast. What we can learn from all this is that there are always clues if we tune in to them. The primary one is that we believed that weatherfax existed for our area because it was successful in other areas and because a regional station was broadcasting the signals, if only we had the correct equipment to copy them. But we never met anyone in our area who had received that station's weatherfax signals. We also got in at a very volatile time. The equipment and technology was changing so rapidly that I couldn't learn about it fast enough or put together the conflicting advice I was receiving. It turned out that I was acquiring one technology in the final throes of its death. A shortwave receiver is still mounted in our boat. Its digital clock keeps flawless time. I think of it as the

most expensive clock I ever owned and I use it as a reality check when the siren call of other "projects" begins to haunt me.

*If you have a project from hell to share with fellow boaters, these will run in our newsletter for subscribers*

*from now on. Save the rest of us the trial and expense. We'll thank you for it. So send it on. The editor made me go first to get the ball rolling. I tried to kill this story after I wrote it, but the editor wouldn't let me. So now it's your turn. The editor says confession is good for the soul.* 



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## 27' Pearson Renegade '68

Beam 8' 7", draft 4' 3", displ. 6,100 lb, enclosed ballast 2,100 lb. V-berth forward, enclosed head to port, hanging locker to starboard, convertible dinette to starboard with icebox aft, quarterberth and galley to port. Thurston main with 2 reefs, 130% genoa on Furlex roller furling system ('95), 110% genoa and storm jib with luff tape for Furlex. 9.9 hp 4-stroke Yamaha ob ('87) in well with 12-gal. tank, West Marine VHF, Richie compass, Datamarine knotmeter, log and depthsounder. Edson wheel steering on pedestal, new head ('98) with holding tank and Y-valve, CQR and #3 Danforth anchors, swimming ladder, sail cover, dodger, cockpit awning, manual Whale pump, anchor rode and docklines, cabin and cockpit cushions, fire extinguishers. A well-maintained and equipped example of a Bill Shaw family cruiser. At Mattapoisett, MA. \$9,500.

**Contact Arthur Katz**  
781-862-0375  
velvieA@aol.com

**Navico Tillerpilot TP5000**  
with H5000 hand programmer. New in 1996. Used very little (we installed a wheel). \$350 for both. Firm.

**Contact Norm Ralph**  
504-624-8628  
lasailor@neosoft.com

## New mast and rigging

My beloved old '67 Westerly Windrush 25 went down in a big storm this season, and I find myself in possession of a new mast and rigging but no boat. If a bit of *Renasci* can live on in some other Westerly, then life is good.

**Contact Rick Swalwell**  
515-225-2767  
swalwell@gateway.net

## \$2 6.9

22' sailboat. 1984. Excellent condition. Galvanized trailer. 6-hp Evinrude. Extras. \$9,500 or best offer.

**Contact Jim Tenney**  
317-873-4292  
10e@iquest.net

## Pearson Ariel

26' 1965. Excellent condition. Recent survey available. Atomic 4. Shaefer 1000 roller furling, Lewmar 40, 2-speed primary winches. \$7,250.

**Contact Bill Sandifer**  
228-255-6098 (evenings  
Central Time)  
wsandifer@cdicorp.com

## O'Day 27

1976. Main, jib, genoa. 30-hp inboard. Depth, VHF, head, galley, swim ladder, sleeps 5. \$10,000/offer.

**Contact Bob Ashley**  
703-924-4817  
reashley@clark.net

## Chita-Peterson

1997 racer/cruiser. 13 bags of sails. Rod rigging. Full spinnaker gear. Windspeed, windpoint, knotmeter and log, depthsounder, VHF, stereo, GPS and loran slaved to Autohelm 4000. Tiller steering. May 1998 survey. Legal head. Brand-new Force 10 propane two-burner stove. Yanmar 12-hp diesel. Martek folding prop. Full offshore safety gear. Teak interior. 2 sea berths, 1 pilot berth, V-berth. \$35,000

**Contact Mike Flynn**  
209-267-5370  
grd@goldrush.com

## Refit your good old boat for less

I have items salvaged from a Thunderbird sloop, a 26' fractional sloop. Items should fit boats of the same general size. A partial listing: Mast 35' alum with all standing rigging (single spreader plus jumper with split backstay). Rigging used only 1 year. — Mainsail - luff 31', foot 13', leech 33' 3" short battens good cond. — Genoa - luff 24' 3", foot 14', leech 24', good cond. — Jib - luff 24' 3", foot 9' 6", leech 22' 7" like new. — Spinnaker - leeches 26' 6", width 14' 4" like new. — Pulpit, pushpit, stanchions, and lifelines. Winches, deck cleats, jib and genoa tracks, interior items including Coleman propane stove, pressurized alcohol stove, marine head, sink, etc. — Also Mylar genoa and dacron working jib for Pearson Triton, excellent condition! — All items used, good condition, except as noted. Let's start talking @ 25% of West catalog, package deals encouraged.

**Contact Mark Parker**  
603-525-3438  
mparker@mtp.mv.com

## 1984 Tartan 33

Pressure water. Universal 24-hp diesel. New in 96: Dutchman flaking system, 135% genoa, Schaefer 2100 roller furling system, running rigging except mainsheet. Pressure water pump. New in 97: Lewmar self-tailing winches, Schaefer traveler, spinnaker halyard, Lewmar rope clutch, Standard Eclipse+ VHF radio with external cockpit speaker, AM-FM-CD player and speakers, electrical wires to masthead, spreader lights, custom covers (winches, coachroof grabrails, binnacle), Racor fuel filter, canvas cover for winter storage. New in 98: batteries, Heart Interface Freedom 10, 1000-watt inverter/50-amp battery charger, propeller shaft and

coupling, dripless stuffing box, Cutless bearing, custom cockpit cushions. Optional teak toerail. Lines led to cockpit. Fractional 7/8 rig with adjustable backstay. Swim ladder on stern. CNG 3-burner stove, oven. Two gas cylinders. Garmin 75 GPS, Sitex Loran. Wind-speed, direction, depth, knot meters. Asymmetrical spinnaker, ChuteScoop. 2 25-lb Danforths each with 150 ft rode, 1 25-lb plow with 25 ft 5/16 chain and 150 ft rode.

**Contact Tom McMaster**  
612-825-4022  
Maarmad@aol.com

## 1969 Pearson 35

Keel c/b sloop, 2 new North sails, Ulmer Flasher, Pro-furl system, A-4 power, H/C pressure water, a/c, refrigeration, Loran, GPS, DS, Log, A/P, dodger w/cockpit awning. In Annapolis. \$28,500, negotiable. This is Hull #3, built when they took it slow and easy. No hull problems. 10 years of bottom paint was stripped several years ago, hull examined and recoated with Woolsey Neptune II. Interior varnished wood in the traditional P-35 configuration. Engine has been maintained by Vosbury Marine. I've owned *Andiamo* since 1972.

**Contact Jack Clotworthy**  
410-268-3504  
jclotwor@access.digex.net

## Deadlines

**February newsletter:** Jan. 15  
**March magazine:** Jan. 1  
**April newsletter:** Mar. 15  
**May magazine:** Mar. 1



## Etcetera

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Mark T. Brown

Editor in

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scanning. All classified ads (display and text-only ads) will be published in the magazine, as well as in the following *Good Old Boat* newsletter and on the *Good Old Boat* website. Due to limitations with email distribution, we will run text-only ads or a text-only version of the display ads in the newsletter and on the website.

#### Send materials to:

Karen Larson, Editor  
*Good Old Boat* Magazine  
7340 Niagara Lane N.  
Maple Grove, MN 55311-2655

#### If you have questions, contact:

Karen or Jerry at  
612-420-8923; 612-420-8921  
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# Mail Buoy continued

## Mail continued from Page 5

Island Sound, Buzzard's Bay, and  
Massachusetts Bay.

Jim Ruddle  
Rye, N.Y.

### Kudos

We love your magazine! Finally there  
is a no-frills publication for the  
majority of those with boats.

Janet Brooks  
Rockport, Tx.

A friend loaned us a copy of your  
publication, and we are hooked. What  
a welcome concept for those of us who  
nurture and enjoy the "oldies, but  
goodies." We are currently restoring to  
health a '77 Ranger 28. *Gilded Lily* will  
be back in the water looking like a  
debutante, behaving like a fast woman,  
and making our sore backs and  
flattened wallet seem a small price to  
pay!

Janet Perkins  
Stone Mountain, Ga.

I have just read through Vol. 1, No. 3.  
This is a great issue, filled with  
interesting and useful information. You  
may not (yet) be in Grand Central  
Station, but Lord knows you're on the  
right track!

Bill Hammond  
Minneapolis, Minn.

You could be just the perfect item to  
fill the void in sailing magazines.

Roger Jette  
N. Attleboro, Mass.

While the Catalina 34 website has  
been a great help in putting us in touch  
with other owners, your technical  
column on waterlift mufflers went a  
long way toward helping me  
understand that part of the system. We  
owned a Catalina 25 for 11 years and a  
Catalina 22 before that. I'd been  
putting off a larger boat because of the  
complexity of the systems. Between  
your magazine and other reference  
sources, it sounds like we'll be in great  
shape for years to come.

Stuart Jackson  
Piedmont, Calif.

Our copy of (Don Casey's) *This Old  
Boat* has become dog-eared since we  
bought an old neglected Allied

Seawind II ketch two years ago ... It is  
a labor of love, but as in all relation-  
ships, you sometimes just want to walk  
away. We hope your magazine can  
rekindle the enthusiasm when the going  
gets tough.

Jim and Karen Rendt  
Pittsburgh, Penn.

I have received a complimentary issue  
of yours and loved it. I was subscribing  
to a couple of the large sailing  
magazines and find the articles too  
short (oftentimes sophomoric) and the  
magazines so loaded with ads that you  
cannot follow the stories for the ads. I  
look forward to receiving the best  
boating source for us older sailboat  
folks.

Kevin Meagher  
Raleigh, N.C.

Thanks for taking a chance on *Good  
Old Boat* and good old boat owners like  
us. We're hooked. We have just  
received #3, and you folks are right on  
target. It's almost like you were  
researching articles especially for us.  
Atomic 4, deck delamination, possible  
upgrades ... you're talking about our  
boat. *Good Old Boat* is a friendly place,  
just like our dock — no blue blazers,  
just bluejean cutoffs.

Bill Dimmitt  
Sioux City, Iowa

*Someone else used a similar analogy,  
Bill. He said that while some magazines  
belong on the coffee table, Good Old  
Boat is more likely to be found in the  
workshop. In fact, check out the cartoon  
at right.*

Absolutely love your  
concept! In my opinion,  
the best production  
boats came out of the  
'70s. Older boats are  
much overlooked. Seems  
now, people can't go  
boating without  
icemakers, microwaves,  
air conditioning, etc. ...  
not to mention the Euro-  
style trend.

Dave Brander  
Greenwich, Conn.

Yesterday — devouring the three  
issues you sent — I had a strong, warm  
sense of being among "family." There  
came to mind a memo I circulated

years ago that was characterized by one  
recipient as embodying "both precision  
and warmth." I never had a nicer  
compliment and remembered it  
yesterday across many years.

Roy Kiesling  
Santa Cruz, Calif.

Bravo! I knew immediately that the  
concept was sound; then I saw the list  
of contributing writers and was further  
impressed; and finally the folks  
dedicated to the noble task ... YOU.  
Thanks so much for all your hard work.  
You can count on my support. Here's  
wishing you continued success and, of  
course, happy sailing!

Rick Leach  
Pacific Grove, Calif.

Dave Gerr's article on North Sea  
exhaust and the excellent information  
on installing wet exhausts couldn't  
have come to me at a better time. My  
Atomic 4 is out of the boat being  
rebuilt, and I just had removed the old  
double-wall copper exhaust system.  
The advice from these two articles  
alone has more than paid for your  
subscription price.

Michael Freeman  
New York, N.Y.

*Mike sent a doodle on this letter. When  
we asked for permission to reprint the  
doodle, Mike said he'd make another for  
publication. It's below. It came with this  
note, "Wish me luck, as I will be in  
exactly this position tomorrow morning,  
only covered in a thin layer of epoxy  
goo. That's Annie, my beagle." (Mike's  
working on his North Sea exhaust.)*



*Send questions and comments to Good  
Old Boat, 7340 Niagara Lane North,  
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to [jerry@goodoldboat.com](mailto:jerry@goodoldboat.com). We'll get a  
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## Introducing the "Ultrafeed"

a walking foot machine  
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price of **\$399!**

This well built, all metal, straight stitch sewing machine features a high lift powered walking foot for the ultimate in feeding ability. It makes feeding heavy, slippery and even sticky fabrics like window material a breeze. It even **walks over bumps without skipping stitches.**

On most sewing machines the presser foot simply holds the fabric down and all movement is accomplished with a single, bottom feed dog. The Ultrafeed uses a

mechanical "WALK-ING" presser foot which moves forward and back in time with the feed dog to ensure that the layers of fabric are moving together and easily through the machine.

Since it feeds so well, the stitch length stays very consistent. And, because the walking

foot is designed with a high lift, it better accommodates thick fabric assemblies—as many as 10 layers of canvas.

**Walking Foot Capability  
at a low, low price! \$399**



Cover removed for a close-up of walking foot

Its variable stitch length mechanism allows for **very long straight stitches**—up to 6mm. This is great for sewing Sunbrella which tends to needle pucker (the longer the stitch the less the pucker). And, its lever activated reverse makes back stitching easy.

Weighing 42 lbs. the Ultrafeed is built to take the pounding encountered in working with outdoor fabrics and upholstery. And, it stays put—it **won't walk all over the place.**

Power is enhanced by a 1.5 amp motor. A cogged belt and pulley drive system eliminate slippage. This is an amazingly powerful, durable machine. *Great for cottage industries!*

The Ultrafeed is produced and supported by Sailrite, for 30 years a source for canvas tools, products and supplies. That support includes a guidebook with very complete instructions (even learn machine timing) and schematics. There is also a toll free tech/support line.

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## *Last tack ...a cup of tea*

**I**t was a small victory. The first thing after breakfast I left the small bay where I'd been anchored. Winds were as predicted: from the southwest. A high to the east and a low to the west had pinched the isobars together. I could see that the wind would pick up when I rounded the point, and I knew enough not to pick my jib until I had a look at the other side of the point. At various times *Mystic* was making 4.5 knots on main alone. I waited.

The teapot whistled as I was resolving a crossing situation with a lovely woody trolling with paravanes. When she was clear, I went below and poured my second cup of tea of the day. I came back on deck feeling relaxed. I punched 10 degree corrections into the Autohelm to pass close to the red nun that marks shallow water off the point and sipped my tea. All was well with the world.

On the other side of the point, cats' paws were dropping down onto the water from over the tops of the high bluffs and forests of the point. The lulls were less than 10 knots, and the cats' paws were two and three times that. In the lulls *Mystic* was making three knots. In the puffs she would shoot up to 4.5 ... cats' paws and lulls.

The racer in me had mentally selected the 110 with no foot reef and no reef in the main. This combination would be fast but hard work for *Mystic's*

crew of one. The cruiser in me is still developing. I was making good progress on main alone. It is not all that far from the point to my destination. I could sit and drink my tea and steer with one hand or even let the Autohelm stumble through the lulls and cats' paws. With just the main up, *Mystic* would take care of herself.

But with the 110 up, I would have to steer around the far side of every cats' paw with some lifters being a 30- or 40-degree course change followed by a turn down to "base course" in the lulls to keep the sails from luffing. If it wasn't done just right, *Mystic* would lie over on her ear, which is a thing retired dinghy

racers don't cultivate and maybe never get used to. I know academically that the keel should bring her back, but I have spent too many years dancing with cats' paws in Flying Scots trying to keep

the hull under the spar fly. I don't know in my gut that the one and a half tons of lead I drag around will save me.

That was the choice: fly the jib and give it everything I've got (which is definitely not relaxing) or go bareheaded, relax, drink my tea, and enjoy the morning. It was a small victory. It is not that I didn't put the jib up. No, the victory is that I finished my tea first.



*by Jerry Powlas*

# Price is no object when you're preparing for spring

by Eric Broudy

*I*t's February, and the West Marine and BOAT/U.S. catalogs have finally arrived. Thank God! I'm burned out on boat shows, and Seasonal Affective Disorder is getting me down. Spring readiness begins, not at the boatyard, but in my head. The catalogs are more fun now that they give advice as well as product descriptions. Use this chart to figure what size anchor you'll need in storm conditions, what size chain and rode. What's the difference among all these flares? How does an inverter work? What should I look for in an inflatable? Is my alternator big enough if I install a windlass? Look no further than this catalog copy. You, too, can rewire your boat. Just follow this simple formula to determine gauge against distance run.

I can probably make it through February without spending any money on boat things, but by the middle of March money must be spent! Something must be upgraded, something new added, something replaced. Enough already with Patrick O'Brien and the Pardeys, it's time to spend!

It usually begins with cruising a couple of marine supply stores in the vicinity, maybe a consignment shop or two. Gets the juices flowing. Reminds me of all the items I don't yet have on board. Do I really want to spring for those green terry cloth fender covers this year? What about one of those nifty miniature VHF's? They're so cute! How about a weatherfax or something to interface with my GPS? OK, time to get serious: what do I really need? The fact is: nothing.

But that doesn't matter. This isn't about need; it's about preparing for spring. Whoever said that boating was like standing in a cold shower and tearing up money clearly never experienced the hot flashes of marine consumerism.


It's time to start making lists. Lists give one a sense of control, a sense that the universe can be ordered and fantasies realized. How to begin? How about the list of items needed for the Atlantic Circle? Is this the year I plan for the Azores? What will it cost to equip my boat for such a venture? Liferaft, SSB, storm trysail and track, 406 MHz EPIRB, extra ground tackle, another bilge pump, charts, cruising guides, courtesy flags, upgraded medical kit, spares for all sorts of things that might break or wear out. Will all this fit on a 31-foot cutter? Whoa, this is getting expensive! How do people do it? Where does the money come from? Not everyone can be sponsored by Duracell.

The fact is, I've got everything I need to sail except warm weather. Some weekends I drive through the marina here in wintry Rhode Island, a morgue of wrapped moribund boat corpses, some with their blue poly tarps ripped and flapping like wounded birds. Boats in suspension, frozen like lab specimens. It's not normal. Unthaw these creatures and drop them in water! Occasionally, I notice that others have been there before me. Car tracks in the snow, footprints leading through the thickets of jackstands. Someone else who couldn't stay away.

There's a restlessness in the air. The days are getting longer. Will El Niño provide an early spring? Will la lotería provide a bigger boat? Will Defender have lower prices than West Marine?

Every year it's the same story, the same cycle. Some, not I, even find it comforting. My wife, who prefers a pony to a sailboat and rolling fields to a rolling sea, says it reminds her of the cycle of life, that there's a rhythm to nature, an inhaling and an exhaling, an ebb and a flow. She sighs as she looks through a frosted window and mutters wistfully, "Maybe it will snow." As for me, at my advanced age of 57, I'd prefer more flow and less ebb.

Indeed, to every thing there is a season, but why must some be so long and others so short? Yes, there is a time for all things, and as it is noted in the Rubaiyat of Omar Khayyam, "Ah, make the most of what we yet may spend, Before we too into the Dust descend."

And speaking of spending, I see that it says here, on the inside cover of this catalog, that if I act now I can get 20 percent off on that miniature VHF. And what about that barbecue grill anyway — do I want charcoal or propane? 



## Here's what's coming in March/April:

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